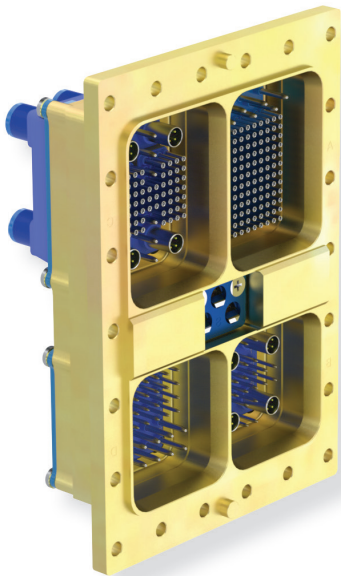


MPX Series MIL-DTL-83527B AECMA EN3682

*Ruggedized Rack
& Panel Connector*



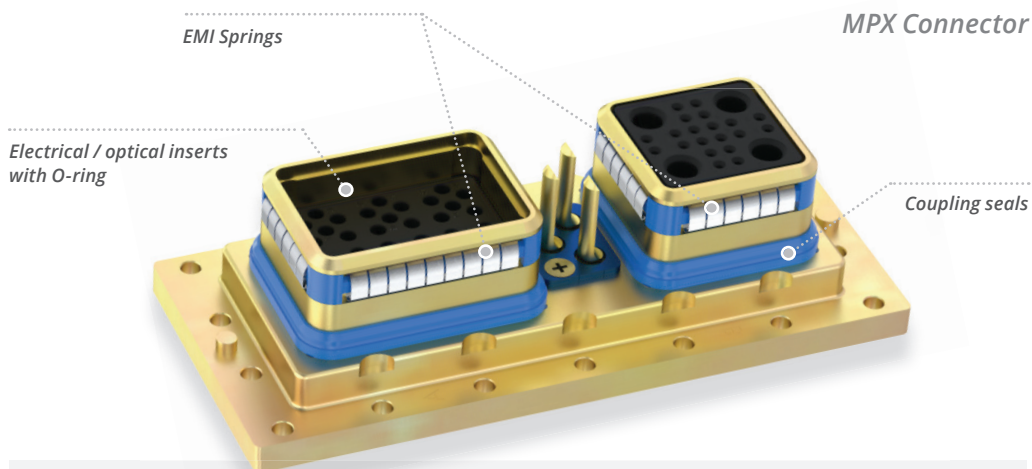
Radiall's MPX is a ruggedized multicavity connector for Rack & Panel applications. It has been used in the defense industry for over 30 years.



MPX

MIL-DTL-83527B/EN3682

The MPX series features a standardized rectangular shape that combines contact high density and robustness for harsh environments. Several versions are proposed with two, four or six cavities, making the MPX series the ideal solution for all equipment sizes. Interfacial seal, rear grommet and o-ring insert options guarantee sealing performance and a high level of reliability in the field. In order to meet market needs, Radiall proposes a broad range of electrical and optical inserts.



DEVELOPED FOR HARSH ENVIRONMENTS

The Radiall MPX series is a robust rectangular connector for Rack & Panel applications compliant with the MIL-DTL-83527B specification and EN 3682 European Standard. This series is well suited for military applications and commercial aircraft where harsh environmental issues are a concern.

Available in three different shell formats that hold two, four or six inserts, this blind mate solution offers a high level of modularity and an extremely secure mating sequence. The broad range of inserts are compatible with signal, power, quadrax, triax, coax and optical contacts or a mix of these. The MPX series offers a high level of contact density. One single connector can hold up to 750 #22 contacts.

Machined out of aluminum alloy, the MPX series offers a high level of performance. Thanks to its shell plating, it can withstand 500 hours of salt spray and strong shock and vibration.

To prevent electromagnetic interferences, the connector is loaded with EMI springs. Interfacial seal, rear grommet and o-ring insert options guarantee sealing performance and a high level of reliability in the field. Its rectangular shape perfectly fits all equipment, and its Rack & Panel feature makes it the ideal alternative to legacy circular connectors such as the MIL-DTL-38999 series.

APPLICATIONS

- Avionic bays on military airplanes and helicopters (radio, radar, calculators, screens, etc.)
- Ground military applications

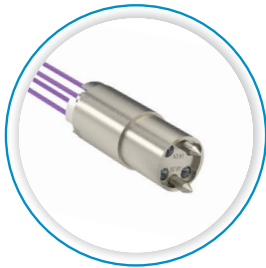
OPTICAL AND RF SOLUTIONS

In response to the market demand for higher bandwidth, density and reliability, Radiall MPX connectors integrate Physical Contact (PC), Expanded Beam (EB) and Multifiber (MT based) optical solutions.



Q-MTITAN™ ARINC 846

Ruggedized, high density, 12-fiber contact for #8 quadrax cavity



EB-LUXCIS®

4-channel Expanded Beam optical insert offering minimum maintenance in demanding environments



BMA

Blind mate, high-frequency, high-density coax #8

PERFORMANCES

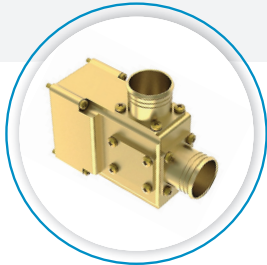
	MPX electrical	MPX optical: QM Titan	MPX optical: EB Luxcis	MPX BMA
Salt spray	452h mated + 48h unmated	500h mated	452h mated + 48h unmated	452h mated + 48h unmated
Durability	500 mating and unmating cycles			
Thermal cycling	10 cycles			
	- 65°C / + 150°C	- 40°C / + 125°C (cable dependent)	- 55°C / + 125°C (cable dependent)	- 65°C / + 150°C
Temperature life	1000 hours			
	+150°C	+125°C (cable dependent)		+150°C
Vibration	17.2g / 2.5 hours each in all three axes			
	No discontinuity > 1µs	No discontinuity > 1dB Max transmittance ±0.5 dB.	No discontinuity > 0.5dB Max transmittance ±0.5 dB.	No discontinuity > 1µs
Shock	30g, 11 ms, half sine			
	No discontinuity > 1µs	No discontinuity > 1dB Max transmittance ±0.5 dB.	No discontinuity > 0.5dB Max transmittance ±0.5 dB.	No discontinuity > 1µs
Altitude immersion	75,000 feet (33 mbar)	50,000 feet (116 mbar)		75,000 feet (33 mbar)
Fluids	• Fluids per MIL-DTL-83527B • Fluids per EN3682			
VSWR (Voltage Standing Wave Ratio)				• BMA for EN4604-010 KX cable : 1.25 max [0-5Ghz] (1) • BMA for SHF2.4M cable : 1.25 max [0-18Ghz] (2) • BMA for SHF5M cable : 1.25 max [0-18Ghz] (2)
Insertion Loss		Wavelength 850nm & 1300nm • Initial : 0,50 dB max • Post test : IL initial + 0,50 dB max	Wavelength 850nm • Initial : 2 dB max • Post test : 2 dB max	• BMA for EN4604-010 KX cable : 0.07x √F dB max [0-5Ghz] (1) • BMA for SHF2.4M cable : 0.07x √F dB max [0-18Ghz] (2) • BMA for SHF5M cable : 0.07x √F dB max [0-18Ghz] (2)
Return Loss		Wavelength 850nm & 1300nm • Initial : 20 dB min • Post test : N/A	Wavelength 850nm • Initial : 20 dB min • Post test : N/A	

(1) Limited to 5 GHz due to its crimp design (2) SHF cables are soldered, offering much better performance

A wide range of MPX accessories are available to fit every market demand.

ACCESSORIES

- Quadrax – fiber optic adapter
- Backshell
- EMI spring
- O-ring
- Dust caps

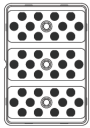


MPX BACKSHELL
Conductive backshell with multiple entries to ease wiring

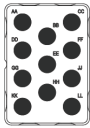


OPTICAL ADAPTER FOR #8 QUADRAX CAVITY
1 LuxCis® ARINC 801 optical contact per quadrax cavity

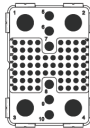
ELECTRICAL AND OPTICAL INSERTS



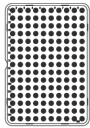
■ **36F36**
36 LuxCis®



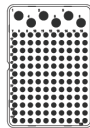
■ **Q11**
11#8 Quadrax



■ **68Q4**
4#8 Quadrax
62#22 Contacts
6#16 Contacts



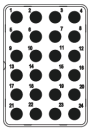
150
150#22 Contacts



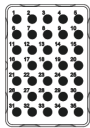
126
120#22 Contacts
6#16 Contacts



60
60#20 Contacts



24
24#12 Contacts



35
35#16 Contacts



T10
10#8 Coax/Triax



70C1
70#22 Contacts
1#1 Coax



■ **6 EB-LUXCIS®**



■ **20Q4**
20#20 Contacts
4#8 Quadrax



20T4
20#20 Contacts
4#8 Coax/Triax



■ **62Q2**
2#8 Quadrax
60#22 Contacts
2#16 Contacts



■ **68Q2**
2#8 Quadrax
68#22 Contacts



34
24#20 Contacts
10#16 Contacts



100
100#22 Contacts



11C2
4#20 Contacts
3#16 Contacts
4#12 Contacts
2#5 Coax



11T2
4#20 Contacts
3#16 Contacts
4#12 Contacts
2#8 Coax/Triax



62T2
60#22 Contacts
2#16 Contacts
2#8 Coax/Triax



■ **Q6**
6#8 Quadrax



T6
6#8 Coax/Triax



■ **4 EB-LUXCIS®**

■ Inserts compatible with optical contacts

SIMPLIFICATION is our INNOVATION

We advance the design and engineering process for innovators, ground breakers and pioneers of technology. We reduce weight, improve durability and streamline installation to provide leading-edge connectors that drive product performance.

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GLOBAL PRESENCE

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