

GPT-9900 Series



The GPT-9900 Series is built upon a platform of AC 500VA maximum power output which can support the major test items among all the needed for the compliance of the safety standards such as IEC, EN, UL, CSA, GB, JIS and other safety regulations.

The GPT-9900 Series safety tester follows every good feature and advantage of the GPT-9800 Series. The high-efficiency PWM amplifier is the core of GPT-9900 platform Unique Sweep Function design to impede the influence from the voltage fluctuation of input AC source. The output voltage is automatically cut off (within 150 μ s) upon the detection of an abnormal output voltage or a trip of current limits during test to protect the operator from hazardous injury. The GPT-9900 Series automatically discharges the DUT after each test to eliminate excessive voltage that remains on the DUT.

Other significant functions and features of the GPT-9900 Series include the "Sweep" function to display the test results point by point all through the testing period to form a trace graph, the rear panel output for system applications, the open-circuit detection to ensure proper connections of apparatus for ground bond test, 100 sets of memory to save and recall the panel settings for individual or sequential tests, a remote output on-off terminal in the front panel and a signal I/O port in the rear panel provided as the means for remote start/stop control of the safety tester, and RS-232C, USB and GPIB (optional) interfaces available for PC remote control and test result logging.

Unique Sweep Function

Using the sweep function to show the trace graph of test results of the device under test. It helps users to verify the changes of measured parameter (current or resistance) all through the test 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 values and DUT results in a legible pattern. Besides, the function keys arranged below the LCD display provide convenient operation that test setup can be easily done by fewer key punches.



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-eliminating the need to perform a series of tests manually.

AUTO MODE (total 100 sets)	MANU MODE (total 100 sets)
AUTO=001.***	MANU=***.001
AUTO=002.***	MANU=***.002
AUTO=003.***	MANU=***.003
-	-
-	-
AUTO=098.***	MANU=***.098
AUTO=099.***	MANU=***.099
AUTO=100.***	MANU=***.100

Variety of Control Methods

Except to using the START/STOP buttons to control, the series also provides a remote terminal and a signal I/O port. Furthermore with RS-232C, USB and GPIB (option) for all the models retrieving test data and results is convenient 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 50G Ω
- 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 : 1 μ A 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

SPECIFICATIONS

AC WITHSTANDING	Output-Voltage Range Output-Voltage Resolution Output-Voltage Accuracy Maximum Rated Load Maximum Rated Current Output-Voltage Waveform Output-Voltage Frequency Voltage Regulation Voltmeter Accuracy Current Measurement Range Current Best Resolution AC Current Measurement Accuracy Window Comparator Method ARC Detect RAMP (Ramp-Up Time) TIMER (Test Time)* Sweep Function* GND	0.100kV~ 5.000kV ac 2V/step ±(1% of setting + 5V) [no load] 500 VA (5kV/100mA) 100mA (0.5kV< V≤5kV); 10mA (0.1kV≤V≤0.5kV) Sine wave 50Hz/60Hz selectable ±(1% of rdg + 5V) [full load → no load] ±(1% of rdg + 5V) 0.001mA~100.0mA 0.001mA/0.01mA/0.1mA ±(1.5% of rdg+30counts)when HI SET<1.11mA ; ±(1.5% of rdg+30counts)when HI SET≥1.11mA Yes Yes 0.1s~999.9s OFF, 0.5s~999.9s Yes ON/OFF												
DC WITHSTANDING	Output-Voltage Range Output-Voltage Resolution Output-Voltage Accuracy Maximum Rated Load Maximum Rated Current Voltage Regulation Voltmeter Accuracy Current Measurement Range Current Best Resolution DC Current Measurement Accuracy Window Comparator Method ARC Detect RAMP (Ramp-Up Time) TIMER (Test Time)* Sweep Function* GND	0.100kV~6.000kV dc 2V/step ±(1% of setting + 5V) [no load] 100W(5kV/20mA) 20mA(0.5kV< V≤6kV); 2mA (0.1kV≤V≤0.5kV) ±(1% of rdg + 5V)[full load → no load] ±(1% of rdg + 5V) 0.001mA~20.0mA 0.001mA/0.01mA/0.1mA ±(1.5% of rdg+30counts)when HI SET<1.11mA ; ±(1.5% of rdg+30counts)when HI SET≥1.11mA Yes Yes 0.1s~999.9s OFF, 0.5s~999.9s Yes ON/OFF												
INSULATION RESISTANCE	Output Voltage Output-Voltage Resolution Output-Voltage Accuracy Resistance Measurement Range Test Voltage 50V≤V≤450V 500V≤V≤1000V Window Comparator Method Output Impedance RAMP (Ramp-Up Time) TIMER (Test Time) GND Sweep Function*	50V~1000V dc 50V/step ±(1% of setting +5V)[no load] 0.001GΩ~ 50.00GΩ <table border="1"> <thead> <tr> <th>Measurable Range</th> <th>Accuracy</th> </tr> </thead> <tbody> <tr> <td>0.001 ~ 0.050GΩ</td> <td>±(5% of rdg + 1count)</td> </tr> <tr> <td>0.051 ~ 2.000GΩ</td> <td>±(10% of rdg + 1count)</td> </tr> <tr> <td>0.001 ~ 0.500GΩ</td> <td>±(5% of rdg + 1count)</td> </tr> <tr> <td>0.501 ~ 9.999GΩ</td> <td>±(10% of rdg + 1count)</td> </tr> <tr> <td>10.00 ~ 50.00GΩ</td> <td>±(15% of rdg + 1count)</td> </tr> </tbody> </table> Yes 600kΩ 0.1s~999.9s 1s~999.9s OFF (fix) Yes	Measurable Range	Accuracy	0.001 ~ 0.050GΩ	±(5% of rdg + 1count)	0.051 ~ 2.000GΩ	±(10% of rdg + 1count)	0.001 ~ 0.500GΩ	±(5% of rdg + 1count)	0.501 ~ 9.999GΩ	±(10% of rdg + 1count)	10.00 ~ 50.00GΩ	±(15% of rdg + 1count)
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GROUND BOND (GPT-9904 Only)	Output-Current Output-Current Resolution Output-Current Accuracy Test-Voltage Test-Voltage Frequency Resistance Measurement Range Resistance Measurement Resolution Resistance Measurement Accuracy Window Comparator Method TIMER (Test Time) Sweep Function* Test Method	03.00A~32.00A ac 0.01A 3A ≤ I ≤ 8A; (1% of rdg+0.2A), 8A < I ≤ 32A; (1% of rdg+0.05A) 6Vac max (open circuit) 50Hz/60Hz selectable 10mΩ~650.0mΩ 0.1mΩ (1% of rdg + 2mΩ) Yes 0.5s~999.9s Yes Four Terminal												
MEMORY	Single Step Memory Automatic Testing Memory	MANU : 100 blocks AUTO : 100 blocks, menu per auto : 16												
INTERFACE	Rear Output RS-232C USB GPIB Remote Terminal (Front) Signal I/O	Standard Standard Standard Option Standard Standard												
DISPLAY		240 x 64 Ice Blue Dot matrix LCD												
POWER SOURCE		AC100V/120V/220V/230V±10% , 50/60Hz												
DIMENSIONS & WEIGHT		330(W) x 148(H) x 587(D) mm 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

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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