

TMA2142 | MI-191

TWIN TMA 1800/2100/2600 LOW-BAND BYPASS

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

FEATURES

- Improved base station sensitivity through gain in the 1800, 2100 and 2600 uplink bands
- 694-960MHz passed to low band antenna ports
- Internal diplexing of 1800, 2100 and 2600MHz bands
- AISG2.0 compatible
- Compact, low weight
- Excellent noise figure performance



TECHNICAL SPECIFICATIONS

BAND NAME	1800	2100	2600
DOWNLINK			
Passband	1805 - 1880MHz	2110 - 2170MHz	2620 - 2690MHz
Insertion loss	0.5dB typical	0.4dB typical	0.4dB typical
Return loss	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 minimum		
Bypass return loss	12dB minimum		
Bypass loss	2.0dB typical	2.2dB typical	2.0dB typical
Noise figure	1.4dB typical		
Output IP3	+25dBm typical		
LOW BAND BYPASS PATH			
Passband	694 - 960MHz		
Return loss	18dB minimum		
Insertion loss	0.2dB typical		
Maximum input power with no damage	200W average*		
(*) Versions with 4.3-10 (F) connectors are limited to 500W (average) combined power.			
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	231 x 125 x 309mm 9.09 x 4.92 x 12.16in (excluding brackets and connectors)
Weight	12kg 26.45lbs
Finish	Powder coated, NCS 1502-R
Mounting	Pole/wall bracket using two metal clamps, suits 40-140mm diameter poles

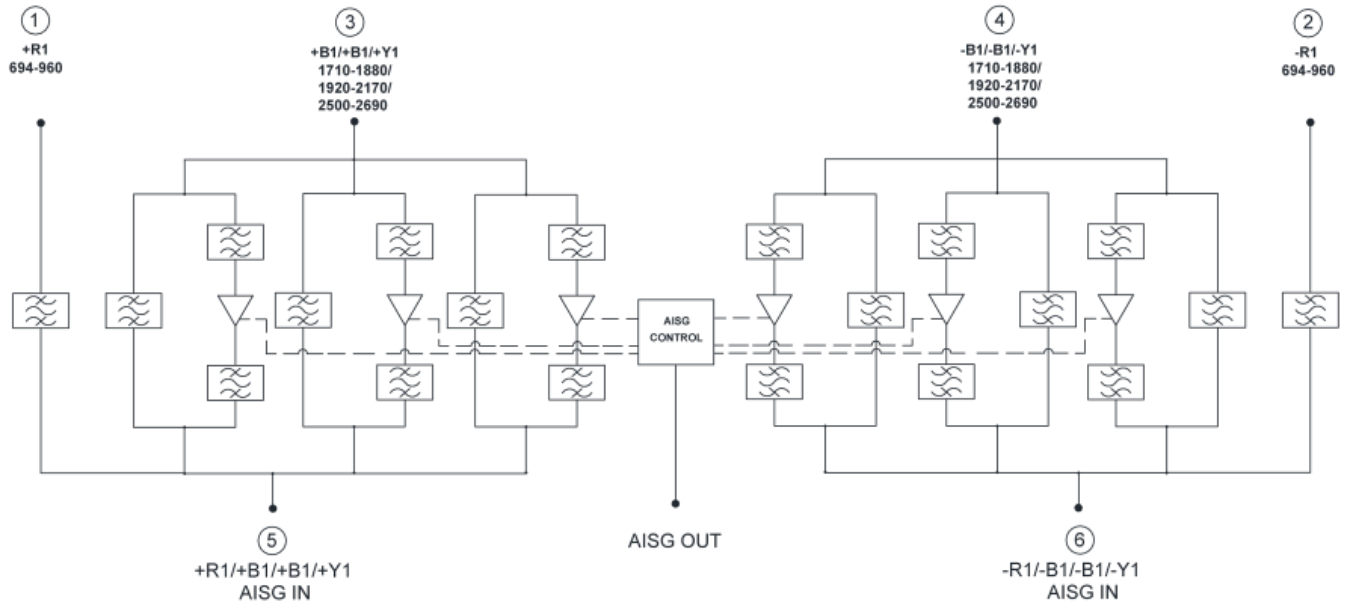
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
TMA2142F01V1-1	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 1 x AISG	TRITWO
TMA2142F01V2-1	TWIN, 2 in / 4 out	BASE MODEL	7-16 (F) 1 x AISG	TRITWO
MI-19101	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 1 x AISG	TWOTWO
MI-19102	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 1 x AISG	TRITWO
MI-19106	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 2 x AISG	INDEPENDENT MODE
MI-19131	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 1 x AISG	TWOTWO
MI-19132	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 1 x AISG	TRITWO
MI-19136	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 2 x AISG	INDEPENDENT MODE

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

