

KA-3009

TRIPLEXER LB/PCS+AWS+WCS+BRS/C-BAND

The Kaelus KA-3009 is a bi-directional Triplexer, designed to combine or split Lowband, AWS, PCS and 2.6 GHz and 3.5GHz bands. The KA-3009 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 Lowband, AWS, PCS and 2.6 GHz to C-band 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
- Hard Wired and DC Autosense versions available
- Provisions for wall or mast mounting



TECHNICAL SPECIFICATIONS

BAND NAME	617-960 MHz	1695-2690 MHz	3300-4200 MHz
Passband	617-960 MHz	1695-2690 MHz	3300-4200 MHz
Insertion loss	0.3 dB typical, 0.4 dB max	0.2 dB typical, 0.3 dB max	0.2 dB typical, 0.3 dB max
Return loss	20 dB typical, 18 dB minimum		
Maximum input power	100 W (average) / 1000 W (PEP)	100 W (average) / 1000 W (PEP)	100 W (average) / 1000 W (PEP)
Intermodulation products	<-160 dBc with 2 x +43 dBm TX Carrier (IM3)	<-160 dBc with 2 x +43 dBm TX Carrier (IM3)	<-153 dBc with 2 x +43 dBm TX Carrier (IM3)
Rejection	40 dB minimum 1695-2690 MHz 3300-4200 MHz	40 dB minimum 617-960 MHz 3300-4200 MHz	40 dB minimum 617-960 MHz 1695-2690 MHz

ELECTRICAL

Impedance	50 Ω
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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	+/-5 kA 8/20 μ s
MTBF	> 1,000,000 Hours
Compliance	ETSI 300 019 1-4 Class 4.1 ETSI 300 019-2-3 Class 3.2

DC / AISG

DC/AISG path is factory configurable, see ordering information

Passband	0 – 3 MHz
Insertion loss	1 dB maximum
Return loss	12 dB minimum
Input voltage range	$\pm$ 30 V
DC current rating	3 A continuous
Compliance	3GPP TS 37.461

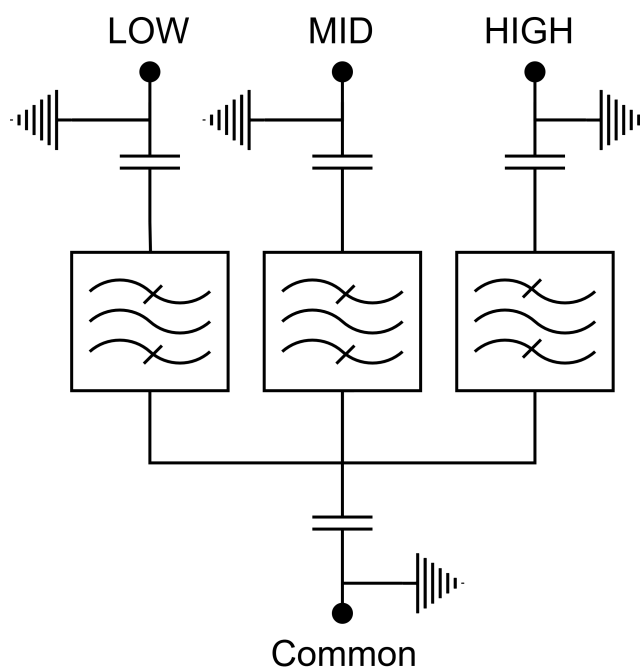
MECHANICAL	
Dimensions H x D x W (single unit)	170 x 51 x 153 mm 6.7 x 2.0 x 6.0 in
Dimensions H x D x W (twin unit)	170 x 94 x 153 mm 6.7 x 3.7 x 6.0 in
Dimensions H x D x W (quad unit)	170 x 198 x 162 mm 6.7 x 7.8 x 6.4 in
Weight	2.2 kg 4.7 lbs (single unit) 3.9 kg 8.6 lbs (twin unit) 7.8 kg 17.1 lbs (quad unit)
Finish	Painted, NCS 1502-R
Connectors	4.3-10 Female
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles

ORDERING INFORMATION

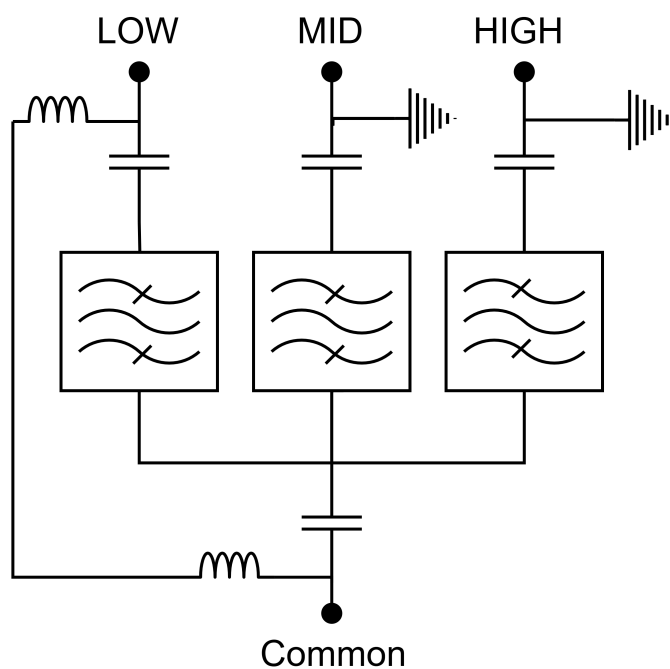
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
KA-3009-1031	3 in / 1 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	NO DC
KA-3009-1033	3 in / 1 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC LOW TO COMMON
KA-3009-2031	6 in / 2 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	NO DC
KA-3009-2033	6 in / 2 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC LOW TO COMMON
KA-3009-4031	12 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	NO DC
KA-3009-4033	12 in / 4 out	FIXED DC FACTORY CONFIGURABLE	4.3-10 (F)	DC LOW TO COMMON

ELECTRICAL BLOCK DIAGRAM

KA-XXXX-XXX1



KA-XXXX-XXX3



KA-3009-XXXZ where

Z denotes the DC path variant

LOW port is 617-960 MHz

MID port is 1695-2690 MHz

HIGH port is 3300-4200 MHz

Please note if DC ALL is used that all ports which are DC shorted need to have a DC block

MECHANICAL BLOCK DIAGRAM

