160 MHz Ultra-Miniature Logarithmic Amplifier

120 MHz to 200 MHz

Log Linearity at
160 MHz +/- 1.0dB

Linearity over Temperature and Frequency +/- 2.0dB max

The Pascall Ultra-Miniature series of Logarithmic Amplifiers provide broadband performance and superb linearity over a wide temperature range.

The UMSD range of logarithmic amplifiers are robustly constructed in lightweight aluminium alloy housings and are designed to withstand harsh mechanical environments. This range is specified for operation over a case temperature range of -45ºC to +85ºC.

Supply voltage options are +/- 12 Volts and +/- 15 Volts with a total dc input power of 2.7 Watts.

The small size and weight makes these units an ideal choice for compact airborne equipment designs where low power dissipation is vital to maintain high reliability and performance.

Pascall has a large range of alternative logarithmic amplifiers covering centre frequencies from 10 MHz to 1 GHz and is also able to design models to meet customers’ specific requirements.
**160 MHz Ultra-Miniature Logarithmic Amplifier**

**UMSDBB 16080**

| Frequency Range | 120 - 200 MHz |
| Dynamic Range   | -65 to +5dBm min |
| Linearity       | +/- 1.0dB |
|                 | +/- 2.0dB max |
|                 | +/- 5% max |
|                 | +/- 30mV max |

**Variation of Log Slope (over freq and temp -45 to +85ºC)**
- 2.0V nominal
- 25mV / dB nominal
- +/- 100mV min
- <20ns
- <85ns

**Variation of Log Output (over freq and temp -45 to +85ºC)**
- 2 : 1 max
- *+12V or +15 Volts @ 60mA
- *-12V or -15Volts @ 120mA

**Video Output @ 0dBm**
- 2.0V nominal
- 25mV / dB nominal
- +/- 100mV min
- <20ns
- <85ns

**Log Slope**
- 2.0V nominal
- 25mV / dB nominal
- +/- 100mV min
- <20ns
- <85ns

**Optional Electronic Offset Adjust**
- 2 : 1 max
- *+12V or +15 Volts @ 60mA
- *-12V or -15Volts @ 120mA

**Pulse Rise Time**
- <20ns

**Pulse Fall Time**
- <85ns

**Input VSWR**
- 2 : 1 max
- *+12V or +15 Volts @ 60mA
- *-12V or -15Volts @ 120mA

**Power Supply**
- *+12V or +15 Volts @ 60mA
- *-12V or -15Volts @ 120mA

**Size**
- 63.5 x 25.4 x 10.3mm

**Weight**
- 28g

**Connectors**
- SMA

**Case Temperature Range**
- Operating: -45 to +85ºC
- Storage: -55 to +100ºC

**Ordering Information**

<table>
<thead>
<tr>
<th>Without video filter 00:</th>
<th>With video filter specify Fc in MHz</th>
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<tbody>
<tr>
<td>Limited I.F. Output 0 = with; 1 = without</td>
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<table>
<thead>
<tr>
<th>Temp.Range 1 = 0 to 60ºC</th>
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<tr>
<td>2 = -45 to +85ºC</td>
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<table>
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<th>Supply Voltage 1 = ±12V</th>
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<td>2 = ±15V</td>
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*options available*