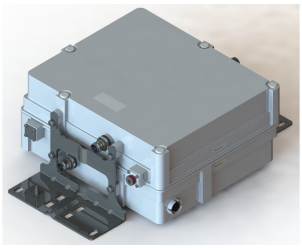
E14ROOP78



Dual Band Tower Mounted Amplifier, 700//850 MHz, 17 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (1 devices with 4 sub-units), with 4.3-10 connectors

- New 4.3-10 connectors for improved PIM performance and size reduction
- TMA is operating in AISG & CWA mode, Alarm Current consumption CWA mode 190 mA
- 2 input ports and 2 output ports
- Designed to boost UP-Link Coverage and KPIs
- Automatic LNA by-pass function
- Connectors “in line”
- Single AISG with 1 RET connector
- 1 device with 4 sub-units
- Built in lightning protection

Product Classification

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

General Specifications

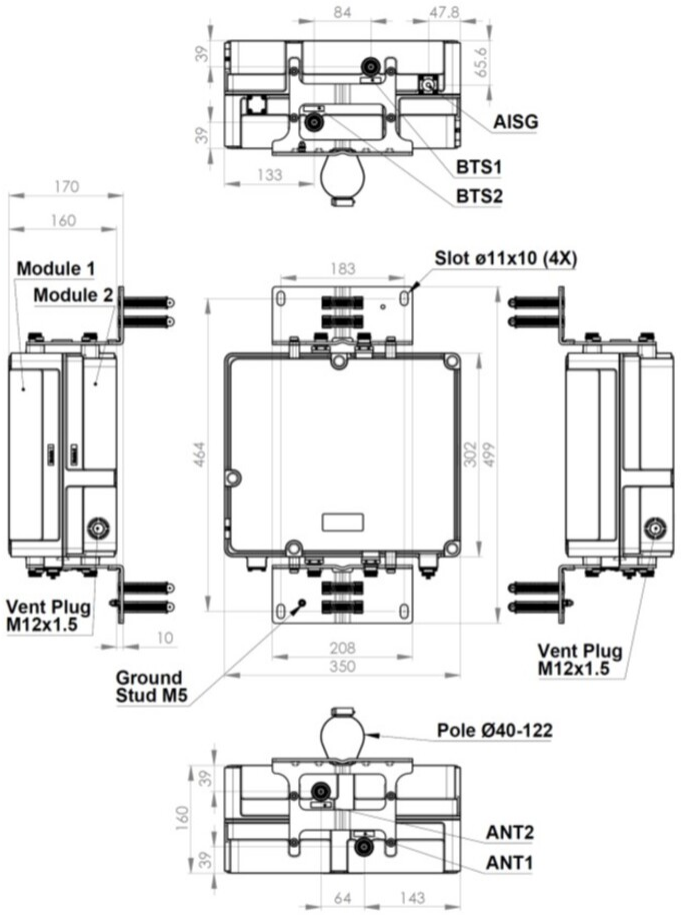
Color	Gray
Modularity	2-Twin
Mounting	Pole | Wall
Mounting Pipe Hardware	Band clamps (4)
RF Connector Interface	4.3-10 Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	160 mm | 6.299 in
Width	302 mm | 11.89 in
Depth	350 mm | 13.78 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	45–178 mm

Outline Drawing

E14ROOP78



Electrical Specifications

License Band, LNA	APT 700 | CEL 850

Electrical Specifications, dc Power/Alarm

Lightning Surge Current	2 kA
Lightning Surge Current Waveform	8/20 waveform
Voltage	7–30 Vdc

Electrical Specifications, AISG

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

E14ROOP78

Default Protocol	AISG 2.0
Protocol	AISG 1.1 | AISG 2.0

Electrical Specifications

Sub-module	**1 | 2**	**1 | 2**
Branch	1	2
Port Designation	ANT	ANT
License Band	APT 700, LNA CEL 850, LNA	APT 700, LNA CEL 850, LNA
Return Loss, typical, dB	20	20
Return Loss - Bypass Mode, typical, dB	16	16

Electrical Specifications Rx (Uplink)

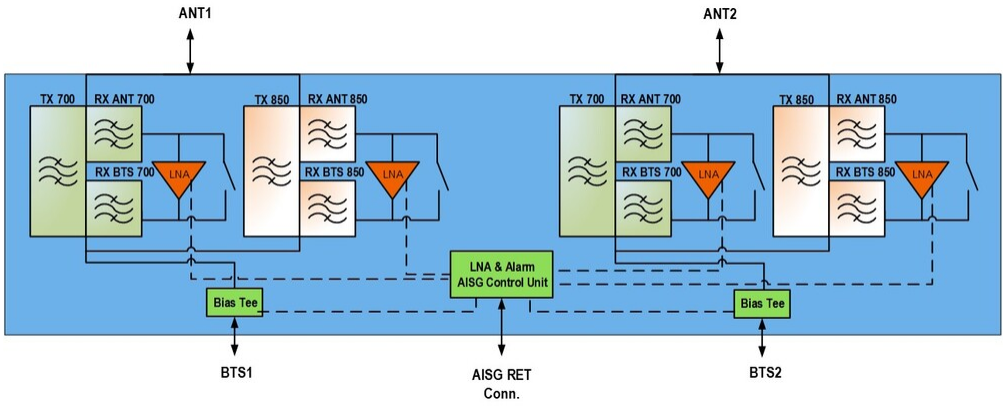
Frequency Range, MHz	**713–733**	**814–845**
Bandwidth, MHz	20	31
Gain, nominal, dB	17	15.5
Gain Tolerance, dB	+/-1.0	+/-1.0
Noise Figure, maximum, dB	1.6	2
Noise Figure, typical, dB	1.2	1.4
Total Group Delay, typical, ns	130	320
Insertion Loss - Bypass Mode, typical, dB	1.4	2.5

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**768–788**	**859–890**
Bandwidth, MHz	20	31
Insertion Loss, typical, dB	0.3	0.45
Total Group Delay, typical, ns	45	45
Return Loss, typical, dB	20	20
RX Band Rejection, minimum, dB	40	40
Input Power, RMS, maximum, W	120	120
Input Power, PEP, maximum, W	1500	1500
3rd Order PIM, typical, dBc	-161	-161
3rd Order PIM Test Method	Two +43 dBm carriers	Two +43 dBm carriers

Block Diagram

E14ROOP78



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
Environmental Test Method	ETSI EN 300 019-1-4
Ingress Protection Test Method	IEC 60529:2001, IP67

Packaging and Weights

Included	Mounting hardware
Volume	16.9 L
Weight, net	17.5 kg | 38.581 lb

* Footnotes

License Band, LNA	License Bands that have RxUplink amplification