

300W / 350W / 400W / 500W / 600W X-Band BUC / SSPB / SSPA

Second Generation GaN Technology

SSPBMg-X 2200-G series
SapphireBlu™



Features

- Output power of up to 600W in a single package
- Very High linearity
- Full M&C capability via RS485 or Ethernet port
- Weatherproof construction
- CE marking
- MIL-STD-188-164A latest revision compliant

Overview

Based on Second Generation GaN technology the new G-Series X-Band BUCs provide high power density in a compact size.

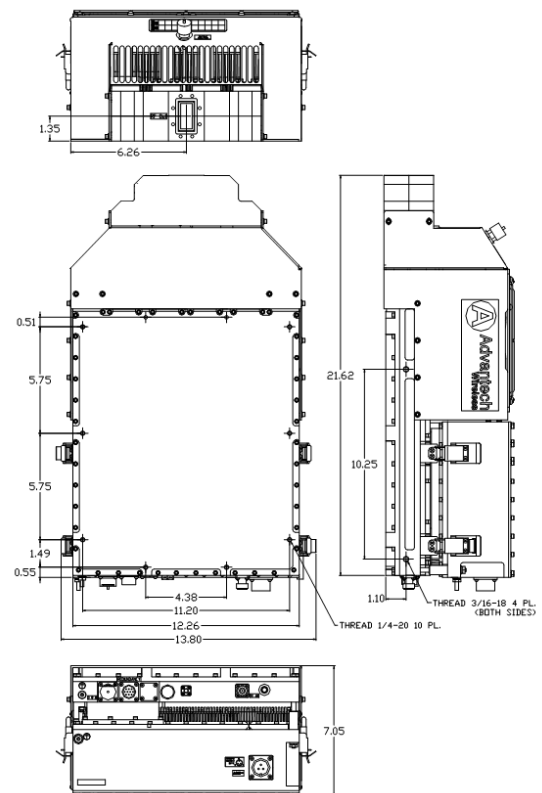
Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience. The products in the new G-Series X-Band BUCs are available as SSPA or SSPB (BUC)

Options

- Mounting kits
- External Receive Reject Filter
- External Transmit Reject Filter (for RX path)
- Remote M&C panel with optional SNMP
- Flexible and rigid waveguides
- Mounting frames
- High power terminations
- Replacement fans

Accessories

- Mounting kit
- Rx Reject filter



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General Specifications						
		300W	350W	400W	500W	600W
Operating Frequency		7.9 – 8.4 GHz				
L-Band input (BUC)		950 – 1450 MHz				
Output Power	P _{SAT}	+55.0 dBm min	+55.5 dBm min	+56.0 dBm min	+57.0 dBm min	+58.0 dBm min
	P _{LINEAR}	+53.0 dBm	+53.5 dBm	+54.0 dBm	+55.0 dBm	+56.0 dBm
Gain SSPB		74dB ± 3 dB				
Gain SSPA		64dB ± 3 dB Optional 74 ± 3 dB				
Gain adjustment range		20 dB in 0.1 dB steps				
Gain flatness over full band		4 dB p-p max				
Gain slope over 40 MHz		1dB p-p dB max				
Gain variation over temperature		± 1.5 dB max				
Input Impedance and VSWR		50 Ω 1.3:1				
Output VSWR		1.25:1				
Noise power density		-75 dBm/Hz in Transmit Band, -110 dBm/Hz in Receive Band (7.25 – 7.75 GHz) -145 dBm/Hz with optional external Receive Reject Filter				
Spurious		-55 dBc max at P _{LINEAR}				
Harmonics		-40 dBc @ 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}				
Spectral regrowth		30 dBc @ P _{LINEAR}				
Group delay		Ripple 1 nsec p-p max				
Local Oscillator freq.		6.95 GHz				
Phase Noise		-53 dBc/Hz at 10Hz	-83 dBc/Hz at 10 kHz			
		-63 dBc/Hz at 100Hz	-95 dBc/Hz at 100 kHz			
		-73 dBc/Hz at 1000Hz				
External Reference Frequency		10 MHz				
Phase noise (max)		-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)		21.6" x 12.26" x 7.05" (549x311x179mm)				
Weight		57.3 lbs. (26 kg)				
Input voltage		AC 90 – 265 VAC (47 – 63 Hz)				
Power consumption (nominal)		1400W at Psat	1500W at Psat	1600W at Psat	1700W at Psat	1800W at Psat
		1200W at P _{LINEAR}	1300W at P _{LINEAR}	1400W at P _{LINEAR}	1500W at P _{LINEAR}	1600W at P _{LINEAR}
Interfaces	RF input	Type N (F)		Redundancy	MS3112E16-26P	
	RF output	CPR-112G		RS-232	MS3112E10-6P	
	Relay port	MS3112E12-10P		RS-485	MS3112E10-6P	
	AC Line	MS3102R16-10P				
Environmental	Temperature	Operating -30°C to +55 °C		Option 1 -40°C to +55 °C		
		Storage -55°C to +85 °C				
	Humidity	100% condensing				
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL				

P_{LINEAR} is the power at which the IMD specs are met and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for QPSK/OQPSK/8PSK modulation

Ref.: PB-SSPBMg-2G-X-300W-600W-18145

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