

DTMA-AWS4-12-AISG-CWA

Fullband Double Dual Duplex Tower Mounted Amplifier (Masthead Amplifier)

KATHREIN



- **Compact line**
- Double units for easy use with XPol antennas
- Supports CWA, AISG 1.1 and 2.0 (default)
- Suitable for antenna RET control according to AISG/3GPP standard
- By-pass mode to ensure cell operation in case of DC power down
- Built-in lightning protection
- Clamp Set 45 – 125 mm included
- **Low weight**

AISG = Antenna Interface Standards Group
RET = Remote Electrical Tilt
CWA = Current Window Alarm

Technical Data

Type No.	78210877V01 DTMA-AWS4-12-AISG-CWA	
<i>clamps included</i>		
Tx Characteristics		
Frequency range	2095 – 2200 MHz	
Insertion loss	Typically 0.2 dB	
Input power (per input)	< 100 W (+50 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	
Rx Characteristics		
Frequency range	1695 – 1780 MHz	
Loss in by-pass mode	Typically 2.0 dB (DC OFF)	
Return loss	> 18 dB (DC ON)	
Gain	12 dB nominal	
Noise figure	Typically 1.7 dB	
3 rd order intercept point (OIP3)	Typically 30 dBm	
Environmental Characteristics		
Operating temperature range	-40 ... +65 °C	
IP rating	IP67*	
MTBF	> 1 000 000 hours (per TMA)	
EMC	According to ETS 300 342-3	
DC and Alarm Characteristics		
	CWA Mode	AISG Mode
DC supply	7 – 19 V	10 – 30 V
Operating current (without RET)	80 – 120 mA	Nom. 140 mA at 10 V Nom. 55 mA at 30 V
Alarm management	170 – 200 mA	AISG*
Mechanical Characteristics		
Material	Aluminium housing	
Connectors	RF AISG	7-16 female (long neck) 8-pin female, IEC 30130-9 (Pin 3: RS485B, pin 5: RS485A, pin 6: 10 – 30 V DC, pin 7: DC return, other pins: Not connected)
Mounting	Wall mounting: With 4 screws (max. 8 mm diameter) Mast mounting: With included clamp set	
Weight	3 kg	
Packing size	217 x 397 x 170 mm	
Dimensions (w x h x d)	138 x 191 x 71.6 mm (without connectors, without mounting brackets)	



Subject to alteration.

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* see note on page 4

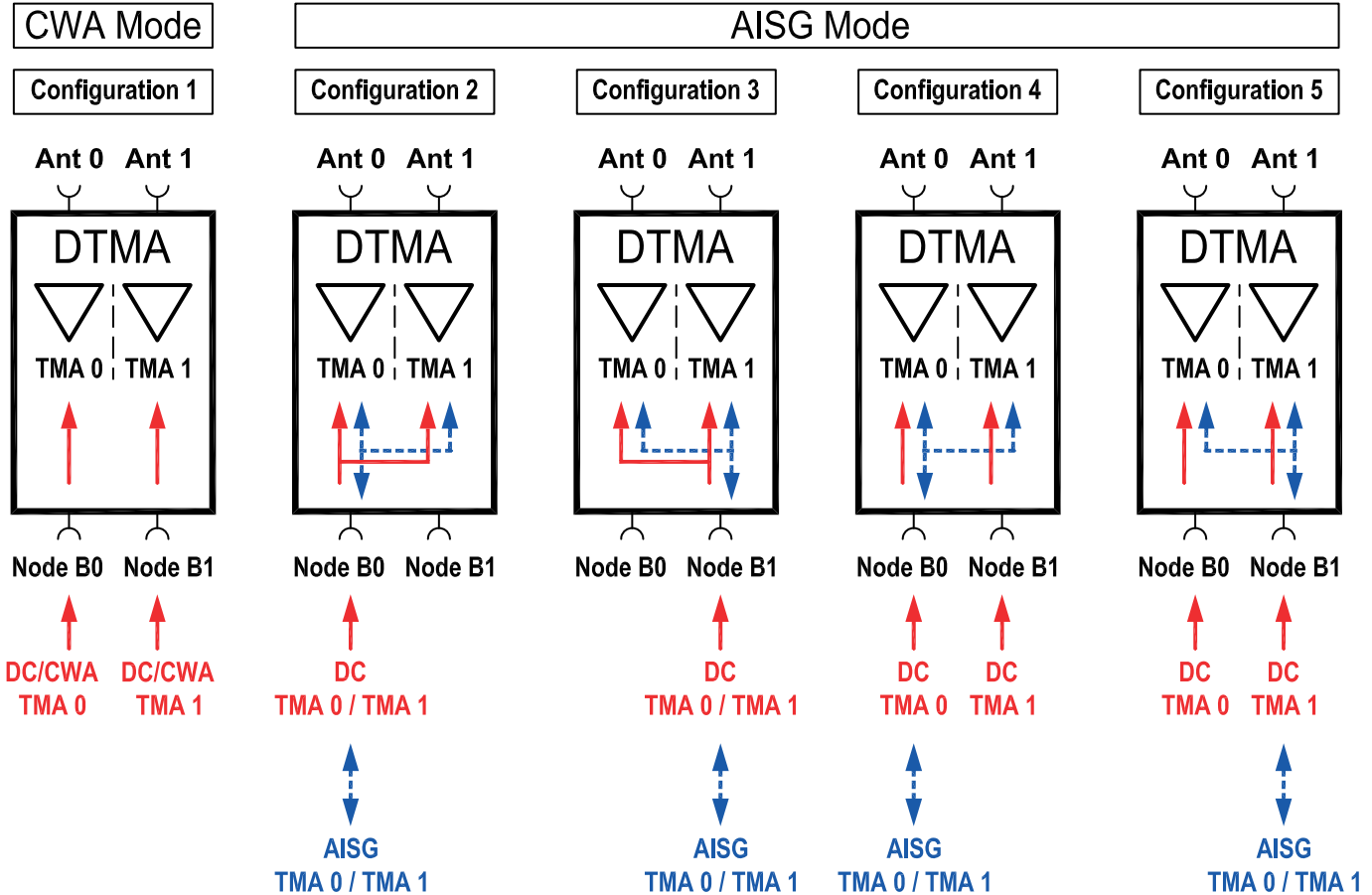
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DC Supply, Current Window Alarm and AISG Configuration
(automatically chosen by the DTMA depending on incoming signals)



Accessories (included)

Type No.	Clamp set suitable for mast diameter of
734365	45 – 125 mm



*For replacement clamps,
U.S. customers order 1311847

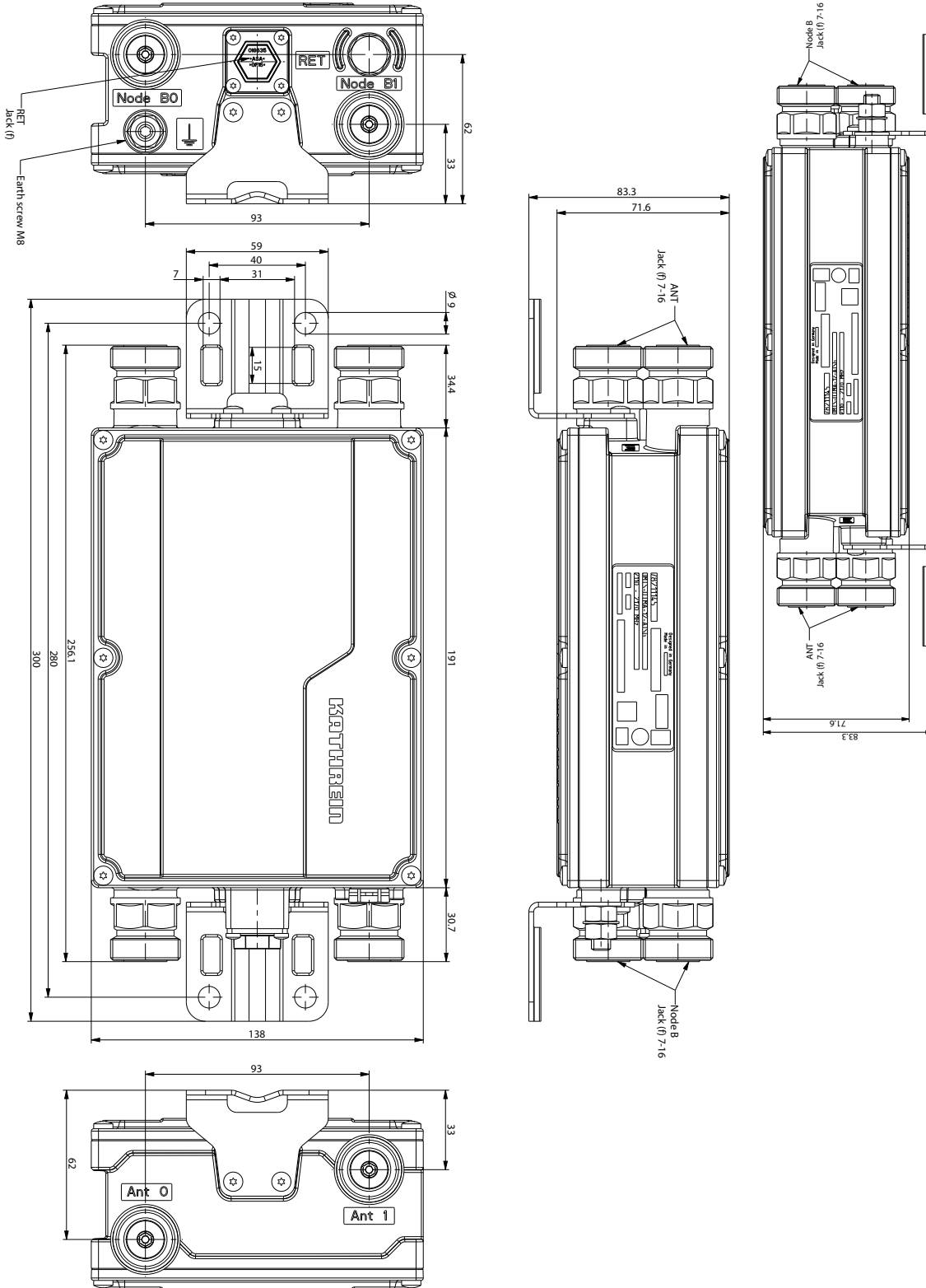
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Dimensions



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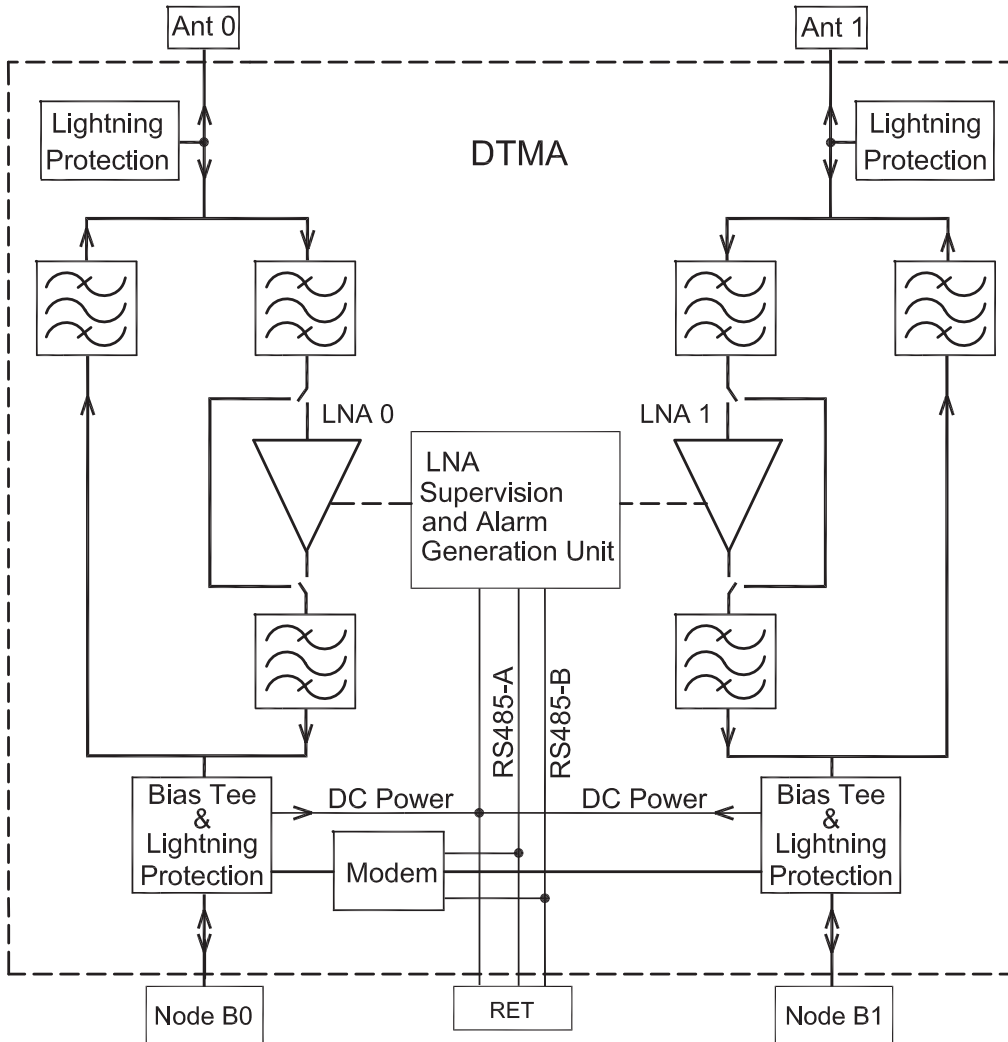
All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com

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Mounting Instructions

The coupling torque at 7-16 connectors is 25 – 30 Nm! The tightening torque for fixing the AISG connector must be 0.5 – 1.0 Nm ('hand-tightened').

It is recommended to install the DTMA's with the antenna connectors pointing upwards and the BTS connectors pointing downwards.

In case of DTMA's with RET-connectors (Remote Electrical Tilt-connectors according to AISG Standard) it is recommended to mount the DTMA's in such a way that the RET-connector always points downwards! A downward slanted mounting position between the vertical and horizontal plane is also allowed.

AISG Setting

The protocol of the software interface can be switched between AISG 2.0 / 3GPP and AISG 1.1 and vice versa with a vendor specific command (depending on default setting). If the primary station does not support the default setting, it has to be switched over before system start-up. Please contact Kathrein for further information.

Please note

The DTMA is not designed for permanent operation under water. Test conditions for the IP68 rating: Submerge depth 1 m, submerge time 1 hour.

As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.

Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of a mast mounted device or even cause it to fall to the ground.

KATHREIN tower mounted amplifiers are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1E and have passed environmental tests as specified in ETS 300 019-2-4. The homogenous design of KATHREIN's tower mounted amplifiers use identical modules and materials. Extensive tests have been performed on typical samples and models.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.

The details given on our data sheets have to be followed carefully when installing the antennas, filters, combiners, amplifiers and accessories.

The limits for the coupling torque of RF connectors, recommended by the connector manufacturers must be obeyed.

Any previous datasheet issues have now become invalid.



Subject to alteration.

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