

## Combination Wave Simulator

## CWS 120CT



### In Compliance With

> IEC/EN 61000-4-5

> GB/T 17626.5

### Introduction

CWS 120CT is a high-end testing equipment specially designed to simulate the phenomenon of low-voltage surge pulse interference. It is suitable for testing surge protection devices (such as TVS tubes, TSPDs, SIDAC, surge suppressors, etc.), and can also be used for wafer or package level surge immunity testing. The output voltage range is adjustable from 1V to 1200V, and the technical parameters fully meet the requirements of IEC/EN 61000-4-5 and GB/T 17626.5 standards. The CWS 120CT design is based on the third-generation intelligent control platform, which has advantages such as high system integration, intelligent control, easy operation, and saving testing time.

### Features

- > 5.7 inch color touch screen front panel operation;
- > Complies with IEC/EN61000-4-5 and GB/T 17626.5 standards;
- > Output voltage from 1 V to 1200 V;
- > Standard source output impedance 2 Ω, 12 Ω, 42 Ω;
- > The output impedance of the communication wave source is 15 Ω and 40 Ω;
- > Built in four types of coupling and decoupling networks;
- > EUT load capacity 40 V DC 10 A;
- > Real time display of output peak voltage and current peak size;
- > Test scheduling function, easy to operate;
- > Ethernet, RJ45 interface, used for PC remote control and printing test reports;
- > PC control software CoreLab is optional.

### Application Areas

- |                 |                    |
|-----------------|--------------------|
| > Communication | > Military         |
| > Telecom       | > Railway          |
| > Medical       | > Avionics         |
| > Broadcast     | > Electric Power   |
| > Railway       | > New Energy Power |

Complies With IEC 61000-4-5 Surge Immunity Test	
1.2/50 $\mu$ s 8/20 $\mu$ s Technical Parameters	
Test Voltage Range	1V - 1200V $\pm$ 10%
Voltage Waveform	Front time: 1.2 $\mu$ s $\pm$ 30% Half peak time: 50 $\mu$ s $\pm$ 20%
Test Current Range	0.5 A - 600 A $\pm$ 10% (2 $\Omega$ )
Current Waveform	Front time: 8 $\mu$ s $\pm$ 20% Half peak time: 20 $\mu$ s $\pm$ 20%
Output Impedance	2 $\Omega$ , 12 $\Omega$ , 42 $\Omega$
Polarity	Positive, negative, alternating positive and negative
Pulse Period	1-9999 s
Number Of Experiments	1-9999 times
Trigger Method	Automatic, manual, external triggering
Experimental Mode	Schedule experimental parameters
Coupling/Decoupling Methods	C/L, D/L, C/D, D/D C represents capacitance, L represents inductance, and D represents diode
EUT Carrying Capacity	40 VDC 10 A
Display	Peak voltage and peak current display function

General Parameters	
Display Screen	5.7 inch TFT color touch screen
Working Voltage Range	AC 110 V/220 V, $\pm$ 10%, 50/60 Hz
Fuses	6 A
Maximum Power Consumption	200 W
Communication methods	Ethernet
Instrument Working Status Indication	Front panel LED indication, LCD display
Failure Detection	When the failure occurs, the front panel LCD displays and interrupts instrument operation
Chassis Size (Width * Height * Depth)	4U chassis (450 mm*190 mm*620 mm)
Weight	Approximately 25 kg
Environment Temperature	15°C ~ 35°C
Relative Temperature	45% ~ 75%
Barometric Pressure	86 kPa~106 kPa

Complies With IEC 61000-4-5 Surge Immunity Test	
10/700 $\mu$ s 5/320 $\mu$ s Technical Parameters	
Test Voltage Range	1V - 1200V $\pm$ 10%
Voltage Waveform	Front time: 10 $\mu$ s $\pm$ 30% Half peak time: 700 $\mu$ s $\pm$ 20%
Test Current Range	0.025 A - 30 A $\pm$ 10%
Current Waveform	Front time: 5 $\mu$ s $\pm$ 20% Half peak time: 320 $\mu$ s $\pm$ 20%
Output Impedance	15 $\Omega$ , 40 $\Omega$
Polarity	Positive, negative, alternating positive and negative
Pulse Period	1-9999 s
Number Of Experiments	1-9999 times
Trigger Method	Automatic, manual, external triggering
Experimental Mode	Schedule experimental parameters

### Standard Accessories

Test line, Power line, Fuse, Flat grounding wire, Inspection report, Instruction Manual

### Options

PC control software CoreLab  
Supports Windows 7, Windows 8, Windows 10 and Windows 11, with convenient use, beautiful and intuitive user interface, and various operational functions and standard test libraries that allow users to easily complete custom testing programs; Test equipment and perform automatic configuration to help users flexibly generate test reports.