

**PRO 50** (Two Channel)**PRO 60** (Four Channel)**With 8 bits, 200 MegaSamples per Second Digitizers**

<b>INPUTS:</b>	Single-ended
a. Coupling:	AC, DC, GND (low freq. AC rolloff -3dB, 1.6 Hz)
b. Ranges (Full Scale):	60mV to 30V, 8 steps
c. Impedance:	1 Megohm $\pm 1\%$ , 52 pF $\pm 10\%$
d. Zero Position Range:	0 to 100% Full Scale
<b>SAFE OVERLOAD (all ranges):</b>	240 VRMS and 360 Vpeak (up to 500 Hz)
<b>WARM-UP TIME:</b>	One hour
<b>VERTICAL RESOLUTION:</b>	8-bits (0.4%)
<b>TIME BASE ACCURACY:</b>	$\pm 0.01\%$
<b>EXTERNAL CLOCK:</b>	20 MHz (max)
<b>DIGITIZING RATE:</b>	
a. Maximum	200 MegaSamples per second (5 ns per point)
b. Minimum	500 Samples per second (2 ms per point)
<b>RECORD LENGTH:</b>	64K Samples per channel (256K Optional)
<b>DC GAIN ERROR:</b>	$\pm 1.0\%$
<b>OFFSET ERROR</b>	$\pm 1.0\%$ Full Scale
<b>STATIC INTEGRAL LINEARITY ERROR:</b>	$\pm 0.6\%$ Full Scale
<b>MAXIMUM STATIC ERROR</b>	$\pm 1.5\%$ Full Scale
<b>TEMPERATURE RANGE</b>	
a. Storage:	0 to 50 °C
b. Operating:	15 to 35 °C (within which specifications hold)
<b>BANDWIDTH (all ranges):</b>	100 MHz (-3dB)
<b>RISE TIME (all ranges):</b>	3.5 nS

All performance measurements comply with IEEE Standard for Digitizing Waveform Recorders.

# PRO 50 (Two Channel)

# PRO 60 (Four Channel)

## With 8 bits, 200 MegaSamples per Second Digitizers

RMS NOISE (open inputs)	
a. 5 ns:	1.0% Full Scale
b. 10 ns or slower:	0.6% Full Scale
FILTER (Switchable):	20 MHz (-3dB)
DIGITAL INTERNAL TRIGGER RANGE:	Trigger Range = Input Range
INTERNAL TRIGGER SENSITIVITY:	8 bit Digital Trigger Sensitivity adjustable from $(1/256) \times$ (input range) to full scale
INTERNAL TRIGGER ACCURACY:	Same as input measurement accuracy
INTERNAL TRIGGER BANDWIDTH:	Equal to input bandwidth
EXTERNAL TRIGGER RANGE:	12 Volts
EXTERNAL TRIGGER SENSITIVITY:	200 mVp-p to 12 V Full Scale
EXTERNAL TRIGGER FREQUENCY (Max)	100 MHz
a. External input (50% F. S.):	
TRIGGER DELAY (Max)	
a. Pre-trigger:	99% of Screen
b. Post-trigger:	$10^6 \times$ Selected Time Per Point
EXTERNAL TRIGGER LEVEL ACCURACY:	$\pm 2\%$
TRIGGER SPECS:	
a. n Event:	All times are minimum values. Maximum value is 40 seconds.
b. Hold Off:	(Not applicable for Adv Triggering modes)
c. Glitch:	2 to 1 million events
d. Dropout (without Rearm):	20 ns
	20 ns
	60 ns

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Specifications are subject to change without notice.