

MI-569

TRIPLEXER 800/900/L-BAND

The Kaelus MI-569 is a bi-directional triplexer, designed to combine or split 800/900/L-bands. The MI-569 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 800, 900 and L- band systems.
- Compact & lightweight - perfect for Small Cell applications
- Low insertion loss & high return loss
- High passive IM performance
- Single and dual models available
- 7/16 (F) or 4.3-10 (F) connectors
- Hard Wired and DC Autosense versions available
- Provisions for wall or mast mounting



TECHNICAL SPECIFICATIONS

BAND NAME	800	900	L-BAND
Passband	791 - 862 MHz	880 - 960 MHz	1427 - 1517 MHz
Insertion loss	0.2 dB typical, 0.4 dB maximum	0.2 dB typical, 0.4 dB maximum	0.2 dB typical, 0.4 dB maximum
Return loss	>18 dB	>18 dB	>18 dB
Maximum input power	250W		
Intermodulation products	-160 dBc at 2 x 43dBm TX Carrier		
Rejection	50 dB minimum in 925 - 960 and 1452 - 1517 MHz	50 dB minimum in 791 - 821 MHz and 1427 - 1517 MHz	50 dB minimum in 791 - 862 MHz and 880 - 960 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	3 A continuous, Drop max 2.4 V
Compliance	3GPP TS 37.461

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

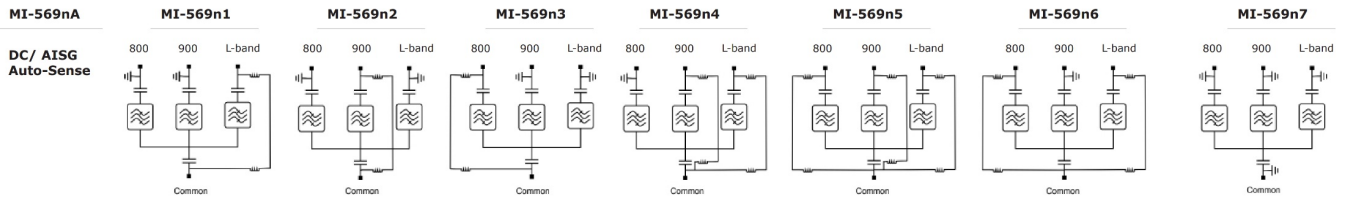
Temperature range	-40 $^{\circ}$ C to +65 $^{\circ}$ C -40 $^{\circ}$ F to +149 $^{\circ}$ F
Ingress protection	IP67
Lightning protection	5 kA maximum (8/20 us)
MTBF	> 1,000,000 Hours
Compliance	ETSI EN 300 019-1-4 class 4.1E, RoHS

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	220 mm x 160 mm x 58 mm 8.66 x 6.30 x 2.28 in	To be added
Volume	2.0 l	
Weight	3.5 kg 7.72 lb	
Finish	Painted, NCS 1502-R	
Mounting	Hose clamps or wall mount (Supporter pole Diameter: 40 - 140 mm)	

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-5690n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5691n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5693n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-5694n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-569nA	Auto-sense			
MI-569n1	DC TO L-band			
MI-569n2	DC TO 900			
MI-569n3	DC TO 800 and L-band			
MI-569n4	DC TO 900 and L-band			
MI-569n5	DC TO ALL			
MI-569n6	DC TO 800			
MI-569n7	DC Block			
Auto-sense Priority				
MI-569nA.1	FPO to 800, 900 and L - band			
MI-569nA.2	XOR to 800, 900 and L - band			
MI-569nA.3	L-band Priority 1, 900 and 800 prority 2			
MI-569nA.4	800 Priority 1, 900 and L- band priority 2			

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

