



S251 Series Solid State Microwave Power Amplifiers

0.8 – 2.5 GHz • 10 Watts to 2000 Watts

Instruments for Industry, S251 Series Solid State amplifiers are state-of-the-art amplifiers and provide outstanding RF performance. The S251 Series amplifiers operate over the frequency range from 0.8-2.5 GHz and can be supplied at power levels from 10 watts to 2000 watts offering all the control and communication features needed for today's automated test systems. From the ground up, the S251 Series amplifiers are 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.

Operation safety and ease of use are paramount in IFI product designs. The IFI S251 Series include 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 S251 series includes a state-of-the-art 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. 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 S251 Series amplifiers can be easily customized with other options. With this capability and its reliable elegant design, the S251 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



Models & General Specifications:

Model Number	Frequency Range (GHz)	Rated Power (watts minimum)	P1dB Power (watts minimum)	Gain (dB min)	Mains (kVA)	Weight (Pounds)	Size (Inches)
S251-5	0.8-2.5	5	5	37	.10	25 Lbs	5.25" H x 19" W x 24" D
S251-10	0.8-2.5	10	8	40	.10	28 Lbs	5.25" H x 19" W x 24" D
S251-20	0.8-2.5	20	15	43	.20	32 Lbs	5.25" H x 19" W x 24" D
S251-25	0.8-2.5	25	20	44	.25	36 Lbs	5.25" H x 19" W x 24" D
S251-40	0.8-2.5	40	30	46	.30	40 Lbs	5.25" H x 19" W x 24" D
S251-50	0.8-2.5	50	40	47	.40	50 Lbs	5.25" H x 19" W x 24" D
S251-75	0.8-2.5	75	60	49	.60	55 Lbs	5.25" H x 19" W x 24" D
S251-100	0.8-2.5	100	80	50	0.8	60 Lbs	5.25" H x 19" W x 24" D
S251-150	0.8-2.5	150	130	52	1.2	80 Lbs	7.00" H x 19" W x 24" D
S251-200	0.8-2.5	200	150	53	1.5	90 Lbs	7.00" H x 19" W x 24" D
S251-250	0.8-2.5	250	200	54	2.0	100 Lbs	8.75" H x 19" W x 24" D
S251-300	0.8-2.5	300	250	55	2.5	120 Lbs	10.5" H x 19" W x 25" D
S251-400	0.8-2.5	400	350	56	3.0	250 Lbs	2x 10.5" H x 19" W x 25" D
S251-500	0.8-2.5	500	450	57	4.0	275 Lbs	2x 10.5" H x 19" W x 25" D
S251-1000	0.8-2.5	1000	900	60	8.0	500 Lbs	Rack Integrated
S251-2000	0.8-2.5	2000	1600	63	16.0	800 Lbs	Rack Integrated



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Standard Features for IFI S251 Series Solid State Amplifiers

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	

IFI S251 Series Solid State Amplifier Specifications

Frequency Range:	As Specified in Model Table
Rated Output Power:	As Specified in Model Table
Gain @ Rated Power:	As Specified in Model Table
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 up to 500W amp, SC or 7/16 available, 7/16 1KW amps 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

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 S251 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



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Outline Configurations:



