

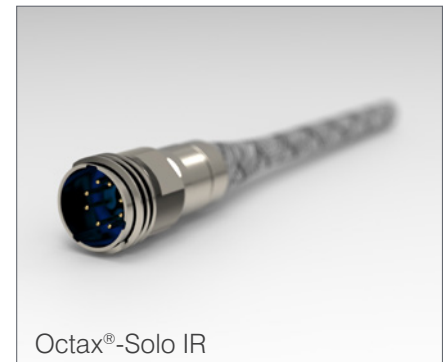
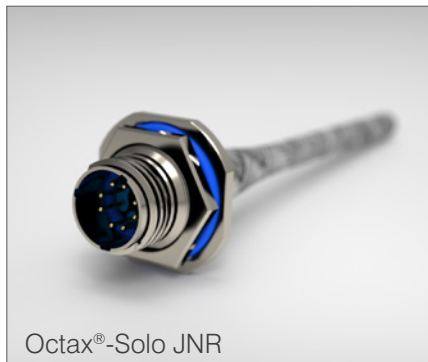
Octax®-Solo 10 Gbps Ethernet Interconnect System

ULTRA HIGH-SPEED INTERCONNECT SOLUTION

Amphenol CIT Octax®-Solo 10 Gbps Ethernet Connector is a single-port, standalone connector designed for a wide variety of aerospace and military applications. The Octax connector:

- » Uses innovative inserts that isolate each twisted pair and contact, virtually eliminating near-end crosstalk
- » Features cable and twists that are maintained extremely close to the contacts, minimizing characteristic impedance mismatch
- » Delivers 10x the transmission speed (10 Gbps signal) and 2x the density compared to Quadrax-type solutions

Feature	Benefit
Gigabit and 10 Gb Ethernet data transfer speed	• Allows for higher data quantities to transfer at quicker speeds covering a variety of 1 Gb applications and emerging 10 Gb needs
Field repairable	• Designed for easier and less costly on-site termination repair
Uses standard 22D crimp contacts (M39029)	• Standard off-the-shelf contacts are readily available and requires no special tooling
Small form factor	• Critical space savings for highly dense applications
Anti-decoupling/self-locking mechanism for rugged environments	• Connector will not disconnect/uncouple in a high-vibration application



SUGGESTED APPLICATIONS

- » Single-Port 10 Gbps Ethernet connector (compatible with Amphenol CIT Gigabit Series Ethernet Cables)
- » Aerospace and military
 - » Avionics
 - » IFEC
 - » High definition video displays
 - » Data loading
- » Any high-speed Ethernet application

PART NUMBERING

Part Number	Description	Finish
OCTAX-SOLO-FMR	Flange mount receptacle connector	Ni PTFE
OCTAX-SOLO-JNR	Jam nut receptacle connector	Ni PTFE
OCTAX-SOLO-IR	Inline (flange-less) receptacle connector	Ni PTFE
OCTAX-SOLO-P	Plug connector	Ni PTFE
OCTAX-SOLO-FM-PCB*	Straight PCB flange mount receptacle connector	Ni PTFE
OCTAX-SOLO-FMR-W	Flange mount receptacle connector	CADMIUM OD
OCTAX-SOLO-JNR-W	Jam nut receptacle connector	CADMIUM OD
OCTAX-SOLO-IR-W	Inline (flange-less) receptacle connector	CADMIUM OD
OCTAX-SOLO-P-W	Plug connector	CADMIUM OD

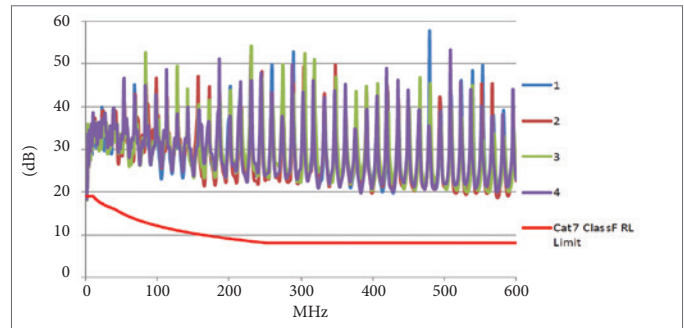
* Jam nut design also available

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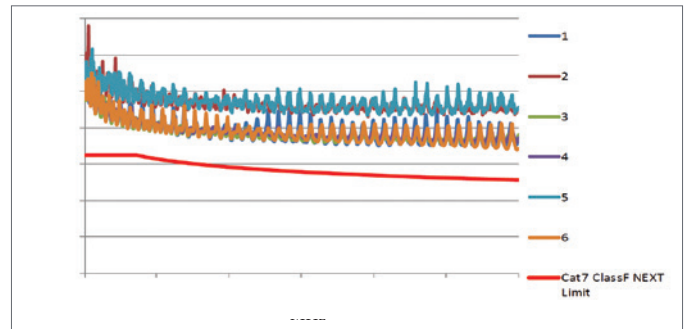
SPECIFICATIONS & PERFORMANCE

Test Scope	Per Specification	Notes
Environmental		
Operating Temperature	-65 °C to 175 °C	
Altitude Immersion	EIA-364-03	70,000 ft., 500 VRMS
Fungus	MIL-STD-810	By Similarity
Contamination by Fluids	MIL-STD-810	By Similarity
Sand and Dust	MIL-STD-810	By Similarity
Corrosion Resistance	EIA-364-26, Condition A	100 hrs
Mechanical		
Vibration - Random	EIA-364-28, Condition V, Letter "J"	
Durability	MIL-DTL-38999	500 Mate/Unmate Cycles
Coupling Torque	MIL-DTL-38999, 3.11 and 4.5.7	6"/lb Max., 1"/lb Min.
Contact Retaining Force	EIA-364-29, Method B	6 lb Max., .012" Displacement
Electrical		
Dielectric Withstand Voltage	EIA-364-20	500 VRMS, 60 Hz
Shell to Shell Conductivity	EIA-364-83	10 mV drop
Insulation Resistance	EIA-364-21	500 VDC, 1000 MΩ
Data Rate	10 Gbps	

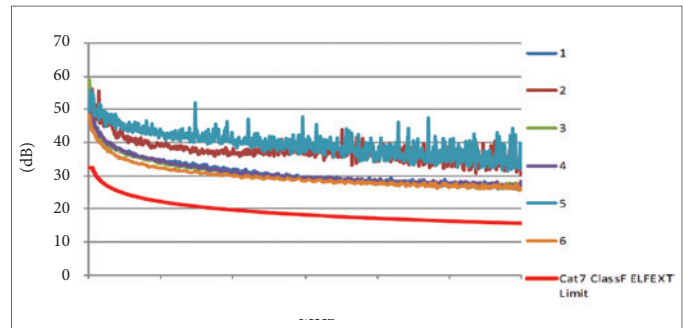
Amphenol CIT 1E027X-8 Octax Assembly Return Loss



Amphenol CIT 1E027X-8 Octax Assembly NEXT

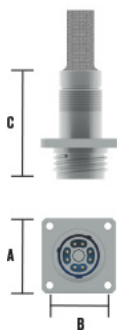


Amphenol CIT 1E027X-8 Octax Assembly ELFEXT



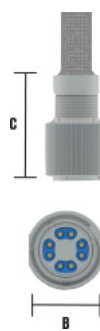
OCTAX-SOLO-FMR

- » A: 0.70"
- » B: 0.55"
- » C: 0.947"
- » 4.5 grams (ref)



OCTAX-SOLO-P

- » A: N/A
- » B: 0.51" dia.
- » C: 0.879"
- » 5 grams (ref)



OCTAX-SOLO-FM-PCB

- » A: 0.70"
- » B: 0.55"
- » C: 0.49"
- » 3 grams (ref)

