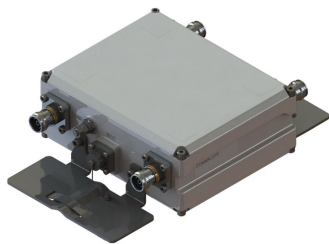


# TMAT21-11-43 | E14R00P14



Tower Mounted Amplifier, Twin AWS 1-4 with AISG, 4.3-10 Connectors

- New 4.3-10 connectors for improved PIM performance and size reduction

## 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** 4.3-10 Female

**RF Connector Interface Body Style** Long neck

## Dimensions

**Height** 161 mm | 6.339 in

**Width** 196 mm | 7.717 in

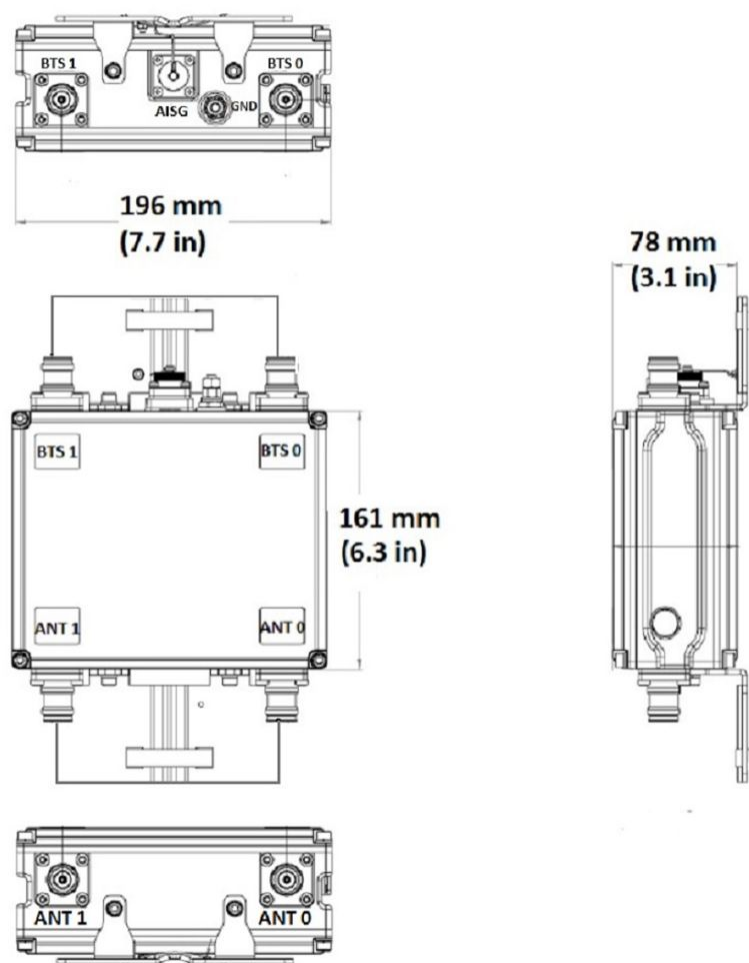
**Depth** 78 mm | 3.071 in

**Ground Screw Diameter** 5 mm | 0.197 in

**Mounting Pipe Diameter Range** 40–160 mm

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## Outline Drawing



## Electrical Specifications

**License Band, LNA** AWS 1700

## Electrical Specifications, dc Power/Alarm

<b>dc Switching/Redundancy</b>	Yes
<b>Lightning Surge Current</b>	20 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Operating Current at Voltage</b>	100 mA @ 12 V
<b>Operating Current Tolerance</b>	±20 mA
<b>Voltage</b>	7–30 Vdc
<b>Voltage, CWA Mode</b>	10–18 Vdc

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<b>Alarm Current, CWA Mode</b>	190 mA $\pm$ 10 mA
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## Electrical Specifications, AISG

<b>AISG Connector</b>	8-pin DIN Female
<b>AISG Connector Standard</b>	IEC 60130-9
<b>Protocol</b>	AISG 2.0
<b>Voltage, AISG Mode</b>	10–30 Vdc

## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>
<b>Branch</b>	1
<b>Port Designation</b>	ANT
<b>License Band</b>	AWS 1700, LNA

## Electrical Specifications Rx (Uplink)

<b>Frequency Range, MHz</b>	<b>1695–1780</b>
<b>Gain, nominal, dB</b>	12
<b>Gain Tolerance, dB</b>	$\pm$ 1
<b>Noise Figure, typical, dB</b>	1.2
<b>Total Group Delay, maximum, ns</b>	35
<b>Output IP3, minimum, dBm</b>	22
<b>Return Loss, typical, dB</b>	21
<b>Insertion Loss - Bypass Mode, typical, dB</b>	1.7
<b>Return Loss - Bypass Mode, typical, dB</b>	17

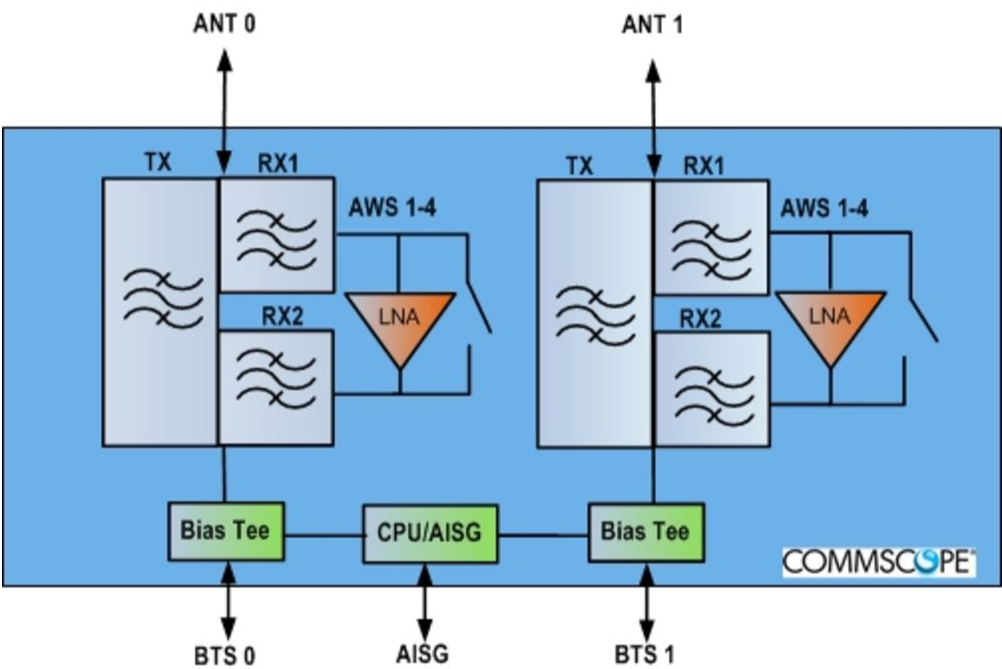
## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>2110–2200</b>
<b>Insertion Loss, typical, dB</b>	0.2
<b>Total Group Delay, maximum, ns</b>	10
<b>Return Loss, typical, dB</b>	21
<b>Input Power, RMS, maximum, W</b>	200
<b>Input Power, PEP, maximum, W</b>	2000

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
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Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	Up to 100%

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<b>Corrosion Test Method</b>	IEC 60068-2-11, 30 days
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP67

## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Weight, without mounting hardware</b>	3.4 kg   7.496 lb

## Regulatory Compliance/Certifications

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



## \* Footnotes

<b>License Band, LNA</b>	License Bands that have RxUplink amplification
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