

E15S09P78



Tower Mounted Amplifier, Twin Duplicated 1900/700-850 Bypass with AISG

OBSOLETE

Replaced By:

TMAT1921B68-21-43
E14R00P09

Tower Mounted Amplifier, Twin Duplicated 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 2-Twin

Mounting Pole | Wall

Mounting Pipe Hardware Band clamps (2)

RF Connector Interface 7-16 DIN Female

RF Connector Interface Body Style Long neck

Dimensions

Height 274 mm | 10.787 in

Width 210 mm | 8.268 in

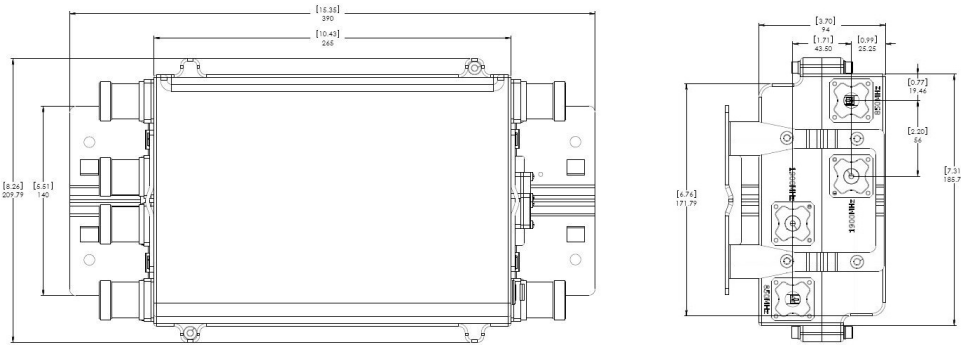
Depth 94 mm | 3.701 in

Ground Screw Diameter 6 mm | 0.236 in

Mounting Pipe Diameter Range 40-160 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 PCS 1900

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 135 mA @ 12 V | 75 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

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

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Port Designation	850	1900
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	PCS 1900, LNA
Return Loss - Bypass Mode, typical, dB		18

Electrical Specifications Rx (Uplink)

Frequency Range, MHz	1850–1910
Bandwidth, MHz	60
Gain, nominal, dB	12
Gain Tolerance, dB	±1.0
Noise Figure, typical, dB	1.5
Group Delay Variation, maximum, ns	50
Group Delay Variation Bandwidth, MHz	5
Total Group Delay, maximum, ns	150
Output IP3, minimum, dBm	22
Return Loss, minimum, dB	18
Insertion Loss - Bypass Mode, typical, dB	2

Electrical Specifications Tx (Downlink)

Frequency Range, MHz	1930–1990
Bandwidth, MHz	60
Insertion Loss, maximum, dB	0.7
Insertion Loss, typical, dB	0.3
Group Delay Variation, maximum, ns	15
Group Delay Variation Bandwidth, MHz	5
Total Group Delay, maximum, ns	50
Return Loss, minimum, dB	18
Input Power, RMS, maximum, W	300
Input Power, PEP, maximum, W	3000
3rd Order PIM, typical, dBc	-150
3rd Order PIM Test Method	2 x 20 W CW tones

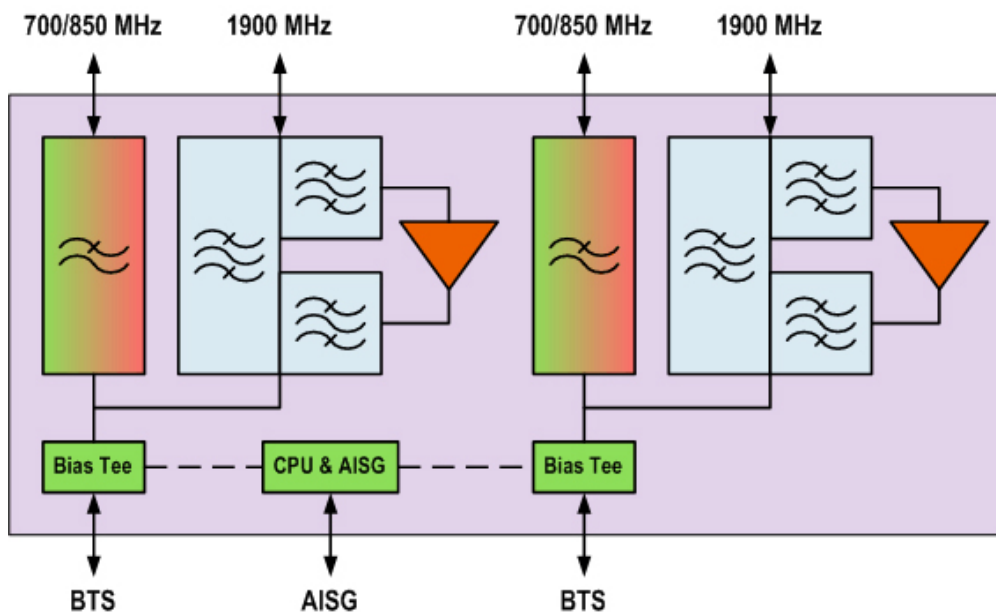
Electrical Specifications, Band Pass

Frequency Range, MHz	698–894
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Insertion Loss, maximum, dB	0.3
Group Delay Variation, maximum, ns	6
Group Delay Variation Bandwidth, MHz	5
Total Group Delay, maximum, ns	7
Return Loss, minimum, dB	18
Input Power, RMS, maximum, W	500
Input Power, PEP, maximum, W	5000
3rd Order PIM, typical, dBc	-150
3rd Order PIM Test Method	2 x 20 W CW tones

Block Diagram



Material Specifications

Finish Painted

Mechanical Specifications

Wind Loading @ Velocity, maximum 54.0 N @ 115 km/h (12.1 lbf @ 115 km/h)

Environmental Specifications

Operating Temperature -40 °C to +65 °C (-40 °F to +149 °F)

Relative Humidity Up to 100%

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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 7.9 kg | 17.416 lb

Regulatory Compliance/Certifications

Agency

ISO 9001:2015



Classification

Designed, manufactured and/or distributed under this quality management system

* 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