

50W to 125W ARMA-1000[®] series



Features

- High gain and linearity
- Output power up to 125W
- 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

Overview

The ARMA-1000S[®] 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 three rack-mounting spaces (3 RU - 5¼") 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.

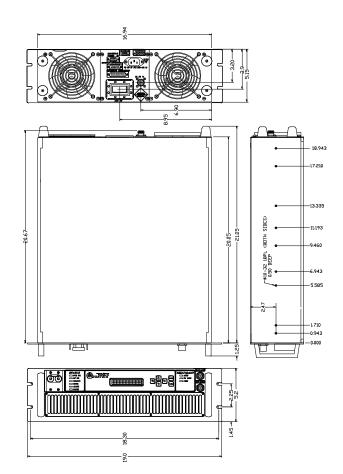
Application

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 50W to 1000W. For higher power Advantech provides phase-combined systems.

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-1000S® 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 Rack-mount

Table A								
Band		RF Band (GHz)	Output Power (W)					
S		2.025 - 2.120	50 - 125					

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)



SSPA

S-Band Rack-mount SSPA



Iterative Specifications Sow Sow <th< th=""><th>Technical</th><th>Oneolficatione</th><th>E014/</th><th>C014/</th><th>0014/</th><th>10014</th><th>10514</th></th<>	Technical	Oneolficatione	E014/	C014/	0014/	10014	10514			
Availability in this series v<	Technical Specifications		50W	60W	W08	100W	125W			
S V										
Output power (PsAr) +47 dBm +48 dBm +49 dBm +50 dBm +51 dBm Output power (P1dB) min +46 dBm +47 dBm +48 dBm +49 dBm +50 dBm +50 dBm Power Gain (@ max setting 65 dB min - - - - +49 dBm +50 dBm +50 dBm Max input power (Viol damage +10 dBm - + - + - - - - - - - - - - - - - - -	,									
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Power Gain @ max setting 65 dB min Frequency range 2.025 - 2.120 GHz Gain adjustment range 20 dB Max input power w/out damage +10 dBm Gain flatness 1.5 dB p-p max over full bard 0.5 dB p-p over 10 MHz at 25°C Gain solpe 0.06 dB/ MHz max. Gain variation over temperature ±1.5 dB over full operating range (temperature compensation mode) Gain variation over 24 hours ±0.25 dB max at constant temperature & drive level Input VSWR 1.3:1 Output VSWR 1.4:1 Noise Power Density -100 dBm/Hz max in TX band Spurious at rated power -65 dBc, max Harmonics at rated power -65 dBc, max. Harmonics at rated power -26 dB cmax at 3 dB total back-off from rated P1dB Third order IMD (two equal tones 5 -26 dBc max at 3 dB total back-off from rated P1dB Third order IMD (two equal tones 5 -26 dBc max at 3 dB total back-off from rated P1dB Group Delay Parabolic: 0.002 nsec/MHz max. Residual AM (f* - frequency in kHz) -01 hz 10 kHz - 500 kHz -20 (1.254 og F*) dBc Dower consurption (nom.) (W) 200 2							+51 dBm			
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Storage -55°C to +85°C Humidity 5%-95%, non-condensing	Temperature: Operating		0°C to +50°C							
	Humidity		5%-95%, non-condensing							
	-									

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