



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



Features

- Full range of output power of 150W to 300W 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 precision powering 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
- External Harmonics reject filter (-65dBc)

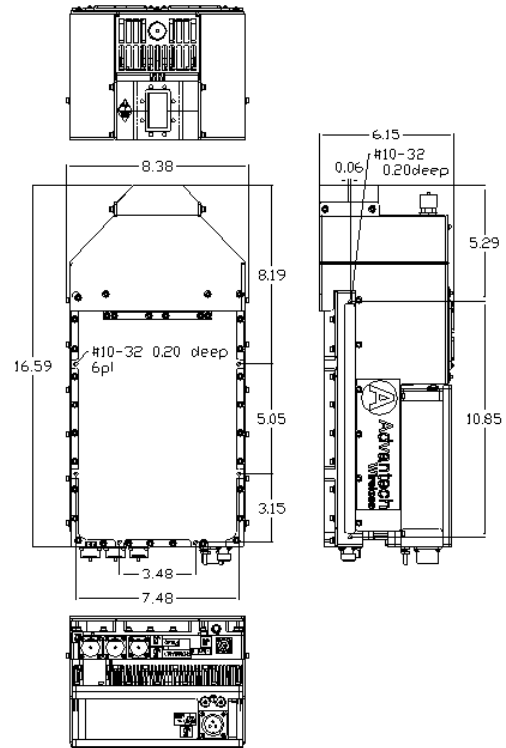


Figure 1: 200W Outline

Overview

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

Technical specifications

Output Power	150W	200W	250W	300W
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+53.2 dBm	+53.5 dBm
P_{LINEAR} is the power at which the IMD=-25 dBc for two CW signals 5 MHz apart and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for a single QPSK/OQPSK/8PSK signal	+48.0 dBm	+49.0 dBm	+50.0 dBm	+51.0 dBm
Operating Frequency	5.85 – 6.425 GHz / optional 5.85 - 6.725 GHz			
L-Band input (BUC)	950 – 1525 MHz / 950 - 1825 MHz			
Gain	75dB min			
Gain adjustment range	20 dB in 0.1 dB steps			
Gain flatness over full band	2.0 dB over 500MHz for SSPA, 4 dB over 500 MHz p-p max for SSPB (BUC)			
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	-70 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (3.4GHz – 4.2 GHz)			
Spurious at P_{LINEAR}	-55 dBc max			
Harmonics	- 35 dBc at P_{LINEAR}			
AM/PM conversion	1.0°/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}			
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 $\pm 2^{-10}$ Aging/year $\pm 5^{-8}$ Stability $\pm 2^{-8}$ 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	10 MHz			
Frequency phase noise (max)	-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)			
Weight	24.2 lbs. (11 kg)			
AC input voltage	90 to 264 V AC (47 – 63 Hz)		Power Factor 0.95 min.	
Power consumption (nominal)	750W at P_{LINEAR} 900W at P_{SAT}		1550W at P_{LINEAR} 1900W 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 Optional -50°C to +55 °C Storage -55°C to +85 °C		
	Humidity	100% condensing		
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

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