

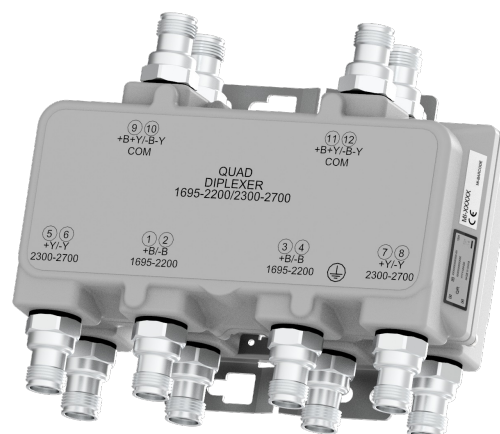
MI-548

DIPLEXER 1695-2200/2300-2700

The Kaelus MI-548 is a bi-directional Diplexer, designed to combine or split 1800, 2100, 2300 and 2600 MHz bands. The MI-548 provides low insertion loss and high return loss with excellent passive inter-modulation performance in an extremely small and lightweight IP67 capable package

FEATURES

- Enables antenna & coax sharing for 1800, 2100, 2300 and 2600 MHz bands systems
- Compact & lightweight
- Low insertion loss & high return loss
- Low passive IM performance
- Single twin and dual twin models available
- 7/16 (F), 4.3-10 (F) or NEX10 (F) connectors
- Hard Wired and DC Autosense versions available
- Provisions for wall or mast mounting



TECHNICAL SPECIFICATIONS

PORT NAME	LOW	HIGH
Passband	1695 - 2200 MHz	2300 - 2700 MHz
Insertion loss	1695 - 2200 MHz 0.1 dB typical	2300 - 2700 MHz 0.12 dB typical
Return loss	20 dB typical, 18 dB minimum	
Maximum input power	250 W (average)	
Intermodulation products	-160 dBc with 2 x 20 W carriers	
Rejection	50 dB minimum in 2300 - 2700 MHz	50 dB minimum in 1695 - 2200 MHz

ELECTRICAL

Impedance	50 Ω
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DC / AISG

For hardwired versions, DC/AISG can be fully connected (DC all) or a specific connection can be ordered (DC custom). For DC autosense versions, the DC/AISG path is automatically selected. In bottom of the tower applications (combiner mode), each RF channel port is sequentially checked for the presence of DC voltage. If more than one port has voltage, the port that has the highest (programmed) priority is passed to the common port. If a short circuit is detected on the common port DC/AISG is disabled. In top-of-tower applications (splitter mode), DC/AISG is passed to all ports that do not present a short circuit. If a short circuit is detected, the shorted RF port will be disabled for DC/AISG while other RF ports remain connected.

Insertion loss	1 dB max
Return loss	12 dB min
Input voltage range	8 - 30 V DC max 0.3 W
DC current rating	2 A continuous, drop max 2.4 V

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

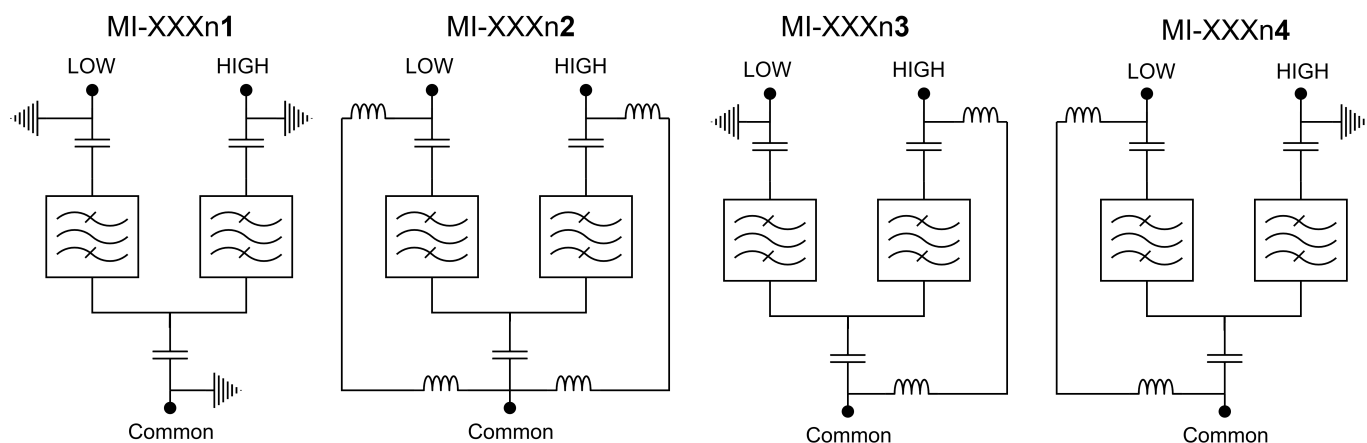
Temperature range	-40 °C to +65 °C -40 °F to +149 °F
Ingress protection	IP67
Lightning protection	10 kA maximum (8/20 us)
MTBF	> 1,000,000 Hours
Compliance	ETS 300 019 1-4E CLASS 4.1E (OPERATIONAL) ETS 300 019 1-1 CLASS 1.2 (STORAGE)

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	239 x110 x48.5 mm 9.41 x 4.33 x 1.91 in With Auto-Sense 239 x110 x60 mm 9.41 x 4.33 x 2.36 in	239 x110 x89 mm 9.41 x 4.33 x 3.5 in With Auto-Sense 239 x110 x118 mm 9.41 x 4.33 x 4.65 in
Weight	2.6 kg 5.7 lb gross / 2.8 kg 6.2 lb net	4.4 kg 9.7 lb gross / 5.0 kg 11.0 lb net
Finish	Painted, NCS 1502-R	
Mounting	Pole/wall bracket supplied with two metal clamps for 40-140 mm diameter poles	

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-5480n	Single Mount	BASE MODEL	6 x 7/16 (F)	Refer to DC /AISG table
MI-5481n	Dual Mount	BASE MODEL	12 x 7/16 (F)	Refer to DC /AISG table
MI-5483n	Single Mount	BASE MODEL	6 x 4.3-10 (F)	Refer to DC /AISG table
MI-5484n	Dual Mount	BASE MODEL	12 x 4.3-10 (F)	Refer to DC /AISG table
MI-5487n	Single Mount	BASE MODEL	6 x NEX10 (F)	Refer to DC /AISG table
MI-5488n	Dual Mount	BASE MODEL	12 x NEX10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-548nA	Auto-Sense			
MI-548n1	NO DC Path			
MI-548n2	DC to LOW and HIGH			
MI-548n3	DC to HIGH			
MI-548n4	DC to LOW			
Auto-Sence Priority				
MI-548nA.1	FPO to LOW and HIGH			
MI-548nA.2	XOR to LOW and HIGH			
MI-548nA.3	HIGH Priority 1 and LOW Priority 2			
MI-548nA.4	LOW Priority 1 and HIGH Priority 2			

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

