SIM914
350 MHz Preamplifier

- DC to 350 MHz bandwidth
- Two independent amplifier channels
- Voltage gain of 5 (14 dB) per channel
- 6.4 nV/√Hz input noise
- 3 ns overload recovery
- Excellent phase linearity

The SIM914 dual channel 350 MHz preamplifier contains two wide bandwidth, DC coupled amplifiers, each with a gain of 5 (14 dB). Its fast rise time, low noise, and excellent DC accuracy make it an ideal instrument for amplifying signals like those from photomultiplier tubes and photodiodes.

The gain stages on the SIM914 can be cascaded multiple times without creating oscillation problems. Input clamping gives a 3 ns recovery time from a 10× overload.

A wide bandwidth and 50 Ω input and output impedance ensure a linear phase response across the entire frequency range, preserving pulse shapes.

The SIM914 is part of a wide range of modules available for the SIM (Small Instrumentation Modules) platform from Stanford Research Systems. For more information, please contact SRS at 408-744-9040 or visit our web site at www.thinkSRS.com.

Specifications

Amplifier channels	2
Inputs	50 Ω, DC coupled
Outputs	50 Ω, DC coupled
Bandwidth	DC to 350 MHz
Rise/Fall time	1 ns
Voltage gain	5 per channel (14 dB)
Input noise	6.4 nV/√Hz, typical
Operating range	
Inputs	±200 mV
Outputs	±1 V
Propagation delay	2.7 ns
Recovery time	3 ns for 10× overload
Input protection	±50 V for <1 µs
Output clamp	±1.6 V
Output overload detect	±1.3 V
Crosstalk	−60 dB
Operating temperature	0 °C to 40 °C, non-condensing
Interface	Serial via SIM interface
Connectors	BNC (4 front)
	DB15 (M) SIM Interface
Power	±5 V (100 mA)
Dimensions	1.5" W × 3.6" H × 7.0" D
Weight	1.4 lbs
Warranty	One year parts & labor against defects in workmanship and materials

Stanford Research Systems

1290-D Reamwood Avenue • Sunnyvale, CA 94089 • email: info@thinkSRS.com
Phone: (408) 744-9040 • Fax: (408) 744-9049 • www.thinkSRS.com