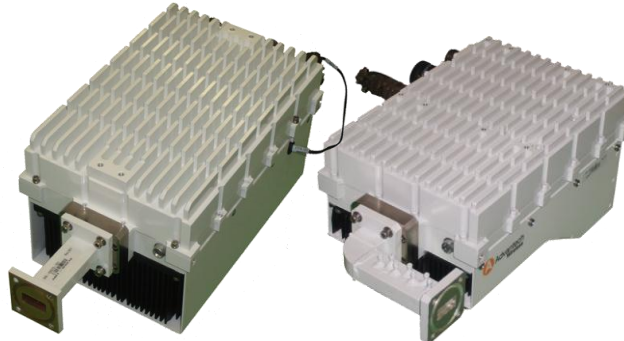




40W / 50W
SSPBM-K 2200-G series



EXTRA-Lightweight

Features

- Output power of 40W or 50W in a single compact package
- High linearity
- Full M&C capability via RS485 or Ethernet port
- Weatherproof construction
- CE marking

Overview

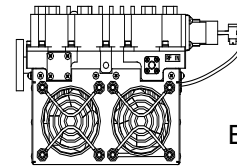
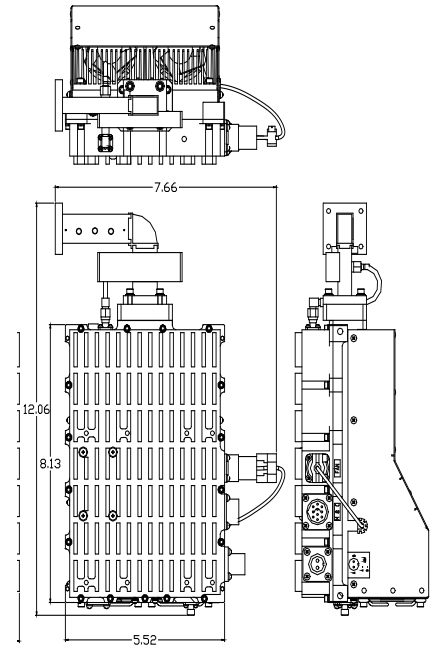
Based on GaN technology the new G-Series Ku-Band BUCs provide high power density in a compact size. Combined with the traditional Advantech features, these new series of BUCs provide the ultimate in performance and convenience. The products in the new G-Series Ku-Band BUCs are available as SSPA or SSPB (BUC). The first products available in the new G-Series are for 40/50W, 80/100W and 160/200W. The product described in this bulletin is for a 40W/ 50W BUC.

Options

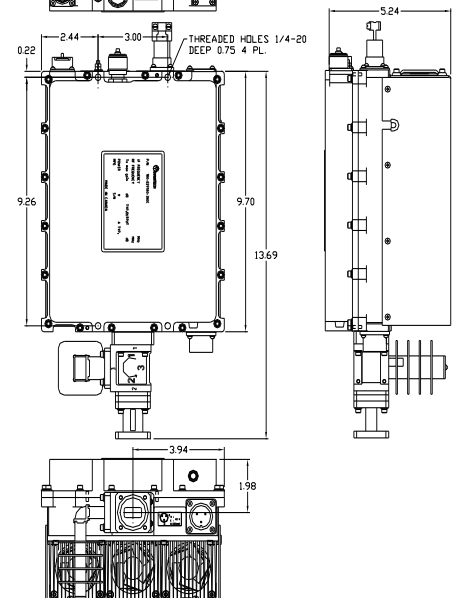
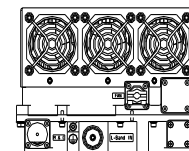
- Ethernet port
- Internal reference *with* auto-sensing
- Waveguide Output Isolator
- EXTRA-Lightweight

Accessories

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



EXTRA-Lightweight



40W/ 50W Ku-Band SSPB GaN

General Specifications		40W		50W	
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)	+46.0 dBm		+47.0 dBm	
	$P_{LINEAR 1}$	+43.0 dBm		+44.0 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 QPSK/OQPSK/8PSK modulation			
Gain	SSPB (BUC)	68 dB min			
	SSPA	58 dB min			
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 (with optional Output Isolator) 1.25:1			
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 $P_{LINEAR 1}$			
Spectral regrowth		30 dBc @ $P_{LINEAR 2}$			
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		-93 dBc/Hz at 100 kHz	
		-73 dBc/Hz at 1000Hz			
External Reference Frequency		10 MHz	Optional; Internal 10MHz 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	8.13"x5.52"x5.0" (206.5x140x127 mm)			
Weight		9.2 lbs. (4.2 kg)	option	EXTRA-Lightweight	6.6 lbs. (3 kg)
Input voltage	DC	48V (40v – 60V)			
	AC	90 – 265 VAC (47 – 63 Hz)		note: not available for EXTRA-Lightweight	
Power consumption (nominal)		280W@Psat, 230W@ $P_{LINEAR 1}$		300W@Psat, 250W@ $P_{LINEAR 1}$	
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			

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