

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



Pin for 24 awg



Socket for 24 awg



Pin PCB Tail



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 Quadrax)
- + Supports wire ranges 26 to 24 gauge
- + Requires modification of MIL-DTL-38999 connector to accommodate keyed contacts

### BENEFITS

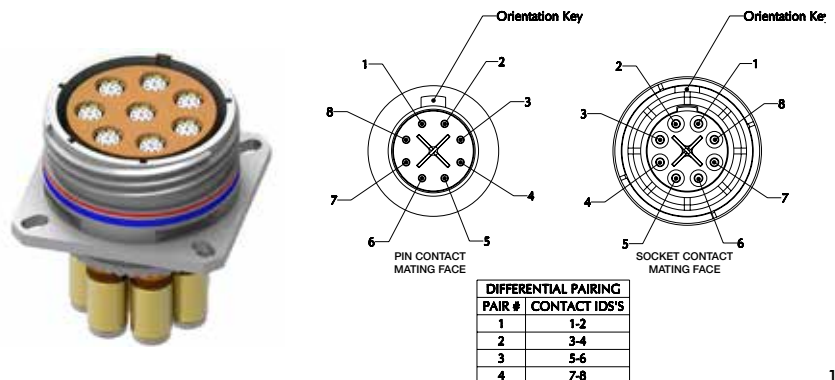
- + Easy drop-in replacement to installed connectors no need to redesign
- + Self removing contact feature - no extra contact extraction tool needed (24 Gauge only)

Contact Style	Part Number	*Cable	AWG
Crimp Pin	21-032904-001	Thermax: MX10G-24HP	24
Crimp Socket	21-032905-001	Thermax: MX10G-24HP	
Crimp Pin	21-032904-011	W.L.Gore: RCN8966-24	
Crimp Socket	21-032905-011	W.L.Gore: RCN8966-24	
Crimp Pin	21-032904-021	PIC E6A3824	
Crimp Socket	21-032905-021	PIC E6A3824	
PCB Pin	21-032906-001		
PCB Socket	21-032907-001		

\*Not limited to cables shown

## SPECS

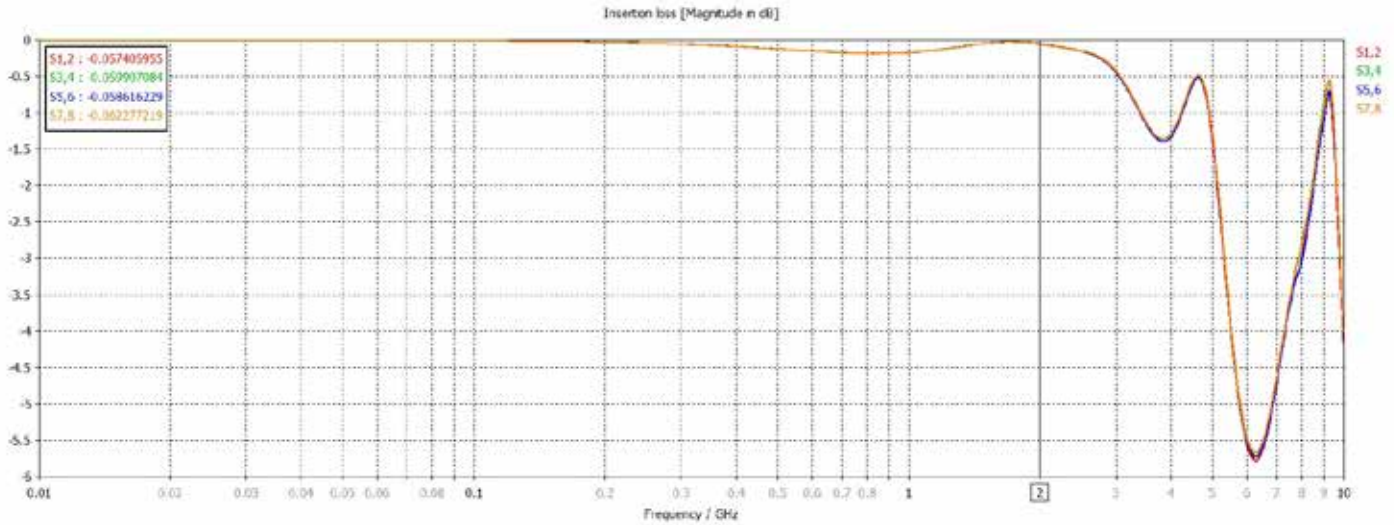
Environmental Sealing:	IAW connector specification
Corrosion Resistance:	500 hours salt spray
EMI Shielding:	360 degree shielding on each pair
Mating Cycles:	500 cycles
Voltage Rating:	500 Vrms max @ sea level
Dielectric Withstanding Voltage:	500 VAC RMS sea level



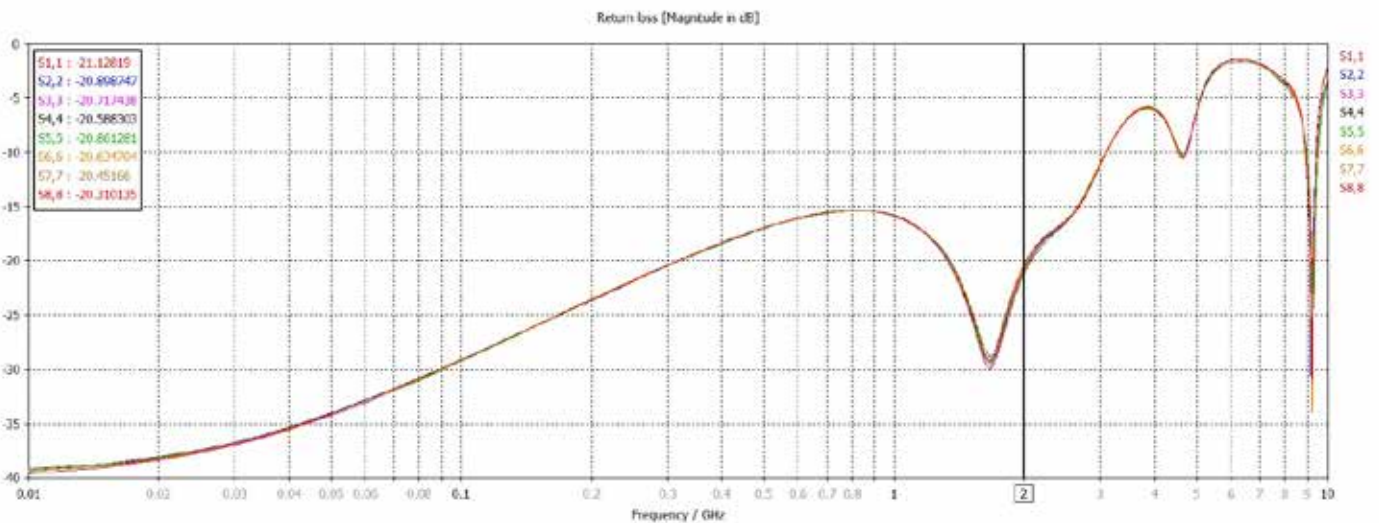


DS-260

## Contact Differential Insertion Loss

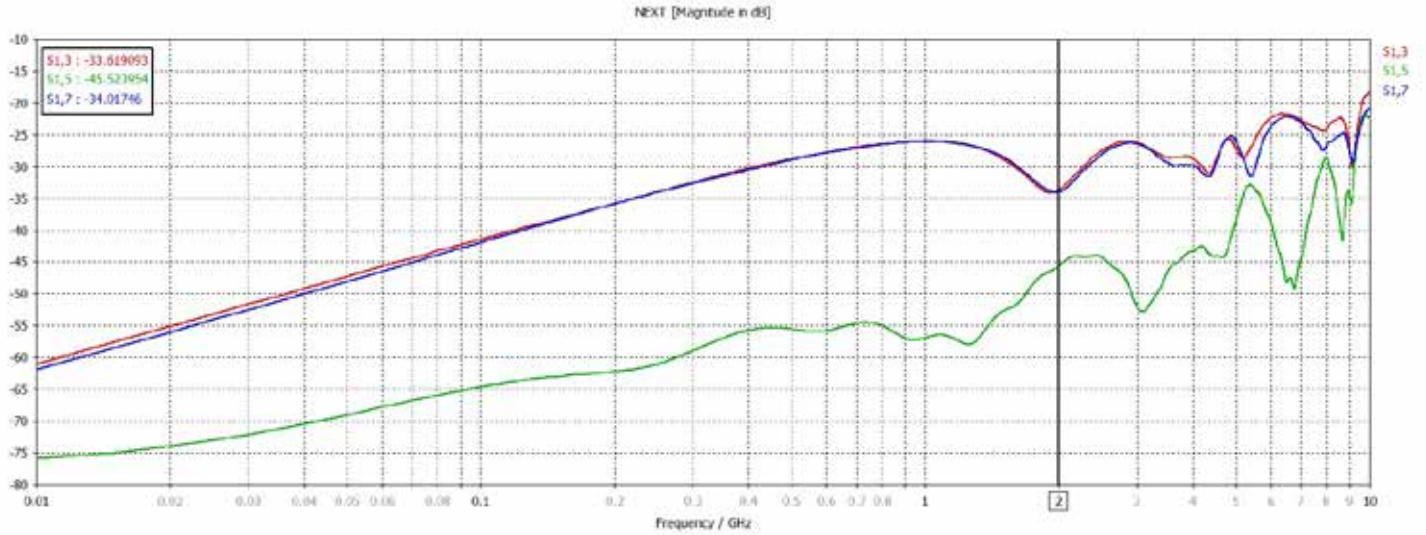


## Contact Differential Return Loss

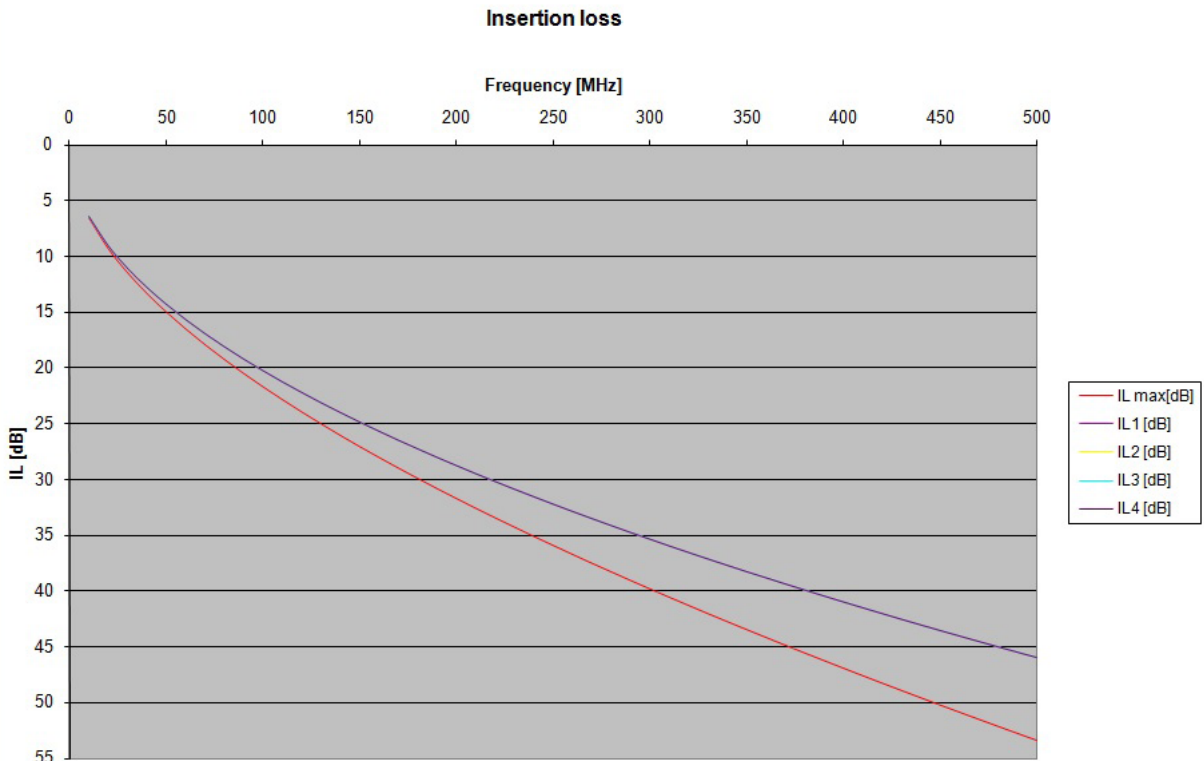




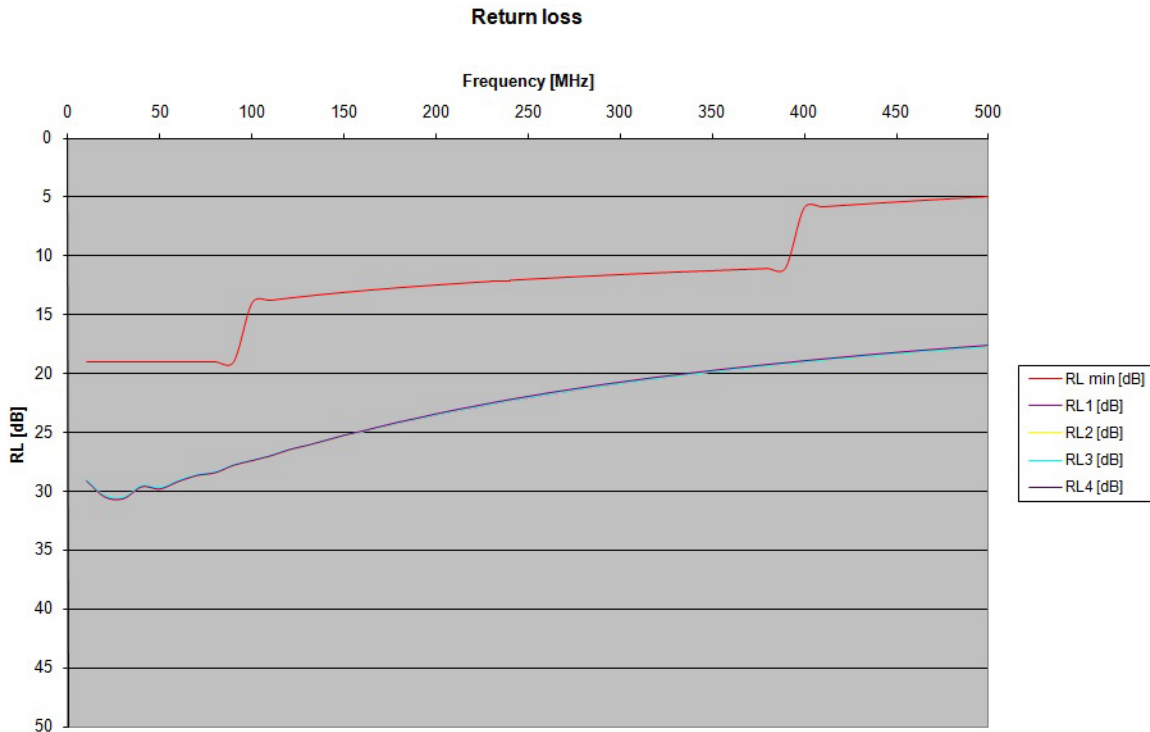
## Contact Differential Rear-end Crosstalk



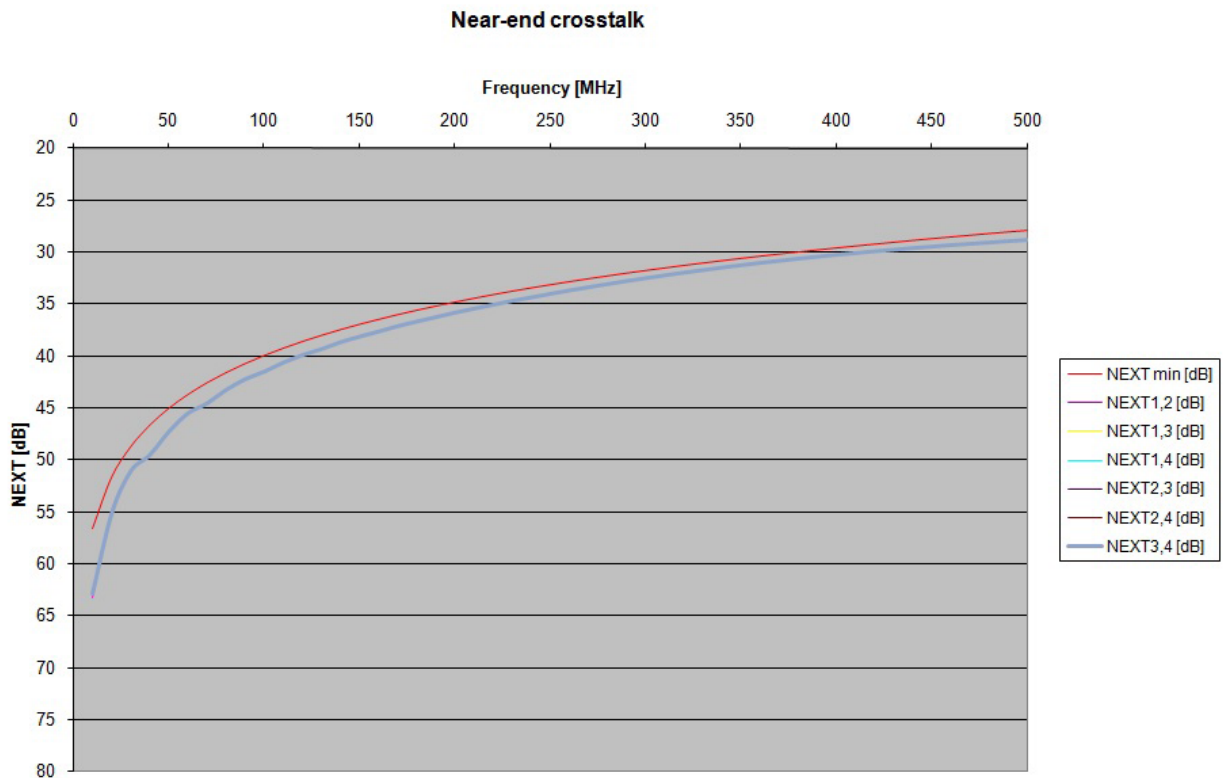
## 10GBASE-T data (two mated contacts on each end of 100 meter CAT6a cable)



Cable assembly near-end crosstalk



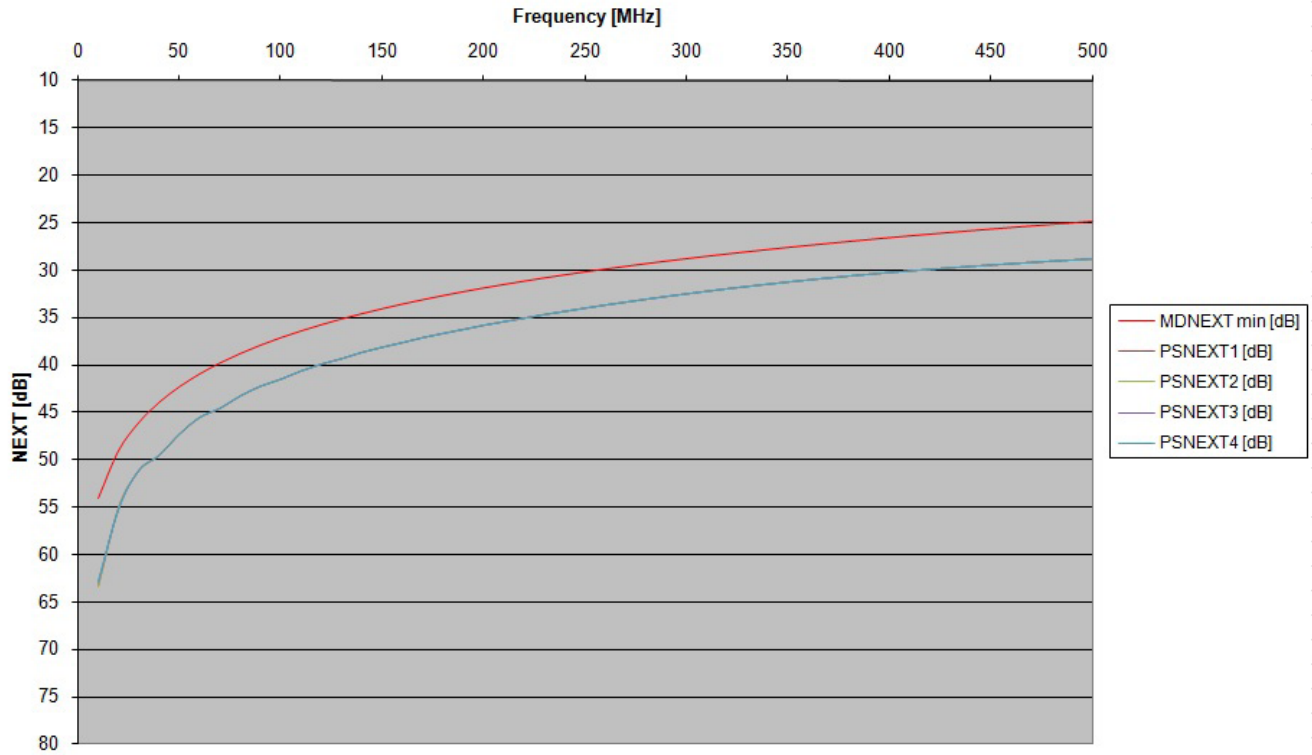
Cable assembly return loss



Cable assembly near-end crosstalk

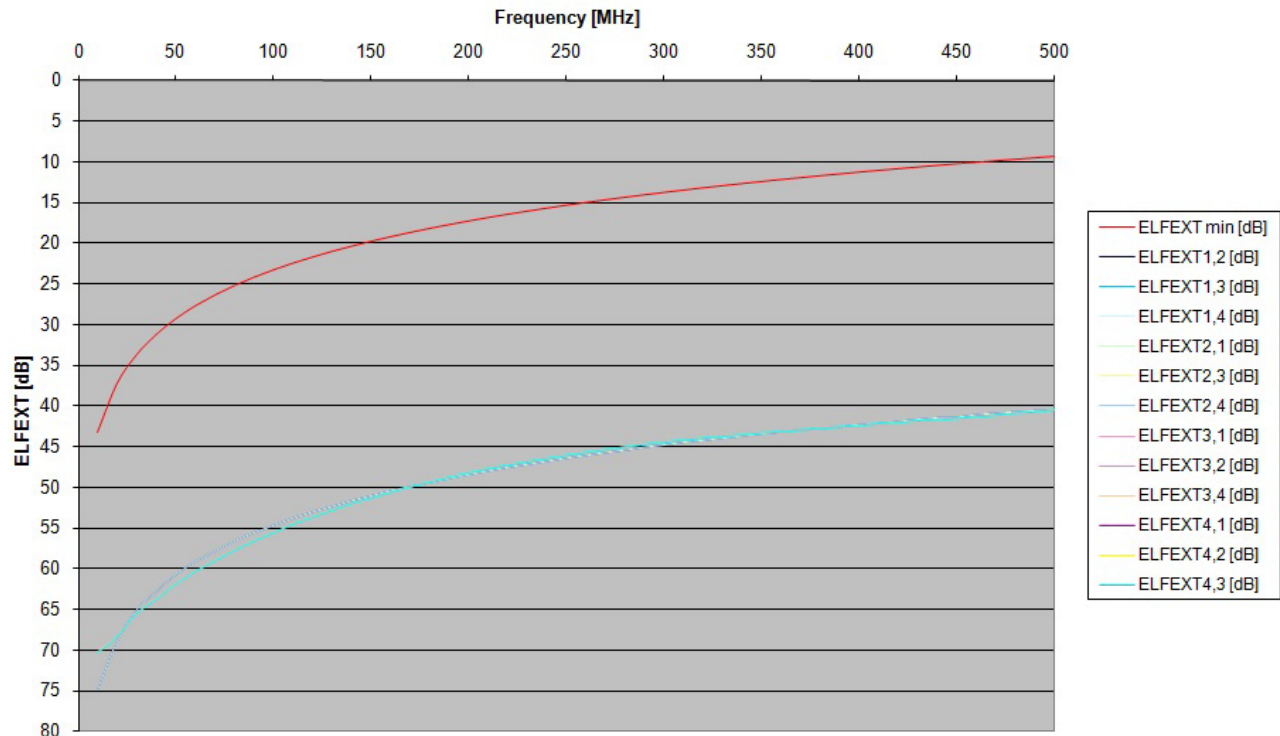


Multiple-disturber power-sum near-end crosstalk



Cable assembly multiple disturber power-sum near-end crosstalk

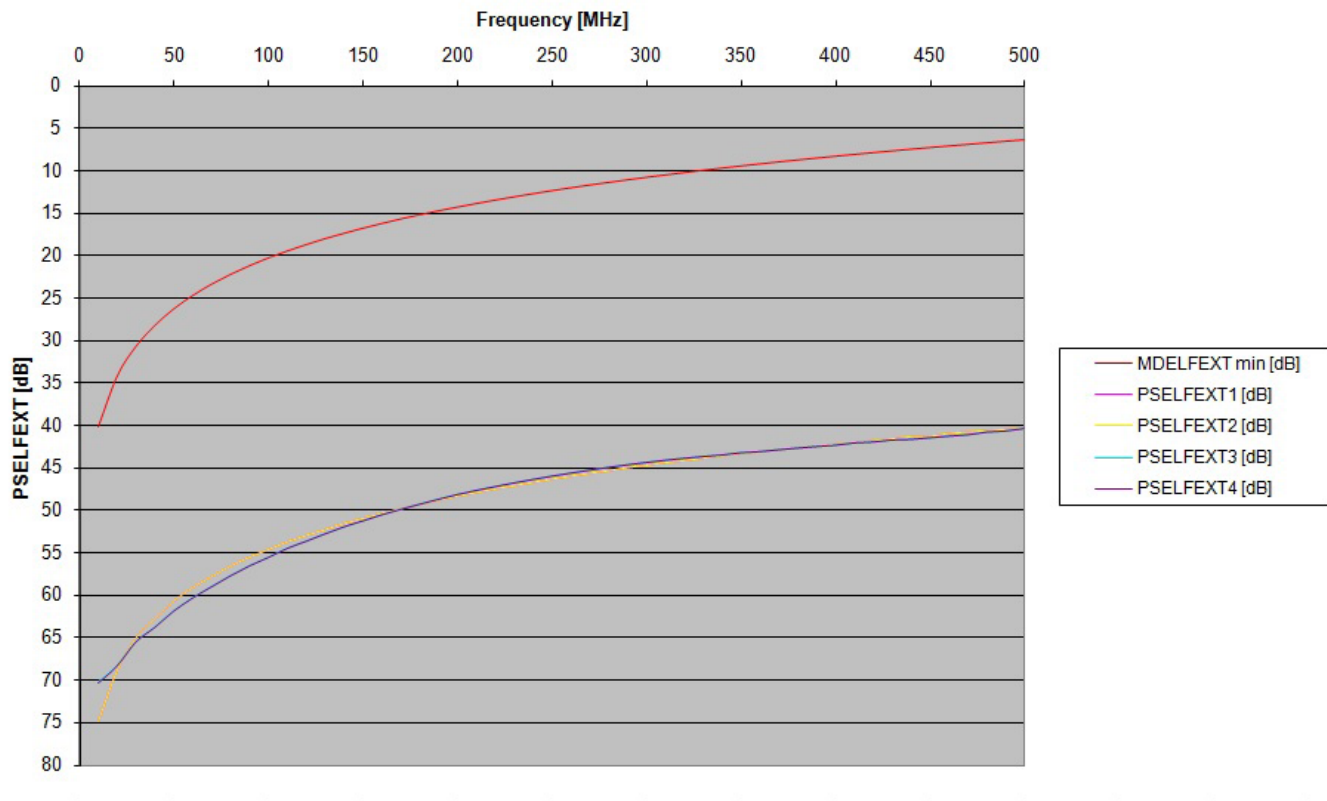
Equal-level far-end crosstalk



Cable assembly 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

**Contact Us:**  
 Sandra Wildenstein  
 E-mail: [swildenstein@amphenol-aao.com](mailto:swildenstein@amphenol-aao.com)  
 Phone: 607-563-5379

Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

AMPHENOL is a registered trademark of Amphenol Corporation. ©2014 Amphenol Corporation REV:12/15/2014

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Amphenol:](#)

[21-032905-021](#) [21-032905-011](#) [21-032907-001](#) [21-032904-011](#) [21-032904-021](#) [21-032906-001](#) [21-032905-001](#)