

MI-175

TWIN TMA 700/900

Designed to be deployed in collocated 700, 900 systems, the Kaelus MI-175 enhances cell uplink coverage in 700, 900 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 700, 900 uplink
- Internal diplexing on the high band port of 700,900 bands: 2 Antenna ports
- Excellent noise figure performance
- Full AISG operation and RET antenna support, AISG2.0 compatible
- Small and light for minimum visual impact



TECHNICAL SPECIFICATIONS

BAND NAME	700	900
DOWNLINK		
Passband	See ordering information	925 - 960 MHz
Insertion loss	0.4dB typical	
Return loss	18dB	
Maximum input power	200W (average)*	200W (average)*
Intermodulation products	-160dBc in RX band at ANT	
UPLINK		
Passband	See ordering information	880 - 915 MHz
Gain	12dB	
Return loss	16dB	
Bypass return loss	12dB	
Bypass loss	1.7dB typical	
Noise figure	1.1dB typical	
Output IP3	25dBm typical	
Maximum input power with no damage	+10dB	
ELECTRICAL		
Impedance	50Ohms	
AISG MODE OF OPERATION (AUTO SELECTED ON VALID AISG 2.0 FRAMES)		
AISG signals can be applied to the BTS ports. The TMA unit switches to AISG mode when valid frames are detected on either port. Each LNA is controlled uniquely by its sub-unit number.		
DC supply voltage	24 V DC nominal (+9.0V to +31V DC)	
AISG version	2.0	
Power consumption, AISG mode	< 4W	
AISG connector, current rating	IEC60130-9, 8-pin female, 1.6A	

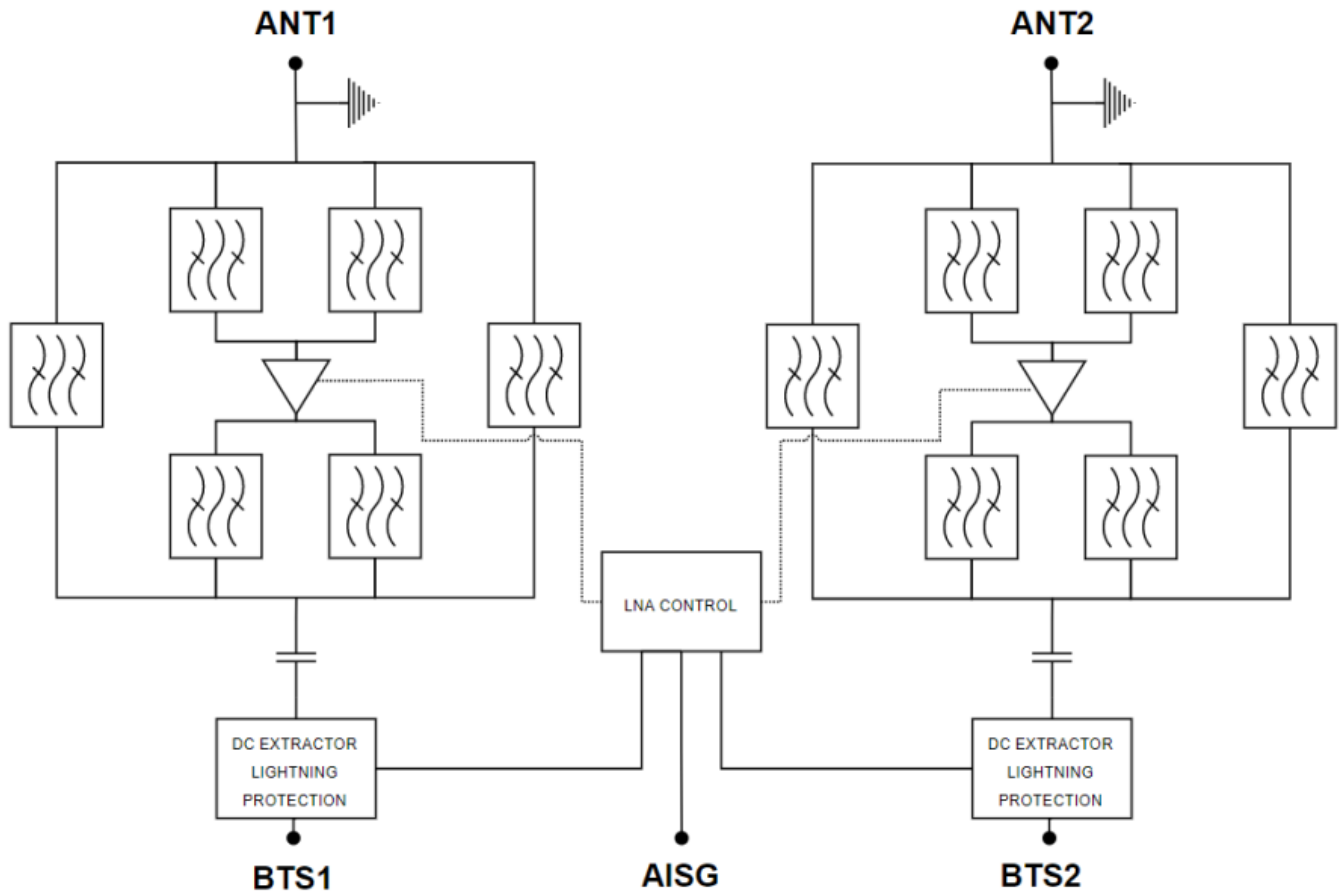
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Lightning protection	IEC61312-1, RF: ±5kA (8/20us), AISG: ±3kA (8/20us)
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-50 Safety: EN 62368-1 Operation: ETSI EN 300 019-1-4 class 4.1E Storage: ETS 300 019-1-1 class 1.2

MECHANICAL	
Dimensions H x D x W	265 x 147 x 245 mm 10.43 x 5.79 x 9.65in (excluding brackets and connectors)
Weight	11.80kg 26.01lbs
Finish	Powder coated, NCS 1502-R
Connectors	See ordering information
Mounting	Pole/wall bracket using two metal clamps, suits 40-140mm diameter poles

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-17501	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-17502	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-17503	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	7/16 (F) 2xAISG	COMMON MODE ONETWO (*)
MI-17504	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-17505	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-17509	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	7/16 (F) 2xAISG	COMMON MODE TWOTWO (*)
MI-17506	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-17507	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-17508	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-17531	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-17532	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-17533	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-17534	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-17535	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-17539	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-17536	TWIN, 2 in / 2 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 2xAISG	INDEPENDENT
MI-17537	TWIN, 2 in / 2 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 2xAISG	INDEPENDENT
MI-17538	TWIN, 2 in / 2 out	D/L: 758-803MHz U/L: 718-748MHz	4.3-10 (F) 2xAISG	INDEPENDENT
(*) ONETWO: the TMA is identified as 1 logic unit with 2 subunits				
(**) TWOTWO: the TMA is identified as 2 logic units with 2 subunits each				

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

