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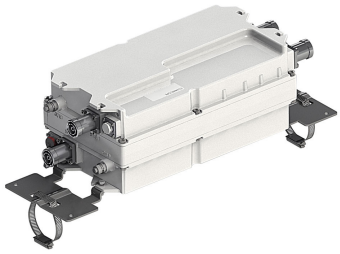

Tower Mounted Amplifier, Twin Diplexed Dual Band 850/1900 with AISG

Product Classification

Product Type	1-BTS:2-ANT (Diplex) | Tower mounted amplifier

General Specifications

Color	Gray
Modularity	2-Twin
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	330 mm | 12.992 in
Width	184 mm | 7.244 in
Depth	140 mm | 5.512 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	50–120 mm

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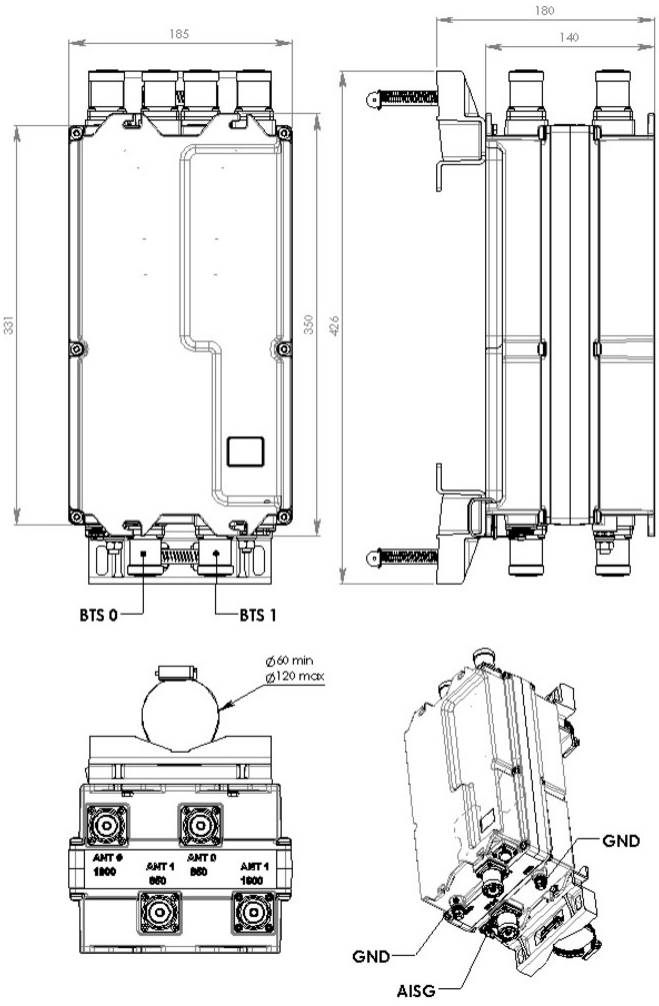
Outline Drawing



Electrical Specifications

License Band, LNA	CEL 850 | PCS 1900

Electrical Specifications, dc Power/Alarm

dc Switching/Redundancy	No
Lightning Surge Current	5 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Current at Voltage	240 mA @ 12 V | 70 mA @ 24 V
Operating Current Tolerance	±30 mA
Voltage	7–30 Vdc

Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	30–170 mA @ 10–18 V

Electrical Specifications, AISG

AISG Carrier	2.176 MHz ± 100 ppm
AISG Connector	8-pin DIN Female
AISG Connector Standard	IEC 60130-9
Default Protocol	AISG 2.0
Protocol	AISG 1.1 | AISG 2.0
Voltage, AISG Mode	10–30 Vdc

Electrical Specifications

Sub-module	**1 | 2**	**1 | 2**
Branch	1	2
Port Designation	ANT 850	ANT 1900
License Band	CEL 850, LNA	PCS 1900, LNA
Return Loss - Bypass Mode, typical, dB	18	18
TX Band Rejection, minimum, dB	80	80

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**824–849**	**1850–1910**
Bandwidth, MHz	25	60
Gain, nominal, dB	12	12
Gain Tolerance, dB	+1.3/-1.0	+1.3/-1.0
Noise Figure, typical, dB	1.1	1.5
Group Delay Variation, maximum, ns	270	50
Group Delay Variation Bandwidth, MHz	5	5
Total Group Delay, maximum, ns	370	180
Output IP3, minimum, dBm	25	21
Return Loss, minimum, dB	18	18
Insertion Loss - Bypass Mode, typical, dB	2	3

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	**869–894**	**1930–1990**
Bandwidth, MHz	25	60

Insertion Loss, maximum, dB	0.5	0.9
Group Delay Variation, maximum, ns	25	20
Group Delay Variation Bandwidth, MHz	5	5
Total Group Delay, maximum, ns	65	60
Return Loss, minimum, dB	18	18
Input Power, RMS, maximum, W	500	300
Input Power, PEP, maximum, W	5000	3000
3rd Order PIM, typical, dBc	-155	-155
3rd Order PIM Test Method	2 x 20 W CW tones	2 x 20 W CW tones

Electrical Specifications, Band Reject

Frequency Range, MHz	**851–856**
Attenuation, minimum, dB	30

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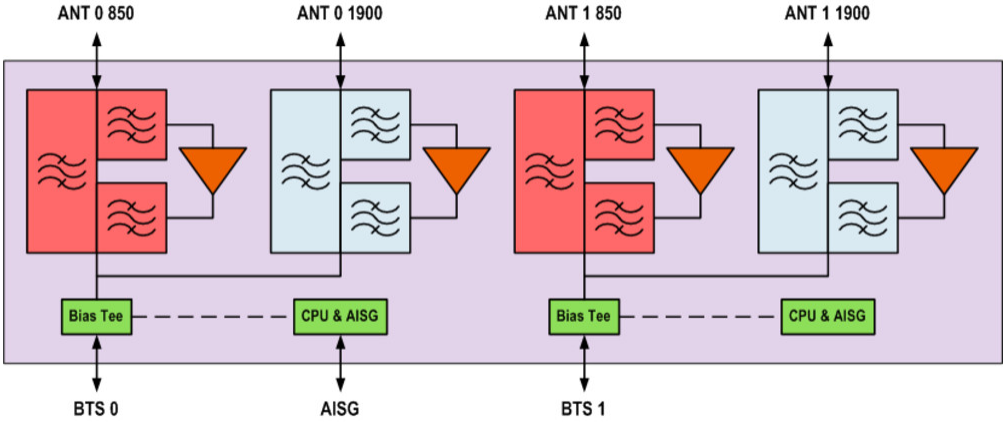
Block Diagram



Material Specifications

Finish	Painted

Mechanical Specifications

Wind Loading @ Velocity, maximum	60.0 N @ 115 km/h (13.5 lbf @ 115 km/h)
Wind Speed, maximum	200 km/h (124 mph)

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	10.9 kg | 24.03 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