



80W/100W / 125W  
**SSPBMg-X 2200-G series**

MIL-STD-188-164A latest revision

## Features

- Output power of 80W to 125W in a single compact package
- Waveguide output isolator
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Weatherproof construction
- CE marking

## Overview

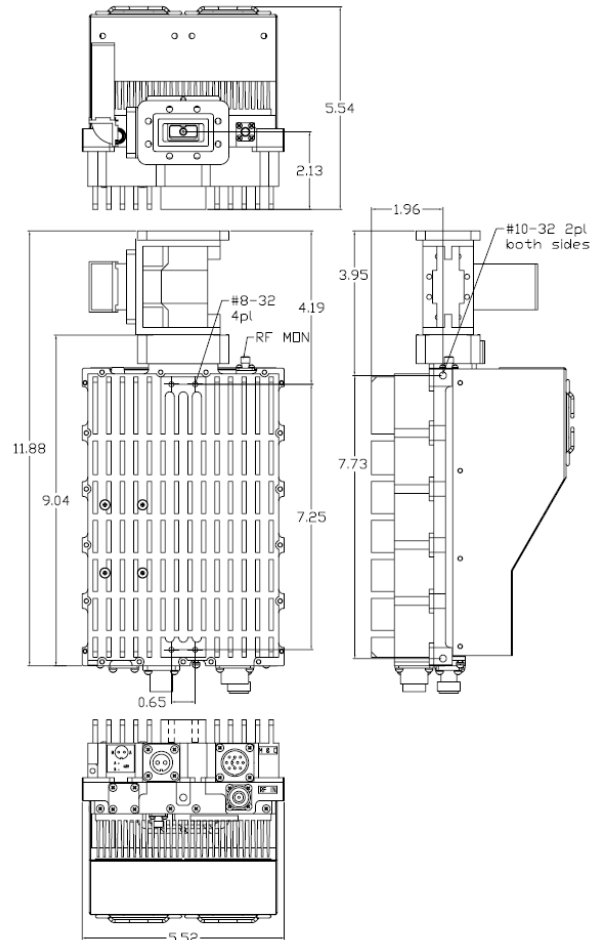
Based on GaN technology the new G-Series X-Band BUCs provide high power density in a compact size. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience. The products in the new G-Series X-Band BUCs are available as SSPA or SSPB (BUC). The products available in the new G-Series are for up to 600W. The product described in this bulletin is for a 80W/100W / 125W BUC.

## Options

- AC operation
- Ethernet port
- 70 dB Receive Reject Filter (external)
- Internal reference

## Accessories

- 70 dB Transmit Reject Filter
- Mounting kits
- External Receive Reject Filter
- Remote M&C panel with optional SNMP
- Flexible and rigid waveguides
- Boom mounting kit
- Replacement fans



# 80W/100W /125W X-Band BUC GaN Technology



General Specifications		80W	100W	125W
Operating Frequency		7.90 – 8.40 GHz		
Output Power	P <sub>SAT Typ</sub>	+49.0 dBm	+50.0 dBm	+51.0 dBm
	P <sub>LINEAR</sub>	+45.0 dBm	+46.0 dBm	+47.0 dBm
	P <sub>LINEAR</sub> is the power at which the IMD specs are met and the power at which the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for QPSK/OQPSK/8PSK modulation			
Gain		70 ± 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		-85 dBm/Hz in Transmit Band, -112dBm/Hz in Receive Band (7.25 GHz – 7.75 GHz)		
Spurious		-55 dBc max at P <sub>LINEAR</sub>		
Harmonics		-45 dBc @ P <sub>LINEAR</sub>		
AM/PM conversion		1°/dB at P <sub>LINEAR</sub>		
Third order intermod (two tones)		-25 dBc two signal 5 MHz apart at P <sub>LINEAR</sub> referenced to the total power		
Spectral regrowth		30 dBc @ P <sub>LINEAR</sub>		
Group delay		Ripple 1 nsec p-p max		
Weight & Dimensions				
Dimensions		11.88"x5.52"x5.54" (L x W x H) (302x140x141 mm)		
Weight		DC operation 13.2 lbs (6 kg) AC operation 19.8 lbs (9 kg)		
Input voltage		DC 48V (40v – 60V) AC 90 – 265 VAC (47 – 63 Hz)		
Power consumption (nominal)		400W@Psat, 350W@ P <sub>LINEAR</sub>		
Interfaces	Input (L-Band)	N type female	RF output	CPR112G
	DC line	MS3102 type	AC line	MS3102 type
	RS485/Ethernet	MS3112 type		
Environmental	Temperature	Operating -30°C to +55 °C	Option 1	-40°C to +55 °C
			Option 2	-50°C to +50 °C
		Storage -55°C to +85 °C		
	Humidity	100% condensing		
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

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