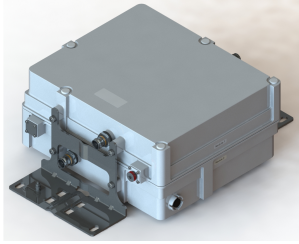


# E14R00P78



Dual Band Tower Mounted Amplifier, 700//850 MHz, 17 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (1 devices with 4 sub-units), with 4.3-10 connectors

- New 4.3-10 connectors for improved PIM performance and size reduction
- TMA is operating in AISG & CWA mode, Alarm Current consumption CWA mode 190 mA
- 2 input ports and 2 output ports
- Designed to boost UP-Link Coverage and KPIs
- Automatic LNA by-pass function
- Connectors "in line"
- Single AISG with 1 RET connector
- 1 device with 4 sub-units
- Built in lightning protection

## Product Classification

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

## General Specifications

**Color** Gray

**Modularity** 2-Twin

**Mounting** Pole | Wall

**Mounting Pipe Hardware** Band clamps (4)

**RF Connector Interface** 4.3-10 Female

**RF Connector Interface Body Style** Long neck

## Dimensions

**Height** 160 mm | 6.299 in

**Width** 302 mm | 11.89 in

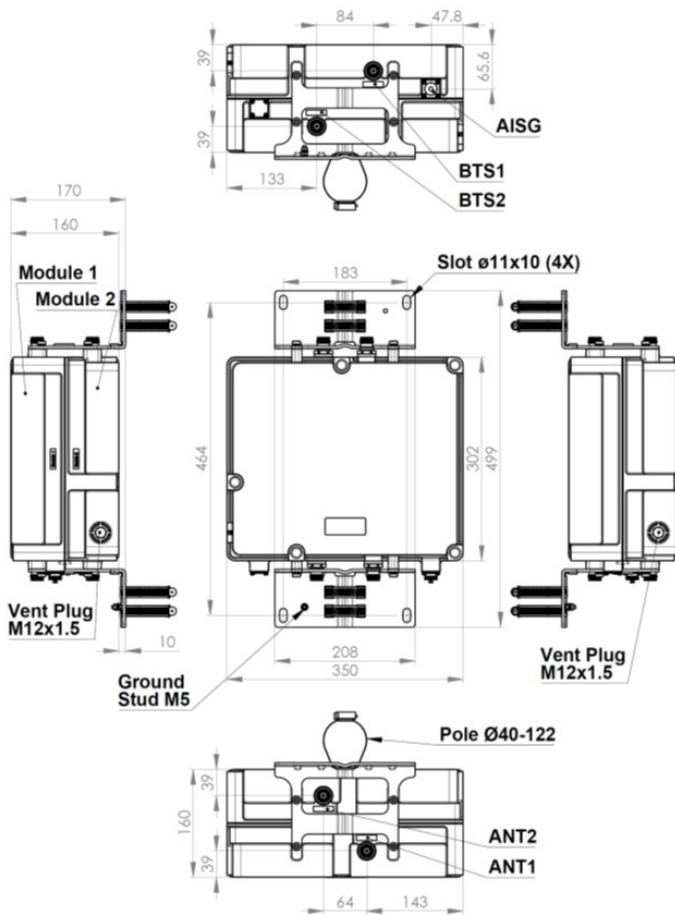
**Depth** 350 mm | 13.78 in

**Ground Screw Diameter** 6 mm | 0.236 in

**Mounting Pipe Diameter Range** 45–178 mm

## Outline Drawing

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## Electrical Specifications

**License Band, LNA** APT 700 | CEL 850

## Electrical Specifications, dc Power/Alarm

**Lightning Surge Current** 2 kA

**Lightning Surge Current Waveform** 8/20 waveform

**Voltage** 7–30 Vdc

## Electrical Specifications, AISG

**AISG Carrier** 2.176 MHz  $\pm$  100 ppm

**AISG Connector** 8-pin DIN Female

**AISG Connector Standard** IEC 60130-9

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<b>Default Protocol</b>	AISG 2.0
<b>Protocol</b>	AISG 1.1   AISG 2.0

## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>	<b>1   2</b>
<b>Branch</b>	1	2
<b>Port Designation</b>	ANT	ANT
<b>License Band</b>	APT 700, LNA CEL 850, LNA	APT 700, LNA CEL 850, LNA
<b>Return Loss, typical, dB</b>	20	20
<b>Return Loss - Bypass Mode, typical, dB</b>	16	16

## Electrical Specifications Rx (Uplink)

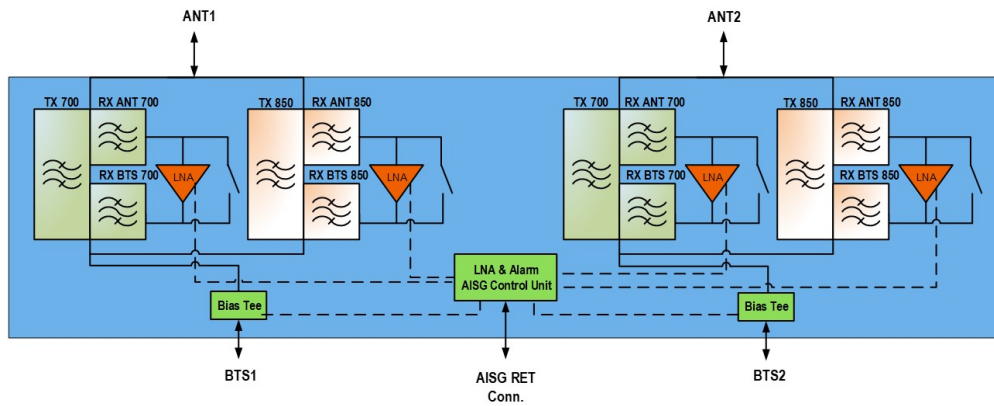
<b>Frequency Range, MHz</b>	<b>713–733</b>	<b>814–845</b>
<b>Bandwidth, MHz</b>	20	31
<b>Gain, nominal, dB</b>	17	15.5
<b>Gain Tolerance, dB</b>	+/-1.0	+/-1.0
<b>Noise Figure, maximum, dB</b>	1.6	2
<b>Noise Figure, typical, dB</b>	1.2	1.4
<b>Total Group Delay, typical, ns</b>	130	320
<b>Insertion Loss - Bypass Mode, typical, dB</b>	1.4	2.5

## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>768–788</b>	<b>859–890</b>
<b>Bandwidth, MHz</b>	20	31
<b>Insertion Loss, typical, dB</b>	0.3	0.45
<b>Total Group Delay, typical, ns</b>	45	45
<b>Return Loss, typical, dB</b>	20	20
<b>RX Band Rejection, minimum, dB</b>	40	40
<b>Input Power, RMS, maximum, W</b>	120	120
<b>Input Power, PEP, maximum, W</b>	1500	1500
<b>3rd Order PIM, typical, dBc</b>	-161	-161
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers	Two +43 dBm carriers

## Block Diagram

# E14R00P78



## 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

**Environmental Test Method** ETSI EN 300 019-1-4

**Ingress Protection Test Method** IEC 60529:2001, IP67

## Packaging and Weights

**Included** Mounting hardware

**Volume** 16.9 L

**Weight, net** 17.5 kg | 38.581 lb

## \* Footnotes

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