

QUADRAX CONTACTS

SIZE 8 HIGH SPEED QUADRAX AND DIFFERENTIAL TWINAX CONTACTS

- Quadrax contacts consist of an outer contact with four strategically spaced inner contacts forming two 100 or 150 Ohm matched impedance differential pairs.
- Differential Twinax consist of an outer contact with two inner contacts spaced to form one 100 or 150 Ohm matched impedance differential pair. Both contacts can be used in connectors for Ethernet 100 Base-T- 100 Ohm, Fibre-Channel-150 Ohm and IEEE 1394B FireWire- 110 Ohm applications.

Typical Electrical Performance:

- Bandwidth: Up to 3 Gigahertz.
- Data Rate: Exceeding 2 Gbits/sec
- Voltage Rating: 500 Vrms max. @ sea level
- Dielectric Withstanding Voltage:
 - 1000 VAC rms between all inner contacts @ sea level
 - 500 VAC rms between inner and outer contacts @ sea level.



SIZE 8 QUADRAX MATED PAIR TERMINATED TO TENSOLITE CABLE NF24Q100

Ethernet 100 Base-T Cable • IEEE1394 FireWire Cable

Differential Impedance:	100 Ohm +/-10
Attenuation on 22.5 Ft:	100 MHz : 1.78 dB 400 MHz : 3.94 dB 1.0 GHz : 7.55 dB 2.5 GHz : 15.8 dB 3.0 GHz : 19.1 dB
Far End Cross Talk (FEXT) ²	> -30 dB up to 3.5 GHz
Eye Pattern ¹	The minimum output eye opening with a 1-volt p-p input shall be 408 mV p-p measured at 50% of the period.

Description	Part number	cable recommended	impedance
Quadrax Socket	21-33385-51	Tensolite NF24Q100	100 Ohm
Quadrax Pin	21-33384-51		



¹ Differential mode, 22.5 feet test length, 100 ps rise time (20%-80%), 1.65 Gb/sec.
² 22.5 feet test length, tested on HP8753ES Network Analyzer

SIZE 8 DIFFERENTIAL TWINAX MATED PAIR TERMINATED TO TENSOLITE CABLE 24463/9P025X-2(LD)

Ethernet 100 Base-T Cable • IEEE1394 FireWire Cable

Differential Impedance:	100 Ohm +/-10
Attenuation on 22.5 Ft:	608 MHz : 32.22 dB 1.85 GHz : 23.98 dB 2.31 GHz : 23.30 dB 3.31 GHz : 23.90 dB
Eye Pattern ¹	The minimum output eye opening with a 1-volt p-p input shall be 434 mV p-p measured at 50% of the period.

Description	Part number	cable recommended	impedance
Differential Twinax Socket	21-33388-21	Tensolite 24463/9P025X-2(LD)	100 Ohm
Differential Twinax Pin	21-33387-21		



¹ Differential mode, 22.5 feet test length, 100 ps rise time (20%-80%), 1.65 Gb/sec.

Also available are Quadrax and Twinax Transition Adapters, which provide a method of launching from the High Speed connectors to the PCB boards. Shown are threaded Twinax adapters. Non-threaded adapters for launching direct from the cable end to the board are also available. Part numbers vary depending on cable. Consult factory for more information.



Straight Twinax Receptacle Contact



90 Degree Twinax Receptacle Contact



Twinax Plug Contact