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 ±2%.

**BANDWIDTH** DC to 7 MHz (τ ≤50 ns).

**INTEGRAL NONLINEARITY** <±0.05%.

**TEMPERATURE INSTABILITY**

- **Gain** <±0.005%/°C.
- **Output DC Level** <±50 µV/°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; $Z_{in} \approx 666 \, \Omega$, 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 ±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

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