

# Small Instrumentation Modules

## *SIM980 — Analog summing amplifier (4-channel)*

- **Four summing inputs**
- **$\pm 10$  V operating range**
- **1 MHz bandwidth**
- **Low crosstalk ( $-80$  dB)**
- **$< 100$   $\mu$ V input offset**
- **High slew rate**

• **SIM980 ... \$995** (U.S. list)



### **SIM980 Summing Amplifier**

The SIM980 Summing Amplifier has four input channels that can be added or subtracted from each other. The *output* noise is less than 60 nV/ $\sqrt{\text{Hz}}$ , and crosstalk between channels is less than  $-80$  dB. With a bandwidth of 1 MHz, a slew rate of 40 V/ $\mu$ s, and input offsets that are trimmed to  $\pm 100$   $\mu$ V, the SIM980 is extremely useful in many analog applications.

The digital control circuitry in the SIM980 is designed with SRS's special clock-stopping architecture in which the microcontroller is turned on only when switch settings are being changed. This guarantees that no digital noise contaminates low-level analog signals.

#### **Specifications**

Number of inputs	4
Function	Inverting, non-inverting or off
Gain	1 $\times$
Impedance	1 M $\Omega$
Bandwidth	DC to 1 MHz
Output noise	60 nV/ $\sqrt{\text{Hz}}$ @ 1 kHz

Crosstalk	$-80$ dB @ 1 kHz
Offset	$\pm 100$ $\mu$ V (after 5 min. warm up)
Max. input & output	$\pm 10$ V
Input slew rate	40 V/ $\mu$ s
THD	0.01 % (80 dB) @ 1 kHz
Output slew rate	75 V/ $\mu$ s
Operating temperature	0 °C to 40 °C, non-condensing
Interface	Serial via SIM interface
Connectors	BNC (5 front-panel, 1 rear-panel) DB15 (male) SIM interface
Power (max.)	Powered by SIM900 Mainframe, or by user-provided DC power supply ( $\pm 15$ V and +5 V)
Dimensions, weight	1.5" $\times$ 3.6" $\times$ 7.0" (WHD), 1.5 lbs.
Warranty	One year parts and labor on defects in materials and workmanship

#### **Ordering Information**

SIM980	Summing amplifier	\$995
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