

## Specifications

### CT9555 (1-channel), and CT9556 (1-channel/RMS) Specifications

#### 1. General Specifications

<b>Operating environment</b>	Indoors, Pollution Degree 2, altitude up to 2000 m (6562 ft.)		
<b>Operating temperature and humidity</b>	Temperature; -10°C to 50°C (14°F to 122°F) Humidity; Less than 40°C (104°F): 80% RH or less (no condensation) From 40°C to 45°C (104°F to 113°F): 60% RH or less (no condensation) From 45°C to 50°C (113°F to 122°F): 50% RH or less (no condensation)		
<b>Storage temperature and humidity</b>	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)		
<b>Standards</b>	Safety	EN 61010	
	EMC	EN 61326	
<b>Power supply</b>	<ul style="list-style-type: none"> <li>• Z1008 AC adapter            Rated supply voltage: 100 V to 240 V AC (Voltage fluctuations of <math>\pm 10\%</math> from the rated supply voltage are taken into account.)            Rated supply frequency: 50 Hz/60 Hz            Anticipated transient overvoltage: 2500 V            Maximum rated power: 45 VA (including AC Adapter), 15 VA (main unit only)</li> <li>• External power supply            Rated supply voltage: 10 V to 30 V DC            Maximum rated power: 15 VA</li> </ul>		
<b>Input terminal (main unit front side)</b>	Hioki ME15W (female)		
<b>Output terminal</b>	CT9555	WAVE output (main unit front side)	BNC (female)
	CT9556	WAVE output (main unit front side)	BNC (female)
		RMS output (main unit rear side)	BNC (female)
<b>LED display</b>	When power is ON	green light	
	When power is OFF	no light	
	When OVER is detected (CT9556 only)	When the input's crest factor exceeds 2.8 (during 2 V rms sine wave input) : red light	

<b>Dimensions</b>	Approx. 33 mm(W) × 67 mm(H) × 132 mm(D) (1.30" W × 2.64" H × 5.20" D) (excluding protruding parts)
<b>Mass</b>	Approx. 200 g (7.1 oz.) (excluding AC adapter)
<b>Product warranty period</b>	3 year
<b>Accessories</b>	Refer to: "Device and Accessories" (p.1)
<b>Connectable current sensor</b>	Current sensor with Hioki ME15W at the output terminal CT6841-05, CT6843-05, CT6844-05, CT6845-05, CT6846-05, CT6862-05, CT6863-05, CT6865-05, 9709-05, PW9100-03, and PW9100-04, etc.
<b>Connectable current sensor (Can be connected using CT9900)</b>	Current sensor with Hioki PL23 at the output terminal CT6841, CT6843, CT6844, CT6845, CT6846, CT6862, CT6862-10, CT6863, CT6863-10, CT6865, 9709, 9709-01, 9709-10, and 9272-10, etc.
<b>Options</b>	Refer to: "Hioki Options (Sold Separately)" (p.2)

## 2. Accuracy Specifications

### -1. Basic Specifications

<b>WAVE output</b>	Front panel BNC	Independently outputs waveform signals from each connected current sensor Accuracy = (Accuracy of the current sensor)
<b>RMS output</b>	Rear panel BNC	Converts waveform signals of each connected current sensor to the true RMS value and outputs Accuracy = (Accuracy of the current sensor) + (Accuracy of the RMS output)

### -2. Accuracy Specification of RMS Output Only for CT9556 (1-channel/RMS)

<b>Measurement method</b>	Measurement of true RMS value
<b>Rated input voltage</b>	2 V rms (Rated output signal of sensor)
<b>Output voltage</b>	DC 2 V f.s.
<b>Output resistance</b>	50 Ω (±5%)
<b>Conditions of guaranteed accuracy</b>	Guaranteed accuracy period: 1 year Guaranteed accuracy period from adjustment made by Hioki: 1 year Temperature and humidity for guaranteed accuracy: 23°C±5°C, 80% RH or less When a sine wave is input to the SENSOR terminal 1% to 150% of rated input voltage, design value of 5 Hz<f≤10 Hz

	Amplitude
	DC $\pm 0.2\%$ rdg. $\pm 0.1\%$ f.s.
Frequency	5 Hz < f $\leq$ 10 Hz $\pm 0.3\%$ rdg. $\pm 0.5\%$ f.s.
	10 Hz < f < 45 Hz $\pm 0.2\%$ rdg. $\pm 0.2\%$ f.s.
	45 Hz $\leq$ f $\leq$ 66 Hz $\pm 0.2\%$ rdg. $\pm 0.1\%$ f.s.
	66 Hz < f $\leq$ 10 kHz $\pm 0.2\%$ rdg. $\pm 0.2\%$ f.s.
	10 kHz < f $\leq$ 100 kHz $\pm 0.3\%$ rdg. $\pm 0.5\%$ f.s.
	100 kHz < f $\leq$ 300 kHz $\pm 5.0\%$ rdg. $\pm 0.5\%$ f.s.
	300 kHz < f $\leq$ 700 kHz $\pm 7.0\%$ rdg. $\pm 0.5\%$ f.s.
	700 kHz < f $\leq$ 1 MHz $\pm 10.0\%$ rdg. $\pm 1.0\%$ f.s.
Temperature coefficient	-10°C to 18°C, 28°C to 50°C less than $\pm 0.03\%$ f.s./°C
Response time	0.8 s (Time within the accuracy specification range when shifting by 0% $\rightarrow$ 90%) 0.8 s (Time within the accuracy specification range when shifting by 100% $\rightarrow$ 10%)
Crest factor	3 (when a sine wave 2 V rms is input)
Effect of radiated radio-frequency electromagnetic field	6% f.s. at 10 V/m
Effect of conducted radio-frequency electromagnetic field	6% f.s. at 10 V

## CT9557 (4-channel/RMS) Specifications

### 1. General Specifications

Operating environment	Indoors, Pollution Degree 2, altitude up to 2000 m (6562 ft.)
Operating temperature and humidity	Temperature; -10°C to 50°C (14°F to 122°F) (during use at or below the current sensor's rated current value) (The top limit of the operating temperature range is reduced to 40°C when the current sensor's rated current is exceeded.) Humidity; Less than 40°C (104°F): 80% RH or less (no condensation) From 40°C to 45°C (104°F to 113°F): 60% RH or less (no condensation) From 45°C to 50°C (113°F to 122°F): 50% RH or less (no condensation)
Storage temperature and humidity	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Standards	Safety EN 61010 EMC EN 61326

<b>Power supply</b>	<ul style="list-style-type: none"> <li>• Z1002 AC adapter Rated supply voltage: 100 V to 240 V AC (Voltage fluctuations of <math>\pm 10\%</math> from the rated supply voltage are taken into account.) Rated supply frequency: 50 Hz/60 Hz Anticipated transient overvoltage: 2500 V Maximum rated power: 155 VA (including AC Adapter), 60 VA (main unit only)</li> <li>• External power supply Rated supply voltage: 10 V to 30 V DC Maximum rated power: 60 VA</li> </ul>
<b>Input terminal (main unit front side)</b>	Hioki ME15W (female) $\times$ 4-channel
<b>Output terminal</b>	WAVE output (main unit front side)      BNC (female) $\times$ 4-channel
	Addition RMS output (main unit back side)      BNC (female)
	Addition WAVE output (main unit back side)      BNC (female) Hioki ME15W (male)
<b>LED display</b>	When power is ON (CH A)      green light (CH A)
	When power is OFF (CH A)      no light (CH A)
	When TOTAL OUTPUT is ON (CH B to CH D)      green light (CH B to CH D)
	When power is OFF (CH A)      no light (CH B to CH D)
	When OVER is detected (all channel)      When the input's crest factor exceeds 2.8 (during 2 V rms sine wave input): red light The LED display does not light up when the TOTAL OUTPUT function is off.(CH B to CH D)
<b>Dimensions</b>	Approx. 116 mm(W) $\times$ 67 mm(H) $\times$ 132 mm(D) (4.57" W $\times$ 2.64" H $\times$ 5.20" D) (excluding protruding parts)
<b>Mass</b>	Approx. 420 g (14.8 oz.) (excluding AC adapter)
<b>Product warranty period</b>	3 year
<b>Accessories</b>	Refer to: "Device and Accessories" (p.1)
<b>Connectable current sensor</b>	Current sensor with Hioki ME15W (male) at the output terminal CT6841-05, CT6843-05, CT6844-05, CT6845-05, CT6846-05, CT6862-05, CT6863-05, CT6865-05, 9709-05, PW9100-03, and PW9100-04, etc
<b>Connectable current sensor (Can be connected using CT9900)</b>	Current sensor with Hioki PL23 (male) at the output terminal CT6841, CT6843, CT6844, CT6845, CT6846, CT6862, CT6862-10, CT6863, CT6863-10, CT6865, 9709, 9709-01, 9709-10, and 9272-10, etc

<b>Connectable devices</b>	Directly connectable	Device with Hioki ME15W (female) at the sensor input
	Connectable in the CT9901	Device with Hioki PL23 (female) at the sensor input
<b>Options</b>	Refer to: "Hioki Options (Sold Separately)" (p.2)	

## 2. Accuracy Specifications

### -1. Basic Specifications

<b>WAVE output</b>	Front panel BNC	Independently outputs waveform signals from each connected current sensor Accuracy = (Accuracy of the current sensor)
	Rear panel BNC ME15W	Adds and outputs waveform signals from each connected current sensor Accuracy = (Accuracy of the current sensor) + (Accuracy of the addition wave output)
<b>RMS output</b>	Rear panel BNC	Outputs by converting the addition waveform of waveform signals from each connected sensor to the true RMS value Accuracy = (Accuracy of the current sensor) + (Accuracy of the addition RMS output)

### -2. Accuracy Specifications of Addition Wave Output

<b>Measurement method</b>	Adds a waveform signal from the current sensor that is connected from CH A selected by the select switch to CH D and outputs the waveform
<b>Rated input voltage</b>	2 V f.s. (Rated output signal of current sensor)
<b>Output voltage</b>	2 V f.s. (Does not depend on the number of channels)
<b>Output resistance</b>	50 Ω (±5%)
<b>Conditions of guaranteed accuracy</b>	Guaranteed accuracy period: 1 year Guaranteed accuracy period from adjustment made by Hioki: 1 year Temperature and humidity for guaranteed accuracy: 23°C±5°C, 80% RH or less When the same sine wave is input to each SENSOR terminal 1% to 150% of rated input voltage, design value of DC<f<10 Hz

	Amplitude	Phase
Frequency	DC	±0.06% rdg.±0.03% f.s. (Not specified)
	DC<f≤1 kHz	±0.06% rdg.±0.03% f.s. ±0.1 °
	1 kHz<f≤10 kHz	±0.10% rdg.±0.03% f.s. ±1.0 °
	10 kHz<f≤100 kHz	±0.20% rdg.±0.10% f.s. ±(0.1×fk Hz) °
	100 kHz<f≤300 kHz	±1.0% rdg.±0.20% f.s.
	300 kHz<f≤700 kHz	±5.0% rdg.±0.20% f.s.
	700 kHz<f≤1 MHz	±10.0% rdg.±0.50% f.s.
Temperature coefficient	-10°C to 18°C, 28°C to 50°C less than ±0.01% f.s./°C	
Effect of radiated radio-frequency electromagnetic field	6% f.s. at 10 V/m	
Effect of conducted radio-frequency electromagnetic field	6% f.s. at 10 V	

### -3. Accuracy Specifications of Addition RMS output

Measurement method	Measurement of true RMS value	
Rated input voltage	2 V f.s. (Rated output signal of current sensor)	
Output voltage	DC 2 V f.s.	
Output resistance	50 Ω (±5%)	
Conditions of guaranteed accuracy	Guaranteed accuracy period: 1 year Guaranteed accuracy period from adjustment made by Hioki: 1 year Temperature and humidity for guaranteed accuracy: 23°C±5°C, 80% RH or less When a sine wave is input to the SENSOR terminal 1% to 150% of rated input voltage, design value of 5 Hz<f≤10 Hz	
Frequency	DC	Amplitude ±0.2% rdg.±0.1% f.s.
	5 Hz<f≤10 Hz	±0.3% rdg.±0.5% f.s.
	10 Hz<f<45 Hz	±0.2% rdg.±0.2% f.s.
	45 Hz≤f≤66 Hz	±0.2% rdg.±0.1% f.s.
	66 Hz<f≤10 kHz	±0.2% rdg.±0.2% f.s.
	10 kHz<f≤100 kHz	±0.3% rdg.±0.5% f.s.
	100 kHz<f≤300 kHz	±5.0% rdg.±0.5% f.s.
	300 kHz<f≤700 kHz	±7.0% rdg.±0.5% f.s.
	700 kHz<f≤1 MHz	±10.0% rdg.±1.0% f.s.
Temperature coefficient	-10°C to 18°C, 28°C to 50°C less than ±0.03% f.s./°C	

<b>Response time</b>	0.8 s (Time within the accuracy specification range when shifting by 0%→90%) 0.8 s (Time within the accuracy specification range when shifting by 100%→10%)
<b>Crest factor</b>	3 (when a sine wave 2 V rms is input)
<b>Effect of radiated radio-frequency electromagnetic field</b>	6% f.s. at 10 V/m
<b>Effect of conducted radio-frequency electromagnetic field</b>	6% f.s. at 10 V

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