

# E14R00P77



Tri Band Tower Mounted Amplifier, 700//800//900 MHz, 12 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (3 device with 2 sub-units each)

- 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
- 3 devices with 2 sub-units
- Automatic LNA by-pass function
- Connectors “in line”
- Single AISG with 1 RET connector
- 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 (2)

**RF Connector Interface** 4.3-10 Female

## Dimensions

**Height** 250 mm | 9.843 in

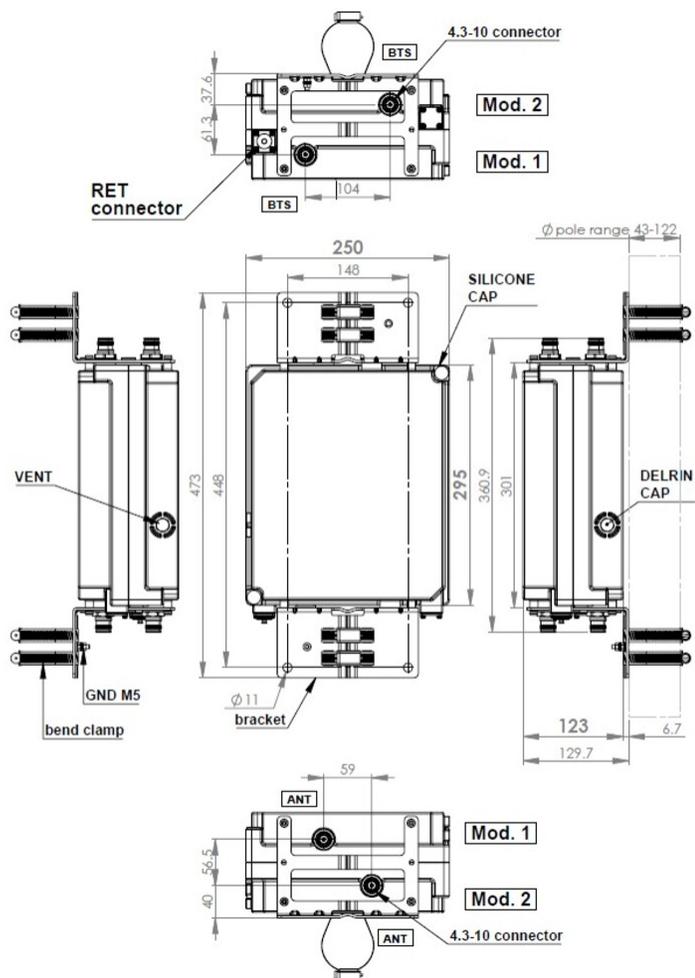
**Width** 123 mm | 4.843 in

**Depth** 295 mm | 11.614 in

**Mounting Pipe Diameter Range** 43–122 mm

## Outline Drawing

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## Electrical Specifications

**License Band, LNA** APT 700 | CEL 900 | EDD 800

## Electrical Specifications, dc Power/Alarm

**dc Switching/Redundancy** Yes

**Lightning Surge Current** 10 kA

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

**Alarm Current, CWA Mode** 190 mA  $\pm$ 10 mA

## Electrical Specifications, AISG

**AISG Connector** 8-pin DIN Female

**AISG Connector Standard** IEC 60130-9

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<b>Protocol</b>	AISG 2.0
<b>Voltage, AISG Mode</b>	7–30 Vdc

## Electrical Specifications

<b>Sub-module</b>	<b>1   2</b>	<b>1   2</b>	<b>1   2</b>
<b>Branch</b>	1	2	3
<b>Port Designation</b>	ANT	ANT	ANT
<b>License Band</b>	APT 700, LNA	EDD 800, LNA	CEL 900, LNA
<b>Return Loss, typical, dB</b>	20	20	20
<b>Return Loss - Bypass Mode, typical, dB</b>	16	16	16

## Electrical Specifications Rx (Uplink)

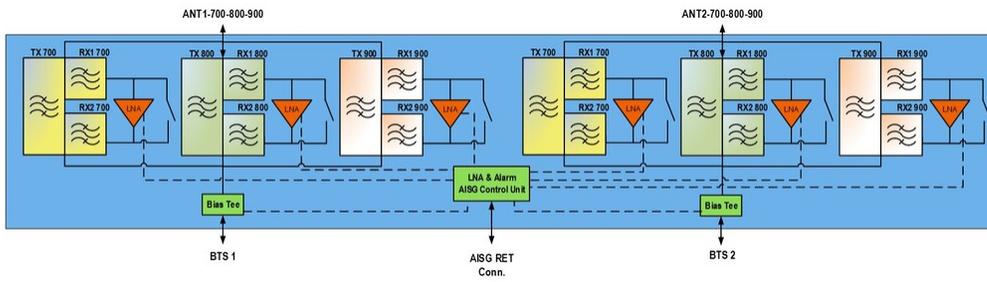
<b>Frequency Range, MHz</b>	<b>703–733</b>	<b>832–862</b>	<b>880–915</b>
<b>Bandwidth, MHz</b>	30	30	35
<b>Gain, nominal, dB</b>	12	12	12
<b>Noise Figure, typical, dB</b>	1.3	1.6	1.6
<b>Total Group Delay, typical, ns</b>	100	210	210
<b>Insertion Loss - Bypass Mode, typical, dB</b>	2.5	3.4	3.4

## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>758–788</b>	<b>791–821</b>	<b>925–960</b>
<b>Bandwidth, MHz</b>	30	30	35
<b>Insertion Loss, typical, dB</b>	0.3	0.3	0.35
<b>Total Group Delay, typical, ns</b>	40	40	40
<b>Return Loss, typical, dB</b>	20	20	20
<b>Input Power, RMS, maximum, W</b>	200	200	200
<b>Input Power, PEP, maximum, W</b>	1000	1000	1000
<b>3rd Order PIM, typical, dBc</b>	-160	-160	-160
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers	Two +43 dBm carriers	Two +43 dBm carriers

## Block Diagram

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## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +65 °C (-40 °F to +149 °F)
<b>Corrosion Test Method</b>	IEC 60068-2-11, 30 days
<b>Environmental Test Method</b>	ETSI EN 300 019-1-4
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP67

## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Volume</b>	9.1 L
<b>Weight, net</b>	10.3 kg   22.708 lb
<b>Weight, without mounting hardware</b>	9.5 kg   20.944 lb

## Regulatory Compliance/Certifications

Agency	Classification
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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