



IEC 62368-1 Figure D.2 Pulse Voltage Generator

KP-1065S | Table D.1 Circuit 3

[Product Datasheet](#)

For AV/ICT Safety Laboratories



Antenna Interface Insulation Verification

HV

The KP-1065S is designed for IEC 62368-1 Annex D, Figure D.2 and Table D.1 Circuit 3 related testing. It provides controlled high-voltage surge and HVDC output for antenna interface insulation withstand verification in AV/ICT equipment.

APPLICABLE STANDARD

**IEC 62368-1 Annex D
Figure D.2**

CIRCUIT REFERENCE

**Table D.1
Circuit 3**

OUTPUT SURGE VOLTAGE

**0-10 kV
0.01 kV resolution**

CHARGING CAPACITANCE

**1 nF / 30 kV
+/-5%**

MONITORING OUTPUT

**Oscilloscope port
1:1000 ratio**

TYPICAL DUT

**Antenna / communication
interfaces in AV/ICT equipment**

OVERVIEW

Product Overview

The KP-1065S IEC 62368-1 Figure D.2 Pulse Voltage Generator is a dedicated high-voltage test instrument for Table D.1 Circuit 3 related testing. It is used when AV/ICT equipment requires antenna interface pulse voltage, surge and HVDC withstand verification under the IEC 62368-1 Annex D reference circuit.

This datasheet is intended to help laboratory engineers and purchasing teams quickly confirm whether the KP-1065S matches the required figure, circuit, voltage range, monitoring method and documentation needs before quotation.


QUICK SCAN

Key Information

<p>PRODUCT TYPE</p> <p>Pulse Voltage Generator High-voltage test equipment</p>	<p>APPLICABLE STANDARD</p> <p>IEC 62368-1 Annex D Figure D.2</p>	<p>CIRCUIT REFERENCE</p> <p>Table D.1 Circuit 3 Antenna interface test generator</p>
<p>TEST OBJECT</p> <p>Antenna ports and communication-related interfaces</p>	<p>MAIN TEST PURPOSE</p> <p>Insulation withstand verification under high-voltage stress</p>	<p>TYPICAL USERS</p> <p>AV/ICT safety labs, R&D; and factory QC teams</p>


VISUAL CONFIRMATION

Product Views




Benchtop product photo


The enclosure uses a benchtop structure with front-panel touchscreen operation, high-voltage output terminals and an oscilloscope monitoring port. Buyers should confirm the selected test leads, fixture connection method and calibration documentation according to laboratory requirements.



Left front angle



Front panel view



Right front angle

Note: Product appearance and accessories may vary depending on selected configuration. Confirm the supplied configuration before purchase.

CORE DATA

Technical Specifications

The following specifications summarize the KP-1065S configuration for IEC 62368-1 Figure D.2 / Table D.1 Circuit 3 related testing. Parameters should be confirmed with the applicable standard edition, quotation and inspection documentation.

Output and Energy Storage

Item	Specification
Product model	KP-1065S
Applicable standard	IEC 62368-1 Annex D, Figure D.2 / Table D.1 Circuit 3
Test application	Antenna interface pulse voltage, surge and HVDC withstand testing
Output surge voltage	0-10 kV
Voltage resolution	0.01 kV
Digital display accuracy	+/-5% +/-2 digits
Charging capacitance	1 nF / 30 kV +/-5%



Timing and Test Count

Item	Specification
Charging time setting	1-999 s
Charging time accuracy	+/-3%
Discharge time setting	1-999 s
Discharge time accuracy	+/-3%
Number of tests	1-9999 times
Test count accuracy	+/-1 time

Control, Monitoring and Power

Item	Specification
Control system	Panasonic PLC / Panasonic C14R
Display and operation	7-inch color touchscreen
Touchscreen model	TK6070iH
Monitoring output	Oscilloscope monitoring port
Voltage divider ratio	1:1000
Protection function	Overvoltage protection
High-voltage transformer power	>=150 VA
Working power supply	AC 220 V +/-10%, 50 Hz +/-2 Hz

Configuration Boundary

The KP-1065S should be selected specifically for Figure D.2 / Table D.1 Circuit 3. It is not a general signal generator and should not be substituted without comparing circuit, voltage range, waveform, energy storage and DUT connection requirements.

Monitoring and Verification

The 1:1000 monitoring output is intended for oscilloscope observation with suitable measurement equipment. Actual calibration points and documentation should follow the laboratory quality system and quotation scope.

Safety Notice

High-voltage pulse and surge testing should be performed only by trained personnel under controlled laboratory conditions. Confirm grounding, insulation distance and safe discharge before touching the DUT or terminals.

STANDARD-ORIENTED SELECTION

Figure D.2 and Table D.1 Circuit 3 Reference

IEC 62368-1 Annex D includes different test generator circuits. For the KP-1065S, the relevant reference is Figure D.2, with the component values corresponding to Table D.1 Circuit 3. This distinction is important because Figure D.1 impulse generators and Figure D.3 electronic pulse generators serve different applications.

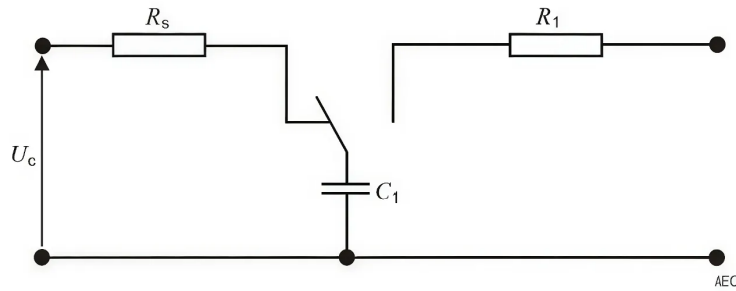


Figure D.2 – Antenna interface test generator circuit

Table D.1 – Component values for Figure D.1 and Figure D.2

	Test impulse	Figure	R_s	C_1	C_2	R_1	R_2	R_3
Circuit 1	10/700 μ s	D.1	-	20 μ F	0,2 μ F	50 Ω	15 Ω	25 Ω
Circuit 2	1,2/50 μ s	D.1	-	1 μ F	30 nF	76 Ω	13 Ω	25 Ω
Circuit 3	-	D.2	15 M Ω	1 nF	-	1 k Ω	-	-

Alternative test generators may be used provided they give the same result.

NOTE Circuits 1 and 2 are based on ITU-T Recommendation K.44.

Reference image for Figure D.2 / Table D.1 Circuit 3 related documentation.

QUICK CONFIRMATION

Circuit 3 Key Values

Reference	Figure	R_s	C_1	R_1	Test focus
Table D.1 Circuit 3	D.2	15 Mohm	1 nF	1 kohm	Antenna interface test generator circuit

KP-1950S

Figure D.1 / Table D.1 Circuit 1 and Circuit 2. Typically used for 10/700 us and 1.2/50 us impulse testing. Not the same selection purpose as KP-1065S.

KP-1065S

Figure D.2 / Table D.1 Circuit 3. Used for antenna interface related pulse voltage, surge and HVDC withstand verification in AV/ICT equipment.

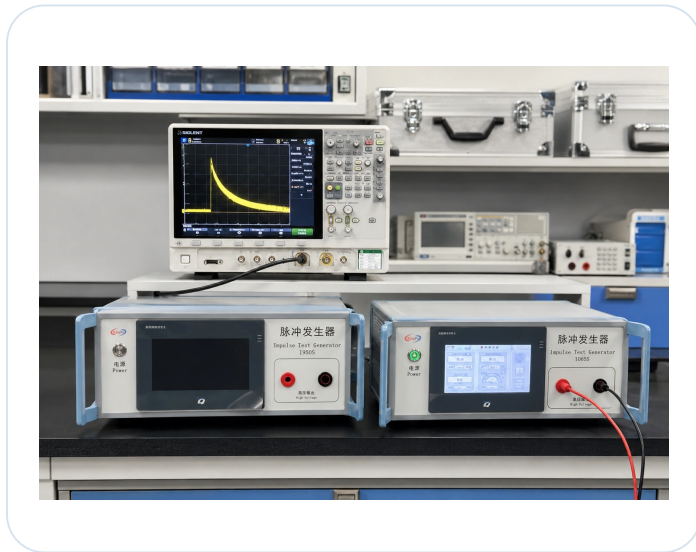
KP-1066S

Figure D.3 / Annex D.3 electronic pulse generator application. Buyers should confirm the exact Annex D figure before quotation.

Selection reminder: Please confirm the standard edition, figure number, circuit number, DUT interface and monitoring requirement. This avoids selecting a related IEC 62368-1 generator that follows a different circuit.

WHERE IT IS USED

Typical Applications and DUTs



Laboratory setup with oscilloscope monitoring

The KP-1065S is used for IEC 62368-1 Figure D.2 related high-voltage stress testing, especially for equipment with antenna interfaces and communication-related ports. The test helps evaluate insulation withstand performance and abnormal response under the defined circuit condition.

- Router, modem and gateway safety verification
- Wireless device antenna port testing
- AV/ICT equipment pre-compliance testing
- R&D; design margin evaluation
- Factory quality control and batch sampling
- High-voltage DC and surge signal insulation checks

LABORATORY USE

Typical Operation Workflow

Step	Action
1	Confirm the applicable IEC 62368-1 edition and Figure D.2 / Table D.1 Circuit 3 requirement.
2	Prepare the DUT and identify the antenna interface or communication port to be tested.
3	Confirm the test connection method according to the laboratory procedure.
4	Set the output voltage, charging time, discharge time and number of repeated tests.
5	Connect the monitoring output to a storage oscilloscope when waveform observation is required.
6	Check grounding, insulation clearance and operator safety conditions before testing.
7	Start the programmed sequence through the touchscreen interface and observe the DUT response.
8	Record abnormal discharge, breakdown, flashover, failure or other observations.
9	Discharge safely before disconnecting the DUT or test leads.

BEFORE PURCHASE

Engineering Notes for Buyers

Confirm the Exact Circuit

Use KP-1065S only when the test plan requires IEC 62368-1 Figure D.2 / Table D.1 Circuit 3. Related Annex D generators may follow different circuits.

Plan the Measurement Setup

For waveform or voltage observation, confirm oscilloscope, probe/divider, monitoring output and calibration points before quotation.

Define the DUT Connection

Provide the antenna or communication interface type, connection method and test target so the supplied accessories can be confirmed.

INQUIRY SUPPORT

What to Confirm Before Quotation

Please provide the following information when sending an inquiry. This helps KingPo confirm whether the KP-1065S matches your IEC 62368-1 Figure D.2 / Table D.1 Circuit 3 test plan before quotation or purchase.

Information Needed	Example / Note
Applicable standard	IEC 62368-1 / GB 4943.1 or another national adoption
Required figure and circuit	Figure D.2 / Table D.1 Circuit 3
DUT interface	Antenna port, communication interface, coaxial interface
Required output voltage	Specific test point within 0-10 kV or project requirement
Timing requirement	Charging time, discharge time, number of tests
Monitoring requirement	Oscilloscope waveform observation, 1:1000 output, calibration points
Documentation needs	Datasheet, inspection record, calibration document if required
Accessory requirement	High-voltage leads, fixture or DUT connection support if needed

KINGPO SUPPORT

Configuration and Documentation Support

Technical confirmation and documentation: KingPo can help review whether the required test is Figure D.2 / Table D.1 Circuit 3 or another IEC 62368-1 Annex D generator circuit. Datasheet, inspection record and calibration-related documentation can be discussed according to the order scope and laboratory quality requirements.

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Scan product page

Technical inquiry message: Please send your applicable standard, DUT interface, required voltage, timing parameters and documentation needs. KingPo will confirm whether KP-1065S is the correct model and configuration for your test plan.