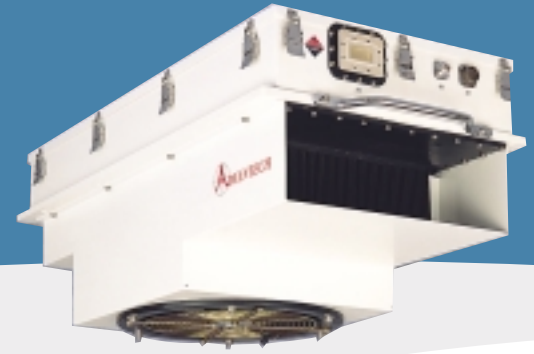


hubmount SSPA 80 W to 125 W **Ku-BAND**



INTRODUCTION

Ku-BAND HUBMOUNT SSPA with full microprocessor based Monitor & Control

**Low Power
80 W to 125 W**

**AWMA-K80; AWMA-K100;
AWMA-K125**

The AWMA-K series described in this section are for Advantech's line of high power solid state power amplifiers (SSPAs) with full microprocessor based Monitor & Control and output power ranging from 80 watts to 125 watts. Other Ku-band hubmount SSPAs are available for output powers from 2 watts to 1000 watts.

Advantech's hubmount SSPAs are designed for outdoor operation in hard environmental conditions and are particularly suited to flyaway or mobile applications as SNG, where efficiency and size considerations are critical. Advantech's hubmount SSPAs set the industry standard for operating efficiency and feature compact and lightweight construction.

STANDARD FEATURES

- Microprocessor based Monitor & Control
- High gain, linearity and efficiency
- Gain control (local)
- Remote gain control adjustment
- Remote RF mute capability
- Temperature gain compensation
- Automatic over-temperature shutdown
- Automatic high reflected power shutdown
- Output sample monitor ports
- Form-C contacts for fault/alarm conditions
- Infinite VSWR protection
- Serial port interface (RS232 or RS422/485)
- Redundancy operation without external controllers
- CE Marking

OPTIONS

- Extreme temperature operation
- Power factor correction



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80 W to 125 W

hubmount SSPA Ku-BAND

TECHNICAL SPECIFICATIONS		80 W	100 W	125 W
Electrical Characteristics				
Frequency ranges	14.00 – 14.50 GHz (KS series); 15.45 – 15.65 GHz (KH series);		13.75 – 14.50 GHz (KX series); 14.87 – 15.13 GHz (KN series)	
Saturated output power nominal	+49 dBm	+50 dBm	+51 dBm	
Output power (P1dB)	+48 dBm	+49 dBm	+50 dBm	
Gain minimum ($G_{max} = G_{min} + 5$ dB)	58 dB	59 dB	60 dB	
Gain flatness over 600 MHz	±1.5 dB max.			
Gain slope	0.6 dB/40 MHz max.			
Gain variation	±1.5 dB over operating temperature range			
Gain adjustment range	20 dB min.			
Input VSWR	1.3:1 max.			
Output VSWR	1.25:1 max.			
Noise Figure	10 dB at max. gain			
Spurious at rated power	-65 dBc, max.			
Harmonics at rated power	-65 dBc, max.			
AM/PM conversion at rated power	2.5 ^o /dB max. at P1dB, 1 ^o /dB max. at 3 dB back-off			
Two tone intermodulation (5 MHz apart)	-36 dBc min. at 7 dB total back-off from rated P1dB, -25 dBc min. at 3 dB total back-off from rated P1dB			
Group Delay	Linear: 0.02 dB/MHz max. Parabolic: 0.003 dB/MHz ² max. Ripple 1 nsec p-p max.			
Phase Noise	meets IESS-308/309			
Residual AM (F* - frequency in kHz)	0-10 kHz	-45 dBc	-20 (1+log F*) dBc -80 dBc	
	10 kHz - 500 kHz			
	500 kHz - 1 MHz			
Power Requirements				
Operating voltage	220 VAC (47 - 63 Hz)			
Power consumption, nominal	1200 W	1550 W	1800 W	
Mechanical Characteristics				
Dimensions (W x H x L)	16" x 13.5" x 31"			
Weight	50 kg (110 lbs)			
Interfaces	RF input	Type-N female		
	Output sample port	Type-N female		
	RF output	WR-75 (grooved)		
	Serial port	MS3112E10-6P		
	Discrete port	MS3112E16-26P		
	Redundancy	MS3112E14-12P		
	Power	MS3102E20-19P		
Environmental Conditions				
Temperature	Operating	-30 ^o C to +50 ^o C option 2: -40 ^o C to +55 ^o C; option 3: -55 ^o C to +50 ^o C		
	Storage	-55 ^o C to +85 ^o C		
Humidity	5% to 95%, non condensing			
Altitude	10,000' AMSL, derated by 2 ^o C/1000' from AMSL			

All our specifications are guaranteed over full specified temperature range.

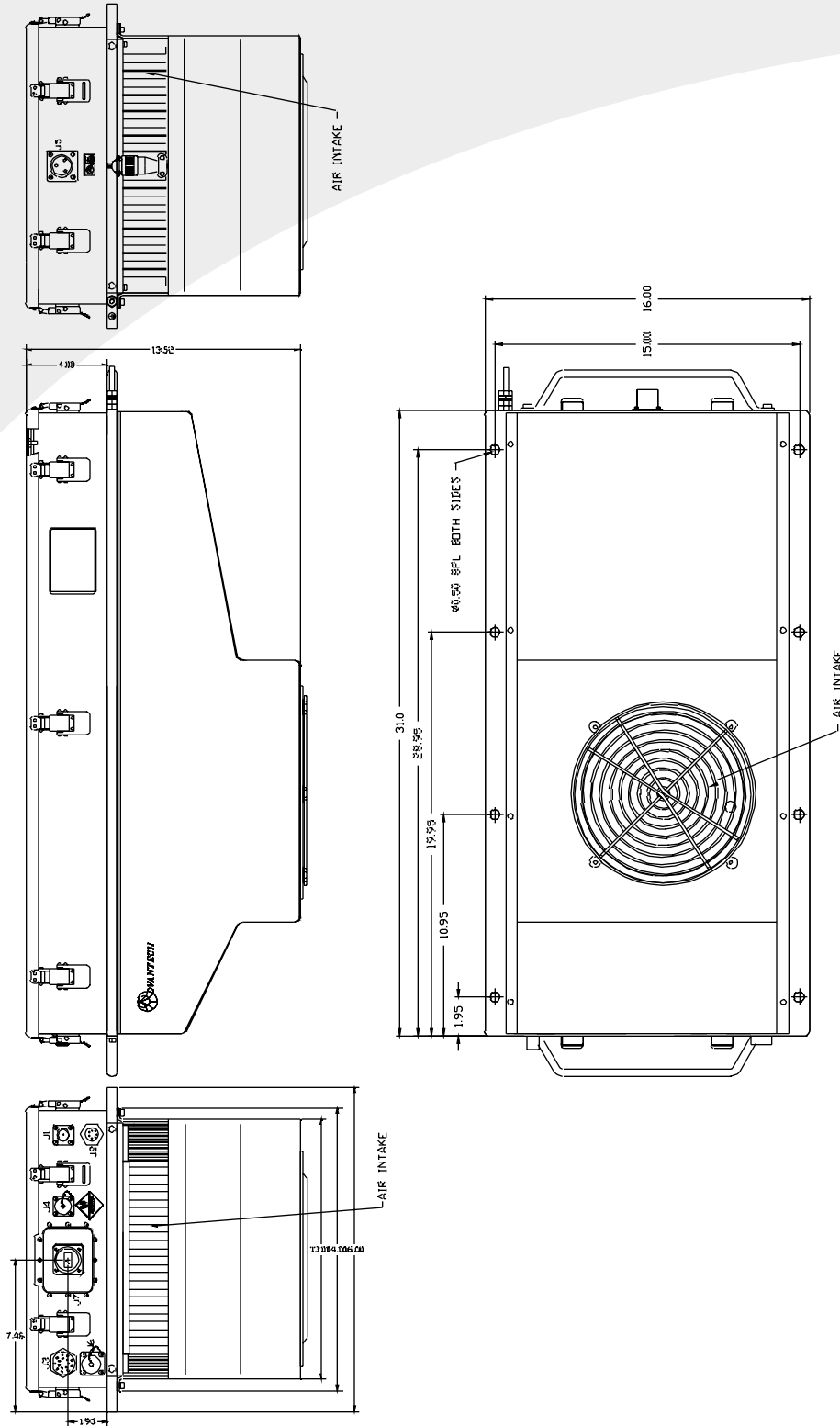


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