XMP™ Interconnect Series

High-Power

CARLISLE INTERCONNECT TECHNOLOGIES

XMP Male Cable* Connector (12 slots) and XMP Female Cable* Connector

INTRODUCTION

Carlisle Interconnect Technologies introduces the XMP™ interconnect series designed to provide a convenient blind-mateable solution, specifically for ultra high-power applications. The XMP™ connectors combine our design expertise in push-on connectors with application specific materials to achieve high-power handling capability at RF frequencies. Similar to its predecessors, the XMP™ series is durable in construction and can tolerate radial and axial misalignment for multiple engagement/disengagement cycles without degradation in electrical performance.

The first set of XMP™ connectors were designed specifically for use in RF-excited CO_2 lasers that are capable of delivering between 100W to 600W of power. These connectors were constructed from brass bodies with Beryllium Copper male and female center contacts, a PTFE dielectric and silver over copper plating. They are capable of handling greater than 3 KW (Kilowatts) of power at 100 MHz, ideal for design in RF-excited CO_2 lasers.

Additionally, we can provide a variety of custom XMP™ connectors with different dielectric materials, alternate plating metals and back-end interface to accommodate different types of flexible cables. The XMP™ interconnect series is ideal for design in industrial applications (lasers); radars; missile and satellite systems and commercial applications.

FEATURES

» Frequency Range: DC - 5 GHz
» 50 Ω Impedance; Blind-mateable configuration
» MIL-STD-202 compliant for shock, corrosion, and vibration
» Ability to withstand Radial/Axial Misalignment
» Male and Female cable connector configurations
» Custom Connectors Available

SPECIFICATIONS (Preliminary)

Parameter	Specification
Frequency Range	DC to 5 GHz
Nominal Impedance	50 Ω
Power Handling	3KW @ 100 MHz; TBD @ 5 GHz
VSWR	1.2:1 (max)
DWV	1000 VRMS min. at 60 Hz (sea level)
Insulation Resistance	200 M Ω min.
Temperature Range	-65°C to +165°C

Materials	Specification
Dielectric	PTFE
Front Body (male connector)	Beryllium copper
Rear Body (male connector)	Brass alloy
Body (female connector)	Brass alloy
Center Conductor	Beryllium copper
Gaskets	Silicone rubber (optional)
Other Metal Parts	Brass

Plating	Specification
Center Conductor	Gold over Nickel / Silver over Copper
Body	Gold over Nickel / Silver over Copper

*Designed for use with Accuphase TLL 18-1282B cable.
Other cable options also available.

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