

Model TA2400 Fast Pulse/ Timing Preamplifier, 2.4 GHz, DC-coupled

FAST

FEATURES

- Small signal bandwidth DC ... 2400MHz
- Voltage gain 14dB (x5)
- DC coupling
- Closed loop OP-Amp design
- Low noise
- High output drive
- Single supply operation / internally generated bipolar supply / internal supply regulation

APPLICATIONS

- Pre-amp for ultra fast detectors (MCP, PMT, ...)
- Oscilloscope and transient recorder pre-amp
- Photon-/Ion- counting
- Wideband signal processing

DESCRIPTION

The TA2400 is a fast pulse preamplifier with a small signal bandwidth of 2.4GHz. A unique feature for such high speed amplifiers is the DC coupling. DC coupling avoids count rate effects due to non DC balanced pulse trains and the corresponding coupling capacitor charging.



SPECIFICATIONS

Voltage gain: 14 dB / x5, non inverting
Input: BNC, 50 Ohm, DC coupled
Outputs: BNC, low impedance, DC coupled
 $V_{OUT} = +/- 1.3V$ max, $I_{OUT} = +/- 150mA$ max.
Small signal bandwidth: 2400 MHz, $V_{OUT} = 200mV_{RMS}$
Full power bandwidth: 875 MHz, $V_{OUT} = 2V_{P-P}$
Slew rate: 5500 V/ μ s (2V step)
TA2400 08112006

Input offset voltage: 5.25mV max., +/- 20 μ V/ $^{\circ}$ C typ.

Input referred noise: 2.8 nV/ \sqrt{Hz}

Housing:

Case: extruded aluminium sheath, Al Mg Si
0.5
Lid: die cast, GD-Al Si 12
Size: 65/101 x 60 x 35 mm
Weight: 124 g

Power Requirements:

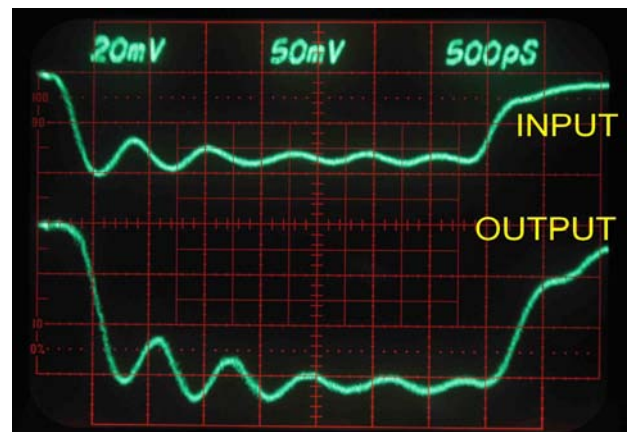
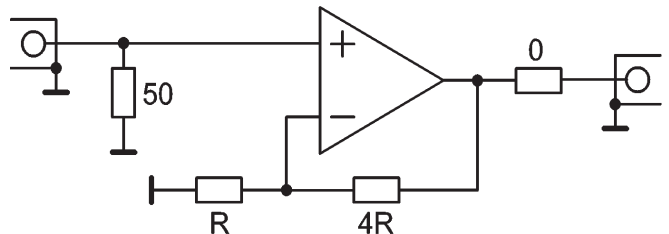
Connector: 2.1 mm center pin
Supply Voltage: nominal +12V
voltage range +10 ... +18V
Supply Power: 2.5W
Inverse polarity protection

Absolute maximum ratings:

Supply: 25V (100ms max.)
Signal input: +/- 2.5V
ESD rating: 3000V HBM, 200V MM

Accessories:

- External wall power supply (included)
- L-clips (AB-WL) for wall-/screw - mounting (optional)



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