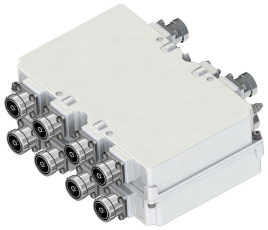
TMAQ23B78-21A | E15R07P01



Quad Tower Mounted Amplifier WCS with 700-850 Bypass AISG

OBSOLETE

This product was discontinued on: March 30, 2024

Replaced By:

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

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

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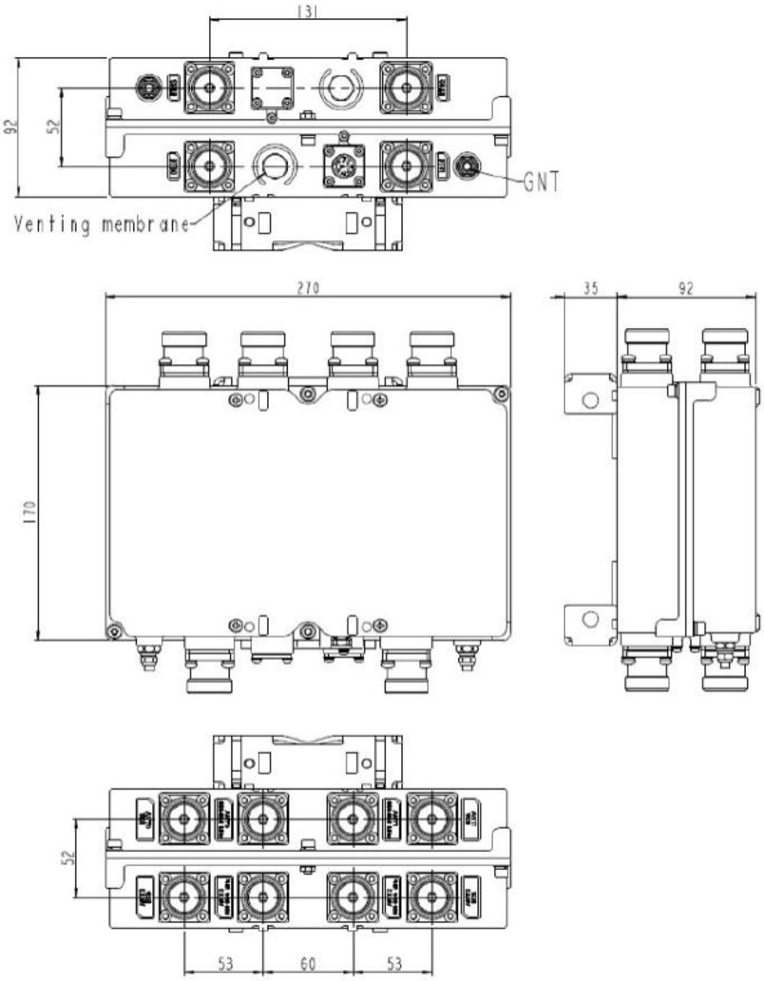
Outline Drawing



Electrical Specifications

License Band, Band Pass	CEL 850 | USA 700 | USA 750
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
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	150 mA +/- 10 mA (10-18 VDC)

Electrical Specifications, AISG

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**	**1 | 2**
Branch	1	2
Port Designation	ANT 1 698-894	ANT 2 WCS
AISG 2.0 Device Subunit		E25A01P03 1/2/3/4
License Band	CEL 850, Band Pass USA 700, Band Pass USA 750, Band Pass	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)

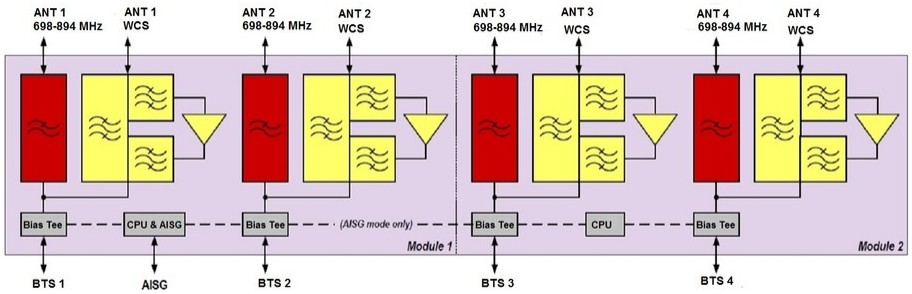
Frequency Range, MHz	**2350–2360**
Insertion Loss, maximum, dB	0.6
Insertion Loss, typical, dB	0.5
Total Group Delay, maximum, ns	50
Return Loss, minimum, dB	18
Return Loss, typical, dB	20
Input Power, RMS, maximum, W	200
Input Power, PEP, maximum, W	3000
3rd Order PIM, typical, dBc	-153
3rd Order PIM Test Method	2 x 20 W CW tones

Electrical Specifications, Band Pass

Frequency Range, MHz	**698–894**

Insertion Loss, maximum, dB	0.2
Return Loss, minimum, dB	18
Return Loss, typical, dB	20
Isolation, minimum, dB	60
Input Power, RMS, maximum, W	200
Input Power, PEP, maximum, W	3000
3rd Order PIM, maximum, dBc	-153
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, Band Pass	License Bands that are to be passed through with no amplification
License Band, LNA	License Bands that have RxUplink amplification