The GPT-9600 Series, carrying a high-efficiency PWM amplifier design, generates output source up to 98% efficiency. This greatly reduces the energy loss from heat dissipation and therefore lowers the temperature within the cabinet. The suppression of temperature rise during heavy-duty operation of the tester significantly increases tester's reliability and service lifetime.
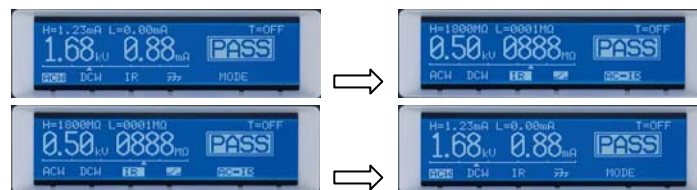
Friendly User Interface

Large LCD, High Intensity Indicators and Function Keys

The 240 x 48 display clearly shows the applied voltage, test parameters, test conditions, measurement value and result on the screen at the same time. The real-time status update on the LCD display accompanied by the multi-colored LED status indicators on the front panel allow operators to have a full control of the test process to perform precession test and avoid unnecessary operation risks at the same time. The status indicator above the high voltage output terminal will automatically flash when an output is in place. In addition, the function keys arranged below the LCD display provide convenient operation that test functions can be easily changed by a single pressing.
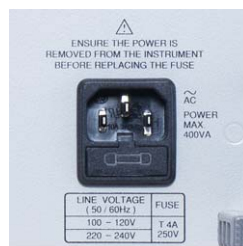
Simply AUTO Mode

Simply AUTO Mode

For models that include the Insulation Resistance test function; there is a simple AUTO mode (W-I or I-W) which allows the operator to run two test functions in sequence. The first test function can either be a withstanding voltage test followed by an insulation resistance test or vice versa, – thus eliminating the need to push the START button twice to run two separate tests.

Support the Universal input voltage

Universal Input Voltage Range

Additionally, the GPT-9600 series provides the universal input voltage range for operating equipment

countries with different electrical power standards. With the GPT-9600 series, the hustle of switching or selecting input voltage range can be left behind. Furthermore, 50Hz or 60Hz can be selected to provide a stable and appropriate test voltage without relying on the electrical environment conditions of input power so as to meet the test requirements.

Key Features of the GPT-9600 Series

- 100VA AC Test Capacity
- 240x48 Ice Blue Dot Matrix LCD
- Auto W-I and I-W Mode
- True RMS Current Measurement
- Zero Crossing Turn-on Operation
- Safety INTERLOCK Function
- PWM Switching Amplifier to Enhance the Power Efficiency and Reliable Testing
- Automatically Switching Input Source for Universal Input Voltage
- Interface : Remote Terminal, Signal I/O

240 x 48 Matrix LCD display, supports a grater view of setting parameters and testing voltage /or results.

High Intensity LED Indictors to show the status of safety tester.

High Voltage Output for AC 5kV or DC 6kV

High Voltage Output Return terminal

Function keys, corresponding to the functions display on the screen.

Remote Terminal provides "start" and "stop" control by an external controller.

Reserve port for calibration use only

The Signal I/O port provides remotely "start" and "stop" function and monitor the test status of the tester.

Automatically switching input source for world–wide input voltage

Applications and Target Markets

■ **Production and Routine Testing of Electrical Products**

> ➢ Information Tech. Equipment
> ➢ Consumer Products
> ➢ R.L.C component
> ➢ Other tests with AC/DC withstanding testing lower than 20mAac or 5mAdc cut-off current

● 240 x 48 matrix LCD display and high intensity status indicators for clear and easy observation.

● Various safe considerations, zero crossing turn-on operation / fast cutoff / protective Interlock key/ discharge after testing, to ensure the safety of operator.

● PWM amplifier design to ensure the precision tests of the DUT and the reliability and service lifetime of tester.

● AUTO mode test procedure for W-I or I-W.

● Various control methods, manual / remote terminal / signal I/O, to fit with the actual requirement of workplace environment.

● Automatically switching input source for universal input voltage to prevent incorrect input source from damaging the instrument.

Product Outlook of the GPT-9600 Series

Front

Rear

Ordering information:

GPT-9603   AC 100VA AC/DC Withstanding Voltage/Insulation Resistance Tester

GPT-9612   AC 100VA AC Withstanding Voltage/Insulation Resistance Tester

GPT-9602   AC 100VA AC/DC Withstanding Voltage Tester

GPT-9601   AC 100VA AC Withstanding Voltage Tester

Included Accessories

Quick Start Guide x 1,

CD x1(completed user manual)

Power cord x 1,

Interlock key x 1,   GHT-114

Remote terminal male plug x 1,

Test lead GHT-114 x 1

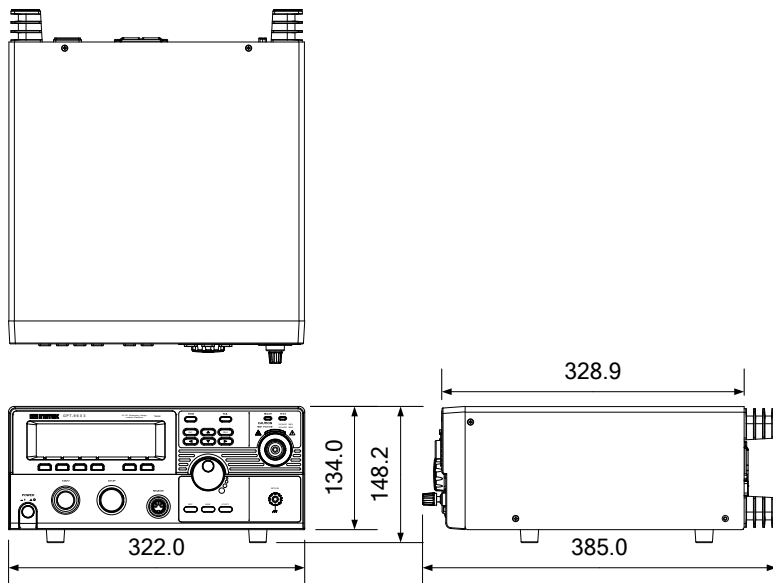### Optional Accessories

GHT-113   High Voltage Test Pistol
GHT-205   High Voltage Test Probe
GRA-417   RACK Adapter Panel (19", 4U)

Dimensions of the GPT-9600 Series

328.9

134.0
148.2

322.0

385.0

Selection Guide of the GPT-9600 Series

	NEW	NEW	NEW	NEW
Output Capacity	100VA			
Model	GPT-9601	GPT-9602	GPT-9612	GPT-9603
AC Withstanding (ACW)	5kVac 20mA	5kVac 20mA	5kVac 20mA	5kVac 20mA
DC Withstanding (DCW)	------	6kVdc 6mA	------	6kVdc 6mA
Insulation Resistance (IR)	------	------	50/100/250/ 500/1000Vdc 2000MΩ	50/100/250/ 500/1000Vdc 2000MΩ
Ground Bond (GB)	------	------	------	------
ARC Detection	YES	YES	YES	YES
Ramp-Up Function	0.1s Fixed	0.1s Fixed	0.1s Fixed	0.1s Fixed
Memory Storage for Setting	1	2	2	3
AUTO Mode	------	------	AC-IR or IR-AC	AC-IR or IR-AC DC-IR or IR-DC
Safety Interlock	YES	YES	YES	YES
Remote Terminal	YES	YES	YES	YES
Signal I/O	YES	YES	YES	YES
USB/RS232C Interface	------	------	------	------
GPIB Interface	------	------	------	------
Display, LCD	240 x 48	240 x 48	240 x 48	240 x 48
CE Compliance	YES	YES	YES	YES

Service Policy

1) **2-Year warranty**

2) **Service Support**

   The service instructions in the Service Manual will help distributors repair defective units promptly. Should a board replacement be necessary to fix a defective unit, a board swapping service is provided by Good Will Instrument to facilitate the repairs done at a distribution site.

3) GW Instek continues to provide the after sales support through its website. The most updated version of the service manual and Marcom material for the GPT-9600 series will be posted on the distributor zone of GW Instek Website at http://www.gwinstek.com.

The GPT-9600 Series Specifications

AC Withstanding Voltage [for all models]

Output-Voltage Range	0.10kV~ 5.00kV
Output-Voltage Resolution	10V
Maximum Rated Load	100 VA (5kV/20mA)
Maximum Rated Current	20mA (0.5kV＜V≦5kV), 5mA (0.1kV≦V≦0.5kV)
Output-Voltage Waveform	Sine wave
Output-Voltage Frequency	50 Hz / 60 Hz selectable
Voltage Regulation	± (1.5% + 2 counts) [full load ->no load]
Voltmeter Accuracy	± (1.5% of reading + 2 counts)
Current Measurement Range [1]	0.01mA~20.0mA
Current Best Resolution	0.01mA(0.01mA~9.99mA) 0.1mA(10.0mA~20.0mA)
Current Measurement Accuracy	± (2.0% of rdg + 5 counts) when HI SET<1.00mA ± (2.0% of rdg + 3 counts) when HI SET≥1.00mA
Window Comparator Method	Yes
ARC Detect	Yes
RAMP (Ramp-Up Time)	0.1s Fixed
TIMER (Test Time)	OFF, 1s~180s
GND	ON

[1] Output Limitation in AC Withstanding Voltage Testing as below.

	Upper Current	Pause	Output Time
AC	15mA≦I≦20mA	At least as long as the output time	Approx. 180 seconds
	0.01mA≦I<15mA	Not necessary	Continuous output possible

DC Withstanding Voltage [for GPT-9602/9603]

Output-Voltage Range	0.10kV~ 6.00kV
Output-Voltage Resolution	10V
Maximum Rated Load	25W (5kV/5mA)
Maximum Rated Current	6mA (0.5kV＜V≦6kV), 2mA (0.1kV≦V≦0.5kV)
Voltage Regulation	± (1.5% + 2 counts) [full load ->no load]
Voltmeter Accuracy	± (1.5% of reading + 2 counts)
Current Measurement Range [1]	0.01mA~6.00mA
Current Best Resolution	0.01mA(0.01mA~6.00mA)
Current Measurement Accuracy	± (2.0% of rdg + 5 counts) when HI SET<1.00mA ± (2.0% of rdg + 3 counts) when HI SET≥1.00mA
Window Comparator Method	Yes
ARC Detect	Yes
RAMP (Ramp-Up Time)	0.1s Fixed
TIMER (Test Time)	OFF, 1s~180s
GND	ON

[1] Output Limitation in DC Withstanding Voltage Testing as below.

	Upper Current	Pause	Output Time
DC	0.01mA≦I≦6.00mA	Not necessary	Continuous output possible

Insulation Resistance [for GPT-9612/9603]

Output Voltage	50V/100V/250V/500V/1000V	
Output-Voltage Accuracy	± (3.0% of setting + 1 count) with no load	
Voltage Regulation	± (1.5% + 2 counts) [full load ->no load]	
Voltmeter Accuracy	± (1.5% of reading + 2 counts)	
Resistance Measurement Range	1MΩ~ 2000MΩ	
Test Voltage	Measure Range	Accuracy
50V / 100V / 250V	1~50MΩ 51~2000MΩ	± (5% of reading + 2MΩ) ± (10% of reading + 2MΩ)
500V / 1000V	1~500MΩ 501~2000MΩ	± (5% of reading + 2MΩ) ± (10% of reading + 2MΩ)
Output Impedance	600kΩ	
Window Comparator Method	Yes	
RAMP (Ramp-Up Time)	0.1s Fixed	
TIMER (Test Time)	1s~180s	
GND	OFF	

General

⚠ Note	The specifications apply when the GPT-9600 series are powered on for at least 30 minutes at 15°C~35°C.
Display	240 x 48 Ice Blue dot matrix LCD
AUTO Mode*	AC-IR / IR-AC / DC-IR / IR-DC
Interface	Remote, Signal I/O
Power Source	AC 100-120 V / 220-240 V ±10%
Power Line Frequency	50/60Hz
Power Consumption	Max 400VA
Dimensions	322(W) x 148(H) x 385(D) mm
Weight	Approx. 9kg max.

* The available Auto mode depends on the selected model

Environment

⚠ Note	To operate over the specific temperature range may cause damage to the circuit. And, do not use in a place where strong magnetic or electric field exists.
Warranty Environment	15°C to 35°C, Humidity ≦70% (no condensation)
Operation Environment	0°C to 40°C, Humidity ≦70% (no condensation)
Storage Environment	-10°C to 70°C, Humidity ≦85% (no condensation)
Installation Location	Indoors at an amplitude of up to 2000m