

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

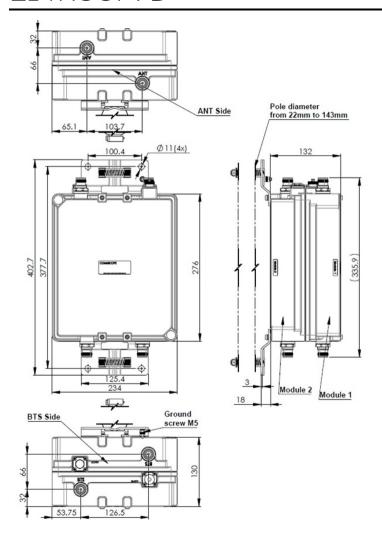
 Width
 130 mm | 5.118 in

 Depth
 276 mm | 10.866 in

Mounting Pipe Diameter Range 43–122 mm

Outline Drawing





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 10 kA
Lightning Surge Current Waveform 8/20 waveform

Alarm Current, CWA Mode 190 mA ±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)

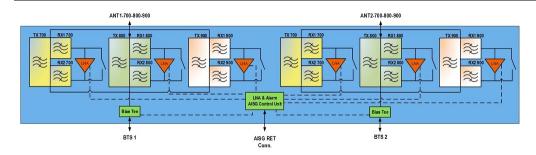
Frequency Range, MHz	723-733	852-862	890-905
Bandwidth, MHz	10	10	15
Gain, nominal, dB	12	12	12
Noise Figure, typical, dB	1.3	1.3	1.6
Total Group Delay, typical, ns	110	90	140
Insertion Loss - Bypass Mode, typical, dB	2.3	2.2	2.6

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 carrie

Block Diagram





Environmental Specifications

Operating Temperature $-40 \,^{\circ}\text{C} \text{ to } +65 \,^{\circ}\text{C} \, (-40 \,^{\circ}\text{F to } +149 \,^{\circ}\text{F})$

Corrosion Test MethodIEC 60068-2-11, 30 daysEnvironmental Test MethodETSI EN 300 019-1-4Ingress Protection Test MethodIEC 60529:2001, IP67

Packaging and Weights

Included Mounting hardware

Volume 8.4 L

Weight, net $9.5 \text{ kg} \mid 20.944 \text{ lb}$ Weight, without mounting hardware $9.1 \text{ kg} \mid 20.062 \text{ lb}$

Regulatory Compliance/Certifications

Agency Classification

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



* Footnotes

License Band, LNALicense Bands that have RxUplink amplification