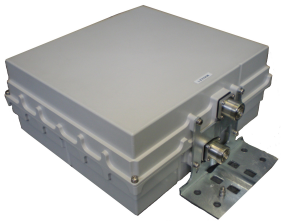
TMA-T-DB78-DD-A | E15R02P25



Twin Diplexed ANT/BTS Ports, Dual Band Upper 700C MHz/Cellular with AISG and Variable Gain

OBSOLETE

This product was discontinued on: July 24, 2019

Replaced By:

TMAT7UC8-11V E15R02P57	Twin Compact TMA 700uC/850MHz, Diplexed BTS/ANT, Variable Gain and AISG

Product Classification

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

General Specifications

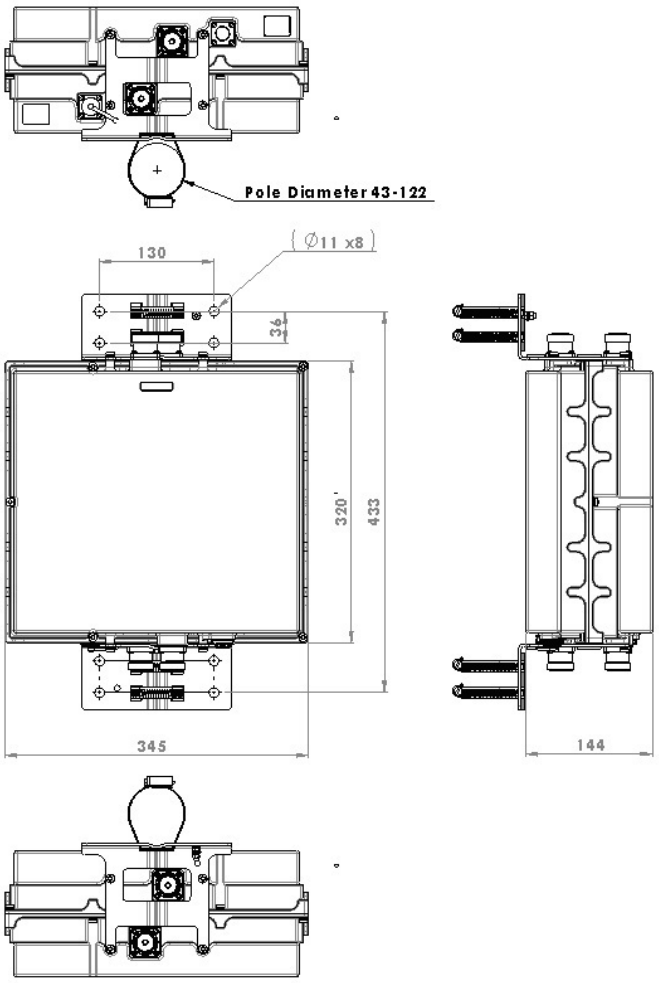
Color	Gray
Modularity	2-Twin
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (4)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	320 mm | 12.598 in
Width	345 mm | 13.583 in
Depth	144 mm | 5.669 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

TMA-T-DB78-DD-A | E15R02P25

Outline Drawing



Electrical Specifications

License Band, LNA	CEL 850 | 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
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	E15R02P25 2/4	E15R02P25 1/3
License Band	USA 750, LNA	CEL 850, 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
TX Band Rejection, minimum, dB	80	80

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**777.5–787**	**824–849**
Bandwidth, MHz	9.5	25
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	1.9
Noise Figure at 8 dB, typical, dB	2.1	2.4
Noise Figure at 4 dB, typical, dB	3.1	3.2
Group Delay Variation, maximum, ns	180	180
Group Delay Variation Bandwidth, MHz	5	5

Insertion Loss - Bypass Mode, typical, dB	3	3.2

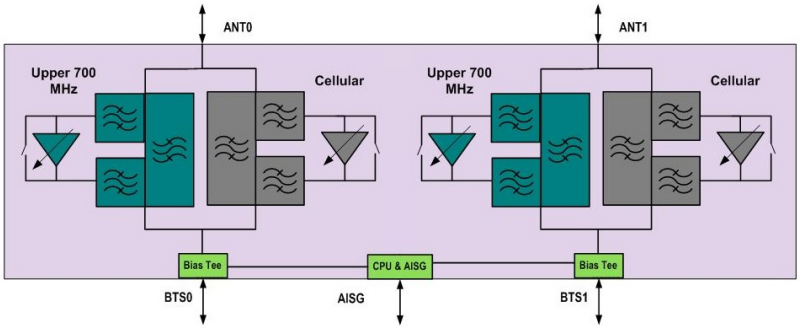
Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**746–756**	**869–894**
Bandwidth, MHz	10	25
Insertion Loss, typical, dB	0.4	0.5
Return Loss, minimum, dB	24	24
RX Band Rejection, minimum, dB	40	35
Input Power, RMS, maximum, W	200	500
Input Power, PEP, maximum, W	2000	5000
3rd Order PIM, typical, dBc		-153
3rd Order PIM Test Method		2 x 20 W CW tones

Electrical Specifications, Band Reject

Frequency Range, MHz	**763–775**	**851–856**
Attenuation, minimum, dB	40	30

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	16.5 kg | 36.376 lb

* Footnotes

License Band, LNA	License Bands that have RxUplink amplification