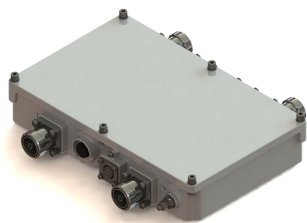


# TMAT23-11A | E15R07P04

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## Twin Tower Mounted Amplifier WCS

### Product Classification

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

### General Specifications

**Modularity** 2-Twin

**RF Connector Interface** 7-16 DIN Female

**RF Connector Interface Body Style** Long neck

### Dimensions

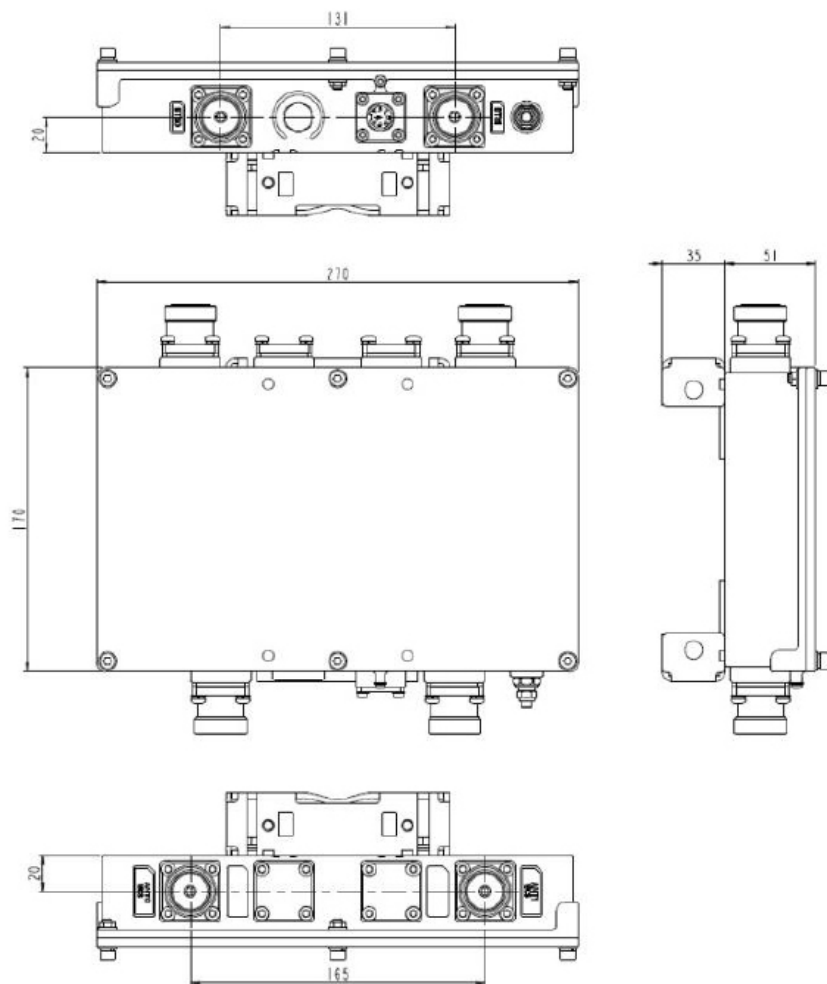
**Height** 170 mm | 6.693 in

**Width** 270 mm | 10.63 in

**Depth** 50 mm | 1.969 in

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## Outline Drawing



## Electrical Specifications

**License Band, LNA** WCS 2300

## Electrical Specifications, dc Power/Alarm

<b>Lightning Surge Current</b>	10 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Operating Current at Voltage</b>	210 mA @ 12 Vdc
<b>Voltage, CWA Mode</b>	10–18 Vdc
<b>Alarm Current, CWA Mode</b>	150 mA +/- 10 mA (10-18 VDC)

## Electrical Specifications, AISG

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<b>AISG Carrier</b>	2.176 MHz $\pm$ 100 ppm
<b>AISG Connector</b>	8-pin DIN Female
<b>AISG Connector Standard</b>	IEC 60130-9
<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>Branch</b>	1
<b>Port Designation</b>	ANT 0 WCS
<b>AISG 2.0 Device Subunit</b>	E25A01P03 1/2
<b>License Band</b>	WCS 2300, LNA

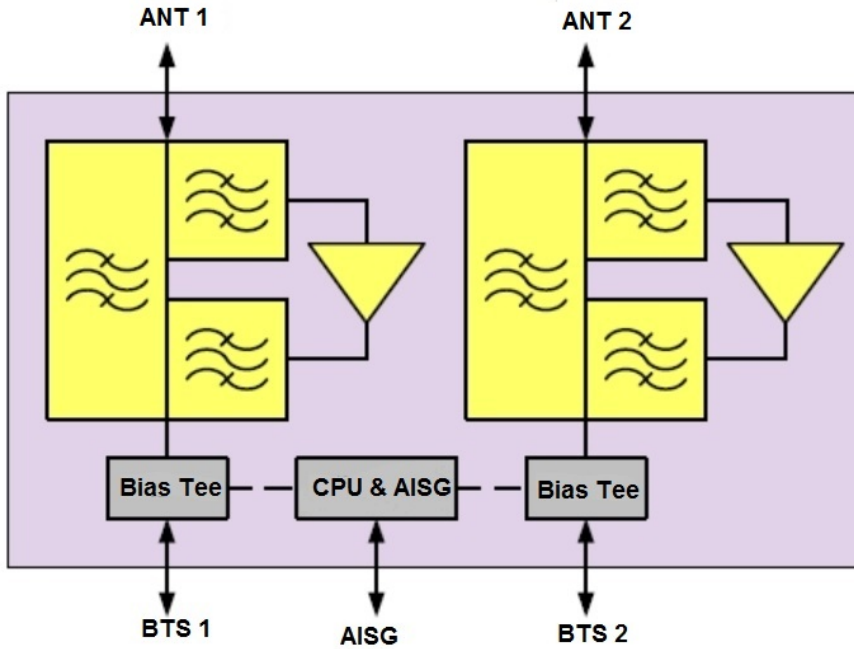
## Electrical Specifications Rx (Uplink)

<b>Frequency Range, MHz</b>	<b>2305–2315</b>
<b>Gain, nominal, dB</b>	13
<b>Gain Tolerance, dB</b>	1
<b>Noise Figure, typical, dB</b>	1.7

## Electrical Specifications Tx (Downlink)

<b>Frequency Range, MHz</b>	<b>2350–2360</b>
<b>Insertion Loss, maximum, dB</b>	0.6
<b>Insertion Loss, typical, dB</b>	0.5
<b>Total Group Delay, maximum, ns</b>	50
<b>Return Loss, minimum, dB</b>	18
<b>Return Loss, typical, dB</b>	20
<b>Input Power, RMS, maximum, W</b>	200
<b>Input Power, PEP, maximum, W</b>	3000
<b>3rd Order PIM, typical, dBc</b>	-153
<b>3rd Order PIM Test Method</b>	Two +43 dBm carriers

## 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>Weight, net</b>	4.2 kg   9.259 lb
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## \* Footnotes

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