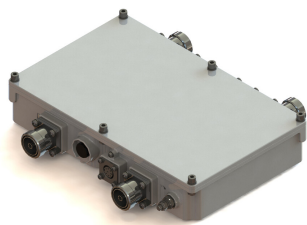


# TMAT23-11A | E15R07P04



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

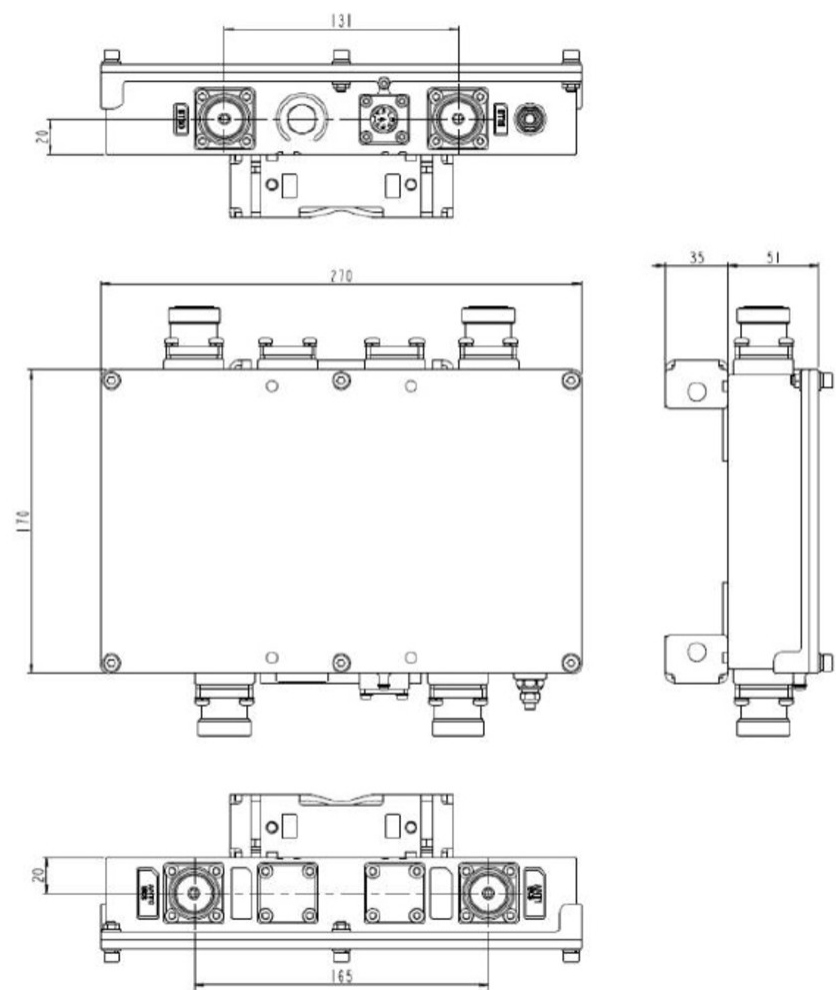
**Height** 170 mm | 6.693 in

**Width** 270 mm | 10.63 in

**Depth** 50 mm | 1.969 in

# TMAT23-11A | E15R07P04

## 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

# TMAT23-11A | E15R07P04

AISG Carrier	2.176 MHz ± 100 ppm
AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Protocol	AISG 1.1   AISG 2.0
Voltage, AISG Mode	10–30 Vdc

## Electrical Specifications

Sub-module	1   2
Branch	1
Port Designation	ANT 0 WCS
AISG 2.0 Device Subunit	E25A01P03 1/2
License Band	WCS 2300, LNA

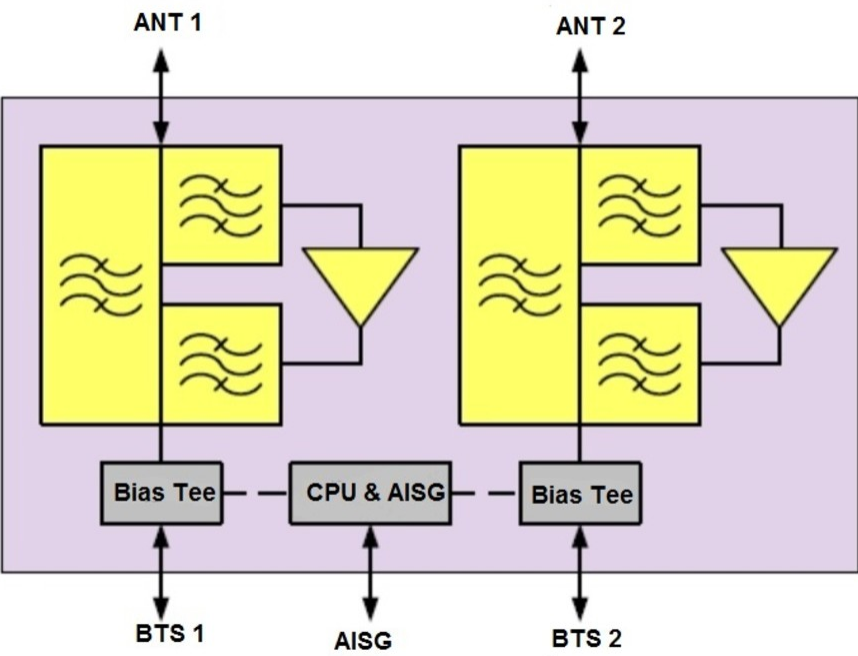
## Electrical Specifications Rx (Uplink)

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

## Electrical Specifications Tx (Downlink)

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

## Block Diagram



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

Weight, net	4.2 kg   9.259 lb
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\* Footnotes

License Band, LNA	License Bands that have RxUplink amplification
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