

MI-147

TMA TWIN 2100/2600

Designed to be deployed in collocated 2100 and 2600 systems, the Kaelus MI-147 enhances cell uplink coverage in 2100 and 2600 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 2100 and 2600 uplink
- Internal diplexing on the antenna port of 2100 and 2600 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	2100	2600
DOWNLINK		
Passband	2110 - 2170MHz	2620 - 2690MHz
Insertion loss	0.30dB typical	0.35dB typical
Return loss	18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-168dBc in RX band at ANT	-160dBc in RX band at ANT
UPLINK		
Passband	1920 - 1980MHz	2500 - 2570MHz
Gain	12dB nominal	
Return loss	16dB minimum	
Bypass return loss	12dB minimum	
Bypass loss	1.9dB typical	2.0dB typical
Noise figure	1.4dB typical	1.5dB typical
Output IP3	25dBm typical	
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: ±2.5kA (8/20us)
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-23 Safety: EN 60950 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	176 x 110 x 154 mm 6.9 x 4.3 x 6.0in (excluding brackets and connectors)
Weight	4.3kg 9.48lbs
Finish	Powder coated, NCS 1502-R
Connectors	See ordering information
Mounting	Pole/wall bracket using two metal clamps, suits 40-140mm diameter poles

SHIPPING INFORMATION	
Gross weight (including packaging)	4.9kg 10.80lb
Carton Qty / Pallet	39

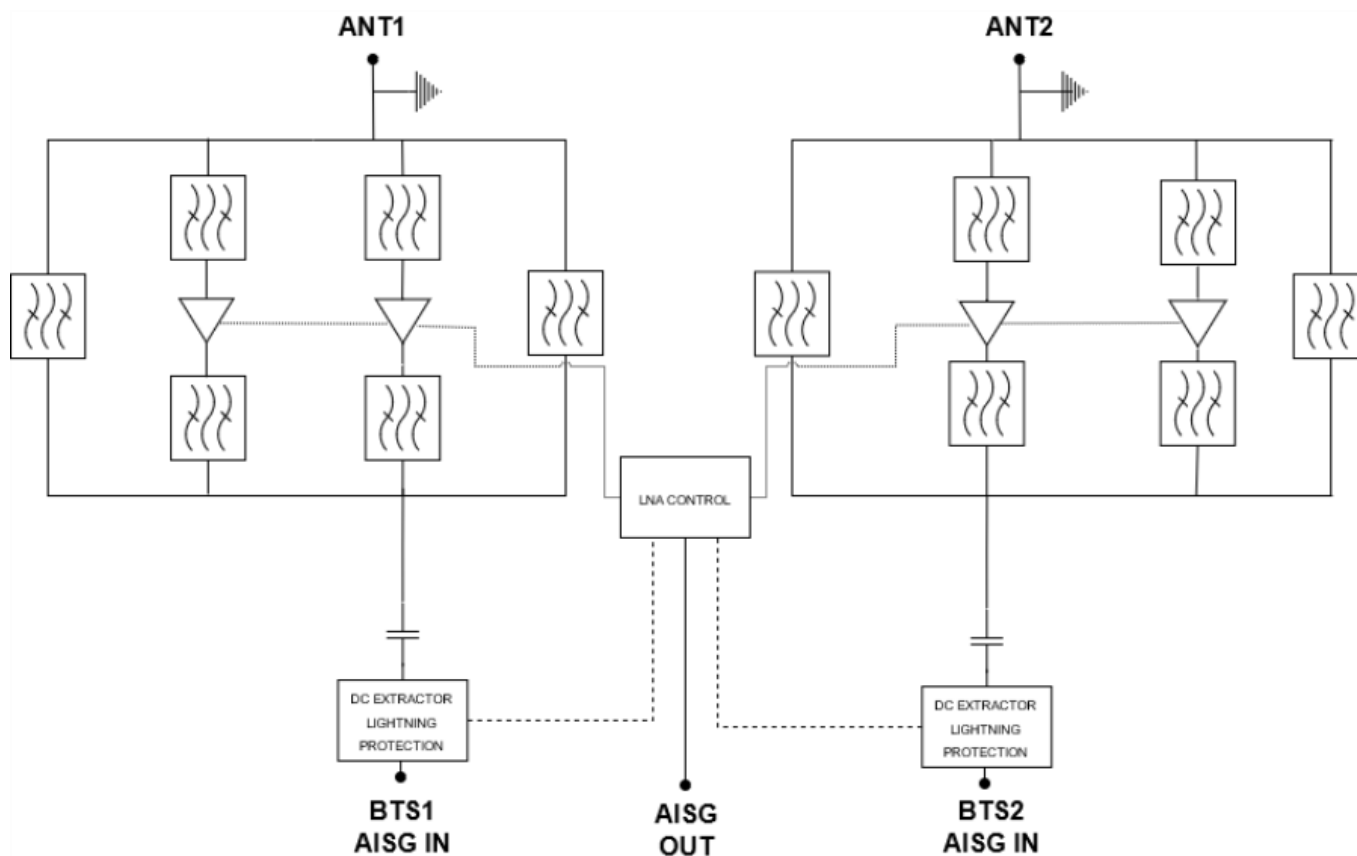
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-14701	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-14702	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-14706	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 2xAISG	INDEPENDENT
MI-14731	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-14732	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-14736	TWIN, 2 in / 2 out	BASE MODEL	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

