



60W / 80W / 100W / 125W
SSPBM-K **2300-G series**

NEW

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



Features

- Output power of 60W to 125W 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

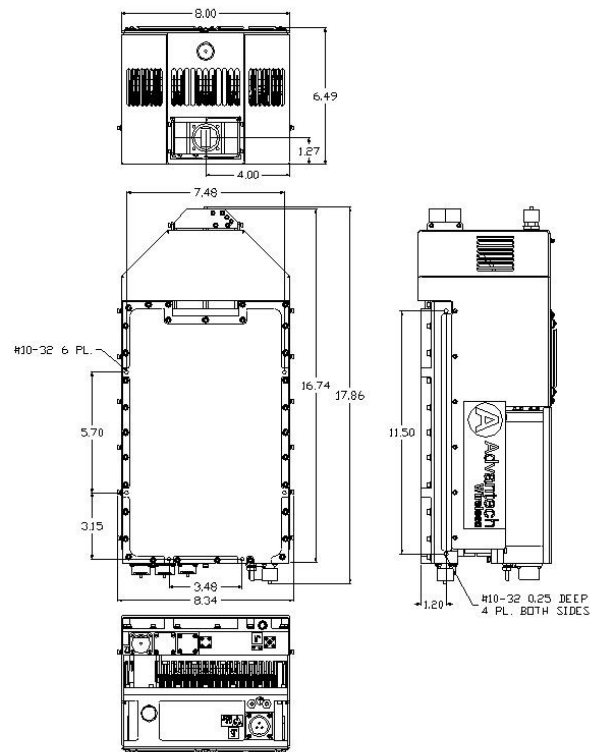


Figure 1: 125 W BUC (AC operation)

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 60W to 125W BUC.

60W / 80W / 100W / 125W Ku-Band SSPB GaN

General Specifications					
		60W	80W	100W	125W
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)	+48.0 dBm	+49.0 dBm	+50.0 dBm	+51.0 dBm
	P _{LINEAR}	+44.0 dBm	+45.0 dBm	+46.0 dBm	+47.0 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) SSPA	70 ± 3 dB 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)		600W@Psat, 520W@ P _{LINEAR 1}		630W@Psat, 570W@ P _{LINEAR 1}	
Interfaces		Input (L-Band) N type female DC line MS3102 type	RF output WR75 Grooved 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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