



SSPA AWMA-K 3200-G series
SSPB (BUC) SSPBM-K 3200-G series

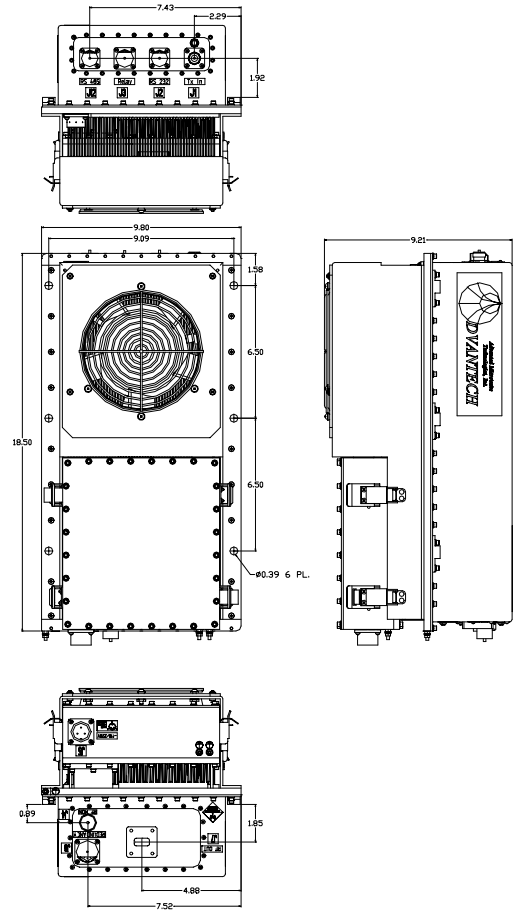


Features

- Full range of output power of up to 200W in a compact single package
- Available in Extended Ku-Band for up to 180W
- 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 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.



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 Reject Filter
- External Transmit Reject Filter (for RX path)
- Remote M&C panel with optional SNMP
- Handheld terminal
- Flexible and rigid waveguides
- Mounting frames
- High power terminations
- Replacement fans



General Specifications

Operating Frequency	KS	14.0 – 14.5 GHz	
L-Band input (BUC)	KX	13.75 – 14.5 GHz	
L-Band input (BUC)	KS	950 – 1450 MHz	
	KX	950 – 1700 MHz	
Output Power		KS	KX
	P_{SAT}	200 W	180W
		+52.5 dBm	+52.0 dBm
	$P_{LINEAR 1}$	+49.0 dBm	+48.5 dBm
	$P_{LINEAR 2}$	+49.5 dBm	+49.0 dBm
		$P_{LINEAR 1}$ is the power at which the IMD specs are met $P_{LINEAR 2}$ is the power at which the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for QPSK/OQPSK/8PSK modulation	
Gain	SSPA	64 dB min	
	SSPB (BUC)	74 dB min	
Gain adjustment range	20 dB in 0.1 dB steps		
Gain flatness over full band	SSPA 2dB p-p max	SSPB (BUC) 3 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, -145 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	-50 dBc @ $P_{LINEAR 2}$		
AM/PM conversion	2.5°/dB $P_{LINEAR 2}$		
Third order intermod (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	
Residual AM Noise	0 – 10 kHz	-45 dBc	
	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.	13.05 GHz	12.8 GHz	
Internal Reference frequency (optional)	10 MHz	Aging/day	±2 ⁻¹⁰
		Aging/year	±5 ⁻⁸
		Stability	±2 ⁻⁸ over temp range
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 phase noise (max)	10 MHz	-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 (nominal)	700W at $P_{LINEAR 1}$ (950W at P_{SAT})		
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	
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, derated by 2 °C/1000' from AMSL	

NORTH AMERICA
USA
Tel: +1 703 788-6882
Fax: +1 703 788-6511
sales@advantechwireless.com

CANADA
Tel: +1 514 420-0045
Fax: +1 514 420-0073
sales@advantechwireless.com

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

RUSSIA & CIS
Tel: +7 495 967 1859
Fax: +7 495 967 30 24
sales@advantechwireless.com

SOUTH AMERICA
BRAZIL
Tel: +55 11 3054 5701
Fax: +55 11 5041 4026
sales@advantechwireless.com

ARGENTINA
Tel: +54 11 4731 1034
Cel: +54 911 4492 5601
sales@advantechwireless.com

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