PIC®

WIRE & CABLE

HIGH PERFORMANCE INTERCONNECT PRODUCTS

PREMIUM CABLES, CONNECTORS & ASSEMBLIES DESIGNED FOR AEROSPACE & DEFENSE APPLICATIONS

MILITARY • CORPORATE • COMMERCIAL

TABLE OF CONTENTS

PIC WIRE & CABLE

INTERCONNECT SOLUTIONS EXPERTS

PIC Wire & Cable has been a leading supplier of avionics cable and connectors for over 50 years. We're committed to providing you with the highest quality cables and connectors, and we know that you have high standards for your applications. That's why we engineer our cable and connector solutions specifically for each other ensuring electrical and mechanical performance—so you can rest assured that your interconnect solution will perform as expected.

TECHNICAL SALES TEAM

Our technical sales experts have decades of combined experience in the industry, so they can guide engineers to a reliable interconnect solution. We understand applicable standards, certifications, and material selection so we can help you find cables and connectors that work for your project.

With decades of experience, our teams can solve tough challenges using innovative solutions and can deliver customized cables and connectors solutions. Our technical sales team and engineers are on your team: collaborating with you to ensure that your project is a success. This is what we do—we're here to make our customer's jobs easier.

AEROSPACE INTERCONNECT SOLUTIONS

Our cables are designed to be rugged, seal out moisture, and hold up to environmental variations under high temperatures and pressure found in avionics installations. Our connectors and contacts are engineered to be as durable as the cables themselves. We use only the highest quality materials, so your system will stay reliable even in extreme conditions.

We believe that by offering these products together – cable and connectors – we can provide you with a solution that performs reliably regardless of the environment it's used in.

Make PIC your go-to for aerospace cabling solutions and you'll see why we've been trusted with some of the toughest jobs.

MARKETS WE SERVE

MILITARY & DEFENSE

PIC's rugged military cables and cable assemblies are built to last, even in extreme conditions -- from temperature extremes, dry and dusty or wet and muddy conditions, to high shock and vibration environments. Our solutions are lightweight, solve routing issues, and deliver reliable performance. We make sure they're flexible enough for routing yet durable for the long haul.

BUSINESS & CORPORATE

PIC has decades of experience partnering with leading aircraft OEMs to provide interconnect solutions for system critical applications. PIC offers a complete portfolio of cable, connector and assembly solutions for a wide range of applications. Our capabilities include aircraft antenna cables, TCAS cables, USB cables, premium Ethernet cables and DataBus cable assemblies.

COMMERCIAL

Technology is the backbone of the modern flight experience, and our products are quietly working behind the scenes to deliver a smooth, enjoyable flight experience. From in-flight entertainment and cabin management systems to avionics, PIC cables transmit at high speeds and support high-resolution displays in the cockpit and cabin, providing constant connectivity throughout the entire length of the aircraft.

Our 50 Ohm RF Cables provide low attenuation, a lightweight design and easy installation. PICMates RF cables will allow you to save on a variety of things - from fuel consumption to making your equipment easier to install, without sacrificing performance.

We design them to have optimal characteristics like small size, low weight and outstanding strength and offer two types of construction to ensure you get the right coaxial cable for your application, **UltraLite RF Cables and our S Line of RF Cables.**

APPLICATIONS:

- TCAS and Navigation
- Collision Avoidance
- Communications & SATCOM
- Marker Beacon
- Cellular and GPS
- Cockpit Displays
- Surveillance Cameras
- Cabin Entertainment
- ADS-B
- Mode S

50 OHM ULTRALITE© COAX CABLES

Premium coaxial cables built with low loss and ultra-lightweight

PHYSICAL & ELECTRICAL DATA

All values nominal, unless otherwise noted

PART #	DATA CONDUCTOR	LOSS @ 1.0 GHz NOM/MAX dB/100 FT. (100 M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVENESS (dB min)	JACKET
UH25107	8 AWG Solid SPCCA	2.8/3.1 (9.2/10.2)	12.0 (17.9)	0.445 (11.3)	2.5 (63.5)	-110	Extruded ETFE , White (Laser Markable)
UH22089	10 AWG Solid SPCCA	3.5/3.9 (11.5/12.8)	7.2 (10.7)	0.345 (8.76)	1.7 (43.18)	-110	Extruded ETFE , White (Laser Markable)
UH67163	14 AWG Solid SPCCA	6.2/6.8 (20.3/22.3)	3.4 (5.1)	0.227 (5.77)	1.2 (30.48)	-110	Extruded ETFE , White (Laser Markable)
UH44193	19 AWG Solid SPCCS	10.4/11.6 (34.1/38.1)	1.9 (2.8)	0.155 (3.94)	0.8 (20.32)	-110	Extruded ETFE , White (Laser Markable)

Materials Key: **SPCCS** – Silver Plated Copper Clad Steel, **SPCCA** – Silver-Plated Copper Clad Aluminum

50 OHM RF CABLE SOLUTIONS

50 OHM S COAX CABLES The workhorse of the industry with decades of proven performance in the aerospace and defense

PHYSICAL & ELECTRICAL DATA

All values nominal, unless otherwise noted

PART #	DATA CONDUCTOR	LOSS @ 1.0 GHz NOM/MAX dB/100 FT. (100 M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVENESS (dB min)	JACKET
S22089	10 AWG Stranded SPC	3.5/3.9 (11.5/12.8)	18 (26.8)	0.435 (11.05)	2.5 (63.5)	-90	Extruded Clear, FEP
S55122	12 AWG Stranded SPC	5.1/5.6 (16.7/18.4)	8.3 (12.4)	0.31 (7.87)	1.55 (39.37)	-90	Extruded FEP, Clear
S33141	14 AWG Stranded SPC	6.7/7.4 (22.0/24.3)	6.5 (9.7)	0.27 (6.86)	1.4 (35.56)	-90	Extruded FEP, Clear
S67163	15 AWG Solid SPC	7.0/7.7 (23.0/25.3)	5.4 (8.0)	0.225 (5.72)	1.2 (30.48)	-90	Extruded FEP, Clear
S65161-A	16 AWG Stranded SPC	8.2/9.1 (26.9/29.9)	3.5 (5.2)	0.195 (4.95)	1 (25.4)	-110	Extruded ETFE, White (Laser Markable)
S44193	19 AWG Solid SPCCS	11.1/12.2 (36.4/40.0)	4.3 (6.4)	0.195 (4.95)	1 (25.4)	-90	Extruded FEP, Clear
S44191	20 AWG Stranded SPC	11.8/13.0 (38.7/42.7)	4.3 (6.4)	0.195 (4.95)	1 (25.4)	-90	Extruded FEP, Clear
S88207	20 AWG Solid SPC	12.8/4.1 (42.0/46.3)	1.9 (2.8)	0.13 (3.3)	0.65 (16.51)	-80	Extruded FEP, Clear
S86208	21 AWG Stranded SPC	14.1/15.5 (46.3/50.9)	1.95 (2.9)	0.13 (3.3)	0.65 (16.51)	-80	Extruded FEP, Clear
S40501	24 AWG Solid SPCCS	19.4/21.4 (63.6/70.2)	1.4 (2.1)	0.104 (2.64)	0.625 (16)	-110	Extruded FEP, Solid Blue
S46191	20 AWG Stranded TPC	22.3/24.6 (73.2/80.7)	2.68 (4.0)	0.195 (4.95)	1 (25.4)	-75	Extruded FEP, Brown Tint, Translucent
S31601	26 AWG Stranded SPCCS	26.3/31.2 (86.3/102.4)	1.0 (1.5)	0.102 (2.59)	0.5 (12.7)	-90	Extruded ETFE, White (Laser Markable)

Materials Key: **TPC** – Tin-Plated Copper, **SPC** – Silver-Plated Copper, **SPCCS** – Silver-Plated Copper Clad Steel

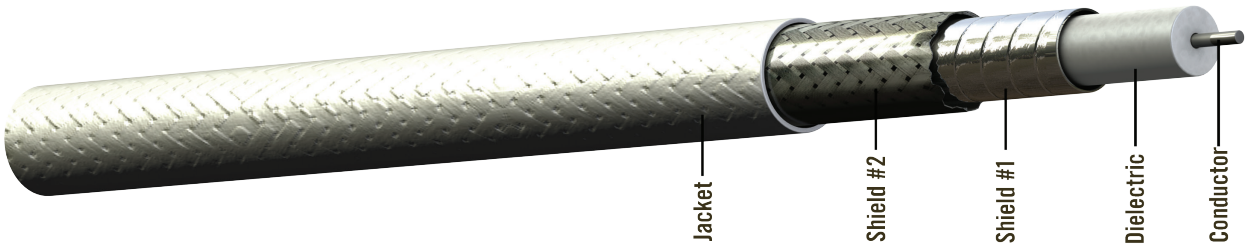
50 OHM TRIAX CABLES

PHYSICAL & ELECTRICAL DATA

PART #	DATA CONDUCTOR	LOSS @ 1.0 GHz NOM/MAX dB/100 FT. (100 M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVENESS (dB min)	JACKET
L8620TX	21 AWG Stranded SPC	15.1/16.6 (49.5/54.5)	2.9 (4.3)	0.173 (4.39)	0.9 (21.59)	-90	Extruded ETFE, White (Laser Markable)
L2201TX	20 AWG Stranded TPC	20.4/22.4 (66.9/73.5)	6.0 (8.9)	0.245 (6.22)	1.3 (31.75)	-75	Extruded, FEP, Clear

Materials Key: **TPC** – Tin-Plated Copper, **SPC** – Silver-Plated Copper

UH25107



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Aluminum
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral Wrap
Shield #2: Silver-Plated Copper-Clad Aluminum Braid
Jacket: Extruded ETFE, White (Laser Markable)

UH25107 is an UltraLite 50 Ohm premium coaxial cable for proven performance in the aerospace and defense markets. The UH25107 cable is constructed with low loss and ultra-lightweight materials to provide an extremely lightweight and low loss coaxial cable. With a silver-plated copper clad aluminum (SPCCA) braided shield and a flat spiral wrapped shield, The UH25107 achieves -110 dB shielding effectiveness, same as a solid copper tube. The inner spiral shield conforms to the low-loss PTFE dielectric for superior uniformity and stability of all operating parameters, initially and over time. Due to its construction, the UH25107 cable can save 60% or more in cable weight compared to traditional RG cable.

PHYSICAL DATA

Conductor:	8 AWG Solid SPCCA
Temperature Range:	-65 to +150°C
Outer Diameter: in (mm)	0.445 (11.3)
Minimum Bend Radius: in (mm)	2.5 (63.5)
Weight: lbs/100 ft (kg/100 m)	12 (17.9)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25 (82)
Velocity of Propagation:	82%
Time Delay: ns/ft (m)	1.22 (4)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	1.1 (3.6)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	1.7/1.9	(5.6/6.2)
@1.0 GHz	2.8/3.1	(9.2/10.2)
@1.6 GHz	3.6/4.0	(11.8/13.1)
@5.0 GHz	7.0/7.8	(23.0/25.6)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)}) + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.079 K2 = 0.00029

All values nominal, unless otherwise noted

UH25107 ULTRALITE COAXIAL CABLE

CONTACTS/CONNECTORS FOR UH25107

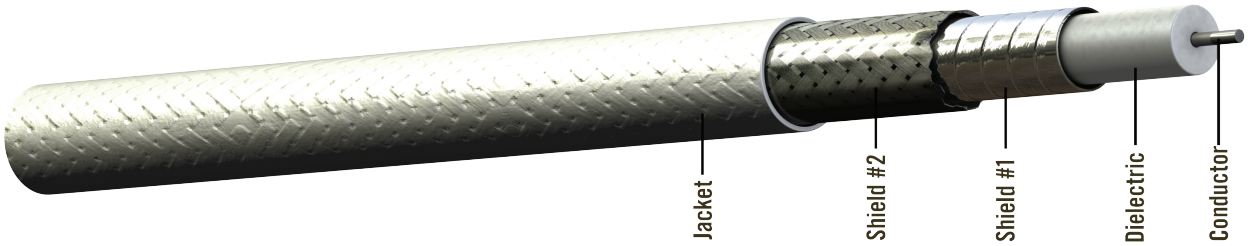
ARINC CONTACTS

PART #	CONTACT TYPE
190401	600 Size 5 1 Socket
190402	600 Modified Size 1 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190412	BNC Straight Plug
190413	BNC 90° Plug
190406	C Straight Plug
190407	C 90° Plug
190410	N Straight Plug
190411	N 90° Plug
190422	N Bulkhead Jack
190424	N Inline Jack
190408	TNC Straight Plug
190409	TNC 90° Plug
190421	TNC Bulkhead Jack
190423	TNC Inline Jack

UH22089



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Aluminum
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral Wrap
Shield #2: Silver-Plated Copper-Clad Aluminum Braid
Jacket: Extruded ETFE, White (Laser Markable)

UH22089 is an UltraLite 50 Ohm premium coaxial cable for proven performance in the aerospace and defense markets. The UH22089 cable is constructed with low loss and ultra-lightweight materials to provide an extremely lightweight and low loss coaxial cable. With a silver-plated copper clad aluminum (SPCCA) braided shield and a flat spiral wrapped shield, The UH22089 achieves -110 dB shielding effectiveness, same as a solid copper tube. The inner spiral shield conforms to the low-loss PTFE dielectric for superior uniformity and stability of all operating parameters, initially and over time.

PHYSICAL DATA

Conductor:	10 AWG Solid SPCCA
Temperature Range:	-65 to +150°C
Outer Diameter: in (mm)	0.345 (8.76)
Minimum Bend Radius: in (mm)	1.7 (43.18)
Weight: lbs/100 ft (kg/100 m)	7.2 (10.7)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	24 (78.7)
Velocity of Propagation:	83%
Time Delay: ns/ft (m)	1.22 (4)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	2 (6.6)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	2.2/2.4	(7.2/7.9)
@1.0 GHz	3.5/3.9	(11.5/12.8)
@1.6 GHz	4.4/4.9	(14.4/16.1)
@5.0 GHz	8.1/9.0	(26.6/29.5)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.105 K2 = 0.000135

All values nominal, unless otherwise noted

UH22089 ULTRALITE COAXIAL CABLE

CONTACTS/CONNECTORS FOR UH22089

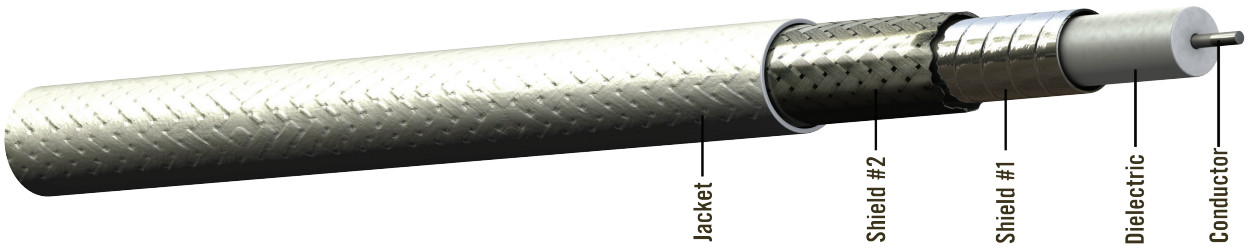
ARINC CONTACTS

PART #	CONTACT TYPE
150401	600 Size 5 1 Socket
150402	600 Modified Size 1 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
150412	BNC Straight Plug
150413	BNC 90° Plug
150406	C Straight Plug
150407	C 90° Plug
150410	N Straight Plug
150411	N 90° Plug
150422	N Bulkhead Jack
150414	SMA Straight Plug
150415	SMA 90° Plug
150408	TNC Straight Plug
150409	TNC 90° Plug
150409-L	TNC 90° Plug (long)
150421	TNC Bulkhead Jack

UH67163



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Aluminum
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral Wrap
Shield #2: Silver-Plated Copper-Clad Aluminum Braid
Jacket: Extruded ETFE, White (Laser Markable)

UH67163 is an UltraLite 50 Ohm premium coaxial cable for proven performance in the aerospace and defense markets. The UH67163 cable is constructed with low loss and ultra-lightweight materials to provide an extremely lightweight and low loss coaxial cable. With a silver-plated copper clad aluminum (SPCCA) braided shield and a flat spiral wrapped shield, The UH67163 achieves -110 dB shielding effectiveness, same as a solid copper tube. The inner spiral shield conforms to the low-loss PTFE dielectric for superior uniformity and stability of all operating parameters, initially and over time. Due to its construction, the UH67163 is more than 30% lighter than cables of similar size and 80% lighter & lower loss than RG393.

PHYSICAL DATA

Conductor:	14 AWG Solid SPCCA
Temperature Range:	-65 to +150°C
Outer Diameter: in (mm)	0.227 (5.77)
Minimum Bend Radius: in (mm)	1.2 (30.48)
Weight: lbs/100 ft (kg/100 m)	3.4 (5.1)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	24.7 (81)
Velocity of Propagation:	83%
Time Delay: ns/ft (m)	1.22 (4)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	4.1 (13.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	3.9/4.3	(12.8/14.1)
@1.0 GHz	6.2/6.8	(20.3/22.3)
@1.6 GHz	7.9/8.7	(25.9/28.5)
@5.0 GHz	14.3/15.9	(46.9/52.2)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.187 K2 = 0.000216

All values nominal, unless otherwise noted

UH67163 ULTRALITE COAXIAL CABLE

CONTACTS/CONNECTORS FOR UH67163

ARINC CONTACTS

PART #	CONTACT TYPE
150501	600 Size 1 Socket
150502	600 Modified Size 1 Socket
150503	600 Size 5 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
150538	Size 8 Pin
150539	Size 8 Socket

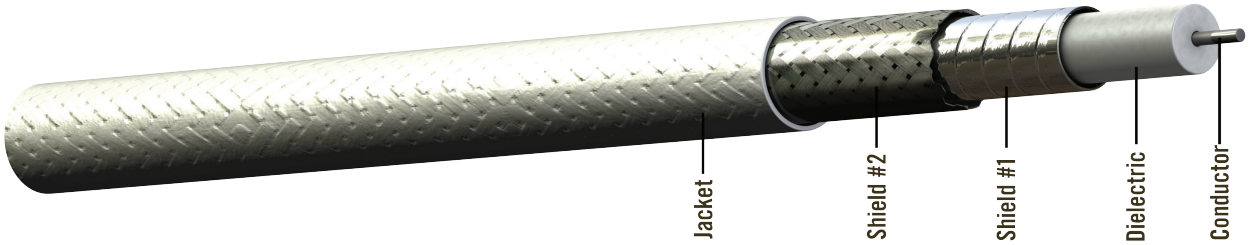
SPECIAL PURPOSE

PART #	CONTACT TYPE
150520	Rockwell ProLine Avionics Coaxial Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
150512	BNC Straight Plug
150513	BNC 90° Plug
150513-L	BNC 90° Plug (Long)
150504	HN Straight Plug
150505	HN 90° Plug
150510	N Straight Plug
150511	N 90° Plug
150522	N Bulkhead Jack
150569	SC Straight Plug
150549	QMA Straight Plug
150550	QMA 90° Plug
150514	SMA Straight Plug
150515	SMA 90° Plug
150525	SMA Inline Jack
150508	TNC Straight Plug
150509	TNC 90° Plug
150509-L	TNC 90° Plug (long)
150521	TNC Bulkhead Jack
150523	TNC Inline Jack

UH44193



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Steel
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral Wrap
Shield #2: Silver-Plated Copper-Clad Aluminum Braid
Jacket: Extruded ETFE, White (Laser Markable)

UH44193 is an UltraLite 50 Ohm premium coaxial cable for proven performance in the aerospace and defense markets. The UH44193 cable is constructed with low loss and ultra-lightweight materials to provide an extremely lightweight and low loss coaxial cable. With a silver-plated copper clad aluminum (SPCCA) braided shield and a flat spiral wrapped shield, The UH44193 achieves -110 dB shielding effectiveness, same as a solid copper tube. The inner spiral shield conforms to the low-loss PTFE dielectric for superior uniformity and stability of all operating parameters, initially and over time. Due to its construction, the UH44193 is more than 30% lighter than cables of similar size and 56% lighter & significantly lower loss than RG400/142.

PHYSICAL DATA

Conductor:	19 AWG Solid SPCCS
Temperature Range:	-65 to +150°C
Outer Diameter: in (mm)	0.155 (3.94)
Minimum Bend Radius: in (mm)	0.8 (20.32)
Weight: lbs/100 ft (kg/100 m)	1.9 (2.8)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	27 (88.6)
Velocity of Propagation:	77%
Time Delay: ns/ft (m)	1.32 (4.33)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	19.1 (62.7)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	6.5/7.3	(21.3/24.0)
@1.0 GHz	10.4/11.6	(34.1/38.1)
@1.6 GHz	13.3/14.8	(43.6/48.6)
@5.0 GHz	24.3/27.0	(79.7/88.6)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.318 K2 = 0.000342

All values nominal, unless otherwise noted

UH44193 ULTRALITE COAXIAL CABLE

CONTACTS/CONNECTORS FOR UH44193

ARINC CONTACTS

PART #	CONTACT TYPE
150101	600 Size 5 1 Socket
150102	600 Modified Size 1 Socket
150103	600 Size 5 Socket
150129	Size 8 Socket

D-SUB CONTACTS

PART #	CONTACT TYPE
150163	Size 8 Pin
150164	Size 8 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
150138	Size 8 Pin
150139	Size 8 Socket

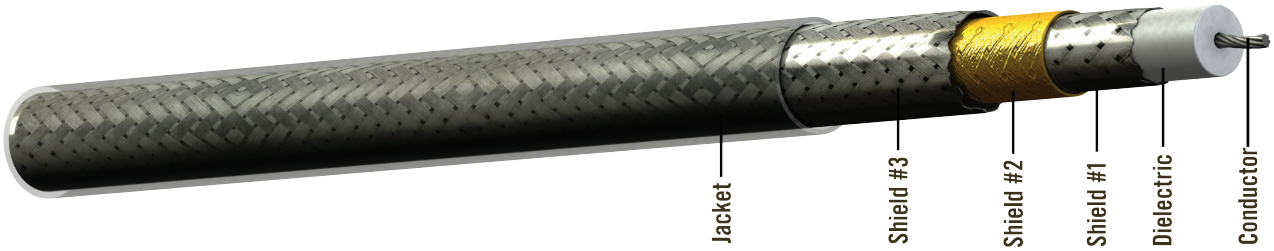
SPECIAL PURPOSE

PART #	CONTACT TYPE
150120	Rockwell ProLine Avionics Coaxial Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
150112	BNC Straight Plug
150113	BNC 90° Plug
150113-L	BNC 90° Plug (Long)
150128	BNC Bulkhead Jack
150106	C Straight Plug
150107	C 90° Plug
150110	N Straight Plug
150111	N 90° Plug
150122	N Bulkhead Jack
150114	SMA Straight Plug
150115	SMA 90° Plug
150108	TNC Straight Plug
150109	TNC 90° Plug
150121	TNC Bulkhead Jack

S22089



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded Clear FEP

S22089 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The construction of the S22089 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly, providing more uniform coverage and reducing attenuation due to aging and flexure.

PHYSICAL DATA

Conductor:	10 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.435 (11.05)
Minimum Bend Radius: in (mm)	2.5 (63.5)
Weight: lbs/100 ft (kg/100 m)	18 (26.8)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25.5 (83.7)
Velocity of Propagation:	82.5%
Time Delay: ns/ft (m)	1.23 (4.04)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	0.75 (2.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	2.2/2.4	(7.2/7.9)
@1.0 GHz	3.5/3.9	(11.5/12.8)
@1.6 GHz	4.5/5.0	(14.8/16.4)
@5.0 GHz	8.3/9.1	(27.2/29.9)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.105 K2 = 0.0001674

All values nominal, unless otherwise noted

S22089 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S22089

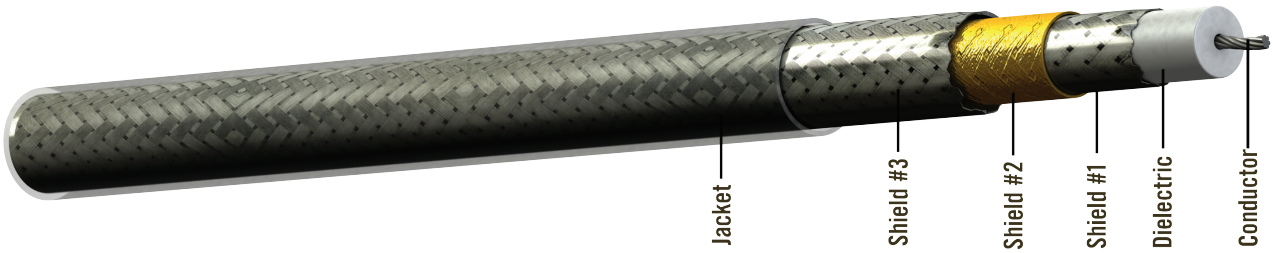
ARINC CONTACTS

PART #	CONTACT TYPE
190401	600 Size 1 Socket
190402	600 Modified Size 1 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190412	BNC Straight Plug
190413	BNC 90° Plug
190406	C Straight Plug
190407	C 90° Plug
190410	N Straight Plug
190411	N 90° Plug
190424	N Inline Jack
190422	N Bulkhead Jack
190408	TNC Straight Plug
190409	TNC 90° Plug
190423	TNC Inline Jack
190421	TNC Bulkhead Jack

S55122



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S55122 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The construction of the S55122 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly, providing more uniform coverage and reducing attenuation due to aging and flexure.

PHYSICAL DATA

Conductor:	12 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.31 (7.87)
Minimum Bend Radius: in (mm)	1.55 (39.37)
Weight: lbs/100 ft (kg/100 m)	8.3 (12.4)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	24.0 (78.7)
Velocity of Propagation:	84.5%
Time Delay: ns/ft (m)	1.21 (3.97)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	1.62 (5.3)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	3.2/3.5	(10.5/11.5)
@1.0 GHz	5.1/5.6	(16.7/18.4)
@1.6 GHz	6.5/7.2	(21.3/23.6)
@5.0 GHz	12.0/13.2	(39.4/43.3)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.155 K2 = 0.000199

All values nominal, unless otherwise noted

S55122 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S55122

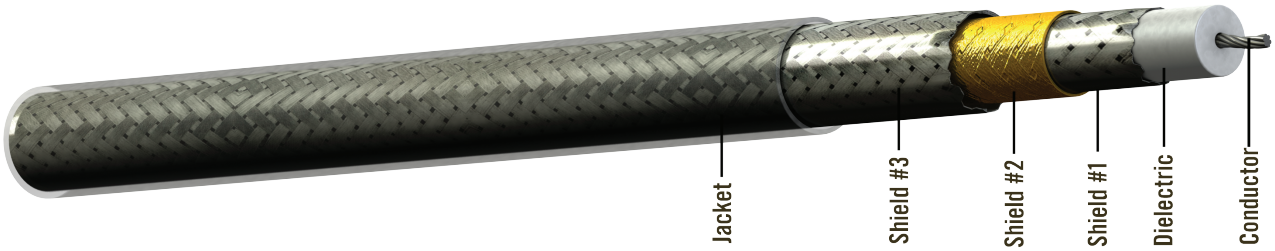
ARINC CONTACTS

PART #	CONTACT TYPE
190619	404 Size 1 Socket
190601	600 Size 1 Socket
190602	600 Modified Size 1 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190612	BNC Straight Plug
190613	BNC 90° Plug
190606	C Straight Plug
190607	C 90° Plug
190604	HN Straight Plug
190605	HN 90° Plug
190610	N Straight Plug
190611	N 90° Plug
190622	N Bulkhead Jack
190614	SMA Straight Plug
190615	SMA 90° Plug
190625	SMA Inline Jack
190608	TNC Straight Plug
190609	TNC 90° Plug
190631	TNC 75° Plug
190623	TNC Inline Jack
190621	TNC Bulkhead Jack

S33141



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S33141 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The construction of the S33141 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly, providing more uniform coverage and reducing attenuation due to aging and flexure. When compared to Mil-Spec coax cable, the S33141 cable is less than one third the weight of RG393 coax cable and approximately half the weight when compared to RG393, as well as more flexible and lower loss.

PHYSICAL DATA

Conductor:	14 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.27 (6.86)
Minimum Bend Radius: in (mm)	1.4 (35.56)
Weight: lbs/100 ft (kg/100 m)	6.5 (9.7)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25.0 (82.0)
Velocity of Propagation:	80.5%
Time Delay: ns/ft (m)	1.26 (4.13)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	2.9 (9.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	4.2/4.7	(13.8/15.4)
@1.0 GHz	6.7/7.4	(22.0/24.3)
@1.6 GHz	8.6/9.5	(28.2/31.2)
@5.0 GHz	15.5/17.1	(50.9/56.1)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.207 K2 = 0.0001785

All values nominal, unless otherwise noted

S33141 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S33141

ARINC CONTACTS

PART #	CONTACT TYPE
190319	404 Size 1 Socket
190301	600 Size 1 Socket
190302	600 Modified Size 1 Socket
190303	404/600 Size 5 Socket
190329	Size 8 Socket

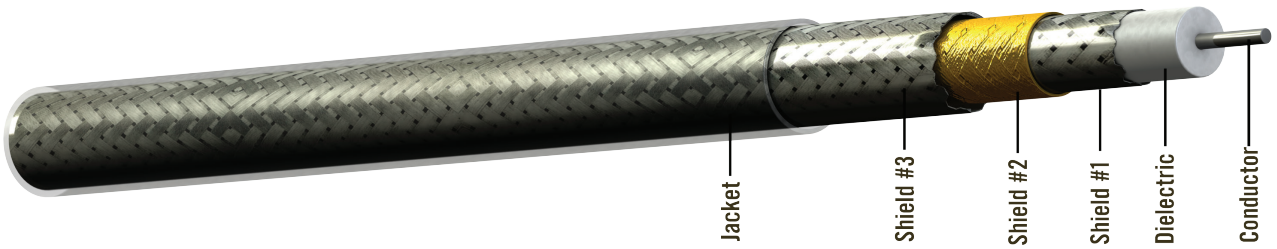
M39029 for MIL-C-38999 Connector

PART #	CONTACT TYPE
190338	Size 8 Pin
190339	Size 8 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190312	BNC Straight Plug
190313	BNC 90° Plug
190327	BNC Inline Jack
190306	C Straight Plug
190307	C 90° Plug
190304	HN Straight Plug
190305	HN 90° Plug
190310	N Straight Plug
190311	N 90° Plug
190324	N Inline Jack
190322	N Bulkhead Jack
190314	SMA Straight Plug
190315	SMA 90° Plug
190308	TNC Straight Plug
190309	TNC 90° Plug
190331	TNC 75° Plug
190323	TNC Inline Jack
190321	TNC Bulkhead Jack

S67163



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S67163 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The construction of the S67163 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly, providing more uniform coverage and reducing attenuation due to aging and flexure. When compared to Mil-Spec coax cable, the S67163 cable is approximately half the weight when compared to RG393 and less than one third the weight of RG214 coax cable.

PHYSICAL DATA

Conductor:	15 AWG Solid SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.225 (5.72)
Minimum Bend Radius: in (mm)	1.2 (30.48)
Weight: lbs/100 ft (kg/100 m)	5.4 (8.0)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25 (82)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	3.25 (10.7)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	4.4/4.8	(14.4/15.7)
@1.0 GHz	7.0/7.7	(23.0/25.3)
@1.6 GHz	8.9/9.8	(29.2/32.2)
@5.0 GHz	16.1/17.7	(52.8/58.1)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.215 K2 = 0.0001785

All values nominal, unless otherwise noted

S67163 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S67163

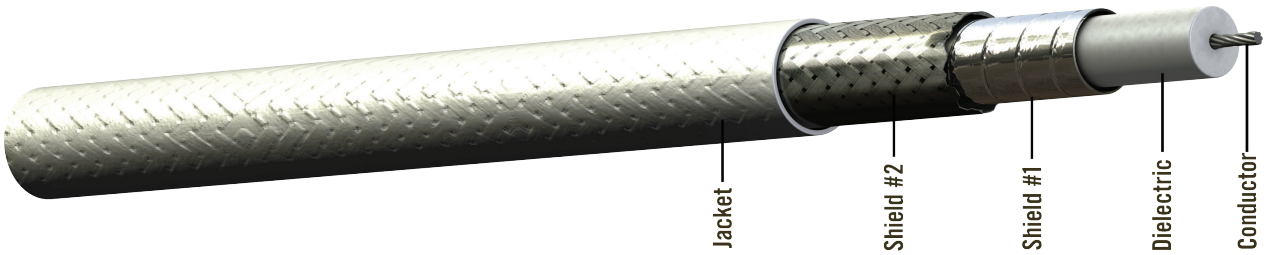
ARINC CONTACTS

PART #	CONTACT TYPE
190519	404 Size 1 Socket
190501	600 Size 1 Socket
190502	600 Modified Size 1 Socket
190503	404/600 Size 5 Socket
190529	Size 8 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190512	BNC Straight Plug
190513	BNC 90° Plug
190506	C Straight Plug
190507	C 90° Plug
190504	HN Straight Plug
190505	HN 90° Plug
190510	N Straight Plug
190511	N 90° Plug
190524	N Inline Jack
190522	N Bulkhead Jack
110580	QMA Straight Plug
110581	QMA 90° Plug
190514	SMA Straight Plug
190515	SMA 90° Plug
111082	SMA Bulkhead Jack
190508	TNC Straight Plug
190509	TNC 90° Plug
190531	TNC 75° Plug
190523	TNC Inline Jack
190521	TNC Bulkhead Jack

S65161-A



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Flat Spiral Braid
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded ETFE, White (Laser Markable)

S65161-A is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The S65161-A features a 100% shielded construction, incorporating both silver-plated copper spiral (inner) and braided (outer) shields. The electrical characteristics of S65161-A are comparable to standard RG393 coax cable, yet S65161-A weighs less than 25% of RG393 cable.

PHYSICAL DATA

Conductor:	16 AWG Stranded SPC
Temperature Range:	-65 to +150°C
Outer Diameter: in (mm)	0.195 (4.95)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	3.5 (5.2)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	26 (85.3)
Velocity of Propagation:	83%
Time Delay: ns/ft (m)	1.23 (4.04)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	3.9 (12.8)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	5.1/5.6	(16.7/18.4)
@1.0 GHz	8.2/9.1	(26.9/29.9)
@1.6 GHz	10.5/11.6	(34.4/38.1)
@5.0 GHz	19.2/21.1	(63.0/69.2)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)}) + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.251 K2 = 0.0003

All values nominal, unless otherwise noted

S65161-A 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S65161-A

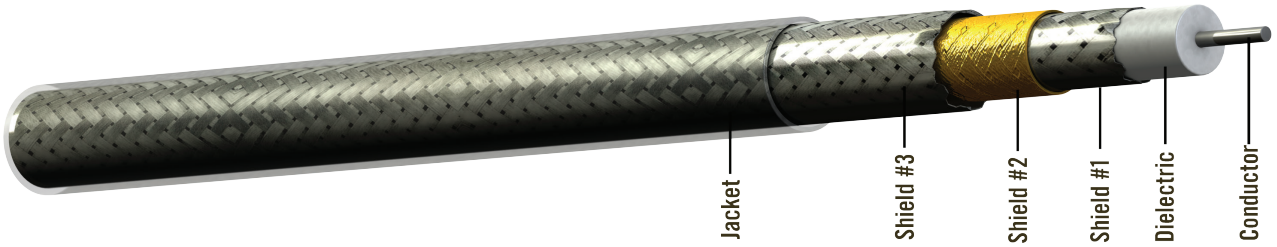
ARINC CONTACTS

PART #	CONTACT TYPE
190519A	404 Size 1 Socket
190501A	600 Size 1 Socket
190502A	600 Modified Size 1 Socket
190503	404/600 Size 5 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190512A	BNC Straight Plug
190513A	BNC 90° Plug
190506A	C Straight Plug
190507A	C 90° Plug
190504A	HN Straight Plug
190505A	HN 90° Plug
190510A	N Straight Plug
190511A	N 90° Plug
190524A	N Inline Jack
190522A	N Bulkhead Jack
190514A	SMA Straight Plug
190514A-G	SMA Straight Plug (Gold Plated)
190515A	SMA 90° Plug
190515A-G	SMA 90° Plug (Gold Plated)
190525A-G	SMA Inline Jack (Gold Plated)
190508A	TNC Straight Plug
190509A	TNC 90° Plug
190531A	TNC 75° Plug
190523A	TNC Inline Jack
190521A	TNC Bulkhead Jack

S44193



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Steel
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S44193 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. S44193 is equivalent in size as the standard Mil-Spec RG400 coax cable but offers lower loss and improved shielding due to its construction. The construction of the S44193 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly. The attenuation and VSWR variation due to aging and flexure is substantially less.

PHYSICAL DATA

Conductor:	19 AWG Solid SPCCS
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.195 (4.95)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	4.3 (6.4)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	29.3 (96.1)
Velocity of Propagation:	69.5%
Time Delay: ns/ft (m)	1.46 (4.79)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	19.1 (62.7)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	6.8/7.5	(22.3/24.6)
@1.0 GHz	11.1/12.2	(36.4/40.0)
@1.6 GHz	14.3/15.7	(46.9/51.5)
@5.0 GHz	26.8/29.5	(87.9/96.8)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.3265 K2 = 0.00075

All values nominal, unless otherwise noted

S44193 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S44193

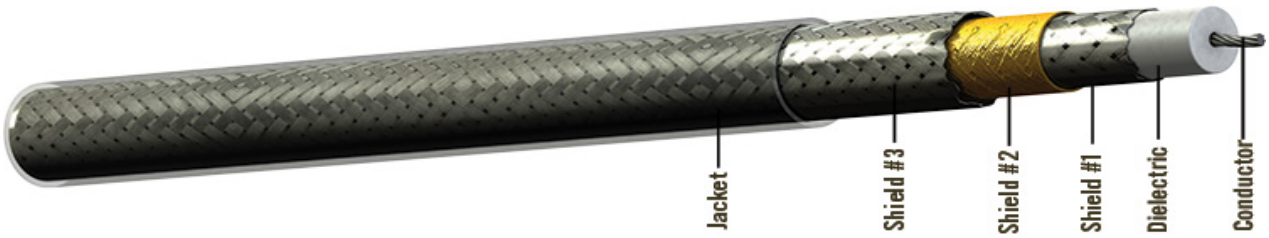
ARINC CONTACTS

PART #	CONTACT TYPE
190119	404 Size 1 Socket
190101	600 Size 1 Socket
190102	600 Modified Size 1 Socket
110123	404/600 Size 5 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190112	BNC Straight Plug
190113	BNC 90° Plug
190127	BNC Inline Jack
111202	BNC Bulkhead Jack
190106	C Straight Plug
190107	C 90° Plug
190104	HN Straight Plug
190105	HN 90° Plug
190110	N Straight Plug
190111	N 90° Plug
110087	N Bulkhead Jack
110576	QMA Straight Plug
110577	QMA 90° Plug
110198	SMA Straight Plug
110207	SMA 90° Plug
190108	TNC Straight Plug
190109	TNC 90° Plug
190131	TNC 75° Plug
190123	TNC Inline Jack
190121	TNC Bulkhead Jack

S44191



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S44191 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. S44191 is equivalent in size as the standard Mil-Spec RG400 coax cable but offers lower loss and improved shielding due to its construction. The construction of the S44191 features a multi-layered shielding that combines conventional shields with an inner braid woven of flat strip of silver plated copper which reduces attenuation at frequencies over 1GHz when compared to round wire braids in standard coaxial cable. The cable VSWR is lower because the braids can be applied more uniformly. The attenuation and VSWR variation due to aging and flexure is substantially less.

PHYSICAL DATA

Conductor:	20 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.195 (4.95)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	4.3 (6.4)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	29.3 (96.1)
Velocity of Propagation:	69.5%
Time Delay: ns/ft (m)	1.46 (4.79)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	8.6 (28.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	7.3/8.0	(24.0/26.2)
@1.0 GHz	11.8/13.0	(38.7/42.7)
@1.6 GHz	15.2/16.8	(49.9/55.1)
@5.0 GHz	28.5/31.4	(93.5/103.0)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.35 K2 = 0.00075

All values nominal, unless otherwise noted

S44191 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S44191

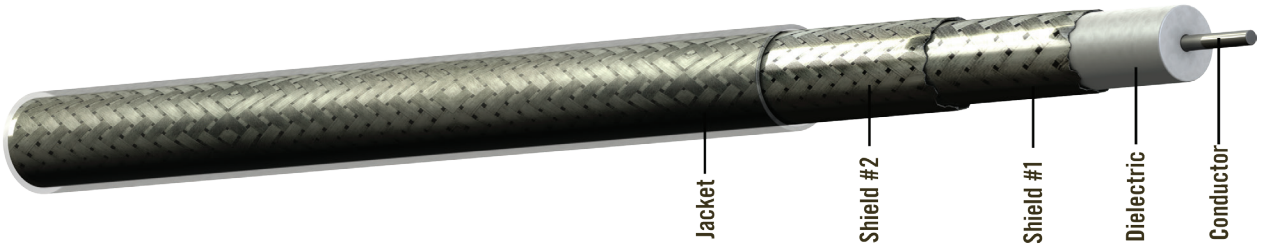
ARINC CONTACTS

PART #	CONTACT TYPE
190119	404 Size 1 Socket
190101	600 Size 1 Socket
190102	600 Modified Size 1 Socket
110123	404/600 Size 5 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190112	BNC Straight Plug
190113	BNC 90° Plug
190127	BNC Inline Jack
111202	BNC Bulkhead Jack
190106	C Straight Plug
190107	C 90° Plug
190104	HN Straight Plug
190105	HN 90° Plug
190110	N Straight Plug
190111	N 90° Plug
110087	N Bulkhead Jack
110576	QMA Straight Plug
110577	QMA 90° Plug
110198	SMA Straight Plug
110207	SMA 90° Plug
190108	TNC Straight Plug
190109	TNC 90° Plug
190131	TNC 75° Plug
190123	TNC Inline Jack
190121	TNC Bulkhead Jack

S88207



CABLE CONSTRUCTION

Conductor: Solid Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S88207 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The S88207 coax cable features low-loss PTFE expanded tape dielectric between the center conductor and the shield and inner braid of silver-plated copper strip braid which provides improved shielding and greater strength than conventional wire braid found in M17/60-RG142 cable. When compared to RG142 coax cable, the S88207 has approximately 20% better attenuation figures and less than half the weight (19 lbs vs 43 lbs per 1,000 ft).

PHYSICAL DATA

Conductor:	20 AWG Solid SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.13 (3.3)
Minimum Bend Radius: in (mm)	0.65 (16.51)
Weight: lbs/100 ft (kg/100 m)	1.9 (2.8)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25 (82)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-80
DC Resistance: ohms/1000 ft (m)	10.3 (33.8)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	8.0/8.8	(26.2/28.9)
@1.0 GHz	12.8/14.1	(42.0/46.3)
@1.6 GHz	16.4/18.0	(53.8/59.1)
@5.0 GHz	30.0/33.0	(98.4/108.3)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.39 K2 = 0.00049

All values nominal, unless otherwise noted

S88207 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S88207

ARINC CONTACTS

PART #	CONTACT TYPE
190819	404 Size 1 Socket
190801	600 Size 1 Socket
190802	600 Modified Size 1 Socket
190803	404/600 Size 5 Socket
190837	Size 8 Pin
190829	Size 8 Socket

D-SUB CONTACTS

PART #	CONTACT TYPE
110286	Size 8 Pin
111113	Precision 50 ohm Size 8 Pin
110212	Size 8 Socket
110260	Precision 50 ohm Size 8 Socket

M39029 FOR MIL-C-38999 CONTACTS

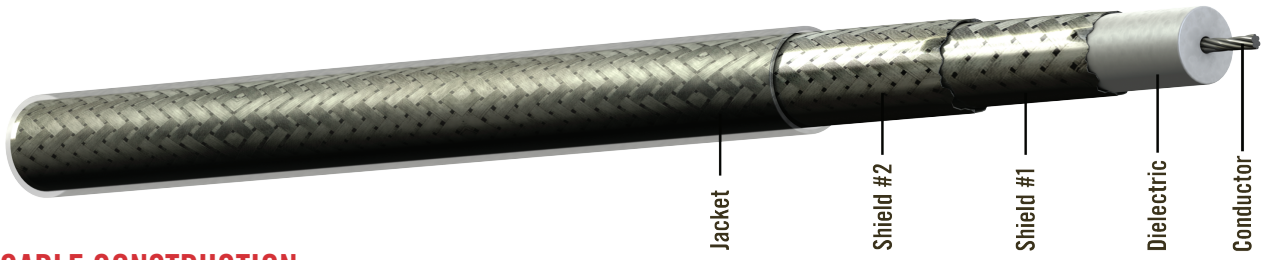
PART #	CONTACT TYPE
190838	Size 8 Pin
190838-01	Size 8 Pin (w/ Environmental Seal)
190839	Size 8 Socket
190839-01	Size 8 Socket (w/ Environmental Seal)
190866	Size 12 Pin
* 190867	Size 12 Socket

* When using in high density D38999 connectors or in fully sealed environments, please contact PIC for assistance

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190812	BNC Straight Plug
190813	BNC 90° Plug
190806	C Straight Plug
190807	C 90° Plug
190805	HN 90° Plug
190810	N Straight Plug
190811	N 90° Plug
190822	N Bulkhead Jack
110566	QMA Straight Plug
110567	QMA 90° Plug
190814	SMA Straight Plug
190815	SMA 90° Plug
190825	SMA In-Line Jack
190808	TNC Straight Plug
190809	TNC 90° Plug
190809-L	TNC 90° Plug (Long)
190821	TNC Bulkhead Jack

S86208



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded FEP, Clear

S86208 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The S86208 features a low-loss PTFE expanded tape dielectric between the center conductor and shield, which improves shielding and strength compared to conventional wire braids. S86208 is a lightweight and more compact replacement for standard M17/128-RG400 coax cable. When compared to RG400, the S86208 coax cable is two-thirds the diameter and less than half the weight — 20 lbs vs 43 lbs per 1,000 ft.

PHYSICAL DATA

Conductor:	21 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.13 (3.3)
Minimum Bend Radius: in (mm)	0.65 (16.51)
Weight: lbs/100 ft (kg/100 m)	1.95 (2.9)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	25 (82)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-80
DC Resistance: ohms/1000 ft (m)	11.6 (38.1)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	8.9/9.8	(29.2/32.2)
@1.0 GHz	14.1/15.5	(46.3/50.9)
@1.6 GHz	17.9/19.7	(58.7/64.6)
@5.0 GHz	32.0/35.2	(105.0/115.5)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.44 K2 = 0.0001785

All values nominal, unless otherwise noted

S86208 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S86208

ARINC CONTACTS

PART #	CONTACT TYPE
190819	404 Size 1 Socket
190801	600 Size 1 Socket
190802	600 Modified Size 1 Socket
190803	404/600 Size 5 Socket
190837	Size 8 Pin
190829	Size 8 Socket

D-SUB CONTACTS

PART #	CONTACT TYPE
110286	Size 8 Pin
111113	Precision 50 ohm Size 8 Pin
110212	Size 8 Socket
110260	Precision 50 ohm Size 8 Socket

M39029 FOR MIL-C-38999 CONTACTS

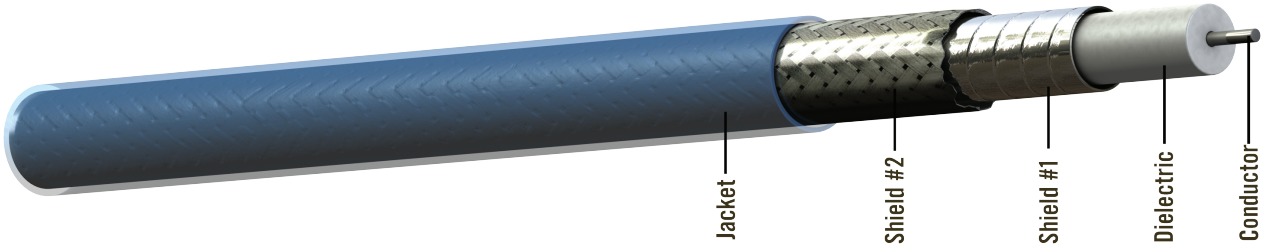
PART #	CONTACT TYPE
190838	Size 8 Pin
190838-01	Size 8 Pin (w/ Environmental Seal)
190839	Size 8 Socket
190839-01	Size 8 Socket (w/ Environmental Seal)
190866	Size 12 Pin
* 190867	Size 12 Socket

* When using in high density D38999 connectors or in fully sealed environments, please contact PIC for assistance

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190812	BNC Straight Plug
190813	BNC 90° Plug
190806	C Straight Plug
190807	C 90° Plug
190805	HN 90° Plug
190810	N Straight Plug
190811	N 90° Plug
190822	N Bulkhead Jack
110566	QMA Straight Plug
110567	QMA 90° Plug
190814	SMA Straight Plug
190815	SMA 90° Plug
190825	SMA Inline Jack
190808	TNC Straight Plug
190809	TNC 90° Plug
190809-L	TNC 90° Plug (Long)
190821	TNC Bulkhead Jack

S40501



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Steel
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral Braid
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded FEP, Solid Blue

S40501 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. The S40501 coax cable features dual shielding, the inner spiral shield providing a close-conforming shield similar to that of a semi-rigid tubing. When compared to RG405, S40501 has comparable attenuation figures and a considerably higher temperature rating. Impedance is precisely controlled for low VSWR's.

PHYSICAL DATA

Conductor:	24 AWG Solid SPCCS
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.104 (2.64)
Minimum Bend Radius: in (mm)	0.625 (16)
Weight: lbs/100 ft (kg/100 m)	1.4 (2.1)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	29.4 (96.5)
Velocity of Propagation:	70%
Time Delay: ns/ft (m)	1.45 (4.76)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	24.2 (79.4)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	12.1/13.3	(39.7/43.6)
@1.0 GHz	19.4/21.4	(63.6/70.2)
@1.6 GHz	24.8/27.4	(81.4/89.9)
@5.0 GHz	45.7/50.3	(149.9/165.0)

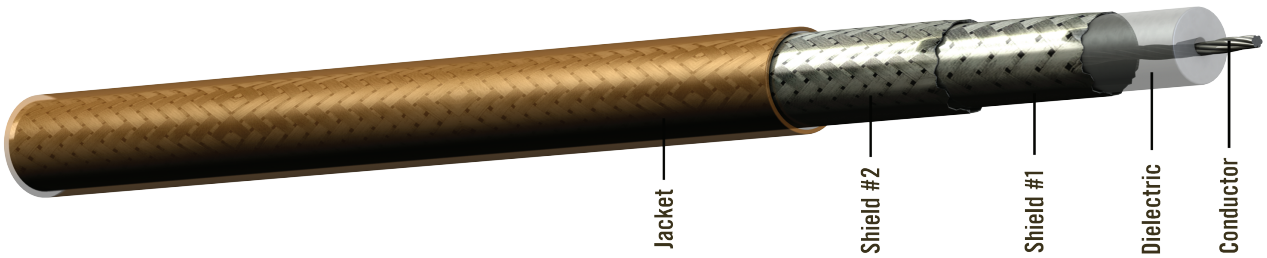
Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.589 K2 = 0.00081

All values nominal, unless otherwise noted

S40501 50 OHM COAXIAL CABLE

S46191



CABLE CONSTRUCTION

Conductor: Tin-Plated Copper
Dielectric: Fluoropolymer
Shield #1: Aluminum Braid
Shield #2: Tin-Plated Copper Braid
Jacket: Extruded FEP, Brown Tint, Translucent

S46191 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. S46191 is dimensionally equivalent to M17/128-RG400, but will provide at least 40% weight savings over RG400 and save approximately 8 dB per 100 feet at 1.0 GHz compared to the standard RG400 coax cable.

PHYSICAL DATA

Conductor:	20 AWG Stranded TPC
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.195 (4.95)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.68 (4.0)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	28.4 (93.2)
Velocity of Propagation:	70%
Time Delay: ns/ft (m)	1.45 (4.76)
Shielding Effectiveness: dB min	-75
DC Resistance: ohms/1000 ft (m)	9.5 (31.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	12.8/14.0	(42.0/45.9)
@1.0 GHz	22.3/24.6	(73.2/80.7)
@1.6 GHz	30.2/33.3	(99.1/109.3)
@5.0 GHz	66.3/72.9	(217.5/239.2)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)}) + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.52 K2 = 0.0059

All values nominal, unless otherwise noted

S46191 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S46191

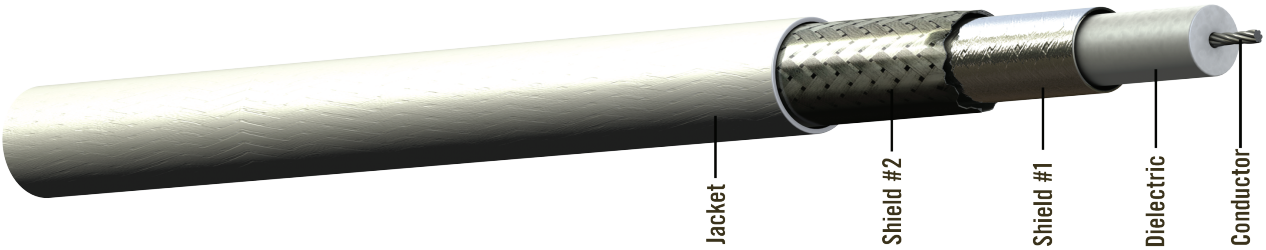
ARINC CONTACTS

PART #	CONTACT TYPE
190119	404 Size 1 Socket
190101	600 Size 1 Socket
190102	600 Modified Size 1 Socket
110123	404/600 Size 5 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190112	BNC Straight Plug
190113	BNC 90° Plug
190127	BNC Inline Jack
111202	BNC Bulkhead Jack
190106	C Straight Plug
190107	C 90° Plug
190104	HN Straight Plug
190105	HN 90° Plug
190110	N Straight Plug
190111	N 90° Plug
110087	N Bulkhead Jack
110576	QMA Straight Plug
110577	QMA 90° Plug
110198	SMA Straight Plug
110207	SMA 90° Plug
190108	TNC Straight Plug
190109	TNC 90° Plug
190131	TNC 75° Plug
190123	TNC Inline Jack
190121	TNC Bulkhead Jack

S31601



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper-Clad Steel
Dielectric: PTFE
Shield #1: Bonded Aluminum/Polyester Composite
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded ETFE, White (Laser Markable)

S31601 is a 50 Ohm coaxial cable and the industry's workhorse, with decades of proven performance in the aerospace and defense markets. S31601 is equivalent in size as the standard Mil-Spec RG316 coax but slightly lower in loss due to the extra inner foil shield. The additional inner foil shield within the S31601 achieves -90 dB shielding effectiveness compared to only -50 dB for a standard RG316 coax cable.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPCCS
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.102 (2.59)
Minimum Bend Radius: in (mm)	0.5 (12.7)
Weight: lbs/100 ft (kg/100 m)	1 (1.5)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	32 (105)
Velocity of Propagation:	69.5%
Time Delay: ns/ft (m)	1.45 (4.76)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	84.1 (275.9)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@0.4 GHz	16.0/19.0	(52.5/62.3)
@1.0 GHz	26.3/31.2	(86.3/102.4)
@1.6 GHz	34.2/40.5	(112.2/132.9)
@3.0 GHz	48.9/58.0	(160.4/190.3)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.75 K2 = 0.0026

All values nominal, unless otherwise noted

S31601 50 OHM COAXIAL CABLE

CONTACTS/CONNECTORS FOR S31601

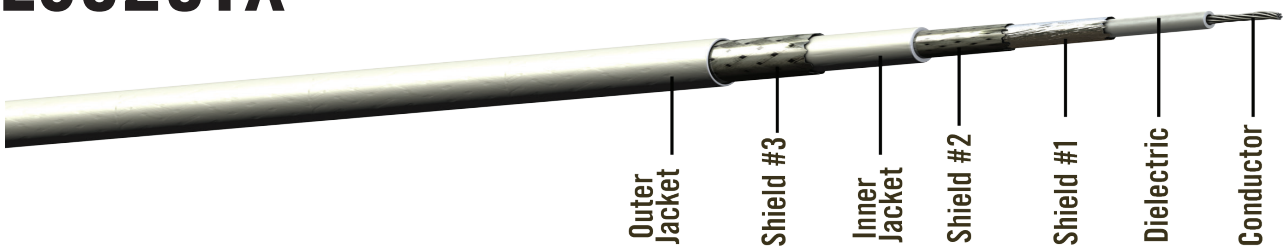
M39012 CONNECTORS

PART #	CONNECTOR TYPE
111128	BNC Straight Plug
111130	BNC 90° Plug
111132	BNC Bulkhead Jack
111134	BNC Inline Jack
110876	N Straight Plug
111136	N 90° Plug
111071	N Bulkhead Jack
111138	SMA Straight Plug
111140	SMA 90° Plug
111142	SMA Bulkhead Jack
111144	SMA Inline Jack

M39012 CONNECTORS

PART #	CONNECTOR TYPE
111161	TNC Straight Plug
110874	TNC 90° Plug
111165	TNC Bulkhead Jack
110983	TNC Inline Jack
111148	SMB Straight Plug
111150	SMB 90° Plug
111146	QMA Straight Plug
110980	QMA 90° Plug
110978	QMA Bulkhead Jack
111152	D-Sub Size 8 Socket
110786	ARINC Size 5 Pin
110928	ARINC Size 5 Socket
110981	ARINC 600 Size 12 Socket

L8620TX



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyimide Composite
Inner Jacket: Extruded FEP, White
Shield #2: Tin-Plated Copper Braid
Shield #3: Tin-Plated Cooper Braid
Outer Jacket: Extruded ETFE, White (Laser Markable)

L8620TX is a 50 ohm triaxial cable that is used in systems that are susceptible to RFI and noise-generating devices, such as radar or other systems that need to be isolated. To improve the signal-to-noise ratio and noise pick-up, this cable has an additional outer braid shield insulated from the signal carrying conductors.

For maximum shielding efficiency, triaxial connectors should be used where the isolation of the two shields is maintained through the connectors. Connectors for S86208 and S88207 coax cables can be used to terminate the "inner coax" of L8620TX.

PHYSICAL DATA

Conductor:	21 AWG Stranded SPC
Temperature Range:	-55° to 150°C
Outer Diameter: in (mm)	0.173 (4.39)
Minimum Bend Radius: in (mm)	0.9 (21.59)
Weight: lbs/100 ft (kg/100 m)	2.9 (4.3)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	28 (91.9)
Velocity of Propagation:	79%
Time Delay: ns/ft (m)	1.28 (4.20)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	11.6 (38.1)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a)App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS v252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.40 GHz	9.1/10.0	(29.9/32.8)
@ 1.0 GHz	15.1/16.6	(49.5/54.5)
@ 1.6 GHz	19.7/21.7	(64.6/71.2)
@ 5.0 GHz	38.9/42.8	(127.6/140.4)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss): K1 =0.416 K2 = 0.0019

All values nominal, unless otherwise noted

L8620TX 50 OHM TRIAXIAL CABLE

CONTACTS/CONNECTORS FOR L8620TX

ARINC CONTACTS

PART #	CONTACT TYPE
190819	404 Size 1 Socket
190801	600 Size 1 Socket
190802	600 Modified Size 1 Socket
190803	404/600 Size 5 Socket
190837	Size 8 Pin
190829	Size 8 Socket

D-SUB CONTACTS

PART #	CONTACT TYPE
110286	Size 8 Pin
111113	Precision 50 ohm Size 8 Pin
110212	Size 8 Socket
110260	Precision 50 ohm Size 8 Socket

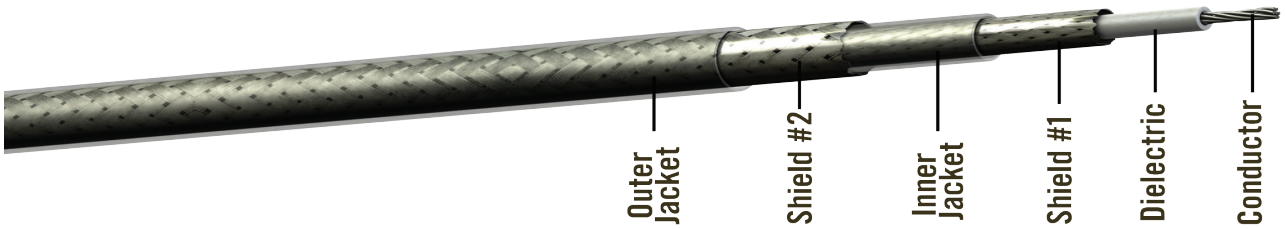
M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190838	Size 8 Pin
190838-01	Size 8 Pin (w/ Environmental Seal)
190839	Size 8 Socket
190839-01	Size 8 Socket (w/ Environmental Seal)
190866	Size 12 Pin
190867	Size 12 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190812	BNC Straight Plug
190813	BNC 90° Plug
190806	C Straight Plug
190807	C 90° Plug
190805	HN 90° Plug
190810	N Straight Plug
190811	N 90° Plug
190822	N Bulkhead Jack
110566	QMA Straight Plug
110567	QMA 90° Plug
190814	SMA Straight Plug
190815	SMA 90° Plug
190825	SMA Inline Jack
190808	TNC Straight Plug
190809	TNC 90° Plug
190809-L	TNC 90° Plug (Long)
190821	TNC Bulkhead Jack

L2201TX



CABLE CONSTRUCTION

Conductor: Tin-Plated Copper
Dielectric: FEP
Shield #1: Tin-Plated Copper Braid
Inner Jacket: Extruded FEP, Clear
Shield #2: Tin-Plated Copper Braid
Outer Jacket: Extruded FEP, Clear

L2201TX is a 50 ohm triaxial cable that is used in systems that are susceptible to RFI and noise-generating devices, such as radar or other systems that need to be isolated. To improve the signal-to-noise ratio and noise pick-up, this cable has an additional outer braid shield insulated from the signal carrying conductors.

For maximum shielding efficiency, triaxial connectors should be used where the isolation of the two shields is maintained through the connectors. Connectors for S44191 and S44193 coax cables can be used to terminate the "inner coax" of L2201TX.

PHYSICAL DATA

Conductor:	20 AWG Stranded TPC
Temperature Range:	-55° to 150°C
Outer Diameter: in (mm)	0.245 (6.22)
Minimum Bend Radius: in (mm)	1.3 (31.75)
Weight: lbs/100 ft (kg/100 m)	6.0 (8.9)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	29.0 (95.1)
Velocity of Propagation:	70%
Time Delay: ns/ft (m)	1.45 (4.76)
Shielding Effectiveness: dB min	-75
DC Resistance: ohms/1000 ft (m)	9.7 (31.8)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a)App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS v252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.4 GHz	10.6/11.7	(34.8/38.4)
@ 1.0 GHz	20.4/22.4	(66.9/73.5)
@ 1.6 GHz	29.1/32.0	(95.5/105.0)
@ 5.0 GHz	72.7/80.0	(238.5/262.5)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss): K1 =0.335 K2 = 0.0098

All values nominal, unless otherwise noted

L2201TX 50 OHM TRIAXIAL CABLE

CONTACTS/CONNECTORS FOR L2201TX

ARINC CONTACTS

PART #	CONTACT TYPE
190119	404 Size 1 Socket
190101	600 Size 1 Socket
190102	600 Modified Size 1 Socket
110123	404/600 Size 5 Socket

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190112	BNC Straight Plug
190113	BNC 90° Plug
190127	BNC Inline Jack
111202	BNC Bulkhead Jack
190106	C Straight Plug
190107	C 90° Plug
190104	HN Straight Plug
190105	HN 90° Plug
190110	N Straight Plug
190111	N 90° Plug
110087	N Bulkhead Jack
110576	QMA Straight Plug
110577	QMA 90° Plug
110198	SMA Straight Plug
110207	SMA 90° Plug
190108	TNC Straight Plug
190109	TNC 90° Plug
190131	TNC 75° Plug
190123	TNC Inline Jack
190121	TNC Bulkhead Jack

High-frequency applications on the X, Ku and K bands need cables with outstanding signal integrity and low insertion loss. Our 50 Ohm microwave cable assemblies are designed specifically for this purpose. These cables are designed to optimize performance and give system designers flexibility. Our products give you superior signal integrity, low insertion loss, less RF interference, and a robust yet easy-to-install design.

APPLICATIONS:

- Navigation/communication systems
- Electronic warfare (EW) systems
- Electronic Surveillance
- Countermeasures/Jamming
- Radar warning receiver (RWR) systems
- Electronic/signal intelligence
- C6ISR (Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, Reconnaissance, and Combat Systems)

PHYSICAL & ELECTRICAL DATA

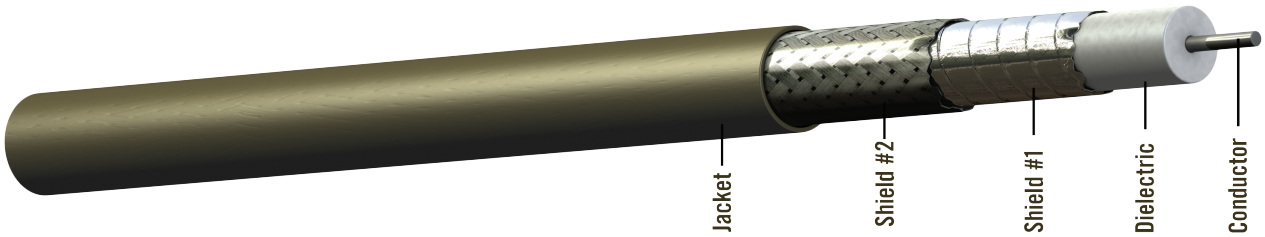
All values nominal, unless otherwise noted

PART #	DATA CONDUCTOR	MAX FREQUENCY	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	V.O.P. %	SHIELDING EFFECTIVENESS (dB min)	JACKET
HH85295F	11 AWG Solid SPC	18 GHz	7.9 (11.8)	0.291 (7.39)	1.5 (38.1)	83	-110	Extruded ETFE, Olive Drab
HT77300F	12 AWG Solid SPC	18 GHz	8.8 (13.1)	0.300 (7.62)	1.5 (38.1)	77	-90	Extruded FEP, Olive Drab
HT77210F	16 AWG Solid SPC	26 GHz	4.5 (6.7)	0.208 (5.28)	1 (25.4)	76.5	-90	Extruded FEP, Olive Drab

Materials Key: SPC – Silver-Plated Copper

HIGH FREQUENCY CABLE SOLUTIONS

HH85295F



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Spiral
Shield #2: Silver-Plated Copper Braid
Jacket: Extruded ETFE, Olive Drab

HH85295F is a 50-Ohm microwave coaxial cable designed for high-frequency applications on the Ku band and X band. HH85295F provides superior signal integrity, low insertion loss, less RF interference, and a robust yet easy-to-install design. The HH85295F coaxial cable is a 100% shielded construction, incorporating a flat spiral-wrapped shield that achieves -110 dB shielding effectiveness, the same as a solid copper tube. The inner spiral shield conforms to the low-loss PTFE dielectric for superior uniformity and stability of all operation parameters, initially and over time.

PHYSICAL DATA

Conductor:	11 AWG Solid SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.291 (7.39)
Minimum Bend Radius: in (mm)	1.5 (38.1)
Weight: lbs/100 ft (kg/100 m)	7.9 (11.8)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	24 (78.7)
Velocity of Propagation:	83%
Time Delay: ns/ft (m)	1.21 (3.97)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	1.3 (4.1)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@12.0 GHz	15.4/17.0	(50.5/55.8)
@15.0 GHz	17.7/19.5	(58.1/64.0)
@18.0 GHz	19.7/21.8	(64.6/71.5)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.111 K2 = 0.00027

All values nominal, unless otherwise noted

HH85295F HIGH FREQUENCY COAX CABLE

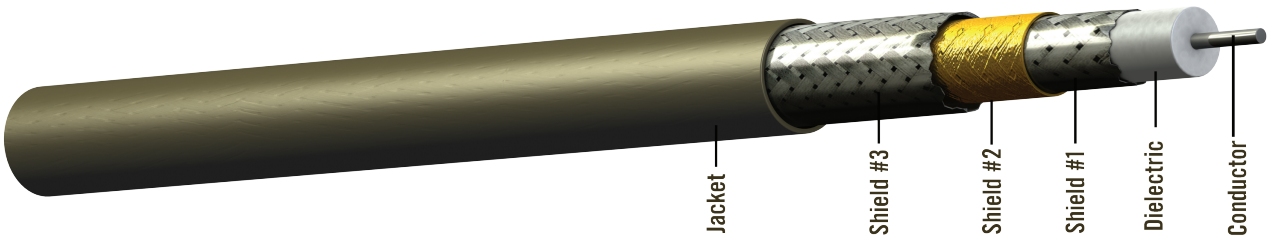
CONTACTS/CONNECTORS FOR HH85295F

M39012 CONNECTORS

PART #	CONNECTOR TYPE
120608	TNC Straight Plug
120609	TNC 90° Plug
120621	TNC Bulkhead Jack
120610	N Straight Plug
120611	N 90° Plug
120622	N Bulkhead Jack
120614	SMA Straight Plug
120615	SMA 90° Plug

**For quality assurance, this cable is sold in an assembly only.*

HT77300F



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Olive Drab

HT77300F is a 50-Ohm microwave coaxial cable designed for high-frequency applications on the Ku band and X band. HT77300F microwave cables give you superior signal integrity, low insertion loss, less RF interference, and a robust yet easy-to-install design. These are designed to optimize performance and give system designers flexibility.

PHYSICAL DATA

Conductor:	12 AWG Solid SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.300 (7.62)
Minimum Bend Radius: in (mm)	1.5 (38.1)
Weight: lbs/100 ft (kg/100 m)	8.8 (13.1)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	26.5 (86.9)
Velocity of Propagation:	77%
Time Delay: ns/ft (m)	1.33 (4.36)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	1.4 (4.6)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@12.0 GHz	19.5/21.5	(64.0/70.5)
@15.0 GHz	22.2/24.4	(72.8/80.1)
@18.0 GHz	24.7/27.2	(81.0/89.2)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.15 K2 = 0.000255

All values nominal, unless otherwise noted

HT77300F HIGH FREQUENCY COAX CABLE

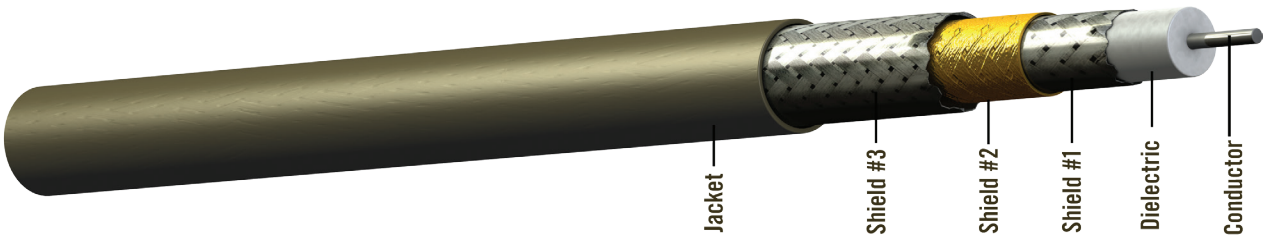
CONTACTS/CONNECTORS FOR HT77300F

M39012 CONNECTORS

PART #	CONNECTOR TYPE
120208	TNC Straight Plug
120209	TNC 90° Plug
120241	TNC Bulkhead Jack
120210	N Straight Plug
120211	N 90° Plug
120214	SMA Straight Plug
120215	SMA 90° Plug

**For quality assurance, this cable is sold in an assembly only.*

HT77210F



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: PTFE
Shield #1: Silver-Plated Copper Flat Strip Braid
Shield #2 Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: Extruded FEP, Olive Drab

HT77210F is a 50-Ohm microwave coaxial cable designed for high-frequency applications on the Ku band and X band. HT77210F microwave cables are designed to optimize performance and give system designers flexibility. Our products give you superior signal integrity, low insertion loss, less RF interference, and a robust yet easy-to-install design.

PHYSICAL DATA

Conductor:	16 AWG Solid SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.208 (5.28)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	4.5 (6.7)

ELECTRICAL DATA

Impedance:	50 ohms
Capacitance: pF/ft (m)	26.5 (86.9)
Velocity of Propagation:	76.5%
Time Delay: ns/ft (m)	1.33 (4.36)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	3.9 (12.8)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@6.0 GHz	20.0/22.0	(65.6/72.2)
@12.0 GHz	29.5/32.5	(96.8/106.6)
@18.0 GHz	37.3/40.1	(122.4/131.6)
@26.0 GHz	46.2/50.9	(151.6/167.0)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.232 K2 = 0.00034

All values nominal, unless otherwise noted

HT77210F HIGH FREQUENCY COAX CABLE

CONTACTS/CONNECTORS FOR HT7721OF

M39012 CONNECTORS

PART #	CONNECTOR TYPE
120508	TNC Straight Plug
120509	TNC 90° Plug
120521	TNC Bulkhead Jack
120510	N Straight Plug
120511	N 90° Plug
120514	SMA Straight Plug
120515	SMA 90° Plug
120534	BMB Jack Snap Mount

**For quality assurance, this cable is sold in an assembly only.*

Our 75 ohm coaxial and triaxial video cables are lightweight, low loss, flexible, easy to terminate for reliable performance in aircraft systems. They're specifically designed and manufactured for reliable performance in aircraft systems and other harsh environments involving high temperature, strong EMI, corrosive materials and more. Our cables exceed stringent standards, save valuable weight on your next mission, simplify routing and reduce your operating costs.

APPLICATIONS:

- Cockpit Displays
- Surveillance Cameras
- Cabin Entertainment
- ADS-B
- Mode S
- Blu-Ray & High Definition Video
- TCAS and Navigation
- Collision Avoidance
- Communications & SATCOM

PHYSICAL & ELECTRICAL DATA

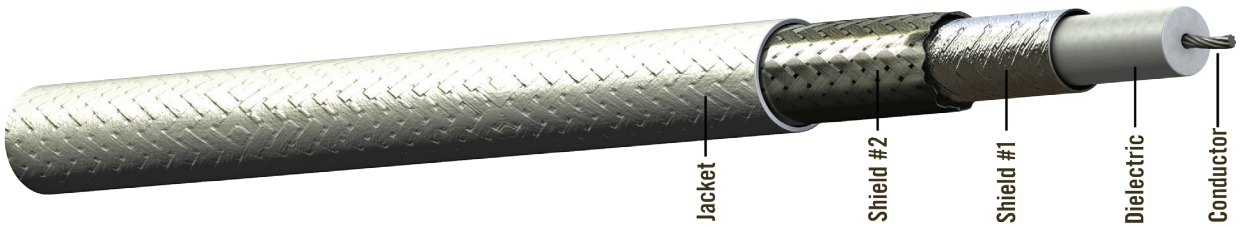
All values nominal, unless otherwise noted

PART #	DATA CONDUCTOR	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	SHIELDING EFFECTIVINESS (dB min)	JACKET
COAX CABLES						
V78209	20 AWG Stranded SPC	3.15 (4.7)	0.211 (5.36)	1.1 (27.9)	-90	Extruded ETFE, White (Laser Markable)
V73263	26 AWG Stranded SPC	1.5 (2.2)	0.125 (3.18)	0.65 (16.51)	-110	Extruded ETFE, White (Laser Markable)
V76261	26 AWG Stranded SPC	1.1 (1.6)	0.122 (3.1)	0.6 (15.24)	-90	Extruded ETFE, White (Laser Markable)
V75268	26 AWG Stranded SPC	1.3 (1.9)	0.122 (3.1)	0.6 (15.24)	-50	Extruded FEP, Red
TRIAX CABLES						
L7626TX	26 AWG Stranded SPC	2.2 (3.3)	0.157 (3.99)	0.8 (3.3)	-90	Extruded ETFE, White (Laser Markable)

Materials Key: SPC – Silver-Plated Copper

75 OHM RF CABLE SOLUTIONS

V78209



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyimide Composite
Shield #2: Tin-Plated Copper Braid
Jacket: Extruded ETFE, White (Laser Markable)

The V78209 75 ohm coaxial cable offers low VSWR and attenuation characteristics for high-definition digital video. The construction of V78209 includes a silver-plated copper center conductor, a foamed fluoropolymer dielectric and it is double-shielded with a braid of tin-plated copper and an aluminized 100% coverage wrapper. Because of the critical effect of impedance-matched terminations, a comprehensive family of 75-ohm connectors are available.

PHYSICAL DATA

Conductor:	20 AWG Stranded SPC
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.211 (5.36)
Minimum Bend Radius: in (mm)	1.1 (27.9)
Weight: lbs/100 ft (kg/100 m)	3.15 (4.7)

ELECTRICAL DATA

Impedance:	75 ohms
Capacitance: pF/ft (m)	16.5 (54.1)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	9.2 (30.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.4 GHz	6.1/6.7	(20.0/22.0)
@ 0.75 GHz	8.6/9.4	(28.2/30.8)
@ 1.5 GHz	12.7/14.0	(41.7/45.9)
@ 3.0 GHz	19.0/21.0	(62.3/68.9)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.282 K2 = 0.0012

RECOMMENDED MAX TRANSMISSION LENGTHS

SMPTE 292M (HD-SDI): f (m)	210 (64)
SMPTE 424M (3G-SDI): f (m)	140 (43)

(Max length based on 20 dB max. Contact system OEM to verify max loss allowed)

All values nominal, unless otherwise noted

V78209 75 OHM COAX CABLE

CONTACTS/CONNECTORS FOR V78209

ARINC CONTACTS

PART #	CONTACT TYPE
190937	Size 8 Pin
190932	Size 8 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190940	Size 8 Pin
190940-01	Size 8 Pin (w/ Environmental Seal)
190941	Size 8 Socket
190941-01	Size 8 Socket (w/ Environmental Seal)

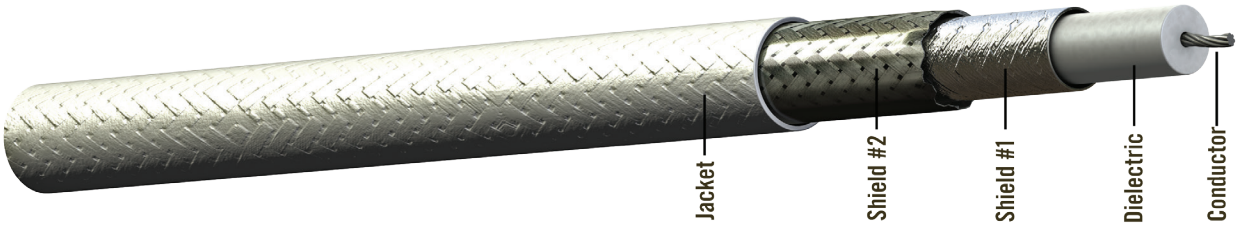
M39012 CONNECTORS

PART #	CONNECTOR TYPE
190912	BNC Straight Plug
110718	HD-BNC Straight Plug
190913	BNC 90° Plug
190945	BNC Mini Straight Plug
190946	BNC Mini 90° Plug
190928	BNC Bulkhead Jack
190944	SMC 75 ohm Female Plug
190908	TNC Straight Plug
190909	TNC 90° Plug
190921	TNC Bulkhead Jack

DIN CONNECTOR

PART #	CONNECTOR TYPE
110844	1.0/2.3 DIN Plug

V73263



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Silver-Plated Copper Spiral Wrap
Shield #2: Tin-Plated Copper Braid
Jacket: Extruded ETFE, White (Laser Markable)

V73263 is a 75 ohm coaxial cable with low VSWR and attenuation characteristics for high-definition digital video applications. The V73263's construction includes a silver-plated copper center conductor, a foamed fluoropolymer dielectric and is double-shielded with a helically-wound silver-plated copper strip and a tin-plated copper braid. This combination yields better than -110 dB shielding effectiveness. Because of the critical effect of impedance-matched terminations, a comprehensive family of 75 ohm connectors are available.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPC
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.125 (3.18)
Minimum Bend Radius: in (mm)	0.65 (16.51)
Weight: lbs/100 ft (kg/100 m)	1.5 (2.2)

ELECTRICAL DATA

Impedance:	75 ohms
Capacitance: pF/ft (m)	16 (52.5)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-110
DC Resistance: ohms/1000 ft (m)	34.5 (113.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.4 GHz	10.2/11.3	(33.5/37.1)
@ 0.75 GHz	14.2/15.7	(46.6/51.5)
@ 1.5 GHz	20.7/22.7	(67.9/74.5)
@ 3.0 GHz	30.3/33.3	(99.4/109.3)
@ 6.0 GHz	44.9/49.4	(147.3/162.1)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)}) + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.487 K2 = 0.0012

RECOMMENDED MAX TRANSMISSION LENGTHS

SMPTE 292M (HD-SDI): f (m)	125 (38)
SMPTE 424M (3G-SDI): f (m)	85 (26)

(Max length based on 20 dB max. Contact system OEM to verify max loss allowed)

All values nominal, unless otherwise noted

V73263 75 OHM COAX CABLE

CONTACTS/CONNECTORS FOR V73263

ARINC CONTACTS

PART #	CONTACT TYPE
190703	Size 5 Socket
190733	Size 5 Socket
190729	Size 8 Socket
190732	Size 8 Socket
190730	Size 16 Socket
110237	Mil-C-81659 Size 9 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190738	Size 8 Pin
190738-01	Size 8 Pin 50 ohm w/seal
190740	Size 8 Pin
190740-01	Size 8 Pin (w/ Environmental Seal)
190766	Size 12 Pin
190735	Size 16 Pin
190739	Size 8 Socket
190739-01	Size 8 Socket (w/ Environmental Seal)
190741	Size 8 Socket
190741-01	Size 8 Socket (w/ Environmental Seal)
190767	Size 12 Socket
190734	Size 16 Socket

DIN CONNECTOR

PART #	CONNECTOR TYPE
110842	1.0/2.3 DIN Plug

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190712	BNC Straight Plug
110717	HD-BNC Straight Plug
111163	HD-BNC 90° Plug
110249	BNC 90° Plug
190745	BNC Mini Straight Plug
111069	BNC Mini 90° Plug
190727	BNC Inline Jack
190728	BNC Bulkhead Jack
110783	BNC HD Straight
110677	F Straight Plug
110218	RCA Straight Plug
190736	SMB Socket
110285	SMC Female Plug
190768	SMC 90° Female Plug
110863	SMZ Straight Female Plug
110865	SMZ 90° Female Plug
190714	SMA Straight Plug
190708	TNC Straight Plug
190721	TNC Bulkhead Jack
190752	MCX 90° Plug

D-SUB CONTACTS

PART #	CONTACT TYPE
110235	Size 8 Pin
190763	Size 8 Pin
110236	Size 8 Socket
190764	Size 8 Socket

V76261

CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyimide Composite
Shield #2: Tin-Plated Copper Braid
Jacket: Extruded ETFE, White (Laser Markable)

The V76261 75 Ohm coaxial cable is substantially stronger (more than twice the tensile strength), has better attenuation characteristics, and has superior shielding effectiveness compared to M17/94-RG179 cables. The V76261 construction includes a stranded silver-plated copper center conductor nearly 60% larger than in RG179 — yet the overall diameter of the cable increases by only 23%. To maintain correct impedance in its small diameter, a foamed fluoropolymer dielectric surrounds the center conductor. The cable is double-shielded with a braid of tin-plated copper and an aluminized 100%-coverage wrapper. This combination yields better than -90 dB shielding effectiveness.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPC
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.122 (3.1)
Minimum Bend Radius: in (mm)	0.6 (15.24)
Weight: lbs/100 ft (kg/100 m)	1.1 (1.6)

ELECTRICAL DATA

Impedance:	75 ohms
Capacitance: pF/ft (m)	16 (52.5)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	34.5 (113.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.135 GHz	5.8/6.4	(19.0/21.0)
@ 0.180 GHz	6.7/7.4	(22.0/24.3)
@ 0.270 GHz	8.3/9.2	(27.2/29.9)
@ 0.360 GHz	9.7/10.6	(31.8/34.8)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.487 K2 = 0.0012

RECOMMENDED MAX TRANSMISSION LENGTHS

SMPTE 259M (SD-SDI Component): f (m)	468 (143)
SMPTE 259M (SD-SDI Widescreen): f (m)	405 (123)

(Max length based on 30 dB max. Contact system OEM to verify max loss allowed)

All values nominal, unless otherwise noted

V76261 75 OHM COAX CABLE

CONTACTS/CONNECTORS FOR V76261

ARINC CONTACTS

PART #	CONTACT TYPE
190703	Size 5 Socket
190733	Size 5 Socket
190729	Size 8 Socket
190732	Size 8 Socket
190730	Size 16 Socket
110237	Mil-C-81659 Size 9 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190738	Size 8 Pin
190738-01	Size 8 Pin 50 ohm w/seal
190740	Size 8 Pin
190740-01	Size 8 Pin (w/ Environmental Seal)
190766	Size 12 Pin
190735	Size 16 Pin
190739	Size 8 Socket
190739-01	Size 8 Socket (w/ Environmental Seal)
190741	Size 8 Socket
190741-01	Size 8 Socket (w/ Environmental Seal)
190767	Size 12 Socket
190734	Size 16 Socket

DIN CONNECTOR

PART #	CONNECTOR TYPE
110842	1.0/2.3 DIN Plug

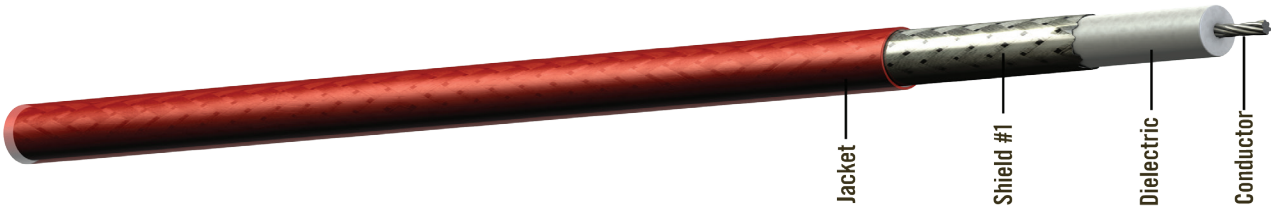
M39012 CONNECTORS

PART #	CONNECTOR TYPE
190712	BNC Straight Plug
110717	HD-BNC Straight Plug
111163	HD-BNC 90° Plug
110249	BNC 90° Plug
190745	BNC Mini Straight Plug
111069	BNC Mini 90° Plug
190727	BNC Inline Jack
190728	BNC Bulkhead Jack
110783	BNC HD Straight
110677	F Straight Plug
110218	RCA Straight Plug
190736	SMB Socket
110285	SMC Female Plug
190768	SMC 90° Female Plug
110863	SMZ Straight Female Plug
110865	SMZ 90° Female Plug
190714	SMA Straight Plug
190708	TNC Straight Plug
190721	TNC Bulkhead Jack
190752	MCX 90° Plug

D-SUB CONTACTS

PART #	CONTACT TYPE
110235	Size 8 Pin
190763	Size 8 Pin
110236	Size 8 Socket
190764	Size 8 Socket

V75268



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Tin-Plated Copper Braid
Jacket: Extruded FEP, Red

V75268 is a 75 ohm coaxial cable that is substantially stronger (more than twice the tensile strength) and has better attenuation characteristics than the M17/94-RG179 cables. The V75268's construction features a silver-plated copper center conductor nearly 60% larger than in RG179 — yet the overall diameter of the cable increases by only 22%. To achieve the correct impedance in this proportionately-smaller diameter, a foamed fluoropolymer dielectric having a high velocity of propagation is employed to surround the center conductor. The cable is 95% (minimum) shielded with a braid of tin-plated copper. A distinctive red fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. Because of the critical effect of impedance-matched terminations, a comprehensive family of 75-ohm connectors are available.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPC
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.122 (3.1)
Minimum Bend Radius: in (mm)	0.6 (15.24)
Weight: lbs/100 ft (kg/100 m)	1.3 (1.9)

ELECTRICAL DATA

Impedance:	75 ohms
Capacitance: pF/ft (m)	16 (52.5)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-50
DC Resistance: ohms/1000 ft (m)	34.5 (113.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 0.135 GHz	5.9/6.5	(19.4/21.3)
@ 0.180 GHz	6.9/7.6	(22.6/24.9)
@ 0.270 GHz	8.6/9.5	(28.2/31.2)
@ 0.360 GHz	10.1/11.1	(33.1/36.4)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss):
K1 =0.478 K2 = 0.0029

RECOMMENDED MAX TRANSMISSION LENGTHS

SMPTE 259M (SD-SDI Component): f (m)	461 (141)
SMPTE 259M (SD-SDI Widescreen): f (m)	394 (120)

(Max length based on 30 dB max. Contact system OEM to verify max loss allowed)

All values nominal, unless otherwise noted

V75268 75 OHM COAX CABLE

CONTACTS/CONNECTORS FOR V75268

ARINC CONTACTS

PART #	CONTACT TYPE
190703	Size 5 Socket
190733	Size 5 Socket
190729	Size 8 Socket
190732	Size 8 Socket
190730	Size 16 Socket
110237	Mil-C-81659 Size 9 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190738	Size 8 Pin
190738-01	Size 8 Pin 50 ohm w/seal
190740	Size 8 Pin
190740-01	Size 8 Pin (w/ Environmental Seal)
190766	Size 12 Pin
190735	Size 16 Pin
190739	Size 8 Socket
197039-01	Size 8 Socket (w/ Environmental Seal)
190741	Size 8 Socket
190741-01	Size 8 Socket (w/ Environmental Seal)
190767	Size 12 Socket
190734	Size 16 Socket

DIN CONNECTOR

PART #	CONNECTOR TYPE
110842	1.0/2.3 DIN Plug

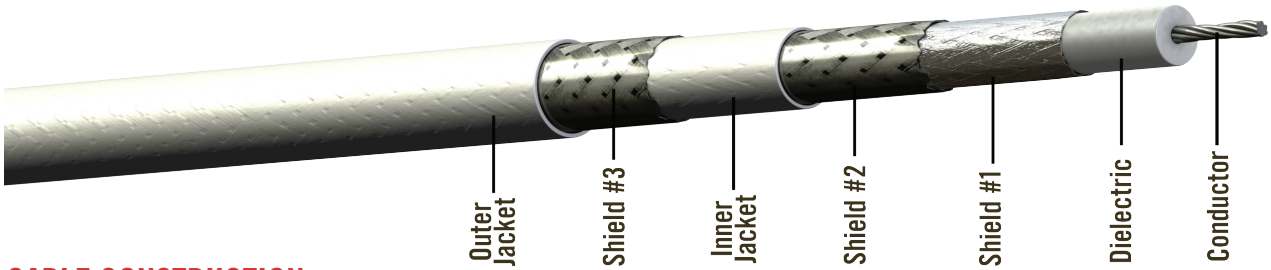
M39012 CONNECTORS

PART #	CONNECTOR TYPE
190712	BNC Straight Plug
110717	HD-BNC Straight Plug
111163	HD-BNC 90° Plug
110249	BNC 90° Plug
190745	BNC Mini Straight Plug
111069	BNC Mini 90° Plug
190727	BNC Inline Jack
190728	BNC Bulkhead Jack
110783	BNC HD Straight
110677	F Straight Plug
110218	RCA Straight Plug
190736	SMB Socket
110285	SMC Female Plug
190768	SMC 90° Female Plug
110863	SMZ Straight Female Plug
110865	SMZ 90° Female Plug
190714	SMA Straight Plug
190708	TNC Straight Plug
190721	TNC Bulkhead Jack
190752	MCX 90° Plug

D-SUB CONTACTS

PART #	CONTACT TYPE
110235	Size 8 Pin
190763	Size 8 Pin
110236	Size 8 Socket
190764	Size 8 Socket

L7626TX



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Composite
Inner Jacket: Extruded ETFE, White
Shield #2: Tin-Plated Copper Braid
Shield #3: Tin-Plated Cooper Braid
Outer Jacket: Extruded ETFE, White (Laser Markable)

L7626TX is a 75 ohm triaxial cable that is used in systems that are susceptible to RFI and noise-generating devices, such video signals in-cabin entertainment and or other systems that need to be isolated. To improve the signal-to-noise ratio and noise pick-up, this cable has an additional outer braid shield insulated from the signal carrying conductors.

For maximum shielding efficiency, triaxial connectors should be used where the isolation of the two shields is maintained through the connectors. Connectors for V75268 and V76261 coax cables can be used to terminate the "inner coax" of L7626TX.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPC
Temperature Range:	-55° to 150°C
Outer Diameter: in (mm)	0.157 (3.99)
Minimum Bend Radius: in (mm)	0.8 (20.32)
Weight: lbs/100 ft (kg/100 m)	2.2 (3.3)

ELECTRICAL DATA

Impedance:	75 ohms
Capacitance: pF/ft (m)	16 (52.5)
Velocity of Propagation:	80%
Time Delay: ns/ft (m)	1.27 (4.17)
Shielding Effectiveness: dB min	-90
DC Resistance: ohms/1000 ft (m)	38.5 (126.3)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: DFARS v252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@ 100 MHz	5.5/6.1	(18.0/20.0)
@ 400 MHz	11.2/12.3	(36.7/40.4)
@ 1.45 GHz	21.6/23.8	(70.9/78.1)
@ 3.0 GHz	31.6/34.8	(103.7/114.2)

Formula for Attenuation:
$(K1 \times \sqrt{F(MHz)} + (K2 \times F(MHz))$

K Values (nom loss): K1 =0.550 K2 = 0.0005

All values nominal, unless otherwise noted

L7626TX 75 OHM TRIAXIAL CABLE

CONTACTS/CONNECTORS FOR L7626TX

ARINC CONTACTS

PART #	CONTACT TYPE
190703	Size 5 Socket
190733	Size 5 Socket
190729	Size 8 Socket
190732	Size 8 Socket
190730	Size 16 Socket
110237	Mil-C-81659 Size 9 Socket

M39029 FOR MIL-C-38999 CONTACTS

PART #	CONTACT TYPE
190738	Size 8 Pin
190738-01	Size 8 Pin 50 ohm w/seal
190740	Size 8 Pin
190740-01	Size 8 Pin (w/ Environmental Seal)
190766	Size 12 Pin
190735	Size 16 Pin
190739	Size 8 Socket
190739-01	Size 8 Socket (w/ Environmental Seal)
190741	Size 8 Socket
190741-01	Size 8 Socket (w/ Environmental Seal)
190767	Size 12 Socket
190734	Size 16 Socket

DIN CONNECTOR

PART #	CONNECTOR TYPE
110842	1.0/2.3 DIN Plug

M39012 CONNECTORS

PART #	CONNECTOR TYPE
190712	BNC Straight Plug
110717	HD-BNC Straight Plug
111163	HD-BNC 90° Plug
110249	BNC 90° Plug
190745	BNC Mini Straight Plug
111069	BNC Mini 90° Plug
190727	BNC Inline Jack
190728	BNC Bulkhead Jack
110783	BNC HD Straight
110677	F Straight Plug
110218	RCA Straight Plug
190736	SMB Socket
110285	SMC Female Plug
190768	SMC 90° Female Plug
110863	SMZ Straight Female Plug
110865	SMZ 90° Female Plug
190714	SMA Straight Plug
190708	TNC Straight Plug
190721	TNC Bulkhead Jack
190752	MCX 90° Plug

D-SUB CONTACTS

PART #	CONTACT TYPE
110235	Size 8 Pin
190763	Size 8 Pin
110236	Size 8 Socket
190764	Size 8 Socket

As aircraft avionics become more complex, the need for increased bandwidth and reliability becomes increasingly important. With Ethernet replacing ARINC 429 point-to-point connections, the industry needs scalable networks that provide the best quality of service without fail.

For over 50 years, PIC Wire & Cable has been the trusted source for aerospace cable. PICMates Ethernet Cables include 1 pair, 2 pair, 4 pair, Power Over Ethernet (PoE) and Quadrax 100 ohm shielded Ethernet cables carrying high-speed data up to 10G. Our specially engineered Cat5e/6/6a cables perform high-speed transmission needs in aircraft cabins or flight decks.

APPLICATIONS:

- Avionics Network
- Cabin/Flight Management Systems
- Digital Video Systems
- Ethernet Backbone
- Content Loading
- Data Transfer
- Electronic Flight Bag (EFB)
- Portable Electronic Devices
- Power Remote Devices
- Program Upgrades (commercial/business)

PHYSICAL & ELECTRICAL DATA (1 PAIR CABLES)

All values nominal, unless otherwise noted

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E10222	CAT5E 10/100 BASE-T	22 AWG TPC	ETFE, White (Laser Markable)	2.3 (3.4)	0.19 (4.8)	-55/+150°C	328 (100)
E5E2222-D	CAT5E 10/100 BASE-T	22 AWG SPC	ETFE, White (Laser Markable)	2.38 (3.51)	0.183 (4.64)	-55/+200°C	328 (100)
E13224	CAT5E 10/100 BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	2.2 (3.3)	0.168 (4.27)	-55/+200°C	328 (100)
E60224	CAT5E 10/100 BASE-T	24 AWG SPC	ETFE, White (Laser Markable)	0.9 (1.3)	0.102 (2.59)	-55/+200°C	*
E20244	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	1.07 (1.6)	0.141 (3.58)	-55/+200°C	273 (83)
E12224	CAT5E 10/100 BASE-T	24 AWG TPC	ETFE, White (Laser Markable)	1.58 (2.4)	0.146 (3.71)	-55/+150°C	255 (78)
E61224	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	1.98 (3.0)	0.159 (4.04)	-55/+200°C	328 (100)
E10224	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	2.18 (3.2)	0.163 (4.06)	-55/+200°C	328 (100)
E13226	CAT5E 10/100 BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	1.7 (2.5)	0.134 (3.4)	-55/+200°C	224 (68)

PHYSICAL & ELECTRICAL DATA (2 PAIR CABLES)

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E10422	CAT5E 10/100 BASE-T	22 AWG SPC	ETFE, White (Laser Markable)	3.7 (5.5)	0.295 (7.49)	-55/+200°C	328 (100)
E13424	CAT5E 10/100 BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	2.9 (4.3)	0.224 (5.69)	-55/+200°C	268 (82)
E12424	CAT5E 10/100 BASE-T	24 AWG TPC	ETFE, White (Laser Markable)	2.3 (3.4)	0.208 (5.28)	-55/+150°C	257 (78)
E61424	CAT5E 10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	2.98 (4.4)	0.223 (5.66)	-55/+200°C	269 (82)
E10424	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	3.3 (4.9)	0.21 (5.28)	-55/+200°C	268 (82)
E20424	CAT5E 10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	4.18 (6.2)	0.265 (6.73)	-55/+200°C	296 (90)
E13426	CAT5E 10/100 BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	2.0 (2.9)	0.16 (3.99)	-55/+200°C	224 (68)

Materials Key: **TPC** – Tin-Plated Copper, **SPC** – Silver-Plated Copper, **SPHSCA** – Silver-Plated High Strength Copper Alloy, **no maximum distance*

100 OHM ETHERNET CABLE SOLUTIONS

PHYSICAL & ELECTRICAL DATA (QUADRAXIAL CABLES)

All values nominal, unless otherwise noted

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E51424	10/100 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	2.2 (3.3)	0.161(4.09)	-55/+150°C	255 (78)
E50424	10/100 BASE-T	24 AWG SPC	FEP, Translucent Blue	2.7 (4.0)	0.17 (4.32)	-55/+200°C	236 (72)
E51426	10/100 BASE-T	26 AWG SPHSCA	ETFE, White (Laser Markable)	1.8 (2.7)	0.137 (3.48)	-55/+150°C	214 (65)
E51428	10/100 BASE-T	28 AWG SPHSCA	PTFE, White (Laser Markable)	1.0 (1.5)	0.115 (2.92)	-55/+200°C	170 (52)

PHYSICAL & ELECTRICAL DATA (4 PAIR CABLES)

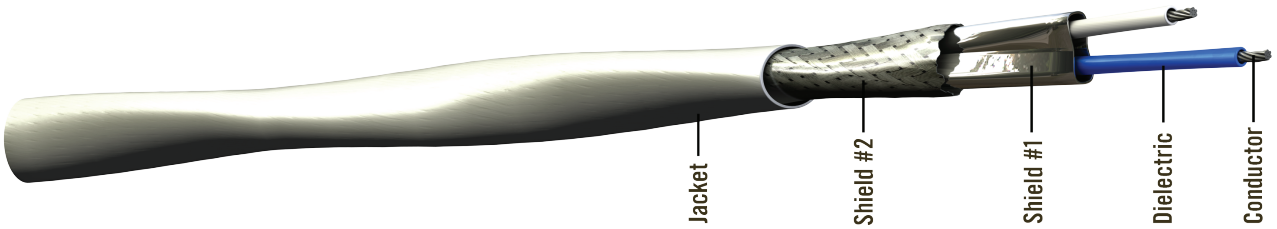
PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E84824	CAT8 40G BASE-T	24 AWG SPCA	ETFE, White (Laser Markable)	4.6 (2.08)	0.28 (7.1)	-55/+200°C	90 (27)
E74824	CAT7 10G BASE-T	24 AWG SPCA	ETFE, White (Laser Markable)	4.7 (7.0)	0.28 (7.11)	-55/+200°C	296 (90)
E74826	CAT7 10G BASE-T	26 AWG SPCA	ETFE, White (Laser Markable)	3.3 (4.9)	0.23 (5.84)	-55/+200°C	230 (70)
E6A5824	CAT6A 10G BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	4.2 (6.3)	0.255 (6.6)	-55/+200°C	296 (90)
E6A6824	CAT6A 10G BASE-T	24 AWG SPHSCA	PTFE, White (Laser Markable)	4.4 (6.5)	0.26 (6.6)	-55/+200°C	246 (75)
E6A0824	CAT6A 10G BASE-T	24 AWG SPC	FEP, Translucent Blue	5.28 (7.9)	0.275 (6.99)	-55/+200°C	246 (75)
E6A5826	CAT6A 10G BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	3.0 (4.5)	0.215 (5.46)	-55/+200°C	230 (70)
E6A6826	CAT6A 10G BASE-T	26 AWG SPHSCA	PTFE, White (Laser Markable)	3.2 (4.8)	0.22 (5.59)	-55/+200°C	214 (65)
DV0824	CAT5E 1000 BASE-T	24 AWG SPHSCA	ETFE, White (Laser Markable)	7.7 (11.5)	0.35 (8.89)	-55/+200°C	*
E50824	CAT5E 1000 BASE-T	24 AWG SPC	FEP, Translucent Blue	5.0 (7.4)	0.265 (6.73)	-55/+200°C	268 (82)

POWER OVER ETHERNET (PoE)

PART #	SPEED RATING	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	MAX. DISTANCE FT (M)
E5E3624	CAT5E	24 AWG SPCA	PTFE, White (Laser Markable)	4.5 (6.7)	0.25 (6.35)	-55/+200°C	268 (82)
E5E1724	CAT5E	24 AWG TPC	ETFE, White (Laser Markable)	3.56 (5.3)	0.208 (5.28)	-55/+150°C	257 (78)

Materials Key: **TPC** – Tin-Plated Copper, **SPC** – Silver-Plated Copper, **SPCA** – Silver-Plated Copper Alloy, **SPHSCA** – Silver-Plated High Strength Copper Alloy, **no maximum distance*

E10222



CABLE CONSTRUCTION

Conductors: Tin-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Tin-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E10222 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters. The stranded tin-plated copper conductors protect against vibration, oxidation, and corrosion. Its 100% foil and 90% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E10222 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	22 AWG Stranded TPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.19 (4.8)
Minimum Bend Radius: in (mm)	0.95 (24.13)
Weight: lbs/100 ft (kg/100 m)	2.3 (3.4)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	15.8 (51.8)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

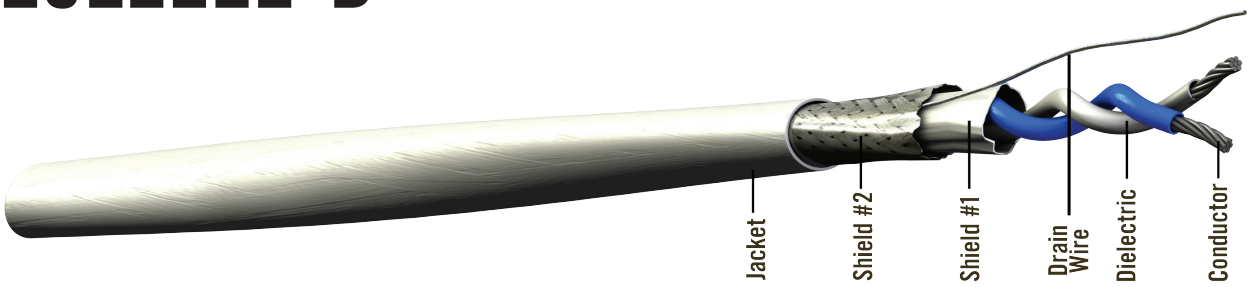
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.5/1.8	(4.9/5.9)
@100 MHz	5.4/6.5	(17.7/21.3)

All values nominal, unless otherwise noted

E10222 CAT 5E ETHERNET CABLE

E5E2222-D



CABLE CONSTRUCTION

Conductors: Stranded Silver Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Drain Wire: 24 AWG Silver-Plated Copper
Shield #2: Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E5E2222-D is a 1 pair, 10/100 Base-T CAT5e cable specially designed for airborne applications such as cabin management, in-flight entertainment, and internet backbones. The E5E2222-D's twisted-pair construction of silver-plated copper conductors assures uniform conductivity with excellent solderability. The 90% braided shielding assures uniform conductivity with excellent solderability, further protecting against EMI. An ETFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	22 AWG stranded SPC
Shield Coverage:	100% (Foil) 90% (Braid)
Temperature Range:	-55°C to +200°C
Outer Diameter: in (mm)	0.183 (4.64)
Minimum Bend Radius: in (mm)	0.9 (22.86)
Weight: lbs/100 ft (kg/100 m)	2.38 (3.51)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.65)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	17.5 (57.4)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

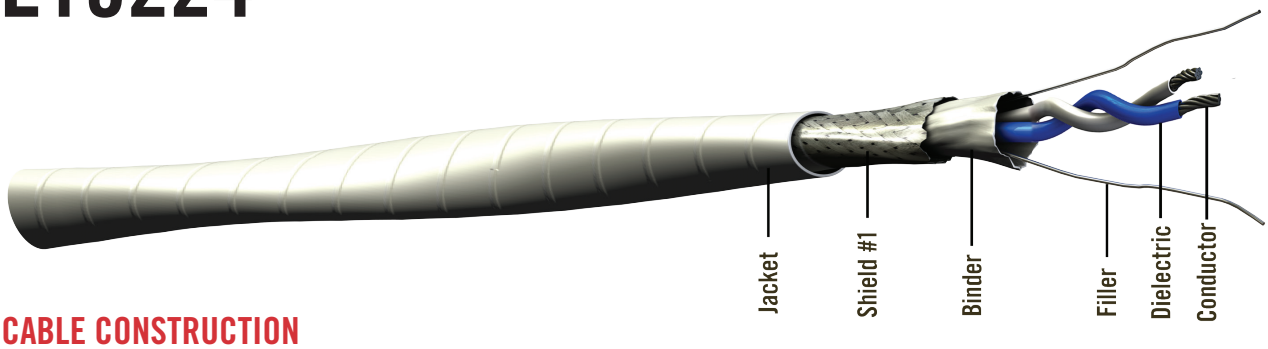
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.5/1.8	(4.9/5.9)
@100 MHz	5.4/7.3	(17.7/24.0)

All values nominal, unless otherwise noted

E5E2222-D CAT 5E ETHERNET CABLE

E13224



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Binder: PTFE Tape
Fillers: Fluoropolymer
Shield #1: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E13224 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 328 ft. The twisted-pair construction (two separate pairs) of silver-plated copper conductors assures uniform conductivity with excellent solderability. Its 80% braided shielding provide mechanical strength and EMI protection yet maintain weight and flexibility. A durable PTFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E13224 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.168 (4.27)
Minimum Bend Radius: in (mm)	0.85 (21.59)
Weight: lbs/100 ft (kg/100 m)	2.2 (3.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

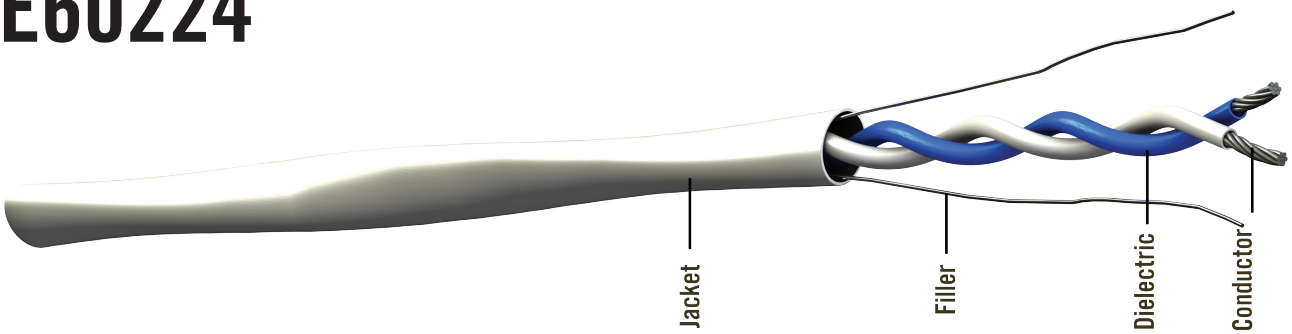
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.8/2.1	(5.9/6.9)
@100 MHz	5.8/7.0	(19.0/23.0)

All values nominal, unless otherwise noted

E13224 CAT 5E ETHERNET CABLE

E60224



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: FEP
Fillers: Fluoropolymer
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E60224 is a 1 pair, 10/100 Base-T CAT5e cable specially designed for airborne applications as defined by ARINC Specification 664. The E60224 cable is unshielded and designed for specific entertainment systems not requiring shielding. Without the shield, termination time and weight are reduced. The twisted-pair construction of silver-plated copper conductors assures uniform conductivity with excellent solderability. A laser-markable ETFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.102 (2.59)
Minimum Bend Radius: in (mm)	0.6 (15.24)
Weight: lbs/100 ft (kg/100 m)	0.9 (1.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

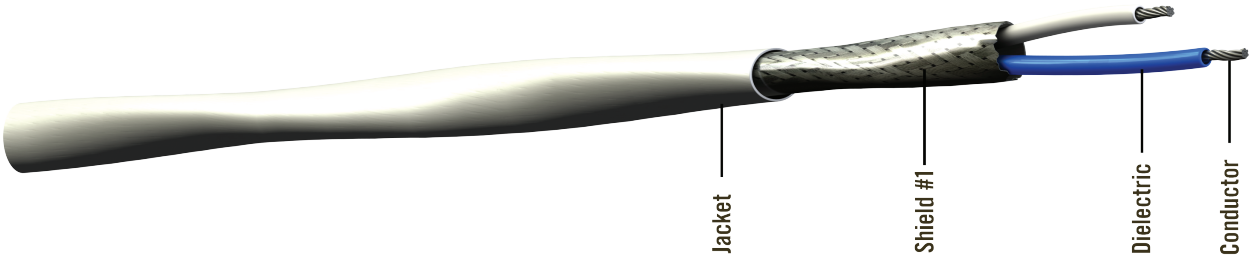
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.9/2.4	(6.2/7.9)
@100 MHz	7.2/8.0	(23.6/26.2)

All values nominal, unless otherwise noted

E60224 CAT 5E ETHERNET CABLE

E20244



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Shield #1: Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E20244 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 273 ft. The twisted-pair construction of silver-plated copper alloy conductors assures uniform conductivity with excellent solderability. The 80% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E20244 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.141 (3.58)
Minimum Bend Radius: in (mm)	0.75 (19.05)
Weight: lbs/100 ft (kg/100 m)	1.07 (1.6)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	273 (83)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

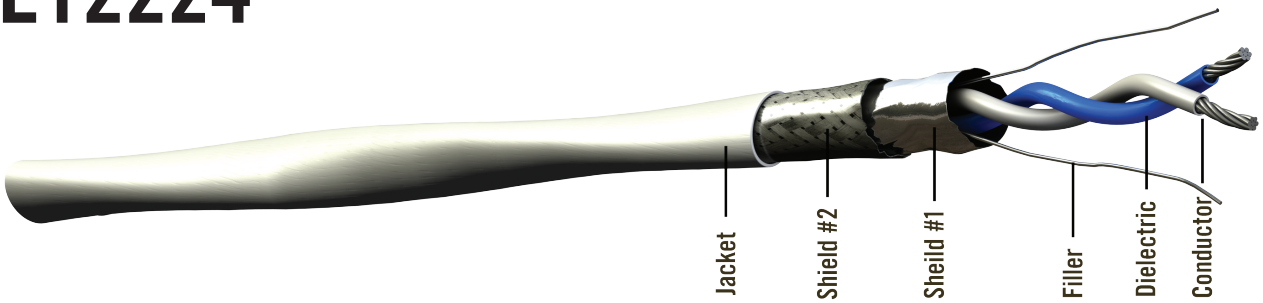
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.1/2.6	(6.9/8.5)
@100 MHz	7.7/8.7	(25.3/28.5)

All values nominal, unless otherwise noted

E20244 CAT 5E ETHERNET CABLE

E12224



CABLE CONSTRUCTION

Conductors: Tin-Plated Copper
Dielectric: FEP
Fillers: Fluoropolymer
Shield #1: Aluminum/Polyester Foil
Shield #2: Tin-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E12224 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 255 ft. The stranded tin-plated copper conductors protect against vibration, oxidation, and corrosion. The 100% foil and 85% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E12224 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded TPC
Shield Coverage:	100% (Foil), 85% (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.146 (3.71)
Minimum Bend Radius: in (mm)	0.75 (19.05)
Weight: lbs/100 ft (kg/100 m)	1.58 (2.4)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	255 (78)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

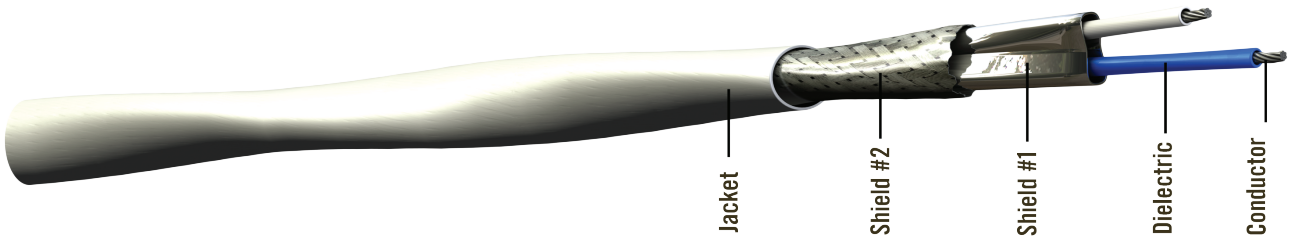
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.3/2.7	(7.5/8.9)
@100 MHz	8.0/9.2	(26.2/30.2)

All values nominal, unless otherwise noted

E12224 CAT 5E ETHERNET CABLE

E61224



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E61224 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 328 ft. The twisted-pair construction of silver-plated copper alloy conductors assures uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E61224 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.159 (4.04)
Minimum Bend Radius: in (mm)	1.25 (31.75)
Weight: lbs/100 ft (kg/100 m)	1.98 (3.0)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

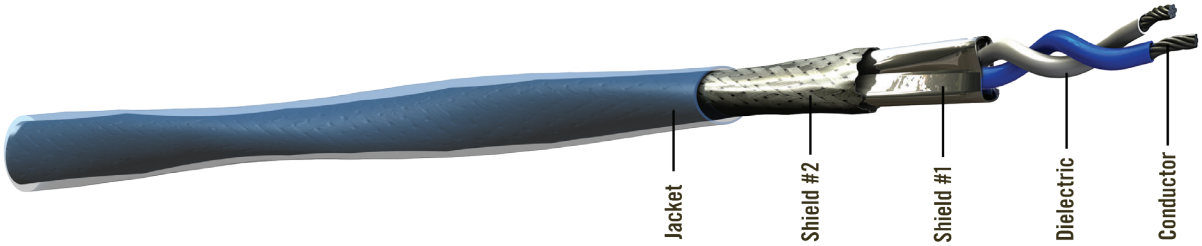
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.8/2.1	(5.9/6.9)
@100 MHz	5.8/7.0	(19.0/23.0)

All values nominal, unless otherwise noted

E61224 CAT 5E ETHERNET CABLE

E10224



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Silver-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: White/Blue

The E10224 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters. The twisted-pair construction of silver-plated copper alloy conductors assures uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E10224 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.163 (4.14)
Minimum Bend Radius: in (mm)	0.9 (22.86)
Weight: lbs/100 ft (kg/100 m)	2.18 (3.2)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

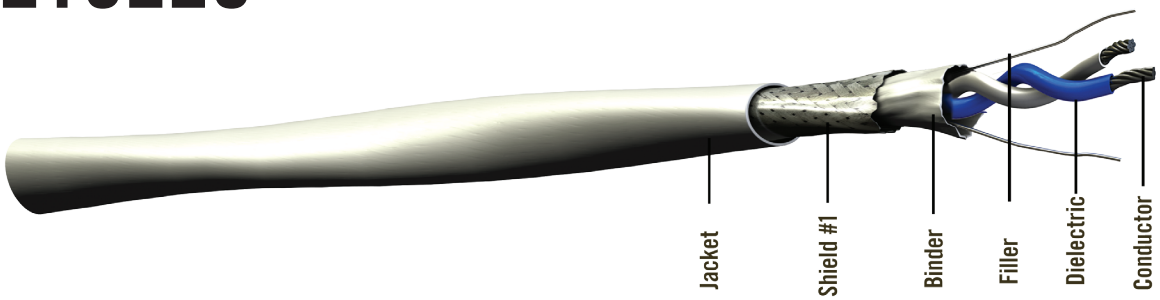
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.8/2.1	(5.9/6.9)
@100 MHz	5.8/7.0	(19.0/23.0)

All values nominal, unless otherwise noted

E10224 CAT 5E ETHERNET CABLE

E13226



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PTFE or PFA
Filler: Fluoropolymer
Binder: PTFE Tape
Shield #1: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue

The E13226 is a 1 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 224 ft. The twisted-pair construction of silver-plated high-strength copper alloy conductors assures uniform conductivity with excellent solderability. A durable PTFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E13226 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.134 (3.4)
Minimum Bend Radius: in (mm)	0.4 (10.16)
Weight: lbs/100 ft (kg/100 m)	1.7 (2.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	224 (68)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

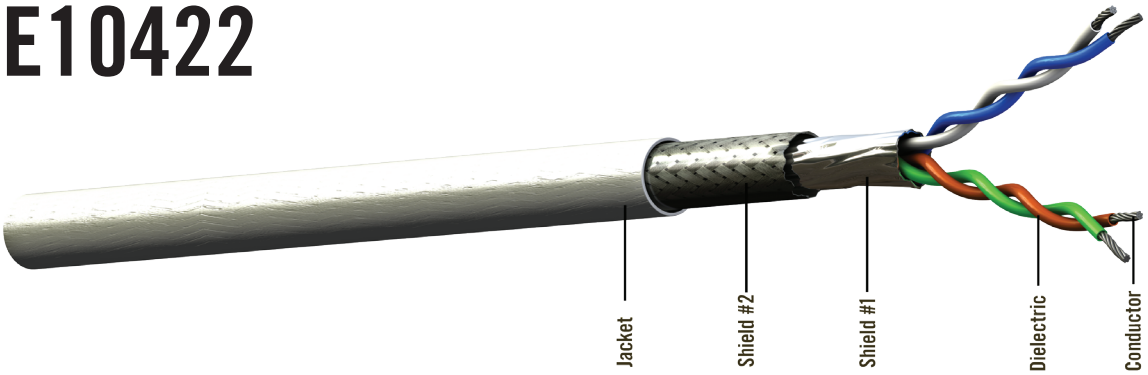
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.7/3.1	(8.9/10.2)
@100 MHz	8.7/10.5	(28.5/34.4)

All values nominal, unless otherwise noted

E13226 CAT 5E ETHERNET CABLE

E10422



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E10422 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 328 ft. The twisted-pair construction of silver-plated copper alloy conductors assures uniform conductivity with excellent solderability. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E10422 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	22 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.295 (7.49)
Minimum Bend Radius: in (mm)	2.8 (71.12)
Weight: lbs/100 ft (kg/100 m)	3.7 (5.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	15.2 (49.9)
Max Distance*: ft (m)	328 (100)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

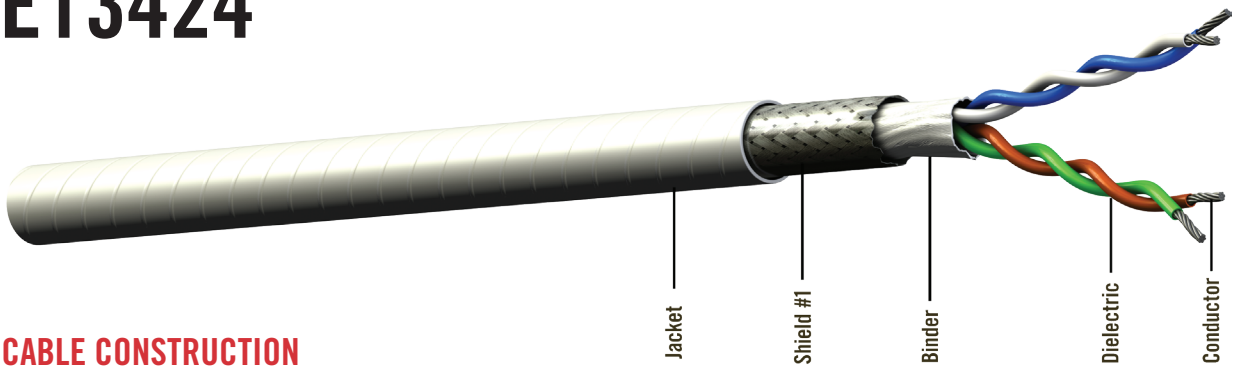
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.4/1.7	(4.6/5.6)
@100 MHz	4.5/5.4	(14.8/17.7)

All values nominal, unless otherwise noted

E10422 CAT 5E ETHERNET CABLE

E13424



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Binder: PTFE Tape
Shield #1: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E13424 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 268 ft. The E13424's twisted-pair construction (two separate pairs) of silver -plated copper conductors is surrounded by a PFA dielectric that assures uniform conductivity with excellent solderability. The 80% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. A laser-markable PTFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E13424 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.224 (5.69)
Minimum Bend Radius: in (mm)	0.75 (19.05)
Weight: lbs/100 ft (kg/100 m)	2.9 (4.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	268 (82)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.0/7.2	(19.7/23.6)

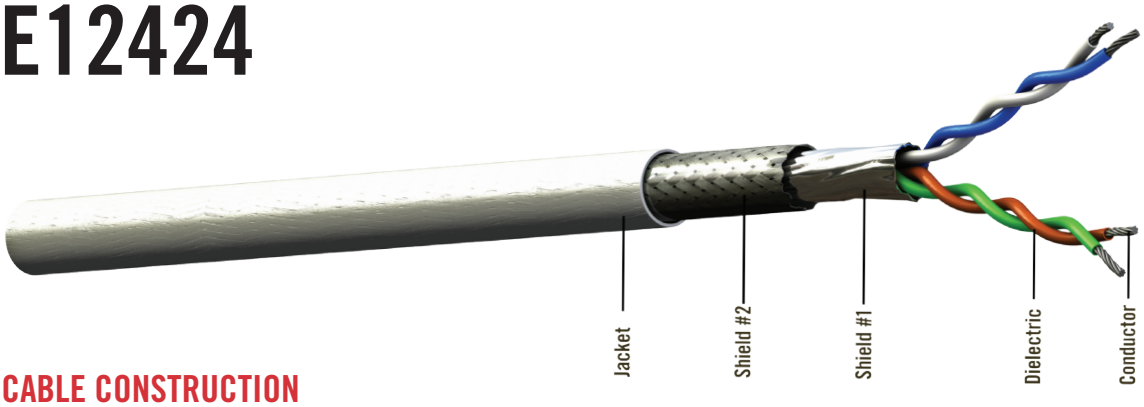
All values nominal, unless otherwise noted

E13424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E13424

PART #	CONTACT TYPE	TOOL PART #
190007	Shielded CAT 5e, Plug w/Strain Relief Sleeve (568A)	**110340** - RJ45 Crimp Tool
190015	Shielded CAT 5e, Plug w/Strain Relief Sleeve (ISDN)	**110340** - RJ45 Crimp Tool
110362	Shielded CAT 5e/CAT6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
190061	Shielded CAT 5e, Plug w/Protective Boot (568A)	**110340** - RJ45 Crimp Tool
190062	Shielded CAT 5e, Plug w/Protective Boot (ISDN)	**110340** - RJ45 Crimp Tool
110788	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E12424



CABLE CONSTRUCTION

Conductors: Tin-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Tin-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E12424 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters. The E12424's twisted-pair construction (two separate pairs) of tin-plated copper conductors is surrounded by a foamed fluoropolymer dielectric that assures uniform conductivity with excellent solderability. The 100% foil and 85% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. An ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E12424 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded TPC
Shield Coverage:	100% (Foil), 85% (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.208 (5.28)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.3 (3.4)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	257 (78)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.3/2.7	(7.5/8.9)
@100 MHz	6.2/7.5	(20.3/24.6)

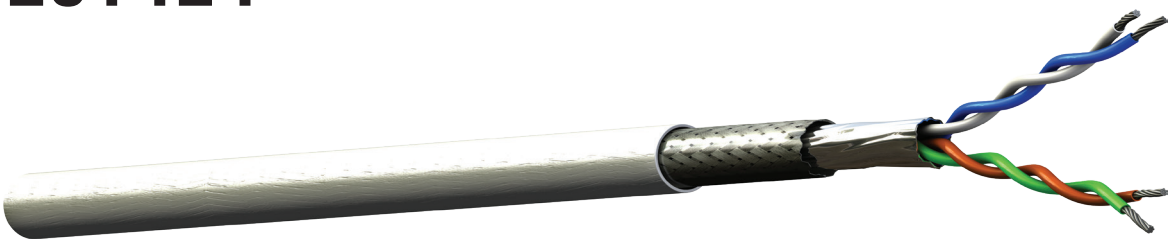
All values nominal, unless otherwise noted

E12424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E12424

PART #	CONTACT TYPE	TOOL PART #
190007	Shielded CAT 5e, Plug w/Strain Relief Sleeve (568A)	**110340** - RJ45 Crimp Tool
190015	Shielded CAT 5e, Plug w/Strain Relief Sleeve (ISDN)	**110340** - RJ45 Crimp Tool
110362	Shielded CAT 5e/CAT6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
190061	Shielded CAT 5e, Plug w/Protective Boot (568A)	**110340** - RJ45 Crimp Tool
190062	Shielded CAT 5e, Plug w/Protective Boot (ISDN)	**110340** - RJ45 Crimp Tool
110788	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E61424



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E61424 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 269 ft. The twisted-pair construction of silver-plated high-strength copper alloy conductors assures uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E61424 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.223 (5.66)
Minimum Bend Radius: in (mm)	1.75 (44.45)
Weight: lbs/100 ft (kg/100 m)	2.98 (4.4)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13.5 (44.3)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	269 (82)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.0/7.2	(19.7/23.6)

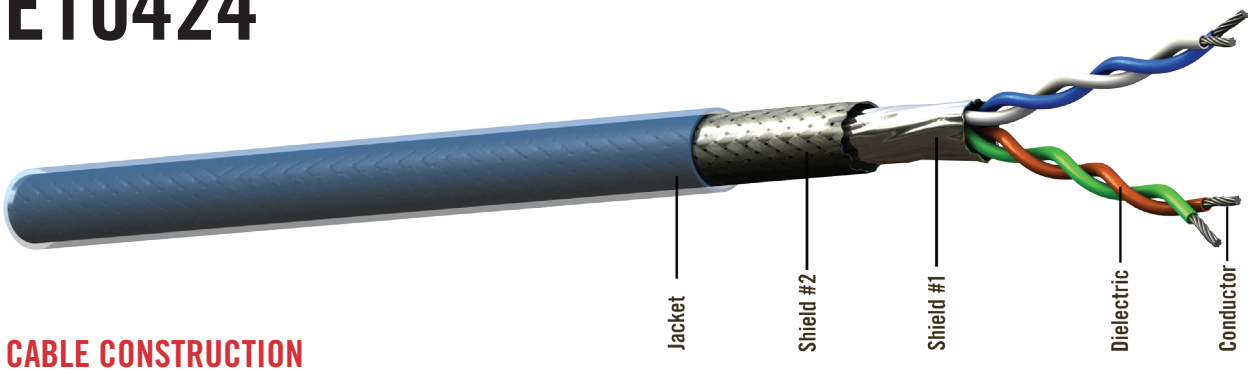
All values nominal, unless otherwise noted

E61424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E61424

PART #	CONTACT TYPE	TOOL PART #
190007	Shielded CAT 5e, Plug w/Strain Relief Sleeve (568A)	**110340** - RJ45 Crimp Tool
190015	Shielded CAT 5e, Plug w/Strain Relief Sleeve (ISDN)	**110340** - RJ45 Crimp Tool
110362	Shielded CAT 5e/CAT6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
190061	Shielded CAT 5e, Plug w/Protective Boot (568A)	**110340** - RJ45 Crimp Tool
190062	Shielded CAT 5e, Plug w/Protective Boot (ISDN)	**110340** - RJ45 Crimp Tool
110788	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E10424



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2 Silver-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E10424 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 268 ft. The twisted-pair construction of silver-plated copper conductors assures uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding provide mechanical strength and EMI protection and maintain weight and flexibility. A durable FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E10424 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.21 (5.28)
Minimum Bend Radius: in (mm)	1.1 (27.94)
Weight: lbs/100 ft (kg/100 m)	3.3 (4.9)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	268 (82)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.0/7.2	(19.7/23.6)

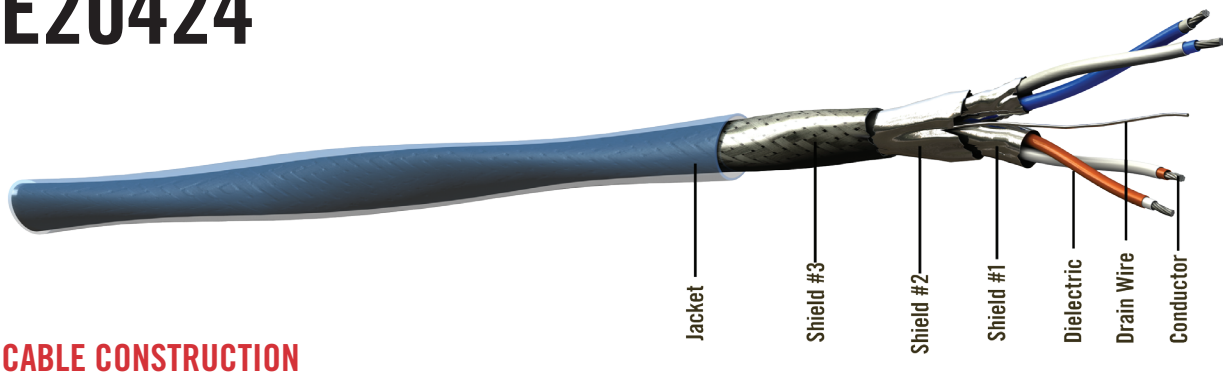
All values nominal, unless otherwise noted

E10424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E10424

PART #	CONTACT TYPE	TOOL PART #
190007	Shielded CAT 5e, Plug w/Strain Relief Sleeve (568A)	**110340** - RJ45 Crimp Tool
190015	Shielded CAT 5e, Plug w/Strain Relief Sleeve (ISDN)	**110340** - RJ45 Crimp Tool
110362	Shielded CAT 5e/CAT6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
190061	Shielded CAT 5e, Plug w/Protective Boot (568A)	**110340** - RJ45 Crimp Tool
190062	Shielded CAT 5e, Plug w/Protective Boot (ISDN)	**110340** - RJ45 Crimp Tool
110788	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool **190048** - Insulation Compression Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E20424



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: Dual Layer FEP
Shield #1: Aluminum/Polyester Foil (each pair)
Drain Wire: Tin-Plated Copper
Shield #2: Aluminum/Polyester
Shield #3: Silver-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: White w/Blue Inner, Blue w/White Inner
Pair #2: Orange w/White Inner, White w/Orange Inner

The E20424 is a 2 pair, 10/100 Base-T CAT5e cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E20424 allows a smaller overall diameter and weight while retaining performance and required operating parameters. The E20424's twisted-pair construction (two separate pairs) of silver-plated copper conductors is surrounded by dual-layer foamed/solid fluoropolymer dielectric that assures uniform conductivity with excellent solderability. Removal of the outer foamed layer reveals the inner solid insulation of a diameter compatible with conventional RJ45 connector terminations.

The 100% foil (for each pair, as well as the entire cable) and 90% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI*. An FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

*The individual pair foil shields are also isolated from the overall foil shield for additional protection.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.265 (6.73)
Minimum Bend Radius: in (mm)	1.3 (33.02)
Weight: lbs/100 ft (kg/100 m)	4.18 (6.2)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13.4 (44)
Velocity of Propagation:	76%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	296 (90)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.4	(7.2/7.9)
@100 MHz	7.6/8.0	(24.9/26.2)

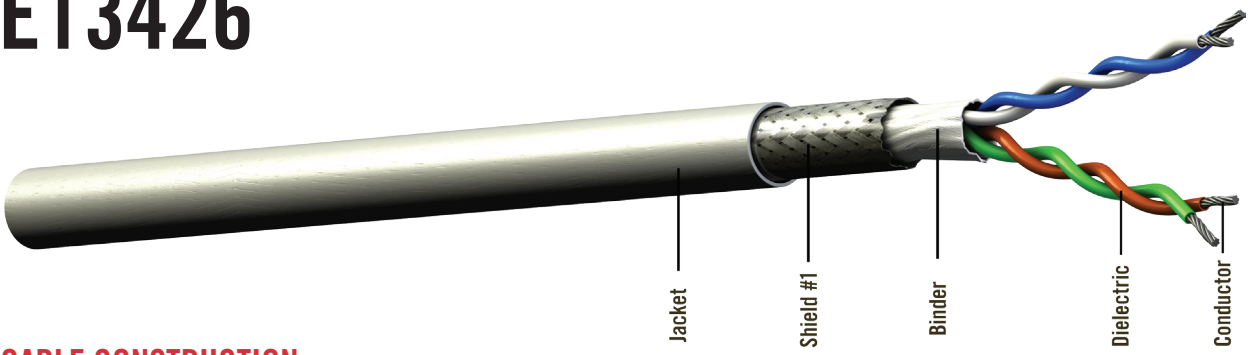
All values nominal, unless otherwise noted

E20424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E20424

PART #	CONTACT TYPE	TOOL PART #
110787	Shielded CAT 6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110303	Shielded CAT 6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool
110339	Shielded CAT 6, Plug w/Protective Boot	**110288** - RJ45 Crimp Tool
110361	Shielded CAT 6 Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool
110912	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers

E13426



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Binder: PTFE Tape
Shield #1: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E13426 is a 2 pair, 10/100 Base-T CAT5e cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) with a smaller overall diameter and weight while retaining performance and required operating parameters up to 224 ft. The E13426's twisted-pair construction (two separate pairs) of silver-plated copper conductors is surrounded by a PFA dielectric that assures uniform conductivity with excellent solderability. The 80% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. A laser-markable PTFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E13426 is suitable for airborne 10/100 Base-T CAT5e Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.16 (3.99)
Minimum Bend Radius: in (mm)	0.5 (12.7)
Weight: lbs/100 ft (kg/100 m)	2.0 (2.9)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	224 (68)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.7/3.1	(9.8/10.2)
@100 MHz	8.7/10.5	(28.5/34.4)

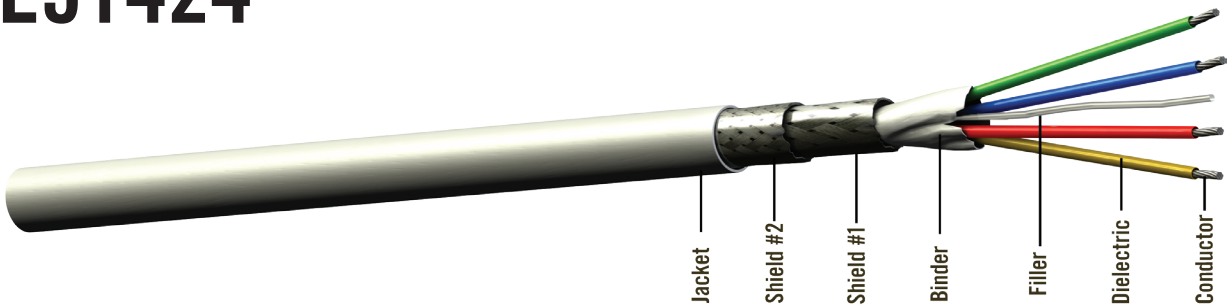
All values nominal, unless otherwise noted

E13426 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E13426

PART #	CONTACT TYPE	TOOL PART #
110506	Shielded CAT 5e/CAT6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110726	Shielded CAT 6, Plug w/Protective Boot	**110288** - RJ45 Crimp Tool
110789	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF)ruggedized backshell)	**110288** - RJ45 Crimp Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E51424



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Binder: PTFE Tape
Filler: Fluoropolymer
Shield #1: Tin-Plated Copper Inner Flat Strip Braid
Shield #2: Tin-Plated Copper Round Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: Red/Blue
Pair #2: Yellow/Green

The E51424 is a 100 Base-T Quadrax cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E51424 allows a smaller overall diameter and weight while exceeding Category 5e requirements. The E51424's construction of silver-plated copper conductors is surrounded by fluoropolymer dielectric that assures uniform conductivity with excellent solderability. E51424 is designed to be terminated with ARINC 600 and D38999 quad-type contacts and is compatible with any contact designed for Tensolite cable part number NF24Q100-01.

The 90% inner braid and 85% outer braided shielding provides double shielding to preserve technical performance. An ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	90% Inner (Braid), 85% Outer (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.161 (4.09)
Minimum Bend Radius: in (mm)	0.8 (20.32)
Weight: lbs/100 ft (kg/100 m)	2.2 (3.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	255 (78)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.3/2.7	(7.5/8.9)
@100 MHz	8.0/9.2	(26.2/30.2)

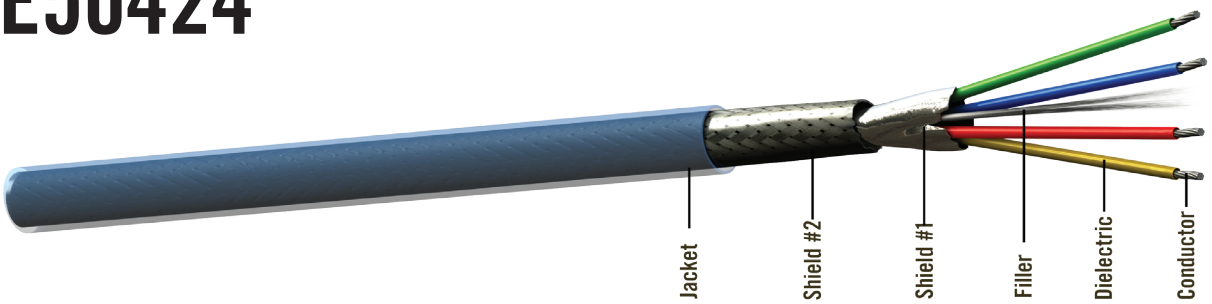
All values nominal, unless otherwise noted

E51424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E51424

PART #	CONTACT TYPE	TOOL PART #
110506	Shielded CAT 5e/CAT6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110558	Shielded CAT 5e/CAT 6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110726	Shielded CAT 5e/CAT 6, Plug w/Protective Boot	**110288** - RJ45 Crimp Tool
110789	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF)ruggedized backshell)	**110288** - RJ45 Crimp Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E50424



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: PTFE
Filler: Yarn
Shield #1: Aluminum/Kapton Foil
Shield #2: Silver-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: Red/Blue
Pair #2: Yellow/Green

The E50424 is 100 Base-T Quadrax cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E50424 allows a smaller overall diameter and weight while exceeding Category 5e requirements. The E50424's construction of silver-plated copper conductors is surrounded by fluoropolymer dielectric insulation assuring uniform conductivity with excellent solderability. E50424 is designed to be terminated with ARINC 600 and D38999 quadrax contacts and is compatible with any contact designed for Draca Fileca cable P/N F4704.

The 100% foil and 85% braided shielding provide double shielding to preserve technical performance. A fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 85% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.17 (4.32)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.7 (4.0)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	69.5%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	24.2 (79.4)
Max Distance*: ft (m)	236 (72)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/3.0	(7.2/9.8)
@100 MHz	7.1/8.2	(23.3/26.9)

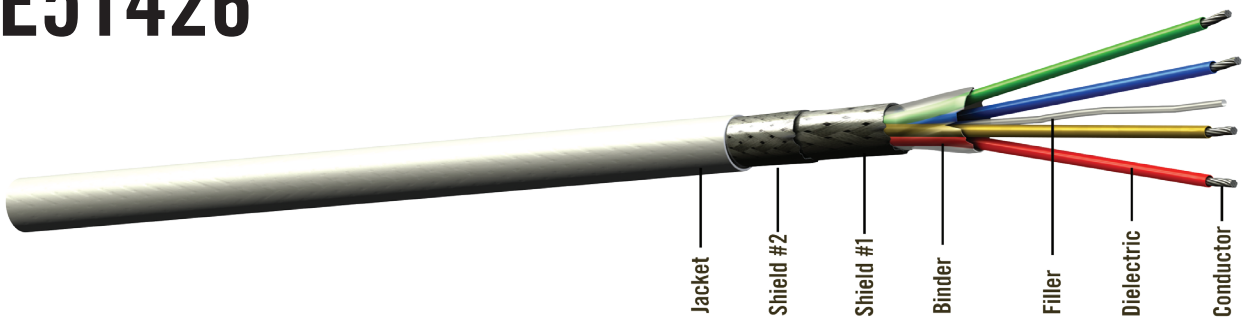
All values nominal, unless otherwise noted

E50424 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E50424

PART #	CONTACT TYPE	TOOL PART #
190007	Shielded CAT 5e, Plug w/Strain Relief Sleeve (568A)	**110340** - RJ45 Crimp Tool
190015	Shielded CAT 5e, Plug w/Strain Relief Sleeve (ISDN)	**110340** - RJ45 Crimp Tool
190061	Shielded CAT 5e, Plug w/Protective Boot (568A)	**110340** - RJ45 Crimp Tool
190062	Shielded CAT 5e, Plug w/Protective Boot (ISDN)	**110340** - RJ45 Crimp Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E51426



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Binder: PTFE Tape
Filler: Fluoropolymer
Shield #1: Tin-Plated Copper Inner Flat Strip Braid
Shield #2: Tin-Plated Copper Round Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: Red/Blue
Pair #2: Yellow/Green

The E51426 is a 100 Base-T Quadrax cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E51426 allows a smaller overall diameter and weight while exceeding Category 5e requirements. The E51426's construction of high-strength copper alloy conductors is surrounded by fluoropolymer insulation assuring uniform conductivity with excellent solderability. E51426 is designed to be terminated with ARINC 600 and D38999 quadrax contacts and is compatible with any contact designed for Tensolite cable part number NF26Q100. The 90% inner braid and 85% outer braided shielding provide double shielding to preserve technical performance. An ETFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	90% Inner (Braid), 85% Outer (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.137 (3.48)
Minimum Bend Radius: in (mm)	0.7 (17.78)
Weight: lbs/100 ft (kg/100 m)	1.8 (2.7)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	214 (65)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.8/3.2	(9.2/10.5)
@100 MHz	9.6/11.0	(31.5/36.1)

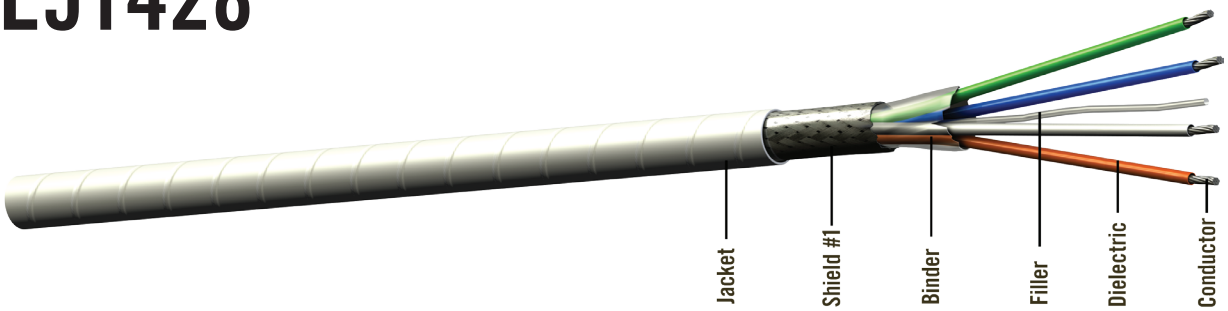
All values nominal, unless otherwise noted

E51426 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E51426

PART #	CONTACT TYPE	TOOL PART #
110731	Shielded CAT 6a, Plug w/ATUM Strain Relief	**110729** - RJ45 Crimp Tool
110725	Shielded CAT 6a, Plug w/Protective Boot	**110729** - RJ45 Crimp Tool
110790	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF)ruggedized backshell)	**110729** - RJ45 Crimp Tool
110939	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E51428



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Binder: PTFE Tape
Filler Fluoropolymer
Shield #1: Silver-Plated Copper Round Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green

The E51428 is a 100 Base-T Quadrax cable specially designed for airborne applications as defined by ARINC Specification 664. The overall design of E51428 allows a smaller overall diameter and weight while exceeding Category 5e requirements. The E51428's construction of silver-plated high-strength copper alloy conductors is surrounded by a solid PFA insulation assuring uniform conductivity with excellent solderability.

The 80% braided shielding provides shielding to preserve technical performance. A PTFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	28 AWG Stranded SPHSCA
Shield Coverage:	80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.115 (2.92)
Minimum Bend Radius: in (mm)	0.6 (15.24)
Weight: lbs/100 ft (kg/100 m)	1.0 (1.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	74.8 (245.4)
Max Distance*: ft (m)	170 (52)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

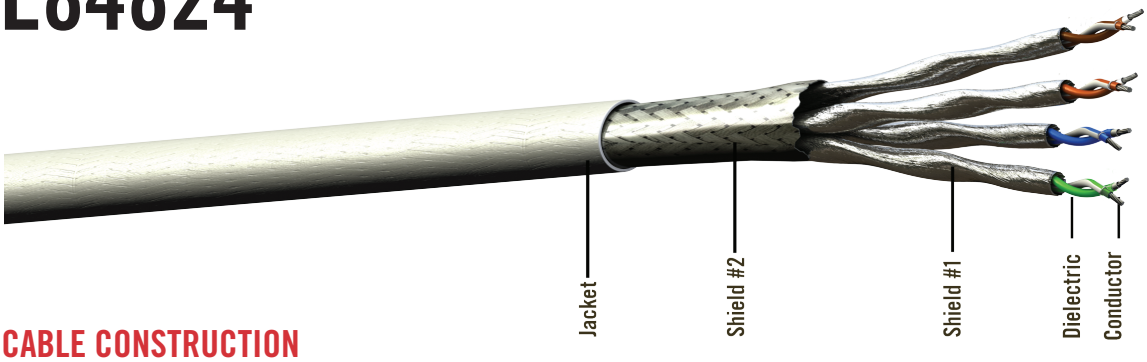
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	3.7/4.1	(12.1/13.5)
@100 MHz	11.1/12.4	(36.4/40.7)

All values nominal, unless otherwise noted

E51428 CAT 5E ETHERNET CABLE

E84824



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper Alloy
Dielectric: FEP
Shield #1: Aluminum/Polyester Composite
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue/White w/Blue Stripe
Pair #2: Green/White w/Green Stripe
Pair #3: Brown/White w/Brown Stripe
Pair #4: Orange/White w/Orange Stripe

The E84824 is a 4-Pair, 40G Base-T Cat 8 Ethernet cable designed to meet the demands of today's high-speed data transmission applications. Our Cat8 cable features four pairs of twisted copper wires that are shielded with improved insulation to minimize crosstalk and interference, resulting in a stable, clear signal that enables lightning-fast data transmission with minimal signal degradation. The cable's improved shielding and insulation also make it suitable for longer cable runs. The cable is constructed with high-quality materials to ensure durability and reliability, and is built to last even under heavy usage. With its superior speed, bandwidth, signal quality, and reliability, the E84824 Ethernet cable is the perfect solution for all your high-speed networking needs.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPCA
Shield Coverage:	90% (Braid)
Temperature Range:	-55° to 200°C
Outer Diameter: in (mm)	0.28 (7.1)
Minimum Bend Radius: in (mm)	1.5 (38.1)
Weight: lbs/100 ft (kg/100 m)	4.6 (2.08)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13.5 (44.3)
Velocity of Propagation:	75%
Dielectric Voltage Rating: (kV, RMS) Max	1.5
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance: ft (m)	90 (27)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014 Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@100 MHz	6.6/7.2	(21.7/23.6)
@250 MHz	10.6/11.5	(34.8/33.0)
@500 MHz	15.2/16.6	(49.9/54.5)
@1000 MHz	21.6/24.4	(85.6/80.1)
@2000 MHz	32.3/36.3	(92.8/119.1)

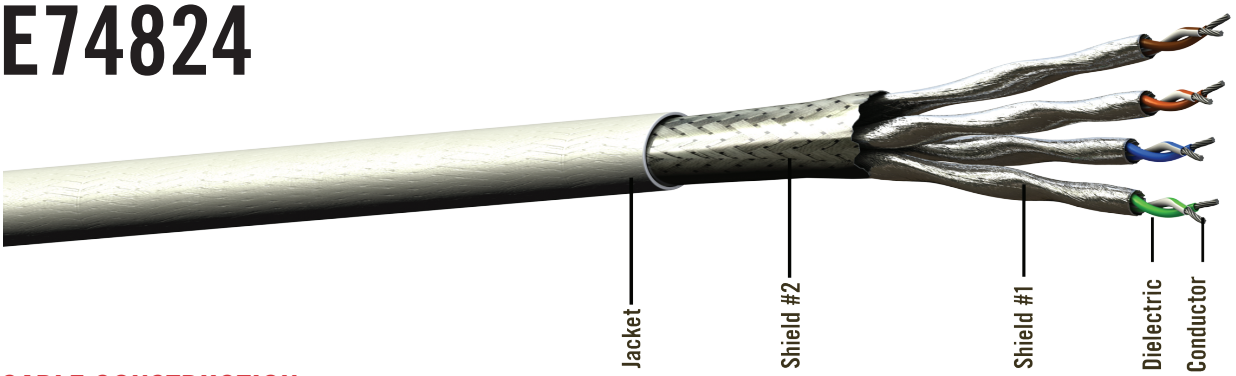
All values nominal, unless otherwise noted

E84824 CAT 8 ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART #E84824

PART #	CONTACT TYPE	TOOL PART #
111107	RJ45 Plug Connector (Shielded Cat 8)	**110701** - Soft Jam Clamping Pliers
111109	RJ45 Panel Jack (Shielded Cat 8)	**110701** - Soft Jam Clamping Pliers
111112	RJ45 Plug Connector (Shielded Cat 8)	**110701** - Soft Jam Clamping Pliers

E74824



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper Alloy
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil (Each Pair)
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E74824 is a 4 pair, 10G Base-T Cat 7 cable that incorporates an innovative design that provides maximum electrical performance in a small, lightweight, flexible package. Each pair uses a silver-plated copper alloy conductor and is individually shielded. The E74824 cable delivers 10 Gb performance per ISO 11801, Class F Channel requirements. An ETFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E74824 is suitable for airborne 10G Base-T CAT7 Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°
Outer Diameter: in (mm)	0.28 (7.11)
Minimum Bend Radius: in (mm)	2.2 (55.88)
Weight: lbs/100 ft (kg/100 m)	4.7 (7.0)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	78%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	296 (90)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@100 MHz	6.6/7.0	(21.7/23.0)
@250 MHz	10.8/11.4	(35.4/37.4)
@500 MHz	15.7/16.6	(51.5/54.5)
@600 MHz	17.5/18.4	(57.4/60.4)

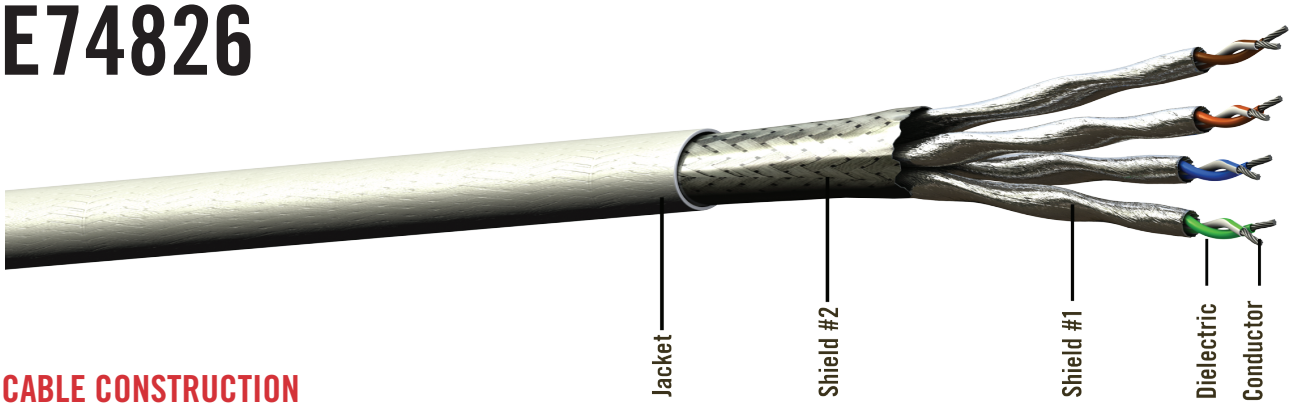
All values nominal, unless otherwise noted

E74824 CAT 7 ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E74824

PART #	CONTACT TYPE	TOOL PART #
110912	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
111179	Shielded CAT 6a, Plug w/ATUM Strain Relief	**111184** - RJ45 Crimp Tool
111180	Shielded CAT 6a, Plug w/Strain Relief Sleeve	**111184** - RJ45 Crimp Tool
111181	Shielded CAT 6a, Plug w/Protective Boot	**111184** - RJ45 Crimp Tool
111107	Shielded CAT 8.1, RJ45 Plug	**110701** - Soft Jaw Clamping Pliers
111109	Shielded CAT 8.1, RJ45 Jack	**110701** - Soft Jaw Clamping Pliers

E74826



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper Alloy
Dielectric: FEP
Shield #1: Aluminum/Polyester Foil (Each Pair)
Shield #2 Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E74826 is a 4 pair, 10G Base-T Cat 7 cable that incorporates an innovative design that provides maximum electrical performance in a small, lightweight, flexible package. Each pair uses a Silver-Plated Copper alloy conductor and is individually shielded. The E74826 cable delivers 10 Gb performance per ISO 11801, Class F Channel requirements. An ETFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. E74826 is suitable for airborne 10G Base-T CAT7 Local Area Network applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.23 (5.84)
Minimum Bend Radius: in (mm)	1.8 (45.72)
Weight: lbs/100 ft (kg/100 m)	3.3 (4.9)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	78%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	230 (70)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@100 MHz	7.5/9.0	(24.6/29.5)
@250 MHz	12.3/14.7	(40.4/48.2)
@500 MHz	17.8/21.4	(58.4/70.2)
@600 MHz	22.5/23.7	(73.8/77.8)

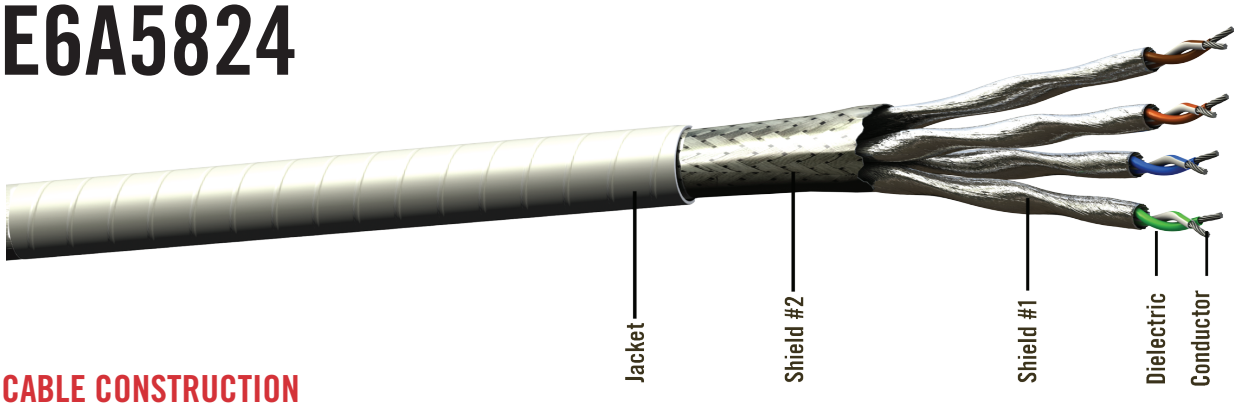
All values nominal, unless otherwise noted

E74826 CAT 7 ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E74826

PART #	CONTACT TYPE	TOOL PART #
110912	Shielded CAT 6a, 90° Plug w/ ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
111112	Shielded CAT 8, RJ45 Plug (568B)	**110701** - Soft Jaw Clamping Pliers
111174	Shielded CAT 6a, Plug w/ ATUM Strain Relief	**111183** - RJ45 Crimp Tool
111175	Shielded CAT 6a, Plug w/ Strain Relief Sleeve	**111183** - RJ45 Crimp Tool
111176	Shielded CAT 6a, Plug w/ Protective Boot	**111183** - RJ45 Crimp Tool
111177	Shielded CAT 6a, Plug w/ ATUM Strain Relief	**111183** - RJ45 Crimp Tool

E6A5824



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Shield #1: Aluminum/Polyimide Foil (each pair)
Shield #2 Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E6A5824 is a 4-Pair, 10G Base-T Cat 6a Ethernet cable that incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. E6A5824 cable cannot only be used for Cat 6a, 10 Gbit Ethernet applications, but also can be used for video applications because of the low skew between each pair.

The E6A5824's twisted-pair construction (four separate pairs) of silver-plated copper conductors are individually shielded. The 100% foil and 90% braided shielding serve to further protect against EMI. A laser-markable PTFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°
Outer Diameter: in (mm)	0.255 (6.6)
Minimum Bend Radius: in (mm)	1.3 (33.02)
Weight: lbs/100 ft (kg/100 m)	4.2 (6.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	296 (90)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	1.9/2.1	(6.2/6.9)
@100 MHz	6.6/7.0	(21.7/23.0)
@250 MHz	10.8/11.4	(35.4/37.4)
@500 MHz	15.7/16.6	(51.5/54.5)

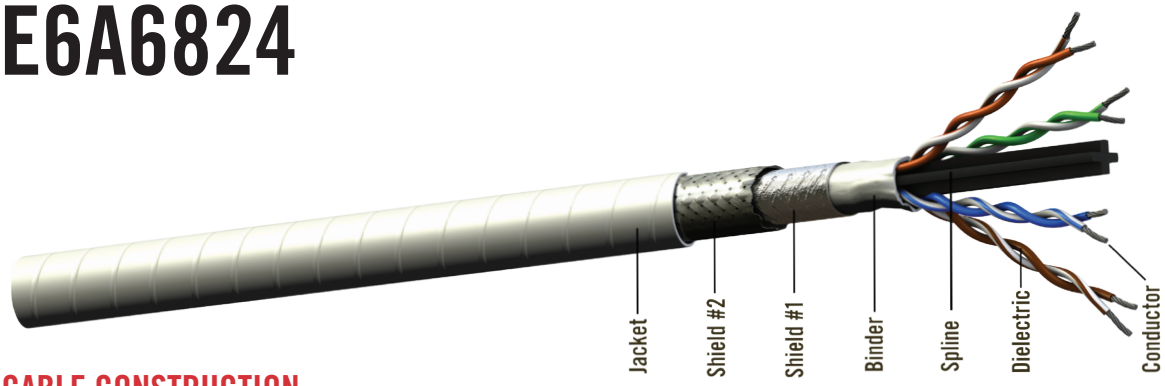
All values nominal, unless otherwise noted

E6A5824 CAT 6A ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E6A5824

PART #	CONTACT TYPE	TOOL PART #
110912	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
111179	Shielded CAT 6a, Plug w/ATUM Strain Relief	**111184** - RJ45 Crimp Tool
111180	Shielded CAT 6a, Plug w/Strain Relief Sleeve	**111184** - RJ45 Crimp Tool
111181	Shielded CAT 6a, Plug w/Protective Boot	**111184** - RJ45 Crimp Tool

E6A6824



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Spline: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyimide Foil
Shield #2: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E6A6824 Cat 6a Ethernet cable incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. The E6A6824 preserves technical performance by incorporating differential lay lengths between pairs and utilizing a foil and braided shield and delivers 10 Gigabit (ANSI/TIA-568 Category 6a) performance up to 246 ft. A PTFE ultra-flexible, laser-markable jacket is utilized to make it easier to install the cable. E6A6824 is an excellent selection for Engineers and Technicians installing cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.26 (6.6)
Minimum Bend Radius: in (mm)	0.78 (19.81)
Weight: lbs/100 ft (kg/100 m)	4.4 (6.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Max Distance*: ft (m)	246 (75)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.3/2.6	(7.5/8.5)
@100 MHz	7.0/8.4	(23.0/27.6)
@250 MHz	11.4/13.7	(37.4/44.9)
@500 MHz	16.5/20.0	(54.1/65.6)

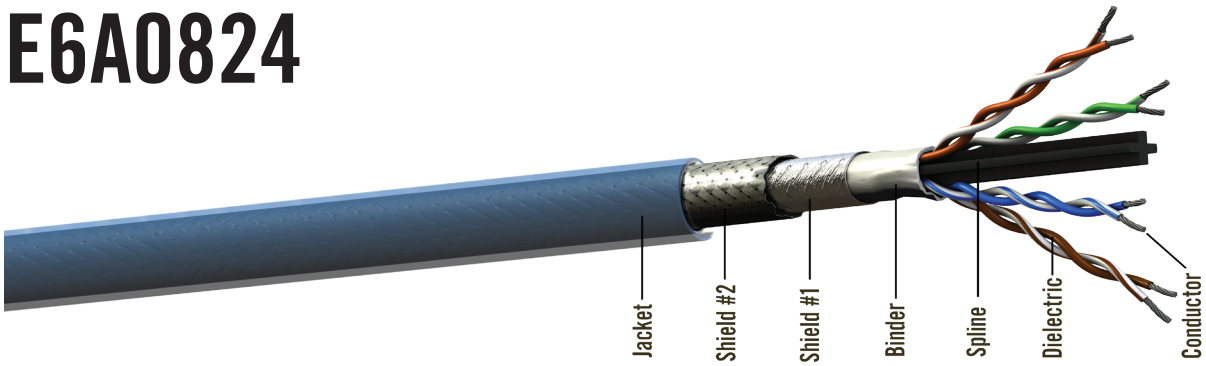
All values nominal, unless otherwise noted

E6A6824 CAT 6A ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E6A6824

PART #	CONTACT TYPE	TOOL PART #
111170	Shielded CAT 6a, Plug w/ATUM Strain Relief	**111183** - RJ45 Crimp Tool
111171	Shielded CAT 6a, Plug w/Strain Relief Sleeve	**111183** - RJ45 Crimp Tool
111172	Shielded CAT 6a, Plug w/Protective Boot	**111183** - RJ45 Crimp Tool
111173	Shielded CAT 6a, Plug w/ATUM Strain Relief (fits Amphenol (RJF) ruggedized backshell)	**111183** - RJ45 Crimp Tool
110506	Shielded CAT 5e/CAT6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110789	Shielded CAT 6, Plug w/ ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool
110912	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/ Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

E6A0824



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Spline: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyester Foil
Shield #2: Silver-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E6A0824 is a 4-Pair, 10G Base-T Cat 6a Ethernet cable (exceeding ANSI/TIA-568-C.2 CAT 6a Channel Requirements) that incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package.

The E6A0824's stranded silver-plated copper conductors are designed for high vibration environments, then twisted-pair at different lay lengths to effectively reduce inductive interference. The 100% foil and 90% braided shielding serve to further protect against EMI. A fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.275 (6.99)
Minimum Bend Radius: in (mm)	1.4 (35.56)
Weight: lbs/100 ft (kg/100 m)	5.28 (7.9)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	246 (75)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.8/8.2	(22.3/26.9)
@250 MHz	10.9/13.1	(35.8/43.0)
@500 MHz	15.6/18.7	(51.2/61.4)

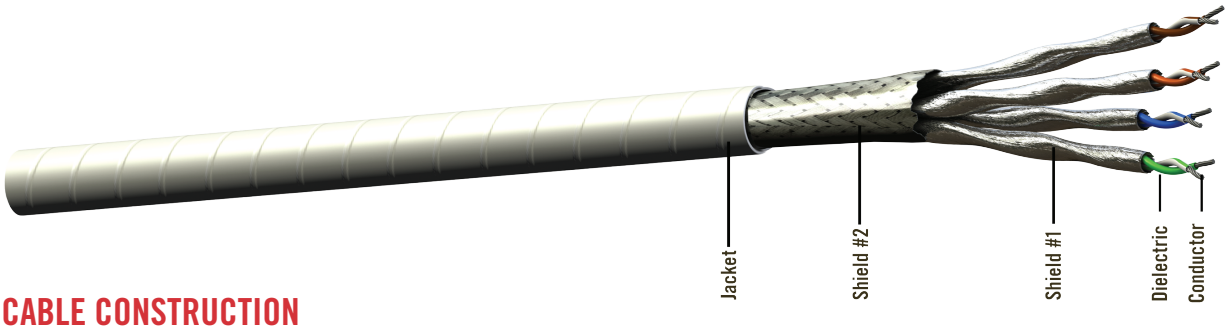
All values nominal, unless otherwise noted

E6A0824 CAT 6A ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E6A0824

PART #	CONTACT TYPE	TOOL PART #
110506	Shielded CAT 5e/CAT6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110629	Shielded CAT 6, Plug w/ Strain Relief Sleeve	**110288** - RJ45 Crimp Tool
110630	Shielded CAT 6, Plug w/ Protective Boot	**110288** - RJ45 Crimp Tool
110789	Shielded CAT 6, Plug w/ ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool
110912	Shielded CAT 6a, 90° Plug w/ ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/ Clamp Nut Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/ Clamp Nut Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
111170	Shielded CAT 6a, Plug w/ATUM Strain Relief	**111183** - RJ45 Crimp Tool
111171	Shielded CAT 6a, Plug w/ Strain Relief Sleeve	**111183** - RJ45 Crimp Tool
111172	Shielded CAT 6a, Plug w/ Protective Boot	**111183** - RJ45 Crimp Tool
111173	Shielded CAT 6a, Plug w/ ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**111183** - RJ45 Crimp Tool

E6A5826



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Shield #1: Aluminum/Polyimide Foil (each pair)
Shield #2 Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E6A5826 Cat 6a Ethernet cable (exceeding ANSI/TIA-568-C.2 CAT 6a Channel Requirements) incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. E6A5826 delivers 10 Gigabit performance by incorporating a silver-plated high-strength copper conductor and flexible, laser-markable PTFE jacket for technical performance. E6A5826 cables provide the performance necessary for demanding applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.215 (5.46)
Minimum Bend Radius: in (mm)	1.1 (27.94)
Weight: lbs/100 ft (kg/100 m)	3 (4.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	12 (39.4)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	230 (70)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

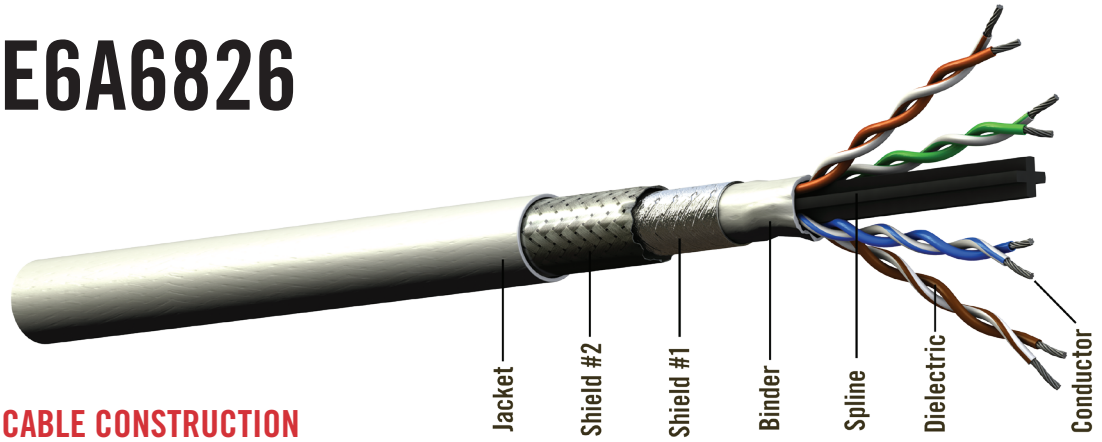
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.4/2.8	(7.9/9.2)
@100 MHz	7.5/9.0	(24.5/29.5)
@250 MHz	12.3/14.7	(40.4/48.2)
@500 MHz	17.8/21.4	(58.4/70.2)

All values nominal, unless otherwise noted

E6A5826 CAT 6A ETHERNET CABLE

E6A6826



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: PFA
Spline: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyimide Foil
Shield #2: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue Stripe
Pair #2: Orange, White/Orange Stripe
Pair #3: Green, White/Green Stripe
Pair #4: Brown, White/Brown Stripe

The E6A6826 Cat 6a Ethernet cable (exceeding ANSI/TIA-568-C.2 CAT 6a Channel Requirements) incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. E6A6826 delivers 10 Gigabit performance, up to 214 ft. by incorporating differential lay lengths between pairs and utilizing a foil and braided shield. It features a silver-plated high-strength copper conductor and flexible, laser-markable PTFE jacket for technical performance. E6A6826 cables provide the performance necessary for demanding applications such as cabin management systems (CMS), in-flight entertainment (IFE), and Ethernet backbones.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	100% (Foil), 80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.22 (5.59)
Minimum Bend Radius: in (mm)	0.66 (16.76)
Weight: lbs/100 ft (kg/100 m)	3.2 (4.8)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Max Distance*: ft (m)	214 (65)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.6/3.0	(8.5/9.8)
@100 MHz	8.2/9.7	(26.9/31.8)
@250 MHz	13.2/15.8	(43.3/51.8)
@500 MHz	19.3/23.0	(63.3/75.5)

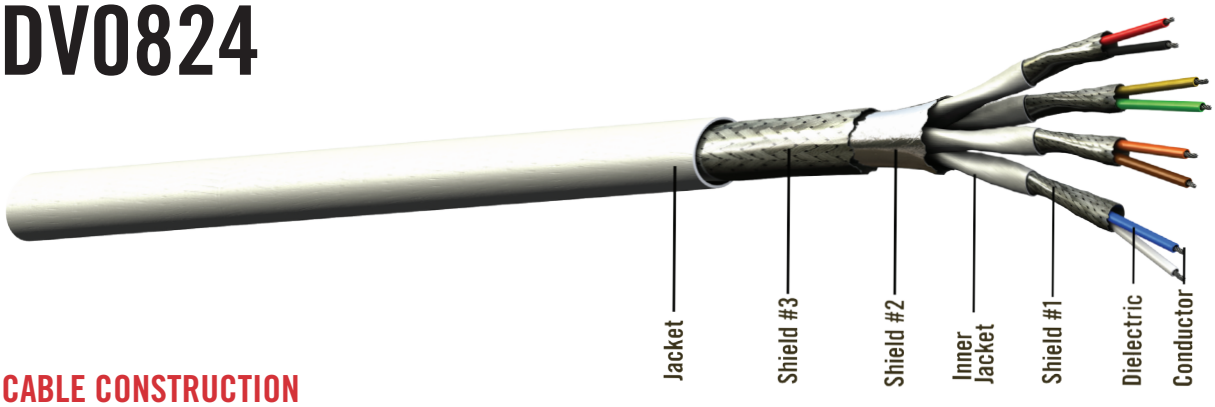
All values nominal, unless otherwise noted

E6A6826 CAT 6A ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E6A6826

PART #	CONTACT TYPE	TOOL PART #
110725	Shielded CAT 6a, Plug w/Protective Boot	**110729** - RJ45 Crimp Tool
110731	Shielded CAT 6, Plug w/ATUM Strain Relief	**110729** - RJ45 Crimp Tool
110790	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110729** - RJ45 Crimp Tool
110913	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110904	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
111007	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
111009	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief	**110701** - Soft Jaw Clamping Pliers

DV0824



CABLE CONSTRUCTION

Conductors: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Shield #1: Silver-Plated Copper Round Braid (each pair)
Inner Jacket: ETFE, White
Shield #2: Aluminum/Polyester/Aluminum Foil
Shield #3: Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Yellow/Green
Pair #3: Red/Black
Pair #4: Orange/Brown

The DV0824 is a shielded 4-Pair, 1000 Base-T Ethernet cable that incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. The DV0824's twisted-pair construction (four separate pairs) effectively reduces inductive interference while the 100% foil and 90% braided shielding serve to further protect against EMI. The low skew between each pair ensures the signal sent down each pair reaches the other end at approximately the same time. Conductor insulation consists of foamed fluoropolymer, having a higher velocity of propagation. This assures correct impedance matching, thus minimizing reflection — important in high-speed data applications. Each pair is individually shielded and jacketed to provide isolation between pairs. The ETFE jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	80% (Inner Braid) 100% (Foil) 95% (Outer Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.35 (8.89)
Minimum Bend Radius: in (mm)	1.75 (44.45)
Weight: lbs/100 ft (kg/100 m)	7.7 (11.5)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

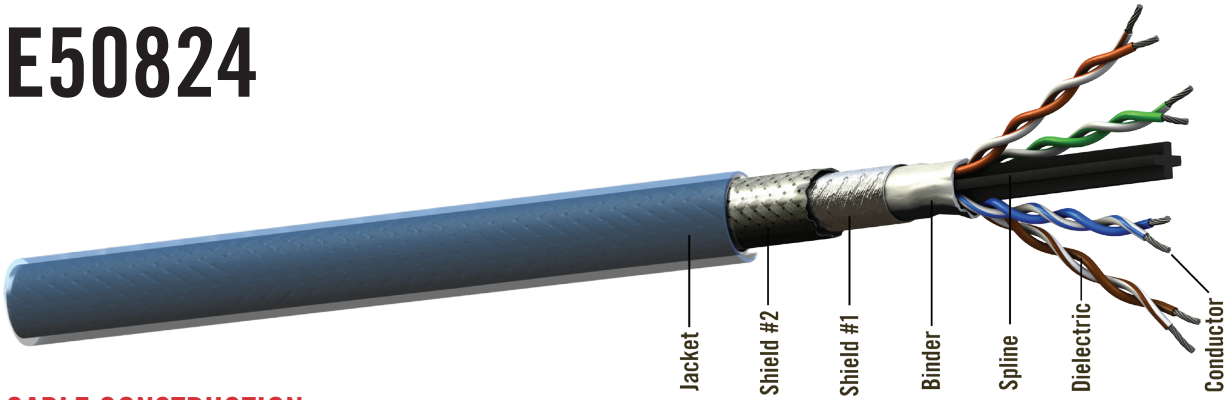
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.4/2.7	(7.9/8.9)
@100 MHz	8.2/8.8	(26.9/28.9)

All values nominal, unless otherwise noted

DV0824 ETHERNET CABLE

E50824



CABLE CONSTRUCTION

Conductors: Silver-Plated Copper
Dielectric: FEP
Spline: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyester Foil
Shield #2: Silver-Plated Copper Round Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: Blue, White Stripe/Blue
Pair #2: Orange, White Stripe/Orange
Pair #3: Green, White Stripe/Green
Pair #4: Brown, White Stripe/Brown

The E50824 is a shielded 4-Pair, 1000 Base-T Cat 5e Ethernet cable (exceeding ANSI/TIA-568-C.2 CAT 5e Channel Requirements) that incorporates innovative design features to provide maximum electrical performance in a small, lightweight, and flexible package. The E50824's twisted-pair construction (four separate pairs) of silver-plated copper conductors is surrounded by fluoropolymer dielectric that assures uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding serve to further protect against EMI. A fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

Note: This product is also available with a black fluoropolymer jacket under product number G50824.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.265 (6.73)
Minimum Bend Radius: in (mm)	1.4 (35.56)
Weight: lbs/100 ft (kg/100 m)	5 (7.4)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14.5 (47.6)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	28.5 (93.5)
Max Distance*: ft (m)	268 (82)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.8/8.2	(22.3/26.9)

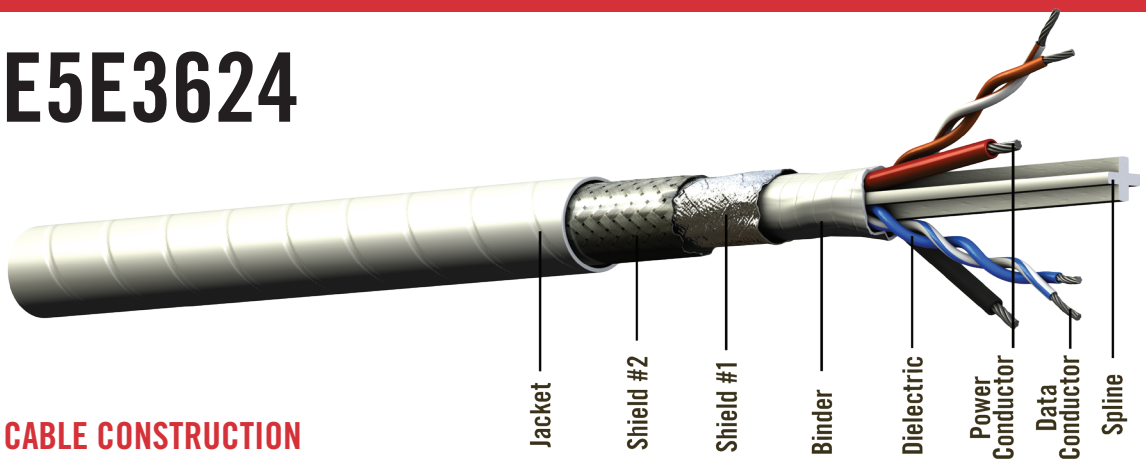
All values nominal, unless otherwise noted

E50824 CAT 5E ETHERNET CABLE

CONTACTS/CONNECTORS FOR PART # E50824

PART #	CONTACT TYPE	TOOL PART #
110787	Shielded CAT 6, Plug w/ATUM Strain Relief	**110288** - RJ45 Crimp Tool
110303	Shielded CAT 6, Plug w/Strain Relief Sleeve	**110288** - RJ45 Crimp Tool
110339	Shielded CAT 6, Plug w/Protective Boot	**110288** - RJ45 Crimp Tool
110361	Shielded CAT 6, Plug w/ATUM Strain Relief (fits Amphenol® (RJF) ruggedized backshell)	**110288** - RJ45 Crimp Tool
110912	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110900	Shielded CAT 6a, 90° Plug w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110973	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110975	Shielded CAT 6a, Plug w/Clamp Nut Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers
110937	Shielded CAT 6a, Jack w/ATUM Strain Relief (568A)	**110701** - Soft Jaw Clamping Pliers
110938	Shielded CAT 6a, Jack w/ATUM Strain Relief (568B)	**110701** - Soft Jaw Clamping Pliers

E5E3624



CABLE CONSTRUCTION

Data Conductor: Silver-Plated Copper-Alloy
Power Conductor: Silver-Plated Copper
Dielectric: PFA
Spline: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyimide Foil
Shield #2: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Pair #1: Blue, White/Blue
Pair #2: Orange, White/Orange Stripe
Power Pair: Red, Black

The E5E3624 is a CAT5e Power over Ethernet (PoE) cable specially designed for airborne applications as defined by ARINC Specification 664. The E5E3624 data pairs are manufactured using a high-temp fluoropolymer and will perform at frequencies from CAT 5e, up to CAT 6a requirements. The E5E3624's twisted-pair construction (two separate pairs) of silver-plated copper conductors is surrounded by PFA insulation assuring uniform conductivity with excellent solderability. The 100% foil and 90% braided shielding assures uniform conductivity with excellent solderability, further protecting against EMI. A PTFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductors:	
Data:	24 AWG Stranded SPCA
Power:	20 AWG Stranded SPC
Shield Coverage:	100% (Foil), 90% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.25 (6.35)
Minimum Bend Radius: in (mm)	0.80 (20.32)
Weight: lbs/100 ft (kg/100 m)	4.5 (6.7)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	14 (46.0)
Velocity of Propagation:	70%
Dielectric Voltage Rating: (kV, RMS)	1.5
DC Resistance: ohms/1000 ft (m)	
Power Pair:	9.1 (29.9)
Data Pair:	28.5 (93.5)
Max Distance*: ft (m)	268 (82)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

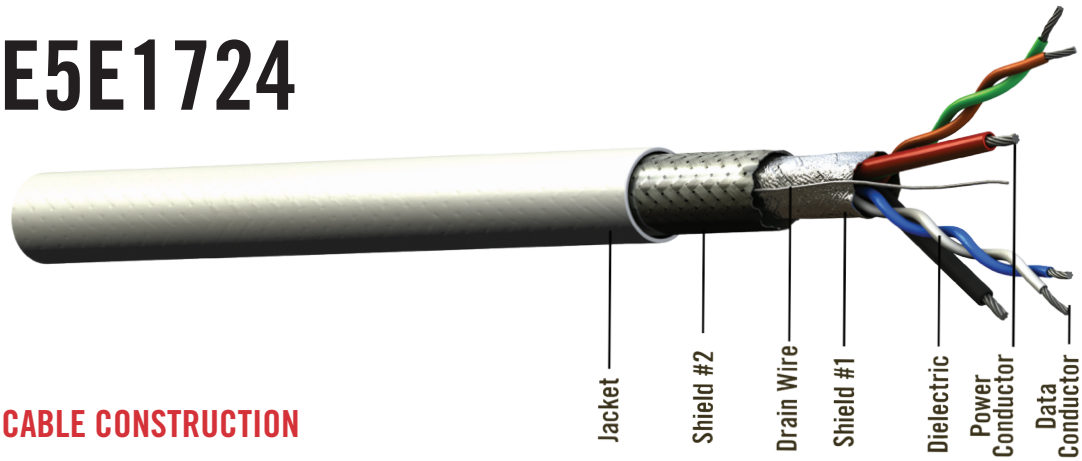
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.2/2.6	(7.2/8.5)
@100 MHz	6.8/8.2	(22.3/26.9)

All values nominal, unless otherwise noted

E5E3624 POWER OVER ETHERNET CABLE

E5E1724



CABLE CONSTRUCTION

Data Conductor: Tin-Plated Copper
Power Conductor: Tin-Plated Copper
Dielectric: FEP
Shield 1: Aluminum/Polyimide Foil
Drain Wire: Tin-Plated Copper
Shield #2: Tin-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White/Blue
Pair #2: Orange/Green
Power Pair: Red, Black

The E5E1724 is a CAT5e Power over Ethernet (PoE) cable specially designed for airborne applications as defined by ARINC Specification 664. The E5E1724 data pairs are manufactured using a high-temp fluoropolymer and will perform at frequencies from CAT 5e, up to CAT 6a requirements. The E5E1724's twisted-pair construction (two separate pairs) of tin-plated copper conductors is surrounded by FEP insulation and 100% foil and 85% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. An ETFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductors:	
Data:	24 AWG Stranded TPC
Power:	22 AWG Stranded TPC
Shield Coverage:	100% (Foil), 85% (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.208 (5.28)
Minimum Bend Radius: in (mm)	1.0 (25.4)
Weight: lbs/100 ft (kg/100 m)	3.56 (5.3)

ELECTRICAL DATA

Impedance:	100 ohms
Capacitance: pF/ft (m)	13 (42.7)
Velocity of Propagation:	80%
Dielectric Voltage Rating: (kV, RMS)	0.9
DC Resistance: ohms/1000 ft (m)	
Data Pair:	26.2 (86.0)
Power Pair:	16.2 (53.1)
Max Distance*: ft (m)	257 (78)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 m)
@10 MHz	2.3 / 2.7	(7.5 / 8.9)
@100 MHz	6.8 / 7.5	(22.3 / 24.6)

All values nominal, unless otherwise noted

E5E1724 POWER OVER ETHERNET CABLE

Our rugged and fast USB cables allow you to upload/download data at speeds up to 10 Gb when it matters most. Whatever the environment - in a cockpit or cabin - we make sure you stay connected without interruption. Our cables are durable enough to endure extreme aerospace conditions and still provide high-speed data transmission, from takeoff to landing.

APPLICATIONS:

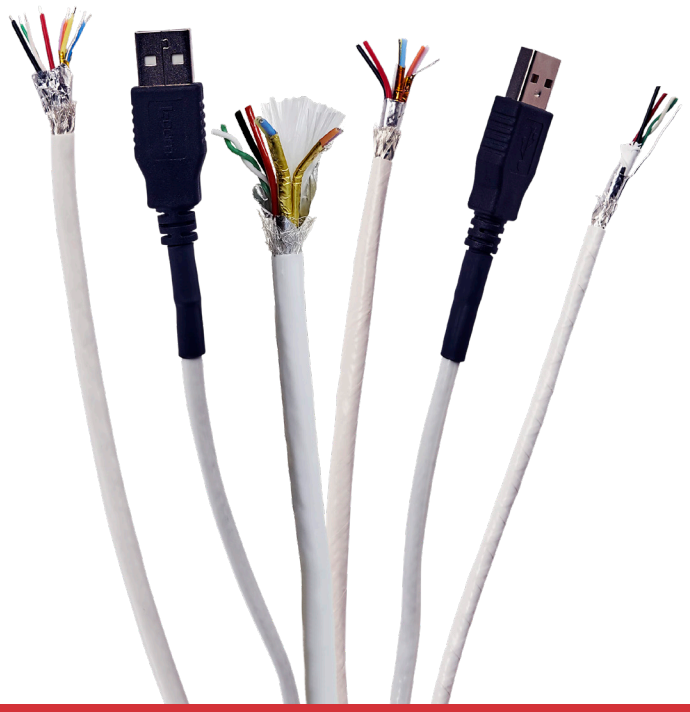
- Content Loading
- Data Transfer
- Digital Video Systems
- Electronic Flight Bag (EFB)
- Portable Electronic Devices
- Power Remote Devices
- Other Harsh Aerospace Environments

PHYSICAL & ELECTRICAL DATA

All values nominal, unless otherwise noted

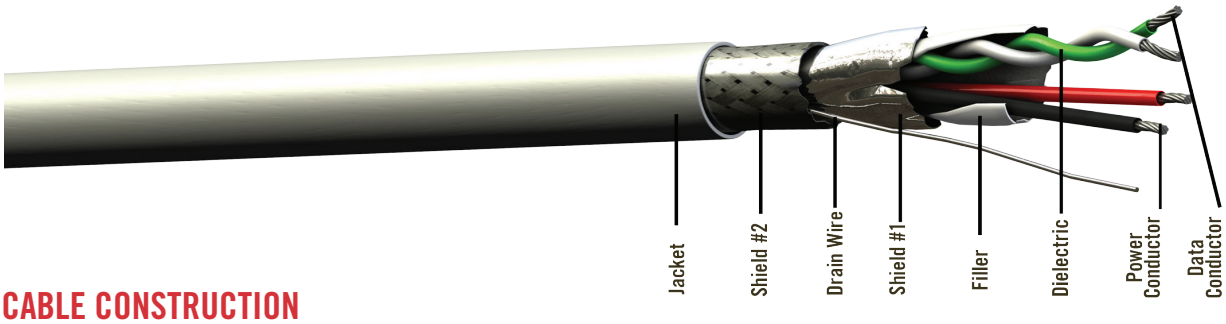
PART #	SPEED RATING	DATA/POWER CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE	TIME DELAY (NS/FT)
USB2422	USB 2.0	24/22 AWG SPC	ETFE, White (Laser Markable)	2.36 (3.51)	0.18 (4.57)	-55/+150°C	1.39 (4.56)
USB2624	USB 2.0	26 AWG SPHSCA/ 24 AWG SPC	PTFE, White (Laser Markable)	2.2 (3.27)	0.164 (4.17)	-55/+200°C	1.48 (4.86)
USB3-2624	USB 3.1	26/24 AWG SPHSCA	PTFE, White (Laser Markable)	3.4 (5.06)	0.209 (5.31)	-55/+200°C	1.46 (4.79)

Materials Key: SPC – Silver-Plated Copper, **SPHSCA** – Silver-Plated High Strength Copper Alloy



USB CABLE SOLUTIONS

USB2422



CABLE CONSTRUCTION

Data Conductor: Silver-Plated Copper
Power Conductor: Silver-Plated Copper
Dielectric: FEP
Drain Wire: Silver-Plated Copper
Filler: PTFE Tape
Shield #1: Aluminum/Polyester Foil
Shield #2: Tin-Plated Copper
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Data Pair: White, Green
Power Pair: Red, Black

The USB2422 is a USB 2.0 cable specially designed for airborne application. The USB2422's twisted-pair construction of silver-plated copper conductors is surrounded by FEP insulation. The 100% foil and 80% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. An ETFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. USB2422 meets or exceeds all EIA-364-XX specifications.

PHYSICAL DATA

Conductors:	
Data Pair:	24 AWG Stranded SPC
Power Wires:	22 AWG Stranded SPC
Drain Wire:	28 AWG Stranded SPC
Shield Coverage:	100% (Foil), 80% (Braid)
Temperature Range:	-55 to +150°C
Outer Diameter: in (mm)	0.18 (4.57)
Minimum Bend Radius: in (mm)	1.0 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.36 (3.51)

ELECTRICAL DATA

Impedance:	90 ohms
Capacitance: pF/ft (m)	
Conductor to Conductor:	13.0 (42.7)
Conductor to Shield:	21.0 (68.9)
Time Delay: nS/ft (nS/m)	1.39 (4.56)
DC Resistance: (ohms/1000 ft.) (m)	
Power Pair:	15.2 (49.9)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

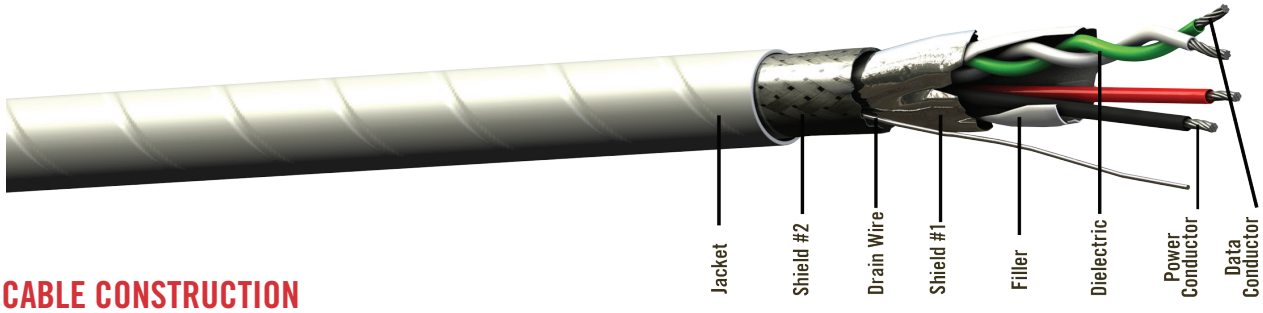
ATTENUATION DATA

Frequency	Nom/Max dB/ft	Nom/Max (dB/m)
@96 MHz	0.07/0.07	(0.21/0.24)
@200 MHz	0.10/0.11	(0.31/0.34)
@400 MHz	0.14/0.16	(0.47/0.52)

All values nominal, unless otherwise noted

USB2422 USB 2.0 CABLE

USB2624



CABLE CONSTRUCTION

Data Conductor: Silver-Plated High Strength Copper Alloy
Power Conductor: Silver-Plated Copper
Dielectric: PFA
Filler: PTFE Tape
Drain Wire: Silver-Plated Copper
Shield #1: Aluminum/Polyimide Foil
Shield #2: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Data Pair: White, Green
Power Pair: Red, Black

The USB2624 is a USB 2.0 cable specially designed for airborne application. The USB2624's twisted-pair construction of silver-plated copper conductors is surrounded by PFA insulation. The 100% foil and 80% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. The PTFE laser markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation. USB2624 meets or exceeds all EIA-364-XX specifications.

PHYSICAL DATA

Conductors:	
Data Pair:	26 AWG Stranded SPHSCA
Power Wires:	24 AWG Stranded SPC
Drain Wire:	28 AWG Stranded SPC
Shield Coverage:	100% (Foil), 80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.164 (4.17)
Minimum Bend Radius: in (mm)	0.5 (12.7)
Weight: lbs/100 ft (kg/100 m)	2.2 (3.27)

ELECTRICAL DATA

Impedance:	90 ohms
Capacitance: pF/ft (m)	
Conductor to Conductor:	13.0 (42.7)
Conductor to Shield:	21.0 (68.9)
Time Delay: nS/ft (nS/m)	1.48 (4.86)
DC Resistance: (ohms/1000 ft.) (m)	
Power Pair:	25.0 (82.0)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

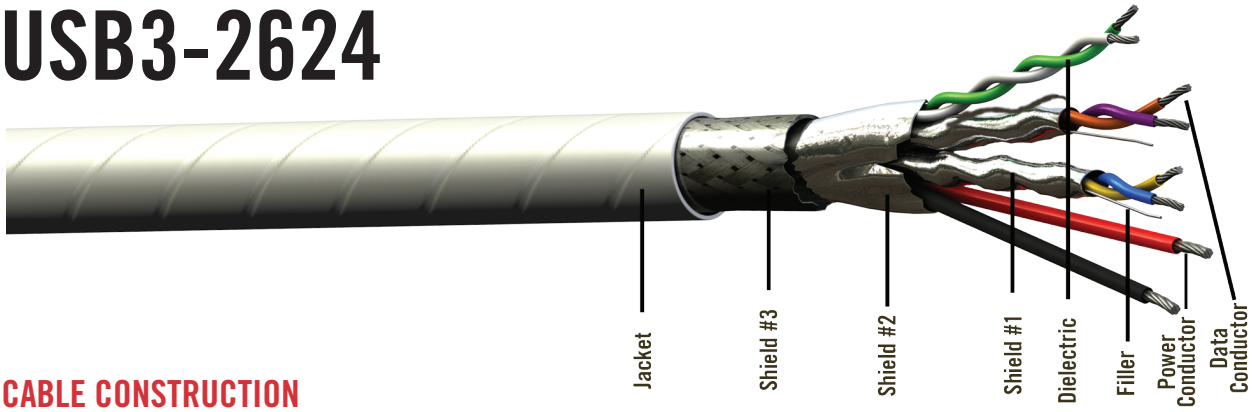
ATTENUATION DATA

Frequency	Nom/Max dB/ft	Nom/Max (dB/m)
@96 MHz	0.09/0.10	(0.30/0.33)
@200 MHz	0.12/0.13	(0.38/0.42)
@400 MHz	0.16/0.18	(0.54/0.60)

All values nominal, unless otherwise noted

USB2624 USB 2.0 CABLE

USB3-2624



CABLE CONSTRUCTION

Unshielded Conductor: Silver-Plated High Strength Copper Alloy
Shielded Conductor: Silver-Plated High Strength Copper Alloy
Drain Wire: Silver-Plated Copper
Dielectric: PFA
Power Conductor: Silver-Plated High Strength Copper Alloy

Shield #1: Aluminum/Polyimide Foil (ea. pair)
Shield #2: Aluminum/Polyimide Foil
Shield #3: Silver-Plated Copper Braid
Jacket: PTFE, White (Laser Markable)

COLOR CODES

Twisted Data Pair: White, Green
Shielded Data Pair #1: Violet, Orange
Shielded Data Pair #2: Yellow, Blue
Power Pair: Red, Black

The USB3-2624 is a USB 3.1 cable specially designed for high speed airborne applications and delivers performance up to 10Gb. The USB3-2624 cable will perform as a USB 3.1 & USB 3.0 cable solution and is also backwards compatible for USB 2.0. It's twisted-pair construction of silver-plated copper conductors is surrounded by PFA insulation and 100% foil and 80% braided shielding assure uniform conductivity with excellent solderability, further protecting against EMI. A PTFE laser-markable jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

PHYSICAL DATA

Conductors:	
Data Pair:	26 AWG Stranded SPHSCA
Power Wires:	24 AWG Stranded SPHSCA
Drain Wire:	28 AWG Stranded SPC
Shield Coverage:	100% (Foil), 80% (Braid)
Temperature Range:	-55 to +200°C
Outer Diameter: in (mm)	0.209 (5.31)
Minimum Bend Radius: in (mm)	2.0 (50.8)
Weight: lbs/100 ft (kg/100 m)	3.4 (5.06)

ELECTRICAL DATA

Impedance:	90 ohms
Capacitance: pF/ft (m)	
Conductor to Conductor:	16.7 (55.00)
Time Delay: nS/ft (nS/m)	1.46 (4.79)
DC Resistance: (ohms/1000 ft.) (m)	
Power Pair:	28.4 (93.2)

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Nom/Max dB/ft	Nom/Max (dB/m)
@625 MHz	0.3/0.3	(1.0/1.1)
@1250 MHz	0.4/0.5	(1.4/1.5)
@2500 MHz	0.6/0.7	(2.0/2.2)
@5000 MHz	0.9/1.0	(3.0/3.4)
@7500 MHz	1.3/1.4	(4.1/4.6)

All values nominal, unless otherwise noted

USB3-2624 USB 3.1 CABLE

Data bus cables are an essential part of your aircraft or military vehicle's network system. The efficient transmission of data between various electronic components is what makes the whole system work, and our lightweight data bus cables are designed to deliver the performance you need for your operating system. Our impedance characteristics help ensure low signal loss and superior electromagnetic interference (EMI) shielding, so you can be confident that your system will keep functioning reliably at all times. PIC offers a variety of specialty aerospace data cables for avionics databus and CANbus applications, including ARINC 429 (70 ohm), MIL-STD-1553 (77 ohm), ASCB (125 ohm) and fiber channel.

APPLICATIONS:

- Avionics Network
- Cable Management Systems
- Digital Video Systems
- Serial Busses
- Contorller Area Networks

PHYSICAL & ELECTRICAL DATA

All values nominal, unless otherwise noted

PART #	CABLE TYPE	IMPEDANCE	DATA CONDUCTOR	JACKET	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	TEMP. RANGE
D620244	ARINC 429	70	24 AWG Stranded TPC	ETFE, Clear	1.70 (2.50)	0.136 (3.45)	-55/+150°C
D620242	ARINC 429	70	22 AWG Stranded TPC	ETFE, White (Laser Markable)	2.00 (3.00)	0.16 (4.06)	-55/+150°C
D5102QX	Quadrax	78	22 AWG Stranded SPC	FEP, White (Laser Markable)	5.80 (8.60)	0.23 (5.84)	-55/+200°C
G771553	1553B Data Bus	77	24 AWG Stranded SPHSCA	ETFE, White (Laser Markable)	1.70 (2.50)	0.125 (3.175)	-55/+200°C
D10226-0	ASCB Canbus	120	26 AWG Stranded SPHSCA	ETFE, White (Laser Markable)	1.45 (2.20)	0.145 (3.68)	-55/+200°C
T69654	ASCB Canbus	125	24 AWG Stranded SPHSCA	FEP, White	2.20 (3.30)	0.187 (4.75)	-55/+150°C
T12243	ASCB Canbus	125	24 AWG Stranded SPHSCA	ETFE, White (Laser Markable)	2.50 (3.70)	0.195 (4.95)	-55/+150°C
F20424	Fiber Channel	150	24 AWG Stranded SPHSCA	FEP, Blue	3.65 (5.40)	0.242 (6.15)	-55/+150°C

Materials Key: **TPC** – Tin-Plated Copper **SPC** – Silver-Plated Copper **SPCA** – Silver-Plated Copper Alloy **SPHSCA** – Silver-Plated High Strength Copper Alloy

D620244

CABLE CONSTRUCTION

Conductor: Tin-Plated Copper
Dielectric: ETFE
Shield #1: Tin-Plated Copper Braid
Jacket: ETFE, Clear

COLOR CODES

Pair #1: White, Light Blue

D620244 is a 70 Ohm controlled impedance cable specially designed for ARINC 429 DataBus systems.

Honeywell has approved D620244 for handling high-speed digital information, including:

- UDI port inputs/outputs between DATA NAV processors, Lightning Sensor System processors and PRIMUS weather radar indicators.
- Picture bus signals between PRIMUS weather radar receiver/transmitters and EFIS symbol generators. (Honeywell EPIC/APEX Integrated Avionics Systems)
- AlliedSignal approved PIC cable D620244 for video and deflection cabling between the symbol generators and display units for the EFS 40/50.

PHYSICAL DATA

Conductor:	24 AWG Stranded TPC
Shield Coverage:	95% Min.
Temperature Range:	-55° to +150°C
Outer Diameter: in (mm)	0.136 (3.45)
Minimum Bend Radius: in (mm)	0.68 (17.27)
Weight: lbs/100 ft (kg/100 m)	1.7 (2.5)

ELECTRICAL DATA

Impedance:	70 ohms
Capacitance: pF/ft (m)	30 (98.4)
Velocity of Propagation:	70 %
DC Resistance: ohms/1000 ft (m)	26.2 (86)
Dielectric Voltage Rating: (kV (rms)	1.5

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

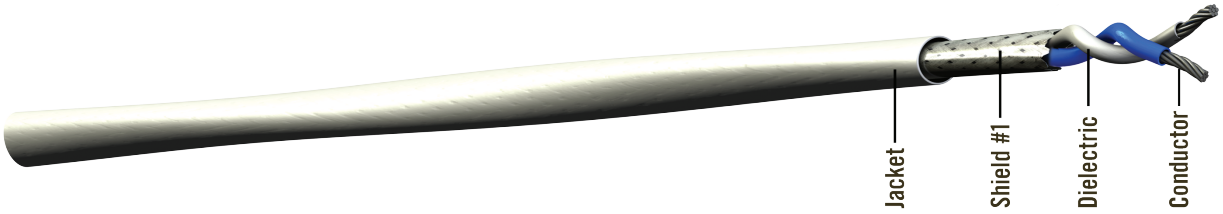
ATTENUATION DATA

Frequency	Nom / Max dB/100 ft	Nom / Max (dB/100 ft m)
@1 MHz	1.0/1.4	(3.3/4.6)

All values nominal, unless otherwise noted

D620244 DATABUS CABLE

D620242



CABLE CONSTRUCTION

Conductor: Tin-Plated Copper
Dielectric: ETFE
Shield #1: Tin-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White, Blue

D620242 is a 70 Ohm specially designed cable for ARINC 429 DataBus systems. D620242 has been designed with a high temperature, laser-markable white ETFE jacket which saves time, eliminating the need to label the cable every 6 inches or so as required by numerous cabling standards.

PHYSICAL DATA

Conductor:	22 AWG Stranded TPC
Shield Coverage:	95% Min.
Temperature Range:	-55° to +150°C
Outer Diameter: in (mm)	0.16 (4.06)
Minimum Bend Radius: in (mm)	0.8 (20.32)
Weight: lbs/100 ft (kg/100 m)	2.0 (3.0)

ELECTRICAL DATA

Impedance:	70 ohms
Capacitance: pF/ft (m)	24 (78.7)
Velocity of Propagation:	70%
DC Resistance: ohms/1000 ft (m)	15.8 (51.8)
Dielectric Voltage Rating: (kV (rms)	1.5

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

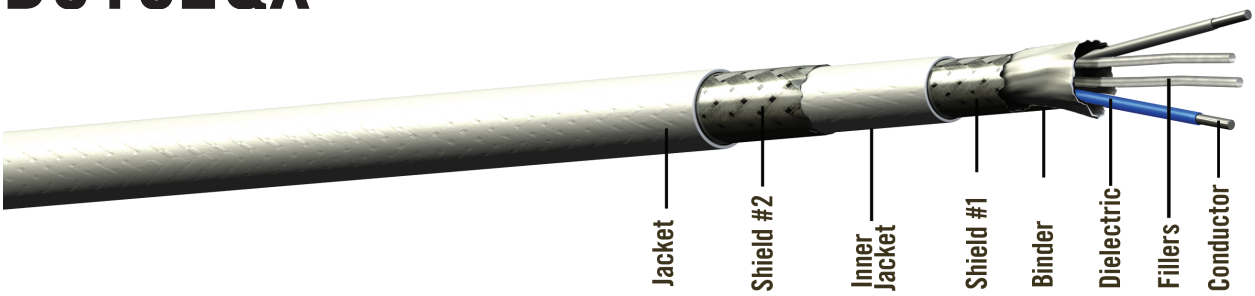
ATTENUATION DATA

Frequency	**Nom / Max dB/100 ft (m)**
@1 MHz	0.8 (1.2)

All values nominal, unless otherwise noted

D620242 DATABUS CABLE

D5102QX



CABLE CONSTRUCTION

Conductor: Silver-Plated Copper
Dielectric: FEP
Fillers: Fluoropolymer
Binder: Polyester Tape
Shield #1: Silver-Plated Copper Braid
Inner Jacket: FEP, White
Shield #2: Silver-Plated Copper Braid
Outer Jacket: FEP, White

COLOR CODES

Pair #1: Blue, Natural

The D5102QX is a 78 ohm high temperature quadrax cable . It is designed with isolated shields making it ideal for use in radar and other applications where susceptibility to noise is of concern and EMI suppression is required. D5102QX's conductor insulation and inner/outer jackets are FEP. Filler are provided to aid in controlling uniform impedance while the double shields are silver-plated copper providing 95% minimum coverage.

PHYSICAL DATA

Conductor:	22 AWG Stranded SPC
Shield Coverage:	95% min.
Temperature Range:	-55° to +200°C
Outer Diameter: in (mm)	0.23 (5.84)
Minimum Bend Radius: in (mm)	1.15 (29.21)
Weight: lbs/100 ft (kg/100 m)	5.8 (8.6)

ELECTRICAL DATA

Impedance:	78 ohms
Capacitance: pF/ft (m)	18.6 (61)
Velocity of Propagation:	70%
DC Resistance: ohms/1000 ft (m)	15.2 (49.9)
Dielectric Voltage Rating: (kV (rms)	1.5

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	Max dB/100 ft (m)
@10 MHz	3.0 (9.8)

All values nominal, unless otherwise noted

D5102QX 78 OHM QUADRAX CABLE

G771553

CABLE CONSTRUCTION

Conductors: Silver-Plated High-Strength Copper Alloy
Dielectric: PTFE
Filler: Fluoropolymer Rods
Shield #1: Silver-Plated Copper High-Strength Copper-Alloy Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White, Blue

The G771553 is a 77 ohm twin-axial cable constructed of high quality materials that meet or exceed the requirements for 1553B DataBus cable. G771553 is a laser markable version of Military Standard 1553B DataBus cable that saves weight and time versus using traditional 1553B cable. Most 1553 DataBus applications require identification at regular intervals (e.g. every 2 feet); using traditional 1553B cable and labels requires an investment in label material and installation labor while adding significant weight to the final cable.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	90% (Min)
Temperature Range:	-55° to +200°C
Outer Diameter: in (mm)	0.125 (3.175)
Minimum Bend Radius: in (mm)	0.65 (16.51)
Weight: lbs/100 ft (kg/100 m)	1.7 (2.5)

ELECTRICAL DATA

Impedance:	77 ohms
Capacitance: pF/ft (m)	23.4 (76.8)
Velocity of Propagation:	68%
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Dielectric Voltage Rating: (kV (rms)	1.0

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

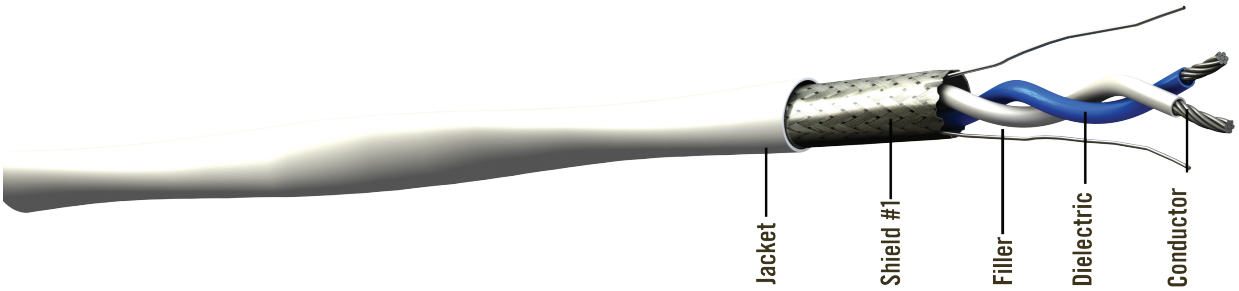
ATTENUATION DATA

Frequency	Max dB/100 ft (m)
@1MHz	1.4 (4.6)

All values nominal, unless otherwise noted

G771553 77 OHM DATABUS CABLE

D10226-0



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Filler: Fluoropolymer
Binder: PTFE Tape
Shield #1: Silver-Plated Copper Braid
Jacket: ETFE, White (Laser Markable)

COLOR CODES

Pair #1: White, Blue

The D10226-0 is a 120 ohm controlled impedance CAN Bus cable designed to meet the high electrical demand of a CAN Bus cabling system. D10226-0 incorporates design features that provide maximum electrical performance with high strength copper alloy conductors and silver plated copper shields. A foamed Fluoropolymer wire insulation is used to reduce signal loss and weight for longer lengths. Its ETFE laser markable jacket passes EN3475-503 scrape abrasion testing and is also flexible for ease of installation.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPHSCA
Shield Coverage:	95% (Min)
Temperature Range:	-55° to +200°C
Outer Diameter: in (mm)	0.145 (3.68)
Minimum Bend Radius: in (mm)	0.7 (17.78)
Weight: lbs/100 ft (kg/100 m)	1.45 (2.2)

ELECTRICAL DATA

Impedance:	120 ohms
Capacitance: pF/ft (m)	13.7 (44.9)
Velocity of Propagation:	80 %
DC Resistance: ohms/1000 ft (m)	44.8 (147)
Dielectric Voltage Rating: (kV (rms)	0.9

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

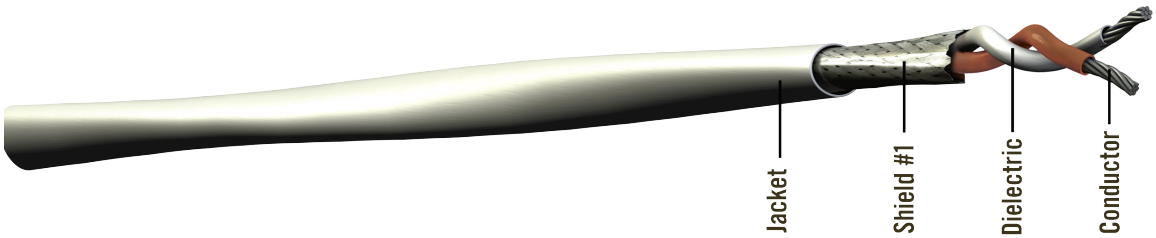
ATTENUATION DATA

Frequency	Nom/Max dB/100 ft (M)
@1MHz	0.9 (3.0)

All values nominal, unless otherwise noted

D10226-0 120 OHM CAN BUS CABLE

T69654



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: PTFE
Shield #1: Tin-Plated Copper Braid
Jacket: FEP, White

COLOR CODES

Pair #1: White, Brown

The T69654 cable is a 125 ohm DataBus cable approved and recommended by the Honeywell Commercial Flight Systems Group. It is an approved cable for the ASCB DataBus and Servo CAN Bus for the Primus EPIC/APEX Integrated Avionics system. T69654 is a primary data interface for the Honeywell/Sperry SPZ-8000 DAFCS which includes EFIS, AHRS and DADC. It is also used for CAN Bus communication for the Honeywell/ Sperry Primus II Radio System.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	90% (Min)
Temperature Range:	-55° to +150°C
Outer Diameter: in (mm)	0.187 (4.75)
Minimum Bend Radius: in (mm)	1 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.2 (3.3)

ELECTRICAL DATA

Impedance:	125 ohms
Capacitance: pF/ft (m)	12 (39.4)
Velocity of Propagation:	70%
DC Resistance: ohms/1000 ft (m)	28.4 (93.2)
Dielectric Voltage Rating: (kV (rms)	1.5

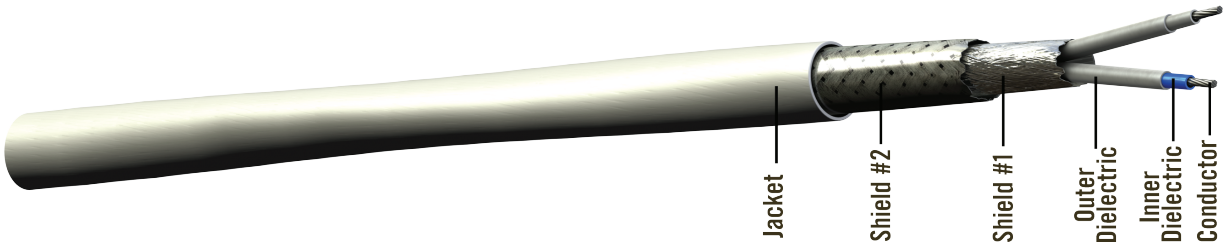
ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

All values nominal, unless otherwise noted

T69654 125 OHM DATABUS CABLE

T12243



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: Inner Layer: PFA
Outer Layer: FEP
Shield #1: Aluminum/Polyester Foil
Shield #2: Tin-Plated Copper Braid
Jacket: ETFE ,White (Laser Markable)

COLOR CODES

Pair #1: White w/White Inner, White w/Blue Inner

T12243 is a 125 ohm DataBus cable that is designed with a dual-layer insulation reducing the size of the cable. The outer foamed fluoropolymer layer which can be removed so that the inner solid PFA accommodates the connector cavity for easy extraction of the contact.
T12243 DataBus cable approved and recommended by the Honeywell Commercial Flight Systems Group. It is a primary data interface for the Honeywell/Sperry SPZ-8000 DAFCS (including EFIS, AHRS and DADC) and is also used for CAN Bus communications for the Honeywell/ Sperry Primus II Radio System. T12243 is also an approved cable for the ASCB DataBus and Servo CAN Bus for the Primus EPIC/APEX Integrated Avionics system.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Dual Layer Insulation:	
Inner Layer OD: in (mm)	0.044 (1.118)
Outer Layer OD: in (mm)	0.075 (1.905)
Shield Coverage:	100% (Foil), 90% (Min)
Temperature Range:	-55° to +150°C
Outer Diameter: in (mm)	0.195 (4.95)
Minimum Bend Radius: in (mm)	1.0 (25.4)
Weight: lbs/100 ft (kg/100 m)	2.5 (3.7)

ELECTRICAL DATA

Impedance:	125 ohms
Capacitance: pF/ft (m)	11.0 (36.1)
Velocity of Propagation:	75%
DC Resistance: ohms/1000 ft (m)	27.5 (90.2)
Dielectric Voltage Rating: (kV (rms)	1.5

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

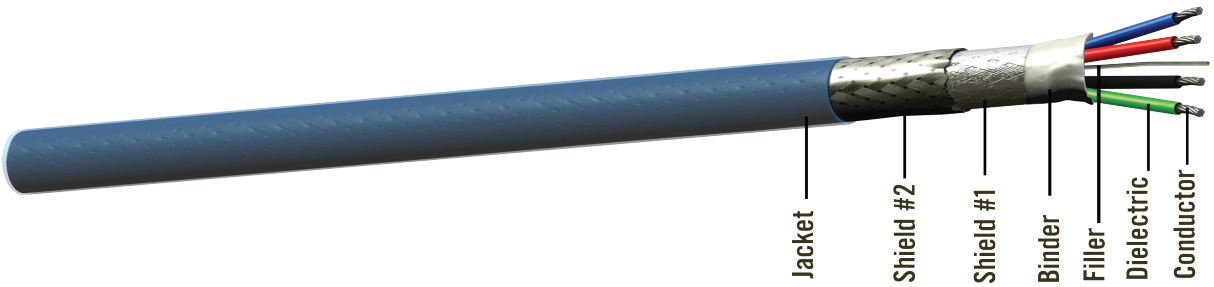
ATTENUATION DATA

Frequency	Max dB/100 ft (m)
@10 MHz	2.0 (6.6)
@100 MHz	6.3 (20.7)

All values nominal, unless otherwise noted

T12243 125 OHM DATABUS CABLE

F20424



CABLE CONSTRUCTION

Conductor: Silver-Plated High Strength Copper Alloy
Dielectric: FEP
Filler: Fluoropolymer
Binder: PTFE Tape
Shield #1: Aluminum/Polyester Foil
Shield #2: Tin-Plated Copper Braid
Jacket: FEP, Translucent Blue

COLOR CODES

Pair #1: Red, Black
Pair #2: Blue, Green

F20424 is a 150 Ohm quad fiber channel cable specifically designed for airborne high-speed data applications. Each conductor is surrounded by a foam fluoropolymer insulation and is designed to be terminated in ARINC 600 and 38999 quadrax contacts A fluoropolymer jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

F20424 is an approved cable by Honeywell for the EPIC/APEX System.

PHYSICAL DATA

Conductor:	24 AWG Stranded SPHSCA
Shield Coverage:	100% Foil, 90% (Min)
Temperature Range:	-55° to +150°C
Outer Diameter: in (mm)	0.242 (6.15)
Minimum Bend Radius: in (mm)	1.2 (30.48)
Weight: lbs/100 ft (kg/100 m)	3.65 (5.4)

ELECTRICAL DATA

Impedance:	150 ohms
Capacitance: pF/ft (m)	8.5 (27.9)
Velocity of Propagation:	80%
DC Resistance: ohms/1000 ft (m)	26.2 (86.0)
Dielectric Voltage Rating: (kV (rms)	0.9

ENVIRONMENTAL DATA

Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 2002/95/EC)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

Frequency	**Nom dB/100 ft (m)**
@10 MHz	1.6 (5.2)
@100 MHz	5.2 (17.1)
@500MHz	11.5 (37.7)

All values nominal, unless otherwise noted

F20424 QUAD FIBER CHANNEL CABLE

Introducing H1926-HS, the first aerospace-grade HDMI® certified cable in the marketplace. Engineered and certified to meet stringent HDMI requirements, this cable sets a new standard for aerospace and defense applications, ensuring consistent and reliable performance.

Crafted specifically for the demanding environments of aircraft and other vehicles, the H1926-HS redefines video transmission with unmatched clarity and detail. Supporting 4K video resolutions beyond 1080p, this cable ensures displays deliver unparalleled depth, detail, and color up to 5 meters (16.4 feet).

APPLICATIONS:

- Glass Cockpits
- Weather Mapping
- Portable Electronic Devices
- Digital Video Systems
- In-Flight Entertainment
- Electronic Flight Bag (EFB)
- Flight Management Systems

Enhanced versatility and compatibility are at the core the core of the H1926-HS. The inclusion of HDMI Ethernet Channel adds high-speed networking capabilities to the HDMI link, allowing seamless integration of IP-enabled devices without the need for a separate Ethernet cable when both linked devices are HDMI Ethernet channel enabled—a crucial advantage in today's interconnected environments.

Support for 3D formats, content type signaling, and multiple color spaces further enhances versatility and compatibility, making the H1926-HS ideal for a wide range of military and civil applications. From high-resolution video surveillance and reconnaissance to cockpit displays and in-flight entertainment systems, the H1926-HS incorporates HDMI® technology to deliver unmatched quality and performance.

Contact us today to learn more about how the H1926-HS cable can enhance your system.

PHYSICAL & ELECTRICAL DATA

All values nominal, unless otherwise noted

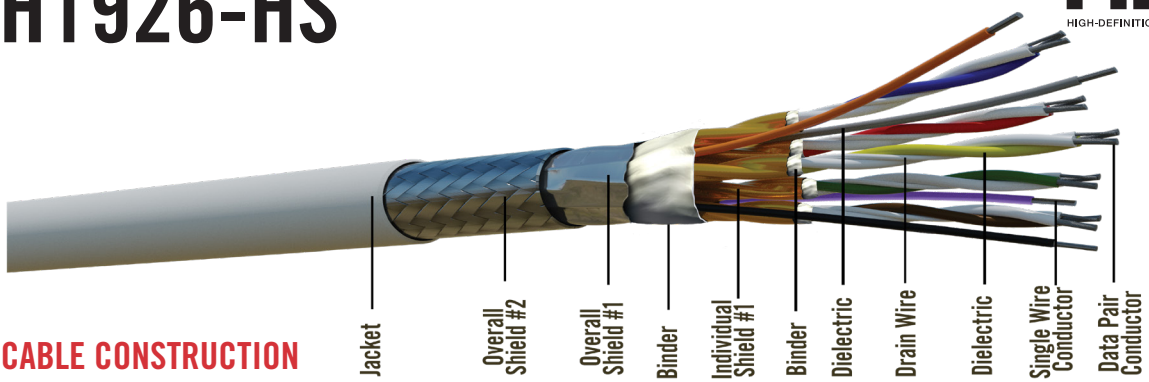
PART #	DATA CONDUCTOR	MAX DISTANCE FT (M)	WEIGHT LBS/100 FT (KG/100 M)	O.D. IN (MM)	BEND RADIUS IN (MM)	TEMP. RANGE	JACKET
H1926-HS	26 AWG Stranded SPCA	16.4 (5)	6.0 (8.95)	0.285 (7.24)	1.3 (33.02)	-55° to + 200°C	PTFE Tape, White (Laser Markable)

Materials Key: SPCA – Silver-Plated Copper Alloy

HDMI® CABLES

H1926-HS

HDMI® HIGH-DEFINITION MULTIMEDIA INTERFACE



CABLE CONSTRUCTION

DATA PAIRS:

- **Conductor:** Silver-Plated Copper Alloy
- **Dielectric:** PTFE
- **Binder:** PTFE Tape (each pair)
- **Drain Wire:** Silver-Plated Copper Alloy (each pair)
- **Individual Shield #1:** Aluminum/Polyimide (each pair)
- **Binder:** PTFE Tape

SINGLE WIRES:

- **Conductor:** Silver-Plated Copper Alloy
- **Dielectric:** PTFE

Overall Shield #1: Aluminum/Polyimide
Overall Shield #2: Round Silver-Plated Copper
Jacket: PTFE Tape, White (Laser Markable)

COLOR CODES

Pair #1: White, Blue
Pair #2: White, Red
Pair # 3: White, Green
Pair #4: White, Brown
Pair #5: White, Yellow
Single Pairs: Black, Orange, Gray, Violet

The H1926-HS is the first aerospace grade cable to achieve HDMI certification. Engineered to transmit uncompressed video, it transports 4K resolution up to distances of 5m (16.4 ft). With a smaller diameter and reduced weight, it offers easy installation and routing in tight spaces of aircraft and vehicles. Ideal for military surveillance and civil aircraft entertainment systems, it incorporates HDMI® technology for unmatched compatibility and reliability.

PHYSICAL DATA

Conductor:	26 AWG Stranded SPCA
Overall Shield #1 Coverage:	100% Foil
Overal Shield #2 Coverage:	85% SPC (Min)
Temperature Range:	-55° to + 200°C
Outer Diameter: in (mm)	0.285 (7.24)
Minimum Bend Radius: in (mm)	1.3 (33.02)
Weight: lbs/100 ft (kg/100 m)	6.0 (8.95)

ELECTRICAL DATA

Impedance:	100 ohms
DC Resistance: ohms/1000 ft (m)	
Data Pair:	44.8 (147)
Single Wires	44.8 (147)
Dielectric Voltage Rating: (kV (rms)	1.5
Max Distance: ft (m)	16.4 (5)

ENVIRONMENTAL DATA

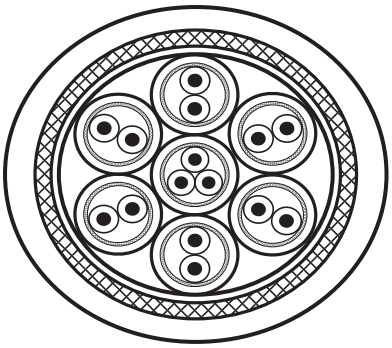
Skydrol Resistant: SAE AS4373E, Method 601
RoHS Compliant: RoHS Directive 3 (2015/863)
Flame / Smoke Requirements: FAR Part 25.869 (a) App. F, Part 1, (a)(3)
Berry Specialty Metals Compliance: Complies with DFARS 252.225-7014, Alt 1

ATTENUATION DATA

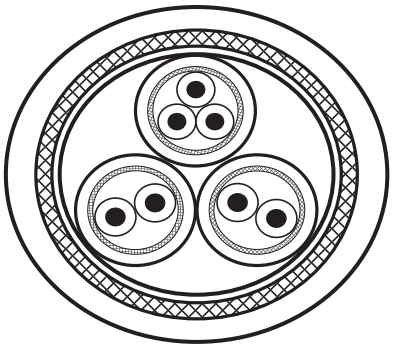
Frequency	Max dB/ft (5m)
@825 MHz	0.30 (5.0)
@2475 MHz	0.73 (12.0)
@4125 MHz	1.22 (20.0)
@5100 MhZ	1.52 (25.0)

All values nominal, unless otherwise noted

H1926-HS
HDMI® CABLE



WM25815



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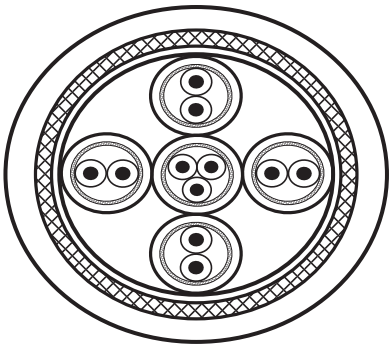


WM25811

These cables are approved by L-3 Communications Flight Systems for installing Models WX-1000+ Stormscope Weather Mapping Systems and Models CWS 691, TCAS 791 and Skywatch 497/899 Collision Warning / Collision Avoidance Systems.

All cables have multiple shields of tinned copper braid with 95% minimum coverage. They are Skydrol resistant, RoHS compliant and meet the FAA flammability requirements of FAR Part 23 and 25, Appendix F; comply with MIL-C-27500 as applicable.

SPECIFIC CABLE CONFIGURATIONS

PART #	Wire AWG Pairs	Wire AWG Triad	No. Of Conductors	Jacket (Fluoropolymer)	OD (in.)	Weight (lbs./100ft.)
WM 25815	24	22	15	Red	0.400	14.5
WM 25807	24	24	7	Clear	0.280	8.5
WM 25811	24	22	11	Blue	0.350	11.3

All values nominal, unless otherwise noted

STORMSCOPE™ COMPOSITE CABLES

PROPER CABLE ASSEMBLY IS KEY TO MAXIMIZING THE BENEFITS OF CABLE AND CONNECTOR TECHNOLOGY

With PIC Assemblies, we take care of assembling cables and connectors to maximize their performance. PIC assemblies deliver outstanding mechanical and electrical performance while preserving signal integrity.

PIC Assemblies Offer:

- Full range of cables and connectors, even custom solutions, from design to delivery
- Manufactured and precision-assembled in house by highly skilled technicians
- Specialty tooling ensures your assembly is done with precision to optimize performance and durability
- Ready-to-install assemblies for plug-and-play use, minimizing installation labor
- Assemblies are tested to meet system specifications, maintain quality and ensure reliability
- Test data is sent with every assembly and retained for future reference

CAPABILITIES & TESTING

PIC offers a wide variety of engineering experience and capabilities throughout our manufacturing facility. These skills are used to design, manufacture, test and assemble harnesses and assemblies.

Capabilities Include:

- Overmolding capability
- Termination by skilled technicians
- Laser Marking for custom labeling
- Mechanical testing for shock and vibration
- Phase matching
- VSWR testing and reporting
- Complete lot traceability with serialization

ASSEMBLY SOLUTIONS

PIC Wire & Cable has an extensive line of high-quality connectors and contacts for our cable offering including: TNC, BNC, H, HN N, C, SMA, ARINC, M39029, D-Sub and rugged D38999 style. Our innovative connectors improve termination, installation, maintenance and reliability. Paired PICMATES cables and connectors provide a robust interconnect solution by maximizing data transmission and electrical performance while providing reliable operation.

To ensure proper field installation, termination instructions and crimp die sets are available for most connectors. Certified cable assemblies built to your requirements are also available from PIC.

UNIQUE CONNECTOR SOLUTIONS

75 Degree TNC Plug

When space is at a premium and interference is a concern, PIC's innovative 75 Degree connector saves space and eliminates interference.

SIZE 16 CONTACT WITH BUILT IN EXTRACTION SLEEVE

PIC's Size 16 contacts are designed for 75 ohm video applications and include a built-in extraction mechanism for easier removal from rack or circular connectors. The contacts are compatible with PIC's V75268, V76261 and V73263 video cables that are stronger, lower loss and easier to terminate than RG179.

QUAD CONNECTOR

When space is at a premium and interference is a concern, PIC's innovative 75 Degree connector saves space and eliminates interference.

MACHFORCE D38999 STYLE CONNECTORS

The MACHFORCE D38999 style 10G Ethernet connector is an innovative and rugged solution engineered for sophisticated, high-speed electronics in the aerospace and defense market. The connector has many features designed to reduce installation or repair time while transmitting more data in less space with outstanding electrical performance.

RUGGED RJ45 CONNECTOR

PIC's durable RJ45 connectors feature a die cast housing with an internal PCB that controls impedance for superior electrical integrity. The innovative design of these connectors allows for a 90° adjustable orientation along with a tabless feature to prevent foreign object damage (FOD) in your interconnect application.

CONNECTOR SOLUTIONS

RUGGED INTERCONNECT SOLUTIONS

MACHFORCE is an innovative and rugged D38999 style 10G Ethernet connector engineered for sophisticated, high-speed electronics in the aerospace and defense market. Your time is valuable, so the MACHFORCE connectors were designed to save time during installation and greatly reduce downtime during future aircraft/vehicle maintenance.

APPLICATIONS:

- C5ISR
- Cyber Security
- Autonomous Weapons
- Artificial Intelligence

OUTSTANDING HIGH-SPEED PERFORMANCE

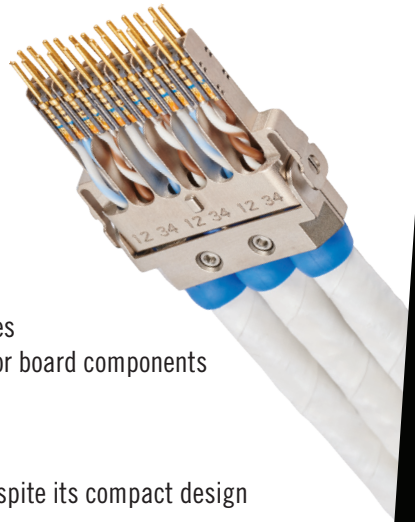
Our patented High Speed Module (HSM) makes the density possible.

- HSMs are configured in a linear pattern
  - More modules in a single row
  - Provides better electrical performance due to reduced crosstalk
- Allows every twisted pair to maintain its twist right up to the pin or socket providing a 360° grounding contact to the high-speed module

TRANSMITS MORE DATA IN LESS SPACE

- Add more functionality without increasing your box size
- MACHFORCE's proprietary design maximizes port density and allows for
  - 10 Ethernet cables in a size 25 housing
  - 4 Ethernet cables in a size 17 housing
- Reduced number of connectors results in smaller, lighter and more compact final product

BETTER & EASIER TERMINATION



- Utilizing the high-speed module, termination time is reduced
  - Simpler for inexperienced technicians
  - Great choice for streamlining termination processes
- No special tooling required
  - Industry-standard tools
  - 22D pins & sockets
- Field repairability
  - The connector body and HSM provides direct access to terminated wires
  - PCB accessibility allows for pin changes without disturbing contacts or board components

RUGGEDIZED TECHNOLOGY

- Robustness and excellent electrical performance have not been sacrificed despite its compact design
- Temperature extremes of -60 to 200°C
- Pair with PIC E6A6824 or E6A6826 Ethernet cables for an extremely robust, high-speed data interconnect solution
- Backshells provide strain relief and ingress protection (IP67) against sand, dust, and fluids
- Anti-decoupling ring allows for secure connection in high shock and vibration environments

RUGGED D38999 SOLUTIONS

MACHFORCE® PART NUMBER BUILDER

CONNECTOR

SAMPLE PART NUMBER: MF 3825 F S W N – EC

PRODUCT	MF	Family: MACHFORCE			
SHELL TYPE	3825	D38999 – Size 25	3817	D38999 – Size 17	
SHELL STYLE	F	Flange Mount Receptacle*	P	Straight Plug	J	Jam Nut Receptacle
CONTACT	S	Sockets (F or J Shell Style)	P	Pin (Plug Only)	
PLATING	W	Olive Drab Cadmium			

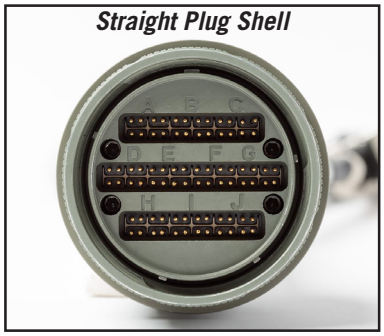
KEY POSITION DETAIL		K°	L°	M°	N°		K°	L°	M°	N°
	N	80	142	196	293	C	66	140	200	257
	A	135	170	200	310	D	62	145	180	280
	B	49	169	200	244					

CABLE TYPE				
	EC	24 AWG Ethernet (E6A6824)	PC1	PCB Mount (F or J Style)
	ED	26 AWG Ethernet (E6A6826)		

¼ Mounting Nut Plates Available

Jam Nut Shell

Straight Plug Shell



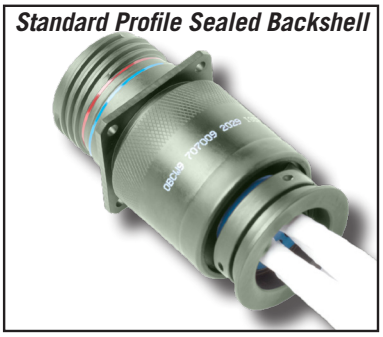
Flange Mount Shell

BACKSHELL

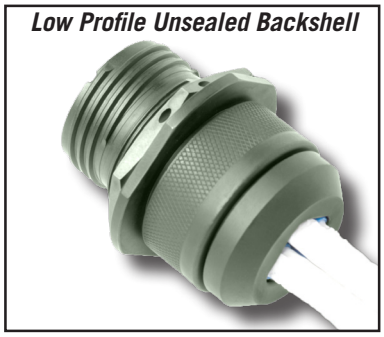
SAMPLE PART NUMBER: MF 3825 SP W S BC

PRODUCT	MF	Family: MACHFORCE			
SHELL TYPE	3825	D38999 – Size 25	3817	D38999 – Size 17	
STYLE	SP	Standard Profile Sealed	LP	Low Profile Unsealed	
PLATING	W	Olive Drab Cadmium			
ANGLE	S	Straight	R	Right Angle (SP Style, 3817 Shell Type Only)	
CABLE TYPE	BC	24 AWG Ethernet (E6A6824)	BD	26 AWG Ethernet (E6A6826)	

Standard Profile Sealed Backshell



Low Profile Unsealed Backshell



Standard Profile 90° Backshell

Looking for a solution that perfectly fits your unique application? Contact us now to explore customized configurations.

PHYSICAL AND ELECTRICAL

The MACHFORCE family of connectors are rigorously tested for maximum durability and efficiency when you need it most. Designed for engineering professionals who demand the best, these high-speed connectors will give you security for your toughest projects. MACHFORCE connectors are tested and qualified for use with PICMATES® Ethernet cables E6A6826 and E6A6824.

TEST PROCEDURE	TEST STANDARD	RESULT
Ethernet Performance at Temperature (-65°C to 200°C)	EIA-568-C CAT6A	PASS
Shell-to-Shell Conductivity	MIL-DTL-38999 Rev M: 4.5.25	PASS
Salt Spray (Dynamic) 500 Hours	MIL-DTL-38999 Rev M: 4.5.13.2	PASS
Mechanical Shock (300g – 3 shocks per each of 6 axes)	MIL-DTL-38999 Rev M: 4.5.24.1	PASS
Random Vibration (37.8grms – 3 axes)	MIL-DTL-38999 Rev M: 4.5.23	PASS
Temperature Cycling (-65°C to 200°C)	MIL-DTL-38999 Rev M: 4.5.4	PASS
Coupling and Uncoupling Torque	MIL-DTL-38999 Rev M: 4.5.7	PASS
Lightning Strike	MIL-DTL-38999 Rev M: 4.5.47	PASS
Insulation Resistance at Ambient	MIL-DTL-38999 Rev M: 4.5.10.1	PASS
Dielectric Withstanding Voltage (600V)	MIL-DTL-38999 Rev M: 4.5.11.1	PASS
Ingress Protection*	IEC 60529: IP67	PASS
Humidity	MIL-DTL-D38999 Rev M: 4.5.26 & 3.30	PASS
Contact Retention	MIL-DTL-D38999 Rev M: 4.5.19	PASS
Pin Contact Stability	MIL-DTL-D38999 Rev M: 4.5.31	PASS
Contact Walkout	MIL-DTL-D38999 Rev M: 4.5.32	PASS
Insert Retention	MIL-DTL-D38999 Rev M: 4.5.12	PASS
Maintenance Aging	MIL-DTL-D38999 Rev M: 4.5.2	PASS
Backshell Braid-to-Shell Conductivity	MIL-DTL-D38999 Rev M: 4.5.25.1	PASS
Dust (Fine Sand)	MIL-DTL-38999 Rev M: 4.5.41	PASS
Fungus	MIL-DTL-38999 Rev M: 4.2.2	PASS

*Testing completed only for E6A6824

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