

TMA2104F00V1-1

2300 MHz Twin TMA with 700-850 bypass, AISG2.0

Designed to be deployed in 2300MHz WCS Band, the Kaelus TMA2104 provides gain at the 2300MHz uplink band while allowing 700/850 services to pass through to the antenna. This saves OPEX, CAPEX and gives excellent system performance as well as full AISG capabilities.



PRODUCT FEATURES

- Improved base station sensitivity through gain in 2300 MHz bands
- Hardware and software configuration using AISG "Personality" upload
- High linearity and low noise performance
- Fail safe bypass mode with lightning protection
- bypass provided for 700/850 MHz services

TECHNICAL SPECIFICATIONS

Downlink Path, Band 1	WCS
Passband	2350 - 2360
Insertion Loss	0.5dB typ
Return Loss	18dB min
Max Average input power (W)	120
Max PEP Input Power (W)	1200
Intermodulation, 2 x 43dBm TX carriers (dBc)	-153dBc max
Uplink Path, Band 1	
Passband	2305 - 2315
Gain (dB)	12
Gain window	+/- 1dB max
Return Loss (Operating)	18dB min
Return Loss (Bypass)	15dB min
Noise Figure	1.7dB typ

Bypass Loss	3.3dB typ
Output IP3	+30dBm typ
Maximum input power with no damage	+12dBm max
Rejection @ Freq x (dBc Min)	2324.54-2341.285 / 27.5dB
Rejection @ Freq x (dBc Min)	698-2170 / 75dB
Bypass Passband	698 - 894MHz
Insertion Loss	0.35dB typ
Return loss, all ports	18dB min
Continuous average power	200
Peak envelope power	2000
Intermodulation @ antenna port	-153dBc max

CURRENT ALARM MODE (DEFAULT MODE SELECTED ON THE ABSENCE OF AISG PACKETS)

DC Supply Voltage (VDC min)	8.5
DC Supply Voltage (VDC max)	30
Supply Current, Normal operation	100 +/- 20 mA per port (programmable)
Supply Current, alarm mode	180 +/- 30mA per port (programmable)

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

AISG Version	2
AISG Supply Current	215mA @ 8.5V, 70mA @ 30V typical
AISG Connector	IEC60130-9, 8-pin female
AISG Connector Current rating	< 4A peak, 2A continuous, pin 6
Field firmware upgradable	Yes

ENVIRONMENTAL

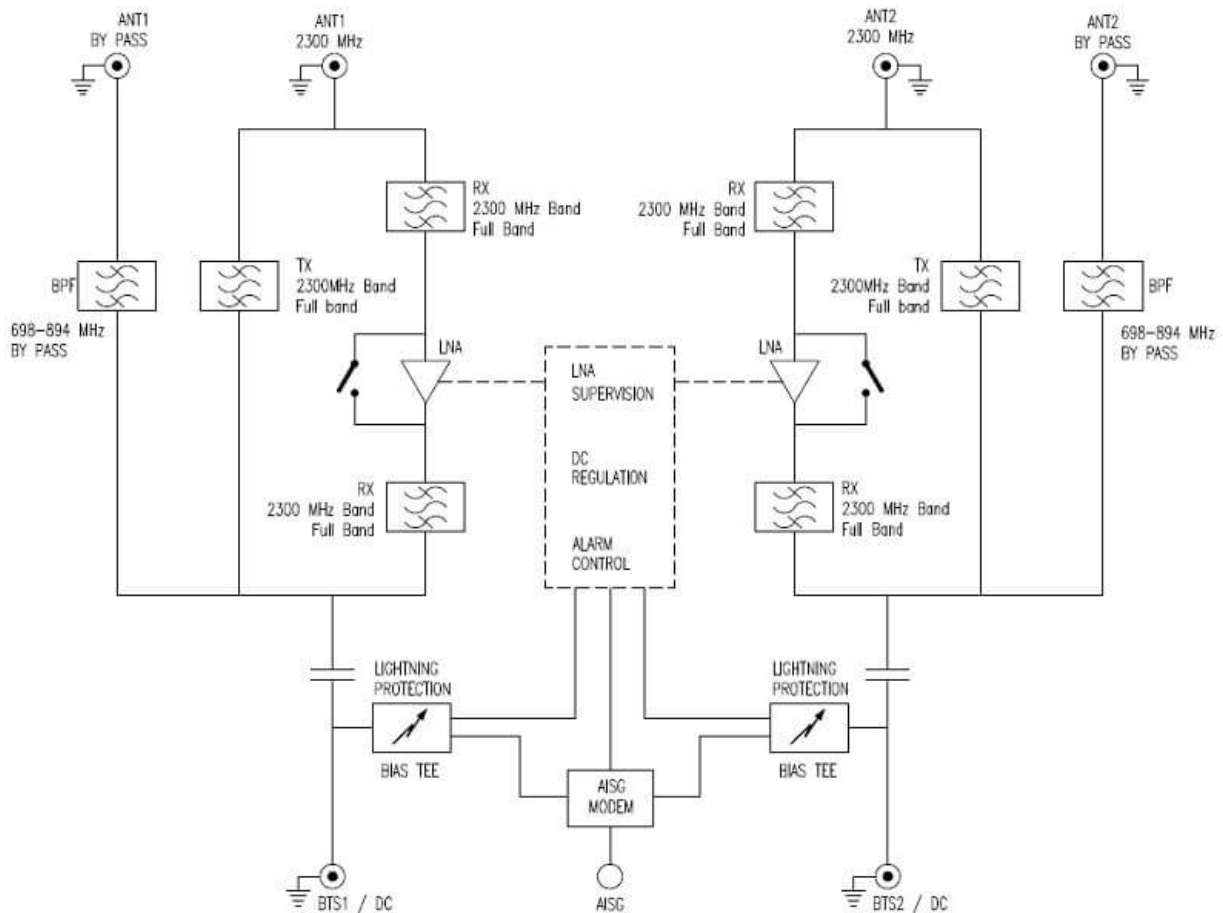
Temperature range	-40°C to +65°C -40° to +149°F
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Environmental sealing	IP67
Altitude	2,000m 6,561ft
Lightning protection	RF port: +/- 5kA max (8/20us), AISG port: +/- 2kA max (8/20us) IEC61312-1
MTBF	>1,000,000 hours
Compliance	EMC:EN301 489, Ingress ETSI EN 300 019 class 4.1, RoHS

MECHANICAL

Connectors	DIN 7-16 (F) x 6 long neck, AISG (F) x 1
Dimensions, H x D x W	220 x 200 x 118mm 8.7 x 7.9 x 4.65in
Finish	Powder coated, light grey (RAL7035)
Weight	7.7kg 17.0lbs
Mounting	Pole/wall bracket supplied with two metal clamps 45-178mm diameter poles

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM

