



S-BAND RACK-MOUNT SSPA
150W to 200W
ARMA-2000S® series



KEY FEATURES

- High gain and linearity
- Output power up to 200W
- Gain adjustment (Local & Remote)
- Remote Monitor & Control (Local & Remote)
- Output sample monitor port
- Temperature gain compensation
- Automatic over-temperature shutdown
- Automatic high reflected power shutdown
- Infinite VSWR protection
- Power factor correction
- CE Marking

OPTIONS

- Integrated Block Up Converter
- RF input sample port
- Redundant system

ACCESSORIES

- Redundancy Kit
- Shelf slides
- Band pass filter
- Remote M&C panel (Ethernet port optional)

OVERVIEW

The ARMA-2000S® series are the rack-mount solid-state power amplifiers (SSPAs), operating in S-Band frequency range. The amplifier is an integrated unit, complete with power supply and cooling system. Intended for indoor operation, the amplifiers are of compact size and occupy four rack-mounting spaces (4 RU - 7") of a standard 19-inch rack. Built-in microprocessor controller provides capability for serial port interfaces (RS485) for remote monitoring and control.

Advantech's SSPAs set the industry standard for linearity and operating efficiency. Built-in design features and assembly methods incorporated with efficient combining techniques result in the trouble-free operation of the amplifier.

APPLICATION

The featured SSPAs are designed for S-Band satellite up-link applications. They are designed for 19-inch rack mounting in a protected environment. The ARMA-S series are available in output power from 100W to 1000W. For higher power Advantech provides phase-combined systems.

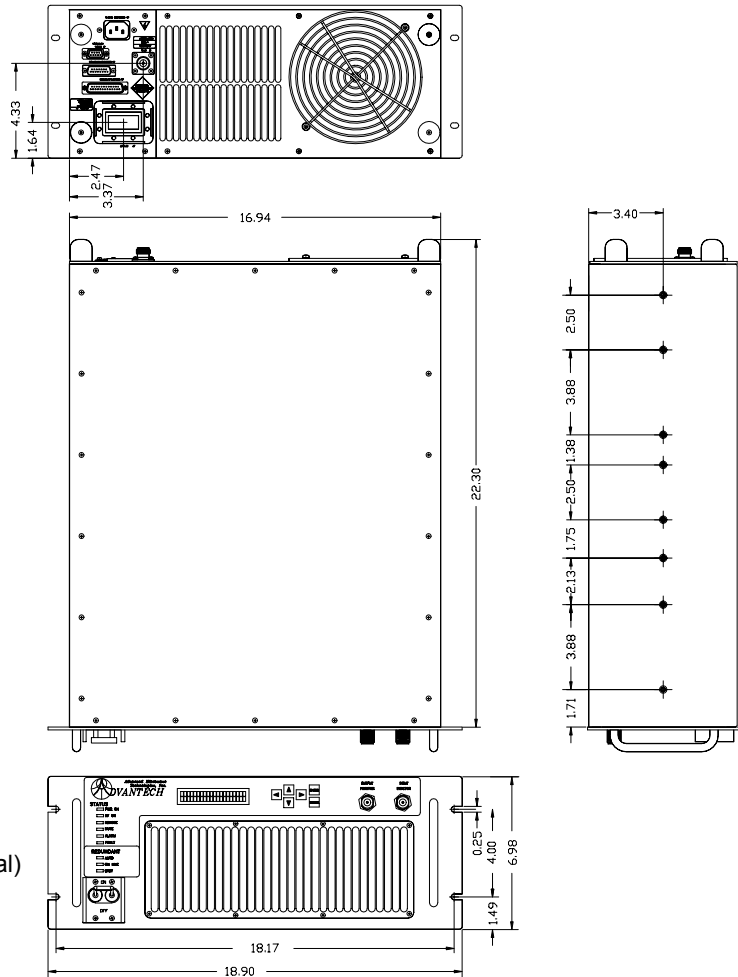


Table A

Band	RF Band (GHz)	Output Power (W)
S	2.025 - 2.120	150 - 200

Other SSPAs are available for operation at other satellite frequency bands. With all the features of the ARMA-S, Advantech also offers a built-in converter.

REDUNDANCY

With the addition of the appropriate waveguide and switch kit, the ARMA-2000S® amplifiers can be easily converted for the operation in 1:1 redundant configuration without the use of any external controller. Full remote Monitor and Control of the redundant system is accessible via the serial port (RS-485).

S-band Medium Power SSPA



S-BAND RACK-MOUNT SSPA

150W to 200W

ARMA-2000S[®] series

TECHNICAL SPECIFICATIONS		150W	200W			
Electrical Characteristics						
Availability in this series S		√	√			
Output power (P _{SAT})		+52 dBm	+53 dBm			
Output power (P1dB) min		+51 dBm	+52 dBm			
Power Gain @ max setting		65 dB min				
Frequency range		2.025 GHz - 2.120 GHz				
Gain adjustment range		20 dB				
Max input power w/out damage		+10 dBm				
Gain flatness		±1.5 dB max over full band				
Gain slope		±0.6 dB over 10 MHz at 25°C				
Gain variation over temperature		0.015 dB/ MHz max.				
Gain variation over 24 hours		±1.5 dB over full operating range (temperature compensation mode)				
Input VSWR		±0.25 dB max at constant temperature & drive level				
Output VSWR		1.3:1				
Noise Power Density		1.4:1				
Spurious at rated power		-100 dBm/Hz max in TX band				
Harmonics at rated power		-65 dBc, max.				
AM/PM conversion at rated power		-90 dBc, max				
Third order IMD (two equal tones 5 MHz apart)		2.5°/dB max. at P1dB, 1°/dB max. at 3 dB back-off from rated P1dB				
Group Delay		-26 dBc max. at 3 dB total back-off from rated P1dB				
Residual AM (F* - frequency in kHz)		0-10 kHz 10 kHz - 500 kHz 500 kHz - 1 MHz	-45 dBc -20 (1.25+log F*) dBc -80 dBc			
Power Requirements						
AC input voltage		90-264 VAC auto ranging (47-63 Hz)				
Power consumption (nom.) (W)		600	800			
Mechanical Characteristics						
Panel Height		4 RU of 19" rack				
Weight		30 kg (66 lbs)				
Interfaces:	RF input	N-Type (F)	Redundancy	D-sub 25S	Discrete port	D-sub 9S
	RF output	N-Type (F)	RS-232	D-sub 9S	AC Line	IEC 320 inlet
	Output sample port	N-Type (F)	RS-485	D-sub 9S		
Environmental Conditions						
Temperature:	Operating	0°C to +50°C				
	Storage	-55°C to +85°C				
Humidity		5%-95%, non-condensing				
Altitude		10,000' AMSL, de-rated 2°C/1,000' from AMSL				

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