



S31-500-900P Dual Mode CW / Pulse Solid State Microwave Power Amplifier

0.8 – 3.1 GHz • 500 Watts CW • 900 Watts Pulse

Instruments for Industry, S31-500-900P Solid State amplifier is state-of-the-art and provides outstanding RF performance. The S31-500-900P amplifier operates over the frequency range from 0.8-3.1 GHz and supplies 500 watts CW / 900 watts Pulse offering all the control and communication features needed for today's automated test systems. From the ground up, the S31-500-900P amplifier is built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site. They feature heavy-duty aluminum chassis construction with a modular approach for easy access and service. The S31-500-900P is perfectly suited for automotive testing as well as general purpose industrial applications.

Operation safety and ease of use are paramount in *IFI* product designs. The *IFI* S31-500-900P amplifier includes a full complement of RF and hardware protection circuits including high VSWR, over-current, voltage protection, redundant thermal and airflow sensors for the module and the system level. In addition, the S31-500-900P includes a state-of-the-art user interface that is sophisticated, comprehensive, and yet simple to use.

The backlit LCD screen shows forward/reverse power indication, system status and self-diagnostic information. Peak power metering is incorporated to measure forward and reflected power while in the pulse mode. All the amplifiers operating parameters are simultaneously available in the amplifier front panel display as well as over the remote bus. Selection switches allow you to switch the amplifier to the desired mode of operation for local control if the unit is not being operated remotely.

For computer automation both an RS-232 and IEEE interface are provided as standard. To meet individual application needs, the S31-500-900P Series amplifiers can be easily customized with other options. With this capability and its reliable elegant design, the S31-500-900P series amplifiers are the perfect system for your applications.

Features

- Solid State Design
- Rugged Construction & High Reliability
- Instantaneous Broadband Frequency range
- Backlit screen
- Modular Design Construction
- Integrated Force Air Cooling
- Self-diagnostic circuitry
- IEEE-488 interface & RS232 Remote





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General Specifications:

Table with 8 columns: Model Number, Frequency Range (GHz), Rated Power (watts minimum), P1dB Power (watts minimum), Gain (dB min), Mains (kVA), Weight (Pounds), Size (Inches). Row 1: S31-500-900P, 0.8-3.1, 500 CW 900+ Pulse, 400 CW, 60, 3 CW, 120 Lbs., 7" H x 19" W x 24" D PS, 10.5" H x 19" W x 24" D PA

Standard Features for IFI S31-500-900P Dual Mode Solid State Amplifier

Table with 2 columns: Standard Features, Description. Features include VSWR Reflected Power Protection, Open & Short Circuit Protection, Alternate Prime Power, GPIB IEEE 488 & RS232 Remote Control, RF Sample Port, Internal Pre-amplification, Gain Control, RF Input/Output Connectors, Internal Systems Diagnostics, Total/Operate Elapsed Time Metering, RF Safety Interlock, Forward/Reflected Power Indication.

IFI S31-500-900P Series Solid State Amplifier Specifications

Table with 2 columns: Specification, Value. Specifications include Frequency Range (0.8 – 3.1 GHz), Rated Output Power (500 Watts CW / 900 Watts Pulse), Gain @ Rated Power (60 dB), Prime Power (As Required), Input/output Impedance (50 ohms), RF Input/ Sample Connectors (Type N Female), RF Output Connector (Type N Female), Input VSWR (2.0:1), Output VSWR (2.5:1), Operating Temp (0° to 50° C), Non-operating Temp (-40° to 70° C), Humidity (95% without condensation), Altitude (10,000 feet), Cooling System (Air cooled), Modulation (AM,FM, Pulse), Configuration (Rack Mount), Spurious Outputs (<-60 dBc nominal), Harmonics (-20dBc minimum @ Linear Power), Pulse Input (BNC Female Front Panel), Pulse Width (100 ns – 100 µsec), PRF Range (0-100 KHz), Duty Cycle (10% Standard), Rise & Fall Time (15 ns nominal), Pulse to Pulse Jitter (<0.1 dB), Pulse Width Jitter (+/- 5 ns maximum), Pulse Delay (500 ns maximum), Pulse Droop (0.5 dB/100usecs), Pulse On/Off Ratio (80 dB), Pulse to Pulse Stability (0.2 dB).



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Standard Prime Powers:

- 100, 115, 120 VAC ±10% 50/60 Hz, single phase
- 220, 230, 240VAC ±10% 50/60 Hz, single phase
- 120/208 or 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta power is available
- 200/220/230/240VAC ±10% 50/60 Hz, three phase Wye or Delta power is available

Special Prime Powers other then listed are subject to availability

Some Available Options for IFI S31-500-900P Series Solid State Amplifiers

- Option 110-1E:** GPIB IEEE-488 RS232 and Ethernet Remote Control
- Option 110-2:** GPIB IEEE-488 and RS 422 Remote Control
- Option 110-3:** GPIB IEEE-488 and RS 485 Remote Control
- Option 113:** Chassis slides for a 19" rack mounting
- Option 118A:** RF Input On Front Output On Rear
- Option 118B:** RF Input On Rear Output On Front

Outline Configuration:

2 Drawer Chassis

