

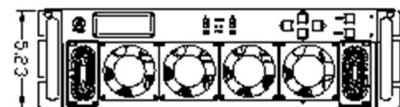
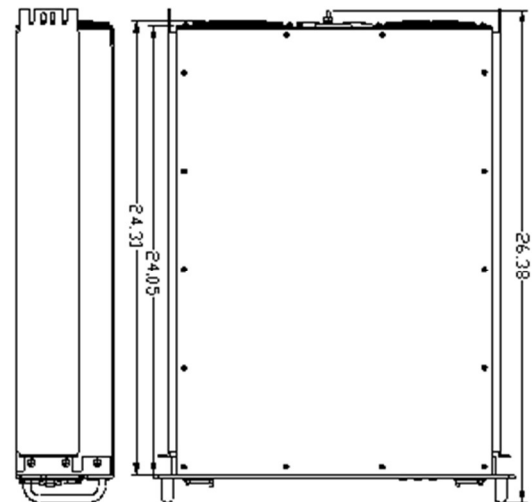
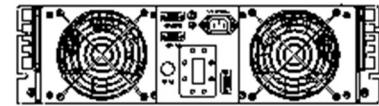
150W/ 200W/ 250W/ 300W/ 400W/ 500W C-Band Indoor BUC/SSPB/SSPA Second Generation GaN Technology

SapphireBlu™

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

Features

- Full range of output power of 150W to 500W 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 10G at 11ms ½ sine wave non-operating conditions and MIL-STD-810G, method 514-4 transportation vibration.



Overview

The 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.

Accessories

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

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	150W	200W	250W	300W	400W	500W
P_{SAT} (typ.)	+52.0 dBm	+53.0 dBm	+54.0 dBm	+55.0 dBm	+56.0 dBm	+57.0 dBm
P_{LINEAR} min.	+49.0 dBm	+50.0 dBm	+50.5 dBm	+52.0 dBm	+53.0 dBm	+53.5 dBm
Operating Frequency	CS: 5.850 – 6.425 GHz	CX: 5.850 – 6.725 GHz	Ci-Band: 6.725 – 7.025 GHz		CRL: 5.750 – 6.670 GHz	
L-Band input (BUC)	CS: 950 – 1525 MHz	CX: 950 – 1825 MHz	Ci-Band: 1275 – 1575 MHz		CRL: 950 – 1870 MHz	
Gain	SSPA 67 dB min	SSPB (BUC)	75dB 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	SSPA \pm 0.3 dB max	SSPB (BUC)		\pm 0.5 dB max		
Gain variation over temperature	\pm 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, -155 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	1 $^{\circ}$ /dB at P_{LINEAR}					
Third order IMD (two tones)	-25 dBc at P_{LINEAR}					
Spectral Regrowth	-30 dBc max at P_{LINEAR} (for QPSK, 8PSK, 16APSK at 1.5 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 for CS/CX-band			4.8 GHz for CRL-band		
Internal Reference frequency (optional)	10 MHz					
Phase Noise	Aging/day $\pm 2 \times 10^{-10}$		Aging/year $\pm 5 \times 10^{-8}$		Stability $\pm 2 \times 10^{-8}$ over temp range	
	-78 dBc/Hz at 100Hz		-95 dBc/Hz at 10 kHz			
External Reference Frequency phase noise (max)	-85 dBc/Hz at 1 kHz		-112 dBc/Hz at 100 kHz			
	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						
Dimensions (L x W x H)	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)			220V AC \pm 20% (47 – 63 Hz) PF 0.95 min		
Power consumption (nominal)	1000W at P_{LIN} 1300W at P_{SAT}	1300W at P_{LIN} 1700W at P_{SAT}	1500W at P_{LIN} 1900W at P_{SAT}	1700W at P_{LIN} 2400W at P_{SAT}	2000W at P_{LIN} 2700W at P_{SAT}	2200W at P_{LIN} 2900W at P_{SAT}
Interfaces	Input (RF or L-Band): Output Sample Port: Redundancy:	N type female SMA female D-sub 25S	RF output: RS-232 serial port: Relay:	CPR 137 D-sub 9S D-sub 9P	AC line: RS-485: Ethernet (option):	IEC 320 inlet D-sub 9S RJ-45
Environmental	Temperature	Operating 0 $^{\circ}$ C to +50 $^{\circ}$ C Storage -55 $^{\circ}$ C to +85 $^{\circ}$ C				
	Humidity	5% to 95% non-condensing				
	Altitude	10,000' AMSL, de-rated by 2 $^{\circ}$ C/1000' from AMSL				

Ref.: PB-SSPBg-2G-C-Rack-150W-500W-22215

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