

80W / 100W / 125W X-Band BUC/ SSPB/ SSPA

Second Generation GaN Technology

Super Compact TT Series

Features

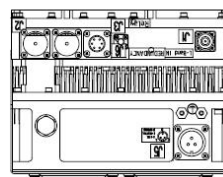
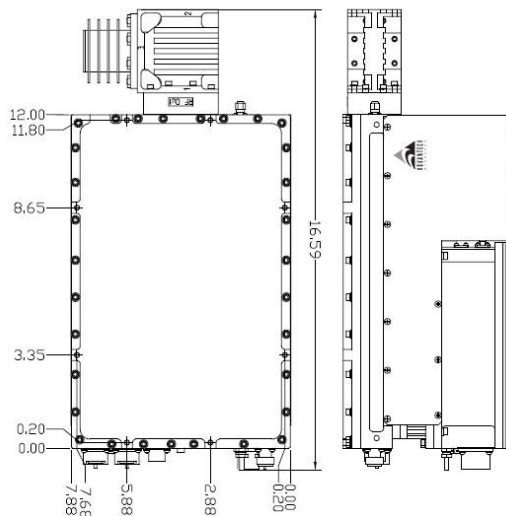
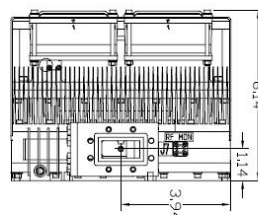
- Full range of output power of 80W to 125W in a compact single package
- Build-In High Power Circulator and Dummy Load
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Built-in Forward precision powering metering
- Output RF calibrated Sample Port
- Redundant Systems shipped fully tested
- Detachable power supply module
- Weatherproof construction
- CE marking

Overview

The new Super Compact TT-Series X-Band SSPBs provide highest power density in the industry. Combined with the traditional Advantech Wireless' features, these new series of BUCs provide the ultimate in performance, reliability, and convenience.

Accessories

- Mounting Kits
- Remote M&C panel with SNMP
- Flexible and Rigid waveguides
- Mounting Frames
- External Receive Reject Filter (-65dBc)
- CPR 112 to N Type adapter



Options

- 1:1 or 1:2 Redundant configuration
- Internal/External reference with auto-sensing
- External Harmonic Reject Filter



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Technical Specifications			
Electrical Characteristics	80W	100W	125W
P _{SAT} (typ.)	+49.0 dBm typ.	+50.0 dBm typ.	+51.0 dBm typ.
P _{LINEAR} is the maximum combined transmit power of two equal amplitude continuous wave (CW) carriers 5MHz apart, when the third order intermodulation product power is -25dB relative to the combined power of the two CW carriers.	+46.0 dBm min.	+47.0 dBm min.	+48.0 dBm min.
L-Band input	950 – 1450 MHz		
Operating Frequency	7.90 – 8.40 GHz		
Gain	75dB min		
Gain Adjustment Range	20dB in 0.1 dB steps		
Gain Flatness over Full Band	4dB over 500MHz p-p max		
Gain Slope over 40MHz	±0.5dB max		
Gain Variation over Temperature	±1.5 dB max		
Input Impedance and VSWR	50 Ω 1.5:1		
Output VSWR	1.3:1		
Noise Power Density	-75 dBm/Hz in Transmit Band -110 dBm/Hz in Receive Band (7.25 GHz – 7.75 GHz)		
Spectral Regrowth	-30 dBc @ 1.0 x symbol rate for QPSKOQPSK/8PSK modulation		
Spurious @ P _{LINEAR}	-55dBc max		
Harmonics	-35dBc @ P _{LINEAR}		
AM/PM conversion	1.0°/dB @ P _{LINEAR}		
Group Delay	Ripple 1nsec p-p max over any 40MHz Band		
Internal Reference Frequency (optional)	10MHz	Aging/day ±2 × 10 ⁻¹⁰ Aging/year ±5 × 10 ⁻⁸ Stability ±2 × 10 ⁻⁸ over temp range	
Phase noise	-53 dBc/Hz at 10Hz -63 dBc/Hz at 100Hz -73 dBc/Hz at 1 kHz	-83 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz	
External Reference	10 MHz		
Frequency Phase Noise (max)	-120 dBc/Hz at 10 Hz -135 dBc/Hz at 100 Hz -150 dBc/Hz at 1 kHz	-150 dBc/Hz at 10 kHz -160 dBc/Hz at 100 kHz	
Reference frequency level	0 dBm ± 5 dB		
Power Requirements			
AC Input Voltage	90 – 264 VAC (47 – 63 Hz)		
Power consumption (nominal)	480W @ P _{LINEAR} 630W @ P _{SAT}	500W @ P _{LINEAR} 650W @ P _{SAT}	550W @ P _{LINEAR} 700W @ P _{SAT}
Mechanical Characteristics			
Dimensions (L x W x H)	42.13 x 20.01 x 15.59 cm (16.59" x 7.88" x 6.14")		
Weight	9.5 kg (21 lbs)		
Interfaces:	RF Input: N Type (female) Output Sample Port: N Type (female) RS485/Ethernet: MS3112 type	AC line: MS3102 type RF Output: CPR112G / Type N (F) optional	
Environmental Conditions			
Temperature:	Operating -30°C to +55°C Storage -55°C to +85°C	Option: -40°C to +55°C	Option: -50°C to +55°C
Humidity	100%, condensing		
Altitude	10,000' AMSL, de-rated 2°C/1,000' from AMSL		

Ref.: PB-SSPBMg-2G-X-80W-125W-18134

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