The ORTEC Model 533 Dual Sum and Invert Amplifier is a single-width NIM that incorporates two wideband unity-gain amplifiers. Amplifier A has four summing inputs and Amplifier B has two summing inputs. Both amplifiers invert the signals. If a non-inverting output is required, Amplifier A can be cascaded through Amplifier B to form the noninverting 4-input summing amplifier. By connecting A inputs in parallel and B inputs in parallel, the Model 533 can be used as a non-inverting amplifier with a gain of 1, 2, 3, 6, or 8.

The wide dynamic range and wide bandwidth make the ORTEC Model 533 useful for summing and/or inverting any signals that fall within the dc to 7 MHz bandwidth, such as most NIM-standard linear or logic signals. A convenient oscilloscope monitor test point is located next to each of the six front-panel connectors.

Specifications

**PERFORMANCE**

**VOLTAGE GAIN**

–1 for each input; tolerances $\pm 2\%$.

**BANDWIDTH**

DC to 7 MHz ($t_r \leq 50$ ns).

**INTEGRAL NONLINEARITY**

$< \pm 0.05\%$.

**TEMPERATURE INSTABILITY**

Gain $< \pm 0.005\%/°C$.

Output DC Level $< \pm 50 \mu V/°C$.

**INPUTS**

Four identical inputs for Amplifier A and two for Amplifier B; each accepts 0 to 10 V rated span, 12 V maximum, positive or negative, unipolar or bipolar; $Z_m \approx 666 \Omega$, dc-coupled; Inputs A1, A2, B1, and B2 on front panel, Inputs A3 and A4 on rear panel; all BNC connectors.

**OUTPUTS**

One output for each Amplifier A and B, completely independent of each other; range 0 to $\pm 10$ V linear; $Z_o \approx 0.1 \Omega$; Outputs A and B on front panel; BNC connectors.

**ELECTRICAL AND MECHANICAL**

**POWER REQUIRED**

+24 V, 65 mA; –24 V, 65 mA.

**WEIGHT**

Net 0.9 kg (2 lb).

Shipping 2.2 kg (5 lb).

**DIMENSIONS**

Standard single-width NIM 3.43 X 22.13 cm (1.35 X 8.714 in.) per DOE/ER-0457T.

**Ordering Information**

To order, specify:

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<td>Dual Sum and Invert Amplifier</td>
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Specifications subject to change

100417