

MI-180

TMA TWIN 1800/2100/2600

4 ANTENNA PORTS: 2x1800/2100 AND 2x2600

Designed to be deployed in co-located 1800, 2100 and 2600 MHz systems with wideband antennas, this Tower Mounted Amplifier provides gain in all the bands.

FEATURES

- Improved base station sensitivity through gain in the 1800, 2100 and 2600 uplink
- 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	2600
DOWNLINK			
Passband	1805 - 1880MHz	2110 - 2170MHz	2620 - 2690 MHz
Insertion loss	0.5dB typical	0.4dB typical	0.4dB typical
Return loss	20dB typical, 18dB minimum		
Maximum input power	200W (average)*	200W (average)*	200W (average)*
Intermodulation products	-160dBc in RX band at ANT		
UPLINK			
Passband	1710 - 1785MHz	1920 - 1980MHz	2500 - 2570MHz
Gain	12dB		
Return loss	16dB		
Bypass return loss	12dB		
Bypass loss	2dB typical	2.2dB typical	2dB typical
Noise figure	1.4dB typical		
Output IP3	25dBm typical		
(*) Limited to 500W (average) combined power at the common ports.			
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		

ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40°C to +65°C -40°F to +155°F
Ingress protection	IP67
Lightning protection	RF: ±5kA (8/20us), AISG: ±2kA common mode (8/20us)
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-23 Safety: EN 62368-1 Operation: ETSI EN 300 019-1-4 class 4.1E Storage: ETSI 300 019-1-1 class 1.2

MECHANICAL	
Dimensions H x D x W	226 x 111 x 309mm 8.9 x 4.37 x 12.16in (excluding brackets and connectors)
Weight	10.3kg 22.71lbs
Finish	Powder coated, NCS 1502-R
Mounting	Pole/wall bracket using two metal clamps, suits 40-140mm diameter poles

SHIPPING INFORMATION	
Carton size	390 x 390 x 220mm
Carton Qty / Pallet	36

ORDERING INFORMATION

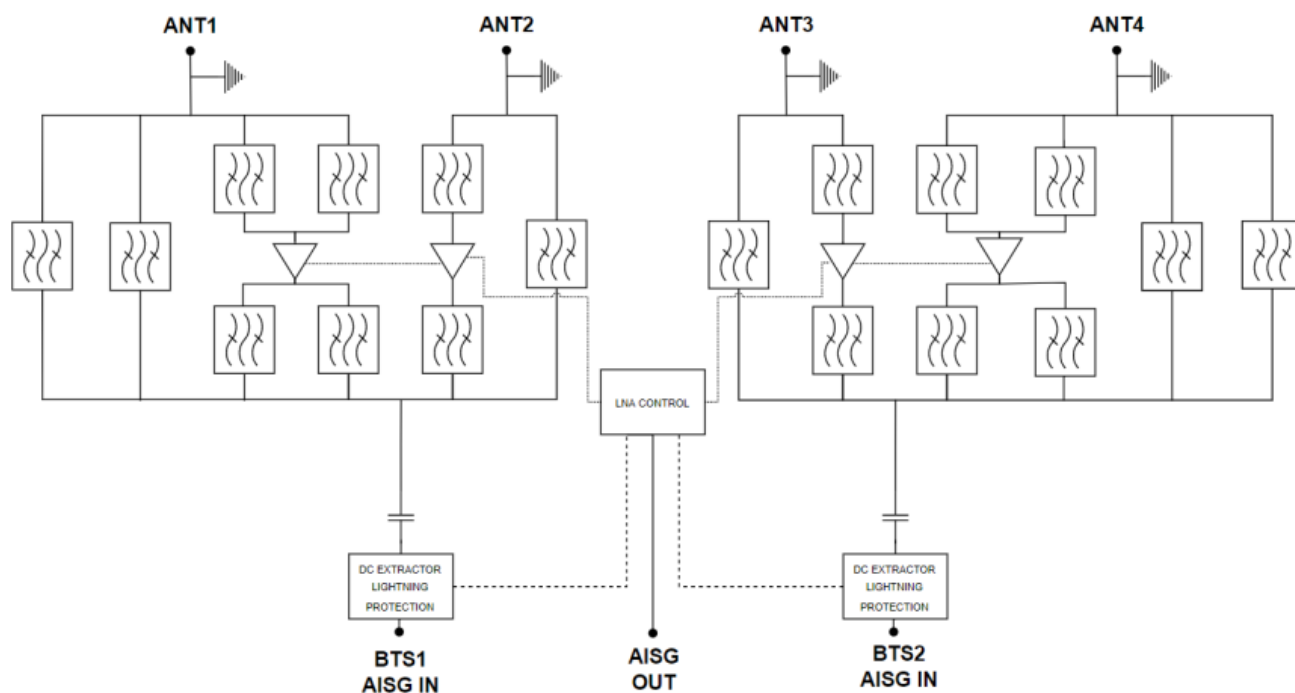
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-18001	TWIN, 2 BTS / 4 ANT	BASE MODEL	7/16 (F) 1 x AISG	TWOTWO
MI-18002	TWIN, 2 BTS / 4 ANT	BASE MODEL	7/16 (F) 1 x AISG	TRITWO
MI-18003	TWIN, 2 BTS / 4 ANT	BASE MODEL	7/16 (F) 1 x AISG	ONETWO
MI-18006	TWIN, 2 BTS / 4 ANT	BASE MODEL	7/16 (F) 2 x AISG	INDEPENDENT MODE
MI-18031	TWIN, 2 BTS / 4 ANT	BASE MODEL	4.3-10 (F) 1 x AISG	TWOTWO
MI-18032	TWIN, 2 BTS / 4 ANT	BASE MODEL	4.3-10 (F) 1 x AISG	TRITWO
MI-18033	TWIN, 2 BTS / 4 ANT	BASE MODEL	4.3-10 (F) 1 x AISG	ONETWO
MI-18036	TWIN, 2 BTS / 4 ANT	BASE MODEL	4.3-10 (F) 2 x AISG	INDEPENDENT MODE

Note: in the AISG mode "ONETWO" the multi band TMA is seen as 1 logic units with 2 subunits each and it is only required to connect to one of the two BTS ports. Either port can be used.

Note: in the AISG mode "TWOTWO" the multi band TMA is seen as 2 logic units with 2 subunits each and it is only required to connect to one of the two BTS ports. Either port can be used.

Note: in the AISG mode "TRITWO" the multi band TMA is seen as 3 logic units with 2 subunits each and it is only required to connect to one of the two BTS ports. Either port can be used.

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

