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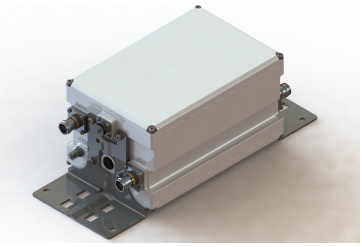

Tower Mounted Amplifier, Dual GSM/UMTS 900 with AISG

- Industry leading PIM performance
- 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
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector

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	Bolt clamps (2)
RF Connector Interface	4.3-10 Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	260 mm | 10.236 in
Width	170 mm | 6.693 in
Depth	140 mm | 5.512 in
Ground Screw Diameter	8 mm | 0.315 in
Mounting Pipe Diameter Range	43–122 mm

Electrical Specifications

License Band, LNA	CEL 900

Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	Yes
Lightning Surge Current	20 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	100 mA @ 12 Vdc

Operating Current Tolerance	±10 mA
Voltage	7–30 Vdc
Alarm Current, CWA Mode	185 mA ±10 mA

Electrical Specifications, AISG

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**
Branch	1
Port Designation	ANT
License Band	CEL 900, LNA
Return Loss - Bypass Mode, typical, dB	14
TX Band Rejection, minimum, dB	80

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**880–915**
Bandwidth, MHz	35
Gain, nominal, dB	12
Gain Tolerance, dB	±1
Noise Figure, maximum, dB	1.6
Noise Figure, typical, dB	1.3
Group Delay Variation, maximum, ns	60
Group Delay Variation Bandwidth, MHz	5
Total Group Delay, maximum, ns	200
Output IP3, minimum, dBm	22
Return Loss, minimum, dB	18
Insertion Loss - Bypass Mode, typical, dB	3

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**925–960**
Bandwidth, MHz	35
Insertion Loss, maximum, dB	0.7
Insertion Loss, typical, dB	0.4
Insertion Loss Ripple, maximum, dB	0.5
Group Delay Variation, maximum, ns	28
Group Delay Variation Bandwidth, MHz	5
Total Group Delay, maximum, ns	78
Return Loss, minimum, dB	18
RX Band Rejection, minimum, dB	40
Input Power, RMS, maximum, W	200
Input Power, PEP, maximum, W	5000
3rd Order PIM, typical, dBc	-160
3rd Order PIM Test Method	Two +43 dBm carriers

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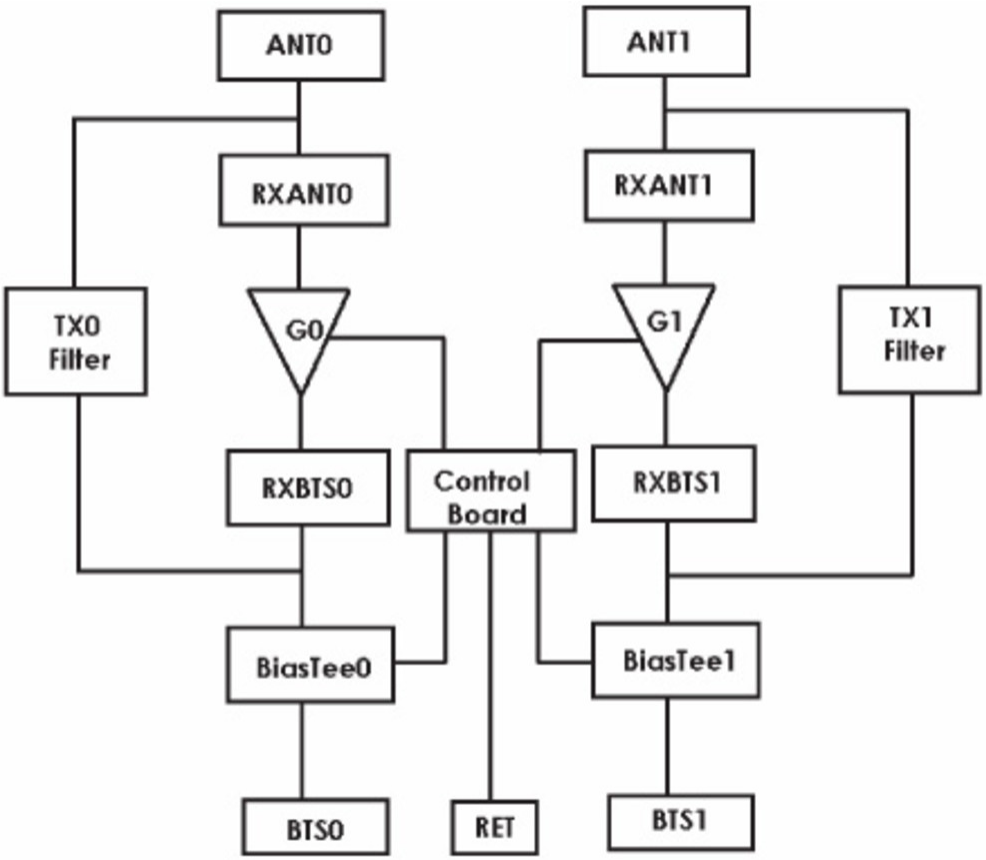
Block Diagram



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	8 kg | 17.637 lb

Regulatory Compliance/Certifications

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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