



150W / 200W / 250W  
SSPBM-X 2200-G series



## Features

- Output power of 150W / 200W / 250W in a single compact package
- High linearity
- Full M&C capability via RS485 or Ethernet port (optional)
- Weatherproof construction
- CE marking
- MIL-STD-188-164A latest revision compliant

## Overview

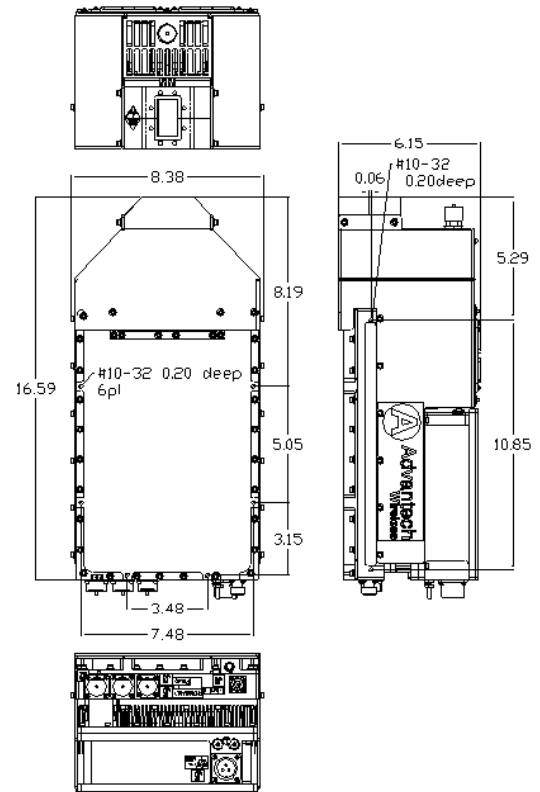
Based on GaN technology the new G-Series X-Band BUCs provide high power density in a compact size. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience. The products in the new G-Series X-Band BUCs are available as SSPA or SSPB (BUC). The first products available in the new G-Series are 150W, 200W and 250W.

## 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



**Figure 1:** Outline drawing

# 150W / 200W / 250W X-Band SSPB GaN

General Specifications						
	150W		200W		250W	
Operating Frequency	7.9 – 8.4 GHz					
L-Band input (BUC)	950 – 1450 MHz					
Output Power	$P_{SAT}$ +52.0 dBm min	$P_{LINEAR}$ +48.0 dBm	$P_{SAT}$ +53.0 dBm min	$P_{LINEAR}$ +49.0 dBm	$P_{SAT}$ +54.0 dBm min	$P_{LINEAR}$ +50.0 dBm
Gain	74dB $\pm$ 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	$\pm$ 1.5 dB max					
Input Impedance and VSWR	50 $\Omega$ 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	1 $^{\circ}$ 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 -63 dBc/Hz at 100Hz -73 dBc/Hz at 1000Hz		-83 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz			
External Reference Frequency phase noise (max)	10 MHz -120 dBc/Hz at 10Hz -135 dBc/Hz at 100Hz -150 dBc/Hz at 1000Hz		-155 dBc/Hz at 10 kHz -160 dBc/Hz at 100 kHz			
Weight & Dimensions						
Dimensions	16.6" x 8.5" x 5.5" (406 x 200 x 140 mm)					
Weight	30 lbs. (13.6 kg)					
Input voltage	DC 48V (40v – 60V) AC 90 – 265 VAC (47 – 63 Hz)					
Power consumption (nominal)	1100W at $P_{SAT}$ , 900W at $P_{LINEAR}$					
Interfaces	Input (L-Band)	N type female	RF output	CPR112		
	DC line	MS3102 type	AC line	MS3102 type		
	RS485/Ethernet	MS3112 type				
Environmental	Temperature	Operating -30 $^{\circ}$ C to +55 $^{\circ}$ C Storage -55 $^{\circ}$ C to +85 $^{\circ}$ C		Option 1 -40 $^{\circ}$ C to +55 $^{\circ}$ C		
	Humidity	100% condensing				
	Altitude	10,000' AMSL, de-rated by 2 $^{\circ}$ C/1000' from AMSL				

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Ref.: PB-SSPBg-X-150-200-250W-13150