

MI-186

TMA TWIN 700/900 MHZ

Designed to be deployed in collocated 700 and 900 systems, the Kaelus MI-186 enhances cell uplink coverage in 700 and 900 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 700 and 900 uplink
- Internal diplexing on the antenna port of 700 and 900 bands: 4 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	700	900
DOWNLINK		
Passband	See ordering information	925 - 960 MHz
Insertion loss	0.4dB typical	
Return loss	18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-160dBc in RX band at ANT	
UPLINK		
Passband	See ordering information	880 - 915 MHz
Gain	12dB nominal	
Return loss	16dB minimum	
Bypass return loss	12dB minimum	
Bypass loss	1.7dB typical	
Noise figure	1.1dB 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 (8/20us) common mode
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-8 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	265 x150 x 245 mm 10.43 x 5.91 x 9.65in (excluding brackets and connectors)
Weight	12.0kg 26.45lbs
Finish	Powder coated, NCS 1502-R
Connectors	See ordering information
Mounting	Pole/wall bracket using two metal clamps, suits 40-140mm diameter poles

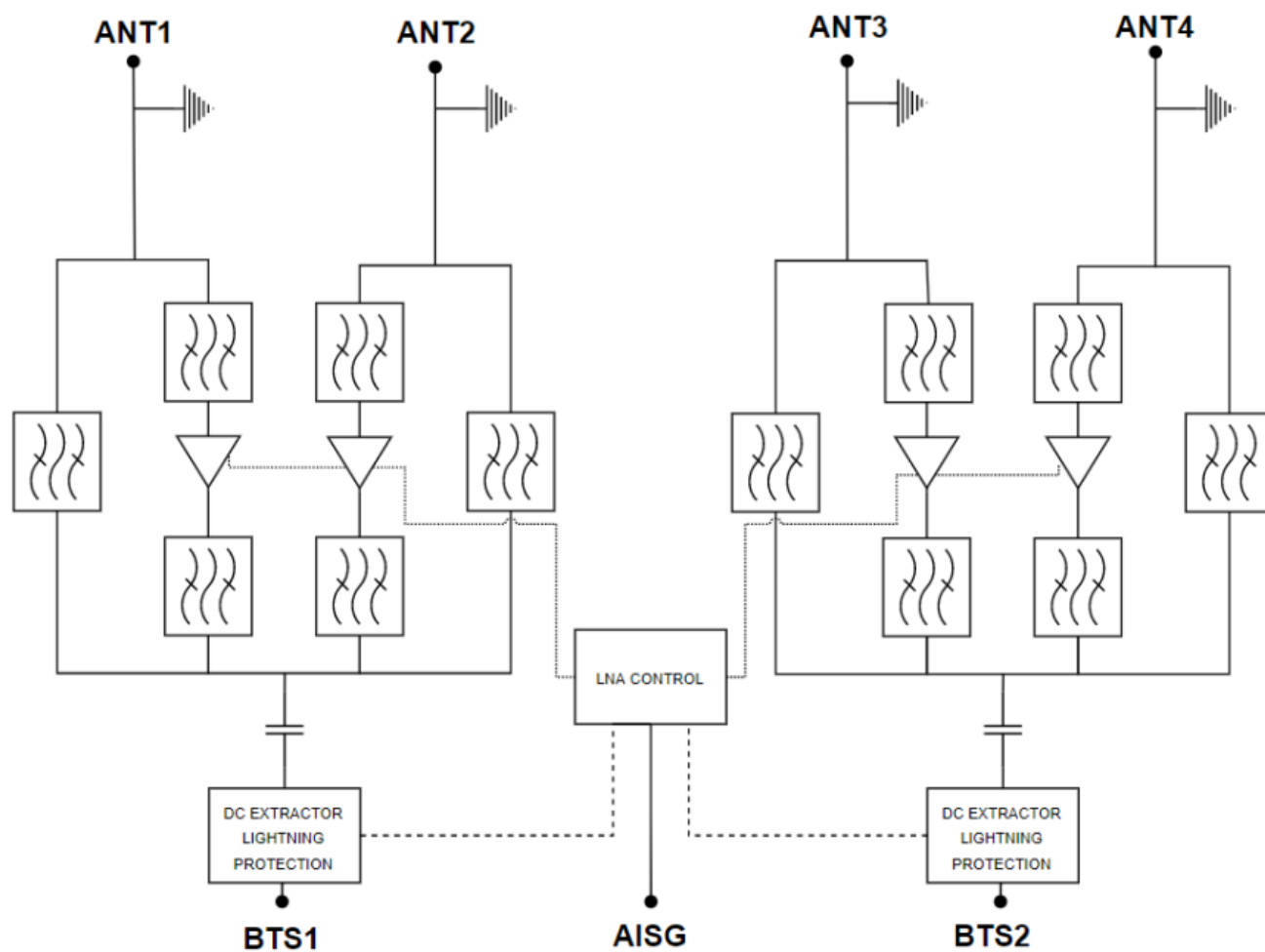
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS	AISG MODE
MI-18601	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-18602	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-18603	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	7/16 (F) 2xAISG	COMMON MODE ONETWO (*)
MI-18604	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-18605	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-18609	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	7/16 (F) 2xAISG	COMMON MODE TWOTWO (*)
MI-18606	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-18607	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-18608	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	7/16 (F) 2xAISG	INDEPENDENT
MI-18631	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-18632	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-18633	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-18634	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-18635	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-18639	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (*)
MI-18636	TWIN, 2 in / 4 out	D/L: 743-788MHz U/L: 703-733MHz	4.3-10 (F) 2xAISG	INDEPENDENT
MI-18637	TWIN, 2 in / 4 out	D/L: 753-798MHz U/L: 713-743MHz	4.3-10 (F) 2xAISG	INDEPENDENT
MI-18638	TWIN, 2 in / 4 out	D/L: 763-803MHz U/L: 723-753MHz	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

