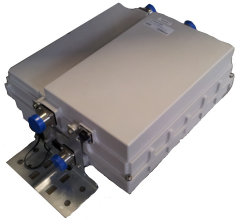


TMAT7UC21X-21AV | E15R02P50



Twin Dual Band Upper 700C MHz/AWS1-4, Diplexer BTS, Variable Gain

OBSOLETE

Product Classification

Product Type 1-BTS:2-ANT (Diplex) | Tower mounted amplifier

General Specifications

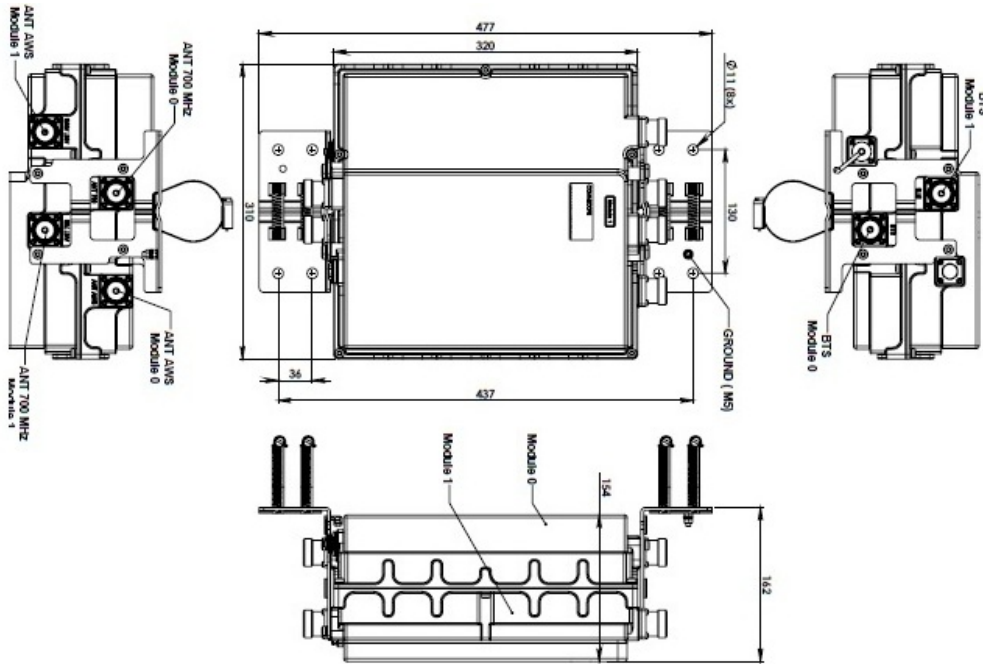
Color Gray
Modularity 2-Twin
Mounting Pole | Wall
Mounting Pipe Hardware Band clamps (4)
RF Connector Interface 7-16 DIN Female
RF Connector Interface Body Style Long neck

Dimensions

Height 320 mm | 12.598 in
Width 310 mm | 12.205 in
Depth 154 mm | 6.063 in
Ground Screw Diameter 6 mm | 0.236 in
Mounting Pipe Diameter Range 40–160 mm

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Outline Drawing



Electrical Specifications

License Band, LNA AWS 1700 | USA 750

Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	Yes
Lightning Surge Current	10 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	240 mA @ 12 V
Operating Current Tolerance	±20 mA
Voltage	7–30 Vdc
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	30–170 mA @ 10–18 V

Electrical Specifications, AISG

AISG Carrier	2.176 MHz ± 100 ppm
AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Default Protocol	AISG 2.0

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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	ANT
AISG 2.0 Device Subunit	E15R02P50 1/2	E15R02P50 2/4
License Band	USA 750, LNA	AWS 1700, LNA
Return Loss, typical, dB	24	24
Return Loss at 8 dB, typical, dB	22	22
Return Loss at 4 dB, typical, dB	20	20
Return Loss - Bypass Mode, typical, dB	14	14

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	777.5–787	1695–1780
Gain, nominal, dB	13	12
Gain Tolerance, dB	±1.0	+1.3/-1.0
Gain Adjustment Range, dB	4-13	4-12
Gain Adjustment Range Increments, dB	1	1
Noise Figure, typical, dB	1.8	1.6
Noise Figure at 8 dB, typical, dB	2.1	2
Noise Figure at 4 dB, typical, dB	3.1	2.6
Total Group Delay, maximum, ns	330	70
Insertion Loss - Bypass Mode, typical, dB	3	2.3

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	746–756	2110–2200
Insertion Loss, maximum, dB	0.4	0.4
Total Group Delay, maximum, ns	70	30
Return Loss, minimum, dB	24	24
Input Power, RMS, maximum, W	400	300
Input Power, PEP, maximum, W	4000	5000
7th Order PIM, minimum, dBc	-161	
7th Order PIM Test Method	2 x 20 W CW tones	

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Higher Order PIM, minimum, dBc

-161

Higher Order PIM Test Method

2 x 20 W CW tones

Electrical Specifications, Band Reject

Frequency Range, MHz

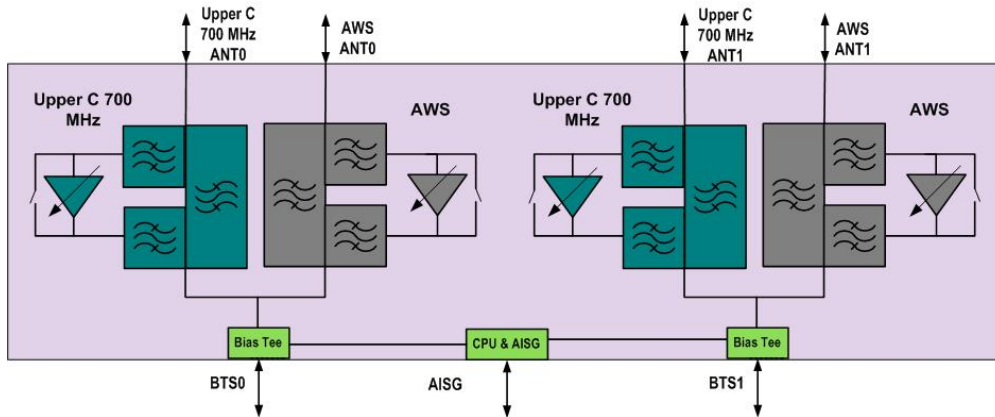
763–775

Attenuation, minimum, dB

40

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Block Diagram



Material Specifications

Finish Painted

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

Included Mounting hardware

Weight, net 14.5 kg | 31.967 lb

* Footnotes

License Band, LNA License Bands that have RxUplink amplification