

2801 & 2802 Series

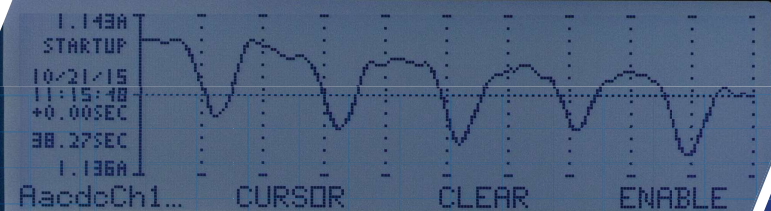
1- and 2-Channel Advanced Power Analyzers

The 2801 and 2802 Advanced Single- and Two-Channel Power Analyzers combine an unprecedented feature set with an ideal combination of precision, speed and ease-of-use in an instrument so economical it can be on every bench.

Quality and Reliability

VitreK, founded in 1990, is the premier source of precision power testing and measuring equipment for industrial and consumer product development and manufacturing. Vitrek's sophisticated technology provides companies the edge in design verification and product manufacturability. Vitrek is ISO 17025 Accredited.

2802 TWO CHANNEL POWER ANALYZER



With an extended measurement range from micro-amps to hundreds of amps and millivolts to kilovolts, the 2801 and 2802 are the ideal analyzers for standby power or Energy Star testing. In addition to numerical results, the 2801 and 2802 captures waveforms with true 512-point precision. Results and waveforms can be displayed, read via the communication ports, or sent directly at full resolution to a USB printer. Power and amplitude measurements with an accuracy of <0.1% are automatically synchronized to the fundamental frequency. Peak, RMS, rectified, and DC measurements of voltage, current and power are provided including continuous, inrush, startup and history modes, plus an integration mode for W-Hr, A-Hr, VA-Hr, as well as integrated average power. (Channels can be operated synchronously or independently on the 2802) The 2801 and 2802 also provide waveform peak and glitch capture modes.

- > Highest Performance-to-Cost ratio in the industry
- > Up to 2000V peak and 150A peak measurable internally (external CT capable)
- > Two channels for independent or synchronous measurements, including input/output efficiency and loss (2802 only)
- > Base accuracy <0.08%. Current and voltage accuracies specified to less than 1mArms and 1Vrms respectively (<0.2%)
- > Measures and displays volts, current, power, frequency, harmonics (to the 100th), THD, PF, CF, K-Factor, Triplens, inrush, distortion, glitches, and much more
- > Integrated line switch and inrush waveforms
- > Source or load measurements with wiring loss and voltage burden compensation
- > DC charge and discharge measurements
- > Frequency Range: DC and 20mHz – 200kHz
- > Graphics display shows numerical results, waveforms, bar graphs, startup & history charts with zoom & scroll features
- > 16-bit A/D converters at 235ksps
- > 12 User-configurable digital I/O
- > USB Flash drive support for data logging
- > Communications interfaces include GPIB (IEEE488), RS-232, USB (host and device)
- > Suitable for AC, DC, 1-phase 3-wire, 2-phase 3-wire, 3-phase 3-wire, in out synchronous, or independent measurements (2802 only).

INDUSTRIES SERVED

- Automated Production Testing • Ballast Testing • Consumer Products • Engineering Labs
- Instrument Maintenance & Repair • Peak Power & Consumption Measurements
- Product Compliance Testing • Test Labs

25
Years Industry
EXPERTISE

2801 & 2802 Series 1- and 2-Channel Power Analyzers

Test Like You MEAN IT



Condensed Specifications

Accuracy specifications valid for 1 year for ambient temperatures within 5° C of calibration temperature.
(Contact Vitrek for complete specifications)

VOLTAGE RANGE (MEASURABLE)

2000Vpk (850Vrms) max. continuous

INTERNAL CURRENT RANGE (MEASURABLE)

150Apk (30Arms) max. continuous

EXTERNAL CURRENT TRANSDUCERS (MEASURABLE)

35Vpk (15Vrms) max. continuous

VOLTAGE AND CURRENT ACCURACY

See charts to the left.

FREQUENCY MEASUREMENT ACCURACY

0.005%

CREST FACTOR ACCURACY

V: (50mV + 0.01% of pk rng)/RMS value

A: (50uA + 0.01% of pk rng)/RMS value

HARMONIC ACCURACY (VOLTAGE & CURRENT)

0.02%

WAVEFORMS

Actual, Peak Capture, Distortion, and Glitch capture

CHARTS, WITH ZOOM AND SCROLL

History, Startup and Inrush

LINE SWITCH

Max Open Voltage: 720Vpk (480Vrms)

Max Surge Current: TBD

Max On Current: 10Arms

Turn On Phase: 1° resolution

DIGITAL INTERFACES

GPIB (IEEE-488), USB (host and device),

RS-232, Digital IO

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 55°C, <95% RH
non-condensing

Storage Range:

-20°C to 70°C <95% RH
non-condensing

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

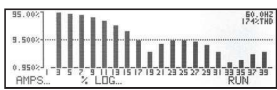
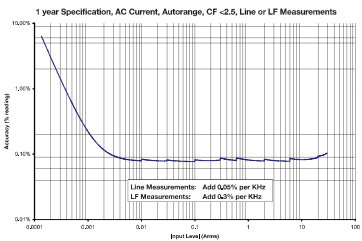
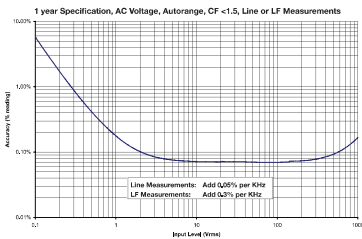
WARRANTY

Two years

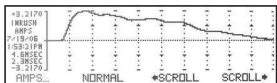
ORDERING INFORMATION

| PART # | DESCRIPTION |
|--------------------------|---|
| 2801 | Single Channel Advanced Power |
| 2802 | Two Channel Advanced Power Analyzer |
| 280X OPT ON | Power ON Option |
| 280X OPT LOG | 280X Data Logging |
| 280X CABLE IEC | 280x Connection Cable, 4ft, IEC 5-15 |
| 280X CABLE NEMA 6-20 P/R | 280x Connection Cable, 4ft, NEMA 6-20 |
| 280X CABLE NEMA L6-20 | 280x Connection Cable, 10ft, NEMA L6-20 |
| 280X-CABLE WAGO | 280x Connection Cable, 6ft, WAGO |
| UG280X | Additional Operating Manual Set |
| RB-255X | Rack Mount Adapter |
| RB-255X-BLK | Rack Mount Adapter (Black) |
| RB-255XFL | Rack Mount Adapter - Flush Mount |

Please visit www.vitrek.com for ordering information.



Current, Voltage and Power Harmonics Bar charts (to 100th)



Current and Voltage Inrush Charts



Numerics Results Screens



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