



**ADVANCED  
RESEARCH INSTRUMENTS  
CORPORATION**

PO Box 7427, Golden, CO 80403 USA  
Tel (303) 463-5500 Fax (303) 463-5505  
[www.aricorp.com](http://www.aricorp.com) E-mail: aricorp@aricorp.com

## **TRANSIMPEDANCE AMPLIFIERS**

*Designed for Fast Photo-Detector Applications*

<b>Model</b>	<b>Description</b>
TDC-30	DC-20 MHz Transimpedance Amplifier  The TDC-30 is FET based. A very low noise transimpedance amplifier featuring only 160 nAp-p full bandwidth input equivalent noise and 114dB gain. [0.5V/1 $\mu$ A]
TDC-50	DC-50 MHz Transimpedance Amplifier  The TDC-50 is FET based. A very low noise transimpedance amplifier featuring only 400 nAp-p full bandwidth input equivalent noise and 100dB gain. [1V/10 $\mu$ A]
TDC-100	DC-100 MHz Transimpedance Amplifier  The TDC-100 is FET based. A very low noise transimpedance amplifier featuring only 2 $\mu$ Ap-p full bandwidth input equivalent noise and 80dB gain. [1V/100 $\mu$ A]
DC-100	DC-100 MHz Transimpedance/Voltage Amplifier  The DC-100 can be used in a voltage amplifier mode producing 20dB gain. As a transimpedance amplifier it has only 1 $\mu$ Ap-p full bandwidth input equivalent noise and 60dB gain. [1V/1mA]

**Note:** All amplifiers are housed in the same small package and are pin compatible to ARI's PMT series of transimpedance amplifiers. They are a drop in replacement to the PMT series when wider bandwidth is required. The output amplitude is  $\pm 4V$  maximum when unterminated and  $\pm 2V$  maximum when terminated with 50 $\Omega$  impedance (recommended).

*All ARI Amplifiers typically require a power supply and cabling.  
Recommended Power Supply is the ARI Model F-100PS ( $\pm 15V$ ).*

[ The above specified gain is valid for a 50  $\Omega$  load. ]