



## S21 Series



Instruments for Industry, S21 Series Solid State amplifiers provide outstanding RF performance. Operating over the frequency range from 1.0 GHz to 2.0 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 S21 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 S21 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 S21 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 S21 Series amplifiers can be easily customized with other options. With this capability and its reliable design, the S21 series amplifiers are the perfect system for your applications.

### MAIN FEATURES

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

### Models & General Specifications

Model Number	Frequency Range	Rated Power	P1dB Power	Gain	Mains Power	Weight	Size
S21-100	1 GHz - 2 GHz	100 W	80 W	50 dB	0.8 kVA	28 kg	19 inch, 3U Rack Case, 680 mm Deep
S21-1000		1000 W	900 W	60 dB	8 kVA	227 kg	19 inch, 10U Rack Case, 680 mm Deep
S21-200		200 W	150 W	53 dB	1.5 kVA	41 kg	19 inch, 3U Rack Case, 680 mm Deep
S21-25		25 W	20 W	44 dB	0.25 kVA	17 kg	
S21-300		300 W	250 W	55 dB	2.5 kVA	55 kg	19 inch, 4U Rack Case, 680 mm Deep
S21-50		50 W	40 W	47 dB	0.4 kVA	23 kg	19 inch, 3U Rack Case, 680 mm Deep
S21-500		500 W	450 W	57 dB	4 kVA	125 kg	19 inch, 6U Rack Case, 680 mm Deep



**RF Specifications**

Gain Variation (max) ±	+/- 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 > 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	GPIB, RS232, Ethernet & USB
Cooling System	Air Cooled, Self-contained

**Available Models**

Product	Description
S21-100	1 GHz to 2 GHz 100W Broadband Power Amplifier
S21-1000	1 GHz to 2 GHz 1000W Broadband Power Amplifier
S21-200	1 GHz to 2 GHz 200W Broadband Power Amplifier
S21-25	1 GHz to 2 GHz 25W Broadband Power Amplifier
S21-300	1 GHz to 2 GHz 300W Broadband Power Amplifier
S21-50	1 GHz to 2 GHz 50W Broadband Power Amplifier
S21-500	1 GHz to 2 GHz 500W Broadband Power Amplifier