



## S1412 Series (Pulsed)



### MAIN FEATURES

- Intuitive user interface
- Rugged Modular Design Construction
- USB, Ethernet, GPIB and RS232 interface
- 3 year warranty

Instruments for Industry, S1412 Solid State Pulse amplifiers series provide outstanding RF performance. Operating over the frequency range from 1.2 GHz to 1.4 GHz and can be supplied at power levels up to 4000 KW pulsed offering all the control and communication features needed for today's automated test systems. From the ground up, the S1412 Pulse 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 S1412 Pulse 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 S1412 Pulse 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 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 S1412 Pulse Series amplifiers can be easily customized with other options. With this capability and its reliable design, the S1412 Pulse Series amplifiers are the perfect system for your applications.

### Models & General Specifications

Model Number	Frequency Range	Rated Power	Gain	Mains Power	Weight	Size
S1412-0.5KWP	1.2 GHz - 1.4 GHz	500 W	57 dB	0.6 kVA	12 kg	19 inch, 3U Rack Case, 680 mm Deep
S1412-1KWP		1 kW	60 dB	1 kVA	28 kg	19 inch, 4U Rack Case, 680 mm Deep
S1412-2KWP		2 kW	63 dB	1.5 kVA	121 kg	19 inch, 10U Rack Case, 680 mm Deep
S1412-4KWP		4 kW	66 dB	3.6 kVA	121 kg	



**RF Specifications**

Gain Variation (max) ±	+/- 3.0 dB
Harmonics @ P1dB	-20 dBc
Pulse Width Range	100 nsec to 100 usec
PRF Range	Up to 100 KHz
Duty Cycle	10% Standard
Pulse Rise & Fall Time	25 nsec nominal 45 nsec maximum
Pulse to Pulse Jitter	<0.1 dB
Pulse Width Jitter (Distortion)	+/-5 nsec maximum
Pulse Delay	500 nsec maximum / 300 nsec typical
Pulse Droop	0.5 dB/100 usec, 0.25/10 usec
Pulse On / Off Ratio	80 dB
Modulation Formats	AM, FM Pulse
Output VSWR Tolerance	Infinite any phase (< 4:1 no foldback, > 4:1 gradual foldback)
Stability	Unconditional
Output Impedance	50 Ohm
Input VSWR	2.0:1
Output VSWR	2.5:1
Spurious	50 dBc
Pulse Input	Front Panel BNC Female, (TTL into 50 ohms as Standard)
Maximum Input Power (no damage)	10 dBm

**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 Products**

Product	Description
S1412-0.5KWP	1.2 GHz to 1.4 GHz 500W Pulse Solid State Amplifier
S1412-1KWP	1.2 GHz to 1.4 GHz 1KW Pulse Solid State Amplifier
S1412-2KWP	1.2 GHz to 1.4 GHz 2KW Pulse Solid State Amplifier
S1412-4KWP	1.2 GHz to 1.4 GHz 4KW Pulse Solid State Amplifier