

# TMAT7LABC21-21A | E15Z01P32

Twin Diplexed BTS Port, Dual Band Lower ABC 700 MHz/AWS, with AISG

This product will be discontinued on: March 30, 2024

Replaced By:

TMAT192123B68-21 Tower Mounted Amplifier, Twin Diplexed PCS/AWS/WCS, 617–894 MHz bypass 4.3-10  
E14R00P31

## Product Classification

**Product Type** 1-BTS:2-ANT (Diplex) | Tower mounted amplifier

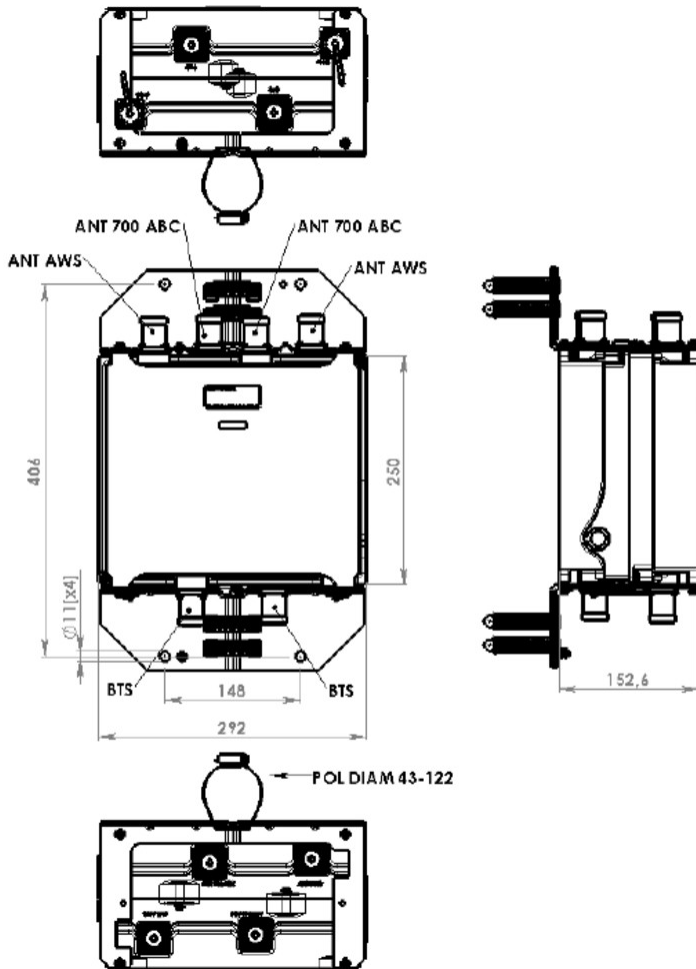
## General Specifications

**Color** Gray  
**Modularity** 2-Twin  
**Mounting** Pole | Wall  
**Mounting Pipe Hardware** Band clamps (4)  
**RF Connector Interface** 7-16 DIN Female  
**RF Connector Interface Body Style** Long neck

## Dimensions

**Height** 250 mm | 9.843 in  
**Width** 292 mm | 11.496 in  
**Depth** 152.6 mm | 6.008 in  
**Mounting Pipe Diameter Range** 42.6–122 mm

## Outline Drawing



## Electrical Specifications

**License Band, LNA**

AWS 1700 | USA 700

## Electrical Specifications, dc Power/Alarm

<b>dc Switching/Redundancy</b>	No
<b>Operating Current at Voltage</b>	130 mA @ 12 V
<b>Operating Current Tolerance</b>	±20 mA
<b>Voltage</b>	7–30 Vdc
<b>Voltage, CWA Mode</b>	10–18 Vdc
<b>Alarm Current, CWA Mode</b>	170 mA @ 10–18 V (current mode)

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## Electrical Specifications, AISG

<b>AISG Connector</b>	8-pin DIN Female (2)
<b>AISG Connector Standard</b>	IEC 60130-9
<b>Default Protocol</b>	AISG 2.0
<b>Protocol</b>	AISG 1.1   AISG 2.0
<b>Voltage, AISG Mode</b>	10–30 Vdc

## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>	<b>1   2</b>
<b>Branch</b>	1	2
<b>Port Designation</b>	ANT 700 ABC	ANT AWS
<b>AISG 2.0 Device Subunit</b>	E15Z01P32 1	E15Z01P32 2
<b>License Band</b>	USA 700, LNA	AWS 1700, LNA
<b>Return Loss, typical, dB</b>	18	18
<b>TX Band Rejection, minimum, dB</b>	60	60

## Electrical Specifications Rx (Uplink)

<b>Frequency Range, MHz</b>	<b>698–716</b>	<b>1710–1755</b>
<b>Bandwidth, MHz</b>	18	45
<b>Gain, nominal, dB</b>	12	12
<b>Gain Tolerance, dB</b>	±1	±1
<b>Noise Figure, typical, dB</b>	1.7	1.5
<b>Total Group Delay, maximum, ns</b>	200	50
<b>Insertion Loss - Bypass Mode, typical, dB</b>	1.7	1.7

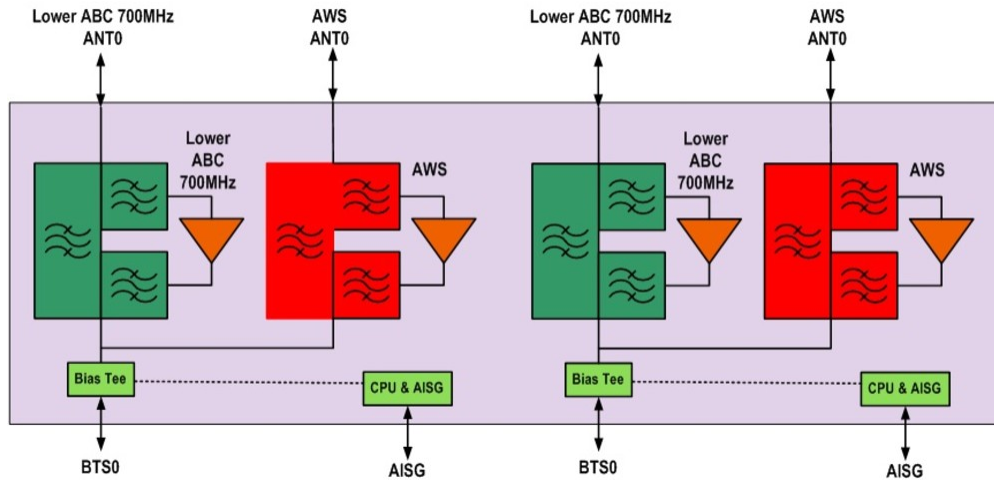
## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>728–746</b>	<b>2110–2155</b>
<b>Bandwidth, MHz</b>	18	45
<b>Insertion Loss, typical, dB</b>	0.3	0.15
<b>Total Group Delay, maximum, ns</b>	60	20
<b>Return Loss, minimum, dB</b>	18	18
<b>Input Power, RMS, maximum, W</b>	300	300
<b>Input Power, PEP, maximum, W</b>	3000	3000
<b>3rd Order PIM, maximum, dBc</b>	-153	

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<b>3rd Order PIM, typical, dBc</b>	-153	-153
<b>3rd Order PIM Test Method</b>	2 x 20 W CW tones	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** 13 kg | 28.66 lb

## \* Footnotes

**License Band, LNA** License Bands that have RxUplink amplification