

# DTMA-GSM/UMTS1900-12-AISG

## Fullband Double Dual Duplex Tower Mounted Amplifier (Masthead Amplifier)

**KATHREIN**

Antennen · Electronic



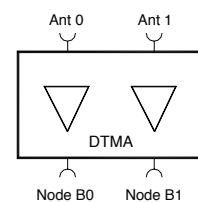
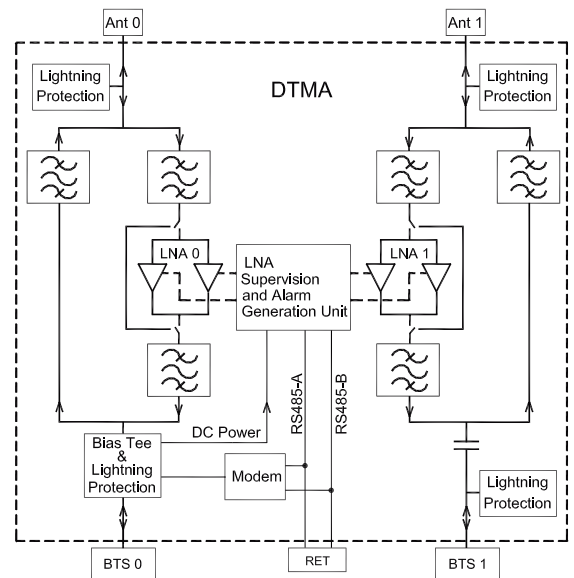
- Double unit for easy use with XPol antennas
- Kathrein redundancy amplifier design for improved system reliability
- By-pass mode to ensure cell operation in case of DC power down
- Built-in lightning protection
- Compact size
- Suitable for antenna RET control according to AISG standard
- **DTMA DC supply and AISG feed via Node B0 port for both TMAs**

**RET** = Remote Electrical Tilt

**AISG** = Antenna Interface Standards Group

### Technical Data

Type No.	<b>782 10403</b> DTMA-GSM/UMTS1900-12-AISG (12 dB gain)
<b>Tx Characteristics</b>	
Frequency range	1930 – 1990 MHz
Bandwidth	60 MHz
Insertion loss	< 0.5 dB over the middle 80% of BW, a further 0.25 dB over the remaining BW.
Input power	< 160 W (+52 dBm) CW < 1.6 kW (+62 dBm) Peak
Intermodulation products in Rx band	< -117 dBm (2 Tx carriers at +43 dBm)
Return loss	> 18 dB
<b>Rx Characteristics</b>	
Frequency range	1850 – 1910 MHz
Bandwidth	60 MHz
Loss in by-pass mode	2.8 dB typically
Return loss	> 18 dB (DC ON) > 15 dB (DC OFF)
Gain	<b>+22 ... +28 °C</b> 12 ±0.7 dB <b>-40 ... +65 °C</b> 12 ±1.3 dB
Noise figure	<b>+22 ... +28 °C</b> < 1.7 dB over the middle 80% of BW, a further 0.3 dB over the remaining BW. <b>-40 ... +65 °C</b> < 2.2 dB over the middle 80% of BW, a further 0.3 dB over the remaining BW.
Noise figure	-40 ... +65 °C
Output 1-dB compression point	> 15 dBm
3rd order intercept point (OIP3)	> 25 dBm
<b>Environmental Characteristics</b>	
Operating temperature range	-40 ... +65 °C
IP rating	IP67 *
MTBF	> 1 000 000 hours (per TMA)
EMC	ETS 300 342-3
Lightning protection	5 kA, 8/20 µs RF connections and AISG port
<b>DC and Alarm Characteristics</b>	
<b>Through Node B0 Port only</b>	
DC supply without RET	+12 V nominal (9 – 15V, minus grounded) Typically 150 mA per TMA
Alarm management	According to AISG standard 1.1
Modem Characteristics	According to AISG standard 1.1 (Data rate: 9.6 kB)
<b>Mechanical Characteristics</b>	
Material	Aluminium housing
Connectors	7-16 female
RF	8-pin female, IEC 60130-9*
AISG Connector (Compliance AISG 1.1)	(Pin 1: +12 V DC nominal, pin 3: RS485B, pin 5: RS485A, pin 7: DC return; other pins: Not connected)
Mounting	Wall mounting: With 4 screws (max. 8 mm diameter) Mast mounting: With additional clamp set
Weight	5 kg
Packing size	262 mm x 502 mm x 214 mm
Dimensions (w x h x d)	166 mm x 278 mm x 77.5 mm (without connectors, without mounting brackets)



936.2938/c Subject to alteration.

\* see note on page 2

