



SSPA AWMAg-C TT series
SSPB (BUC) SSPBMg-C TT series



Features

- Full range of output power of 150W to 250W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or optional Ethernet port
- Built-in Forward and Reflected precision power metering
- Output RF calibrated Sample Port
- Redundant Systems shipped fully tested
- Infinite VSWR protection with automatic high reflected power shutdown
- Detachable power supply module
- Weatherproof construction
- CE marking

Options

- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port
- External Harmonic Filter

Accessories

- Mounting kits
- Remote M&C panel with optional SNMP
- Handheld terminal
- Flexible and rigid waveguides
- Mounting frames
- High power terminations

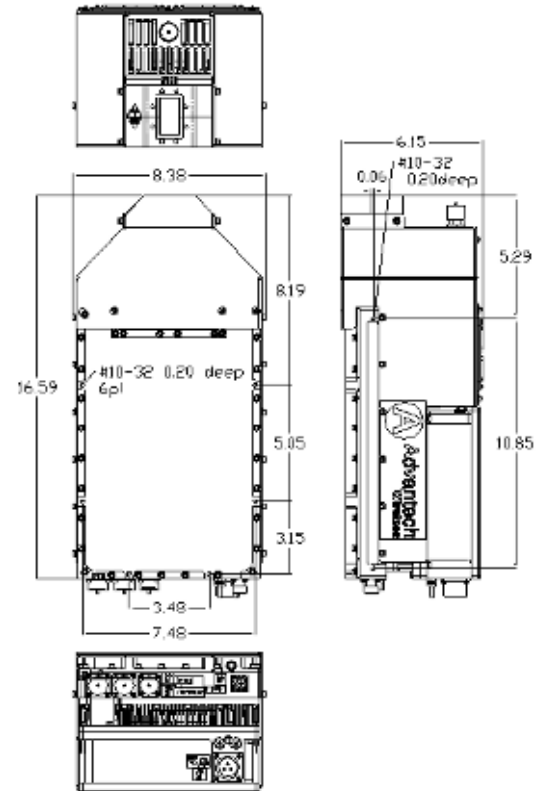


Figure 1: 200W Outline

Overview

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

150W / 200W/ 250W C-Band Hubmount SSPA/SSPB GaN Technology

Technical specifications

Output Power	150W	200W	250W
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+54.0 dBm
P_{LINEAR}	+49.0 dBm	+50.0 dBm	+51.0 dBm
Operating Frequency	5.85 – 6.425 GHz		
L-Band input (BUC)	950 – 1525 MHz		
Gain	75dB min		
Gain adjustment range	20 dB in 0.1 dB steps		
Gain flatness over full band	3 dB p-p max		
Gain slope over 40 MHz	± 0.5 dB max		
Gain variation over temperature	± 1.5 dB max		
Input Impedance and VSWR	50 Ω 1.4:1		
Output VSWR	1.3:1		
Noise power density	-80 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (3.4GHz – 4.2 GHz)		
Spurious at P_{LINEAR}	-55 dBc max		
Harmonics	-45 dBc at P_{LINEAR}		
AM/PM conversion	1.0 ^o /dB at P_{LINEAR}		
Third order IMD (two tones)	-25 dBc two signal 5 MHz apart at P_{LINEAR} Reference to total power		
Spectral Regrowth	-30 dBc at P_{LINEAR} P_{LINEAR} is the power at which the IMD specs are met and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for QPSK/OQPSK/8PSK modulation		
Group delay	Ripple 1 nsec p-p max over any 40 MHz band		
SSPB (BUC)			
Local Oscillator freq.	4.9 GHz		
Internal Reference frequency (optional)	10 MHz	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 1000Hz	-83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz	
External Reference Frequency phase noise (max)	10 MHz -120 dBc/Hz at 10Hz -135 dBc/Hz at 100Hz -150 dBc/Hz at 1000Hz	-155 dBc/Hz at 10 kHz -160 dBc/Hz at 100 kHz	
Weight & Dimensions			
Dimensions (L x W x H)	16.6" x 8.4" x 6.15" (422 x 213 x 156 mm)		16.5" x 8.4" x 6.6" (419 x 213 x 168 mm)
Weight	24.2 lbs. (11 kg)		26.6 lbs. (12 kg)
AC input voltage	90 to 264 V AC (47 – 63 Hz) Power Factor 0.95 min.		
Power consumption (nominal)	650W at P_{LINEAR} (800W at P_{SAT})	750W at P_{LINEAR} (900W at P_{SAT})	900W at P_{LINEAR} (1100W at P_{SAT})
Interfaces	Input (RF or L-Band) Output Sample Port RS485/RS232/Ethernet	N type female N type female MS3112 type	AC line MS3102 type RF output CPR137
Environmental	Temperature	Operating -30°C to +60 °C Storage -55°C to +85 °C	
	Humidity	100% condensing	
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL	

NORTH AMERICA
USA
Tel: +1 678 889-1831
Fax: +1 678 889-1756
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
USA
Tel: +1 678 889-1831
Fax: +1 678 889-1756
info.latam@advantechwireless.com

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

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