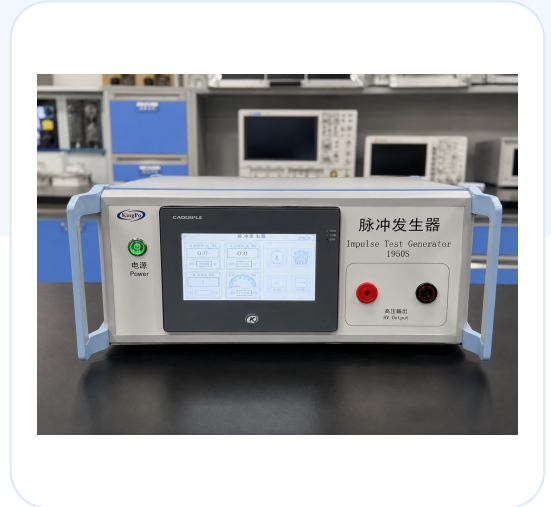




DATASHEET

IEC 62368-1 Table D.1 Impulse Test Generator

KP-1950S | 10/700 μ s and 1.2/50 μ s impulse testing



PRODUCT OVERVIEW

The KP-1950S is an IEC 62368-1 Table D.1 impulse test generator designed for AV/ICT equipment safety testing. It provides controlled high-voltage impulse outputs for Table D.1 related test circuits, including 10/700 μ s and 1.2/50 μ s pulse waveforms.

Key Information

Standard

IEC 62368-1 Table D.1 / GB4943.1 related safety testing

Waveforms

10/700 μ s and 1.2/50 μ s impulse voltage waveforms

Output Voltage

0-4 kV for 10/700 μ s; 0-6 kV for 1.2/50 μ s

Control

PLC programmable controller with 7-inch color touchscreen

Polarity

Positive and negative alternating switching

DUT

AV equipment, IT equipment, communication equipment, adapters and power supplies

TYPICAL APPLICATIONS

- AV/ICT equipment safety testing
- Communication and network equipment verification
- Power supply and adapter impulse withstand testing
- R&D design margin evaluation and pre-compliance checks



Product page

Scan for online information and configuration support

Technical Specifications

The main specifications are organized below for quick laboratory and purchasing review. The required test circuit, waveform and voltage level should be confirmed before final configuration.

Impulse Output and Waveform

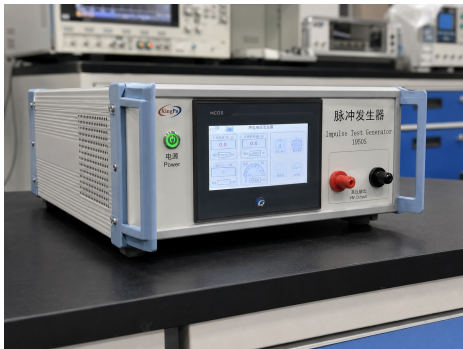
Item	Specification
Product Model	KP-1950S
Applicable Standard	IEC 62368-1 Table D.1 / GB4943.1 related testing
Test Type	Impulse voltage test generator
Test Circuit	Table D.1 Circuit 1 / Circuit 2
Pulse Waveform 1	10/700 μ s
Output for 10/700 μs	0-4 kV, continuously adjustable
Waveform Error	\pm 20%
Pulse Waveform 2	1.2/50 μ s
Output for 1.2/50 μs	0-6 kV, continuously adjustable
Voltage Display Accuracy	\pm 5% \pm 3 digits

Control and Test Settings

Item	Specification
Charge / Discharge Time	1-999 s
Time Setting Accuracy	\pm 1%
Test Cycles	0-999 times
Test Count Accuracy	\pm 1 count
Output Voltage Polarity	Positive and negative alternating switching
Monitoring Output Ratio	1:1000
Control System	PLC programmable controller
Display / Operation	7-inch color touchscreen
Operation Menu	Chinese / English interface

Protection, Power and Structure

Item	Specification
Protection Function	Overcurrent and overvoltage protection
HV Transformer Power	400 VA
Input Power	AC 220 V \pm 10%, 50 Hz \pm 2 Hz
Dimensions	Approx. 640 \times 460 \times 320 mm



CONFIGURATION NOTE

Please confirm the applicable IEC 62368-1 / GB4943.1 version, Table D.1 circuit type, required impulse waveform, DUT connection method and document requirements before ordering.

Waveform and Circuit Reference

IEC 62368-1 Table D.1 related impulse testing may involve different impulse circuits and waveform requirements. The required circuit should be confirmed according to the product test plan and laboratory procedure.

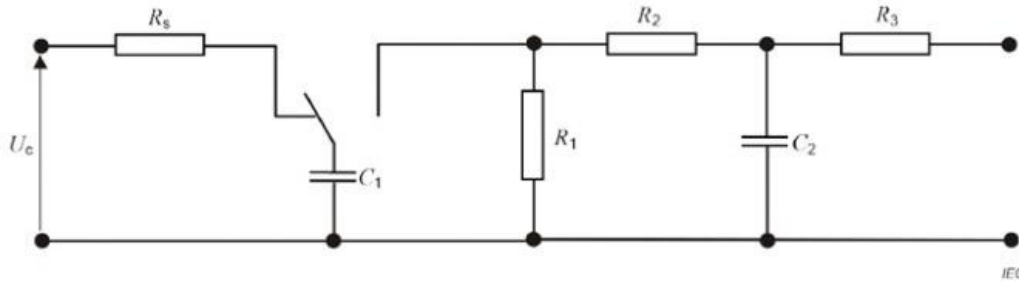


Figure D.1 – 1,2/50 μ s and 10/700 μ s voltage impulse generator

Figure D.1 - 1.2/50 μ s and 10/700 μ s voltage impulse generator

Circuit Configuration Reference

Circuit Type	Test Pulse	C1	C2	R1	R2	R3
Circuit 1	10/700 μ s	20 μ F	0.2 μ F	50 Ω	15 Ω	25 Ω
Circuit 2	1.2/50 μ s	1 μ F	30 nF	76 Ω	13 Ω	25 Ω

Waveform Selection

10/700 μ s Impulse Waveform

Typically associated with impulse testing that simulates lightning interference in communication networks. It is useful for communication-related AV/ICT products where transient stress from external network conditions needs to be considered.

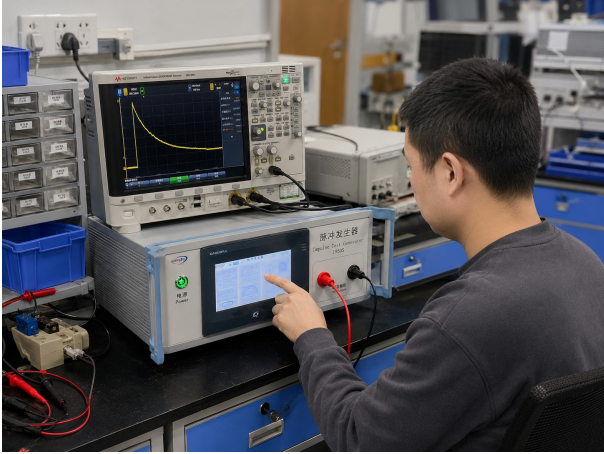
1.2/50 μ s Impulse Waveform

Commonly used to simulate transient voltage conditions in distribution systems. This condition helps evaluate whether insulation and protective circuits can withstand short-duration high-voltage impulses.

IMPORTANT SELECTION POINT

The term impulse test generator can refer to different waveforms, circuits and test purposes. The KP-1950S is specifically intended for IEC 62368-1 Table D.1 related impulse voltage testing and should not be confused with a general signal generator, arbitrary waveform generator or unrelated EMC surge simulator.

Laboratory Use and Configuration Support



TYPICAL OPERATION WORKFLOW

- 1 Confirm the applicable standard clause, waveform and Table D.1 circuit type.
- 2 Prepare the DUT according to the laboratory test procedure.
- 3 Set the output voltage, charge/discharge time and test cycles.
- 4 Confirm polarity setting, test connection and grounding condition.
- 5 Start the programmed sequence and monitor the DUT response.
- 6 Discharge the circuit safely before handling the DUT.

Technical Inquiry and Selection Checklist

Information Needed	Example
Applicable standard	IEC 62368-1 / GB4943.1
Required circuit	Table D.1 Circuit 1, Circuit 2, or both
Required waveform	10/700 μ s, 1.2/50 μ s, or both
Voltage range	0-4 kV / 0-6 kV or specific test point
DUT type	AV equipment, IT equipment, communication equipment, adapter, power supply
Documents	Datasheet, calibration document, inspection record

COMPLIANCE AND REGULATORY ASSURANCE

The KP-1950S supports IEC 62368-1 Table D.1 and GB4943.1 related impulse voltage testing for AV, IT and communication equipment. It helps laboratories and manufacturers perform standard-based verification during R&D, pre-compliance checks and routine quality control.

Calibration-related documents and technical datasheets can be provided according to project requirements.

KingPo Technology Development Limited

Tel: +86-769-81627526 | Email: sales@kingpo.hk | Website: www.dgkingpo.com