



- ✓ Gain Accuracy: 1.000,  $\pm 0.2\%$ , typical
- ✓ Up to Sixteen (16) Differential Input channels
- ✓ Four (4) Short-circuit-protected Outputs
- ✓ -100dB Noise Floor (16-bit resolution)
- ✓ Bandwidth: DC to 200KHz,  $\pm 1$  dB

## THE WRONG SOLUTION



## OUR INNOVATIVE SOLUTION

The **BUF100-series Buffer Amplifier Box** is a family of rack-mountable, quad buffered output amplifiers wherein each input channel is routed to four (4) separate output connectors with each channel buffered through a unity gain amplifier.

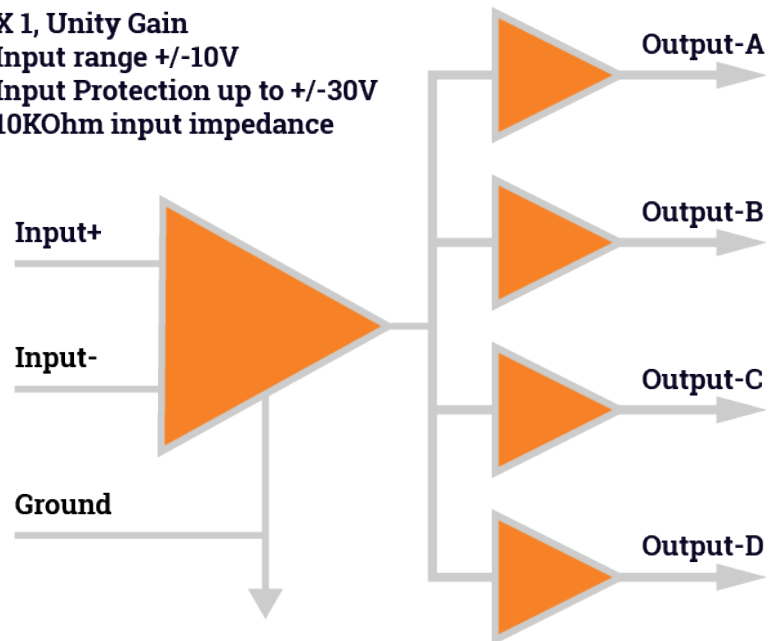
This architecture allows four devices to be connected to a single input channel and, as each output is individually buffered, the disruption of one output will not affect the other outputs for that channel, i.e. if Ch2 Output B is shorted, Outputs A, C, and D on Ch2 will not be affected.

Each input is a differential amplifier that will accept true differential or single-ended signals.

## BUFFER AMPLIFIER CONFIGURATION

- ✓ 20K $\Omega$  Differential Input Impedance
- ✓ 10K $\Omega$  Single-ended Input Impedance
- \* Satisfactory with most of low impedance S/C outputs
- \* Higher impedance config. is available upon request
- ✓ Gain Accuracy – 1.000  $\pm 0.1\%$ , typical
- ✓ Up to Sixteen (16) Differential Input channels
- ✓ Four (4) Short Circuit Protected Outputs
- ✓ Better than -100 dB Noise Floor – better than ideal 16 bit ADC resolution
- ✓ Bandwidth – DC to 200K Hz  $\pm 1$  dB

**X 1, Unity Gain**  
 Input range  $\pm 10V$   
 Input Protection up to  $\pm 30V$   
 10K $\Omega$  input impedance



<b>BUF101</b>	<ul style="list-style-type: none"> <li>✓ The model BUF101 is a sixteen (16) channel input, quad buffer output amplifier.</li> <li>✓ Inputs: 16 channels on DB37 (female) at the rear panel</li> <li>✓ Outputs: 4x DB37's (male) on rear panel</li> </ul>
<b>BUF102</b>	<ul style="list-style-type: none"> <li>✓ The model BUF102 is the same as BUF101 but with AC coupling.</li> </ul>
<b>BUF104</b>	<ul style="list-style-type: none"> <li>✓ The model BUF104 is the same as BUF101 but with High CMR (up to 60V @ 1KHz BW)</li> </ul>
<b>BUF110</b>	<ul style="list-style-type: none"> <li>✓ The model BUF100 is an eight (8) channel input, quad buffer output amplifier.</li> <li>✓ Inputs: 8 channels on BNC connectors on the front panel</li> <li>✓ Outputs: 3x BNCs on the front panel and 1 DB25 on the rear panel</li> </ul>
<b>BUF120</b>	<ul style="list-style-type: none"> <li>✓ The model BUF120 is a four (4) channel input, quad buffer output amplifier designed specifically for IRIG-B.</li> <li>✓ Inputs: 4 channels on BNC connectors on front panel</li> <li>✓ Outputs: 4x BNC connectors on front panel</li> </ul>
<b>Normal Input Voltage Range</b>	<ul style="list-style-type: none"> <li>✓ ±12VDC Max.</li> </ul>
<b>Input Voltage Protection</b>	<ul style="list-style-type: none"> <li>✓ ±30VDC</li> </ul>
<b>Input Common Mode Voltage Range</b>	<ul style="list-style-type: none"> <li>✓ ±11VDC Max.</li> </ul>
<b>Output Voltage Swing</b>	<ul style="list-style-type: none"> <li>✓ ±12VDC Max.</li> </ul>
<b>Frequency Response ±1dB</b>	<ul style="list-style-type: none"> <li>✓ DC-200kHz</li> </ul>
<b>Output Slew Rate</b>	<ul style="list-style-type: none"> <li>✓ 10V/μsec typical</li> </ul>
<b>Harmonic Distortion + noise @ 1KHz (3.5 Vrms output)</b>	<ul style="list-style-type: none"> <li>✓ 0.001% typical</li> </ul>
<b>Gain, 1.00 Typical (optional Gain or Attenuation available)</b>	<ul style="list-style-type: none"> <li>✓ ±0.1% Single-ended, ±0.14% Diff.</li> <li>✓ ±0.01% opt. Single-ended</li> </ul>
<b>Noise DC to 70 KHz BW (typical)</b>	<ul style="list-style-type: none"> <li>✓ 30 μVrms, -114dB noise floor</li> </ul>
Other output voltage maximum swings, gain accuracy specs, bandwidths and noise specs are available.	