Small Instrumentation Modules

SIM980 — Analog summing amplifier (4-channel)

- **Four summing inputs**
- **±10 V operating range**
- **1 MHz bandwidth**
- **Low crosstalk (–80 dB)**
- **<100 µV input offset**
- **High slew rate**

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/√Hz, and crosstalk between channels is less than −80 dB. With a bandwidth of 1 MHz, a slew rate of 40 V/µs, and input offsets that are trimmed to ±100 µV, 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×
Impedance	1 MΩ
Bandwidth	DC to 1 MHz
Output noise	60 nV/√Hz @ 1 kHz
Crosstalk	−80 dB @ 1 kHz
Offset	±100 µV (after 5 min. warm up)
Max. input & output	±10 V
Input slew rate	40 V/µs
THD	0.01 % (80 dB) @ 1 kHz
Output slew rate	75 V/µs
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.)	+5 VDC (100 mA),±15 VDC (300 mA)
Dimensions, weight	1.5"×3.6"×7.0" (WHD), 1.5 lbs.
Warranty	One year parts and labor on defects in materials and workmanship

Ordering Information

SIM980	Summing amplifier