



SSPA                      AWMA-C            TT series  
SSPB (BUC)          SSPBM-C          TT series



### Features

- Full range of output power of 350W/400W/500W or 600W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or 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

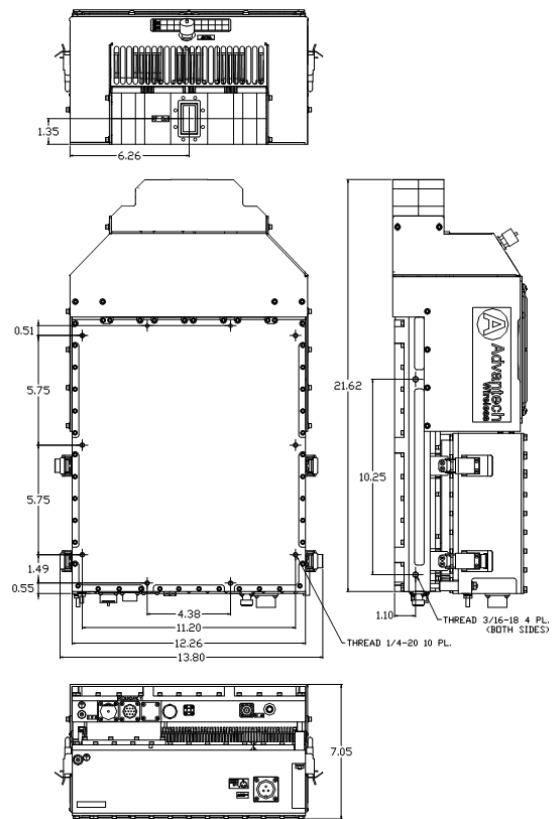
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

### Accessories

- Mounting kits
- External Harmonics Reject Filter (-65dBc)
- Remote M&C panel with optional SNMP
- Handheld terminal
- Flexible and rigid waveguides
- Mounting frames
- High power terminations

### 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 and convenience.



Outline

# 350W/ 400W/600W C-Band Hubmount SSPA/ SSPB GaN Technology

General Specifications				
Output Power	350W	400W	500W	600W
$P_{SAT}$ (typ.)	+55.5 dBm (nominal)	+56.0 dBm (nominal)	+57.0 dBm (nominal)	+57.8 dBm (nominal)
$P_{LINEAR}$	+51.5 dBm	+52.0 dBm	+53.0 dBm	+54.0 dBm
Operating Frequency	5.85 – 6.425 GHz / Optional 5.85 – 6.725 GHz			
L-Band input (BUC)	950 – 1525 MHz / Optional 950 – 1825 MHz			
Gain	SSPA 67 dB min		SSPB (BUC) 77 dB min	
Gain adjustment range	20 dB in 0.1 dB steps			
Gain flatness over full band	SSPA 2dB p-p max		SSPB (BUC) 4 dB p-p max	
Gain slope over 40 MHz	± 0.3 dB max		SSPB (BUC) ± 0.5 dB max	
Gain variation over temperature	± 1.5 dB max			
Input Impedance and VSWR	50 Ω	SSPA 1.3:1	SSPB (BUC) 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 $P_{LINEAR 1}$	SSPA: -65 dBc max		SSPB (BUC): -55 dBc max	
Harmonics	-35 dBc at $P_{LINEAR}$			
AM/PM conversion	1°/dB at $P_{LINEAR}$			
Third order intermod (two tones)	-25 dBc two signal 5 MHz apart at $P_{LINEAR}$ relative to total power			
Spectral Regrowth	-30 dBc at $P_{LINEAR}$ (for QPSK at 1.5 x symbol rate and OQPSK at 1,0 x symbol rate)			
Group delay	Ripple 1 nsec p-p max over any 40 MHz band			
Residual AM Noise	0 – 10 kHz -45 dBc			
	10 kHz – 500 kHz -20 (1.25 + log F) dBc		F = Frequency in kHz	
500 kHz – 1 MHz -80 dBc				
SSPB (BUC)				
Local Oscillator freq.	4.9 GHz			
Internal Reference frequency (optional)	10 MHz	Aging/day	±2 <sup>-10</sup>	
		Aging/year	±5 <sup>-8</sup>	
		Stability	±2 <sup>-8</sup> over temp range	
Phase Noise	-73 dBc/Hz at 100 Hz			
	-78 dBc/Hz at 1 kHz			
	-88 dBc/Hz at 10 kHz			
	-98 dBc/Hz at 100 kHz			
External Reference Frequency phase noise (max)	10 MHz			
	-120 dBc/Hz at 10Hz		-155 dBc/Hz at 10 kHz	
	-135 dBc/Hz at 100Hz		-160 dBc/Hz at 100 kHz	
	-150 dBc/Hz at 1000Hz			
Weight & Dimensions				
Dimensions (L x W x H)	21.6" x 12.26" x 7.05" ( 549x311x179mm)			
Weight	57.3 lbs. (26 kg)			
AC input voltage	220V AC ± 20% (47 – 63 Hz)		Power Factor 0.95 min.	
Power consumption (nominal)	1550W at $P_{LINEAR}$		1900W at $P_{LINEAR}$	2200W at $P_{LINEAR}$
	2000W at $P_{SAT}$		2400W at $P_{SAT}$	2400W at $P_{SAT}$
Interfaces	Input (RF or L-Band)	N type female	AC line MS3102 type	
	Output Sample Port	N type female	RF output CPR137	
	RS485/RS232/Ethernet	MS3112 type		
Environmental	Temperature	Operating -30°C to +55°C		
		Storage -55°C to +85°C		
	Humidity	100% condensing		
	Altitude 10,000' AMSL, derated by 2 °C/1000' from AMSL			

**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

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Ref.: PB-SSPBg-C-350W-600W-13150