

MI-149

TMA TWIN 1800/2600

Designed to be deployed in collocated 1800 and 2600 systems, the Kaelus MI-149 enhances cell uplink coverage in 1800 and 2600 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 1800 and 2600 uplink
- Internal diplexing on the antenna port of 1800,2600 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	1800	2600
DOWNLINK		
Passband	1805 - 1880MHz	2620 - 2690MHz
Insertion loss	0.5dB typical 0.7dB maximum	0.4dB maximum
Return loss	18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-160dBc in RX band at ANT	-160dBc in RX band at ANT
UPLINK		
Passband	1710 - 1785MHz	2500 - 2570MHz
Gain	12dB nominal	
Return loss	16dB minimum	
Bypass return loss	12dB minimum	
Bypass loss	2.7dB typical	2.6dB typical
Noise figure	1.5dB 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	RF: ±5kA (8/20us), AISG: ±2.5kA common mode
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-8 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	224 x 109 x 209 mm 8.8 x 4.3 x 8.2in (excluding brackets and connectors)
Weight	6.7kg 14.77lbs
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	
Carton size	355 x 265 x 178mm 14 x 10.4 x 7in
Gross weight (including packaging)	7.5kg 16.5lb
Carton Qty / Pallet	56

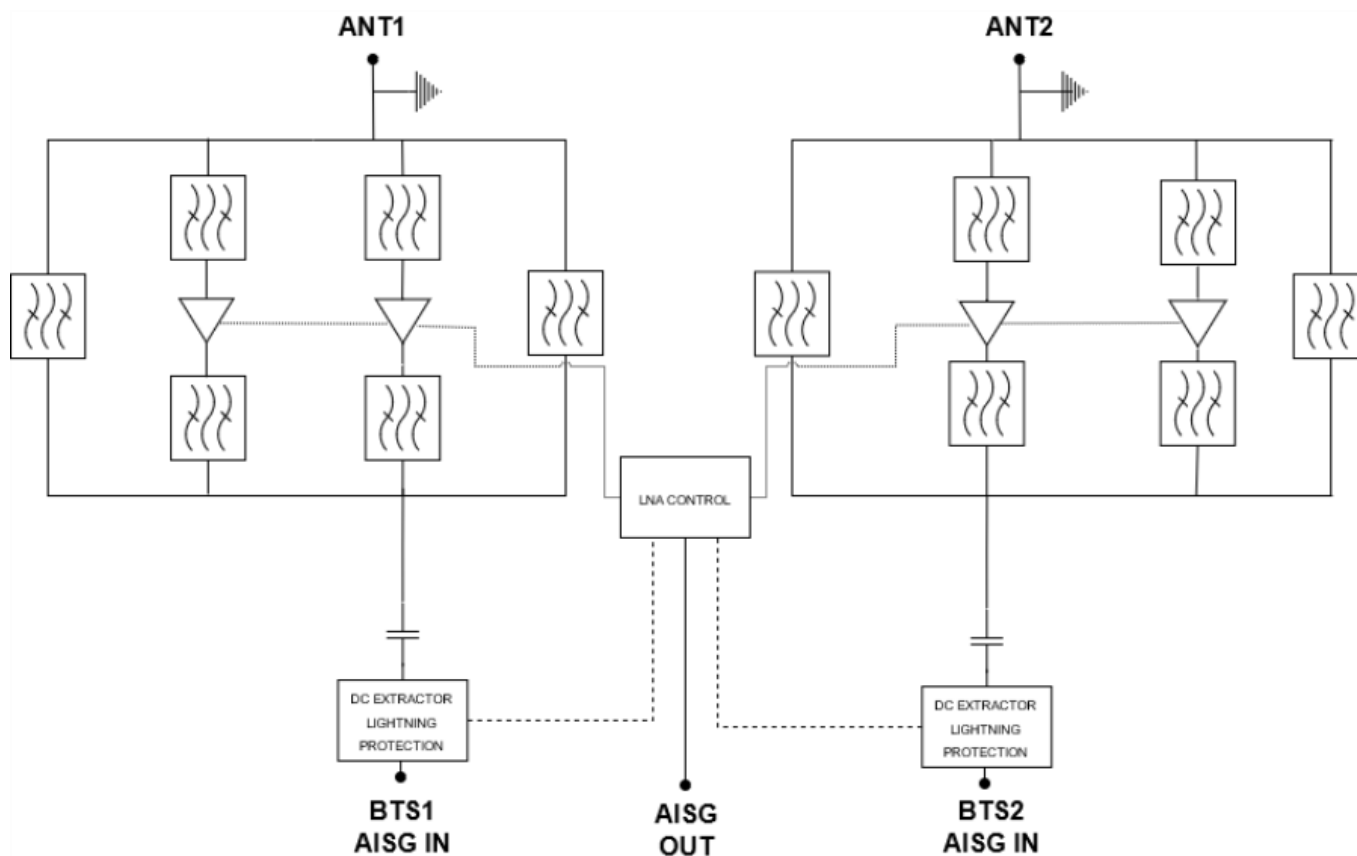
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-14901	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-14902	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-14906	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 2xAISG	INDEPENDENT
MI-14931	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-14932	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-14936	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

