



SSPA ARMA-Cg SG series
SSPB (BUC) ARMU-Cg SG series



Features

- Full range of output power of 150W to 600W 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 SamplePort
- 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

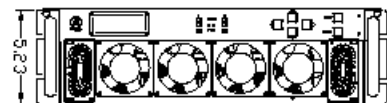
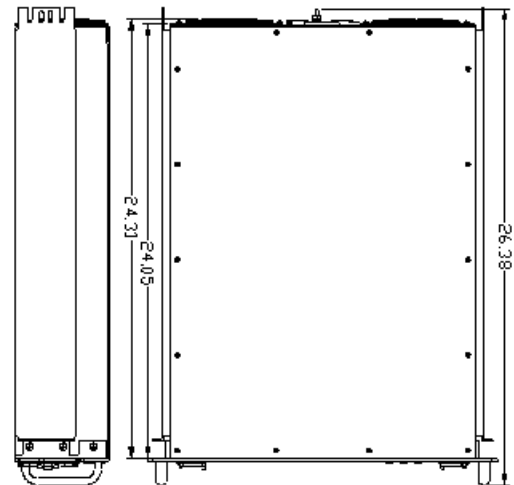
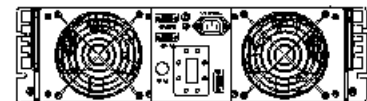
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

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

150W to 600W C-Band Rackmount SSPA/ SSPB SapphireBlu™ GaN Technology

General Specifications

Output Power	150W	200W	250W	300W	400W	500W	600W
P _{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+53.2 dBm	+53.5 dBm	+56.0 dBm	+56.2 dBm	+56.5 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 for a single QPSK/OQPSK/8PSK signal	+48.0 dBm	+49.0 dBm	+50.0 dBm	+51.0 dBm	+52.0 dBm	+53.0 dBm	+54.0 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 67dB min		SSPB (BUC) 77dB 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}	SSPA: -65 dBc max		SSPB (BUC): -55 dBc max				
Harmonics	-35 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	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	38 lbs. (17 kg)		48.5 lbs (22 kg)		55.1 lbs (25kg)		
AC input voltage	95 – 265 VAC(47 – 63 Hz) PF0.95 min		95 – 265 VAC(47 – 63 Hz) PF0.95 min		220V AC ± 20% (47 – 63 Hz) PF 0.95 min		
Power consumption (typical)	750W at P _{LINEAR} 900W at P _{SAT}		1550W at P _{LINEAR} 1900W at P _{SAT}		1900W at P _{LINEAR} 2400W 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-150W-600W-14203