Single-Phase General Purpose Power Analyzer

2551

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.

XiTRON Technologies

Industries Served

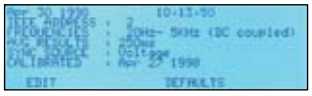
- Lighting
- Consumer Product Testing
- Appliance Testing
- Automotive
- Regulatory Agencies

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 waveforms 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 waveforms with the highest anomaly.

Quality and Reliability

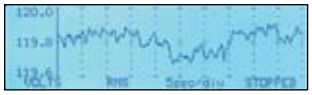
XiTRON Technologies, founded in 1990, is the premier source of precision power testing and measurement instruments for industrial manufacturing and medical electronics. Using the latest digital signal processing and circuitry, XiTRON's sophisticated technology gives our customers the edge in design verification 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, distortion & glitches
- 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


'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.

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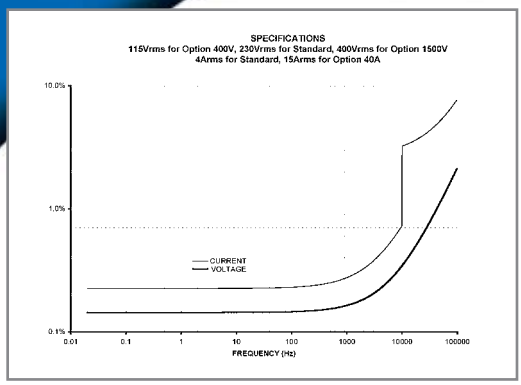
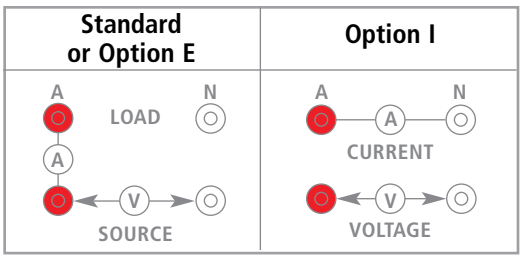


Voltage & Current Accuracy



Input Configuration

Option	Max Volts	Max Current
(none)	400V	8A
E	950V	40A
I	1500V	

Ordering Information

Part Numbering Scheme
2551 - Option - Max Volts - Max Current

Example: For a unit that has external current transducer capability, can measure up to 950Vpk and up to 40Apk internally, order as follows: **2551 - E - 950V - 40A**

Condensed Specifications

(Contact XiTRON for complete specifications)

Voltage: Range
950Vpk, 400Vpk or 1500Vpk (see ordering information)

Internal Current: Range
8Apk, 40Apk (see ordering information)

External Current Transducers (Options E or I 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 999
Accuracy: from peak results

Harmonic & Spectrum Analysis
Frequency Range: 20 mHz to 50 kHz
Typical THD, harmonic and phase accuracy at line frequencies of 50/60 Hz:
THD accuracy: 0.1%
Harmonic accuracy: 0.05%
Phase accuracy: 0.1°

Waveforms
Actual, Peak Capture, Distortion content and Glitch Capture

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: 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 free-standing charger and a three-prong AC power cord. This is a universal input 85-265Vrms, 40-400Hz, with a 2.5mm DC output plug and a three prong IEC320 AC inlet receptacle.

Digital Interfaces (standard)
IEEE488.1: Full talk/listen capabilities
Parallel Printer: IEEE1284, unformatted text or PCL compatible

Warranty
Two years

XiTRON Technologies

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