

MI-551

TRIPLEXER 700 - 900/L-BAND/1800 - 2100

The Kaelus MI-551 is a bi-directional triplexer, designed to combine or split 700 - 900/L-band/1800 - 2100. The MI-551 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 700 - 900/L-band/1800 - 2100 bands 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	700 - 900	L-BAND	1800 - 2100
Passband	698 - 960 MHz	1427 - 1517 MHz	1710 - 2170 MHz
Insertion loss	0.1 dB typical, 0.2 dB maximum	0.25 dB typical	0.2 dB typical
Return loss	>18 dB	>18 dB	>18 dB
Maximum input power	250W		
Intermodulation products	-160 dBc at 2 x 43dBm TX Carrier	-145 dBc at 2 x 43dBm TX Carrier	-160 dBc at 2 x 43dBm TX Carrier
Rejection	50 dB minimum in 1427 - 2170 MHz	50 dB minimum in 698 - 960 and 1710 - 2170 MHz	50 dB minimum in 698 - 1517 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 μ s)
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	160 mm x 160 mm x 50 mm 6.3 x 6.54 x 1.97 in	160 mm x 160 mm x 94 mm 6.3 x 6.54 x 3.7 in
Volume	1.3 l	2.5 l
Weight	2.6 kg 5.73 lb	5 kg 11.02 lb
Finish	Painted, NCS 1502-R (Light grey)	
Mounting	Hose clamps or wall mount (Supporter pole Diameter: 40 - 140 mm)	

ORDERING INFORMATION

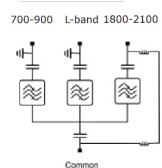
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-5510n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5511n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5513n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-5514n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-551nA	Auto-sense			
MI-551n1	DC TO 1800 - 2100			
MI-551n2	DC TO L-band			
MI-551n3	DC TO 700 - 900			
MI-551n4	DC TO L-band and 1800 - 2100			
MI-551n5	DC TO ALL			
MI-551n6	DC TO 700 - 900 and 1800 - 2100			
MI-551n7	DC Block			
Auto-sense Priority				
MI-551nA.1	FPO to 698 - 960, 1427 - 1517 and 1710 - 2170			
MI-551nA.2	XOR to FPO to 698 - 960, 1427 - 1517 and 1710 - 2170			
MI-551nA.3	1710 - 2170 Priority 1, 1427 - 1517 Priority 2 and 698 - 960 Priority 3			
MI-551nA.4	698 - 960 Priority 1, 1427 - 1517 Priority 2 and 1710 - 2170 Priority 3			

ELECTRICAL BLOCK DIAGRAM

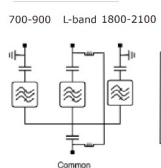
MI-551nA

DC/ AISG
Auto Sense

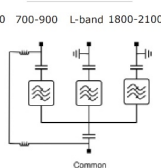
MI-551n1



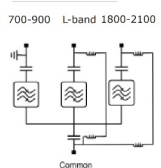
MI-551n2



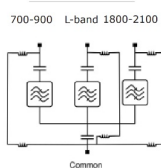
MI-551n3



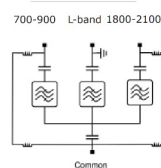
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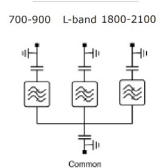
MI-551n5



MI-551n6



MI-551n7



MECHANICAL BLOCK DIAGRAM

