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Data Sheet

August 13, 2026

YOKOGAWA

Yokogawa WT1801E Precision Power Analyzer

Yokogawa WT1801E High Performance Power Analyzer The Yokogawa WT1801E is a high performance power analyzer in the WT1800E family providing precision voltage, current, and power measurement for inverter, motor-drive, and power-conversion testing. Single/three-phase power and efficiency measurement; standby power and harmonic evaluation; production and R&D power analyzer validation; automated test with remote interfaces. The Yokogawa WT1801E is a high performance power analyzer in the WT1800E family providing precision voltage, current, and power measurement for inverter, motor-drive, and power-conversion testing. Single/three-phase power and efficiency measurement; standby power and harmonic evaluation; production and R&D power analyzer validation; automated test with remote interfaces.



MODEL

**Yokogawa
WT1801E**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

WT1801E

LISTING

<https://aumictechlabs.com/products/wt1801e-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Yokogawa WT1801E is a single-channel precision power analyzer engineered for high-accuracy AC and DC power measurement across power supplies, inverters, and power electronic devices. It delivers simultaneous voltage, current, and power acquisition with 16-bit resolution at 2 MHz sampling rate, enabling detailed characterization of fast transients and harmonic content. The instrument performs harmonic analysis to the 500th order at 50/60 Hz fundamentals with

update intervals as low as 50 milliseconds, and measures distortion factors including THD, fundamental, and individual harmonic components. Energy quantification extends to grid-tied and battery-coupled applications, capturing energy bought/sold or charged/discharged. Motor testing is supported through analog and pulse sensor inputs for simultaneous rotation speed, torque, and mechanical power acquisition. High-speed data capture delivers Sigma-Urms, Sigma-Irms, and Sigma-P measurements every 5 ms from DC signals and three-phase devices.

Technical Specifications

- Harmonic analysis to 500th order at 50/60 Hz fundamental
- Data update interval: 50 milliseconds minimum
- Basic power accuracy: 0.05% of reading $\pm$ 0.05% of range
- Frequency range: DC to 1 MHz
- Sampling rate: 2 MHz with 16-bit resolution
- Minimum frequency for harmonic measurement: 0.1 Hz (without external sampling clock)
- High-speed capture interval: 5 milliseconds (Sigma parameters from DC and three-phase)
- Measurement intervals: manual or automatic
- Voltage input: 1.5 V to 1000 V (direct connection)
- Current input: 10 mA to 5 A or 1 A to 50 A (selectable elements)

Key Features

- Single input channel configuration
- Motor power analysis via analog and pulse sensor inputs
- Energy measurement for grid and battery systems
- Simultaneous THD, fundamental, and harmonic component measurement
- Motor speed, torque, and mechanical output characterization
- Configurable measurement intervals

Connectivity & Integration

- PC connectivity with Ethernet communication
- Remote screen display and instrument control via PC
- Web server functionality for remote operation and monitoring
- Modbus and Ethernet interface options available

Typical Applications

- Power supply and inverter evaluation
- Harmonic distortion analysis in industrial equipment
- Motor efficiency and mechanical power measurement
- Grid-connected renewable energy systems
- Battery charging and discharge characterization

WT1801E Characteristics / Specifications

PARAMETER	VALUE
Model	WT1801E
Manufacturer	Yokogawa
Instrument Type	Power Analyzer
Series	WT1800E
Input Elements	1 element
Basic Power Accuracy	+/- (0.05% of reading + 0.05% of range)
Frequency Range	DC, 0.1 Hz to 1 MHz (5 MHz -3 dB typical)
Voltage Range	1.5 to 1000 V
Current Range	5 A or 50 A element types
Crest Factor	3 (6 or 6A on reduced ranges)
Display	8.4-inch TFT color LCD
Data Update Rate	100 ms to 20 s (model dependent)
Harmonic Measurement	optional /G5 on applicable models
Interfaces	USB; GP-IB; Ethernet
Power Supply	100 to 240 VAC, 50/60 Hz
Operating Temperature	0 to 40 degC Storage Temperature: -20 to 60 degC Alias: WT1801E
Voltage Ranges	1.5 to 1000 V (CF3)
Current Elements	5 A or 50 A types
Sampling Rate	approx. 2 MS/s
Harmonic Order	up to 500th of 50/60 Hz
Low Power Factor Error	improved at cos phi near 0
Motor Evaluation	optional analog/pulse torque and speed inputs Notes Specs from Yokogawa WT1800E datasheet (WT1801E). Harmonics to 500th order; sampling approx. 2 MS/s.
Bandwidth	DC, 0.1 Hz to 1 MHz (5 MHz -3 dB typical)
Storage temperature	20 to 60 degC Alias: WT1801E

WT1801E Specifications

PARAMETER	VALUE
Yokogawa WT1801E High Performance Power Analyzer	Overview
Key Features	- 1 element input element(s)
Technical Specifications	Model: WT1801E
Notes	Specs from Yokogawa WT1800E datasheet (WT1801E). Harmonics to 500th order; sampling approx. 2 MS/s.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	20 to 60 degC Alias: WT1801E
Operating temperature	0 to 40 degC Storage Temperature: -20 to 60 degC Alias: WT1801E
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Current Elements	5 A or 50 A types
Sampling Rate	approx. 2 MS/s
Harmonic Order	up to 500th of 50/60 Hz
Low Power Factor Error	improved at cos phi near 0
Motor Evaluation	optional analog/pulse torque and speed inputs Notes Specs from Yokogawa WT1800E datasheet (WT1801E). Harmonics to 500th order; sampling approx. 2 MS/s.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Performance Power Analyzer

Overview

The Yokogawa WT1801E isahigh performance power analyzer in the WT1800E family providing precision voltage, current, and power measurement for inverter, motor-drive, and power-conversion testing.

Applications

Single/three-phase power and efficiency measurement; standby power and harmonic evaluation; production and R&D power analyzer validation; automated test with remote interfaces.

Key Features

- 1 element input element(s)
- Basic power accuracy +/- (0.05% of reading + 0.05% of range)
- Frequency bandwidth DC, 0.1 Hz to 1 MHz (5 MHz -3 dB typical)
- Voltage range 1.5 to 1000 V
- Current range 5 A or 50 A element types
- 8.4-inch TFT color LCD
- Interfaces: USB; GP-IB; Ethernet

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	WT1801E
Manufacturer	Yokogawa
Instrument Type	Power Analyzer

Specifications

PARAMETER	VALUE
Series	WT1800E
Input Elements	1 element
Basic Power Accuracy	+/- (0.05% of reading + 0.05% of range)

Specifications

PARAMETER	VALUE
Frequency Range	DC, 0.1 Hz to 1 MHz (5 MHz -3 dB typical)
Voltage Range	1.5 to 1000 V
Current Range	5 A or 50 A element types

Specifications

PARAMETER	VALUE
Crest Factor	3 (6 or 6A on reduced ranges)
Display	8.4-inch TFT color LCD
Data Update Rate	100 ms to 20 s (model dependent)

Specifications

PARAMETER	VALUE
Harmonic Measurement	optional /G5 on applicable models
Interfaces	USB; GP-IB; Ethernet
Power Supply	100 to 240 VAC, 50/60 Hz

Specifications

PARAMETER	VALUE
Operating Temperature	0 to 40 degC Storage Temperature: -20 to 60 degC Alias: WT1801E
Voltage Ranges	1.5 to 1000 V (CF3)
Current Elements	5 A or 50 A types

Specifications

PARAMETER	VALUE
Sampling Rate	approx. 2 MS/s
Harmonic Order	up to 500th of 50/60 Hz
Low Power Factor Error	improved at cos phi near 0

Motor Evaluation: optional analog/pulse torque and speed inputs

Notes

Specs from Yokogawa WT1800E datasheet (WT1801E). Harmonics to 500th order; sampling approx. 2 MS/s.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.