MI-527

DIPLEXER 700/800 MHZ

The Kaelus MI-527 is a bi-directional Diplexer, designed to combine or split 700 MHz and 800 MHz bands. The MI-527 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 703 - 778 MHz and 791 - 862 MHz band system
- 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

PORT NAME	700 MHZ	800 MHZ
Applicable for MI-570n, MI-5271n, MI-5273n and MI-5274n		
Passband	703 - 778 MHz	791- 862 MHz
Insertion loss	0.2 dB typical, max dB 0.5 maximum	0.2 dB typical, 0.5 dB maximum
Return loss	>18 dB	>18 dB
Maximum input power	150 W (avarage)	
Intermodulation products	-160dBc with 2 x 43 DBm TX Carrier	-160dBc with 2 x 43 DBm TX Carrier
Rejection	50 dB minimum in 791 - 862 MHz	50 dB minimum in 703 - 778MHz
Applicable for MI-5275n, MI-5276n, MI-5277n and MI-5278n		
Passband	713 - 788 MHz	801 - 862 MHz
Insertion loss	0.2 dB typical, 0.5 dB maximum	0.2 dB typical, 0.5 dB maximum
Return loss	>18 dB	>18 dB
Maximum input power	150 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 801 - 862 MHzMHz	50 dB minimum in 713 - 788 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

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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

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	170 x 170 x 54 mm I 6.69 x 6.69 x 2.12 in	170 x 170 x 120 mm I 6.69 x 6.69 x 4.72 in
Volume	1.6 l	3.0 l
Weight	4.9 kg/4.3 kg I 10.8/9.48 lb	4.9 kg/4.3 kg I 10.8/9.48 lb
Finish	Painted, NCS 1502-R	
Mounting	Hose clamps or wall mount (Supporter Pole Diameter: 40-140mm)	

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-5270n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5271n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-5273n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-5274n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-527A	Auto-sense			
MI-527n1	DC Block			
MI-527n2	DC TO ALL			
MI-527n3	DC TO 800			
MI-527n4	DC TO 700			
Auto-sense Priority				
MI-527nA.1	FPO to 700 and 800			
MI-527nA.2	XOR to 700 and 800			
MI-527nA.3	800 Priority 1 and 700 Priority 2			
MI-527nA.4	700 Priority 1 and 800 Priority 2			

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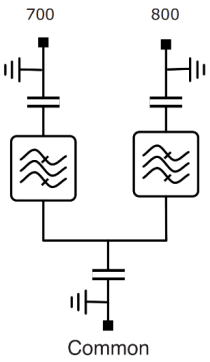
ELECTRICAL BLOCK DIAGRAM

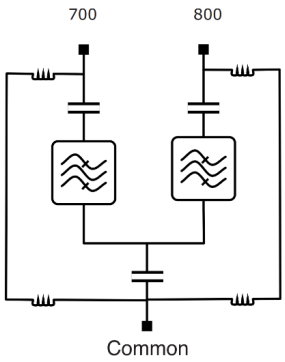
MI-527nA

DC/ AISG Auto-Sense

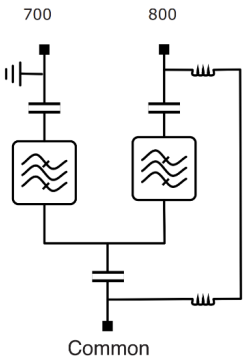
MI-527n1



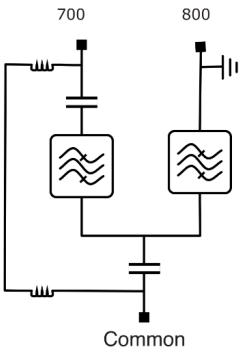
MI-527n2



MI-527n3



MI-527n4



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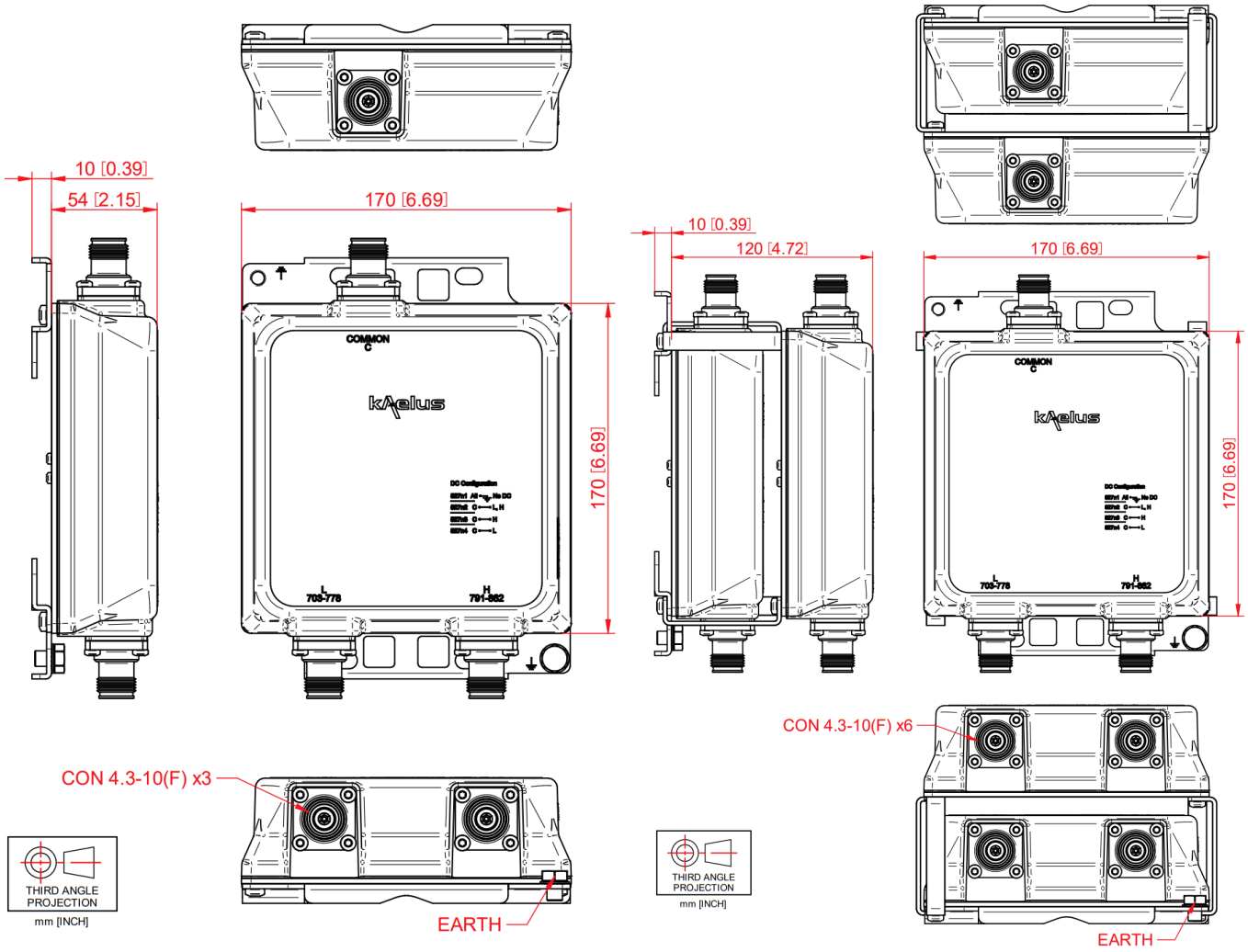
MECHANICAL BLOCK DIAGRAM



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