

Electrical Fast Transient Generator

EFTG 4510

Output Voltage:
0.2 - 5 kV

Burst Frequency:
1 kHz - 1000 kHz

EMC Test acc. to
IEC 61000-4-4 : 2012



The Electrical Fast Transient Generator EFTG 4510 is a compact EMC test unit for testing electromagnetic immunity against electrical fast transients. The generator provides burst-pulses, which are adjustable in frequency, amplitude, duration and repetition rate. It is suitable to test the susceptibility levels of electrical systems and installations full compliant to IEC 61000-4-4.

The generator excels by its compact design, simple handling and precise reproducibility of test impulses. The Generator comprises a one phase Coupling-/Decoupling Network, which allows the superposition of bursts to the power supply lines of the equipment under test.

It features a microprocessor controlled user interface and a 5" touch screen unit for ease of use. The microprocessor allows to execute either standard test routines or a "user defined" test sequence. A standard USB port provides the ability to print a summary of the test parameters to a USB stick.

The software program EFTG-REMOTE allows full remote control of the test generator via Ethernet light guide as well as documentation and evaluation of test results, accordingly to the IEC 17025. To record definite impulses, it is equipped with an Impulse Recording Function (IRF).

Additional coupling-/decoupling networks for power lines and data lines and a coupling clamp can be offered.

TECHNICAL SPECIFICATIONS	EFTG 4510
Mainframe	
Microprocessor controlled touch panel	5", 800X480, 24 bit
Optical-Interface for remote control of the generator	Built in
Interface for saving reports	USB
External trigger input /output	10 V at 1 k Ω
Coupling-/decoupling network for power supply lines	L1, N, PE
Nominal voltage, nominal current	250 V, 16 A \approx / 10 A =
Coupling impedance (depending on the generator)	33 nF / 18 μ F / 9 μ F+10 Ω
Connector for external safety interlock loop	24 V =
External red and green warning lamps	230 V, 60W
Mains power	230 V, 50/60 Hz
Dimensions of desk top case W * H * D	450*185*500 mm ³
Weight	12 kg
BURST acc. to IEC 61000-4-4: 2012	
Pulse output voltage, adjustable	0.2 - 5.0 KV \pm 10 %
Waveform	5/50 ns
Source impedance	50 Ω
Polarity, selectable	pos / neg / alt
Burst frequency, adjustable	1.0 kHz - 1.0 MHz
Burst duration, adjustable	0,01 ms - 25 ms
Burst period, adjustable	10 ms - 1000 ms
Standard test levels, selectable: LEV 1	0.5 kV, 5.0 kHz
LEV 2	1.0 kV, 5.0 kHz
LEV 3	2.0 kV, 5.0 kHz
LEV 4	4.0 kV, 5.0 kHz
LEV x	all test parameters selectable
HV output for external coupling networks or the coupling clamp	coaxial
Monitor output for pulse output voltage	ratio = 100:1 \pm 5%, 50 Ω
Option: Software for remote control of the generator	
With Impulse Recording Function (IRF)	
(XP, WIN7) incl. 5 m fibre optic cable and PC Ethernet interface	
Option: EFTC - CLAMP	
generates capacitive interference to shielded cables	EFTC 2012
Dimensions: W * H * L	140 * 180 *1100 mm ³
incl. interconnection cable	1.0 m long