



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 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
- External Harmonics reject filter (-65dBc)

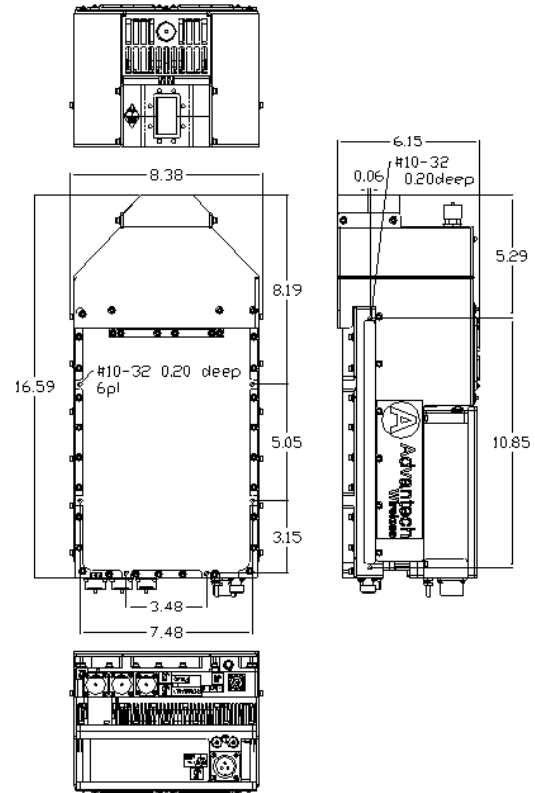


Figure 1: 200W Outline

Overview

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

150W/200W/250W/300W C-Band Hubmount SSPA/SSPB GaN Technology



Technical specifications				
Output Power	150W	200W	250W	300W
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+54.0 dBm	+54.7 dBm
P_{LINEAR}	+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	4 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	- 35 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 $\pm 2^{-10}$ 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)	650W at P_{LINEAR} (800W at P_{SAT})	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 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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