AC/DC/IR/GB ELECTRICAL SAFETY TESTER

GPT-9900 Series

CE | USB | RS-232 | GPIB | Remote Terminal | Signal I/O | Rear-Panel Output

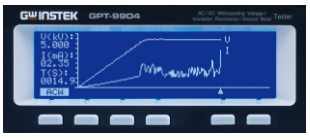
The GPT-9900 Series is built upon a platform of maximum power output AC 500VA which supports the major test items complying with safety standards, such as IEC, EN, UL, CSA, GB, JIS as well as other safety regulations.

The GPT-9900 Series safety tester inherits every feature and advantages from the GPT-9800 Series. The high-efficiency PWM amplifier, which is designed to impede the influence caused by voltage fluctuation of input AC source, is the core of GPT-9900 platform. The output voltage is automatically cut off (within 150 μs) upon the detection of an abnormal output voltage or a trip of current limits during the measurement to protect the operators from hazardous injury. The safety tester will automatically discharge the DUT after each test to eliminate excessive voltage remained inside DUT.

Other significant functions and features of the GPT-9900 Series include the "Sweep" function, which is used to display the test results represented by the trace graph; The output terminal at the rear panel is used for system applications; The open-circuit detection is used to ensure proper connections of apparatus for ground bond test; 100 sets of memory can save and recall the panel settings for individual or sequential tests; A remote output on-off terminal at the front panel and a signal I/O port at the rear panel provide an external control for remote start/stop of the safety tester; Thus, RS-232C, USB and GPIB (optional) interfaces are available for PC remote control and the storage of test results.

Unique Sweep Function

The Sweep Function is used to demonstrate the test results of DUT, which are represented by trace graph. This helps users verify the changes of measured parameter (current or resistance)during the whole measurement process instead of one final value at the end.

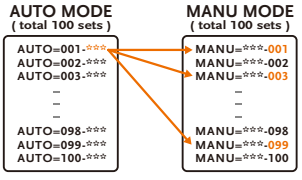


Friendly User Interface

The 240 x 64 LCD displays the necessary information such as test conditions, measurement results within single screen. Besides, the function keys arranged below the LCD display provide users with easy execution of test setup.

Convenient MANU and AUTO Test

Any test conditions that have been previously stored can be used for a single test or combined together for automatic testing.



Variety of Control Methods

Except using the START/STOP buttons to control, the GPT-9900 series provides a remote terminal and a signal I/O port. Furthermore, the interfaces including RS-232C, USB and GPIB (option) within all the models allow users to retrieve test results via a PC connection.

FEATURES

- 500VA AC Test Capacity
- 240x64 Ice Blue Dot Matrix LCD
- Sweep Function for DUT Characteristic Analysis
- Insulation Resistance Measurement up to 50GΩ
- Manual/Auto Mode
- Function Key for Quick Selecting
- High Intensity Flash for Caution & Status Indication
- Safety Interlock Function
- Zero Crossing Turn-on Operation
- Controllable Ramp-up Time
- True RMS Current Measurement
- High Resolution : 1μA for Measuring Current, 2V for Setting Voltage
- PWM Switching Amplifier to Enhance the Power Efficiency and Reliable Testing
- Max. 100 Memory Block for Test Condition(Step) Setting. And Each Step can be Named Individually
- Remote Terminal on the Front Panel for "Start"and"Stop" Control by External
- Rear Panel Output available
- Interface : RS-232C, USB Device, Signal I/O and GPIB (Optional)

Rear Panel

APPLICATIONS

- Quality Assurance Verification
- Safety Standard Compliance Pre-qualification in R&D
- Safety Testing of Electrical Product in Manufacturing

  Household and Similar Electrical Appliances
  Luminaires
  Audio, Video and Similar Electronic Apparatus

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Simply Reliable

GPT-9900 Series

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SPECIFICATIONS

AC WITHSTANDING	**Output-Voltage Range**	0.100kV~ 5.000kV ac
	Output-Voltage Resolution	2V/step
	Output-Voltage Accuracy	±(1% of setting + 5V) [no load]
	Maximum Rated Load	500 VA (5kV/100mA)
	Maximum Rated Current	100mA (0.5kV< V≤5kV); 10mA (0.1kV≤V≤0.5kV)
	Output-Voltage Waveform	Sine wave
	Output-Voltage Frequency	50Hz/60Hz selectable
	Voltage Regulation	±(1% of rdg + 5V) [full load → no load]
	Voltmeter Accuracy	±(1% of rdg + 5V)
	Current Measurement Range	0.001mA~100.0mA
	Current Best Resolution	0.001mA/0.01mA/0.1mA
	AC Current Measurement Accuracy	±(1.5% of rdg+30counts)when HI SET<1.11mA ; ±(1.5% of rdg+3counts)when HI SET ≥1.11mA
	Window Comparator Method	Yes
	ARC Detect	Yes
	RAMP (Ramp-Up Time)	0.1s~999.9s
	TIMER (Test Time)*	OFF, 0.5s~999.9s
	Sweep Function*	Yes
	GND	ON/OFF
DC WITHSTANDING	**Output-Voltage Range**	0.100kV~6.000kV dc
	Output-Voltage Resolution	2V/step
	Output-Voltage Accuracy	±(1% of setting + 5V) [no load]
	Maximum Rated Load	100W(5kV/20mA)
	Maximum Rated Current	20mA(0.5kV< V≤ 6kV); 2mA (0.1kV≤V≤0.5kV)
	Voltage Regulation	±(1% of rdg + 5V)[full load → no load]
	Voltmeter Accuracy	±(1% of rdg + 5V)
	Current Measurement Range	0.001mA~20.0mA
	Current Best Resolution	0.001mA/0.01mA/0.1mA
	DC Current Measurement Accuracy	±(1.5% of rdg+30counts)when HI SET<1.11mA ; ±(1.5% of rdg+3counts)when HI SET ≥1.11mA
	Window Comparator Method	Yes
	ARC Detect	Yes
	RAMP (Ramp-Up Time)	0.1s~999.9s
	TIMER (Test Time)*	OFF, 0.5s~999.9s
	Sweep Function*	Yes
	GND	ON/OFF
INSULATION RESISTANCE	**Output Voltage**	50V~1000V dc
	Output-Voltage Resolution	50V/step
	Output-Voltage Accuracy	±(1% of setting +5V)[no load]
	Resistance Measurement Range	0.001GΩ~ 50.00GΩ
	Test Voltage / **Measurable Range** / **Accuracy**	
	50V≤V≤450V	0.001 ~ 0.050GΩ: ±(5% of rdg + 1count) 0.051 ~ 2.000GΩ: ±(10% of rdg + 1count)
	500V≤V≤1000V	0.001 ~ 0.500GΩ: ±(5% of rdg + 1count) 0.501 ~ 9.999GΩ: ±(10% of rdg + 1count) 10.00 ~ 50.00GΩ: ±(15% of rdg + 1count)
	Window Comparator Method	Yes
	Output Impedance	600kΩ
	RAMP (Ramp-Up Time)	0.1s~999.9s
	TIMER (Test Time)	1s~999.9s
	GND	OFF (fix)
	Sweep Function*	Yes
GROUND BOND (GPT-9904 Only)	**Output-Current**	03.00A~32.00A ac
	Output-Current Resolution	0.01A
	Output-Current Accuracy	3A≤I≤8A:(1% of rdg+0.2A), 8A< I≤32A:(1% of rdg+0.05A)
	Test-Voltage	6Vac max (open circuit)
	Test-Voltage Frequency	50Hz/60Hz selectable
	Resistance Measurement Range	10mΩ~650.0mΩ
	Resistance Measurement Resolution	0.1mΩ
	Resistance Measurement Accuracy	(1% of rdg + 2mΩ)
	Window Comparator Method	Yes
	TIMER (Test Time)	0.5s~999.9s
	Sweep Function*	Yes
	Test Method	Four Terminal
MEMORY	**Single Step Memory**	MANU : 100 blocks
	Automatic Testing Memory	AUTO : 100 blocks, menu per auto : 16
INTERFACE	**Rear Output**	Standard
	RS-232C	Standard
	USB	Standard
	GPIB	Option
	Remote Terminal (Front)	Standard
	Signal I/O	Standard
DISPLAY		240 x 64 Ice Blue Dot matrix LCD
POWER SOURCE		AC100V/120V/220V/230V±10% , 50/60Hz
DIMENSIONS & WEIGHT		330(W)x148(H)x587(D)mm for GPT-9903/9904; 330(W)x148(H)x482(D)mm for GPT-9901A/9902A Approx. 27kg max.

* The sweep function and timer off can only be performed when the tester is in the special MANU mode.

Specifications subject to change without notice. PT-9900GD1DH

ORDERING INFORMATION

GPT-9904 AC 500VA AC/DC Withstanding Voltage/Insulation Resistance/Ground Bond Tester
GPT-9903 AC 500VA AC/DC Withstanding Voltage/Insulation Resistance Tester
GPT-9902A AC 500VA AC/DC Withstanding Voltage Tester
GPT-9901A AC 500VA AC Withstanding Voltage Tester

ACCESSORIES

Quick Start Guide x 1, Power cord x 1, CDx1(complete user manual), Interlock Key x 1, Remote terminal male plug x 1, Test lead GHT-114 x 1 for GPT-9903
Test lead GHT-114 x 1, GTL-115 x 1 for GPT-9904

OPTION

Opt.1 GPIB card

OPTIONAL ASSESSORIES

GHT-113 High Voltage Test Pistol
GHT-205 High Voltage Test Probe
GTL-232 RS-232C Cable, 9-pin Female to 9-pin, null Modem for Computer
GTL-247 USB Cable, A-A type, approx. 1.8m
GTL-248 GPIB Cable, approx. 2m
GTL-251 GPIB-USB-HS (High Speed)
GRA-402 RACK Adapter Panel (19", 4U)

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