

HDMI Nano



Electrical-Mechanical Specifications

| | | |
|--|-------|---|
| ■ Performance: | _____ | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139 |
| ■ Contact Resistance: | _____ | 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139 |
| ■ Current Rating: | _____ | 1 Amp per MIL-DTL-32139 |
| ■ Operating Temperature: | _____ | -55°C to 85°C |
| ■ Durability: | _____ | >2000 mating cycles min |
| ■ Insulation Resistance: | _____ | 5000 megohms @ 500 VDC |
| ■ Shock: | _____ | 100 g's with no discontinuities > 10 nanosecond |
| ■ Vibration: | _____ | 20 g's with no discontinuities > 10 nanosecond |
| ■ Thermal Vacuum Outgassing (Space Class): | _____ | 1.0% max TML, 0.03% max CVCM |
| ■ Mating/Unmating Force: | _____ | 2.5 oz (71 g) typical per contact |

Material Specifications

| | | |
|---------------------|-------|--|
| ■ Contact: | _____ | Copper Alloy Per MIL-DTL-32139 |
| ■ Contact Finish: | _____ | Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate |
| ■ Insulator: | _____ | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | _____ | Black Thermoplastic Polyurethane |
| ■ O-Ring: | _____ | BUNA-N |
| ■ Cable (Shielded): | _____ | 32 AWG (7-40) SPA, EPTFE/PFA, color coded, Black Polyurethane Jacket |
| ■ Shield: | _____ | Mylar foil wrap, 38 AWG tin plate copper braiding |

Shell Options

| | | |
|--------------------------------|-------|--|
| ■ Brass Alloy 360 1/2 Hard: | _____ | Electroless Nickel per SAE-AMS-2404 Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | _____ | Passivated per SAE-AMS-2700 Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

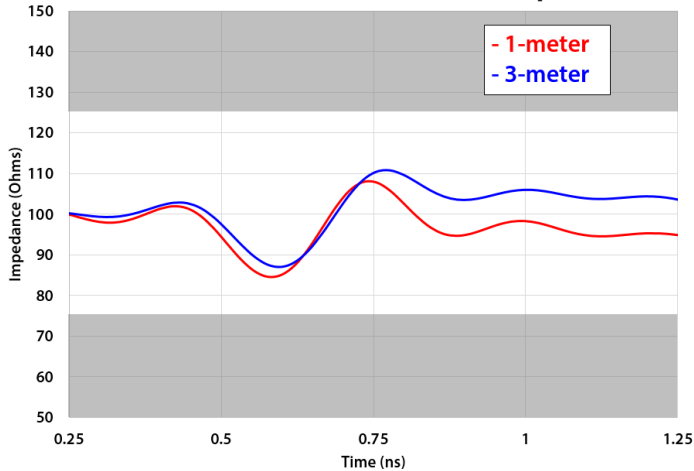
* less resistance to salt spray test.

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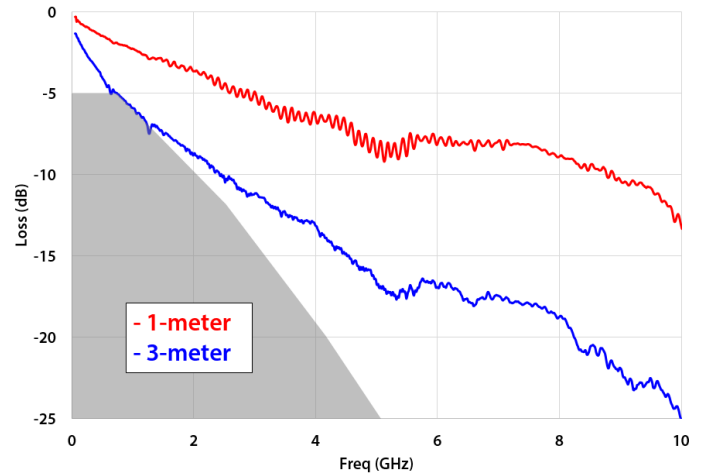
Electrical Specifications

| Parameter | | Spec | 1-Meter | 3-Meter |
|----------------------------------|-----------|--------------|--------------|--------------|
| Connector Differential Impedance | Z_{MIN} | 75 Ω | 85 Ω | 87 Ω |
| | Z_{MAX} | 125 Ω | 108 Ω | 110 Ω |
| Cable Differential Impedance | Z_{MIN} | 90 Ω | 95 Ω | 95 Ω |
| | Z_{MAX} | 100 Ω | 104 Ω | 103 Ω |
| Differential Insertion Loss | 0.825 GHz | 5 dB | 2 dB | 5 dB |
| | 2.475 GHz | 12 dB | 5 dB | 9 dB |
| | 4.125 GHz | 20 dB | 7 dB | 12 dB |
| | 5.100 GHz | 25 dB | 9 dB | 15 dB |
| Differential Far-End Crosstalk | FEXT MAX | < -20 dB | -32 dB | -38 dB |
| Intra-Pair Skew | Skew MAX | 112 ps | 34 ps | 79 ps |

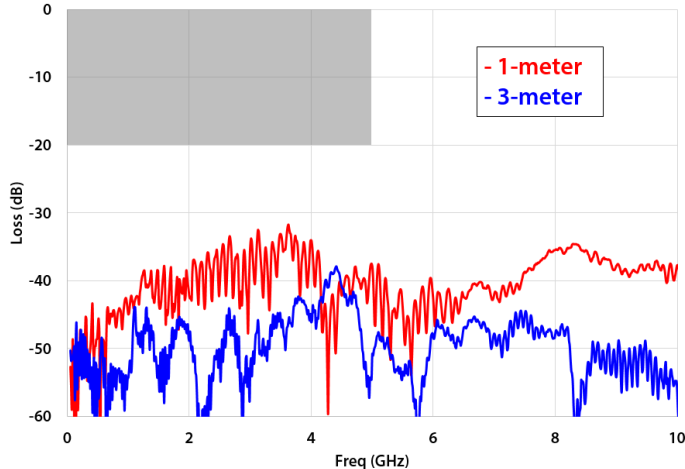
Omnetics Nano 360° HDMI Connector Impedance



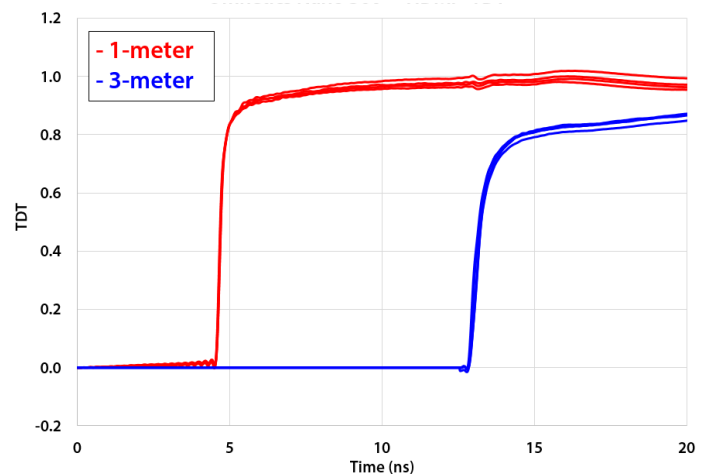
Omnetics Nano 360° HDMI Insertion Loss



Omnetics Nano 360° HDMI FEXT



Omnetics Nano 360° HDMI TDT



Various cable options are available. Measurements shown above with cables manufactured in Asia.