

KA-4002

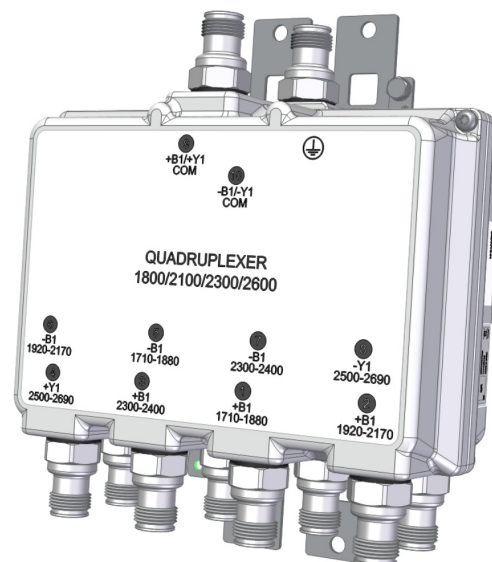
MI-261

QUADRUPLER 1800/2100/2300/2600

Kaelus world proven outdoor solutions provide strong RF performance coupled with rugged features. Designed to combine 1800/2100/2300/2600 bands, this Quadruplexer saves significant capital and operational expenses by limiting feeder runs, and components needed on the tower.

Microdata Telecom rebranding to Kaelus!

Microdata Telecom and Kaelus have had combined operations since Oct 2019 when Microdata acquired Kaelus. We strongly believe that by operating under one global brand we will clarify our strengthened position in the telecom market and from January 18th 2021, we are unifying the brands to Kaelus. The **MI-261** and the **KA-4002** are the same product but to ease the transition for our customers both Kaelus and Microdata part numbers will be maintained.



MI-261: part number under Microdata brand

KA-4002: part number under Kaelus brand

FEATURES

- Combines 1800/2100/2300 and 2600 bands
- Very low insertion loss
- Very low passive intermodulation
- DC/AISG bypass field settable
- Wall or pole mounting
- High power handling
- Single and twin configurations available

TECHNICAL SPECIFICATIONS

BAND NAME	1800	2100	2300	2600
Passband	1710 - 1880MHz	1920 - 1980MHz 2110 - 2170MHz	2300 - 2400MHz	2500 - 2690MHz
Insertion loss	0.2dB typical, 0.4dB maximum	0.2dB typical, 0.5dB maximum in 1920-1980MHz 0.2dB typical, 0.35dB maximum in 2110 - 2170MHz	0.2dB typical, 0.3dB maximum	0.2dB typical, 0.3dB maximum
Return loss	19dB typical, 18dB minimum			
Maximum input power	250W (average) *	250W (average) *	250W (average) *	250W (average) *
Intermodulation products	< -160dBc at 2 x 43dBm TX Carrier	< -160dBc at 2 x 43dBm TX Carrier (IM7)	< -160dBc at 2 x 43dBm TX Carrier	< -160dBc at 2 x 43dBm TX Carrier
Rejection to other band	50dB			
(*) Limited to 500W (average) combined power at the common port.				
ELECTRICAL				
Impedance	50Ohms			

DC / AISG		
Feature	DC-FIXED	DC-AUTOSENSE
Compliance	3GPP, TS 25.461	3GPP, TS 25.461
Passband	0 - 3MHz	0 - 3MHz
Insertion loss, single DC/AISG pass	1dB maximum	1dB maximum
Return loss, single DC/AISG pass	12dB minimum	12dB minimum
Insertion loss, two DC/AISG pass	4.5dB maximum	4.5dB maximum
Return loss, two DC/AISG pass	6dB typical	6dB typical
Input voltage range	8 – 31V DC	8 – 31V DC
DC current rating	3A	2A
Power consumption		0.3W
Port priority (combiner mode)		Refer Ordering Information

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	5kA maximum (8/20us)
MTBF	> 1,000,000 Hours
Compliance	Operation: ETSI EN 300 019 class 4.1E Storage: ETS 300 019-1-1 class 1.3E Transport: ETS 300 019-1-2 class 2.3 RoHS

MECHANICAL		
Feature	Single 1 in / 4 out	Twin 2 in / 8 out
Dimensions H x D x W	225 x 160 x 49mm 8.86 x 6.30 x 1.93in (excluding brackets & connectors)	225 x 160 x 89mm 8.86 x 6.30 x 3.50in (excluding brackets & connectors)
Weight	2.8kg 6.2lb	4.6kg 10.1lb
Finish	Powder Coated, light grey, NCS 1502-R	
Connectors	4.3-10 (F) long neck	
Mounting	Pole/wall bracket supplied with two metal clamps for 45-178 mm diameter poles	

SHIPPING INFORMATION		
Feature	SINGLE 1 in / 4 out	TWIN 2 in / 8 out
Carton size	350 x 310 x 150mm	350 x 310 x 210mm
Gross weight (including packaging)	3.3kg	5.1kg

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	DC/AISG CONFIGURATION
KA-4002-1032	SINGLE 1 in / 4 out	FIXED DC KAELUS BRAND	4.3-10 (F)	DC TO ALL
KA-4002-2032	TWIN 2 in / 8 out	FIXED DC KAELUS BRAND	4.3-10 (F)	DC TO ALL
MI-26141	TWIN 2 in / 8 out	FIXED DC MICRODATA BRAND	4.3-10 (F)	NO DC

ELECTRICAL BLOCK DIAGRAM

KA-4002-WXYZ where

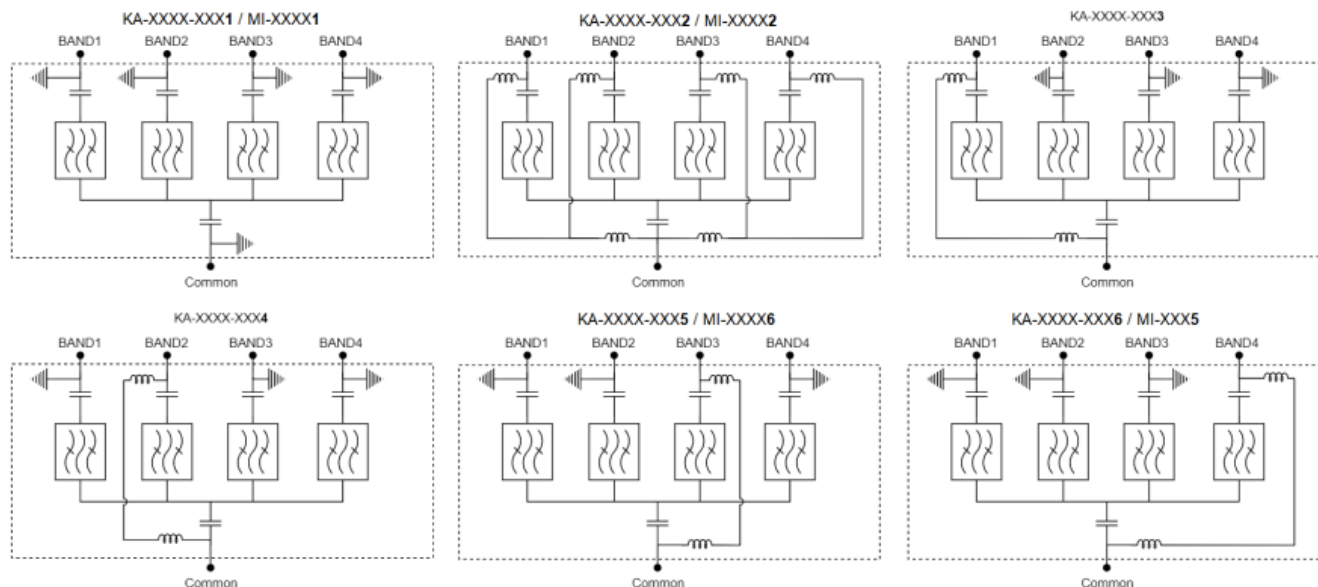
- **X** denotes the configuration: W=1, single 1:4 and W=2, twin 2:8
- **Z** denotes the DC/AISG configuration (see ordering information)

MI-261-XZ where

- **X** denotes the configuration: X=1, single 1:4 with 7-16 (F), X=2, twin 2:8 with 7-16 (F), X=3, single 1:4 with 4.3-10 (F), X=4, twin 2:8 with 4.-10 (F),
- **Z** denotes the DC/AISG configuration (see ordering information)

- **BAND1** port is 1800 band
- **BAND2** port is 2100 band
- **BAND3** port is 2300 band
- **BAND4** port is 2600 band

For clarity, only Electrical Block Diagram for the Fixed DC and single unit is shown



MECHANICAL BLOCK DIAGRAM

