



**Advantech
Wireless**

**60W / 80W / 100W / 125W Ku-Band Rackmount
SapphireBlu™ SSPA/SSPB
Super Compact SG Series
GaN Technology**



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

Options

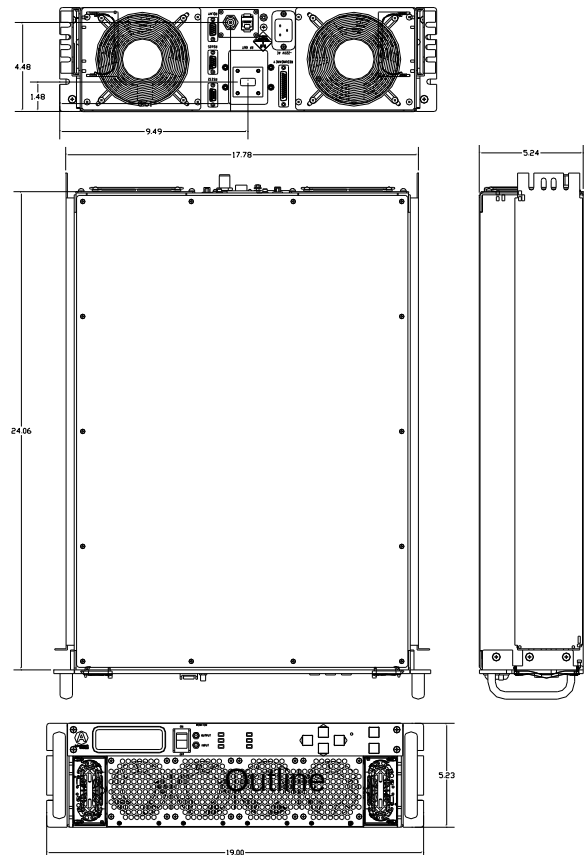
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

Accessories

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

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.



60W to 125W Ku-Band Rackmount SSPA/ SSPB SapphireBlu™ GaN Technology

General 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 1}	SSPA: -65 dBc max			SSPB (BUC): -55 dBc max				
Harmonics	-50 dBc at P _{LINEAR}							
AM/PM conversion	1º/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)							
Group delay	Ripple		1 nsec p-p max over any 40 MHz band					
Residual AM Noise	0 – 10 kHz		-45 dBc		F = Frequency in kHz			
	10 kHz – 500 kHz -20 (1.25 + log F) dBc							
	500 kHz – 1 MHz -80 dBc							
SSPB (BUC)								
ocal Oscillator freq.	Ku –13.050 GHz			KX – 12.800 GHz				
Internal Reference frequency (optional)	10 MHz		Aging/day	±2 ⁻¹⁰				
			Aging/year	±5 ⁻⁸				
			Stability	±2 ⁻⁸ over temp range				
Phase Noise	-53 dBc/Hz at 10 kHz		-83 dBc/Hz at 10 KHz					
	-63 dBc/Hz at 100Hz		-93 dBc/Hz at 100 kHz					
	-73 dBc/Hz at 1000Hz							
External Reference Frequency phase noise (max)	10 MHz							
	-120 dBc/Hz at 10Hz		-155 dBc/Hz at 10 kHz					
	-135 dBc/Hz at 100Hz		-160 dBc/Hz at 100 kHz					
	-150 dBc/Hz at 1000Hz							
Weight & Dimensions								
Dimension	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 (typical)	420W at P _{LINEAR}				470W at P _{LINEAR}			
	500W at P _{SAT}				550W at P _{SAT}			
Interfaces	Input (RF or L-Band)		N type female		AC line		IEC 320 Inlet	
	Output Sample Port		N type female		RF output		WR75	
	RS485/RS232/Ethernet		DB9 / RJ45					
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					

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Ref.: PB-SSPBg-Ku-Rack-60W-125W-14015