



SSPA
SSPB (BUC)

ARMag-K
ARMUg-K

SG series
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

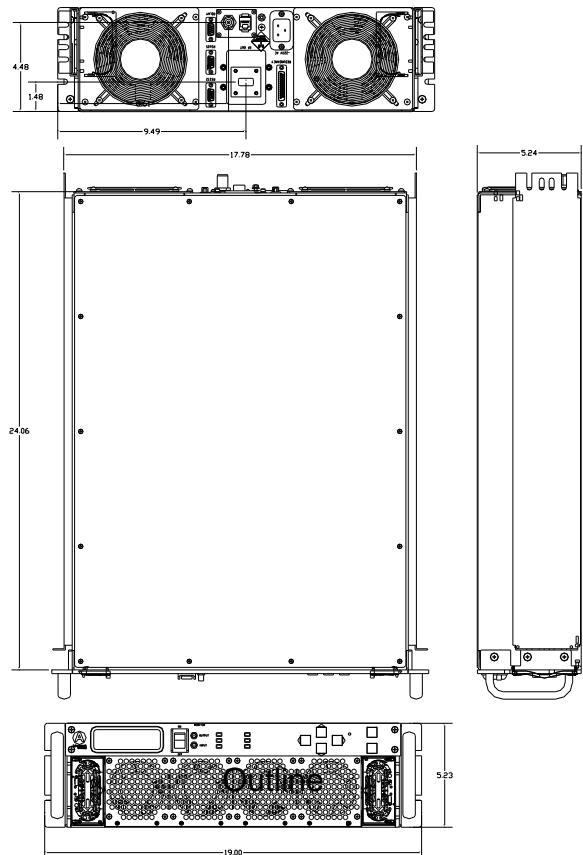
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

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 $P_{LINEAR1}$	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)			
Group delay	Ripple 1 nsec p-p max over any 40 MHz band			
Residual AM Noise	0 – 10 kHz -45 dBc 10 kHz – 500 kHz -20 (1.25 + log F) dBc F = Frequency in kHz 500 kHz – 1 MHz -80 dBc			
SSPB (BUC)				
Local 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 -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				
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} 500W at P_{SAT}		470W at P_{LINEAR} 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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