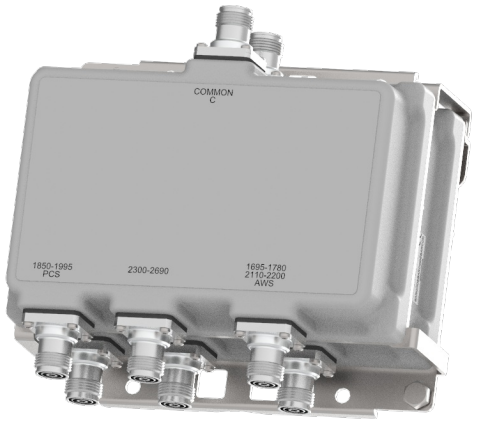
MI-539

TRIPLEXER AWS/PCS/2300 - 2690

The Kaelus MI-539 is a bi-directional Triplexer designed to combine or split AWS/PCS/2300-2690 MHz. The MI-539 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 AWS, PCS and 2300-2690 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
- 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	AWS	PCS	2300 - 2690
Passband	1695 -1780, 2110-2200 MHz	1850 - 1995 MHz	2300 - 2690 MHz
Insertion loss	> 0.3 dB typical	> 0.3 dB typical	> 0.3 dB typical
Return loss	20 dB typical, 18 dB maximum	20 dB typical, 18 dB maximum	20 dB typical, 18 dB maximum
Maximum input power	250W / 2000W		
Intermodulation products	-160 dBc at 2 x 43dBm TX Carrier		
Rejection	50 dB minimum in 1850 - 1995 MHz and 2300 - 2690 MHz	50 dB minimum in 1695-1780, 2110-2200 and 2300 - 2690 MHz	50 dB minimum in 1695-1780, 2110-2200 and 1850 - 1995 MHz

ELECTRICAL	
Impedance	50 Ω

DC / AISG	
For hardwired versions, DC/AISG can be fully connected (DC all) or a specific connection can be orderd (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 ºC to +65 ºC | -40 ºF to +149 ºF
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

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MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	220 x 140 x 50 mm I 9.45 x 5.51 x 2.0 in	220 x140 x106 mm I 9.45 x 5.51 x 4.2 in
Volume	1.5 l	3.3 l
Weight	2.7 kg I 5.95 lb	4.9 kg I 10.8 lb
Finish	Painted, NCS 1502-R (Light Grey)	
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	220 mm x 140 mm x 62 mm I 9.45 x 5.51 x 2.4 in	220 mm x 140 mm x 118 mm I 9.45 x 5.51 x 4.6 in
Volume	1.9 l	3.6 l
Weight	2.8 kg I 6.17 lb	5.0 kg I 11.0 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-5390n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5391n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5393n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-5394n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-539nA	Auto-sense			
MI-539n1	DC TO 2300 - 2690			
MI-539n2	DC TO 1850 - 1995			
MI-539n3	DC TO 1695 - 1780, 2110 - 2200			
MI-539n4	DC TO 1850 - 1995 and 2300 - 2600			
MI-539n5	DC TO ALL			
MI-539n6	DC TO 1695 - 1780, 2110 - 2200 and 2300 - 2690			
MI-539n7	DC Block			
Auto-sense Priority				
MI-539nA.1	FPO to 1695 - 1780, 2110 - 2200 , 1850 - 1995 and 2300 - 2600			
MI-539nA.2	XOR to 1695 - 1780, 2110 - 2200 , 1850 - 1995 and 2300 - 2600			
MI-539nA.3	2300 - 2690 Priority 1, 1850 - 1995 and 1695 - 1780, 2110 - 2200 Priority 2			
MI-539nA.4	1695 - 1780, 2110 - 2200 Priority 1 and 1850 - 1995 and 2300 - 2600 Priority 2			

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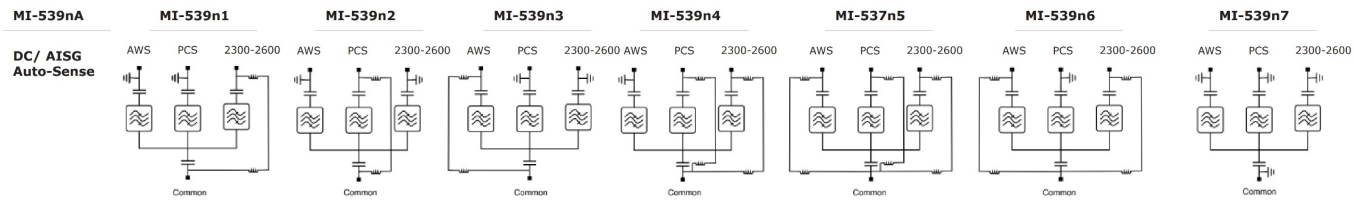
ELECTRICAL BLOCK DIAGRAM



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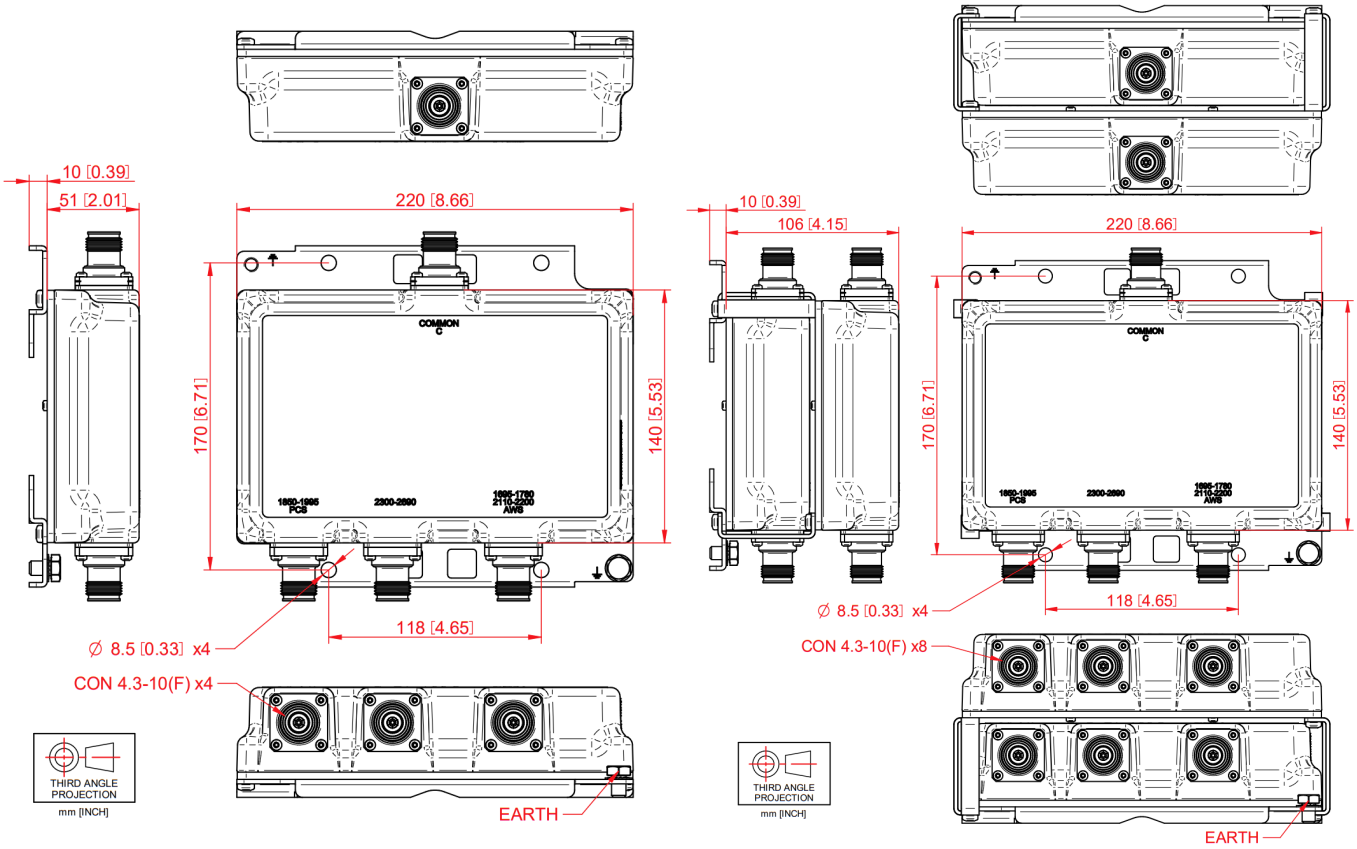

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