



SSPA
SSPB (BUC)

ARMA-Cg
ARMU-Cg

SG series
SG series



Features

- Full range of output power of 80W to 125W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or 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
- 19" Rackmount, 24" deep
- CE marking
- Designed to withstand 20G at 11 ms ½ sine wave non-operating conditions and MIL-STD-810G, method 514-4 transportation vibration



Options

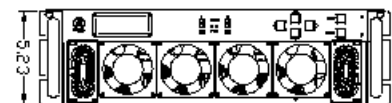
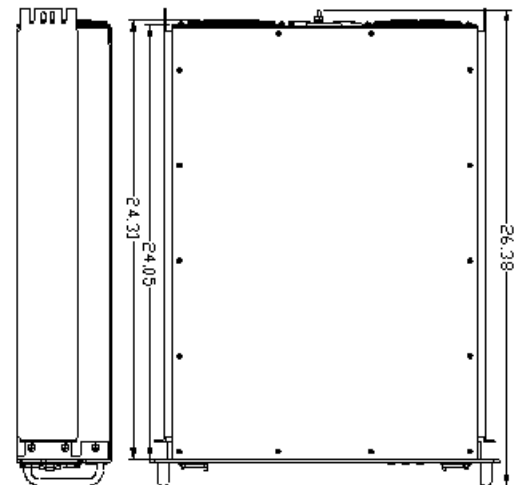
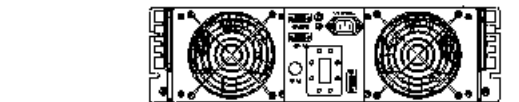
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

Accessories

- Mounting kits
- External Harmonics reject filter (-65dBc)
- Remote M&C panel with optional SNMP
- Flexible and rigid waveguides
- High power terminations

Overview

The new Super Compact SG 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 and convenience.



Outline

80W to 125W C-Band Rackmount SSPA/ SSPB SapphireBlu™ GaN Technology



General Specifications				
Output Power	80W		100W	125W
P_{SAT} (typ.)	+49.0dBm		+50.0 dBm	+51.0 dBm
P_{LINEAR}	+45.0 dBm		+46.0 dBm	+47.0 dBm
Operating Frequency	CS 5.85 – 6.425 GHz	CX 5.85 – 6.725 GHz	(Pout = - 0.5 dB less)	
L-Band input (BUC)	CS 950 – 1525 MHz	CX 950 – 1825 MHz		
Gain	SSPA 67 dB min	SSPB (BUC) 77 dB min		
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	-70 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (3.4GHz – 4.2 GHz)			
Spurious at $P_{LINEAR 1}$	SSPA: -65 dBc max		SSPB (BUC): -55 dBc max	
Harmonics	-35 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.	4.9 GHz			
Internal Reference frequency (optional)	10 MHz	Aging/day	±2 ⁻¹⁰	
		Aging/year	±5 ⁻⁸	
		Stability	±2 ⁻⁸ over temp range	
Phase Noise	-88 dBc/Hz at 10 kHz			
	-73 dBc/Hz at 100Hz		-98 dBc/Hz at 100 kHz	
	-78 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	95 – 265 VAC(47 – 63 Hz) PF0.95 min			
Power consumption (typical)	500W at P_{LINEAR}		550W at P_{LINEAR}	600W at P_{LINEAR}
	600W at P_{SAT}		650W at P_{SAT}	700W 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/Ethernet	MS3112 type		
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-C-Rack- 80W-125W-14203