

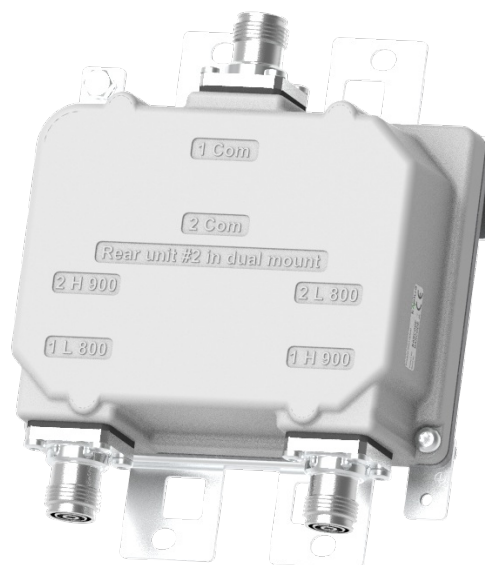
MI-703

DIPLEXER 800/900

The Kaelus MI-703 is a bi-directional Diplexer, designed to combine or split 800 and 900 MHz bands. The MI-703 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 800 and 900 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	800	900
Passband	791 - 862 MHz	880 - 960 MHz
Insertion loss	0.2 dB typical, 0.4 dB maximum	0.2 dB typical, 0.4 dB maximum
Return loss	20 dB typical, 18 dB minimum	
Maximum input power	300 W (average)	
Intermodulation products	-160 dBc with 2 x 20 W carriers	
Rejection	50 dB minimum in 900 band	50 dB minimum in 800 band

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.

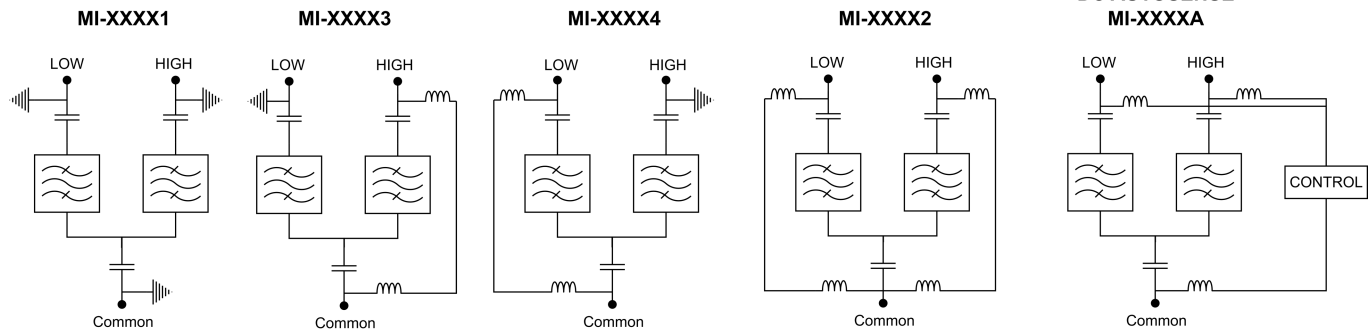
Temperature range	-40 $^{\circ}$ C to +65 $^{\circ}$ C -40 $^{\circ}$ F to +149 $^{\circ}$ F
Ingress protection	IP67
Lightning protection	10 kA maximum (8/20 us)
MTBF	> 1,000,000 Hours
Compliance	ETS 300 019 1-4E (OPERATIONAL) ETS 300 019 1-1 (STORAGE)

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	161 x 125 x 57 mm 6.33 x 4.92 x 2.24 in With Auto-Sense 161 x 125 x 68 mm 6.33 x 4.92 x 2.68 in	161 x 125 x 106 mm 6.33 x 4.92 x 4.17 in With Auto-Sense 161 x 125 x 134 mm 6.33 x 4.92 x 5.28 in
Volume	1.1 l 1.4 l with auto-sense	2.1 l 2.7 l with auto-sense
Weight	2.3 kg 5.07 lb 2.4 kg 5.23 lb	3.0 kg 6.61 lb 3.4 kg 7.49 lb
Finish	Painted, NCS 1502-R	
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles	

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-7030n	Single Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-7031n	Dual Mount	BASE MODEL	7/16 (F)	Refer to DC /AISG table
MI-7033n	Single Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
MI-7034n	Dual Mount	BASE MODEL	4.3-10 (F)	Refer to DC /AISG table
DC / ASIG CONFIGURATION				
MI-703nA	Auto-sense			
MI-703n1	NO DC Path			
MI-703n2	DC to 1800 and 2100			
MI-703n3	DC to 2100			
MI-703n4	DC to 1800			
Auto-sense Priority				
MI-703nA.1	FPO to 800 and 900			
MI-703nA.2	XOR to 800 and 900			
MI-703nA.3	900 Priority 1 and 800 Priority 2			
MI-703nA.4	800 Priority 1 and 900 Priority 2			

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

