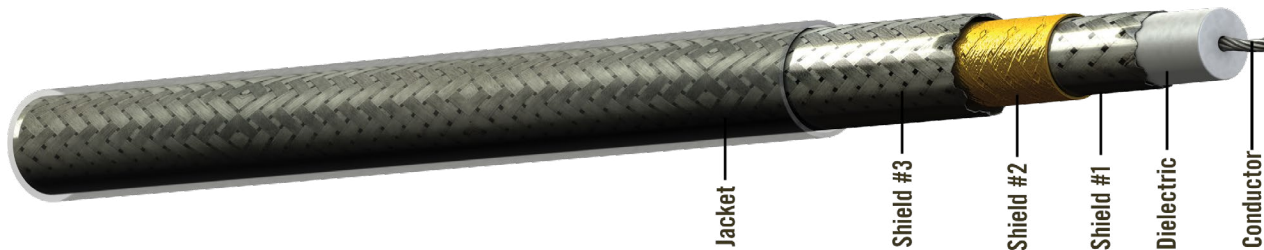


S22089



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)

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

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)

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:

$$(K1 \times \sqrt{F(\text{MHz})}) + (K2 \times F(\text{MHz}))$$

K Values (nom loss):

$$K1 = 0.105 \quad K2 = 0.0001674$$

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