# 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 ... $795** *(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/√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

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|---|---|
| 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)<br>DB15 (male) SIM interface |
| Power | Supplied by SIM900 Mainframe, or optionally by a user-supplied 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 |

### Ordering Information

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|---|---|---|
| SIM980 | Summing amplifier | $795 |