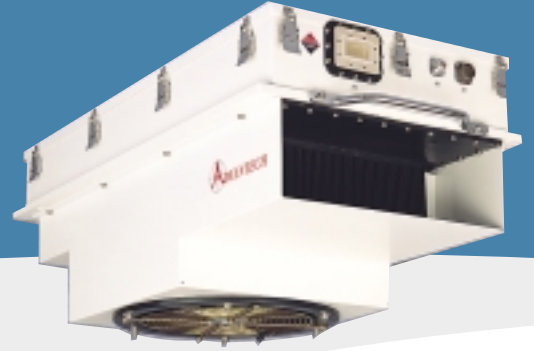


hubmount SSPA 80 W to 125 W **Ku-BAND**



INTRODUCTION

Ku-BAND HUBMOUNT SSPA with basic control

Medium Power 80 W to 125 W

AWSA-K80; AWSA-K100; AWSA-K125

The AWMA-K series described in this section are for Advantech's line of high power solid state power amplifiers (SSPAs) with basic 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

- High gain, linearity and efficiency
- Gain control (local)
- 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
- CE Marking

OPTIONS

- Extreme temperature operation
- Power factor correction



*Advanced Microwave
Technologies, Inc.*

ADVANTECH, Advanced Microwave Technologies, Inc.
657 Orly Avenue, Dorval, PQ H9P 1G1
Tel. (514) 420-0045 Fax (514) 420-0073
sales@advantech.ca
www.advantech.ca

hubmount SSPA 80 W to 125 W **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 (CX 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 dB max.		
Gain slope	0.6 dB/40 MHz max.		
Gain variation	±1.5 dB max.		
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)	-33 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 10 kHz - 500 kHz 500 kHz - 1 MHz	-45 dBc -20 (1+log F*) dBc -80 dBc	
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 cover	
	Discrete port	MS3112E16-26P	
	Power	MS3102E20-19P	
Environmental Conditions			
Temperature	Operating	-30 ^o C to +55 ^o C option 2: -40 ^o C to +55 ^o C option 3: -50 ^o C to +55 ^o C	
	Storage	-55 ^o C to +85 ^o C	
Humidity	100% condensing, up to 2"/hour rain		
Altitude	10,000' AMSL, derated by 2 ^o C/1000' from AMSL		

All our specifications are guaranteed over full specified temperature range.



Advanced Microwave
Technologies, Inc.
ADVANTECH
ADVANTECH, Advanced Microwave Technologies, Inc.
657 Orly Avenue, Dorval, PQ H9P 1G1
Tel. (514) 420-0045 Fax (514) 420-0073
sales@advantech.ca
www.advantech.ca

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

