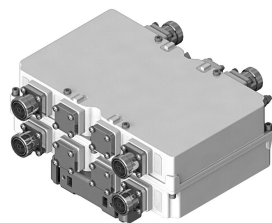


TMAQ23-11A | E15R07P03



Quad Tower Mounted Amplifier WCS

This product will be discontinued on: March 30, 2024

Replaced By:

TMAQ192123B68-21 Tower Mounted Amplifier, Quad Diplexed PCS/AWS/WCS, 617-894 MHz bypass 4.3-10
E14R00P32

Product Classification

Product Type Tower mounted amplifier

General Specifications

RF Connector Interface 7-16 DIN Female

RF Connector Interface Body Style Long neck

Dimensions

Height 170 mm | 6.693 in

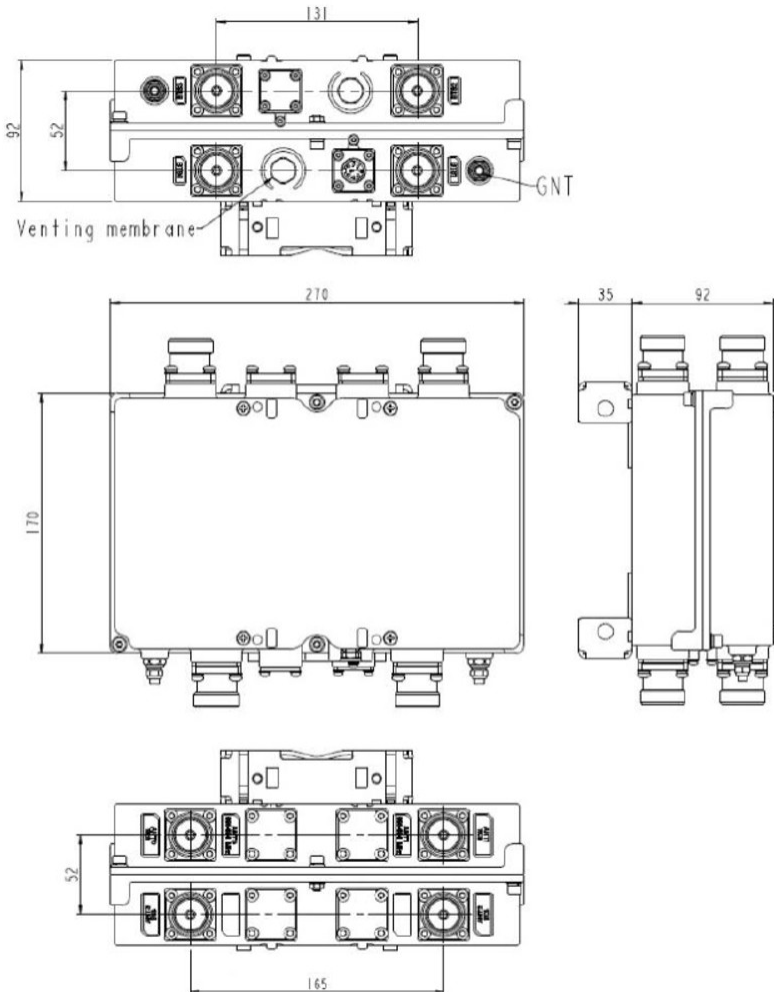
Width 270 mm | 10.63 in

Depth 90 mm | 3.543 in

Ground Screw Diameter 6 mm | 0.236 in

TMAQ23-11A | E15R07P03

Outline Drawing



Electrical Specifications

License Band, LNA WCS 2300

Electrical Specifications, dc Power/Alarm

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

Electrical Specifications, AISG

AISG Carrier 2.176 MHz ± 100 ppm

TMAQ23-11A | E15R07P03

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//3/4
License Band	WCS 2300, LNA

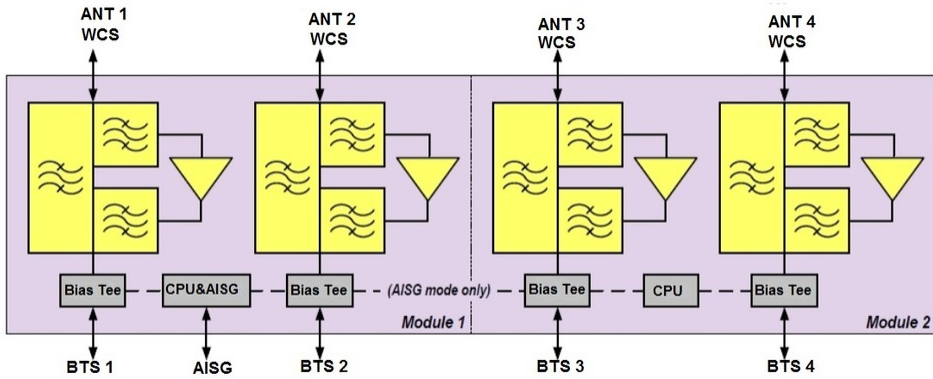
Electrical Specifications Rx (Uplink)

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	-155
3rd Order PIM Test Method	2 x 20 W CW tones

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 7.8 kg | 17.196 lb

* Footnotes

License Band, LNA License Bands that have RxUplink amplification