

# 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  
 $V_{OUT} = +/- 1.3V \text{ max}$ ,  $I_{OUT} = +/- 150mA \text{ max}$ .  
**Small signal bandwidth:** 2400 MHz,  $V_{OUT} = 200mV_{RMS}$   
**Full power bandwidth:** 875 MHz,  $V_{OUT} = 2V_{P-P}$   
**Slew rate:** 5500 V/ $\mu$ s (2V step)  
TA2400 08112006

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

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

## 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:

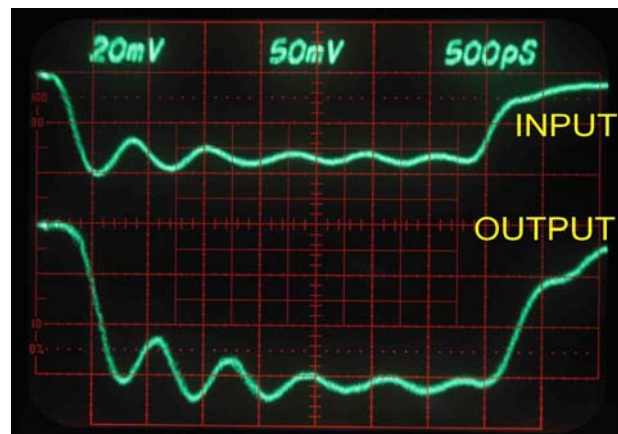
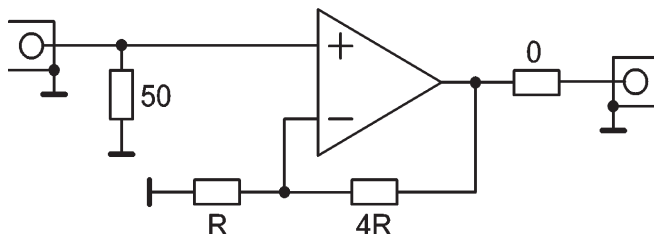
**Connector:** 2.1 mm center pin  
**Supply Voltage:** nominal +12V  
voltage range +10 ... +18V  
**Supply Power:** 2.5W  
Reverse polarity protected

## 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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