



# **2551 Single-Phase General Purpose Power Analyzer**

The 2551 Power Analyzer incorporates the ideal combination of precision, speed and ease-of-use in an instrument so economical it can be on every bench.

The six-key front panel has four 'soft' keys whose menus simplify the selection of measurements. In addition to numerical results, the 2551 captures waveforms with true 400-point precision. These wave forms can be displayed or directly output at full resolution to a PCL printer. Power and amplitude measurements with an accuracy of 0.1% are automatically synchronized to the fundamental frequency. Peak measurements of voltage, current and power include continuous, inrush, and history modes, plus an accumulation mode for W-Hr, A-Hr, and VA-Hr. The 2551 also provides a glitch mode that captures and displays waveform with the highest anomaly.

# Quality and Reliability

XiTRON Technologies, founded in 1990, is the premier source of precision power testing and measurement instruments for industrial manufacturing and medical electronics. Using the latest digital signal processing and circuitry, XiTRON's sophisticated technology gives our customers the edge in design verification and product manufacturability. XiTRON is ISO-9000: 2000, EN46001 registered and FDA (GMP 820) compliant.

- » Low Cost/High Performance
- » Measures and displays power, frequency, harmonics, THD, CF, K-Factor, Triplens & Inrush
- » Up to 1500 volts peak, 40 amps peak internally & up to 10,000 amps with the use of External Current Transducers
- » DC and 20mHz 100kHz Frequency Range
- » Graphics Display shows numerical results, waveforms, bar graphs & history plots
- » 16-bit A-D takes up to 220k samples/second
- » Simple 6-key user interface
- » PCL/Text Printer output,IEEE488 interface included



"Soft" keys simplify setup menus

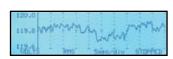


Numeric results can be displayed in large type.





Harmonics shown as bar graphs or listings of values.



See measurements over time such as this voltage history

# XiTRON XVIEW Software

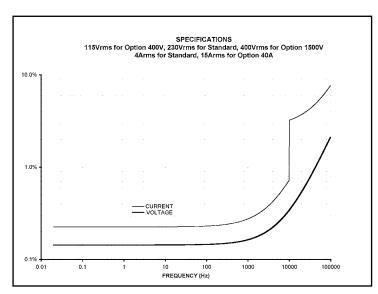
While all XiTRON precision test equipment is designed to be used in a completely stand-alone manner, there are times when external tools can aid or enhance the operation of an instrument. XView software tools and drivers are designed to help easily configure an instrument from a single screen, or are used to view a complete set of measurements in a single screen. Other XView tools are designed for data collection where results can be recorded in an Excel-compatible file for post-processing, insertion into reports, or simply for archival purposes.

These precompiled applications can be downloaded from the XiTRON web site at www.xitrontech.com/support.html. Often, XiTRON can provide the source code for a particular application, and it can be used as a convenient 'starting point' for a custom software application.

www.xitrontech.com



2551



**Voltage & Current Accuracy** 

Standard or Option E	Option I
LOAD (	CURRENT
SOURCE	VOLTAGE

Option	Max Volts	Max Current
-	400V	8A
E	950V	404
I	1500V	40A

#### **Ordering Information**

For Example: To order a base configuration unit that has External Current Transducer capability, can measure Voltages up to 950V peak and can also measure up to 40 Amps peak when configured for Internal then order as follows: **2551 - E - 950V - 40A** 

# **Condensed Specifications**

(Contact XiTRON for complete specifications)

#### Voltage: Range

950Vpk ,400Vpk ,1500Vpk (see ordering information)

#### **Internal Current: Range**

8Apk ,40Apk (see ordering information)

## External Current Transducers (Option E only)

**Current: Current** 

Current: 10Arms for 50ms, 2.5Arms continuous, 5Apk measurable

Scaling (In=Out) = +0000.00A = 00.0000A Through +\-9999.99A = 9999.99A

Current: Voltage

Voltage: 25Vpk for 50ms, 2.5Vrms continuous, 2.5Vpk measurable

Scaling (In=Out) = +0000.00V = 00.0000V Through +\-9999.99V = 9999.99V

#### Resolution

0.05% of range

## **Voltage & Current Accuracy**

(See chart to the left)

## Frequency Measurement

20 mHz to 80 kHz, 0.01%

#### **Crest Factor**

Range: 1 to 99

Accuracy: from peak results

# Harmonic & Spectrum Analysis

Frequency Range: 20 mHz to 50 kHz

Typical accuracy at line frequencies of 50/60 Hz:

THD:0.1% Harmonic: 0.05% Phase: 0.1°

## Waveforms

Actual, Peak Capture and Distortion content

#### Histon

V&A (rms, peak, envelope, THD), Watts, VAR, PF User-selectable time base from 400 msec/div to 1 day/div Resolution 1/20 division

# **Physical**

Power input: 12VDC @ 1.5A minimum output

Size: (HxWxD) 4.7" x 13.8"x 9.5" (11.94cm x 35.05cm x 24.13cm)

Weight: 7.5 lbs (3.4 kg)

Operating range: 0°C to 45°C, <85% RH @ 40°C non-condensing Storage range: -30°C to 65°C <95% RH @ 40°C non-condensing

Unit is supplied with one XiTRON Technologies T5 universal external power supply, 100-240Vrms, 50-60Hz, with a 2.5mm 12VDC output plug and a three prong IEC320 AC inlet receptacle, plus a three-prong AC power cord.

#### Digital Interfaces (standard)

IEEE488.1: Full talk/listen capabilities

Parallel Printer: IEEE1284, unformatted text or PCL Compatible

#### Warranty

Two years



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# **2553 Three-Phase General Purpose Power Analyzer**

The 2553 Power Analyzer features the ideal combination of precision, speed and ease-of-use in an instrument so economical it can be on every bench.

The six-key front panel has four 'soft' keys with menus that simplify the selection of measurements. In addition to numerical results, the 2553 captures waveforms with 200-point precision. These waveforms can be displayed or directly output at full resolution to a PCL printer. Power and amplitude measurements with a base accuracy of 0.1% are automatically synchronized to the fundamental frequency. Peak measurements of voltage, current and power include continuous, inrush and history modes plus an accumulation mode for W-Hr, A-Hr, and VA-Hr.

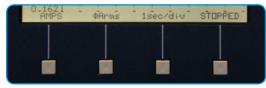
# **Quality and Reliability**

XiTRON Technologies, founded in 1990, is the premier source of precision power testing and measuring equipment for industrial and consumer product development and manufacturing. XiTRON's sophisticated technology provides companies the edge in design verification and product manufacturability. XiTRON is ISO 9001:2008 certified.

# INDUSTRIES SERVED

Automotive » HVAC » Power Quality Monitoring » Power Supply Manufacturers » Process Control

- > Low Cost/High Performance
- Measures and displays power, frequency, harmonics, THD, CF, K-Factor, Triplens & Inrush
- > Up to 1500 volts peak, 40 amps peak internally & up to 10,000 amps with the use of External Current Transducers
- DC and 20mHz 80kHz Frequency Range
- Graphics Display shows numerical results, waveforms, bar graphs & history plots
- » 16-bit A-D takes up to 220k samples/second
- » Simple 6-key user interface
- >> PCL/Text Printer output, IEEE488 interface included
- 3 1ø2W, 1ø3W, 3ø3W and 3ø4W configurable using the same wiring



"Soft" keys simplify setup menus.



Numeric results can be displayed in large type.



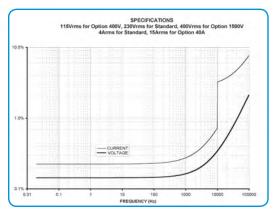
Harmonics shown as bar graphs or listings of values.



See measurements over time such as this voltage history.







**Voltage & Current Accuracy** 

ORDERING INFORMATION		
PART#	DESCRIPTION	
822–2553-400V-8A	Three Phase Power Analyzer	
822-2553-400V-40A	Three Phase Power Analyzer	
822-2553-950V-8A	Three Phase Power Analyzer	
822-2553-950V-40A	Three Phase Power Analyzer	
822-2553-1500V-8A	Three Phase Power Analyzer	
822-2553-1500V-40A	Three Phase Power Analyzer	
Option E	External CT Capable	
RB-255X	Rack Mount Adapter	

# **CONDENSED SPECIFICATIONS**

(Contact XiTRON for complete specifications)

**VOLTAGE: Range** 

950Vpk, 400Vpk, 1500Vpk (see ordering information)

INTERNAL CURRENT: Range

8Apk, 40Apk (see ordering information)

#### EXTERNAL CURRENT TRANSDUCERS (Option E only)

**CURRENT:** Current

CURRENT: 10Arms for 50ms, 2.5Arms continuous,

5Apk measurable

Scaling (In=Out) = +0000.00A = 00.0000A through

+\-9999.99A = 9999.99A **CURRENT:** Voltage

VOLTAGE: 25Vpk for 50ms, 2.5Vrms continuous,

2.5Vpk measurable

Scaling (In=Out) = +0000.00V = 00.0000V through

 $+\-9999.99V = 9999.99V$ 

#### **RESOLUTION**

0.05% of range

#### **VOLTAGE & CURRENT ACCURACY**

(See chart to left)

#### FREQUENCY MEASUREMENT

20 mHz to 80 kHz, 0.01%

# **CREST FACTOR**

RANGE: 1 to 99

ACCURACY: from peak results

#### HARMONIC AND SPECTRUM ANALYSIS

FREQUENCY RANGE: 20 mHz to 50 kHz Typical accuracy at line frequencies of 50/60 Hz:

THD: 0.1% Harmonic: 0.05% Phase: 0.1°

#### **WAVEFORMS**

Actual, Peak Capture and Distortion content

#### HISTORY

V&A (rms, peak, envelope, THD), Watts, VAR, PF User-selectable time base from 400 msec/div to 1 day/div Resolution 1/20 division

#### **PHYSICAL**

POWER INPUT: 80-265 VRMS autoselect, 40 - 400 Hz @ 25 VA max

SIZE: (HxWxD) 4-1/2" x11-1/2" x10-1/2"

WEIGHT: 8 lbs

OPERATING RANGE: 0°C to 45°C, <85% RH @

40°C non-condensing

STORAGE RANGE: -30°C to 65°C <95% RH @

40°C non-condensing Digital interfaces (standard)

IEEE488.1: Full talk/listen capabilities

Parallel: IEEE1284, unformatted text or PCL compatible

# WARRANTY

Two Years