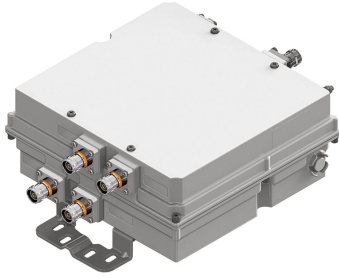


# E14R50P12

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Dual Band Tower Mounted Amplifier, 700//900 MHz, 12 dB, 2 BTS & 4 ANT ports, AISG with 1 RET connector (1 device with 2 sub-units), with 4.3-10 connectors

- Industry leading PIM performance
- New 4.3-10 connectors for improved PIM performance and size reduction
- Designed to boost UP-Link Coverage and KPIs
- 2 input ports and 4 output ports
- Automatic LNA by-pass function
- TMA is operating in AISG mode
- Single AISG with 1 RET connector
- 1 device with 2 sub-units
- Built in lightning protection

## Product Classification

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

## General Specifications

**Color** Gray

**Modularity** 2-Twin

**Mounting Pipe Hardware** Band clamps (2)

**RF Connector Interface** 4.3-10 Female

## Dimensions

**Height** 274 mm | 10.787 in

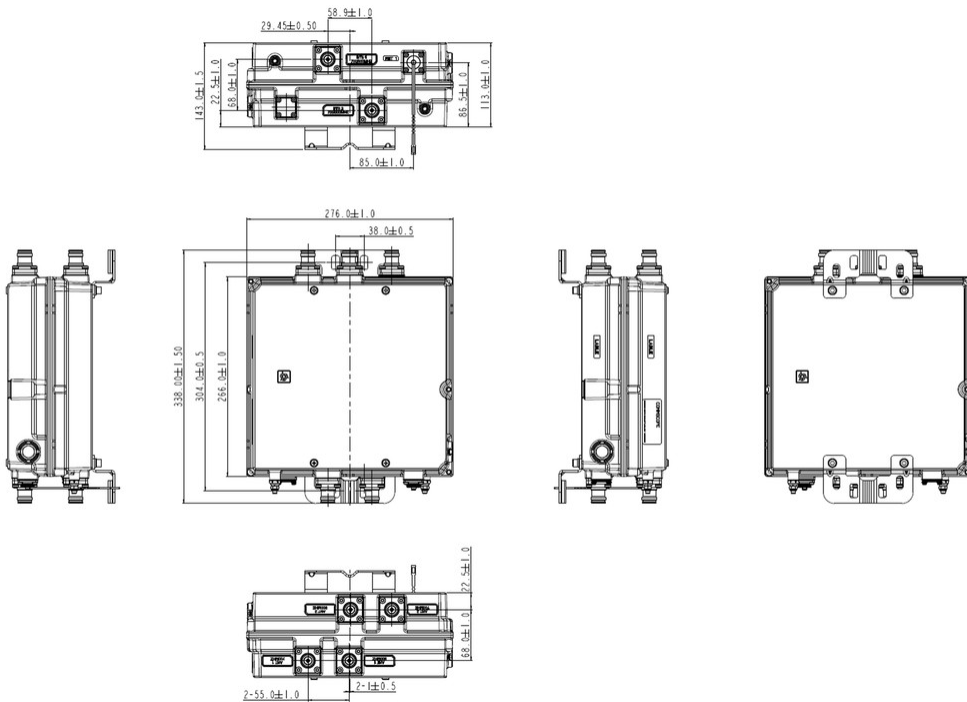
**Width** 266 mm | 10.472 in

**Depth** 113 mm | 4.449 in

**Mounting Pipe Diameter Range** 42.6–122 mm

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## Outline Drawing



## Electrical Specifications

<b>License Band, Band Pass</b>	APT 700
<b>License Band, LNA</b>	APT 700   CEL 900   EDD 800

## Electrical Specifications, dc Power/Alarm

<b>dc Switching/Redundancy</b>	Yes
<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Alarm Current, CWA Mode</b>	190 mA ±10 mA

## 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

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## 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	ANT 900
<b>License Band</b>	APT 700, Band Pass APT 700, LNA	CEL 900, LNA
<b>Return Loss, typical, dB</b>	20	20
<b>Return Loss - Bypass Mode, typical, dB</b>	18	18

## Electrical Specifications Rx (Uplink)

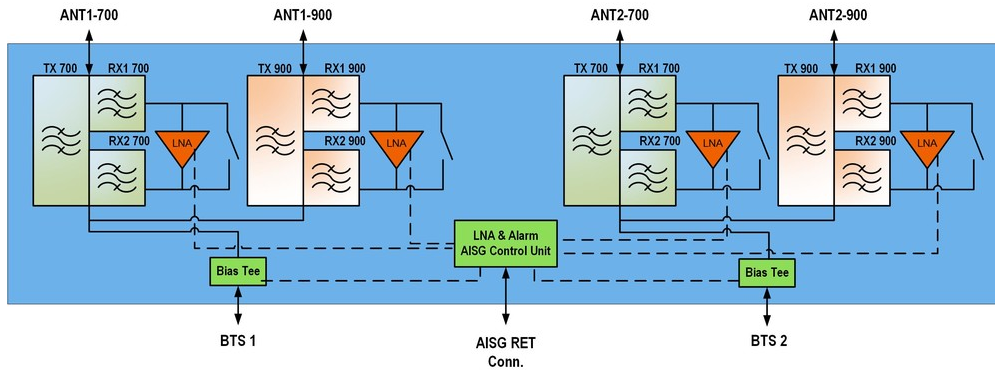
<b>Frequency Range, MHz</b>	<b>703–733</b>	<b>880–915</b>
<b>Bandwidth, MHz</b>	30	35
<b>Gain, nominal, dB</b>	12	12
<b>Noise Figure, typical, dB</b>	1.25	1.35
<b>Group Delay Variation, maximum, ns</b>	90	100
<b>Group Delay Variation Bandwidth, MHz</b>	5	5
<b>Total Group Delay, maximum, ns</b>	200	225
<b>Total Group Delay, typical, ns</b>	150	200
<b>Return Loss, minimum, dB</b>	18	18
<b>Insertion Loss - Bypass Mode, typical, dB</b>	1.5	1.2

## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>758–788</b>	<b>925–960</b>
<b>Bandwidth, MHz</b>	30	35
<b>Insertion Loss, maximum, dB</b>	0.6	0.75
<b>Insertion Loss, typical, dB</b>	0.4	0.6
<b>Group Delay Variation, maximum, ns</b>	35	35
<b>Group Delay Variation Bandwidth, MHz</b>	5	5
<b>Total Group Delay, maximum, ns</b>	80	85
<b>Total Group Delay, typical, ns</b>	70	60
<b>Return Loss, minimum, dB</b>	18	18
<b>Return Loss, typical, dB</b>	20	20
<b>Input Power, RMS, maximum, W</b>	200	200
<b>Input Power, PEP, maximum, W</b>	2500	2500
<b>3rd Order PIM, typical, dBc</b>	-162	-162
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers	Two +43 dBm carriers

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## Block Diagram



## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +65 °C (-40 °F to +149 °F)
<b>Relative Humidity</b>	Up to 100%
<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>Volume</b>	8.3 L
<b>Weight, net</b>	9 kg   19.842 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, Band Pass</b>	License Bands that are to be passed through with no amplification
<b>License Band, LNA</b>	License Bands that have RxUplink amplification