

## TECHNICAL DOCUMENT

# MACHFORCE® CONNECTOR TESTING

## 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® DataMATES® 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



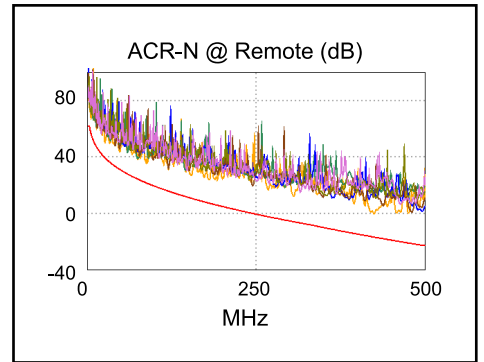
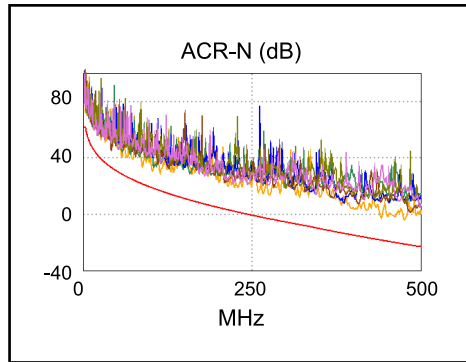
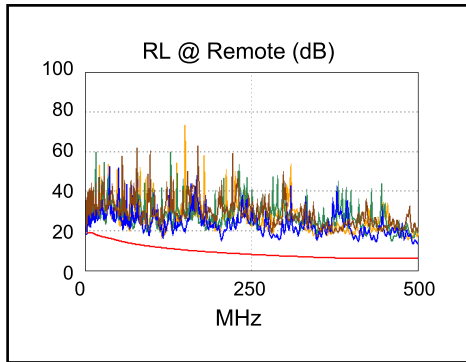
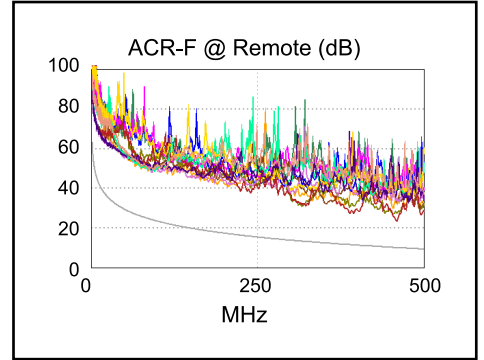
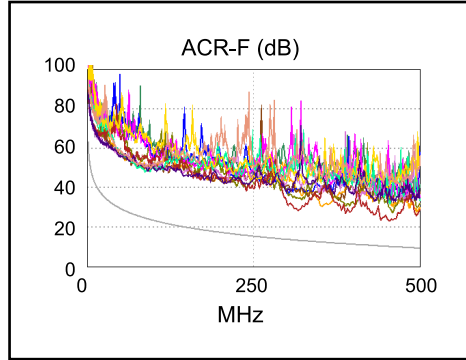
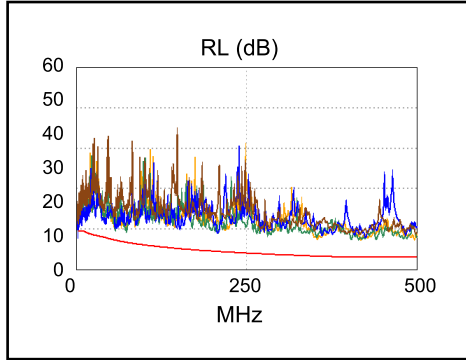
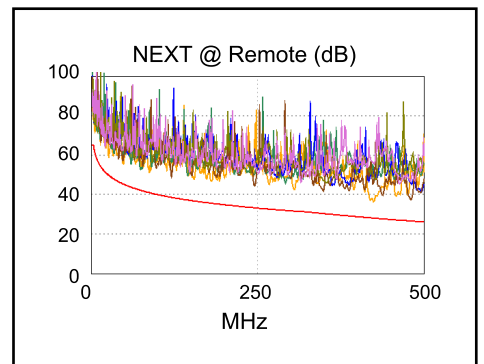
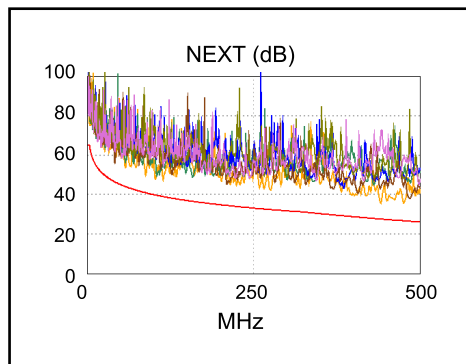
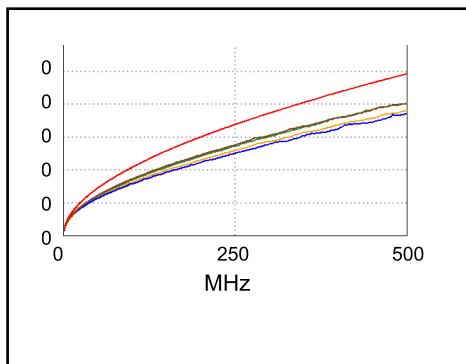
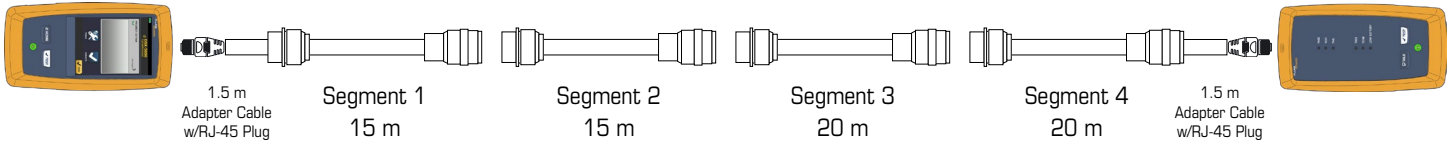
# TECHNICAL DOCUMENT

# MACHFORCE® CONNECTOR TESTING

## ELECTRICAL PERFORMANCE: E6A6826

### TESTING METHODOLOGY

- **Analyzer Model:** Fluke DSX-5000
- **Cable Type:** Cat 6A F/UTP
- **Headroom:** 7.9 dB (NEXT)
- **NVP:** 68.7%
- **Test Limit:** TIA Cat 6A Channel
- **Max Assembly Length:** 70M



# TECHNICAL DOCUMENT

# MACHFORCE<sup>®</sup> CONNECTOR TESTING

## ELECTRICAL PERFORMANCE: E6A6824

### TESTING METHODOLOGY

- **Analyzer Model:** Fluke DSX-5000
- **Cable Type:** Cat 6A F/UTP
- **Headroom:** 6.4 dB (NEXT)
- **NVP:** 68.5%
- **Test Limit:** TIA Cat 6A Channel
- **Max Assembly Length:** 80M

