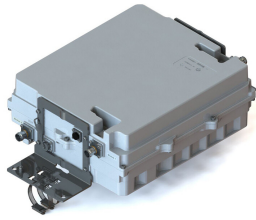


E16R02P29



Tri Band Tower Mounted Amplifier, 700//850//900 MHz, 12 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (3 devices with 2 sub-units each), with 4.3-10 connectors

- 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
- 3 devices with 2 sub-units
- Automatic LNA by-pass function
- Connectors "in line"
- Single AISG with 1 RET connector
- Built in lightning protection
- New 4.3-10 connectors for improved PIM performance and size reduction

This product will be discontinued on: December 31, 2024

Product Classification

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

General Specifications

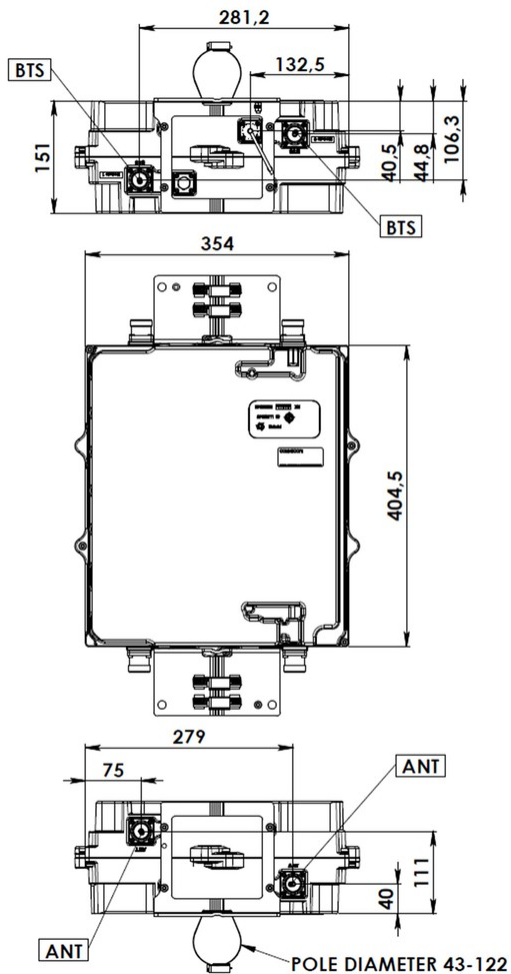
Color Gray
Modularity 2-Twin
Mounting Pole | Wall
Mounting Pipe Hardware Band clamps (2)
RF Connector Interface 4.3-10 Female

Dimensions

Height 151 mm | 5.945 in
Width 355 mm | 13.976 in
Depth 405 mm | 15.945 in
Mounting Pipe Diameter Range 42.6–122 mm

Outline Drawing

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Electrical Specifications

License Band, LNA APT 700 | CEL 850 | DCS 1800 | IMT 2100 | IMT 2600

Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	Yes
Lightning Surge Current	10 kA
Lightning Surge Current Waveform	8/20 waveform
Voltage	10–18 Vdc
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	190 mA \pm 10 mA

Electrical Specifications, AISG

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AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Protocol	AISG 2.0
Voltage, AISG Mode	10–30 Vdc

Electrical Specifications

Sub-module	1 2	1 2	1 2
Branch	1	2	3
Port Designation	ANT	ANT	ANT
License Band	APT 700, LNA	CEL 850, LNA	CEL 900, LNA
Return Loss, typical, dB	20	20	20
Return Loss - Bypass Mode, typical, dB	18	18	18

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	703–748	825–835	898–915
Bandwidth, MHz	45	10	16.6
Gain, nominal, dB	13	13	13
Noise Figure, maximum, dB	2	2	2
Noise Figure, typical, dB	1.5	1.5	1.5
Group Delay Variation, maximum, ns	190	60	60
Group Delay Variation Bandwidth, MHz	5	5	5
Return Loss, minimum, dB	16	16	16
Insertion Loss - Bypass Mode, typical, dB	1.3	1.8	1.8

Electrical Specifications Tx (Downlink)

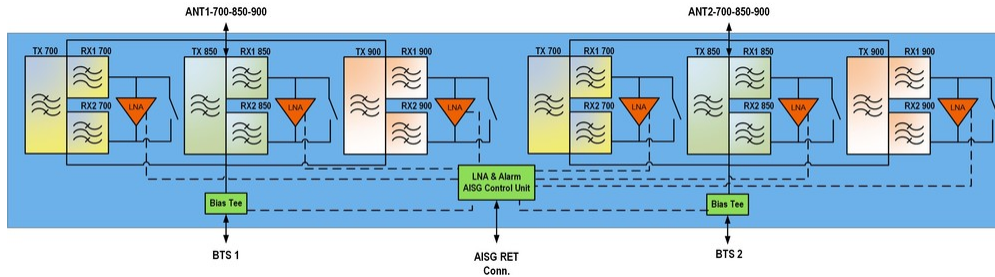
Frequency Range, MHz	758–803	870–880	943–960
Bandwidth, MHz	45	10	16.6
Insertion Loss, maximum, dB	0.6	0.5	0.5
Group Delay Variation, maximum, ns	35	10	20
Group Delay Variation Bandwidth, MHz	5	5	5
Return Loss, minimum, dB	18	18	18
Return Loss, typical, dB	20	20	20
Input Power, RMS, maximum, W	200	200	200
Input Power, PEP, maximum, W	2500	2500	2500
3rd Order PIM, typical, dBc	-153	-153	-153

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3rd Order PIM Test Method

Two +43 dBm carriers Two +43 dBm carriers Two +43 dBm carriers

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

Included	Mounting hardware
Volume	19 L
Weight, net	25 kg 55.115 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

License Band, LNA	License Bands that have RxUplink amplification
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