

300W - 500W Rack Mount LDMOS S-Band SSPA

The ARMA-4000STM 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 (6 RU - 10½") of a standard 19-inch rack. Built-in microprocessor controller provides capability for serial port interfaces (RS485) for remote monitoring and control.

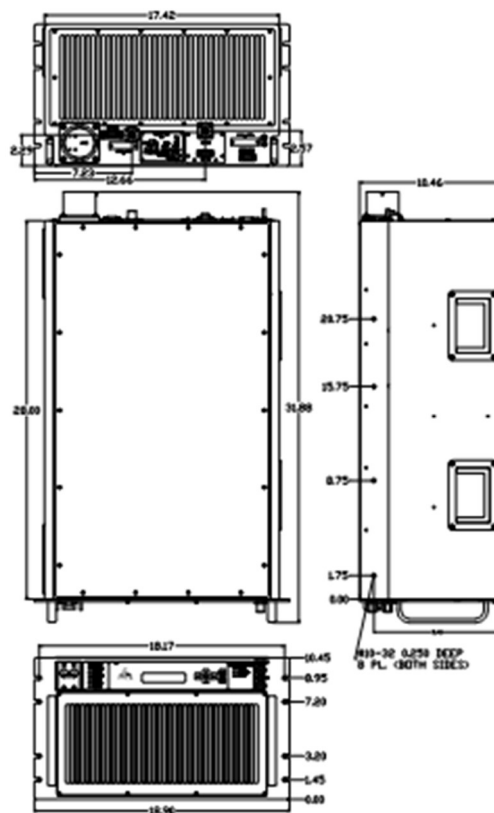
Advantech's SSPAs set the industry standard for linearity and operating efficiency. Built-in design features and assembly methods incorporated with efficient combining techniques result in the trouble-free operation of the amplifier.



SSPA - ARMA-S
ARMA-4000STM series

Features and Options

- High gain and linearity
- Output power up to 500W
- 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
- Ethernet SNMP with Web Server
- Infinite VSWR protection
- Power factor correction
- CE Marking



300W - 500W Rack Mount LDMOS S-Band SSPA

| Technical Specifications | | 300W | 350W | 400W | 500W |
|---|-----------|--|------------|------------|---------------|
| Electrical Characteristics | | | | | |
| Output power (P _{SAT}) | | +55 dBm | +55.5 dBm | +56 dBm | +57 dBm |
| Output power (P1dB) min | | +54 dBm | +54.5 dBm | +55 dBm | +56 dBm |
| Power Gain @ max setting | | 70 dB min | | | |
| Frequency range | | 2.025 GHz - 2.120 GHz | | | |
| Gain adjustment range | | 20 dB | | | |
| Gain flatness | | 1.5 dB p-p max over full band 0.5 dB p-p over 10 MHz at 25°C | | | |
| Gain slope | | 0.06 dB/ MHz max. | | | |
| Gain variation over temperature | | ± 2 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 | | - 80 dBm/Hz max in TX band - 85 dBm/Hz max in RX band (without optional filter) | | | |
| Spurious at rated power | | -65 dBc, max. | | | |
| Harmonics at rated power | | -45 dBc, max | | | |
| AM /PM conversion at rated power | | 2.5°/dB max. at P1dB, 1°/dB max. at 3 dB back-off from rated P1dB | | | |
| Third order IMD (two equal tones 5 MHz apart) | | -26 dBc max. at 3 dB total back-off from rated P1dB | | | |
| Group Delay | | Linear: 0.01 nsec/MHz max. Parabolic: 0.002 nsec/MHz ² max. Ripple: 0.5 nsec p-p max. | | | |
| Residual AM (F* - frequency in kHz) | | 0-10 kHz -45 dBc 10 kHz - 500 kHz -20 (1.25+log F*) dBc 500 kHz - 1 MHz - 80 dBc | | | |
| Power Requirements | | | | | |
| AC input voltage | | 180-264 VAC auto ranging (47-63 Hz) | | | |
| Power consumption (nom.) (W) | | 1500 | 1600 | 1700 | 1900 |
| Mechanical Characteristics | | | | | |
| Panel Height | | 6 RU of 19" rack | | | |
| Weight | | 65 kg (143 lbs) | | | |
| Interfaces: | | RF input | N-Type (F) | Redundancy | D-sub 25S |
| | | RF output | N-Type (F) | RS-232 | D-sub 9S |
| | | Output sample port | N-Type (F) | RS-485 | D-sub 9S |
| | | Discrete port | D-sub 9S | AC Line | IEC 320 inlet |
| 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 | | | |

Note: specifications subject to change without notice

Ref.: PB ARMA S-Band 300W-500W-25217

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