

TMA2066F03V1-1D

TWIN TMA AWS/1900

Designed to be deployed in co-located AWS & 1900MHz systems with wideband antennas, the Kaelus TMA2066 provides internal diplexing and gain in both frequency bands, thereby saving both operational and capital expenditure

FEATURES

- Improved base station sensitivity through gain in the AWS and 1900 uplink bands
- Excellent noise figure performance
- AISG2.0 compatible
- Hardware and software configuration using AISG “personality” upload
- Internal diplexing of AWS and 1900MHz bands
- Compact, low weight



TECHNICAL SPECIFICATIONS

BAND NAME	1900	AWS
DOWNLINK (TX) PATH		
Passband	1930 - 1990MHz	2110 - 2180MHz
Insertion loss	0.7dB typical	0.5dB typical
Return loss	18dB minimum	
Maximum input power	160W (average) / 2kW (PEP)	
Intermodulation @ antenna port	161dBc typical / 153dBc maximum, (3rd order) in RX band with 2 x 20W carriers	161dBc typical / 153dBc maximum, in RX band with 2 x 20W carriers
UPLINK (RX) PATH		
Passband	1850 - 1910MHz	1710 - 1780MHz
Gain	12dB	
Gain variation	±1dB maximum	
Return loss	18dB minimum operating, 14dB in bypass mode	
Bypass loss	2.5dB typical	
Noise figure	1.4dB typical	
Output IP3	+28dBm minimum	
Maximum input power with no damage	+12dBm	
ELECTRICAL		
Impedance	50ohms	
POWER SUPPLY AND ALARM (CURRENT WINDOW ALARM MODE, DEFAULT)		
Current window alarm mode (CWA) is the default TMA operating mode and can be configured to specific customer requirements. The generic personality is configured so that both channels are independently powered and monitored via the respective BTS port. The BTS port sinks additional current to indicate an alarm state in its uplink path. Normal operating and alarm current values are configured independently and are alterable via a field-loadable personality file.		
DC supply voltage via BTS-RF cable	7.5V to 30V DC, case is DC ground Each BTS port powered individually (programmable)	
DC supply current, normal mode	150 ± 15mA per port	
DC supply current, alarm mode	220 ± 20mA per port (programmable)	
DC supply current, alarm mode programmable range	150 - 250mA with 100mA normal operating current	

AISG MODE OF OPERATION (AUTO SELECTED ON VALID AISG 2.0 FRAMES)

AISG signals can be applied to either BTS1 or BTS2 port. The TMA unit switches to AISG mode when valid frames are detected on one of the BTS ports. Both LNAs take DC power from the port with AISG frames or, if DC is present on both ports, both channels supply equal power to the TMA.

AISG version	2.0 (1.1 optional)
Supply current, AISG mode	265mA @ 7.5V, 75mA @ 30V typical
Voltage drop, BTS to AISG port	1.5V maximum at 2A
AISG connector, current rating	IEC60130-9, 8-pin female, < 4A peak, 2A continuous, pin 6
Field firmware upgradable	Yes

ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

Temperature range	-40° to +65°C -40° to +149°F
Ingress protection	IP67
Lightning protection	IEC61312-1, RF: ±5kA maximum (8/20us), AISG: ±2kA maximum (8/20us)
MTBF	>1,000,000 (hours)
Compliance	FCC Part 15 subpart B, EMC:EN301 489, Ingress ETSI EN 300 019 class 4.1, RoHS

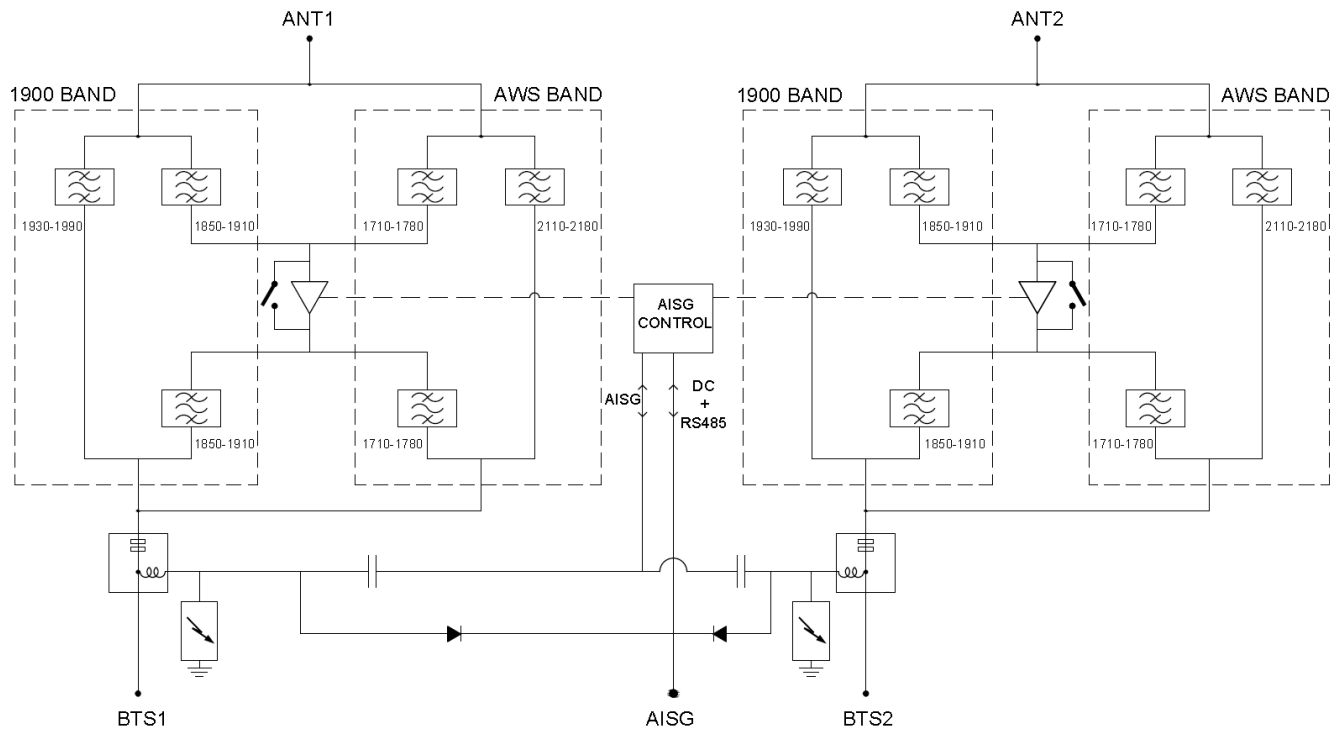
MECHANICAL

Dimensions H x D x W	300 x 168 x 93mm 11.82 x 6.62 x 3.66in (excluding brackets and connectors)
Weight	8.2kg 18.1lbs
Finish	Painted, light grey (RAL7035)
Connectors	DIN 7-16 (F) x 4 long neck, AISG (F) x 1
Mounting	Pole/wall bracket supplied with two metal clamps 45-178mm diameter poles

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
TMA2066F03V1-1D	TWIN 2 in /2 out	Configured with AT&T personality	DIN 7-16 (F)

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

