

# SR445/SR240 HIGH FREQUENCY PREAMPLIFIERS



**SR445**  
**(Stand-Alone)**

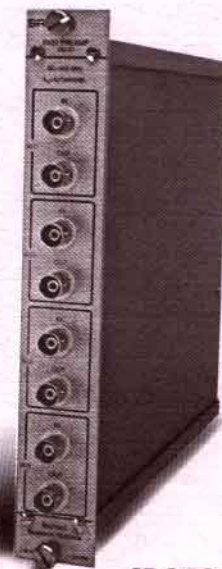
- **DC to 300 MHz Bandwidth**
- **1.2ns Rise/Fall Time**
- **2.2nV/ $\sqrt{\text{Hz}}$  Input Noise**
- **Voltage Gains to 125**

Wide bandwidth and low input noise make the SR445 and SR240 preamplifiers ideal for amplifying the output of photomultiplier tubes and photodiodes. They can also be used to improve the sensitivity of oscilloscopes, photon counters, boxcar averagers, spectrum analyzers and other fast electronic test equipment. Four independent channels, each with a voltage gain of five, can be used separately for isolated amplification or cascaded to provide gains up to 125. To increase the amplitude of signals from high impedance sources, like photomultiplier tubes, the input impedance of channel one can be switched from 50 to 500 ohms. For outstanding performance at an affordable price contact Stanford Research Systems at (408)744-9040.

## SPECIFICATIONS

<b>Input</b> .....	50 $\Omega$ impedance, dc coupled, BNC connectors. (Channel 1: 50 or 500 $\Omega$ )
<b>Outputs</b> .....	dc coupled, BNC connectors (terminate into 50 $\Omega$ ).
<b>Operating Range</b> .....	Inputs: $\pm 200\text{mV}$ , Outputs: $\pm 1.0\text{V}$ .
<b>Voltage Gain</b> .....	5 per channel. Up to 3 channels can be cascaded.
<b>Bandwidth</b> .....	dc to 300MHz (-3dB)
<b>Rise/Fall Time</b> .....	1.2ns (single channel)
<b>Noise</b> .....	< 50 $\mu\text{V}$ rms referenced to input (2.2nV/ $\sqrt{\text{Hz}}$ ).
<b>Stability</b> .....	10 $\mu\text{V}/^\circ\text{C}$ referenced to input (0-50 $^\circ\text{C}$ ).
<b>Input Offset</b> .....	$\pm 50\mu\text{V}$ (adjustable)
<b>Propagation Delay</b> .....	2.2ns per channel.
<b>Recovery Time</b> .....	< 4ns for a X20 overload.
<b>Protection</b> .....	$\pm 3.5\text{Vdc}$ , $\pm 50\text{V}$ transient.
<b>Mechanical</b> .....	(SR445) 7.7" x 6.7" x 2.0" (SR240) Single width NIM module per TID-20893.
<b>Power</b> .....	(SR445) 16W, 100/120/220/240V, 50/60Hz. (SR240) +12V/300mA, -12V/325mA
<b>Warranty</b> .....	One year parts and labor on materials and workmanship.

All specifications are subject to change (8/92)



**SR240**  
**(NIM Module)**



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