



80W
SSPBM-K 2300-G series

NEW



**Extreme
Temperature
Range**
-55°C to +70°C

Features

- Output power of 80W in a single compact package
- High linearity
- Full M&C capability via RS485 or Ethernet port / RS232
- Weatherproof construction
- CE marking
- Switchable LO for Ku/Kx Bands
- Waveguide Output Isolator
- Redundant ready
- Extreme Temperature Range -55°C to +70°C

Options

- Ethernet port
- Internal reference with autosensing
- 70 dB Receive Reject Filter (external)
- Discrete alarm interface

Accessories

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

Overview

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

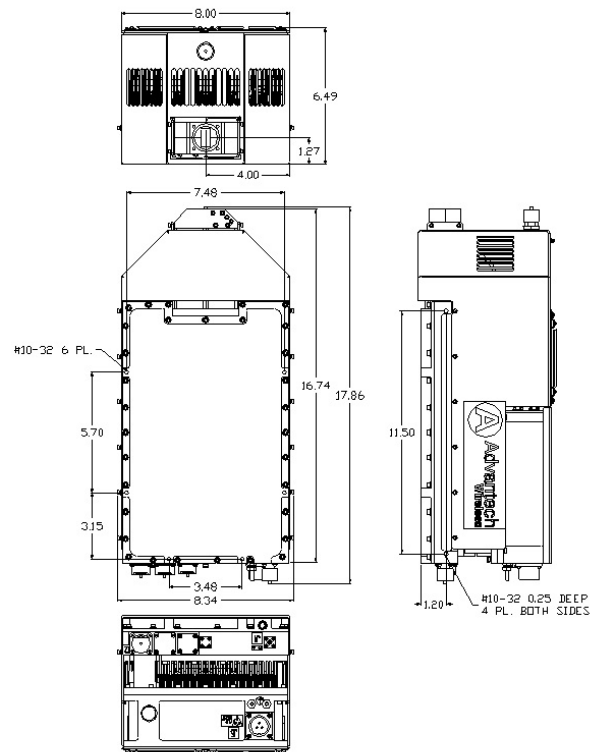


Figure 1: 80 W BUC (AC operation)

80W Ku-Band SSPB GaN

General Specifications		80W	
Operating Frequency		KS	14.00 – 14.50 GHz
		KX	13.75 – 14.50 GHz
L-Band input (BUC)		KS	950 – 1450 MHz
		KX	950 – 1700 MHz
Output Power	P_{SAT} (typical)	+49.0 dBm	
	P_{LINEAR}	+45.0 dBm	
		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	
Gain	SSPB (BUC)	70 ± 3 dB	
	SSPA	60 ± 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	2:1 (1.25:1 with optional Output Isolator)		
Noise power density	-80 dBm/Hz in Transmit Band, -150 dBm/Hz in Receive Band (10.95 GHz – 12.75 GHz)		
Spurious	-55 dBc max at P_{LINEAR}		
AM/PM conversion	<1.0°/dB at P_{LINEAR}		
Third order IMD (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. Switchable	KS	13.05 GHz	KX 12.8 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	Optional; Internal 10MHz auto-sensing reference	
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)	16.7"x8"x6.5" (424x203x165.1 mm)		
Weight	22.05 lbs. (10.5 kg)		
Input voltage	DC	48V (40v – 60V)	
	AC	90 – 265 VAC (47 – 63 Hz)	
Power consumption (nominal)	700W@P _{sat} , 620W $P_{LINEAR 1}$		
Interfaces	Input (L-Band)	N type female	RF output WR75 Grooved
	DC line	MS3102 type	AC line MS3102 type
	MS3112 type RS485/Ethernet (optional)		RS485/RS232 or Ethernet (optional)
Environmental	Temperature	Operating -55°C to +70 °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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