

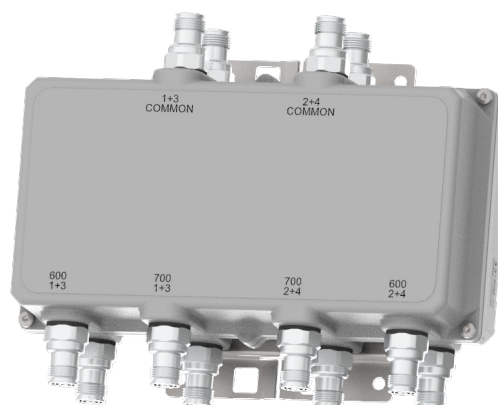
MI-554

DIPLEXER 600/700

The Kaelus MI-554 is a bi-directional Diplexer, designed to combine or split 617 - 688 MHz and 698 - 746 MHz bands. The MI-554 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 617 - 688 MHz and 698 - 746 MHz bands systems.
- Compact & lightweight - perfect for Small Cell applications
- Low insertion loss & high return loss
- High passive IM performance
- Single and dual models available
- 4.3-10 (F) connectors
- Hard Wired and DC Autosense versions available
- Provisions for wall or mast mounting



TECHNICAL SPECIFICATIONS

PORT NAME	600 MHz	700 MHz
Passband	617 - 688 MHz	698 - 746 MHz
Insertion loss	< 0.3 dB typical < 0.55 dB maximum	< 0.3 dB typical < 0.5 dB maximum
Return loss	>18 dB	>18dB
Maximum input power	250 W (average)	
Intermodulation products	-160 dBc with 2 x 43 dBm TX Carrier	-160 dBc with 2 x 43 dBm TX Carrier
Rejection	50 dB minimum in 698 - 746 MHz	50 dB minimum in 617 - 688 MHz

ELECTRICAL

Impedance	50 Ω
-----------	------

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.

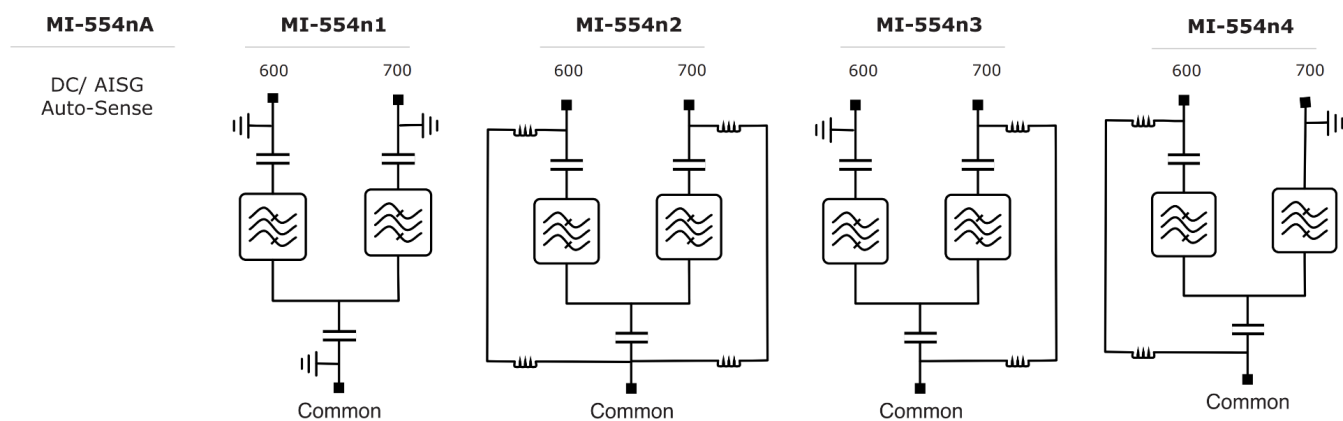
Temperature range	-40 °C to +65 °C -40 °F to +149 °F
Ingress protection	IP67
Lightning protection	5 kA maximum (8/20 us)
MTBF	> 1,000,000 Hours
Compliance	ETSI EN 300 019-1-4 class 4.1E, RoHS

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	300 x 160 x 73 mm 11.81 x 6.30 x 2.87 in	300 x 160 x 116 mm 11.81 x 6.30 x 4.57 in
Volume	3.5 l	5.6 l
Weight	3.7 kg 8.16 lb	6.7 l 14.77 lb
Finish	Painted, NCS 1502-R	
Mounting	Hose clamps or wall mount (Supporter pole diameter: 40 - 140 mm)	
Feature	Single Mount with Auto-sense	Dual Mount with Auto-sense
Dimensions H x D x W	300 x 160 x 73 mm 11.81 x 6.30 x 2.87 in	301 x 160 x 145 mm 11.85 x 6.34 x 5.71 in
Volume	3.5 l	7.0 l
Weight	3.7 kg 8.16 lb	7.2 l 15.87 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-5543n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-5544n	Dual Mount	BASE MODEL	4.3-10 (f)	Refer to DC /AISG table
DC / AISG CONFIGURATION				
MI-554nA		Auto-sense		
MI-554n1		DC Block		
MI-554n2		DC TO ALL		
MI-554n3		DC TO 700		
MI-554n4		DC TO 600		
Auto-sense Priority				
MI-514nA.1		FPO to 600 and 700		
MI-514nA.2		XOR to 600 and 700		
MI-514nA.3		700 Priority 1 and 600 Priority 2		
MI-514nA.4		600 Priority 1 and 700 Priority 2		

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

