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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

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.)	Powered by SIM900 Mainframe, or by user-provided DC power supply (±15 V and +5 V)
Dimensions, weight	1.5" × 3.6" × 7.0" (WHD), 1.5 lbs.
Warranty	One year parts and labor on defects in materials and workmanship