2503AH high performance Power Analyzers are among the most accurate available. Perfect for motor lighting, power conversion, and appliance test and development applications.

The 2503AH Analyzers measure power, voltage, and current up to 500 kHz with premier precision. Available parameters include V, A, W, Power Factor, Crest Factor, K Factor, THD, Harmonics, Phase, VA, VAR, W.Hr, Triplens, Impedance, Inrush, Mean-Peak Values, Efficiency-Loss, etc.

Vitrek power analysis instruments have set the standard for production testing. Independent channel control and unparalleled flexibility and speed have made the 2503AH-3CH the instrument of choice in 3-phase power analysis. The 2503AH-1CH/2CH offers cost effective solutions for single or two-phase application such as power supply and appliance testing.

> 18-bit, 500 kHz sampling speed provides 0.05% basic accuracy
> Ultrafast FFT’s per channel produce measurements in 10ms
> 3000 V Peak, 50 Amp Peak measurable with internal shunt and optional internal Hall effect CTs*
> Pre-configured for ballast, motor, power supply and appliance tests
> Real-time, ultra-fast, harmonic analysis
> Application specific configurations
> External CT and PT capability ratio: 0.000001- 1000000 to 1, for A/V, A/A or V/V

> Frequency Measurement: 500 μHz to 170kHz, 0.01% of reading
> Measurement Period: User defined from 1 mSec to 27.8 hours
> Watt, VA & VAR accuracy highest of V* Amp error or Amp* V error yields max. error for either Watts, VA, or VAR
> Accumulation accuracy WHr, VAHr, AHr up to 9999.9 GWHr/GVAHr
> Timing Accuracy: 0.01% + 10 mSec. start/stop error

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.

INDUSTRIES SERVED
- Lighting Consumer Products
- Medical
- Automotive
- Regulatory Agencies
- Process Control
- Power Supply
- Power Quality Monitoring
- HVAC
- Military
- Aerospace

25 Years Industry EXPERTISE
2503 AH Series
High Performance Power Analysis System

Condensed Specifications
(Contact Vitrek for complete specifications)

**INPUT RANGES**
User may select fixed or autorange.
Voltage: 15-30-60-150-300-600-1200 Vrms
Current: 0.05-0.1-0.2-0.5-1-2-5-10-20 Arms
*Int. CT: 7.5-15-30-60 Arms
Bypass: 12.5-25-50-125-250-500 mV rms, 1.25-2.5-5V rms

**RESOLUTION**
Better than 0.05% of range

**VOLTAGE & CURRENT ACCURACY**
DC Volts: 0.05% +/- 0.15% range +/- 50 mV
DC Amp: 0.05% +/- 0.15% range +/- 200 μA
AC Volts/Amp: 0.001Hz-10 kHz 0.05%
10kHz-20kHz 0.10%
20kHz-50kHz 0.55%
50kHz-100kHz 1.00%
100kHz-200kHz 2.35%
For voltage add 0.05% of range + 20 mV
For internal shunt add 0.05% of range + 100 μA
For shunt bypass add 0.05% of range + 10 μV
Min input > 10% of range (1% with filter on)

**HIGH ACCURACY OPTION**
0.05% of reading for freq. 40-400 Hz, and input >25% of range

**HALL EFFECT CT* ACCURACY**
DC Amp: 0.15% +/- 0.15%, range +/- 25mA
AC Amp: 0.1Hz-10kHz 0.25%
10kHz-20kHz 0.65%
20kHz-50kHz 2.25%
50kHz-100kHz 4.25%
For AC add 0.05% of range + 10 mA

**POWER FACTOR ACCURACY**
Approximately 0.001 for freq. 10kHz (5 kHz w/filter) increase linearly to 0.010/200kHz (20kHz w/filter)

**PHYSICAL SPECIFICATIONS**
Power input: 85-265 Vrms autoselect, 40-400 Hz @ 100VA max
Size: 17.71" wide by 7" high by 14" deep
Weight: 28 lbs.
Operating range: 0°C to 50°C, <85% RH @ 40°C non-condensing
Storage range: -30°C to 65°C <95% RH @ 40°C non-condensing
Configuration: Benchtop or optional 19" rack mount

**DIGITAL INTERFACES (standard)**
IEEE488 (1), RS-232 (2), Parallel Printer

**OPTIONS**
HA: High accuracy calibration 40-400Hz, 0.05% all parameters HE 1CH: Internal Hall effect for single channel analyzer
HE 2CH: Internal Hall effect for two channel analyzer
HE 3CH: Internal Hall effect for three channel analyzer
RE: 19" Rack Adapter
*Internal Hall effect CT options not available on CE market units

**WARRANTY**
Two years

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>ITEM#</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>822-2503AH-1CH</td>
<td>Single Channel Power Analyzer</td>
</tr>
<tr>
<td>822-2503AH-2CH</td>
<td>Two Channel Power Analyzer</td>
</tr>
<tr>
<td>822-2503AH-3CH</td>
<td>Three Channel Power Analyzer</td>
</tr>
<tr>
<td>822-A00</td>
<td>12 Channel Analog Output, 16 Channel Digital Output</td>
</tr>
<tr>
<td>822-HE-1CH</td>
<td>Add 150A peak internal Hall Effect Current Transducer to 2503AH-1CH</td>
</tr>
<tr>
<td>822-HE-2CH</td>
<td>Add 150A peak internal Hall Effect Current Transducer to 2503AH-2CH</td>
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<td>Add 150A peak internal Hall Effect Current Transducer to 2503AH-3CH</td>
</tr>
<tr>
<td>82503AH</td>
<td>Additional Operating Manual Set</td>
</tr>
<tr>
<td>HA</td>
<td>High Accuracy Calibration 40-400Hz, 0.05% all Parameters</td>
</tr>
<tr>
<td>RE</td>
<td>19&quot; Rack Adapter Kit</td>
</tr>
</tbody>
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**CONTACT INFORMATION**

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Please visit www.vitrek.com for ordering information.