





Instruments For Industry

The Power Of Choice

Microwave

AMPLIFIERS

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

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

General Specifications:							
Model Number	Frequency Range (GHz)	Rated Power (watts minimum)	P1dB Power (watts minimum)	Gain (dB min)	Mains (kVA)	Weight (Pounds)	Size (Inches)
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

Standard Features:	VSWR Reflected Power Protection, the unit operates without damage or oscillation into any magnitude of phase or load impedance, Open & Short Circuit Protection. * Alternate Prime Power (specify at time of order) GPIB IEEE 488 & RS232 Remote Control RF Sample Port on the Front Panel, 112R for rear panel Internal Pre-amplification to obtain rated output power with an input level of 0 dBm or less. Gain Control Local & Remote, 30dB range RF Input/Output Connectors on the Front Panel, 118R for rear panel Internal Systems Diagnostics & Status Indicators Total/Operate Elapsed Time Metering in hours RF Safety Interlock Forward/Reflected Power Indication simultaneously on Front Panel display
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IFI S31-500-900P Series Solid State Amplifier Specifications

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 (Some are listed below)
Input/output Impedance:	50 ohms
RF Input/ Sample Connectors:	Type N Female, unless specified otherwise
RF Output Connector:	Type N Female Other connectors available by request or specification
Input VSWR:	2.0:1
Output VSWR:	2.5:1
Operating Temp:	0° to 50° C
Non-operating Temp:	-40° to 70° C (50,000 feet max)
Humidity:	95% without condensation
Altitude:	10,000 feet
Cooling System:	Air cooled, self contained
Modulation:	AM,FM, Pulse
Configuration:	Rack Mount as specified in Model Table, or Rack/Cabinet Integrated
Spurious Outputs:	<-60 dBc nominal
Harmonics:	-20dBc minimum @ Linear Power
Pulse Input:	BNC Female Front Panel (+ 5 volts into 50 ohms)
Pulse Width:	100 ns – 100 µsec
PRF Range:	0-100 KHz Standard, Higher PRF ranges available
Duty Cycle:	10% Standard.
Rise & Fall Time:	15 ns nominal; 25 ns maximum
Pulse to Pulse Jitter:	<0.1 dB
Pulse Width Jitter:	+/- 5 ns maximum
Pulse Delay:	500 ns maximum / 300 ns typical
Pulse Droop:	0.5 dB/100usecs, 0.1dB/10usec
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

