S61-200 Solid State Microwave Power Amplifier
1.0 – 6.0GHz • 200 Watts • Compact Size – 6U • Solid State Reliability

The Instruments for Industry, S61-200 Solid State amplifier is state-of-the-art and provides outstanding RF performance. The S61-200 amplifier operates over the frequency range from 1.0 – 6.0GHz and supplies >200W of CW Power. From the ground up, the S61-200 amplifier is built to withstand rugged handling, whether it's being shipped to you or hauled around from site to site. This series features heavy-duty aluminum chassis construction with a modular approach for easy access and service. The S61-200 is perfectly suited for all Military / Avionic and EMC testing as well as general purpose industrial applications.

Operation safety and ease of use are paramount in IFI product designs. The S61-200 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 S61-200 includes a state-of-the-art user interface that is sophisticated, comprehensive, and yet simple to use.

The Color Touchscreen shows forward/reverse power indication in watts or dBm, system status and self-diagnostic information. Peak power metering is incorporated to measure forward and reflected power while producing pulse power. All the amplifier 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 an RS-232, Ethernet, USB and IEEE interface are provided as standard. To meet individual application needs, the S61-200 Series amplifiers can be easily customized with other options. With this capability and its reliable elegant design, the S61-200 series amplifiers are the perfect system for your applications.

Features
- Solid State Design
- Gain Control
- Module & System Temp-Monitoring
- Rugged Construction & High Reliability
- Instantaneous Broadband Frequency range
- Backlit Color Touchscreen
- Modular Design Construction
- Integrated Force Air Cooling
- Self-diagnostic circuitry
- IEEE-488, Ethernet, USB & RS232 Remote
- Whisper Mode: lower acoustic noise (Temperature controlled variable speed)
- Peak power metering
- Power Indication in Watts or dBm

Specifications subject to change without notice
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General Specifications:

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Frequency Range (MHz)</th>
<th>Rated Power (watts minimum)</th>
<th>Gain (dB min)</th>
<th>Mains (kVA)</th>
<th>Weight (Pounds)</th>
<th>Size (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S61-200</td>
<td>1.0 – 6.0GHz</td>
<td>200 watts</td>
<td>53</td>
<td>3.0</td>
<td>70 Lbs.</td>
<td>10.5”H x 19”W x 27”D</td>
</tr>
</tbody>
</table>

Standard Features for IFI S61-200 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, Ethernet, USB & 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
- RF Input/Output Connectors on the Front Panel, 118R for rear panel
- Internal Systems Diagnostics & Status Indicators
- Total/Operator Elapsed Time Metering in hours
- RF Safety Interlock
- Forward/Reflected Power Indication simultaneously on Front Panel display

IFI S61-200 Solid State Amplifier Specifications

Frequency Range: 1.0 – 6.0GHz
Rated Output Power: 200W minimum
P1dB Power: 100W minimum
Gain @ Rated Power: 53 dB
Prime Power: 100-240 VAC Single Phase 50/60Hz (Alternate Powers are listed on next page)
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: 0º to 50º C
Non-operating Temp: -40º to 70º C (50,000 feet max)
Humidity: 95% without condensation
Altitude: 10,000 feet
Cooling System: Air cooled, self contained
Modulation: Pulse, AM, FM
Configuration: Rack Mountable
Spurious Outputs: < -60 dBc nominal
Harmonics: < -20dBc nominal @ Linear Power

Specifications subject to change without notice
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**Standard Prime Powers:**
- 220, 230, 240VAC ±10% 50/60 Hz, single phase
- 120/208VAC ±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 S61-200 Series Solid State Amplifiers**
- **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**