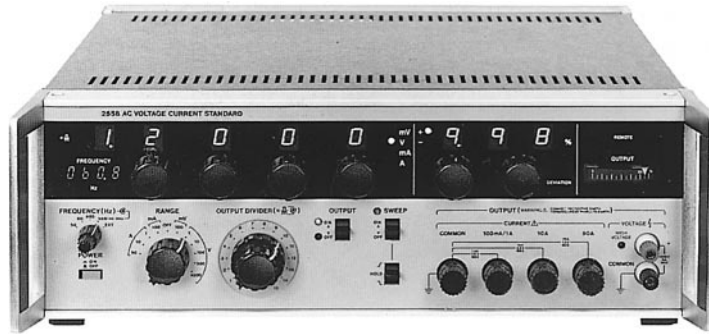


## VOLTAGE/CURRENT STANDARDS

YOKOGAWA

2558

2558  
AC Voltage/  
Current  
Standard

2558  
438 × 149 × 415 mm 23 kg  
(17-1/4 × 5-7/8 × 16-3/8" 50.7 lbs)

The 2558 is a precision, stable AC Voltage and Current source. Output voltage or current set using front-panel dials is controlled by digital signals through photocouplers and microprocessors, and displayed on a red 5-digit LED.

- **±0.08% accuracy**
- **1 mV to 1,200 V in 6 ranges, 1 mA to 60 A in 4 ranges**
- **Frequency ranges — 50, 60, 400 Hz or 40 to 500 Hz continuously variable**  
External oscillator can also be used on 40 to 800 Hz frequency ranges.
- **Overvoltage and overcurrent protection**
- **Sweep mode**
- **Large output capacity — 30 V max. on 100 mA range, 0.5 A max. on 1 V range**
- **% Deviation readout**
- **Output divider**
- **Remote control and programming using IEEE-488 interface (optional)**

## SPECIFICATIONS

## Output:

Range	*Output	Resolution	Maximum Output (approx.)
100 mV	1.00 to 120.00 mV	10 μV	10 Ω (output resistance)
1 V	0.0100 to 1.2000 V	100 μV	0.5 A
10 V	0.100 to 12.000 V	1 mV	3 A
100 V	1.00 to 120.00 V	10 mV	0.3 A
300 V	3.0 to 360.0 V	100 mV	0.1 A
1,000 V	10.0 to 1,200.0 V	100 mV	6 mA
100 mA	1.00 to 120.00 mA	10 μA	30 V
1 A	0.0100 to 1.2000 A	100 μA	30 V
10 A	0.100 to 12.000 A	1 mA	3 V
50 A	0.50 to 60.00 A	10 mA	0.6 V

\*May be set to zero with settings of less than 1% of range.

**Accuracy:** 50 or 60 Hz... ±(0.08% of setting + 0.015% of range) on all except 50 A range, ±(0.15% of setting + 0.015% of range) on 50 A range, 400 Hz... ±(0.1% of setting + 0.015% of range) on all except 50 A range, ±(0.2% of setting + 0.015% of range) on 50 A range

**Note:** Output at less than 20% of range, 50 or 60 Hz... ±0.02% of range on all except 50 A range, ±0.04% of range on 50 A range, 400 Hz... ±0.03% of range on all except 50 A range, ±0.06% of range on 50 A range

**Distortion:** Voltage output... 0.07% of range, current output... 0.18% of range, at output from 40 to 120% of range

**Note:** Above accuracies and distortion apply at the following

reference standard conditions:

Output frequency... 50, 60 or 400 Hz generated by internal oscillator, 23±3°C, less than 75% relative humidity, power supply voltage fluctuation... within ±10% of rated value, load... less than 6 VA on all except 1,000 V and 100 mA ranges, less than 1.2 VA on 1,000 V range, less than 0.2 VA on 100 mA range

**Output Voltage/Current Setting:** 4 dials on the front panel (opto-setting using photocouplers), highest dial... 0 to 12 in 13 steps, 3 least dials... 0 to 9 in 10 steps

**Setting Value Indication:** 5-digit red LED display

**Output Unit Marks:** mV, V, mA or A

**DIVIDER Output:**

DIVIDER output = output V/A setting × n/m, m and n are selectable by OUTPUT DIVIDER dual-in-one dial, m... 1, 2 through 15 in 15 uniform divisions, n... 0, 1 through 15 (n ≤ m)

**Accuracy of Output Divider:** Within ±1 digit of LSD

**Stability:** ±0.03% of range/hour

**Calibration Cycle:** 3 months

**% DEVIATION Setting:** 2 dials on the front panel (opto-setting using photocouplers), up to 9.99% of output setting

**% DEVIATION Indication:** 3-digit LED display up to 9.99% indication

**SWEEP Speed:** Approx. 16 s for sweep from 0 to 100% of setting or 100% to 0

**Frequency Range (Sine Wave):** Internal oscillator... 50 Hz ±1%, 60 Hz ±1%, 400 Hz ±1%, or 40 to 500 Hz continuously variable using FREQUENCY dual dial

**Output Frequency Indication:** 4-digit LED display (indication accuracy... ±0.1 Hz on 40 to 100 Hz, ±0.2 Hz on 100 to 500 Hz, ±0.6 Hz on 500 to 800 Hz)

**Response Time:** Approx 3 s for output of 0 to 100% of setting

**Temperature Coefficient of Output:** ±50 ppm of range/°C at 5 to 20°C, 26 to 40°C

**Output Terminal:** Grounded

**Insulation Resistance:** More than 100 MΩ at 500 V DC between power line and output terminals, and between power line and case

**Dielectric Strength:** 1,500 V AC for one minute between power line and output terminals, and between power line and case

**Power Requirements:** 100, 120, 200, 220 or 240 V AC (must be specified), 50 and 60 Hz

**Power Consumption:** Approx. 200 VA

## OPTION

**General Purpose Interface Bus (GP-IB)... 255801**

**Functional, Electrical and Mechanical Specifications:**

Meets the IEEE Standard 488-1978, interface function and identification... SH 1, AH 1, T 6, T 5, L 4, SR 1, RL 1, PP 0, DC 1, DT 1, C0

**Interconnected Devices:** 0 up to 15 maximum.

**Notes:** 1. GP-IB should always be ordered together with the standard instrument since the combination instrument will be tested at YOKOGAWA.

2. Interface cable to controller is not provided with the 255801 (must be prepared by user).