MODEL 611A
ANALOG MODULES, INC.

FAST PEAK PULSE STRETCHER

- 2 STAGE PEAK SENSE
- FAST INDEPENDENT RESETS
- HIGH INPUT IMPEDANCE
- INPUT GATING

DESCRIPTION:

The 611A Series Pulse Stretcher outputs a DC level equal to the peak value of a single narrow pulse down to 20ns FWHM. Fast independent resets facilitate processing of complex multiple events. DC outputs allow for post-processing at slower speeds.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Input</th>
<th>Reset(s)</th>
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<tbody>
<tr>
<td>Voltage</td>
<td>Voltage</td>
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<tr>
<td>Pulsewidth</td>
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<tr>
<td>Impedance</td>
<td>Impedance</td>
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<tr>
<td>Input Gating</td>
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<td>Output</td>
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<tr>
<td>Voltage</td>
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<tr>
<td>Gain</td>
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<td>Delay</td>
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<td>Droop</td>
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<tr>
<td>Size</td>
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<tr>
<td>Weight</td>
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- **Input Voltage**: 0 to 4V pulse
- **Pulsewidth**: ≥ 20ns FWHM, AC coupled (add -20 to part number)
- **Impedance**: 50Ω (add –50 to part number)
- **Input Gating**: TTL high gives 26dB attenuation
- **Output Voltage**: 0 to 4VDC up to 10mA
- **Gain**: 1.04V/V typical
- **Delay**: < 1µs
- **Droop**: < 0.1V/s typical at 25°C; 2 stage
- **Size**: 3.12” x 1.50” x 1.09”
- **Weight**: 3.2 oz.

- **Reset(s) Voltage**: 0 to 4V typical
- **Pulsewidth**: ≥ 50ns (Reset #1)
- **Impedance**: 10kΩ (add –10k to part number)
- **Input Gating**: TTL compatible, AC coupled
- **Output Voltage**: 0 to 4V typical
- **Gain**: 1.04V/V typical
- **Delay**: < 1µs
- **Droop**: < 0.1V/s typical at 25°C; 2 stage
- **Size**: 3.12” x 1.50” x 1.09”
- **Weight**: 3.2 oz.

- **Reset(s) Voltage**: 0 to 4V typical
- **Pulsewidth**: ≥ 50ns (Reset #1)
- **Impedance**: 10kΩ (add –10k to part number)
- **Input Gating**: TTL compatible, AC coupled
- **Output Voltage**: 0 to 4V typical
- **Gain**: 1.04V/V typical
- **Delay**: < 1µs
- **Droop**: < 0.1V/s typical at 25°C; 2 stage
- **Size**: 3.12” x 1.50” x 1.09”
- **Weight**: 3.2 oz.

- **Power** ± 11 to ± 16VDC at 45mA typical
- **Connections**: Input BNC, Output BNC, Reset Pins, Gate Pin, Power Filter feed-thru pins and ground lug

Specifications subject to change without notice.

APPLICATIONS:

Laser Pulse Capture, Laser Peak Power Monitor, Quad Detector Pulse Processing, Ultrasound Pulse Stretcher, Electronic Transient Capture
Typical Part Number: 611A-2-20-10k =
No. of Stages: 2
Input Pulsewidth: ≥ 20ns FWHM
Gain: 1.04 typical
Droop: ≤ 0.1V/s
Input Impedance: 10kΩ

DIMENSIONS ARE IN INCHES

611A EQUIVALENT SIMPLIFIED CIRCUIT