

KA-4000

QUADRUPLER 700/850/1900-AWS/WCS

Designed to combine 700, 850, 1900-AWS and WCS bands, the Kaelus KA-4000 saves significant capital and operational expenses by limiting feeder runs, and components needed on the tower. Available in an outdoor package the KA-4000 has the following features:

FEATURES

- Combines 700, 850, 1900-AWS and WCS bands
- Very low insertion loss
- Very low passive intermodulation
- Wall or pole mounting
- Single and twin configurations available



TECHNICAL SPECIFICATIONS

BAND NAME	700	850	1900-AWS	WCS
Passband	698 - 798MHz	824 - 906MHz	1695- 2200MHz	2305 - 2360MHz
Insertion loss	0.3dB typical	0.3dB typical	0.25dB typical	0.4dB typical
Return loss	24dB typical			
Maximum input power	150W (average) / 1.5kW (PEP)	500W (average) / 5kW (PEP)	250W (average) / 2.5kW (PEP)	150W (average) / 1.5kW (PEP)
Maximum input power	500W (average) total on common port			
Rejection in 700	N/A	50dB typical	80dB typical	80dB typical
Rejection in 850	50dB typical	N/A	80dB typical	80dB typical
Rejection in 1900-AWS	80dB typical	80dB typical	N/A	50dB typical
Rejection in WCS	80dB typical	80dB typical	50dB typical	N/A

ELECTRICAL

Impedance	50Ohms
Intermodulation products	-165dBc (2x 20W carriers, in receive band)
Phase linearity variation over any 10MHz	< 10°
Group delay variation over any 10MHz	< 20ns

DC / AISG

DC current rating	NO DC COM port is DC ground Other ports are DC open, with capacitive input for optimum PIM performance
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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	IEC61312-1 ±5kA maximum (8/20us) on COM port Other ports are not lightning protected for optimum PIM performance.
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1, RoHS

MECHANICAL	
Dimensions H x D x W (single unit)	243 x 76 x 217mm 9.56 x 2.99 x 8.54in (excluding brackets & connectors)
Dimensions H x D x W (twin unit)	243 x 162 x 217mm 9.56 x 6.4 x 8.54in (excluding brackets & connectors)
Weight	5.4kg 11.9lb (single unit) 10.25kg 22.6lb (twin unit)
Finish	Painted, light grey (RAL7035)
Connectors	4.3-10 (F)
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-4000-1031	SINGLE 1 in / 4 out	ULTRA LOW PIM	4.3-10 (F)	NO DC
KA-4000-2031	TWIN 2 in / 8 out	ULTRA LOW PIM	4.3-10 (F)	NO DC

ELECTRICAL BLOCK DIAGRAM

KA-4000-XXXX where

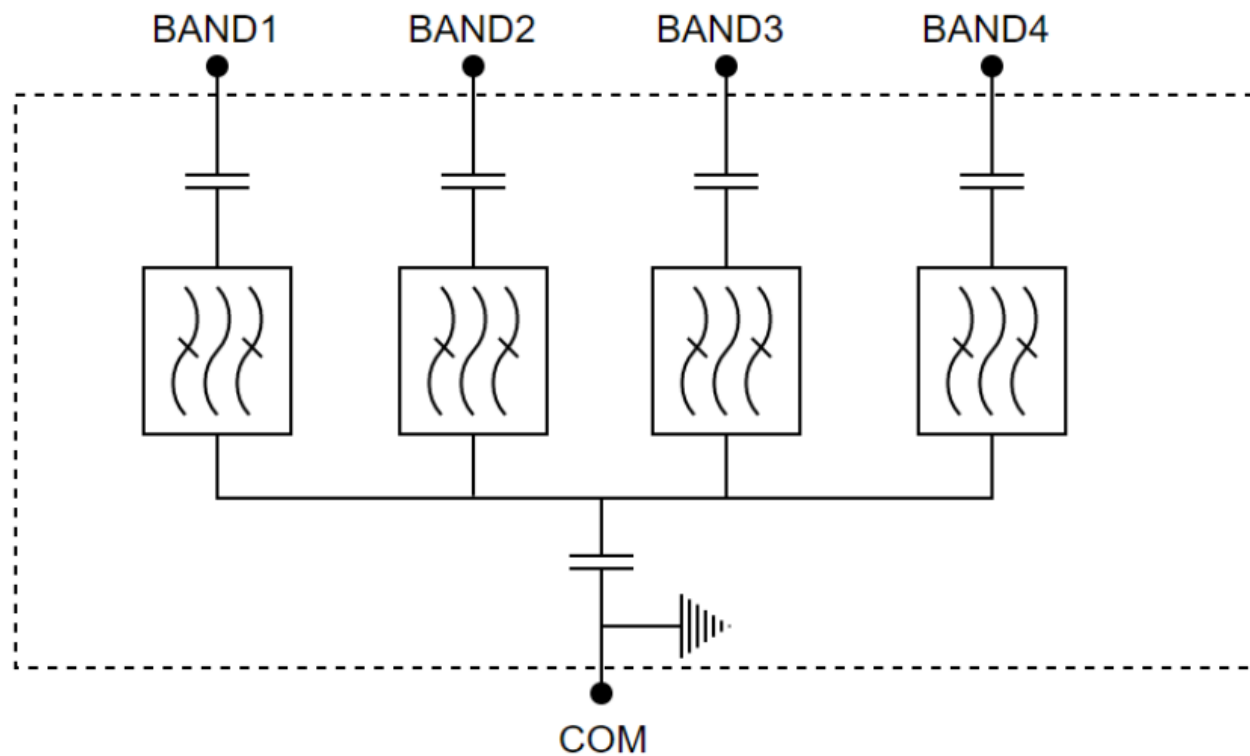
X denotes the configuration: X=1, single 1:4 and X=2, twin 2:8

BAND1 port is 700 band

BAND2 port is 850 band

BAND3 port is 1900-AWS band

BAND4 port is WCS band



MECHANICAL BLOCK DIAGRAM

