

Introducing ARINC 600 Next Generation Receptacle Connector

 **Tyco Electronics**
Our commitment. Your advantage.

ARINC 600 Next Generation Connector

KEY FEATURES

Completely inter-mateable with existing ARINC 600 plug connectors

“Monoblock” single-piece inserts that simplify the manufacturing process, saving cost

Stamped and formed, selectively plated size 22 contacts provide substantial cost savings while delivering excellent performance and reliability

Equivalent electrical performance vs. current design

Available in either Solder Tail or Press-fit (eye of the needle) designs

Up to 10% weight savings per connector (depending on insert arrangement)

DESCRIPTION

Whether it's collision avoidance, in-flight entertainment, or air-to-ground communications, today's Avionics manufacturers face a challenging economic environment and an ever-increasing demand for weight reduction. In response to these market demands, Tyco Electronics has developed a revolutionary Next Generation ARINC 600 receptacle connector that offers the “perfect solution” for Avionics manufacturers seeking reduced cost and weight.

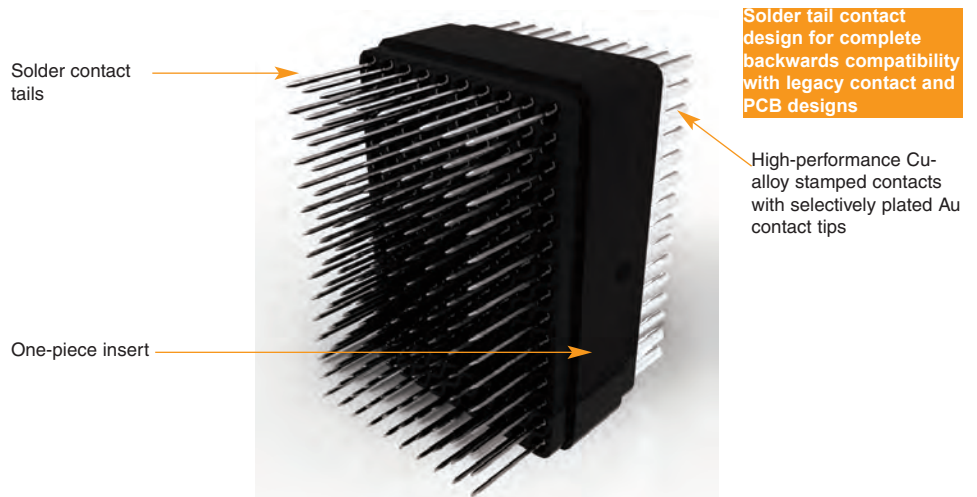
Tyco Electronics' Next Generation ARINC 600 receptacle utilizes proven connector design principles that represent breakthrough technologies in the ARINC 600 connector marketplace.

APPLICATIONS

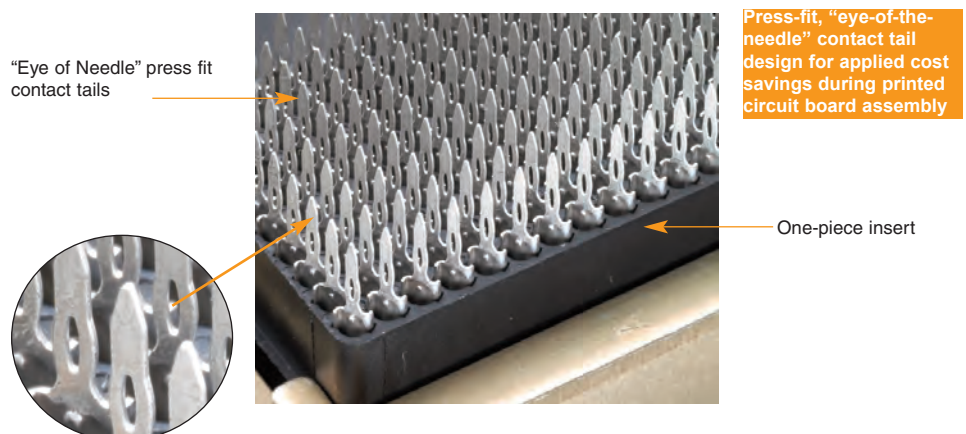
Avionics boxes: IFE, IFN, Flight control and communications

Military ground vehicles

SIZE 22 STAMPED & FORMED SOLDER TAIL CONTACT SYSTEM



SIZE 22 STAMPED & FORMED PRESS-FIT CONTACT SYSTEM



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STANDARDS AND SPECIFICATIONS

Product Specifications: (Solder tail):	108-2423
(EON Design):	108-2384
ARINC 600 - 18:	Air Transport Avionics Equipment Interfaces
Product Validation Test Report:	502-1263
Application Specification (EON Design):	114-13272

MECHANICAL

Mating and Unmating Forces (Max. after 3 cycles)	Size 2 — 60 pounds (267 N) Size 3 — 105 pounds (467 N)
Contact Retention against axial load:	Size 22 — 12 pounds (53 N)
Durability:	500 cycles min — mating and unmating (In testing, wired mated connectors cycled at a rate slower than 300 cycles per hour, showed no apparent damage or contact resistance greater than rated values)
Vibration and Shock Tolerance:	Per MIL-STD-1344, methods 2004-1 and 2005-1 (Testing to these conditions, including vibration for 8 hours in each of 3 mutually perpendicular axes, caused no visible cracking, breaking or loosening of parts, and no discontinuities exceeding 1 microsecond)

ENVIRONMENTAL

Temperature Range:	-85°F to 257°F (-65°C to 125°C) Process capability rating: the contact and insert shall be capable of withstanding wave solder processing (270°C for 10 seconds) and vapor phase processing (260°C for 2 minutes)
High Temperature Tolerance:	1000 hours min. at 257°F (125°C) (Wired, mated connectors)
Salt Spray Tolerance:	As specified by MIL-STD-1344, method 1001, Condition B
Fluid Imperviousness:	MIL-L-23699; MIL-H-5606: 1:3 mix isopropyl alcohol and mineral spirits (Test immersions of mated connectors in these fluids caused no evident deterioration)
Humidity Tolerance:	Insulation resistance 1 megohm min., 1-2 hours after exposure to humidity per MIL-STD-1344, Method 1002-1, Type II; 5000 megohm min. after 24 hours at 77°F (25°C)

ELECTRICAL

Dielectric Withstanding Voltage:	(Min.) 1500 VAC, RMS 60 Hz at sea level; 500 VAC, RMS 60 Hz at 50,000 ft. (15240 M) - (Tested at rated voltages for 60 seconds produced no flash over and 1 mA leakage, max.)		
Insulation Resistance:	1000 megohms min. (Test conducted on unmated connector after 30 min. exposure to 248°F-257°F (120°C-125°F))		
Contact Resistance:	Mated pairs tested per MIL-STD-1344, Method 3004-1		
Voltage/Current Ratings:	<u>Contact</u> Size 22	<u>AWG</u> 22	<u>Max. Current (A)</u> 5.0

ORDERING INFORMATION

Receptacle Housing	Tyco Electronics Part Number	Contact Style	Insert Layout		
Size 2	2101697-1	Solder Tail	150	150	13C2
Size 3	2101698-1	Solder Tail	150 150	150 150	13C2 100
Size 2	2101004-1	Press-Fit EON	150	150	68Q2
Size 3	2101003-1	Press-Fit EON	150 150	150 150	13C2 13C2

Contact Tyco Electronics for latest drawing

FOR MORE INFORMATION

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