

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

Dakota-Line

SSPA	AWMAg-C	TT series
SSPB (BUC)	SSPBmα-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

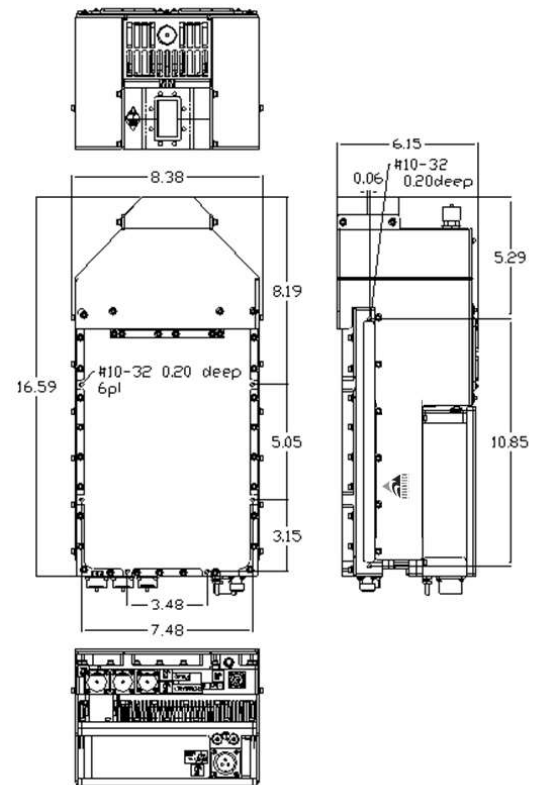
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port
- External Harmonic Filter

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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Second Generation GaN Technology

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	1.0°/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}	
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 Storage -55°C to +85 °C Humidity 100% condensing Altitude 10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

* Please consult factory for other frequency band

Ref.: PB-SSPBMg-2G-C-150W-250W-23224

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