

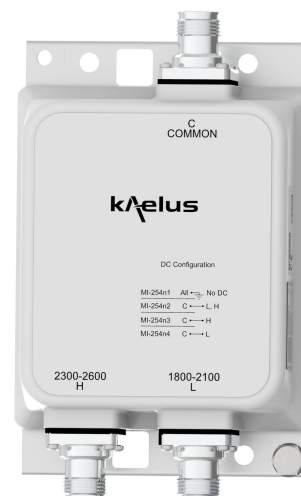
MI-254

DIPLEXER 1695-2180/2300-2700

The Kaelus MI-254 is a bi-directional Diplexer, designed to combine or split AWS and 2600 bands. The MI-254 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 and 2600 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	LOW BAND	HIGH BAND
Passband	1695 - 2180 MHz	2300 - 2700 MHz
Insertion loss	0.2 dB typical	
Return loss	20dB typical, 18dB minimum	
Maximum input power	250W (average)	250W (average)
Intermodulation products	-160dBc with 2 x 20W carriers	
Rejection	50dB minimum in High band	50dB minimum in Low band
ELECTRICAL		
Impedance	50Ohms	
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.		
Feature	DC-FIXED	AUTOSENSE
Insertion loss, single DC/AISG pass	1dB maximum	
Return loss, single DC/AISG pass	12dB minimum	
Input voltage range	8 – 30V DC, 0.3W	
DC current rating	3A	2A, drop max 2.4V
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	10kA maximum (8/20us)	
MTBF	> 1,000,000 Hours	
Compliance	ETSI 300 019-1-4 Class 4.1E (OPERATIONAL) ETSI 300 019-1-1 Class 1.2 (STORAGE)	

MECHANICAL		
Feature	Single Mount	Dual Mount
Dimensions H x D x W	150 x 49 x 131mm 5.91 x 1.93 x 5.16in With Auto-Sense 150 x 60 x 131mm 5.91 x 2.36 x 5.16in	150 x 105.5 x 131mm 5.91 x 4.15 x 5.17in With Auto-Sense 150 x 125 x 131mm 5.91 x 4.92 x 5.17in
Weight	1.6kg 3.53lb	3.4kg 7.5lb
Finish	Painted, NCS 1502-R	
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles	

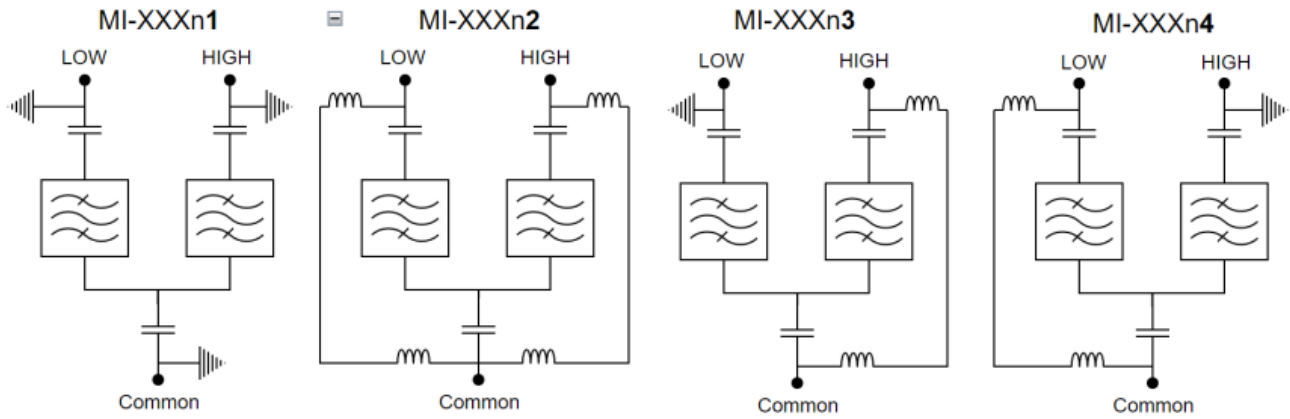
SHIPPING INFORMATION		
Feature	Single Mount	Dual Mount
Carton size	290 x 210 x 150 mm 11.42 x 8.27 x 5.91 in	320 x 250 x 220 mm 12.60 x 9.84 x 8.66 in
Gross weight (including packaging)	2.1 kg 4.63 lb	4.0 kg 8.83 lb
Carton Qty / Pallet	98	60

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
MI-25401	Single Mount	BASE MODEL	7/16 (F)	NO DC
MI-25402	Single Mount	BASE MODEL	7/16 (F)	DC TO ALL
MI-25403	Single Mount	BASE MODEL	7/16 (F)	DC TO 2300-2700
MI-25404	Single Mount	BASE MODEL	7/16 (F)	DC TO 1800-2100
MI-25411	Dual Mount	BASE MODEL	7/16 (F)	NO DC
MI-25412	Dual Mount	BASE MODEL	7/16 (F)	DC TO ALL
MI-25413	Dual Mount	BASE MODEL	7/16 (F)	DC TO 2300-2700
MI-25414	Dual Mount	BASE MODEL	7/16 (F)	DC TO 1800-2100
MI-25441	Single Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	NO DC
MI-25442	Single Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO ALL
MI-25443	Single Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO 2300-2700
MI-25444	Single Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO 1800-2100
MI-25451	Dual Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	NO DC
MI-25452	Dual Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO ALL
MI-25453	Dual Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO 2300-2700
MI-25454	Dual Mount	BASE MODEL	BTS ports 7/16 (F) Common ports N (F)	DC TO 1800-2100
MI-25481	Single Mount	BASE MODEL	4.3-10 (F)	NO DC
MI-25482	Single Mount	BASE MODEL	4.3-10 (F)	DC TO ALL
MI-25483	Single Mount	BASE MODEL	4.3-10 (F)	DC TO 2300-2700
MI-25484	Single Mount	BASE MODEL	4.3-10 (F)	DC TO 1800-2100
MI-25491	Dual Mount	BASE MODEL	4.3-10 (F)	MIXED DC: DC TO 2300-2700 DC TO 1800-2100
MI-25492	Dual Mount	BASE MODEL	4.3-10 (F)	DC TO ALL

Autosense version and other DC versions are available upon request

ELECTRICAL BLOCK DIAGRAM



Note: single mount shown, applicable for MI-254nx where n is 1-8.

MECHANICAL BLOCK DIAGRAM

