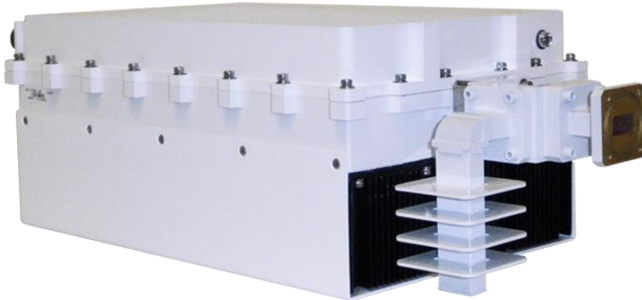




80W / 100W
SSPBM-K 2200-G series



Features

- Output power of 80W or 100W in a single compact package
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Weatherproof construction
- CE marking

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 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 first products available in the new G-Series are for 50W, 100W and 200W. The product described in this bulletin is for an 80W and a 100W BUC.

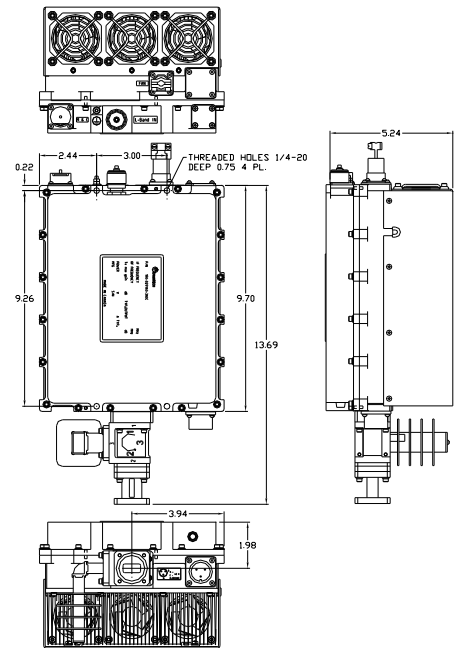


Figure 1: 100 W BUC (DC operation)

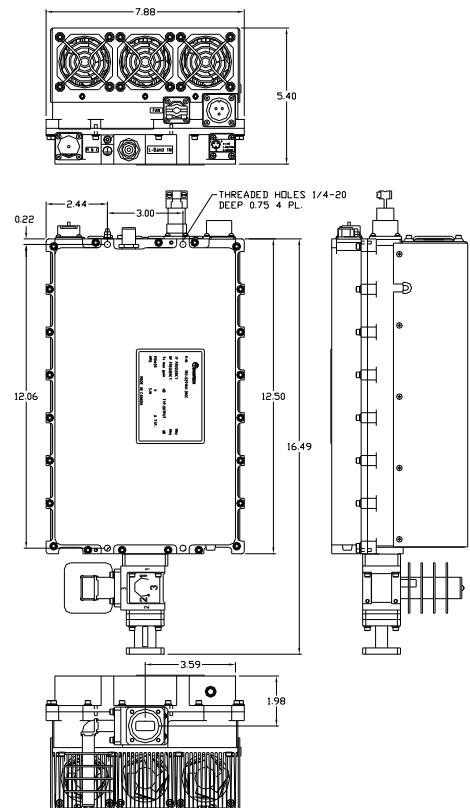


Figure 2: 100 W BUC (AC operation)

80W/ 100W Ku-Band SSPB GaN

General Specifications		80W		100W	
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		KS			KS
	P_{SAT} (typical)		+49.0 dBm		+50 dBm
	$P_{LINEAR 1}$		+46.0 dBm		+47.0 dBm
Note: For KX, the output power is reduced by 0.5 dB					
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			3 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			<2.0°/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
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)			9.26"x7.9"x5.20" (235x200x132mm)		12.1"x7.9"x5.4" (307x200x137 mm)
	With isolator		13.7"x7.9"x5.20" (348x200x132mm)		16.5"x7.9"x5.20" (419x200x132mm)
Weight			16.3 lbs. (7.4 kg)		21.1 lbs. (9.6 kg)
Input voltage		DC	48V (40v – 60V)		
		AC	90 – 265 VAC (47 – 63 Hz)		
Power consumption (nominal)			500W@Psat, 420W@ $P_{LINEAR 1}$		550W@Psat, 470W@ $P_{LINEAR 1}$
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 -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		

SOUTH AMERICA

An ISO 9001 : 2008 Company



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