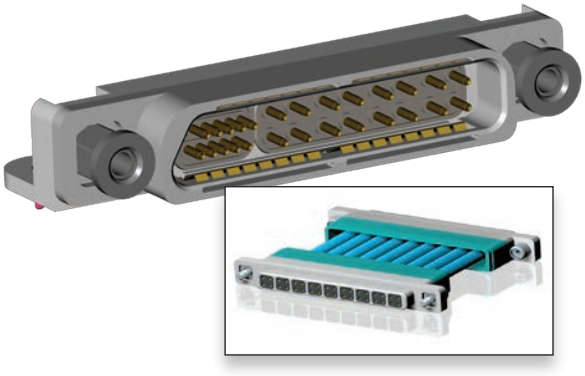
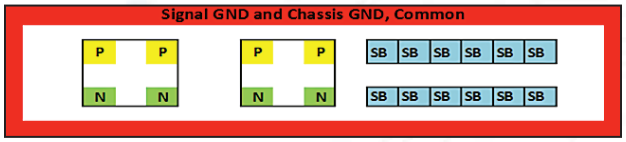
microQUAD

Micro-D 1394 IEEE 1394, Ethernet MIL-DTL-83513 Connectors



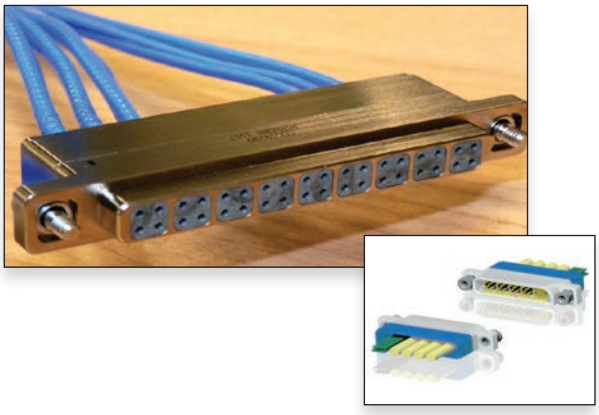


The microQUAD connector line is designed to meet requirements for Signal Integrity IEEE 1394 Ethernet applications, while still delivering reliability customers have come to expect from AirBorn.

MicroQUAD provides design flexibility by offering vertical and right-angle board mounts plus cable I/O configurations. MicroQuad is designed to handle high-speed LVDS like Ethernet 100 Ω differential Quadrex. The MIL-DTL-83513 (Micro-D) qualified contact system and metal shells ensure ruggedness and durability. MicroQUAD ranges from 1-10 high-speed modules and up to 50 signal contacts.

Features & Benefits

- 9 sideband connections included
- Balanced lengths within pairs limit skew
- Field-tested: four independent tine, gold-plated contact system offers superior performance and reliability
- Rugged metal shells and hoods
- Shell-to-shell EMI interface gasket
- Shell ground independent of signal pair grounds
- Versatile product offering includes both genders of vertical, right-angle board, and cable



Materials

Differential Impedance Per Quad Module	100 Ω and 110 Ω
Wire Size: for both Quad and Signal	Stranded 24 AWG, 26 AWG, 28 AWG, or 30 AWG
Signal Contact Rating	3-amperes maximum
Test Voltage	600 V, RMS, 60 Hz
Operating Temperature	-55°C to +125°C
Insulation Resistance	5000 megohms minimum @ 500 VDC
Durability	500 connector mating cycles
Vibration	Tested in accordance with MIL-STD-1344, Method 2005, Condition IV
Shock	Tested in accordance with MIL-STD-1344, Method 2004, Condition E
Salt Spray	Mated connectors tested in accordance with MIL-STD-1344, Method 1001, Test Condition B
Humidity	Mated connectors tested in accordance with MIL-STD-1344, Method 1002, Type II (except steps 7a and 7b)
Thermal Shock	Tested to the temperature extremes of MIL-STD-1344, Method 1003, Test Condition A (except step 3, temperature shall be 125°C)
Contact Resistance	0.065 Volt maximum drop @ 2.5 amps (0.026)
Contact Engaging Force	6.0 ounce maximum, with 0.0221 diameter test sleeve
Contact Separating Force	0.5 ounce minimum, with 0.023 diameter test sleeve
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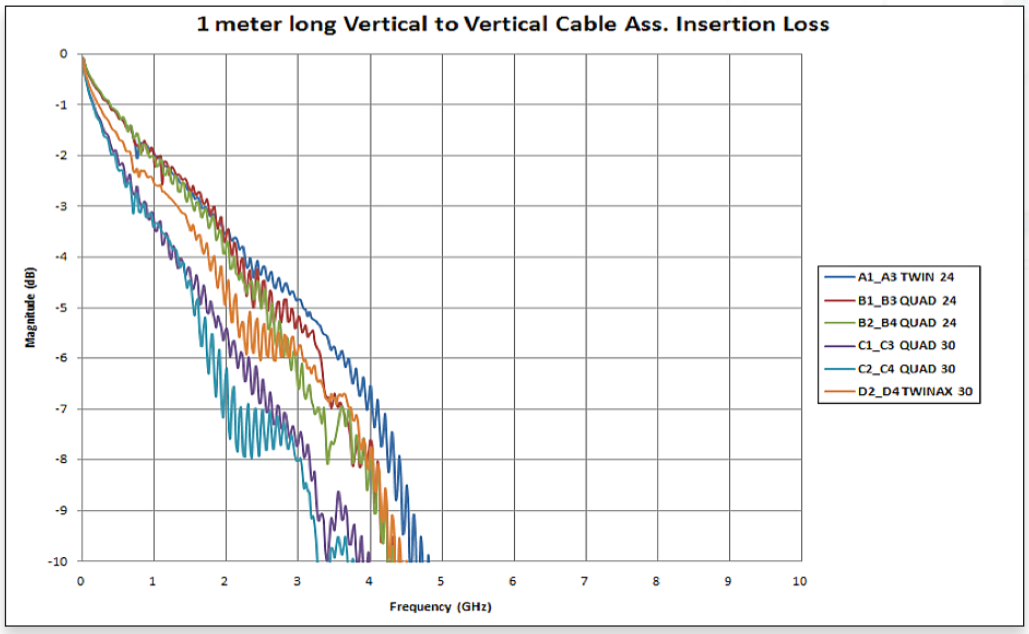
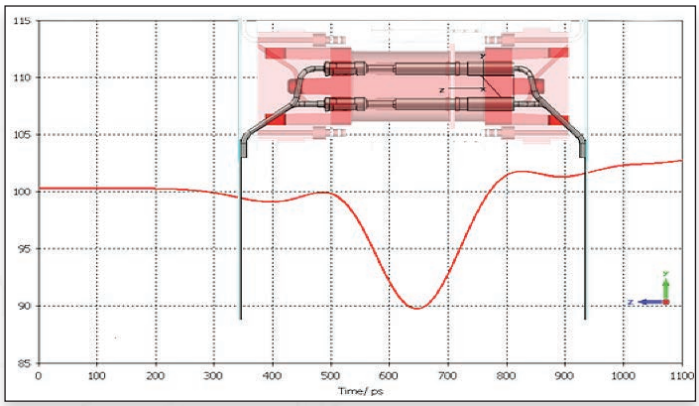
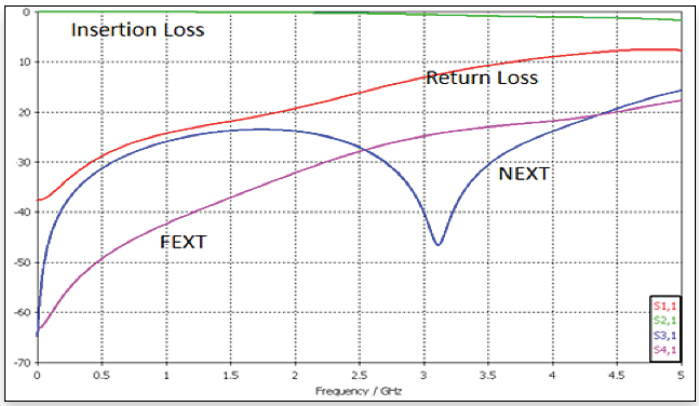
SI Performance for Mated Pairs

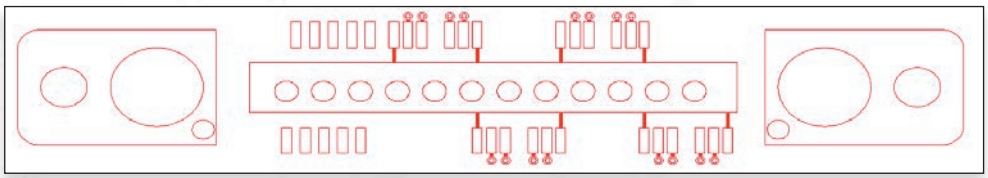




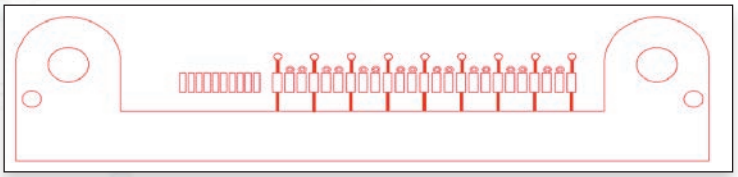
Impedance Profile



5 Parameters



Typical PCB Footprint for Vertical Connector



Typical PCB Footprint for Right-Angle Connector

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