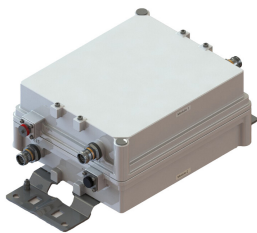


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Tri Band Tower Mounted Amplifier, 700//800//900 MHz, 12 dB, 2 BTS & 2 ANT ports, AISG with 1 RET connector (3 device with 2 sub-units each)

- 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

Product Classification

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

General Specifications

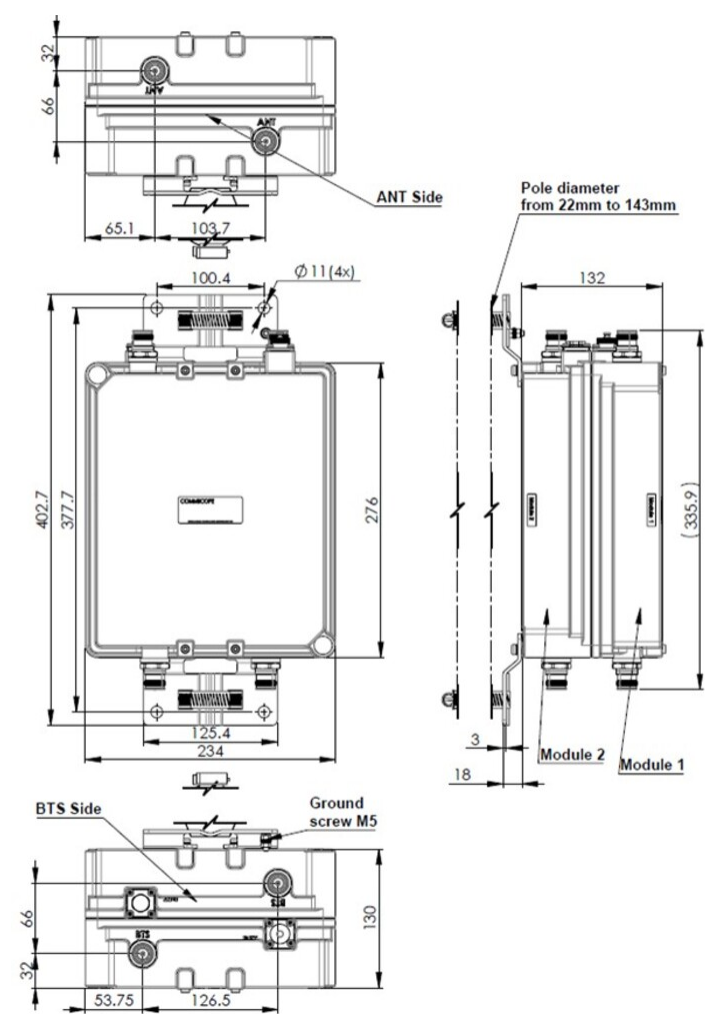
Color	Gray
Modularity	2-Twin
Mounting	Pole Wall
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	4.3-10 Female

Dimensions

Height	234 mm 9.213 in
Width	130 mm 5.118 in
Depth	276 mm 10.866 in
Mounting Pipe Diameter Range	43–122 mm

Outline Drawing

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Electrical Specifications

License Band, LNA APT 700 | CEL 900 | EDD 800

Electrical Specifications, dc Power/Alarm

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

Electrical Specifications, AISG

AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9

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Protocol	AISG 2.0
Voltage, AISG Mode	7–30 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	EDD 800, LNA	CEL 900, LNA
Return Loss, typical, dB	20	20	20
Return Loss - Bypass Mode, typical, dB	16	16	16

Electrical Specifications Rx (Uplink)

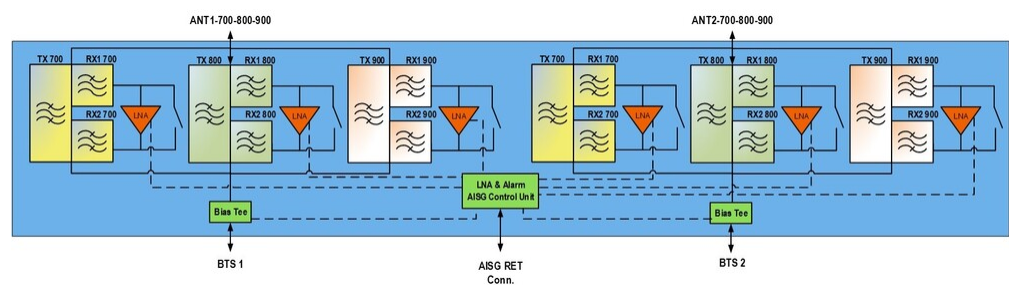
Frequency Range, MHz	723–733	852–862	890–905
Bandwidth, MHz	10	10	15
Gain, nominal, dB	12	12	12
Noise Figure, typical, dB	1.3	1.3	1.6
Total Group Delay, typical, ns	110	90	140
Insertion Loss - Bypass Mode, typical, dB	2.3	2.2	2.6

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	778–788	811–821	935–950
Bandwidth, MHz	10	10	15
Insertion Loss, typical, dB	0.3	0.3	0.3
Total Group Delay, typical, ns	30	40	30
Return Loss, typical, dB	20	20	20
Input Power, RMS, maximum, W	200	200	200
Input Power, PEP, maximum, W	1000	1000	1000
3rd Order PIM, typical, dBc	-146	-146	-146
3rd Order PIM Test Method	Two +43 dBm carriers	Two +43 dBm carriers	Two +43 dBm carriers

Block Diagram

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Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
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	8.4 L
Weight, net	9.5 kg 20.944 lb
Weight, without mounting hardware	9.1 kg 20.062 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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