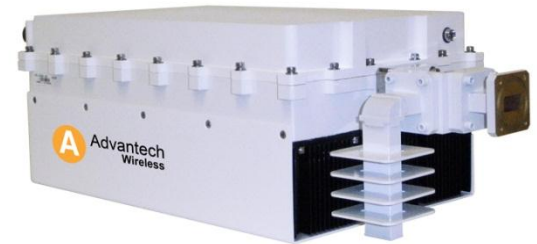


150W SSPBMg-K 2125-G Series



NEXT GENERATION GaN TECHNOLOGY

Features

- Output power of 150W in a single compact package
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Weatherproof construction
- CE marking
- Switchable LO, 12.86 GHz or 13.050 GHz to cover 14.0 – 14.56 GHz or 13.75 – 14.56 GHz user selectable

Options

- Ethernet port
- Internal reference with autosensing
- Waveguide Output Isolator
- 70 dB Receive Reject Filter (external)
- Redundant ready
- 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 Wireless 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 150W BUC.

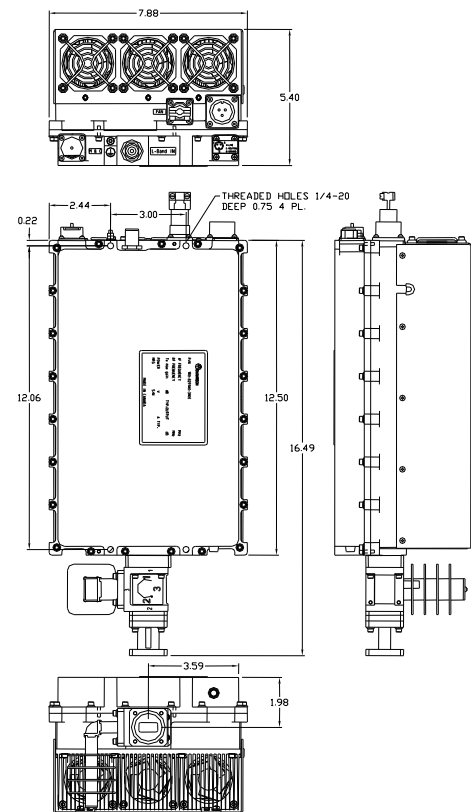


Figure 1: 150 W BUC (AC operation)

General Specifications

		150W	
Operating Frequency		KS	14.00 – 14.50 GHz or
		KX	13.75 – 14.50 GHz
L-Band input (BUC)		KS	950 – 1450 MHz or
		KX	950 – 1700 MHz
Output Power	P _{SAT} (typical)		+52.0 dBm
	P _{LINEAR}		+49.0 dBm
		P _{LINEAR} is the power at which the IMD=-25 dBc for two CW signals 5 MHz apart versus total power and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for a single QPSK/OQPSK/8PSK signal.	
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.		KS 13.05 GHz KX 12.8 GHz	user selectable
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)		12..1"x8.15"x5.4" (307x207x137 mm)
	With isolator		16.5"x8.15"x5.20" (419x207x132mm)
Weight			23 lbs. (9 kg)
Input voltage	DC		48V (40v – 60V)
	AC		90 – 265 VAC (47 – 63 Hz)
Power consumption (nominal)			1000W@Psat, 650W@ P _{LINEAR}
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	-30°C to +55 °C Option 1 -40°C to +60 °C Option 2 -50°C to +55 °C
		Storage	-55°C to +85 °C
	Humidity		100% condensing
	Altitude		10,000' AMSL, de-rated by 2 °C/1000' from AMSL

Specifications are subject to change without notice

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