



The Modular and Flexible
High Voltage Tester

W 454

Cable Test

Backplane-/Racktest

Function Test

Specials

 **WEETECH**

The **W 454** combines HIGH-END test parameters with an attractive cost/performance ratio. Cable assemblies and components in the aerospace, medical and transportation industries can be tested with remarkable voltages up to 2,250 Vdc/1,500 Vac and currents up to 3 A. Distribution of the test points in small, weight optimized matrix cases, random connection of the adapter cables equipped with ID chips at any output connector and modules for functional test are available as an option.

■ Generators and Measuring Units

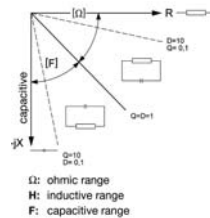
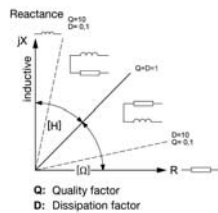
Continuity, Short and Component Test	LV-GEN	
	· Current	0.5 mA up to 3 A
	· Current ranges	10 mA, 100 mA, 1 A, 3 A
	· Voltage	0 to 40 V
	· Output rating	120 W
	· Connection/Resistor	1 Ohm up to 10 MOhms, accuracy $\pm(1\% + 0.5\text{ Ohms})$ 3 mOhms to 10 MOhms (Four Terminal Measurement), accuracy $\pm(1\% + 0.3\text{ mOhms})$ Consideration of the power limits of resistive components
	· Capacitance	20 nF to 10 mF $\pm(2\% + 2\text{ nF})$
	· Components	Diodes, Zener diodes, LED´s, Varistors
	· LV isolation	Typically up to 100 MOhms
	· Voltage measurement	0 to $\pm 500\text{ V}$, frequency DC to 1 kHz
Insulation, Hi-Pot, Dielectric Breakdown, DC and AC ARC Test	HVG 2250	
	· DC Voltage	0 to 2,250 Vdc
	· AC Voltage	0 to 1,500 Vac
	· Current	0 to 20 mA real, 0 to 14.14 mAeff imaginary
	· Ramps	100 V/ms, 1,000 V/ms, 500 V/s, programmable from 25 to 200 V/s
	· Measurement	Typically up to 10 GOhms $\pm 3\%$, up to 500 MOhms $\pm 1\%$
	· ARC detection with unique voltage and slew rate recognition	
· Optional		
Insulation, Hi-Pot and DC ARC Test	HV-DC	
	· DC Voltage	0 to 2,250 Vdc
	· Current	Touch safe generator, up to 1 mA
	· Ramps	20 V/ms, 200 V/ms, 2,000 V/ms, 500 V/s
	· Measurement	Typically up to 10 GOhms $\pm 3\%$, up to 500 MOhms $\pm 1\%$
· ARC detection with unique voltage and slew rate recognition		
Dielectric Breakdown and AC ARC Test	HV-AC	
	· AC Voltage	0 to 1,500 Vac
	· Real current	Touch safe generator, up to 0.5 Aeff
	· Imaginary current	Touch safe generator, up to 3.5 Aeff
	· Ramps	20 V/ms, 1,000 V/ms, 500 V/s
	· ARC detection with unique voltage and slew rate recognition	
· Optional		

Generators and Measuring Units

Component, Twisted-Pair and Shield Test

RLC Meter

- Frequency DC to 100 kHz
- Connection/resistor 1 Ohm to 10 MOhms, accuracy $\pm(1\% + 0.5 \text{ Ohms})$
3 mOhms to 10 MOhms (Four Terminal Measurement), accuracy $\pm(1\% + 0.3 \text{ mOhms})$
Interpretation of the power limits of resistive components
- Capacitance 10 pF to 1 $\mu\text{F} \pm(1\% + 2 \text{ pF})$
1 μF to 10 mF $\pm 2\%$
- Inductance 1 μH to 1 H $\pm 2\%$
- Checks pair inversion and shield integrity
- Fast impedance measurement with typically 70 ms
- Optional
- RLC Measurement Functions



- |Z| Impedance
- |Y| Admittance
- θ Phase angle
- R Resistance (serial or parallel)
- C Capacitance (serial or parallel)
- L Inductance (serial or parallel)
- D Dissipation factor
- Q Quality factor

Typical values, valid at the front panel of the tester without adaptation at 25° C and a relative humidity less than 60 %

ElectroEmulation Test

- Supply of the UUT with programmable voltages up to 250 Vac/125 Vdc
- Emulation of the switching processes
- Reproduction of the functional environment, e.g. by electronic loads, frequencies etc.
- Functional test of push buttons and switches
- Measurement of time dependent current/voltage wave forms
- Import of characteristic curves of external devices and display
- Integrated programmable current sources up to 3 A, up to 40 Vdc (GEN 40-3), higher voltages can be realized with additional sources

Switching Matrix

Modules for Wiring Test

- Versions for voltages up to 2,250 Vdc/1,500 Vac
- Various output connectors available

Modules for ElectroEmulation Test

- Combi modules, equipped with test point cards for voltages up to 250 Vac/125 Vdc, current up to 3 A
- Measurement cards according to the application
- Separate power modules for voltages up to 30 Vac/60 Vdc, current up to 3 A

Further Details

Interfaces

- PC interface card for the optical isolation of the control PC from the generators, Ethernet interface for switching matrix
- Control interface to trigger external devices, e.g. feeders and fixtures
- Software controlled integration of external devices via IEEE 488/GPIB, RS 232, PC-Bus, CAN-Bus, CANOPEN-Bus, K-Line
- Integration into customer specific ERP-Systems

Dimension and Weight

- W 454, ETE 454: 19 inch rack system, height customized
- MC 16 with max. 1,024 test points, W x D x H (mm): 560 x 450 x 315
- MC 32 with max. 2,048 test points, W x D x H (mm): 560 x 450 x 495
- MC 16, MC 32: Weight optimized, portable 19 inch enclosure with retractable handles, stackable

Power Supply

- W 454, ETE 454: 200–400 Vac, 50–60 Hz, max. 4,000 VA, 3-phase

W 454