



A Combination of
Active and Passive Test Methods
for Electronic Devices

W 629
W 720

Cable Test

Backplane-/Racktest

Function Test

Specials



The **W 629/W 720** makes efficient test strategies available for the manufacturing of electronic components and devices and/or their manufacturing process steps. With the integrated RLC measuring bridge (from DC to 100 kHz AC, programmable), values and electrical characteristics of each passive component and each circuit can be analysed in a fast and simple manner.

■ Testing and Measurement Performance

Continuity Test	<ul style="list-style-type: none"> · Lower bound 1 Ohm, $\pm(1\% + 0.5 \text{ Ohms})$ · Four Terminal Measurement down to 3 mOhms $\pm(1\% + 0.3 \text{ mOhms})$ · Current generators: 1 mA, 10 mA und 400 mA
Insulation and Hi-Pot Test	<ul style="list-style-type: none"> · Upper limit typically 5 GOhms $\pm 3\%$, up to 500 MOhms $\pm 1\%$ · 500 Vdc programmable with 12-bit resolution · ARC detection
Twisted-Pair- and Shield Test	<ul style="list-style-type: none"> · Capacitance measurement from 10 pF to 10 nF · Checks pair inversion and shield integrity
Component Test	<ul style="list-style-type: none"> · Resistors from 3 mOhms to 500 MOhms $\pm(1\% + 0.3 \text{ mOhms})$ with Four Terminal Measurement · Capacitances from 10 pF to 10 mF, $\pm(2\% + 2 \text{ pF})$ · Inductances from 1 μH to 1 H $\pm(2\%)$ · Transistors, Diodes and Zener diodes: Test of forward, reverse and Zener voltages up to 500 V
ElectroEmulation Test	<ul style="list-style-type: none"> · Supply of the UUT with programmable voltages up to 30 Vac/60 Vdc · Emulation of the switching processes · Voltage measurement 0 to $\pm 500 \text{ V}$, frequency DC to 1 kHz · Emulation of the functional environment, e.g. by electronic loads, frequencies etc. · Functional test of push buttons and switches · Import of characteristic curves of external devices and display/interpretation by IVIS 5 software
RLC Measurement Functions	<p> Z Impedance, Y Admittance θ Phase angle, D Dissipation factor, Q Quality factor R Resistance (serial or parallel), C Capacitance (serial or parallel), L Inductance (serial or parallel)</p> <p><small>Typical values, valid at the front panel of the tester without adaptation at 25° C and a relative humidity less than 60 %</small></p>

■ Switching Matrix

Modules for Wiring Test	<ul style="list-style-type: none"> · Versions for voltages up to 500 Vdc · Various output connectors available · Test point modules for Guarding
Modules for ElectroEmulation Test	<ul style="list-style-type: none"> · W 720-Combi modules, equipped with test point and power cards for voltages up to 30 Vac/60 Vdc, current up to 5 A, measurement cards according to the application · One input signal per test point module · Power modules for voltages up to 30 Vac/60 Vdc, current up to 5 A · Hi-power modules to supply the UUT with currents up to 25 A based on 30 Vdc to the UUT
I/O Modules	<ul style="list-style-type: none"> · For free interconnection of any test points onto up to 16 different external measuring devices (e.g. oscilloscopes, frequency counters)

■ Further Details

Interfaces	<ul style="list-style-type: none"> · Parallel Interface with input for control computer · Control interface (optional) 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 · Remote control with handheld-PC (Wireless LAN) or via TCP/IP
Dimension and Weight	<ul style="list-style-type: none"> · W 629: portable 19 inch enclosure, W 629-2: 4 U, W 629-3: 7 U · W 720: 19 inch rack system, height customized
Power Supply	<ul style="list-style-type: none"> · 115 or 230 Vac/50–60 Hz, max. 2,000 VA