PXD 222 DIGITIZER SPECIFICATIONS

NOTE: Specifications are subject to change without notice.

VERTICAL SYSTEM

Bandwidth (DC coupled): 200 MHz (–3dB)

Lower Frequency Limit (AC coupled):

with 10:1 probe ..... < 2 Hz (–3dB)

direct (1:1) ..... < 5 Hz (–3dB)

Rise Time: 1.7 ns

Analog Bandwidth Limiters: 20 MHz and 10 kHz

Input Coupling: AC, DC

Full Scale ranges:

direct (1-2-5 sequence) ..... 40 mV to 800 V

with 10:1 probe ..... 400 mV to 8000 V

Positioning (% of full range): 100%

Input Impedance on BNC:

DC Coupled ..... 1 M?ohms (±1%) // 15 pF (±2 pF)

Max. Input Voltage

with 10:1 probe ..... 1000 V CAT II

direct (1:1) ..... 300 V CAT II

(For detailed specifications, see “SAFETY”)

Vertical Accuracy: ±2% of full range

Digitizer Resolution: 8 bits, separate digitizer

HORIZONTAL SYSTEM

Maximum Time Base Speed: 400 ps/sample

Minimum Time Base Speed: 4.8 s/sample (scope record mode)

Real Time Sampling Rate (for both inputs simultaneously):

400 ps to 80 ns/S ..... up to 2.5 GS/s

40 ns to 2.4 s/S .....20 MS/s

4.8 s/S .....4 MS/s

(See the chapter on Operation for more information.)

Acquisition Modes: Real Time, Single Sweep

Normal Acquisition Mode:

Record size.....up to 1000 samples/ch

Record time span.....100 ns to 10 s

Glitch Capture Mode:

Record size.....250 points (Min. and Max data arrays returned)

Recorded time span.....50 µs to 10 s; detects glitches as fast as 50 ns by oversampling waveform

Sample rate.....up to 2.5 GS/s

Scope Record Size:

Record size.....27 points (Min. and Max data arrays returned)

Sample rate.....up to 20 MS/s

TRIGGER

Trigger Modes: Automatic, Edge, Video, Pulse Width

Trigger Delay: up to +25000 samples

Pre Trigger View: 2500 samples

Max. Delay: 10 s

Edge Trigger:

Mode.....On Trigger, Single Shot

Source.....Ch1, Ch2, PXI_TRIG[0,1,2…7],PXI_STAR[0,1,2…7]

Slope.....Positive, Negative

Trigger Level Control Range:

Input Ch1, Ch2.....100% of full range

PXI_TRIG[0,1,2…7].....fixed C-mos Cpci-level

PXI_STAR[0,1,2…7].....fixed C-mos Cpci-level

Trigger Sensitivity Ch1 and Ch2:

DC to 5 MHz ..... 5 mV or 6.25% of full range

@ 200 MHz ..... 12.5% of full range

@ 250 MHz ..... 25.0% of full range

Video Trigger:

Standards ..... PAL, PAL+, NTSC, SECAM

Modes ..... Lines, Line Select, Field 1, or Field 2

Source ..... Ch 2

Polarity ..... Positive, Negative

Sensitivity (sync level) ..... 8.75% of full range

Pulse Width Trigger:

Screen Update ..... On Trigger, Single Shot

Trigger Conditions ..... < T, > T, approximately equal to T (±10%), not equal to T (±10%)

Source Ch2

Polarity ..... Positive or negative pulse

Pulse Time Adj. Range ..... 0.25 to 10 samples with a maximum resolution of 50 ns

Auto Set/ Range:

Autoranging attenuators and timebase; automatic triggering with automatic source selection. The autorange must be switched on or off.

If autorange is on, all auto functions are active until an **autorange off** command is executed.

Modes:

Normal ..... 15 Hz to max. bandwidth

Low Frequency ..... 1 Hz to max. bandwidth

Minimum Amplitude Ch 1, Ch 2

DC to 1 MHz ..... 20 mV

1 MHz to max. bandwidth ..... 40 mV

PHYSICAL DIMENSIONS

Height.....3 U (13.3 cm, 5.25 in.)
Width.....2 slots (3.9 cm, 1.56 in.)
Weight.....0.77 kg (1.7 lb.)

POWER REQUIREMENTS

Input voltage at cPCI connector..... 5 V ±10%
Input current..... 1.6 A

ENVIRONMENTAL CONDITIONS

Temperature

Operating.....0 °C to 50 °C (32 °F to 122 °F) with specified cooling of PXI rack (indoor use only)
Non-Operating.....–40 °C to +71 °C

Humidity

Operating.....5% to 95% max. RH (non-condensing) up to 30 °C; upper limit derates to 45% RH (non-condensing) at 40 °C (104 °F)
Non-operating.....5% to 95% max. RH (non-condensing) up to 30 °C; upper limit derates to 45% RH (non-condensing) at 60 °C (140 °F)

Altitude

Operating.....4600 m (15,092 ft.)
Non-operating.....12,000 m (39,377 ft.)

Altitude

Conforms to MIL-PRF-28800 Class 3

SAFETY

CAUTION

Safety specifications are only valid if the unit is properly grounded, as described in the Installation procedure.

The LeCroy PXD 222 Digitizer is designed for measurements on 300 V Category II Installations, Pollution Degree 2, per:

EN 61010-1:1993 + A2:1995

CAN/CSA-C22.2 No.1010.1-92

UL3111-1

Max. Input Voltages:

Input Ch 1 and Ch 2 directly..... 300 V CAT II

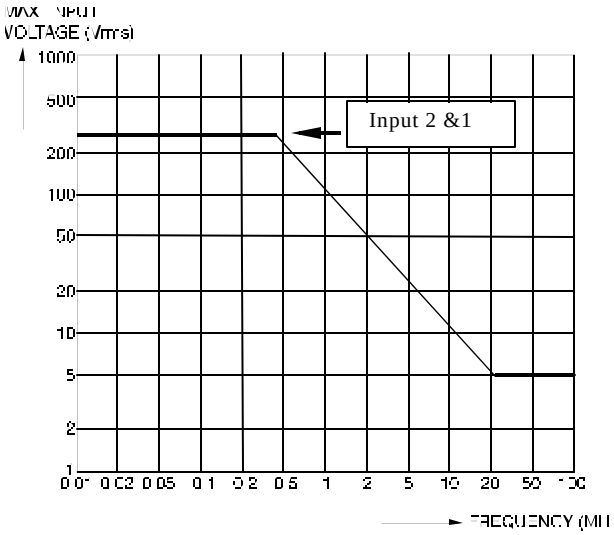
Input Ch 1 and Ch 2 via 10:1 probe ..... 1000 V CAT II

Max. Floating Voltage:

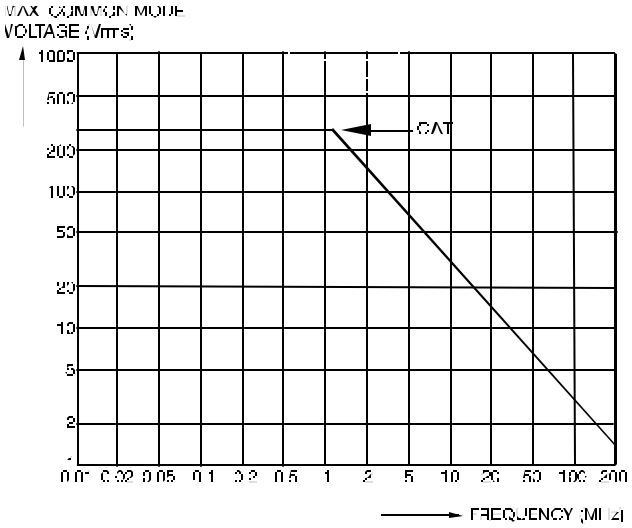
From any terminal to ground..... 300 V CAT II

Between any terminal..... 300 V CAT II

Voltage ratings are given as “working voltage.” They should be read as VAC rms (50–60 Hz) for AC sine wave applications and as VDC for DC applications.



Max. Input Voltage v.s. Frequency



Safe Handling: Max. Input Voltage between Scope References 1and 2 and between Scope References and safety ground

CERTIFICATIONS

CE approved, UL & cUL recognized

CE Declaration of Conformity: The PXD 222 Digitizer meets requirements of the EMC Directive 89/336/EEC for Electromagnetic Compatibility and Low Voltage Directive 73/23/EEC for Product Safety.

EMC Directive:	EN 61326-1:1997 +A1:1998 EMC requirements for electrical equipment for measurement, control, and laboratory use.	
Electromagnetic Emissions:	EN55022:1998, Class B	Radiated emissions
Electromagnetic Immunity:	EN 61000-4-2:1995 +A1:1998*	Electrostatic Discharge
	EN 61000-4-3:1996 +A1:1998*	RF Radiated Electromagnetic Field
	EN 61000-4-4:1995*	Electrical Fast Transient/Burst
	EN 61000-4-5:1995*	Surges
	EN 61000-4-6:1996*	RF Conducted Electromagnetic Field

* Meets Performance Criteria “B” limits – during the disturbance, product undergoes a temporary degradation or loss of function of performance which is self recoverable.

CAUTION

EMC specifications are only valid if the unit is properly installed in a CE compliant PXI chassis, as described in the Installation procedure.

Low Voltage Directive:	EN 61010-1:1993 +A2:1995 Safety requirements for electrical equipment for measurement, control, and laboratory use. The PXD 222 Digitizer has been qualified to the following EN61010-1 category: 300 V Installation (Overvoltage) Category II Pollution Degree 2 Protection Class I
UL and cUL Recognized:	UL Standard: UL 3111-1 Canadian Standard: CSA-C22.2 No. 1010.1-92

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