# Octo-Contact: The Superior Ethernet Contact System for MIL-DTL-38999, Series III





21-033425-461 Pin for 24 awg

21-033425-471 Socket for 24 awg

21-033425-481 Pin PCB Tail

21-033425-491 Socket PCB Tail

# **OVERVIEW**

Eight strategically spaced inner contacts form four 100 Ohm matched impedance differential pairs.

## **FEATURES**

- + Available in size 8 crimp termination style
- + Also available in PC Tails
- + Can be installed in existing size 8
  Quadrax cavities
- + Meets performance specifications of CAT-6A cable
- + 10G Ethernet compliant
- + Overall higher bandwidth than standard CAT5E quadrax-supports up to 4.0 Gbps per pair
- + Enhanced crosstalk performance (compared to standard quardrax)
- + Supports wire ranges 26 to 24 gauge
- + Requires modification of MIL-DTL-38999 connector to accommodate keyed contacts

## **BENEFITS**

- + Easy drop-in replacement to installed connectors no need to redesign
- Self removing contact feature no extra contact extraction tool needed (24 Gauge only)

Contact Style	Part Number	*Cable	AWG
Crimp Pin	21-033425-461	Themax: MX10G-24 MX10G-24HP	24
Crimp Socket	21-033425-471		
Crimp Pin	21-033425-501	Thermax MX10G-26	26
Crimp Socket	21-033425-511		
PCB Pin	21-033425-481		
PCB Socket	21-033425-491		

<sup>\*</sup>Not limited to cables shown

## **SPECS**

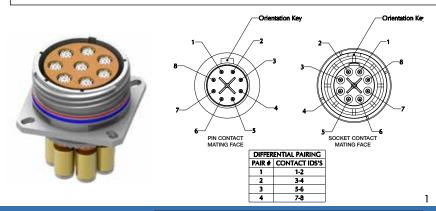
Environmental Sealing: IAW connector specification

Corrosion Resistance: 500 hours salt spray

EMI Shielding: 360 degree shielding on each pair

Mating Cycles: 500 cycles

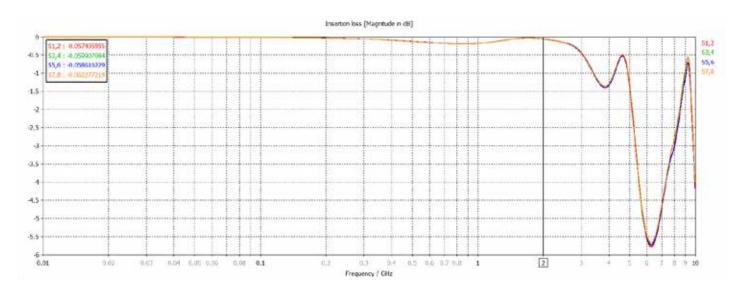
Voltage Rating: 500 Vrms max @ sea level Dielectric Withstanding Voltage: 500 VAC RMS sea level



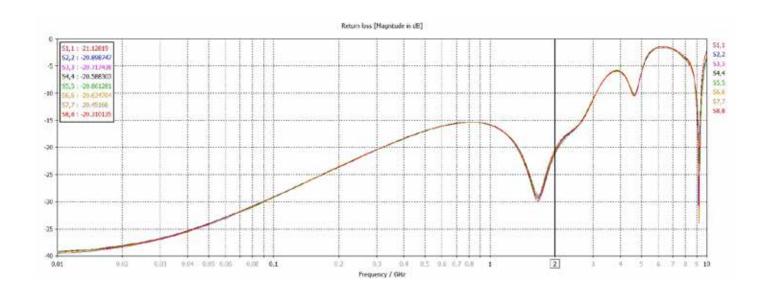
# SIGNAL INTEGRITY CONTACT DATA





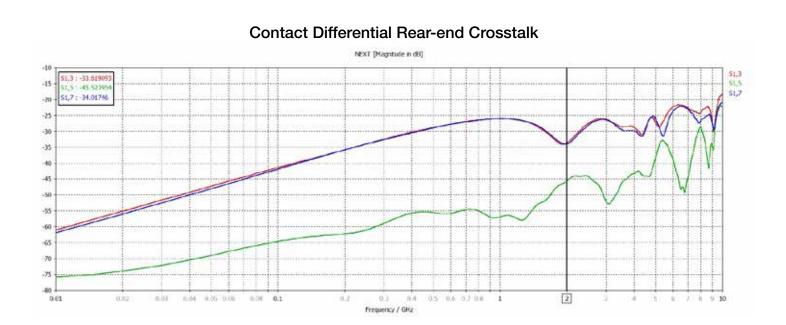


# **Contact Differential Return Loss**

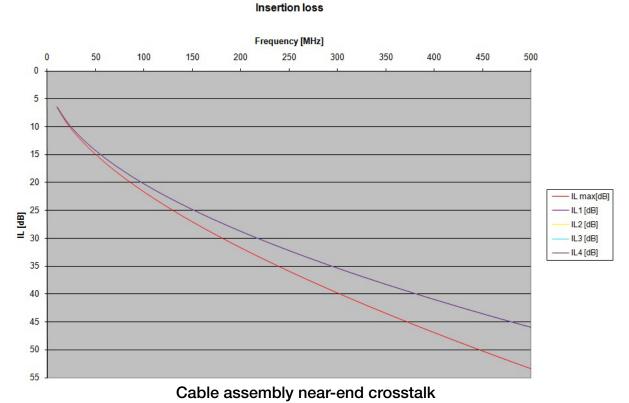






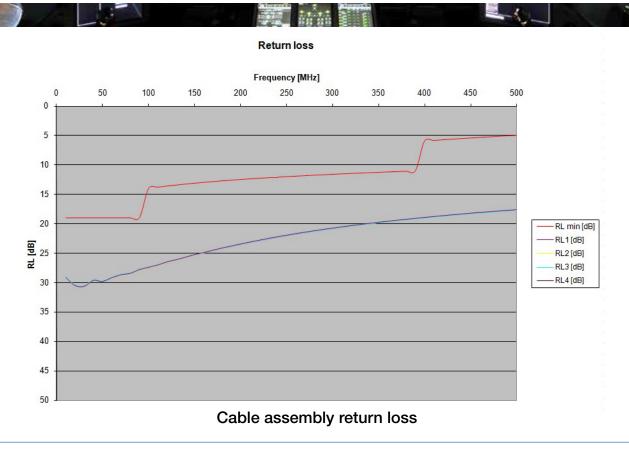


# 10GBASE-T data (two mated contacts on each end of 100 meter CAT6a cable)

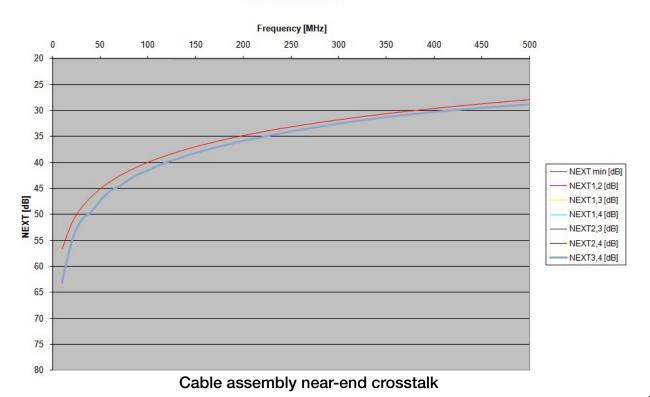






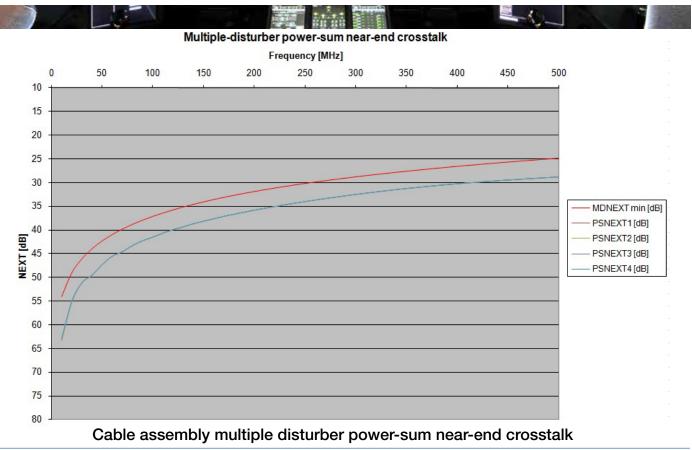


## Near-end crosstalk

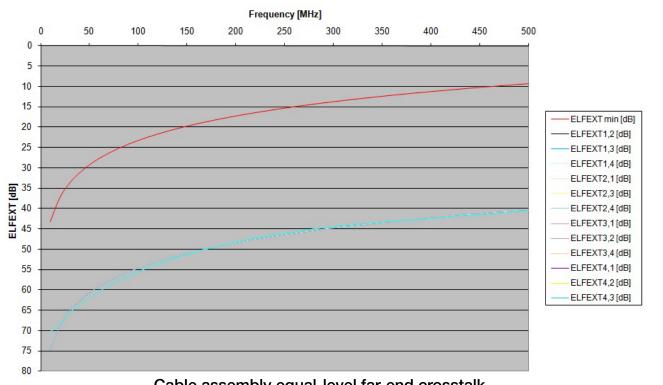


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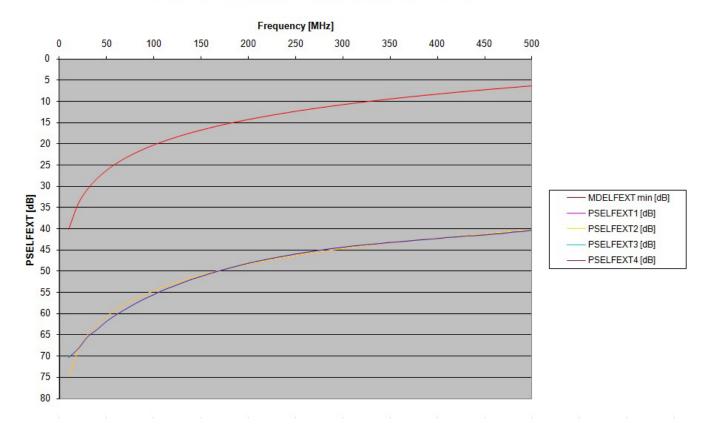


## Equal-level far-end crosstalk





#### Multiple disturber power-sum equal-level far-end crosstalk



Cable assembly multiple disturber power-sum equal-level far-end crosstalk

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