Oscillatory Wave Generator
IPG 2553

Magnetic field testing up to 100 A/m

100 kHz
or
1.0 MHz

acc. to IEC 61000-4-10

The oscillatory wave generator IPG 2553 has been designed for immunity testing of electrical and electronic equipment against repetitive damped oscillatory magnetic field according to IEC 61000-4-10 requirements.

It generates a decaying cosine current waveform with ringing frequency of 100 kHz or 1.0 MHz. The generator output is connected to special designed Helmholtz-coil which generates magnetic field with 10 - 100 A/m. The amplitude of the magnetic field strength can be adjusted by presetting the charging voltage of the pulse generator, 0.25 kV up to 2.5 kV. The polarity of the first amplitude alternates from wave to wave.

IPG 2553 features a microprocessor controlled user interface and display unit for ease of use. The microprocessor allows the user to either execute standard test routines, or a ´user defined´ test sequence. The test parameters, which are shown on the built in display, are easily

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adjusted by means of the rotary encoder. A standard parallel interface provides the ability to print a summary of the test parameters whilst testing is being carried out.

Moreover all generator functions, including the settings of the built-in Coupling-/Decoupling Network, may be computer controlled via the isolated optical interface. The software program IPG_2553 allows full remote control of the test generator and documentation and evaluation of test results.

Technical specifications	**IPG 2553**
Mainframe	
Microprocessor controlled LCD module	8*40 characters
Parallel printer interface for on-line documentation	25-way ´D´connector
Optical-interface for remote control of the generator	built-in
External trigger input/ output	Switch/ 10 V
Connector for external safety interlock loop	24 V =
External red and green warning lamps acc. to VDE 0104	230 V, 60W
Mains power	230 V , 50/60 Hz
Dimensions desk top case W * H * D	471*156*520 mm^3
Weight	25 kg
Generator section	
Peak open circuit voltage	250V (-10 %) to 2.5 kV (+10%)
Oscillation frequencies	100 kHz ± 10 % 1 MHz ± 10 %
Repetition rate	40 Hz 400 Hz
Magnetic field strength of the first half wave, adjustable	10 A/m to 100 A/m
Magnetic field decay	50% of the peak value between the third and sixth period
Polarity of the first half-period	positive and negative
Burst duration	not less than 2 s
HV-output, for connection of the Helmholtz coil	koaxial
Monitor output for current mesuering	coaxial
Output current monitor	built-in
Helmholtz Coil HI 100	
Air coil designed for generation of pulsed magnetic fields	
Dimensions	1000*1000 mm^3
Coil inductance	L ≈ 5 µH
Coil factor	H/I ≈ 1.5 /m