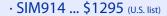
## Small Instrumentation Modules

SIM914 — 350 MHz preamplifier (2-channel)



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- · 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







## SIM914 Dual 350 MHz Preamplifier

The SIM914 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 of several SIM914 can be cascaded without creating oscillation problems. Input clamping gives a 3 ns recovery time from a  $10\times$  overload.

Wide bandwidth, along with  $50 \Omega$  input and output impedance, ensures a linear phase response across the entire frequency range, preserving pulse shapes.

## **SIM914 Specifications**

Amplifier channels

Inputs, outputs  $50 \Omega$ , DC coupled

Bandwidth DC to 350 MHz (1 ns rise/fall time)

Voltage gain 5 per channel (14 dB)

Input noise  $6.4 \,\mathrm{nV/VHz}$  (typ.)

Operating range  $\pm 200 \,\text{mV}$  (inputs),  $\pm 1 \,\text{V}$  (outputs)

Propagation delay 2.7 ns (typ.)

Recovery time 3 ns for  $10^{\times}$  overload Input protection  $\pm 50 \text{ V}$  for  $<1 \mu\text{s}$   $\pm 1.6 \text{ V}$ 

Output overload detect ±1.3 V Crosstalk –60 dB

Crosstalk –60 dE Operating temperature 0 °C to

Operating temperature 0 °C to 40 °C, non-condensing Connectors BNC (4 front), DB15/M SIM interface Power Powered by SIM900 Mainframe, or

external DC supply (+5 V)

Dimensions, weight 1.5" × 3.6" × 7.0" (WHD), 1.4 lbs. Warranty One year parts and labor on defects

in materials and workmanship

## **Ordering Information**

SIM914 350 MHz preamplifier \$1295



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