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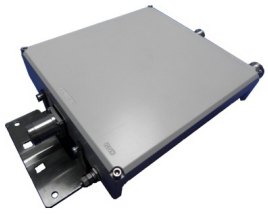

Tower Mounted Amplifier, Diplexed PCS/AWS TMA with 700–850 bypass and Variable Gain

OBSOLETE

This product was discontinued on: August 1, 2019

Replaced By:

TMAT1921B68-21-43 E14R00P09	Tower Mounted Amplifier, Twin Diplexed PCS/AWS 1–4, 555–894 MHz bypass 4.3-10

Product Classification

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

General Specifications

Color	Gray
Modularity	1-Single
Mounting Pipe Hardware	Band clamps (2)
RF Connector Interface	7-16 DIN Female
RF Connector Interface Body Style	Long neck

Dimensions

Height	255 mm | 10.039 in
Width	236 mm | 9.291 in
Depth	59 mm | 2.323 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	50–120 mm

Outline Drawing

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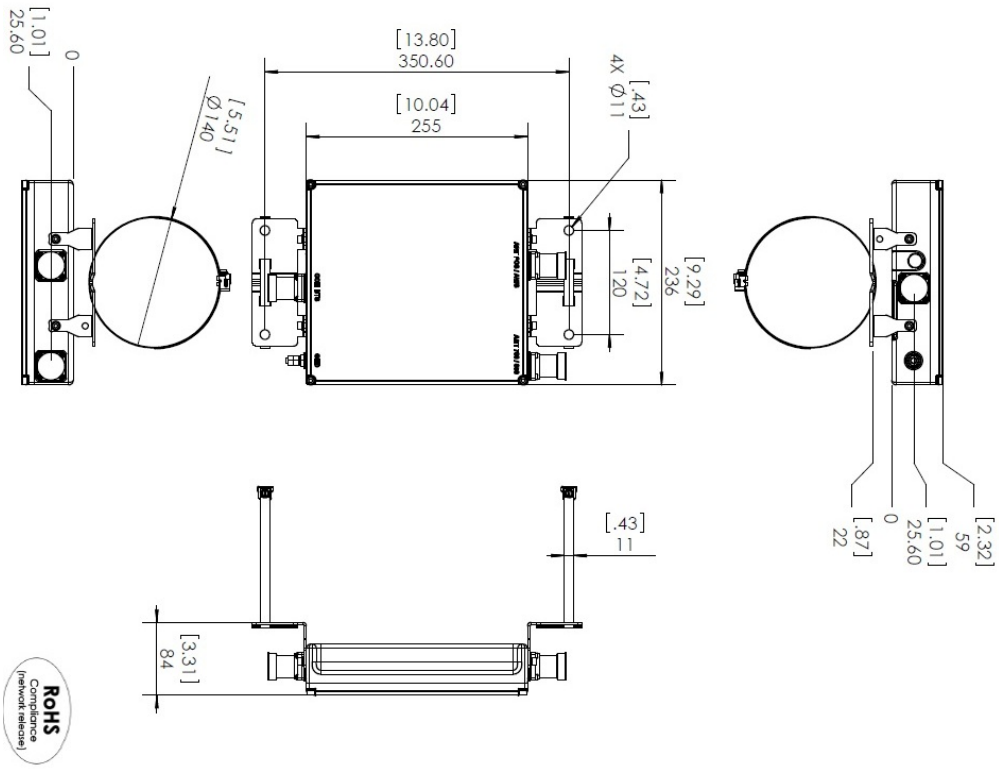

Electrical Specifications

License Band, Band Pass	APT 700 | CEL 850 | EDD 800 | LMR 750 | LMR 800 | USA 700 | USA 750
License Band, LNA	AWS 1700 | 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	105 mA @ 12 V | 55 mA @ 24 V
Operating Current Tolerance	±15 mA
Voltage	7–30 Vdc
Voltage, CWA Mode	10–18 Vdc
Alarm Current, CWA Mode	180–200 mA @ 10–18 V

Electrical Specifications, AISG

AISG Carrier	2.176 MHz ± 100 ppm

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Default Protocol	AISG 2.0
Protocol	AISG 1.1 | AISG 2.0
Voltage, AISG Mode	10–30 Vdc

Electrical Specifications

Sub-module	**1**	**1**	**1**
Branch	1	2	2
Port Designation	ANT 700	ANT PCS/AWS	ANT PCS/AWS
License Band	APT 700, Band Pass CEL 850, Band Pass EDD 800, Band Pass LMR 750, Band Pass LMR 800, Band Pass USA 700, Band Pass USA 750, Band Pass	AWS 1700, LNA	PCS 1900, LNA
Return Loss, typical, dB		24	24
Return Loss at 8 dB, typical, dB		22	22
Return Loss at 4 dB, typical, dB		18	18
Return Loss - Bypass Mode, typical, dB		16	16

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	**1710–1755**	**1850–1910**
Bandwidth, MHz	45	60
Gain, nominal, dB	12	12
Gain Tolerance, dB	±1.0	±1.0
Gain Adjustment Range, dB	4–12	4-12
Gain Adjustment Range Increments, dB	1	1
Noise Figure, typical, dB	1.3	1.5
Noise Figure at 8 dB, typical, dB	1.6	1.8
Noise Figure at 4 dB, typical, dB	2.1	2.3
Total Group Delay, maximum, ns	50	130
Insertion Loss - Bypass Mode, typical, dB	1.9	2.9

Electrical Specifications Tx (Downlink)

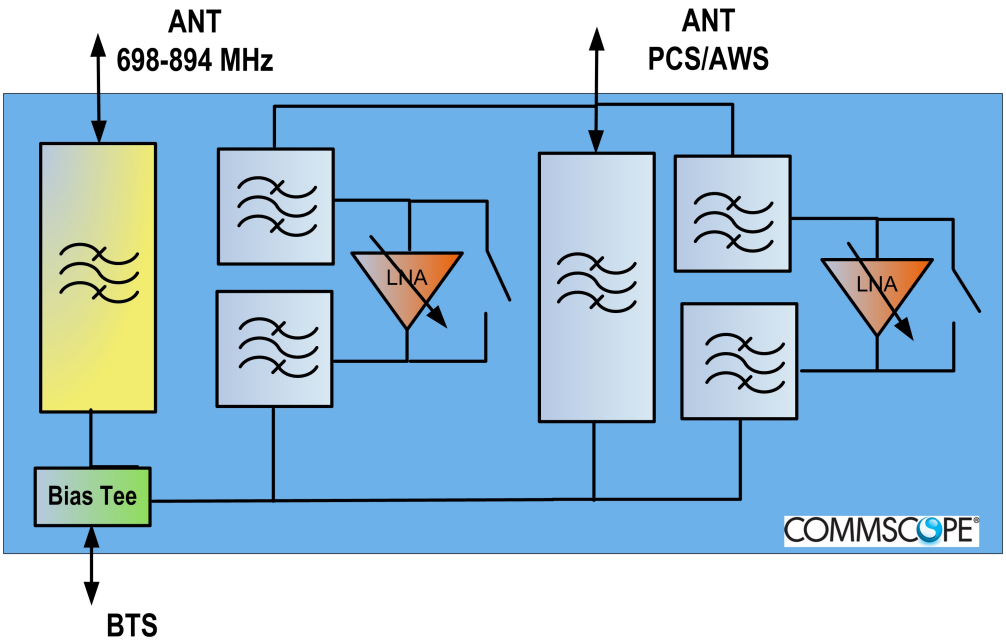
Frequency Range, MHz	**2110–2155**	**1930–1990**
Bandwidth, MHz	45	60
Insertion Loss, maximum, dB	0.25	0.6
Total Group Delay, maximum, ns	15	50

Return Loss, minimum, dB	24	24
Input Power, RMS, maximum, W	200	200
Input Power, PEP, maximum, W	3000	3000
3rd Order PIM, maximum, dBc	-153	-153
3rd Order PIM Test Method	1 x 20 W AWS CW tone 1 x 20 W PCS CW tone	2 x 20 W CW tones

Electrical Specifications, Band Pass

Frequency Range, MHz	**698–894**
Insertion Loss, maximum, dB	0.3
Insertion Loss, typical, dB	0.2
Total Group Delay, maximum, ns	15
Return Loss, minimum, dB	20
Isolation, minimum, dB	40
Input Power, RMS, maximum, W	200
Input Power, PEP, maximum, W	3000
3rd Order PIM, maximum, dBc	-153
3rd Order PIM Test Method	2 x 20 W CW tones

Block Diagram



Material Specifications

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Finish	Painted

Mechanical Specifications

Wind Loading @ Velocity, maximum	60.0 N @ 115 km/h (13.5 lbf @ 115 km/h)
Wind Speed, maximum	241 km/h (150 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	5.1 kg | 11.244 lb

* Footnotes

License Band, Band Pass	License Bands that are to be passed through with no amplification
License Band, LNA	License Bands that have RxUplink amplification