CDN for Surge Test on High-speed Communication Lines

CDN 405T8

Datasheet

In Compliance with

> IEC 61000-4-5

> EN 61000-4-5

> GB/T 17626.5

Introduction

The CDN 405T8 is designed to conduct surge test on unshielded symmetric high-speed communication lines for data transmission rate up to 1,000 MBit/s. It fully meets the requirement of IEC/EN 61000-4-5: 2005 (figure 14). High conductive magnetic material is used as decoupling component, which makes decoupling capacity and transmission rate stable.

Features

> High conductive magnetic material is used as decoupling component;

> Capable of testing output to 4-path 8-line simultaneously;

> Data transmission rate 10 MB / 100 MB / 1000 MB;

> Capable of Superposing surge waveforms simultaneously;

> Powerful surge resistance, standard withstand voltage up to 6 kV, 10 kV is customized;

> Replaceable current-limiting resistors;

Application Areas

> Communication

> IT

> Medical

> Broadcast

> Railway

> Telecom

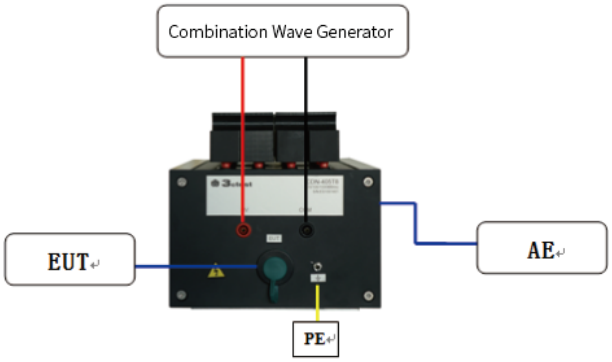
> Military

> Avionics

> New energy

Technical parameters	
Model No.	CDN 405T8
Standard	IEC/EN 61000-4-5
Coupling Waveform	1.2/50 μs, 8/20 μs
	10/700 μs , 5/320 μs
Pulse Voltage	6 kV (10 kV is customized)
Coupling Mode	Common mode (line to ground)
Coupling Components	90 V gas discharge tube
Communication Port	RJ45 female connector to connect communication line
Pin Assignment	Pair 1: pins 1 / 2 Pair 2: pins 3 / 4 Pair 3: pins 5 / 6 Pair 4: pins 7 / 8
Data Transmission Rate	10 MBit/s, 100 MBit/s, 1,000 MBit/s
Working Voltage	DC 3 V~12 V
Working Current	Max. 1 A
Residual Voltage	< 10% (coupling surge voltage)
Decoupling Inductance	20 mH

Test Connection Illustration:

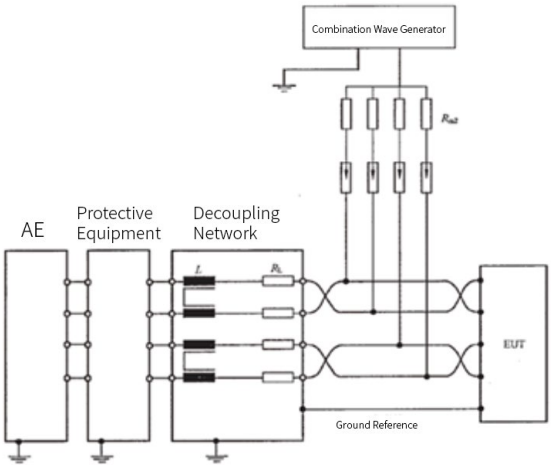


General Data	
Weight	Approx. 10 kg
Dimension	360 mm(L)×220 mm(W)×133 mm(H)
Enclosure Material	Aluminum
Ambient Temperature	5 °C – 35 °C (operation condition)
Relative Humidity	45% - 75% (operation condition)
Package	Carrying case

Accessories		
HV Cable	1m HV silicone line with banana plug	2
Earth Cable	1.5 m yellow green	1
Internet Cable	1 m cat 6	2
Document	Factory test certificate	1
	User manual	1

Optional accessories	
NR80	80 ohm×2 (for 2 lines, 1.2/50 μs,8/20 μs)
NR160	160 ohm×4 (for 4 lines, 1.2/50 μs,8/20 μs)
NR320	320 ohm×8 (for 8 lines, 1.2/50 μs,8/20 μs)
NR50	50 ohm×2 (for 2 lines,10/700 μs,5/320 μs)
NR100	100 ohm×4 (for 4 lines,10/700 μs,5/320 μs)
NR200	200 ohm×8 (for 8 lines,10/700 μs,5/320 μs)
NR25	25 ohm×8 (for 8 lines,10/700 μs,5/320 μs)

Design Schematic Circuit:



As per IEC 61000-4-5:2005 Figure 14

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