

MI-165

TMA TWIN 800/900

Designed to be deployed in collocated 800 and 900 systems, the Kaelus MI-165 enhances cell uplink coverage in 800 and 900 through improved system noise figure, thereby saving operational and capital expenditure.

FEATURES

- Improved base station sensitivity through gain in the 800 and 900 uplink
- 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	800	900
DOWNLINK		
Passband	791 - 821MHz	925 - 960MHz
Insertion loss	0.4dB typical	0.4dB typical
Return loss	18dB minimum	
Maximum input power	200W (average)	200W (average)
Intermodulation products	-159dBc in RX band at ANT	
UPLINK		
Passband	832 - 862MHz	880 - 915MHz
Gain	12dB nominal	
Return loss	16dB minimum	
Bypass return loss	12dB minimum	
Bypass loss	1.7dB maximum	
Noise figure	1.1dB typical	
Output IP3	25dBm 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. Each LNA is controlled uniquely by its sub-unit number.		
DC supply voltage	24 V DC nominal (+9.0V to +31V DC)	
AISG version	1.1 or 2.0	
Power consumption, AISG mode	< 4W	
AISG connector, current rating	IEC60130-9, 8-pin female, 1.6A	

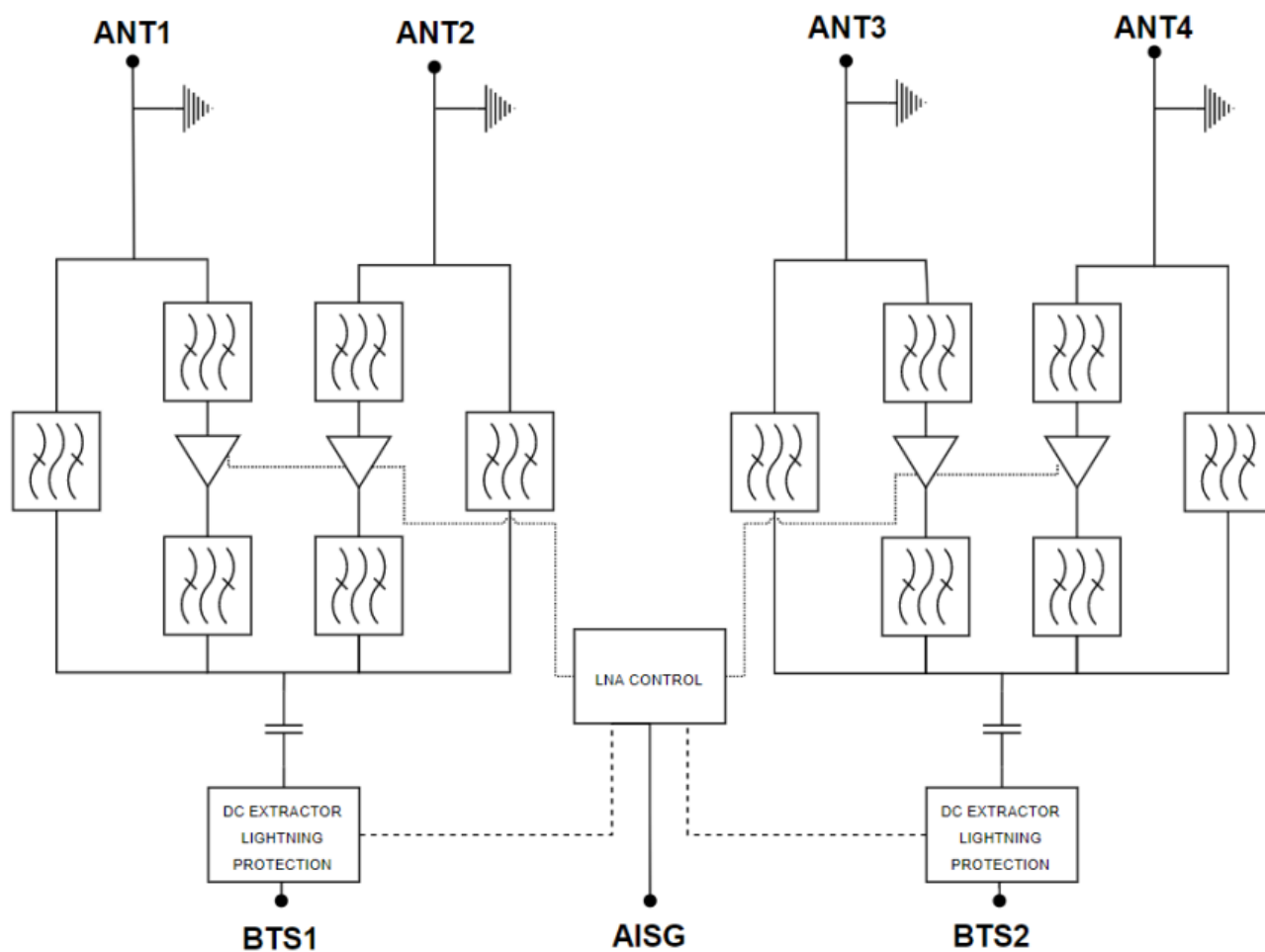
ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-40°C to +65°C -40°F to +149°F
Ingress protection	IP67
Lightning protection	IEC61312-1, RF: ±10kA (8/20us), AISG: ±5kA (8/20us)
MTBF	>1,000,000 hours
Compliance	EMC: EN 301 489-8 Safety: EN 62368-1 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	249 x 152 x 234 mm 9.8 x 6 x 9.2in (excluding brackets and connectors)
Weight	9.5kg 20.94lbs
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-16501	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-16502	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-16506	TWIN, 2 in / 4 out	BASE MODEL	7/16 (F) 2xAISG	INDEPENDENT
MI-16531	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE ONETWO (*)
MI-16532	TWIN, 2 in / 4 out	BASE MODEL	4.3-10 (F) 1xAISG	COMMON MODE TWOTWO (**)
MI-16536	TWIN, 2 in / 4 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

