

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

Second Generation GaN Technology

Dakota-Line

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

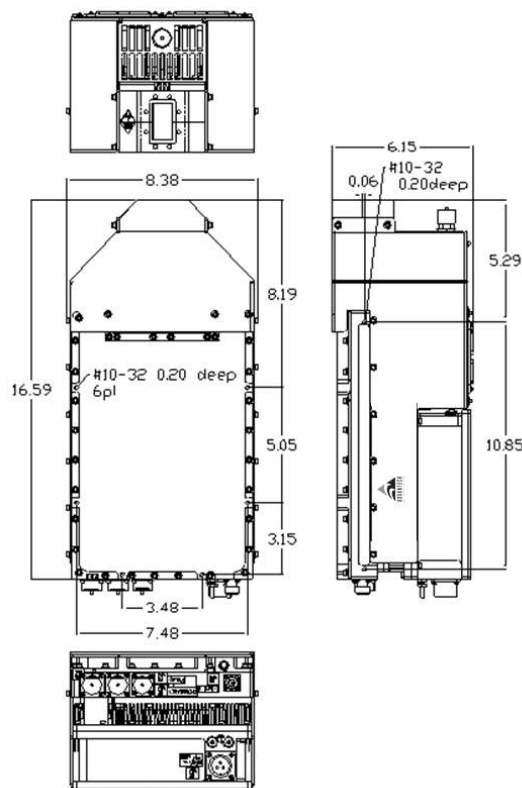
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port
- External Harmonic Filter

Accessories

- Mounting kits
- Remote M&C panel with optional SNMP
- 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	+50.5 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 tested with a single QPSK, 2MS/s SR, 0.35 roll-off			
Operating Frequency *	5.85 – 6.425 GHz / 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	1.0º/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)	550W at P _{LINEAR} /770W at P _{SAT}		650W at P _{LINEAR} /850W at P _{SAT}	800W at P _{LINEAR} /990W 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 Option 1 -40°C to +55 °C		
		Storage -55°C to +85 °C		
		100% condensing		
	Humidity	100% condensing		
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

Ref.: PB-SSPBMg-2G-C-150W-250W-25327

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