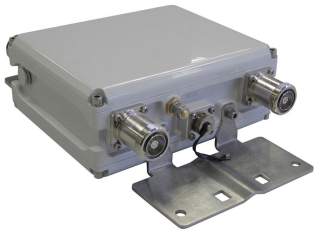
TMAT21X-11AV | E15S07P30



Tower Mounted Amplifier, Twin AWS1-4 with AISG and Variable Gain

OBSOLETE

Replaced By:

TMAT1921B68-21-43 E14R00P09	Tower Mounted Amplifier, Twin Diplexed PCS/AWS 1–4, 555–894 MHz bypass 4.3-10

Product Classification

Product Type	1-BTS:1-ANT (Uniplex) | Tower mounted amplifier

General Specifications

Color	Gray
Modularity	2-Twin
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	160 mm | 6.299 in
Width	196 mm | 7.717 in
Depth	78 mm | 3.071 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

Outline Drawing

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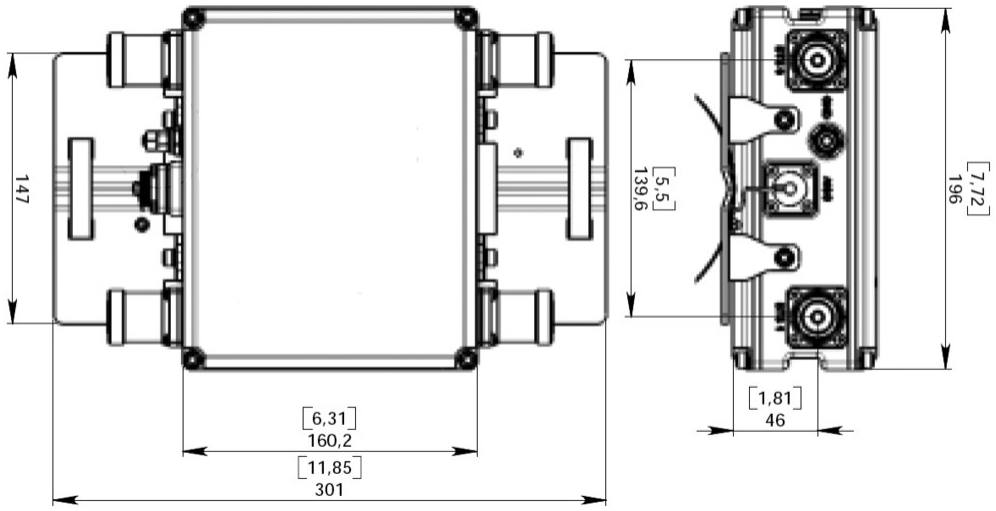


Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	Yes
Lightning Surge Current	20 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	100 mA @ 12 V
Operating Current Tolerance	±20 mA
Voltage	7–30 Vdc
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	150 mA +/- 10 mA (10-18 VDC)

Electrical Specifications, AISG

AISG Carrier	2.176 MHz ± 100 ppm
AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Default Protocol	AISG 2.0
Protocol	AISG 2.0
Voltage, AISG Mode	10–30 Vdc

Electrical Specifications

Sub-module	**1 | 2**
Branch	1
Port Designation	ANT

AISG 2.0 Device Subunit	E15S07P30 1/2
License Band	AWS 1700, LNA
Return Loss, typical, dB	22
Return Loss at 8 dB, typical, dB	19
Return Loss at 4 dB, typical, dB	19
Return Loss - Bypass Mode, typical, dB	18

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**1695–1780**
Gain, nominal, dB	12
Gain Tolerance, dB	±1.0
Gain Adjustment Range, dB	4-12
Gain Adjustment Range Increments, dB	1
Noise Figure at 8 dB, maximum, dB	1.8
Noise Figure at 4 dB, maximum, dB	2.7
Noise Figure, typical, dB	1.2
Noise Figure at 8 dB, typical, dB	1.5
Noise Figure at 4 dB, typical, dB	2.4
Total Group Delay, maximum, ns	60
Output IP3, minimum, dBm	22
Insertion Loss - Bypass Mode, typical, dB	1.5

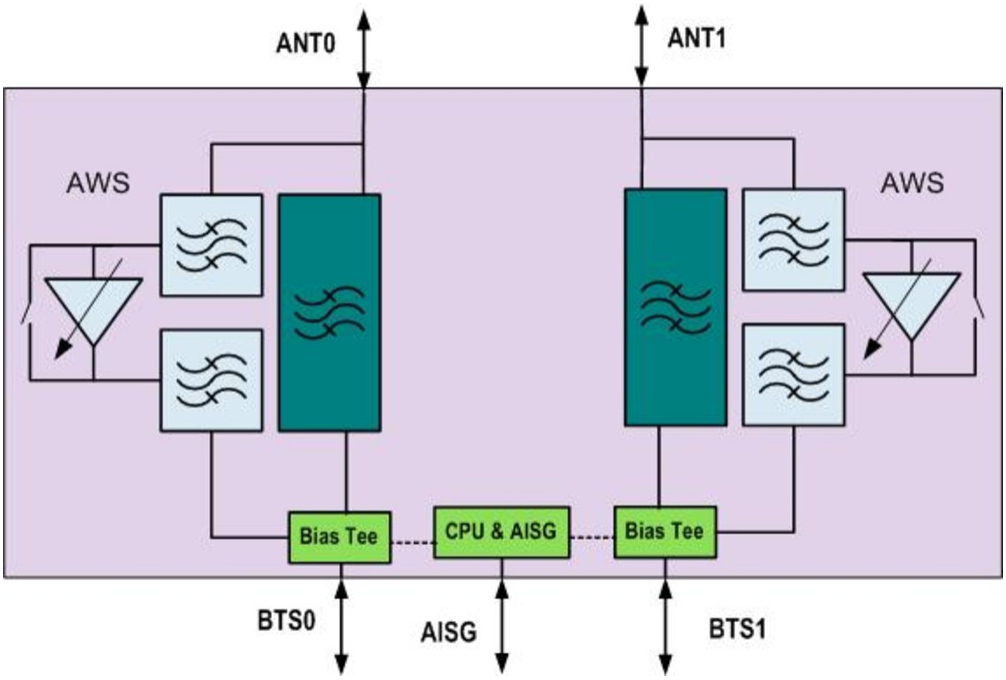
Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**2110–2200**
Insertion Loss, maximum, dB	0.3
Total Group Delay, maximum, ns	10
Input Power, RMS, maximum, W	200

Electrical Specifications, Band Pass

Higher Order PIM, typical, dBc	**-161**
Higher Order PIM Test Method	2 x 20 W CW tones

Block Diagram



Material Specifications

Finish	Painted

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	Up to 100%
Corrosion Test Method	IEC 60068-2-11, 30 days
Ingress Protection Test Method	IEC 60529:2001, IP67

Packaging and Weights

Included	Mounting hardware
Weight, net	3 kg | 6.614 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system