

MI-127

TMA TWIN 1800/2100

Designed to be deployed in collocated 1800, 2100 systems, the Kaelus MI-127 enhances cell uplink coverage in 1800, 2100 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 1800, 2100 uplink
- Internal diplexing on the high band port of 1800,2100 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	2100
DOWNLINK		
Passband	1805 - 1880MHz	2110 - 2170MHz
Insertion loss	0.5dB typical	0.3dB typical
Return loss	20dB typical, 18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-160dBc in RX band at ANT	-168dBc in RX band at ANT
UPLINK		
Passband	1710 - 1785MHz	1920 - 1980MHz
Gain	12dB	
Return loss	16dB	
Bypass return loss	14dB	
Bypass loss	2dB typical	2.2dB typical
Noise figure	1.4dB typical	1.3dB typical
Output IP3	25dBm typical	
Maximum input power with no damage	12dB typical	
ELECTRICAL		
Impedance	50Ohms	
POWER SUPPLY AND ALARM (CURRENT WINDOW ALARM MODE, DEFAULT)		
Current window alarm mode (CWA) is the default operating mode and can be configured to specific customer requirements. Please contact Kaelus for more information.		
DC supply voltage	+9 to +15V DC	
DC supply current, normal mode	165mA @ 12V	
DC supply current, alarm mode	320mA max	
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.		
DC supply voltage	+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 301 489-8 Safety: IEC/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 8.21in (excluding brackets and connectors)
Weight	6.7kg 14.8lbs
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	360 x 270 x 180mm 14.7 x 10.63 x 7.09in
Gross weight (including packaging)	7.5kg 16.5lb
Carton Qty / Pallet	48

ORDERING INFORMATION

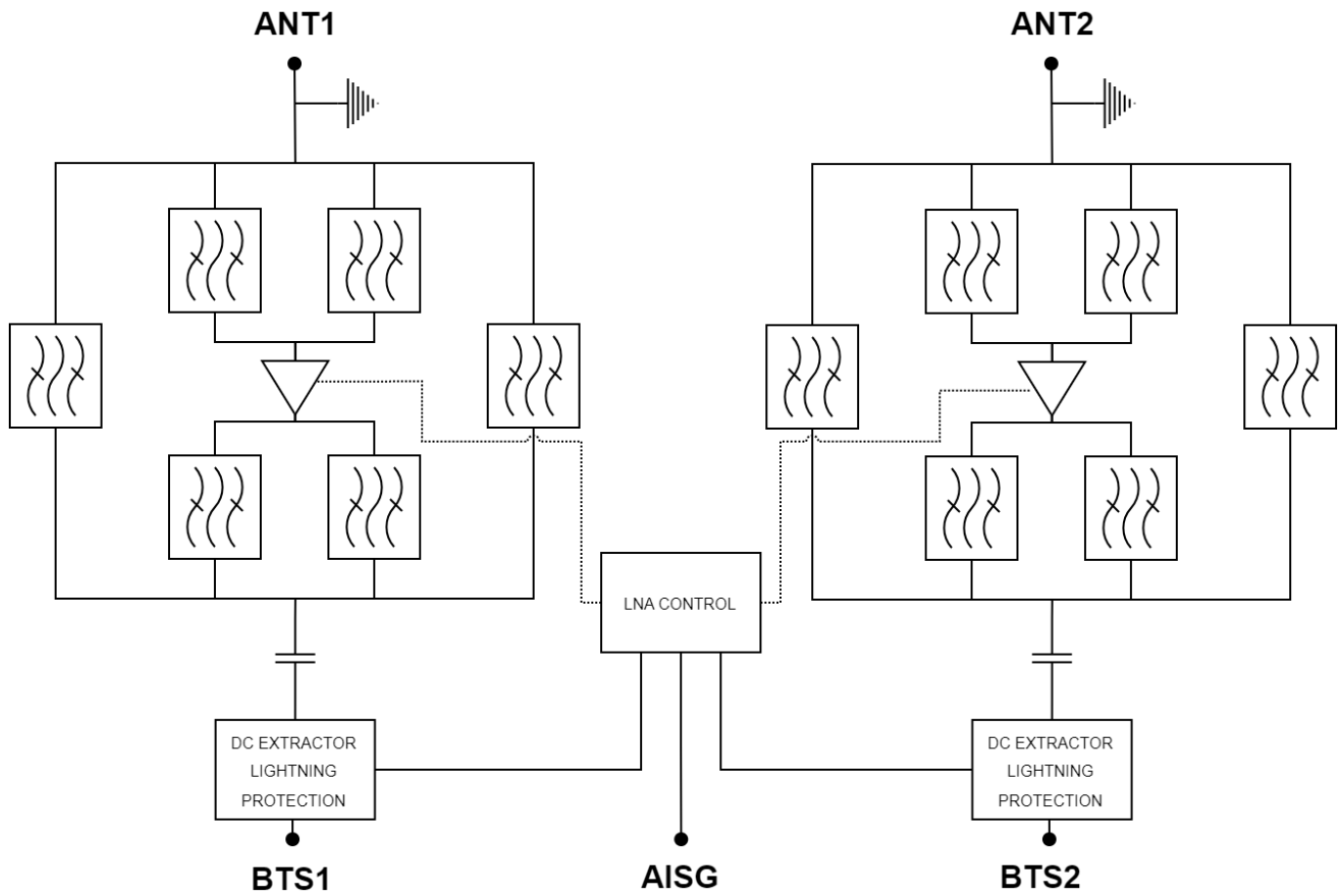
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-12751	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-12752	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-12756	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 2xAISG	INDEPENDENT
MI-12758	TWIN, 2 in / 2 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE ONEFOR (***)
MI-12731	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-12732	TWIN, 2 in / 2 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-12736	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 each

(**) TWOTWO: the TMA is identified as 2 logic units with 2 subunits each

(***) ONEFOR: the TMA is identified as 1 logic unit with 4 subunits each

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

