300W / 350W / 400W / 500W / 600W X-Band BUC SSPA/ SSPB SapphireBlu™ - GaN Technology

SSPB (BUC) SSPBM-X 2200-G series

Features

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

Overview

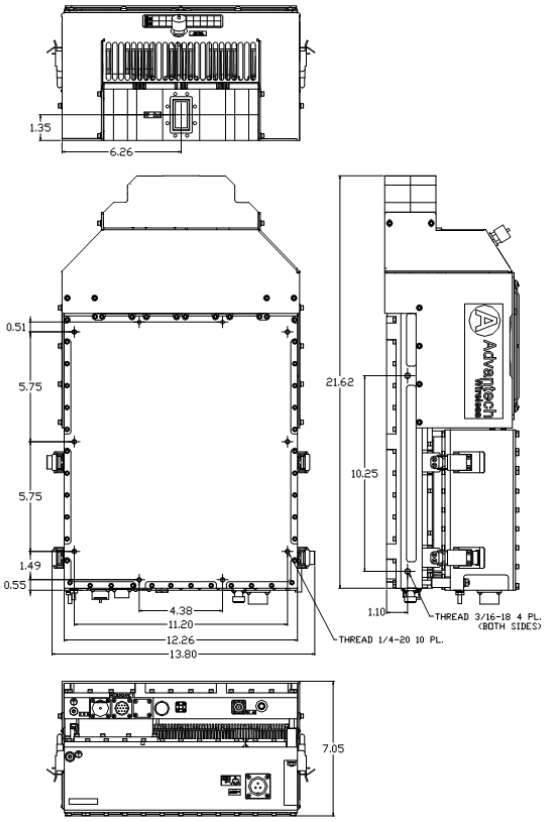
Based on GaN technology the new G-Series X-Band BUCs provide high power density in a compact size. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience. The products in the new G-Series X-Band BUCs are available as SSPA or SSPB (BUC).

Options

- 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



Outline

X-Band 300W/350W/400W/500W/600W
BUC SSPA/SSPB SapphireBlu™ GaN Technology

Advantech Wireless

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 P_{LINEAR} +51.0 dBm	P_{SAT} +55.5 dBm min P_{LINEAR} +51.5 dBm	P_{SAT} +56.0 dBm min P_{LINEAR} +52.0 dBm	P_{SAT} +57.0 dBm min P_{LINEAR} +53.0 dBm	P_{SAT} +57.8 dBm min 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 with optional Output Isolator				
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 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					
Dimensions (L W xH)	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)	1600W at Psat 1400W at P_{LINEAR}			1900W at Psat 1700W 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 -30ºC to +55 ºC Option 1 -40ºC to +55 ºC Storage -55ºC to +85 ºC Humidity 100% condensing Altitude 10,000’ AMSL, de-rated by 2 ºC/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

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An ISO 9001 : 2008 Company

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