

150W / 200W / 250W 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 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 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

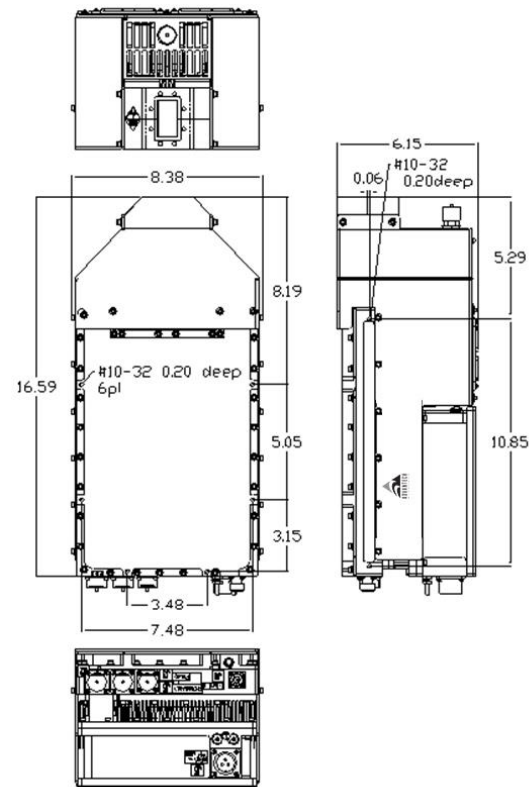
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port
- External Harmonic Filter

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)

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.



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Technical Specifications			
	150W	200W	250W
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+54.0 dBm
Linear Output power, P_{LINEAR}	+49.0 dBm	+50.0 dBm	+51.0 dBm
	P_{LINEAR} is the maximum combined transmit power of two equal amplitude continuous wave (CW) carriers 5MHz apart, when the third order intermodulation product power is -25dB relative to the combined power of the two CW carriers.		
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 / 1225 – 1525MHz		
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 5.5 GHz for 6.725 – 7.025GHz		
Internal Reference frequency (optional)	10 MHz	Aging/day $\pm 2 \times 10^{-10}$ Aging/year $\pm 5 \times 10^{-8}$ Stability $\pm 2 \times 10^{-8}$ over temp range	
Phase Noise	-53 dBc/Hz at 10Hz -70 dBc/Hz at 100Hz -80 dBc/Hz at 1000Hz	-90 dBc/Hz at 10 kHz -100 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}		
Interfaces	Input (RF or L-Band): N type female AC line: MS3102 type Output Sample Port: N type female RF output: CPR137 RS485/RS232 and Ethernet (optional): MS3112 type		
Environmental	Temperature Operating -30°C to +55 °C Option 1 -40°C to +55 °C Option 2 -50°C to +65 °C Storage -55°C to +85 °C Humidity 100% condensing Altitude 10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

Ref.: PB-SSPBMg-2G-C-150W-250W-18228

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