

MI-550

DIPLEXER 700-900/L-BAND

The Kaelus MI-550 is a bi-directional Diplexer, designed to combine or split 700-900 and L-band. The MI-550 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 and L-band MHz bands systems
- Compact & lightweight - perfect for Small Cell applications
- Low insertion loss & high return loss
- Low passive IM performance
- Single twin and dual twin 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

PORT NAME	700 - 900	L-BAND
Passband	698 - 960 MHz	1427 - 1517 MHz
Insertion loss	< 0.2 dB typical	< 0.25 dB typical
Return loss	>18 dB	>18 dB
Maximum input power	250 W / 2000 W	
Intermodulation products	-160 dBc with 2 x 43 TX carriers	
Rejection	50 dB minimum in 1427 - 1517 MHz	50 dB minimum in 698 - 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	2 A continuous, Drop max 2.4 V
Compliance	3GPP TS 37.461

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

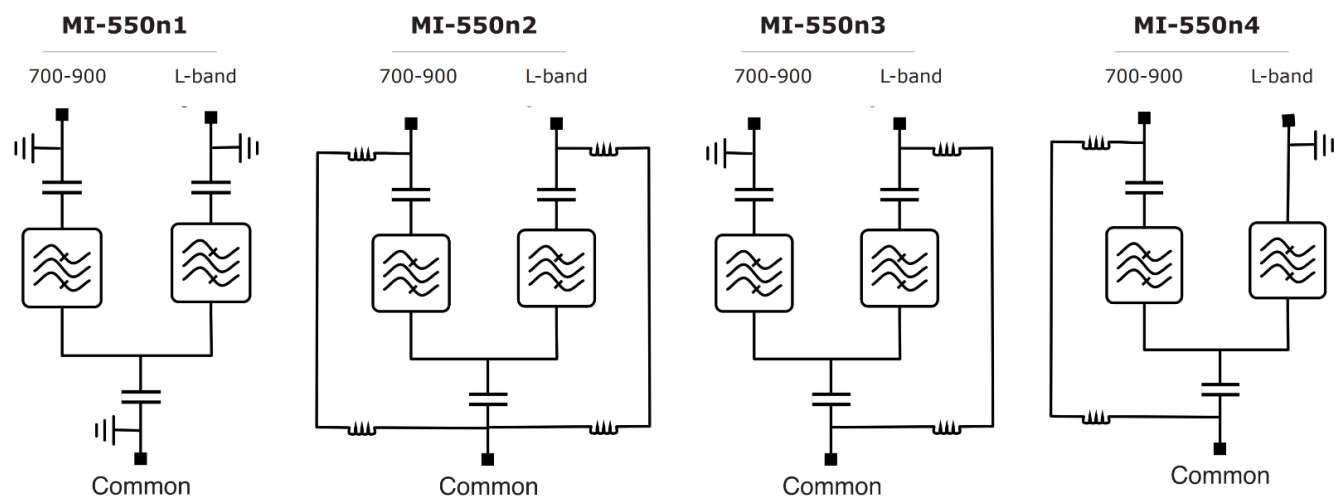
Temperature range	-40 $^{\circ}$ C to +65 $^{\circ}$ C -40 $^{\circ}$ F to +149 $^{\circ}$ F
Ingress protection	IP67
Lightning protection	10 kA maximum (8/20 us)
MTBF	> 1,000,000 Hours
Compliance	ETSI EN 300 019-1-4 class 4.1E, RoHS

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	99 x 143 x 52 mm 3.9 x 5.63 x 2.07 in	TBD
Volume	0.7 l	
Weight	1.4 kg 3.09 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-5500n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5501n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-550n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-550n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-550nA	Auto-sense			
MI-550n1	DC Block			
MI-550n2	DC TO ALL			
MI-550n3	DC TO L-band			
MI-550n4	DC to 700 - 900			
Auto-sense Priority				
MI-550nA.1	FPO to 698 - 960 and 1427 - 1517			
MI-550nA.2	XOR to 698 - 960 and 1427 - 1517			
MI-550nA.3	1427 - 1517 Priority 1 and 698 - 960 Priority 2			
MI-550nA.4	698 - 960 Priority 1 and 1427 - 1517 Priority 2			

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

