



## ETT19V2S12UB

**Tower Mounted Amplifier, Dual Band AWS/PCS with AISG**

### Electrical Specifications Rx (Uplink)

Bandwidth	60.00 MHz
License Band	PCS
Frequency Band	1850 – 1910 MHz
Gain	12 dB
Gain Tolerance	±1
Noise Figure, Mid Band, typical	1.40 dB @ 12 dB
Noise Figure, Full Band, typical	2.10 dB @ 12 dB
Output IP3, minimum	22 dBm @ 12 dB
Return Loss, minimum	18 dB
Group Delay Variation, maximum	55 ns @ 5.00 MHz
Total Group Delay, maximum	150 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	200 W
Group Delay Variation, maximum	18 ns @ 5.00 MHz
Total Group Delay, maximum	55 ns

### Electrical Specifications 2 Rx (Uplink)

License Band	AWS
Frequency Band	1710 – 1755 MHz
Bandwidth	45.00 MHz
Gain	12 dB
Gain Tolerance	±1
Noise Figure, Mid Band, typical	1.10 dB @ 12 dB
Noise Figure, Full Band, typical	1.60 dB @ 12 dB
Output IP3, minimum	22 dBm
Return Loss, minimum	18 dB
Group Delay Variation, maximum	8 ns @ 5.00 MHz
Total Group Delay, maximum	40 ns

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## Electrical Specifications 2 Tx (Downlink)

Bandwidth	45.00 MHz
Insertion Loss, maximum	0.30 dB
License Band	AWS
Frequency Band	2110 – 2155 MHz
Return Loss, minimum	18 dB
3rd Order IMD	-112 dBm
3rd Order IMD Test Method	Two +43 dBm carriers
Input Power, RMS, maximum	200 W
Group Delay Variation, maximum	8 ns @ 5.00 MHz
Total Group Delay, maximum	15 ns

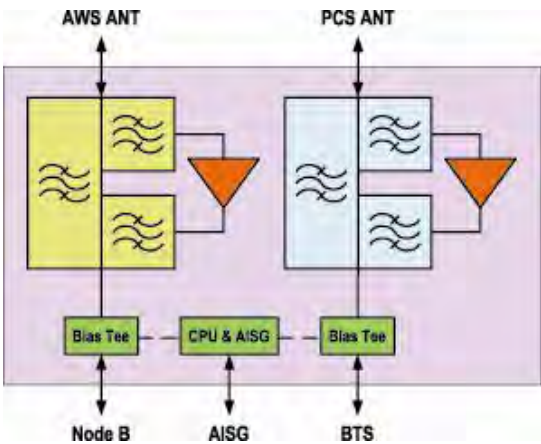
## Electrical Specifications

Protocol	AISG 2.0
Voltage	7–30 Vdc
Operating Current at Voltage	135 mA @ 12 V
Operating Current Tolerance	±20 mA
Alarm Functionality	AISG   Failure current
Failure Current Consumption	180–200 mA @ 10–18 V
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	20 kA
VSWR Alarm Threshold	9.54 dB
VSWR Alarm Threshold Tolerance	±2

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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
AISG Connector Standard	IEC 60130-9
Finish	Painted
Color	Gray
Mounting Pipe Diameter	40–160 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

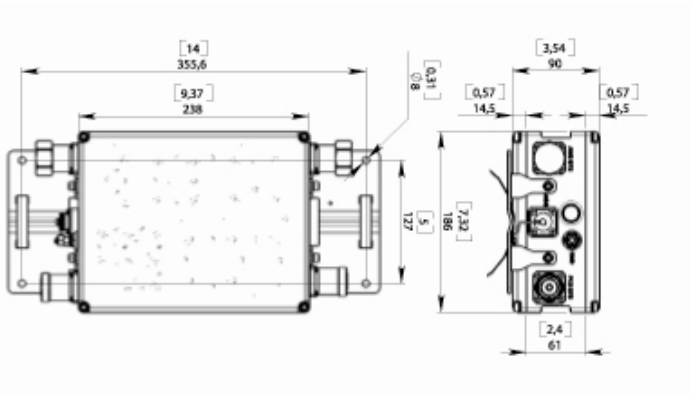
## Dimensions

Height	238.0 mm   9.4 in
Width	186.0 mm   7.3 in
Depth	90.0 mm   3.5 in
Weight	6.3 kg   13.9 lb

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## Outline Drawing



## Packed Dimensions

Height 500.0 cm | 196.9 in

## Regulatory Compliance/Certifications

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