



## S61 Series

0.8 – 6.0 GHz 30 - 400 Watts P1dB

### Solid State Microwave Power Amplifiers

Instruments for Industry, S61 Series Solid State amplifiers are state-of-the-art amplifiers and provide outstanding RF performance. The S61 Series amplifiers operate over the frequency range from 0.8-6.0 GHz and can be supplied at power levels from 30 watts to 400 watts offering all the control and communication features needed for today's automated test systems. From the ground up, the S61 Series amplifiers are built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site.

- Solid State Design
- Rugged Construction & High Reliability
- Instantaneous Broadband Frequency range
- Touch Screen Color display
- Modular Design Construction
- Integrated Force Air Cooling
- Self-diagnostic Circuitry
- USB, Ethernet, GPIB and RS232

Operation safety and ease of use are paramount in IFI product designs. The IFI S61 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 S61 series includes a state-of-the-art interface that is sophisticated, comprehensive, and yet simple to use. The color touch 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 remote control operation USB, Ethernet, GPIB and RS232 interface are provided as standard. To meet individual application needs, the S61 Series amplifiers can be easily customized with other options. With this capability and its reliable elegant design, the S61 series amplifiers are the perfect system for your applications.

### Models & General Specifications

Model Number	Frequency Range (GHz)	Rated Power (watts min)	P1dB Power (watts min)	Gain (dB min)	Mains (kVA)	Weight (Pounds)	Size (Inches)
S61-30	0.8-6.0	35	30	45	0.35	33	7.00" H x 19" W x 24" D
S61-50	0.8-6.0	60	50	47	0.65	44	7.00" H x 19" W x 24" D
S61-100	0.8-6.0	125	100	50	1.5	62	7.00" H x 19" W x 24" D
S61-200	0.8-6.0	250	200	53	2.5	110	12.25" H x 19" W x 24" D
S61-400	0.8-6.0	500	400	56	5.5	352	Rack Intergrated



**IFI S61 Series 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 200 watts, 7/16 at 400 watts
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	-18dBc (typical) @ Linear Power

**Standard Features for IFI S61 Series**

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)

USB, Ethernet, GPIB & RS232 Remote Control

Internal Pre-amplification to obtain rated output power with input level of 0 dBm or less.

Internal Systems Diagnostics & Status Indicators

Total/Operate Elapsed Time Metering in hours

RF Safety Interlock

Forward/Reflected Power Indication simultaneously on Front Panel display

**Standard Prime Power**

100, 115, 120 VAC ±10% 50/60 Hz, single phase

220, 230, 240VAC ±10% 50/60 Hz, single phase