

**80W-100W-125W GaN-based X-Band SSPB
Super Compact TT Series**



SECOND GENERATION GaN TECHNOLOGY

Features

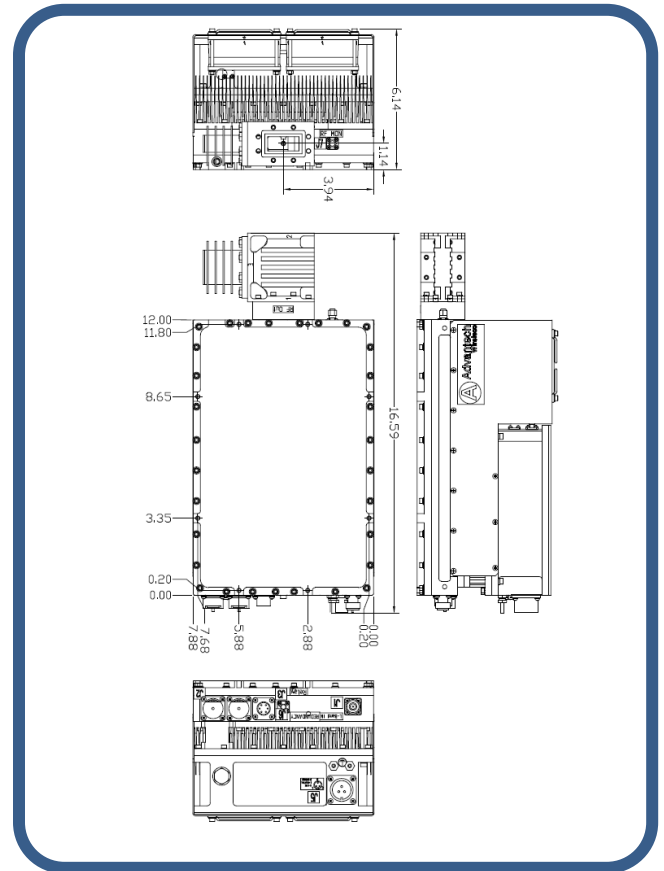
- Full range of output power of 80W to 125W in a compact single package
- Build-In High Power Circulator and Dummy Load
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Built-in Forward precision powering metering
- Output RF calibrated Sample Port
- Redundant Systems shipped fully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



Outline

Options

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



Technical Specifications		80W	100W	125W
Electrical Characteristics				
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 Aging/year ±5 ⁻⁸ Stability ±2 ⁻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)	AC line: MS3102 type	
		Output Sample Port: N Type (female)	RF Output: CPR112G / Type N (F) optional	
		RS485/Ethernet: MS3112 type		
Environmental Conditions				
Temperature:	Operating Storage	-30°C to +55°C -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		

Specifications are subject to change without notice

NORTH AMERICA
USA
 Tel: +1 703 659 9796
 Fax: +1 703 635 2212
 info.usa@advantechwireless.com

CANADA
 Tel: +1 514 420 0045
 Fax: +1 514 420 0073
 info.canada@advantechwireless.com

EUROPE
UNITED KINGDOM
 Tel: +44 1480 357 600
 Fax: +44 1480 357 601
 info.uk@advantechwireless.com

RUSSIA & CIS
 Tel: +7 495 971 59 18
 info.russia@advantechwireless.com

INDIA
 Tel: +91 33 2415 5922
 info.india@advantechwireless.com

SOUTH AMERICA
 Tel: +1 514 420 0045
 Fax: +1 514 420 0073
 info.latam@advantechwireless.com

BRAZIL
 Tel: +55 11 3054 5701
 Fax: +55 11 3054 5701
 info.brazil@advantechwireless.com

An ISO 9001 : 2008 Company



Ref.: PB-SSPBm-g-X-2G-80W-125W-001-16082

www.advantechwireless.com