



# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

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## PERFORMANCE CHECKSHEET

Model: AVR-D2-B-AC00-SOA  
Type: MIL-S-19500 Pulse Generator  
S.N.: 12631  
Date: May 4, 2011

Output Amplitude: 0 to  $\pm 40V$ , to 50 $\Omega$   
Pulse Width (FWHM): 2 ns , 200 ns – 20 us  
Rise Time (10%-90%):  $\leq 1.5$  ns  
Fall Time (90%-10%):  $\leq 2.5$  ns  
PRF: 1 Hz – 50 kHz  
Jitter, Stability: OK  
Prime Power: 100-240V AC, 50-60 Hz.

Basic specifications: →

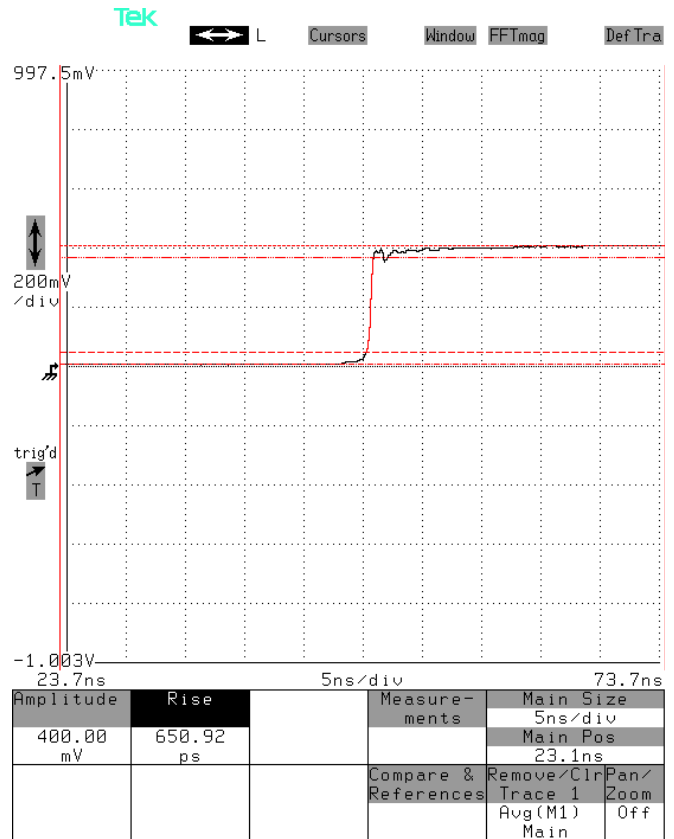
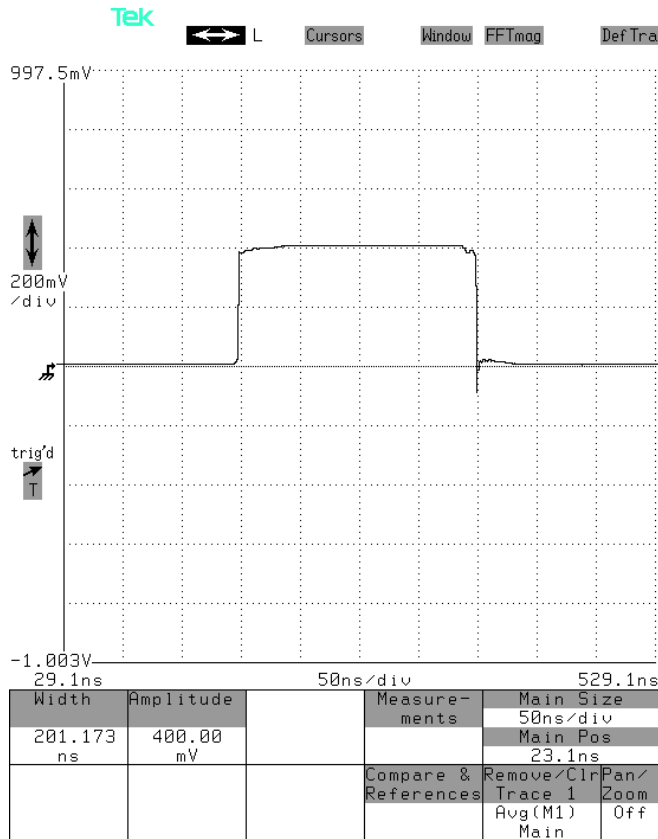
### Test Waveforms

Full pulse at 10 kHz, 200 ns, +40V,

Leading edge at 10 kHz, 200 ns, +40V,

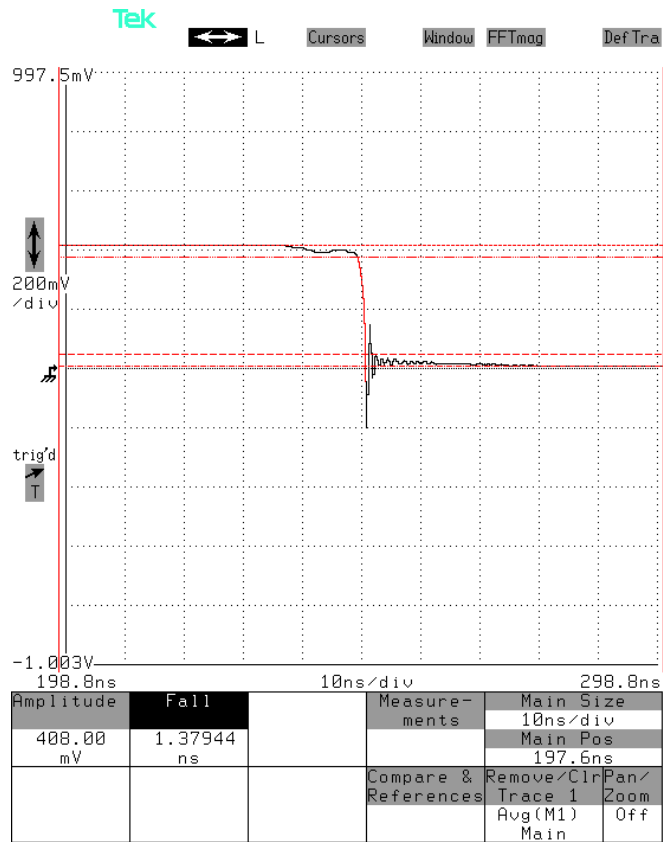
50 ns/div. 20 V/div (200 mV  $\times$  40 dB):

5 ns/div. 20 V/div (200 mV  $\times$  40 dB):



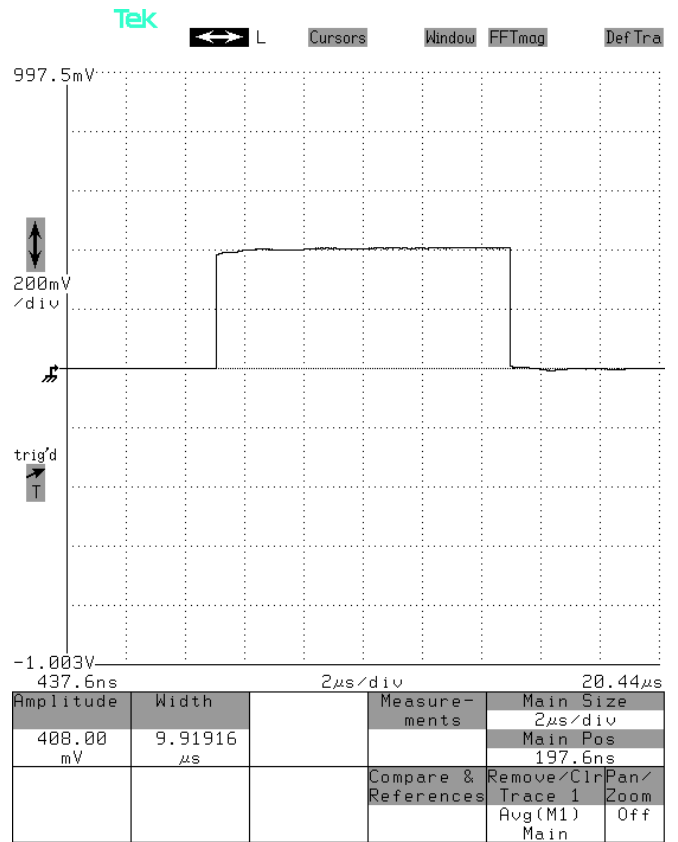
Trailing edge at 10 kHz, 200 ns, +40V,

5 ns/div. 20 V/div (200 mV × 40 dB):



Full pulse at 1 kHz, 10 us, +40V,

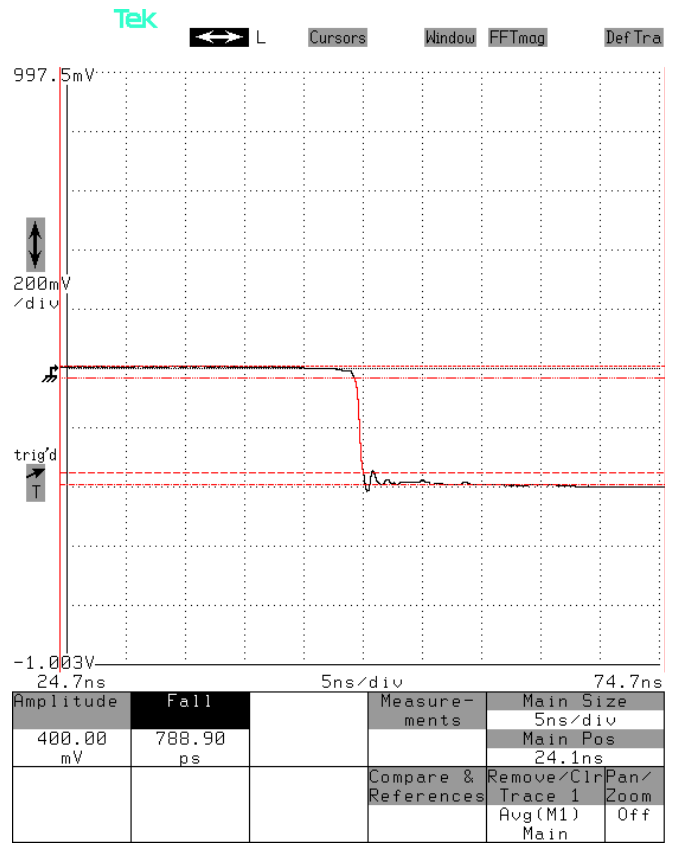
2 us/div. 20 V/div (200 mV × 40 dB):



Full pulse at 10 kHz, 200 ns, -40V,  
50 ns/div. 20 V/div (200 mV × 40 dB):

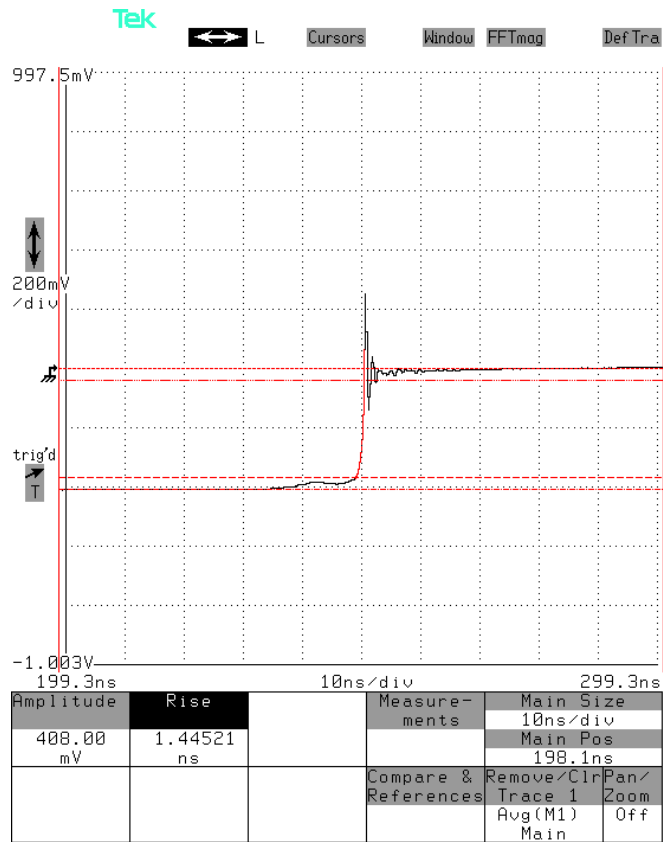


Leading edge at 10 kHz, 200 ns, -40V,  
5 ns/div. 20 V/div (200 mV × 40 dB):



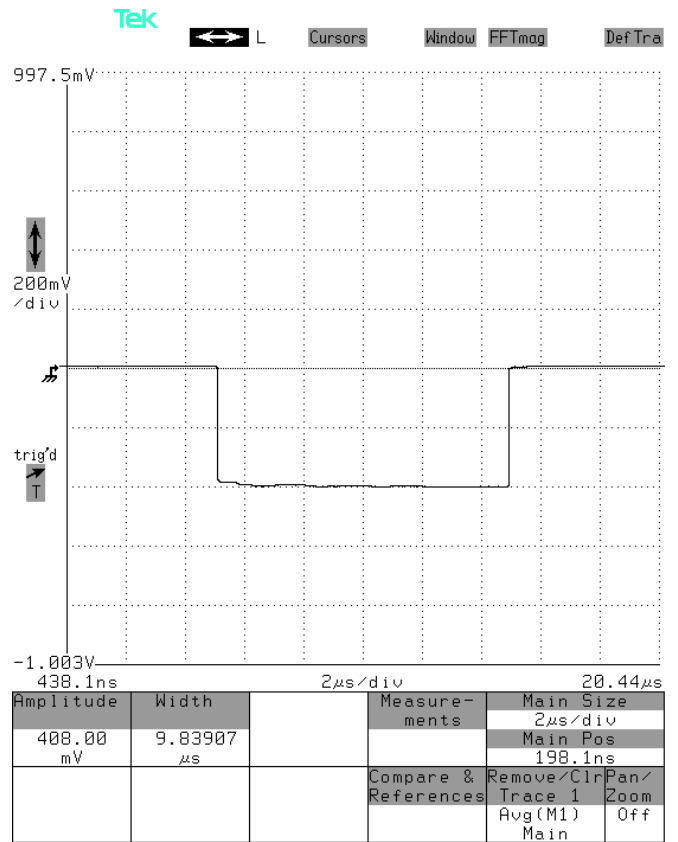
Trailing edge at 10 kHz, 200 ns, -40V,

5 ns/div. 20 V/div (200 mV × 40 dB):



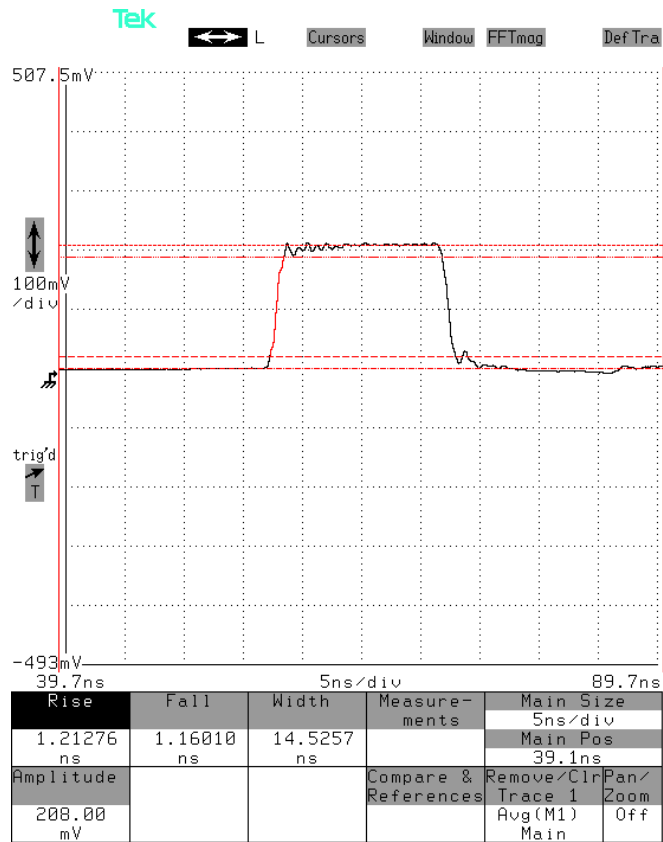
Full pulse at 1 kHz, 10 us, -40V,

2 us/div. 20 V/div (200 mV × 40 dB):



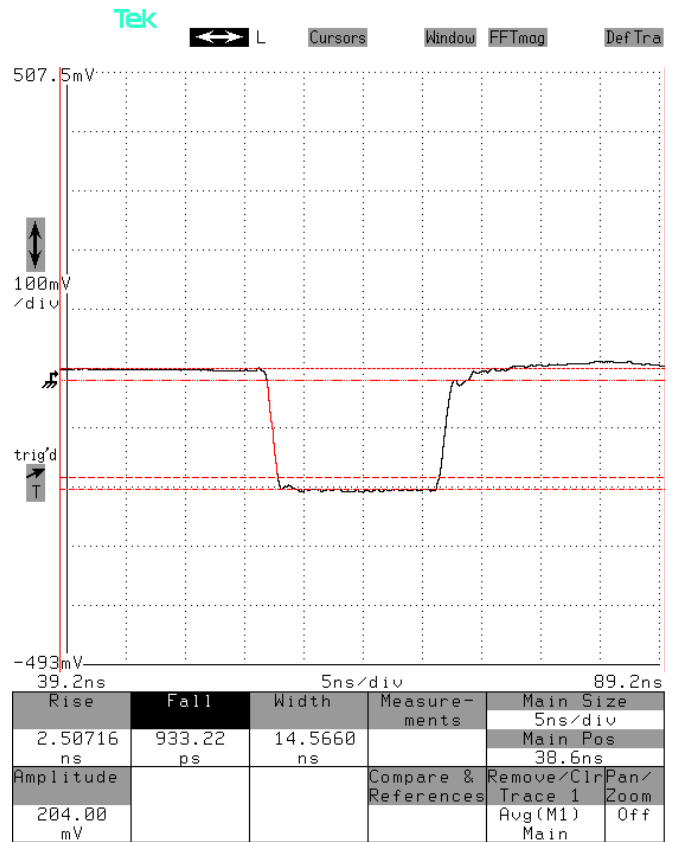
Full pulse at 10 kHz, 15 ns, +2V,

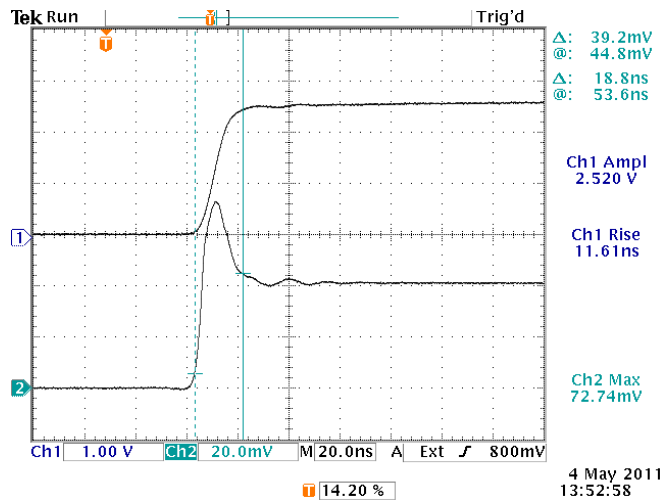
5 ns/div. 1 V/div (100 mV × 20 dB):



Full pulse at 10 kHz, 15 ns, -2V,

5 ns/div. 1 V/div (100 mV × 20 dB):





With AVX-FILT-10NS and AVX-TFR-MIX attached to the AVR-D2-B.

Top: AVX-TFR-MIX MON out, showing the +25.2V input pulse. Attenuated by a factor of 10.

Bottom: AVX-TFR-MIX OUT, showing a peak  $V_{FR}$  of 0.727V, and a steady-state  $V_F$  of 0.42V for a forward current of  $25V / 50 \text{ Ohms} = 0.5A$ . Attenuated by a factor of 10.

DUT used: 1N5819