

Product Specifications



ETD819HS12UB

Material ID: E15Z01P08

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



CHARACTERISTICS

Electrical Specifications Rx (Uplink)

Bandwidth	60.00 MHz
License Band	PCS
Frequency Band	1850 – 1910 MHz
Gain	12 dB
Gain Tolerance	+1.3/-1.0
Noise Figure, Mid Band, typical	1.60 dB @ 12 dB
Noise Figure, Full Band, typical	1.80 dB @ 12 dB
Input P1dB, typical	-1 dBm
Output IP3, minimum	21 dBm @ 12 dB
Return Loss, minimum	18 dB
Insertion Loss, Bypass Mode, typical	2.60 dB
Return Loss, Bypass Mode, typical	18 dB
Tx Band Rejection	80 dB
Group Delay Variation, maximum	100 ns @ 5 MHz
Total Group Delay, maximum	180 ns

Electrical Specifications Tx (Downlink)

Bandwidth	60.00 MHz
Insertion Loss, maximum	0.70 dB
License Band	PCS
Frequency Band	1930 – 1990 MHz
Return Loss, minimum	18 dB
3rd Order IMD	-112 dBm
3rd Order IMD Test Method	Two +43 dBm carriers
Input Power, RMS, maximum	300 W

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Input Power, PEP, maximum	3000 W
Group Delay Variation, maximum	20 ns @ 5 MHz
Total Group Delay, maximum	60 ns

Electrical Specifications 2 Rx (Uplink)

License Band	Cellular
Frequency Band	824 – 849 MHz
Bandwidth	25.00 MHz
Gain	12 dB
Gain Tolerance	+1.3/-1.0
Noise Figure, Mid Band, typical	1.50 dB @ 12 dB
Noise Figure, Full Band, typical	1.90 dB @ 12 dB
Input P1dB, typical	2 dBm
Output IP3, minimum	25 dBm
Return Loss, minimum	18 dB
Insertion Loss, Bypass Mode, typical	2.40 dB
Return Loss, Bypass Mode, typical	18 dB
Tx Band Rejection	80 dB
Group Delay Variation, maximum	270 ns @ 5 MHz
Total Group Delay, maximum	370 ns

Electrical Specifications 2 Tx (Downlink)

Bandwidth	25.00 MHz
Insertion Loss, maximum	0.60 dB
License Band	Cellular
Frequency Band	869 – 894 MHz
Return Loss, minimum	18 dB
3rd Order IMD	-112 dBm
3rd Order IMD Test Method	Two +43 dBm carriers
Input Power, RMS, maximum	500 W
Input Power, PEP, maximum	5000 W
Group Delay Variation, maximum	25 ns @ 5 MHz
Total Group Delay, maximum	65 ns

Electrical Specifications

Protocol	AISG 1.1 AISG 2.0
Default Protocol	AISG 2.0
Operating Current at Voltage	240 mA @ 10–18 V
Voltage	7–30 Vdc
Operating Current Tolerance	±30
Alarm Functionality	AISG Failure current
Failure Current Consumption	30–170 mA @ 10–18 V

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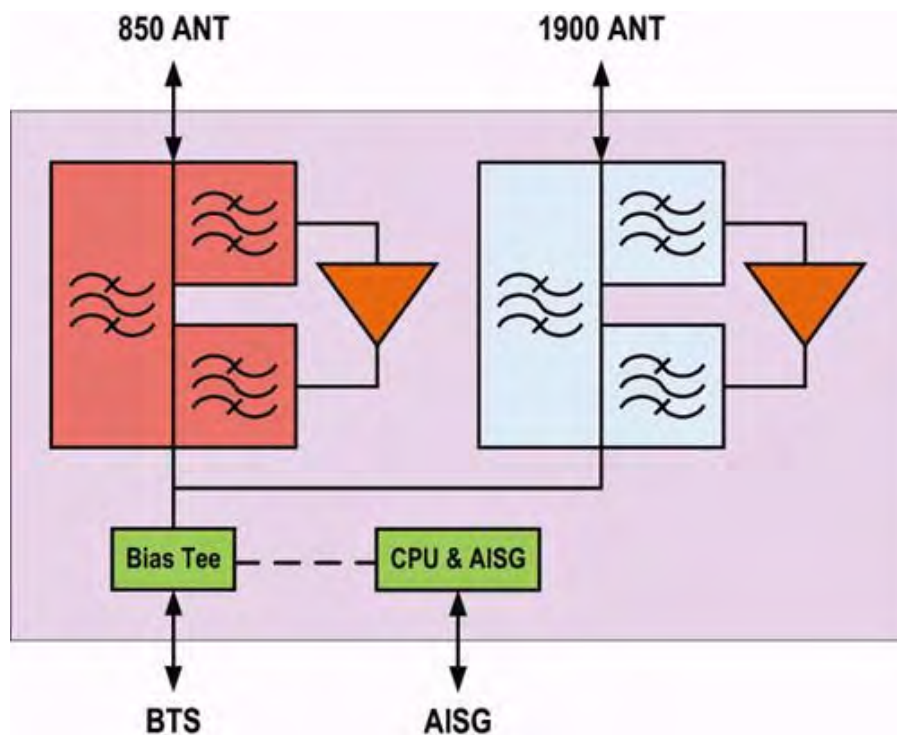
RET System Compatible	1 Output, 24 Vdc and RS-485
Lightning Surge Capability Test Method	IEEE C62.42-1991
Lightning Surge Capability Waveform	8/20 waveform
Lightning Surge Current	5 kA

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Block Diagram



Mechanical Specifications

Connector Interface	7-16 DIN Female
Connector Interface Style	Long neck
Ground Screw Diameter	6.00 mm
Wind Loading, maximum	95 N @ 115 km/h 21 lbf @ 115 km/h
AISG Connector Standard	IEC 60130-9
Finish	Painted
Color	Gray
Mounting Pipe Diameter	40-120 mm

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	Up to 100%
Ingress Protection Test Method	IEC 60529:2001, IP67

Dimensions

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Height	290.0 mm 11.4 in
Width	350.0 mm 13.8 in
Depth	89.0 mm 3.5 in
Weight	8.4 kg 18.5 lb



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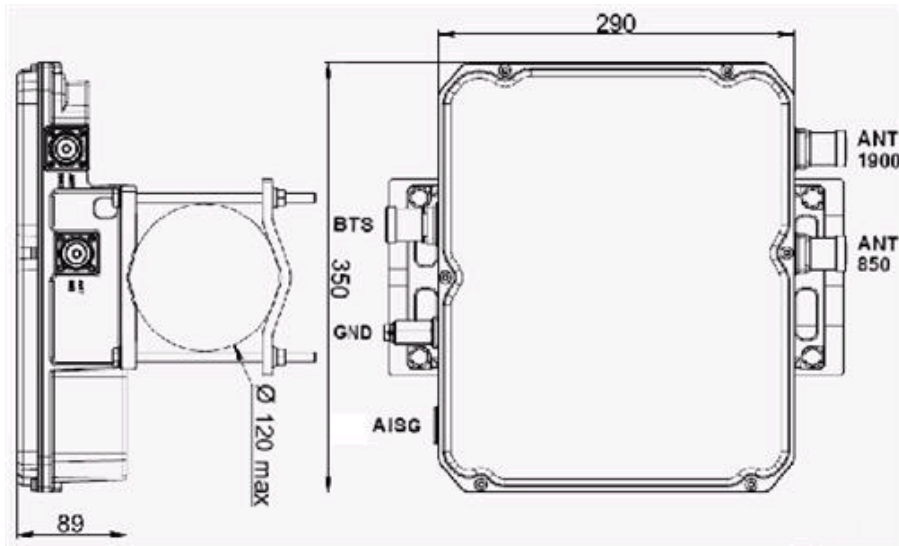
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Outline Drawing



Packed Dimensions

Height	485.0 mm		19.1 in
Width	385.0 mm		15.2 in
Depth	220.0 mm		8.7 in
Shipping Weight	9.90 kg		21.83 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system