



**Advantech
Wireless**

Ku-Band Hubmount 150W to 250W SapphireBlu™ SSPB/SSPA GaN Technology



150W to 250W
SSPB 3200-G series
AWMA 3200-G series

MIL-STD-188-164 COMPLIANT



Features

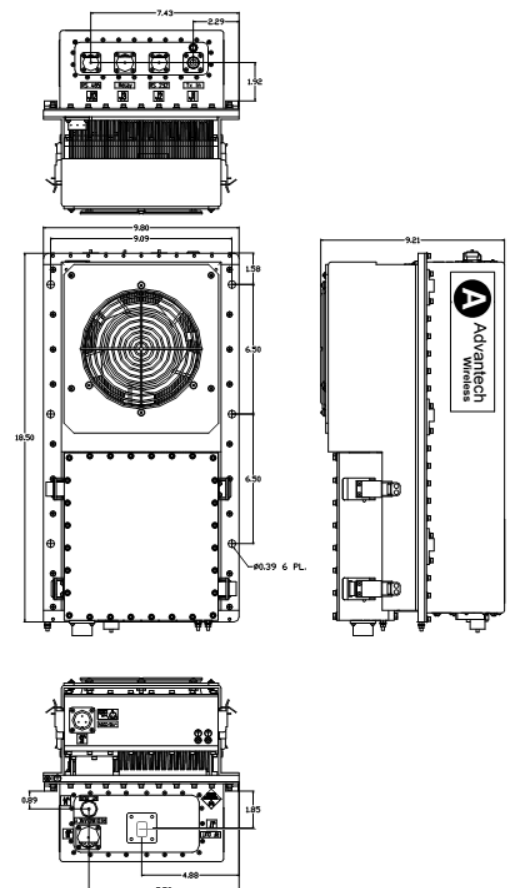
- Full range of output power of 150W, 200W and 250W in a single package
- SSPA or SSPB (BUC) option
- Super High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or Ethernet port
- Built-in Forward and Reflected precision power metering
- Output RF calibrated Sample Port
- Redundant Systems shipped fully tested
- Infinite VSWR protection with automatic high reflected power shutdown
- Built-in 70 dB Receive Reject Filter
- Detachable power supply module
- Weatherproof construction
- CE marking

Overview

Based on GaN technology the new G-Series Ku-Band BUCs provide highest possible power density and smallest size on the market. Combined with the traditional Advantech Wireless features, these new series of BUCs and SSPAs provide the ultimate in performance and convenience.

Options

- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port



Accessories

- Mounting kits
- External Receive and Transmit Reject Filter
- Remote M&C panel with optional SNMP
- Handheld terminal
- Flexible and rigid waveguides
- Mounting frames
- High power terminations
- Replacement fans

Ku-Band Hubmount SSPB SapphireBlu™ GaN

General Specifications

	150W		200W		250W	
Operating Frequency			KS	14.0 – 14.5 GHz		
			KX	13.75 - 14.5 GHz		
L-Band input (BUC)			KS	950 – 1450 MHz		
			KX	950 – 1700 MHz		
Output Power	P _{SAT} (typical)					
	P _{LINEAR}					
		+52.0 dBm +48.0 dBm		+53.0 dBm +49.0 dBm		+54.0 dBm +50.0 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	SSPA	62 ± 3 dB, Or optional 72 ± 3 dB				
	SSPB (BUC)	72 ± 3 dB				
Gain adjustment range		20 dB in 0.1 dB steps				
Gain flatness over full band		SSPA 2dB p-p max		SSPB (BUC) 4 dB p-p max		
Gain slope over 40 MHz		± 0.3 dB max		SSPB (BUC) ± 0.5 dB max		
Gain variation over temperature		± 1.5 dB max				
Input Impedance and VSWR		50 Ω	SSPA 1.3:1	SSPB (BUC) 1.4:1		
Output VSWR		1.3:1				
Noise power density		-70 dBm/Hz in Transmit Band, -150 dBm/Hz in Receive Band (10.95 GHz – 12.75 GHz)				
Spurious at P _{LINEAR 1}		SSPA: -65 dBc max SSPB (BUC): -55 dBc max				
Harmonics		-60 dBc @ P _{LINEAR}				
AM/PM conversion		<1°/dB P _{LINEAR}				
Third order IMD (two tones)		-25 dBc two signal 5 MHz apart at P _{LINEAR}				
Group delay		Ripple	1 nsec p-p max over any 40 MHz band			
		0 – 10 kHz	-45 dBc			
Residual AM Noise		10 kHz – 500 kHz -20 (1.25 + log F) dBc		F = Frequency in kHz		
		500 kHz – 1 MHz -80 dBc				
SSPB (BUC)						
Local Oscillator freq.		KS	13.05 GHz	KX	12.8 GHz	
Internal Reference frequency (optional)		10 MHz	Aging/day	±2 ⁻¹⁰		
			Aging/year	±5 ⁻⁸		
			Stability	±2 ⁻⁸ over temp range		
Max Phase Noise		-53 dBc/Hz at 10Hz		-90 dBc/Hz at 10 kHz		
		-69 dBc/Hz at 100Hz		-105 dBc/Hz at 100 kHz		
		-75 dBc/Hz at 1000Hz				
External Reference		10 MHz				
Frequency 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 18.5” x 9.8” x 9.21” (470x254x229 mm)				
Weight		48 lbs (22 kg)				
AC input voltage		90 – 265 VAC (47-63 Hz)				
Power consumption at P Linear		800W		950W		1200W
Interfaces		Input (RF or L-Band)	N type female	AC line	MS3102 type	
		Output Sample Port	N type female	RF output	WR75 Cover	
		RS485/Ethernet	MS3112 type			
		Temperature	Operating -30°C to +55 °C	Option 1	-40°C to +55 °C	
				Option 2	-50°C to +65 °C	
Environmental			Storage -55°C to +85 °C			
		Humidity	100% condensing			
		Altitude	10,000’ AMSL, de-rated by 2 °C/1000’ from AMSL			

NORTH AMERICA
USA
Tel: +1 703 659 9796
Fax: +1 703 635 2212
info.usa@advantechwireless.com

CANADA
Tel: +1 514 420 0045
Fax: +1 514 420 0073
info.canada@advantechwireless.com

EUROPE
UNITED KINGDOM
Tel: +44 1480 357 600
Fax: +44 1480 357 601
info.uk@advantechwireless.com

RUSSIA & CIS
Tel: +7 495 971 59 18
info.russia@advantechwireless.com

INDIA
Tel: +91 33 2415 5922
info.india@advantechwireless.com

SOUTH AMERICA
Tel: +1 514 420 0045
Fax: +1 514 420 0073
info.latam@advantechwireless.com

BRAZIL
Tel: +55 11 3054 5701
Fax: +55 11 3054 5701
info.brazil@advantechwireless.com

An ISO 9001 : 2008 Company



Ref.: PB-SSPBg-Ku-150-250-13325