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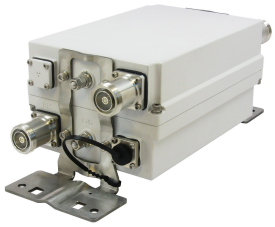

Tower Mounted Amplifier, Twin Diplexed AWS/700–850 Bypass with AISG and Variable Gain

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:2-ANT (Diplex) | 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	220 mm | 8.661 in
Width	155 mm | 6.102 in
Depth	108 mm | 4.252 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

Outline Drawing

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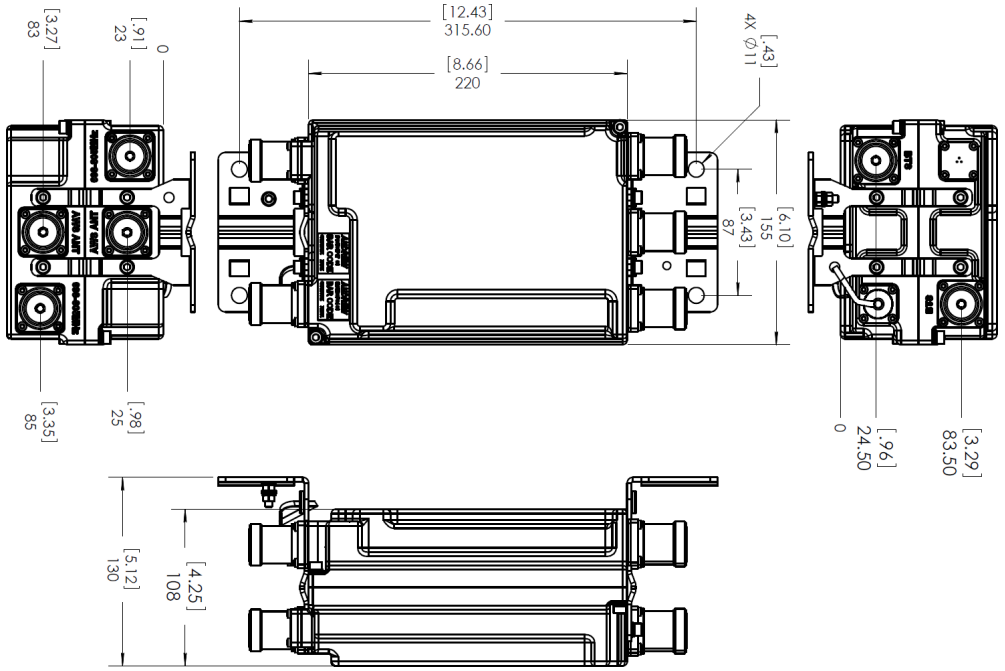

Electrical Specifications

License Band, Band Pass	APT 700 | CEL 850 | EDD 800 | LMR 750 | LMR 800 | USA 700 | USA 750
License Band, LNA	AWS 1700

Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	No
Lightning Surge Current	5 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	135 mA @ 12 V | 75 mA @ 24 V
Operating Current Tolerance	±15 mA
Voltage	7–30 Vdc
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	180–200 mA @ 10–18 V

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

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Protocol	AISG 1.1 | AISG 2.0
Voltage, AISG Mode	10–30 Vdc

Electrical Specifications

Sub-module	**1 | 2**	**1 | 2**
Branch	1	2
Port Designation	698–894	AWS ANT
License Band	APT 700, Band Pass CEL 850, Band Pass EDD 800, Band Pass LMR 750, Band Pass LMR 800, Band Pass USA 700, Band Pass USA 750, Band Pass	AWS 1700, LNA
Return Loss, typical, dB		22
Return Loss at 8 dB, typical, dB		22
Return Loss at 4 dB, typical, dB		20
Return Loss - Bypass Mode, typical, dB		16

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**1710–1770**
Bandwidth, MHz	60
Gain, nominal, dB	12
Gain Tolerance, dB	±1.2
Gain Adjustment Range, dB	4-12
Gain Adjustment Range Increments, dB	1
Noise Figure, typical, dB	1.3
Noise Figure at 8 dB, typical, dB	1.6
Noise Figure at 4 dB, typical, dB	2.4
Output IP3, minimum, dBm	25
Return Loss, minimum, dB	18
Insertion Loss - Bypass Mode, typical, dB	1.9

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**2110–2170**
Bandwidth, MHz	60
Insertion Loss, typical, dB	0.3
Return Loss, minimum, dB	22

Input Power, RMS, maximum, W	500
Input Power, PEP, maximum, W	5000
Higher Order PIM, typical, dBc	-153
Higher Order PIM Test Method	1 x 20 W AWS CW tone 1 x 20 W PCS CW tone

Electrical Specifications, Band Pass

Frequency Range, MHz	**698–894**
Insertion Loss, maximum, dB	0.3
Return Loss, minimum, dB	22
Input Power, RMS, maximum, W	500
Input Power, PEP, maximum, W	5000
3rd Order PIM, typical, dBc	-153
3rd Order PIM Test Method	2 x 20 W CW tones

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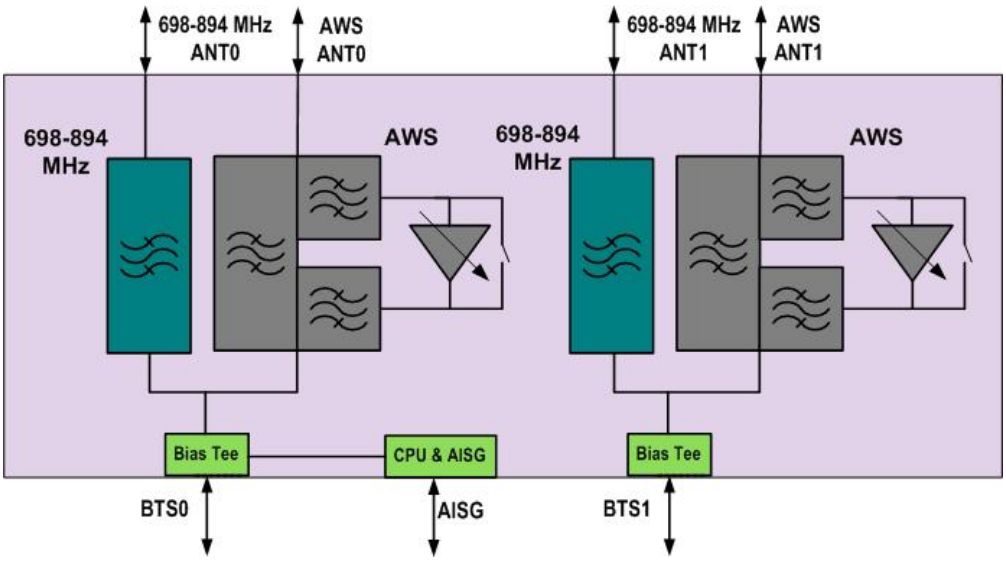
Block Diagram



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	5.4 kg | 11.905 lb

Regulatory Compliance/Certifications

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

* Footnotes

License Band, Band Pass	License Bands that are to be passed through with no amplification
License Band, LNA	License Bands that have RxUplink amplification