

150W / 200W / 250W / 300W C-Band BUC/SSPB/SSPA Second Generation GaN Technology

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

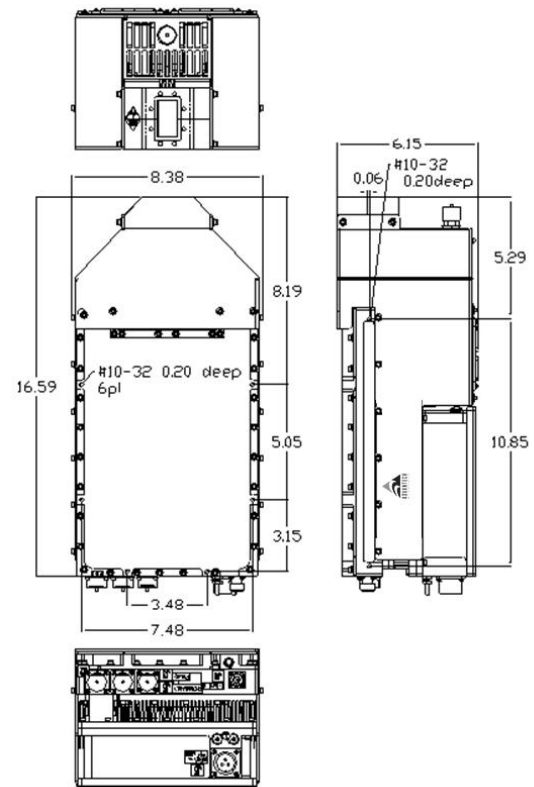
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port
- External Harmonic Filter

Accessories

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

Overview

The 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.



150W / 200W / 250W / 300W C-Band BUC/ SSPB/ SSPA

Second Generation GaN Technology

Technical Specifications				
	150W	200W	250W	300W**
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+54.0 dBm	54.8 dBm
Linear Output power, P_{LINEAR}	+49.0 dBm*	+50.0 dBm*	+51.0 dBm*	51.8 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			
Operating Frequency	5.85 – 6.425 GHz / optional 5.85 - 6.725 GHz / 6.725 – 7.025GHz			
L-Band input (BUC)	950 – 1525 MHz / 950 - 1825 MHz / 965 – 1265 MHz			
Gain	75dB min (for SSPB) 65dB min (for SSPA)			
Gain adjustment range	20 dB in 0.1 dB steps			
Gain flatness over full band	3.0 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 1.5:1			
Output VSWR	1.3:1			
Noise power density	-75 dBm/Hz in Transmit Band, -135 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}			
Group delay	Ripple 1 nsec p-p max over any 40 MHz band			
SSPB (BUC)				
Local Oscillator freq.	4.9 GHz for 5.85 – 6.425 GHz or 5.85 - 6.725 GHz 5.76 GHz for 6.725 – 7.025GHz			
Internal Reference frequency (optional)	10 MHz	Aging/day ±2 × 10 ⁻¹⁰ Aging/year ±5 × 10 ⁻⁸ Stability ±2 × 10 ⁻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)			
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)	700W at P_{LINEAR} 850W at P_{SAT}			800W at P_{LINEAR} 1050W at P_{SAT}
Interfaces	Input (RF or L-Band): N type female Output Sample Port: N type female RS485/RS232 and Ethernet (optional): MS3112 type		AC line: MS3102 type RF output: CPR137	
Environmental	Temperature	Operating -30°C to +55 °C Storage -55°C to +85 °C	Option 1 -40°C to +55 °C	Option 2 -50°C to +65 °C
	Humidity	100% condensing		
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

*Linearizer required

**No options for Bands. Only 5.85 – 6.425 GHz

Ref.: PB-SSPBMg-2G-C-150W-300W-001-18297

NORTH AMERICA

USA
info.usa@advantechwireless.com

CANADA
Info.canada@advantechwireless.com

EUROPE

UNITED KINGDOM
info.uk@advantechwireless.com

RUSSIA & CIS
info.russia@advantechwireless.com

SOUTH AMERICA

info.latam@advantechwireless.com

BRAZIL
info.brazil@advantechwireless.com

ASIA

info.asia@advantechwireless.com

INDIA
info.india@advantechwireless.com