

MI-255

TRIPLEXER 700-900/1800-2100/2300-2600

The Kaelus MI-255 is a bi-directional Triplexer, designed to combine or split 700, 800, 900, 1800, 2100, 2300 and 2600 MHz bands. The MI-255 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 700, 800, 900, 1800, 2100, 2300 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

BAND NAME	700-900	1800-2100	2300-2600
Passband	698-960 MHz	1710-2170 MHz	2300-2690 MHz
Insertion loss	<0.2dB typical		
Return loss	18dB minimum		
Maximum input power	250W (average)	400W (average)	250W (average)
Rejection	50dB minimum 1710 - 2170 MHz 2300 - 2690 MHz	50dB minimum 698 - 960 MHz 2300 - 2690 MHz	50dB minimum 698 - 2170 MHz

ELECTRICAL

Impedance	50Ohms
Intermodulation products	-160dBc / -117dBm @2x43dBm

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.

Input voltage range	8 - 30V DC
DC current rating	2A continuous

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

Temperature range	-40°C to +60°C -40°F to +140°F
Ingress protection	IP67, Outdoor unit
Lightning protection	IEC61312-1, RF: ±10kA (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	
Hardwired DC	
Dimensions H x D x W (single unit)	170 x 150 x 50mm 6.69 x 5.91 x 1.97in
Dimensions H x D x W (twin unit)	170 x 150 x 107mm 6.69 x 5.91 x 4.21in
Weight	2.6kg 5.73lbs (Single) 3.1kg 6.83lbs (Twin)
Autosense	
Dimensions H x D x W (single unit)	170 x 150 x 62mm 6.69 x 5.91 x 2.44in
Dimensions H x D x W (twin unit)	170 x 150 x 128mm 6.69 x 5.91 x 5.04in
Weight	2.9kg 6.4lbs (Single) 3.7kg 7.4lbs (Twin)
Finish	Painted, NCS 1502-R
Connectors	7/16 (F) or 4.3-10 (F)
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

SELECTION GUIDE

PART NUMBER	DESCRIPTION	CONNECTORS
MI-2550n	Single	7/16 (F)
MI-2551n	Dual	7/16 (F)
MI-2553n	Single	4.3-10 (F)
MI-2554n	Dual	4.3-10 (F)

DC/AISG CONFIGURATION

PART NUMBER	700-900 (1)	1800-2100 (2)	2300-2600 (3)
MI-255nA	Auto-Sense, FPO		
MI-255nA.2	Auto-Sense, XOR		
MI-255nA.3	Auto-Sense, Priority 321		
MI-255nA.4	Auto-Sense, Priority 123		
MI-255nA.5	Auto-Sense, Priority 231		
MI-255nA.6	Auto-Sense, Priority 213		
MI-255n1	Block	Block	Pass
MI-255n2	Block	Pass	Block
MI-255n3	Pass	Block	Block
MI-255n4	Block	Pass	Pass
MI-255n5	Pass	Pass	Pass
MI-255n6	Pass	Block	Pass
MI-255n7	Block	Block	Block

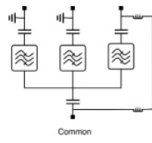
ELECTRICAL BLOCK DIAGRAM

MI-255nA

DC/ AISG
Auto-Sense

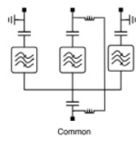
MI-255n1

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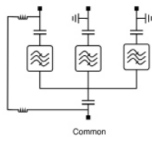
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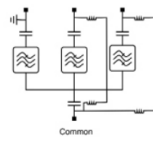
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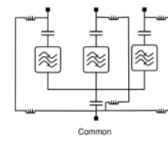
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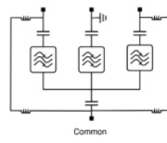
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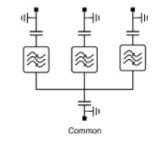
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MI-255n7

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MECHANICAL BLOCK DIAGRAM

