

Octax® Contact ARINC 600-Style Connector Inserts

ULTRA HIGH-SPEED INTERCONNECT SOLUTION

Amphenol CIT offers a line of ARINC 600 connector inserts that utilize the patented Octax® 10Gbps Ethernet technology in contact form combined with a high-position count of 22D signal contacts. The Octax contact:

- » Uses innovative inserts to isolate each twisted pair and contact.
- » Features cable and twist which are maintained extremely close to the contacts to minimize characteristic impedance mismatch.
- » Has each pair insert serving as an isolated cell to virtually eliminate near-end crosstalk.
- » Is capable of operating in data transmission speeds of 10 Gigabits/sec (Gbps) or higher.
- » Delivers 10x the transmission speed (10 Gbps signal) and 2x the density compared to Quadrax-type solutions.
- » Uses standard M39029 inner crimp contacts which reduce manufacturing installation time and provide a field-terminable solution with ease.

ARINC 600 connectors are a recognized standard rack and panel connector for aircraft applications. Our inserts are designed per ARINC 600 environmental and mechanical specifications and utilize pin-and-socket signal contacts manufactured in conformance with MIL-C-39029B.

ARINC 600 rack and panel connector inserts are designed to meet all applicable ARINC 600 connector specifications.

FEATURES & BENEFITS

Features	Benefits
Gigabit and 10 Gb Ethernet data transfer speed	Allows for higher quantities of data to transfer at quicker speeds, covering a variety of 1 Gb applications and emerging 10 Gb needs
High-density contact count	Critical space savings for highly-dense LRU applications
Standard and custom insert arrangements	Allows for application-specific configurations when the standard offering isn't ideal



SUGGESTED APPLICATIONS

- » EE Bay & IFE Rack Systems
 - » Avionics
 - » Flight controls
 - » High-definition displays
 - » High-resolution sensors
 - » Any Ethernet application requiring a high-performance connector and cable solution

PART NUMBERING

Coming Soon

Octax® Contact ARINC 600-Style Connector Inserts

SPECIFICATIONS & PERFORMANCE

ARINC 600 Style Octax Inserts	
Electrical, Mechanical, & Environmental	
Class: Non-Environmental and Termination Plug Shell Size, 2 and 3, Cavity A and B Receptacle Shell Size, 2 and 3, Cavity A and B	Plug Rear Release, (100) #22, (2) #4 Octax crimp contacts
	Receptacle Front Release, (100) #22, (2) #4 Octax PC tail contacts
Dielectric withstanding voltage (DWV)	1500 Vrms 500 Vrms at 50,000 ft. (15,240 m)
Contact resistance Size 22	8.0 milliohms, initial (max.) 11.0 milliohms, conditioned (max.)
Octax Contacts, Single Port Ethernet	Dielectric withstanding voltage (DWV) Per A-364-20 (500 VRMS, 60Hz)
	Data Rate (10Gbps)
Insulation Resistance	5.0 gigaohms min. at 500 VDC
Durability	500 cycles min. - mating & unmating
Temperature Range	-65 °C (-86 °F) to +125 °C (+275 °F)
Temperature Life	1000 hours at 125 °C
Salt Spray	MIL-STD-1344 method 1001.1 test condition B (48 hours)
Connector Mating Force	Size 2: 60 pounds (267 N) max
	Size 3: 105 pounds (467 N) max
Vibration	MIL-STD-1344, Method 2005.1, condition value E: random -16.4G minimum severity
Shock	MIL-STD-1344, Method 2004.1, test condition A: Three shocks in each direction along each of 3 axes
Materials & Finishes	
Shells and Retaining Plates Material, Finish	Aluminum Alloy
	Chem Conversion, Class 3 or Electroless Nickel Plated
Insulator Material	Thermoset/Thermoplastic
Polarizing Keys, Material, Finish	Aluminum Alloy
	Chem Conversion, Class 3 or Electroless Nickel Plated
Inserts Grounded, Material, Finish	Aluminum Alloy
	Electroless Nickel Plated
Screws, Lockwashers, Washers Material, Finish	Stainless Steel
	Passivated
Contact Bodies, Material, Finish	Copper Alloy
	Gold Plated
Contact Retention Clips, Material, Finish	Copper Alloy
	Non-Grounding: None/Grounding: Gold Plated