80W / 100W / 125W Ku-Band BUC/ SSPB/ SSPA
Second Generation GaN Technology

SSPBMg-K 2150-G series

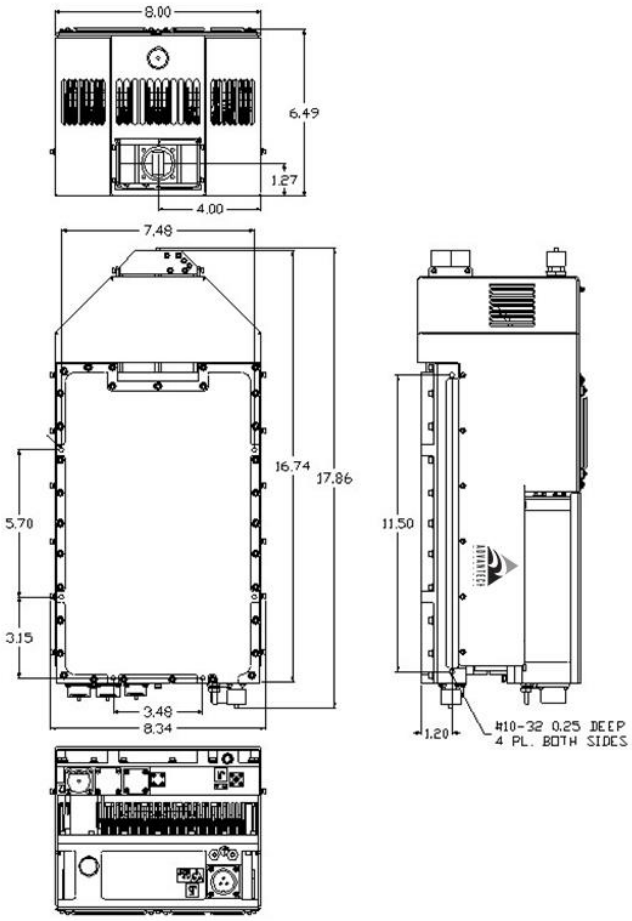
Features

- Output power of 80W to 125W in a single compact package
- High linearity
- Full M&C capability via RS485 and Ethernet port
- Weatherproof construction
- CE marking
- Switchable LO for Ku/Kx Bands
- Redundant ready

Overview

Based on GaN technology the new G-Series Ku-Band BUCs provide high power density in a compact size. Combined with the traditional from Advantech Wireless Technologies, 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 an 80W to 125W BUC



Options

- 1:1 or 1:2 Redundant Configuration
- 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

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General Specifications			
	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 $P_{SAT\ (typical)}$	+49.0 dBm	+50.0 dBm	+51.0 dBm
P_{LINEAR}	+45.0 dBm	+46.0 dBm*	+47.0 dBm*
	P_{LINEAR} is the maximum combined transmit power of two equal amplitude continuous wave (CW) carriers 5MHz apart, when the third order intermodulation product power is -25dB relative to the combined power of the two CW carriers.		
Gain SSPB (BUC) SSPA	71 dB min 61 dB min	72 dB min 62 dB min	73 dB min 63 dB min
Gain adjustment range	20 dB in 0.1 dB steps		
Gain flatness over full band	3 dB p-p max for SSPA, 4 dB p-p max for SSPB		
Gain slope over 40 MHz	1 dB p-p max		
Gain variation over temperature	± 1.5 dB max		
Input Impedance and VSWR	50 Ω 1.5:1		
Output VSWR	1.3:1		
Noise power density	-75 dBm/Hz in Transmit Band, -145 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		
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 or 10 MHz Autosensing		
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)	17.86" x 8.34" x 6.49" in (453.6 x 211.8 x 164.8 mm)		
Weight	22.05 lbs. (10.5 kg)		
Input voltage	AC 90 – 265 VAC (47 – 63 Hz)		
Power consumption (nominal) Psat P_{LINEAR}	 840W 610W	 850W 620W	 900W 625W
Interfaces	Input (L-Band) N type female RF output WR75 Grooved AC line MS3102 type RS485 and Ethernet MS3112 type		
Environmental	Temperature Operating: -30°C to +55 °C Option: -40°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		
	*Note: For Kx-Band P_{LINEAR} is Typical		

Ref.: PB-SSPBMg-2G-Ku-80W-100W-125W-18134

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Specifications are subject to change without notice.