



## S251 Series



### MAIN FEATURES

- Intuitive user interface
- Rugged Modular Design Construction
- USB, Ethernet, GPIB and RS232 interface
- Built in Calibrated Directional Coupler
- 3 year warranty

Instruments for Industry, S251 Series Solid State amplifiers provide outstanding RF performance. Operating over the frequency range from 1.0 GHz to 2.5 GHz and can be supplied at power levels up to 1000 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.

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 system level. In addition, the S251 series includes an intuitive interface that is sophisticated, comprehensive, and yet simple to use. The color interface displays forward/reverse power indication, system status and self-diagnostic information. All the amplifiers operating parameters are simultaneously available via the interface as well as over the remote bus. Selection via the interface 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 S251 Series amplifiers can be easily customized with other options. With this capability and its reliable design, the S251 series amplifiers are the perfect system for your applications.

### Models & General Specifications

| Model Number | Frequency Range      | Rated Power | P1dB Power | Gain  | Mains Power | Weight | Size                                |
|--------------|----------------------|-------------|------------|-------|-------------|--------|-------------------------------------|
| S251-100     | 0.8 GHz -<br>2.5 GHz | 100 W       | 80 W       | 50 dB | 1 kVA       | 28 kg  | 19 inch, 3U Rack Case, 680 mm Deep  |
| S251-1000    |                      | 1000 W      | 800 W      | 60 dB | 9 kVA       | 227 kg | 19 inch, 10U Rack Case, 680 mm Deep |
| S251-200     |                      | 200 W       | 150 W      | 53 dB | 1.8 kVA     | 41 kg  | 19 inch, 3U Rack Case, 680 mm Deep  |
| S251-300     |                      | 300 W       | 250 W      | 55 dB | 2.5 kVA     | 55 kg  | 19 inch, 4U Rack Case, 680 mm Deep  |
| S251-400     |                      | 400 W       | 300 W      | 56 dB | 3 kVA       | 114 kg |                                     |
| S251-500     |                      | 500 W       | 400 W      | 57 dB | 4.1 kVA     | 125 kg | 19 inch, 6U Rack Case, 680 mm Deep  |



## RF Specifications

|                            |  |
|----------------------------|--|
| Gain Variation (max) $\pm$ | +/- 3.0 dB   |
| Harmonics @ P1dB           | -20 dBc  |
| Spurious (min.)            | -60 dBc  |
| Modulation Formats         | AM, FM, Pulse  |
| Gain Control               | 0-30 dB in 255 Steps   |
| Output VSWR Tolerance      | Infinite any phase (< 4:1 no foldback, > 4:1 gradual foldback) |
| Stability                  | Unconditional  |
| Output Impedance           | 50 Ohm   |
| Input VSWR                 | 2:1 (max)  |
| Output VSWR                | 2.5:1 (max)  |
| Spurious                   | -70 dBc  |

## General Specifications

|                     |   |
|---------------------|---|
| Safety Interlock    | Via rear panel mounted BNC-female   |
| Supply Voltage      | < 3KVA Single Phase 90 to 264 VAC<br>> 3KVA Three Phase, 5 Wire STAR, 380 to 415 VAC / 4 Wire Delta, 208 to 240 VAC |
| Supply Frequency    | 47 to 63 Hz   |
| RF Input Connector  | Type N female   |
| RF Output Connector | Type N or 7/16 Female   |
| Com. Interface      | GPIO, RS232, Ethernet & USB   |
| Cooling System      | Air Cooled, Self-contained  |

## Available Models

| Product   | Description                                      |
|-----------|--|
| S251-100  | 1 GHz to 2.5 GHz 100W Broadband Power Amplifier  |
| S251-1000 | 1 GHz to 2.5 GHz 1000W Broadband Power Amplifier |
| S251-200  | 1 GHz to 2.5 GHz 200W Broadband Power Amplifier  |
| S251-300  | 1 GHz to 2.5 GHz 300W Broadband Power Amplifier  |
| S251-400  | 1 GHz to 2.5 GHz 400W Broadband Power Amplifier  |
| S251-500  | 1 GHz to 2.5 GHz 500W Broadband Power Amplifier  |