

SSPB (BUC) SSPBMg-X 2200-G series



NEXT GENERATION GaN TECHNOLOGY

Features

- Output power of up to 400W 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

Options

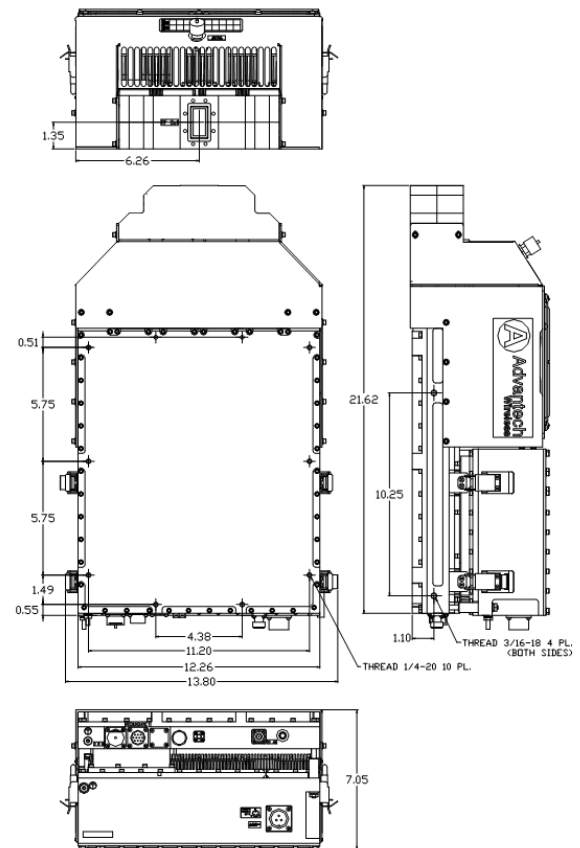
- Ethernet port
- 70 dB Receive Reject Filter (external)
- Harmonic filter (external)

Accessories

- 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

Overview

Based on 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).



Outline



300W/400W X-Band BUC SSPA/SSPB SapphireBlu™ Second Generation GaN Technology



Advantech
Wireless

SMARTER SOLUTIONS.
GLOBAL REACH.

General Specifications

	300W	400W
Operating Frequency	7.9 – 8.4 GHz	
L-Band input (BUC)	950 – 1450 MHz	
Output Power	P _{SAT} +55.0 dBm min	P _{SAT} +56.0 dBm min
	P _{LINEAR} +53.0 dBm	P _{LINEAR} +54.0 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	1º/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 1200W at P _{LINEAR}	1600W at Psat 1400W at P _{LINEAR}
Interfaces	RF input Type N (F) RF output CPR-112G Relay port MS3112E12-10P AC Line MS3102R16-10P	Redundancy MS3112E16-26P RS-232 MS3112E10-6P RS-485 MS3112E10-6P
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

Specifications are subject to change without notice

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