

TTA-UMG000Z*

UMTS 2100 | Twin TMA | Dual Duplex | 60MHz BW

- Lowest Noise Figure on the market
- Full 60 MHz uplink (Rx) bandwidth
- Useable in any orientation
- AISG 2.0 and current dump compatible (firmware upgradable)
- AISG connector for external RET antenna control by coaxial feeder
- Hardware and software configurable using AISG "personality" upload

* Model number options: Z indicates different configurations (see next page).

Variant: TTA-UMG010Z and TTA-UMG100Z are described on next page.

RF Characteristics		
Downlink (TX) Path		
Frequency band	2110 -2170 MHz	
Insertion Loss	0.4 dB max / 0.2 dB max across pass band	
Return Loss, all ports	18 dB min (VSWR <1.3)	
TX Filter rejection in RX band	50 dB min	
Rejection @	920-960 MHz	>75 dBc
	1805-1880 MHz	>65 dBc
	2010-2025 MHz	>25 dBc
	2400-2700 MHz	>65 dBc
	2700-2900 MHz	>75 dBc
Group delay variation per 5 MHz	5 ns max	
Continuous Average Power	100 W max	
Peak Envelope Power	1000 W max (at sea level)	
Intermodulation (2x 43 dBm Tx Carriers at BTS port)	-120 dBm max. in Rx band, BTS port	
Uplink (RX) Path (LNA Mode)		
Frequency Band	1920 - 1980 MHz	
Gain	12 ± 1 dB	
Gain variation over frequency	± 0.3 dB max	
Noise Figure	1.1 dB typ., 1.4 dB max at 25°C 1.6 dB max at 60°C	
Return Loss, normal mode, all ports	18 dB min (VSWR <1.3)	
Rejection in RX input filter @	2110-2170 MHz	>65 dBc
Rejection @	920-960 MHz	>75 dBc
	1805-1880 MHz	>65 dBc
	2010-2025 MHz	>25 dBc
	2400-2700 MHz	>65 dBc
	2700-2900 MHz	>75 dBc
Group delay variation per 5 MHz	10 ns max.	
Output Intercept Point	+ 18 dBm min	
Maximum Input Power with no damage	+ 12 dBm	
Uplink (RX) Path (Bypass Mode) Bypass is the default mode for each channel when not powered		
Insertion Loss, Bypass Mode	3.5 dB max	
Return Loss, Bypass Mode, all ports	14 dB min	
DC Power Supply, Alarm currents & AISG Control		
DC Supply Voltage via BTS-RF cable	+9 to +30 V DC	
Current Alarm Mode (default mode) Z in the model number specifies the alarm currents by Node-B type. See table next page		
The TMA is configured so that each BTS port is individually powered and monitored. Each BTS port sources additional current to indicate any alarm state		
DC supply current, port BTS0 & BTS1 operating	100mA typ. (two ports powered)	
DC supply current, alarm mode	150-300mA (programmable)	



Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

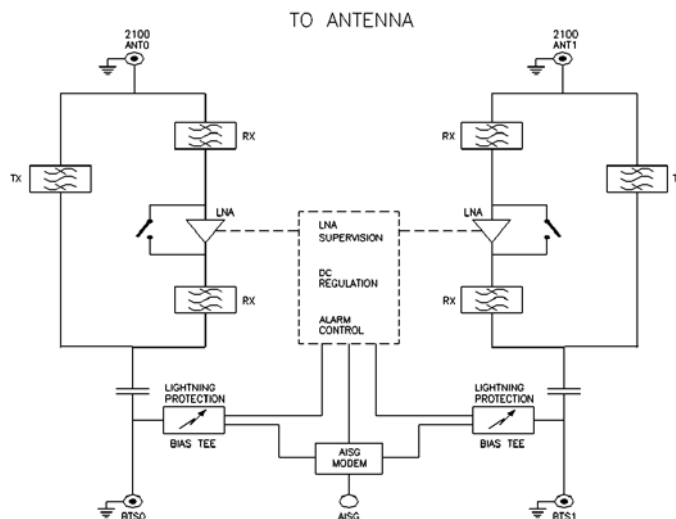
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AISG mode		
AISG signals can be applied to either BTS0 or BTS1 port. The TMA unit switches to AISG mode when valid frames are detected on one of the BTS ports. The TMA unit is DC powered (common feed for both channels) only from the port supplying AISG frames.		
AISG Version	2.0	
DC supply current, total	80 mA at 30V, 175 mA at 9V typical	
AISG connector current rating	< 4A peak, 2 Amp continuous, pin 6	
Current window alarm backup	Yes	
Field Firmware upgradeable	Yes (including change to AISGv1.1)	
Environmental		
Maximum Operating Temperature Range	-40 to +60 °C	-40 to +140 °F
Environmental	ETS 300 019	
Environmental Sealing	IP67 (EN 60529)	
Safety	EN 60950	
Lightning Protection	3kA, 10/350 us pulse (IEC61312)	
MTBF	>700,000 hours	
EMC	3GPP TS 25.113	
Mechanical		
Dimensions (excluding connectors and mounting bracket)	169 (W) x 278 (H) x 79 (D) mm see diagram next page	6.7 (W) x 10.9 (H) x 2.8 (D) in
Weight	6.5 kg	14.3 lbs
Finish	Painted, light grey (RAL7035)	
Connectors	4 x 7/16 - EDIN Female	
Mounting	Pole / Wall, any orientation. Supplied with two metal clamps for 45-178 mm (1.8-7.0 in) diameter poles.	
Model Number Options		
Z in model number specifies the node-B type for Current Alarm purposes.	Value for Z :- A K H	Alcatel-Lucent/Nortel Nokia (WMHB compatible) Huawei
Variants		
TTA-UMG010Z	No bracket. Two AISG connector at bottom and top. Mounting by holes at top and bottom	
TTA-UMG100Z	No bracket. One AISG connector at bottom. Mounting by holes on the sides.	



Block Diagram

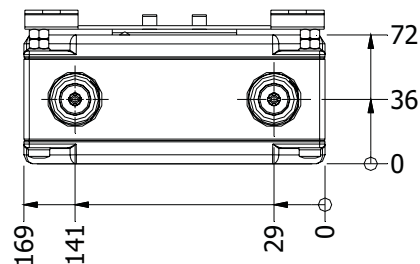
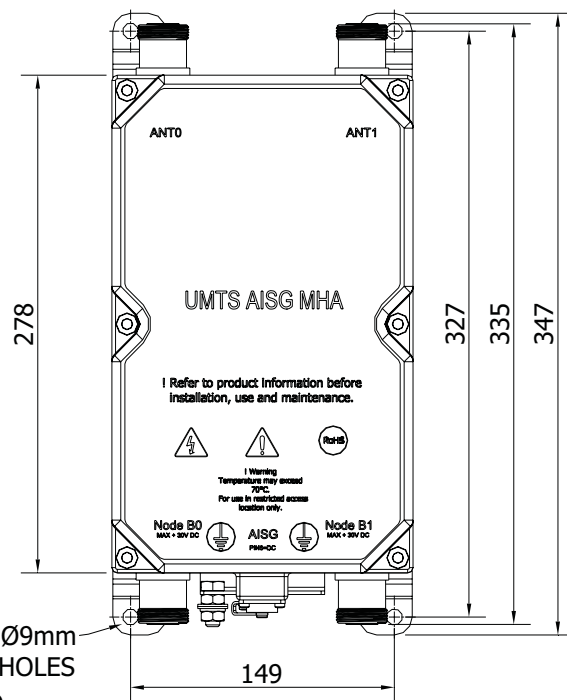
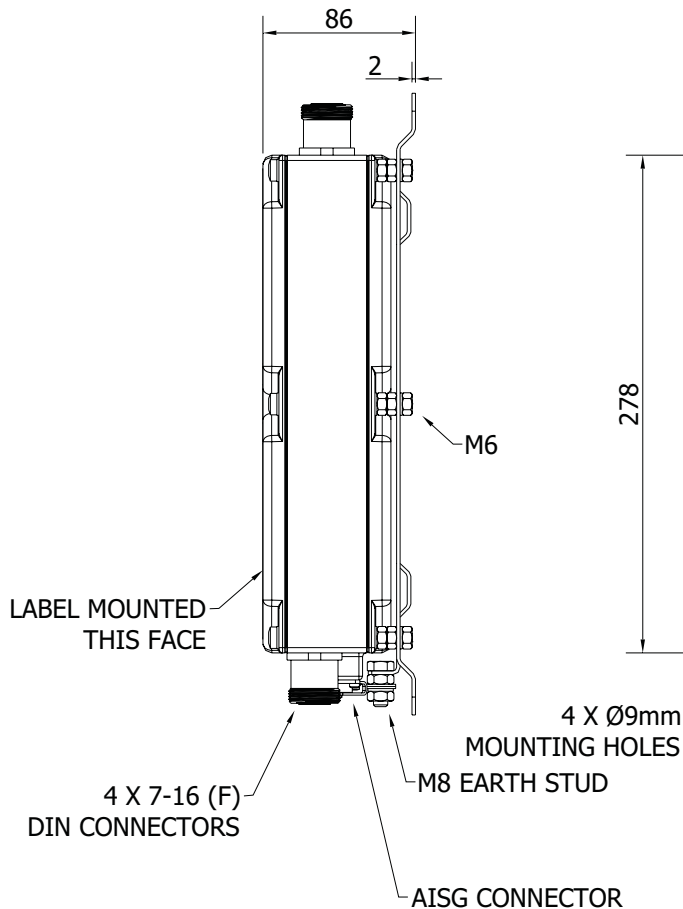
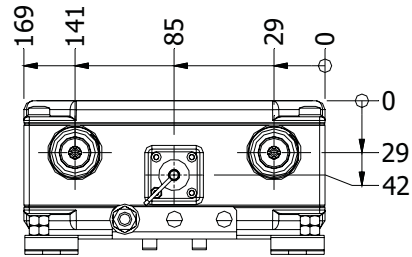
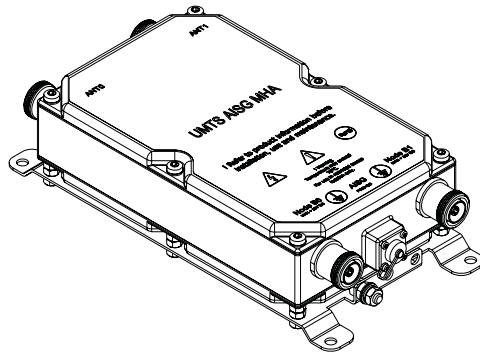


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Mechanical



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