

60W / 80W / 100W / 125W Ku-Band Indoor BUC/SSPB/SSPA Second Generation GaN Technology

SapphireBlu™ Super Compact

SSPA	ARMAg-K	SG series
SSPB (BUC)	ARMUg-K	SG series

Features

- Output power of 60W to 125W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485
- 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
- 19" Rackmount, 3RU, 24" deep
- CE marking

Overview

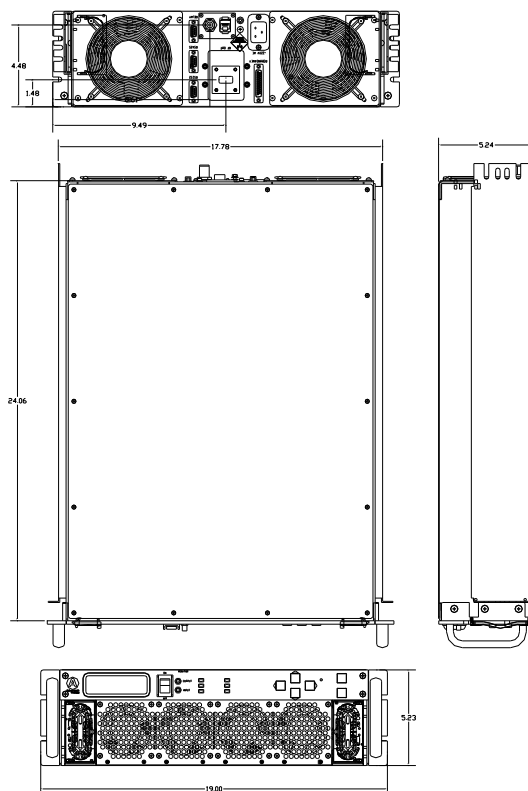
The new Super Compact SG Series Ku-Band SSPA/BUCs provide highest power density in the industry. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience.

Accessories

- Mounting slides
- Remote M&C panel with optional SNMP
- Flexible and rigid waveguides

Options

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



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Technical Specifications				
Output Power	60W	80W	100W	125W
P_{SAT} (nominal)	+48.0 dBm	+49.0 dBm	+50.0 dBm	+51.0 dBm
P_{LINEAR}	+44.0 dBm	+45.0 dBm	+46.0 dBm	+47.0 dBm
Operating Frequency	Ku 14.0 – 14.500 GHz		KX 13.75 – 14.5 GHz	
L-Band input (BUC)	Ku 950 – 1450 MHz		KX 950 – 1700 MHz	
Gain	SSPA 60 +/- 3 dB	SSPB (BUC) 70 +/- 3 dB		
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	-75 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (10.95GHz – 12.75 GHz)			
Spurious at P_{LINEAR}	SSPA: -65 dBc max SSPB (BUC): -55 dBc max			
Harmonics	-50 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)			
SSPB (BUC)				
Local Oscillator freq.	Ku -13.050 GHz		KX - 12.800 GHz	
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 10 kHz -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)	19" Rackmount. 3U high , 24" deep			
Weight	35.2 lbs (16 kg)			
AC input voltage	90-265 VAC (47 – 63 Hz) PF 0.95 min			
Power consumption (nominal)	500W at P_{LINEAR} 600W at P_{SAT}		500W at P_{LINEAR} 600W at P_{SAT}	
Interfaces	Input (RF or L-Band): N type female Output Sample Port: N type female RS485/RS232/Ethernet: DB9 / RJ45		AC line: IEC 320 Inlet RF output: WR75	
Environmental	Temperature Operating 0°C to +50 °C Storage -55°C to +85 °C Humidity 5% to 95% non condensing Altitude 10,000' AMSL, de-rated by 2 °C/1000' from AMSL			

Ref.: PB-SSPBg-2G-Ku-Rack-60W-125W-18145

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