



Coupling/Decoupling Network for Unshielded Symmetric High-speed Communication Line

CDN 405T8A1

- IEC/EN 61000-4-5
- GB/T 17626.5

Features

- > Max. pulse withstand voltage 6 kV
- > Support data transmission rate up to 1,000 Mbit/s
- > Support coupling waveform 1.2/50 μ s, 8/20 μ s; 10/700 μ s, 5/320 μ s
- > Support EMC generators of all brands, quick connection without extra adaptation
- > Superior decoupling, no extra auxiliary protection; plug-and-play to cut setup cost
- > External coupling resistor are replaceable

Introduction

The CDN 405T8A1 unshielded symmetric high-speed communication line CDN, compliant with IEC 61000-4-5, GB/T 17626.5, is a professional CDN dedicated to lightning surge immunity tests on unshielded symmetrical high-speed communication lines. With 1,000 Mbit/s transmission rate, it delivers steady, loss-free communication throughout tests to replicate the EUT's real working status, avoiding interference-caused misjudgments and guaranteeing consistent, precise test data.

The CDN 405T8A1 with excellent decoupling capability can keep the residual voltage at the AE port as low as 200 V under a 6 kV test voltage. It protects auxiliary equipment from influence of interferences and cuts system complexity and improves test efficiency greatly, meeting compliance verification requirements for industrial, railway and other sectors.

Application Areas



Technical Parameters

Coupling Waveform	1.2/50 μ s, 8/20 μ s 10/700 μ s, 5/320 μ s
Pulse Voltage	6 kV (10 kV need to be customized)
Coupling Method	Common mode (line-to-ground)
Coupling Elements	90 V gas discharging tube (GDT)
Output Impedance	Current-limiting resistor can be replaced according to test requirements
Communication Interface Specifications	RJ45 jack for telecommunication line
Pin Assignment	Pair 1: pins 1 / 2 Pair 2: pins 3 / 6 Pair 3: pins 5 / 4 Pair 4: pins 7 / 8
Data Rate	10 Mbit/s, 100 Mbit/s, 1,000 Mbit/s
Working Voltage	DC 3 ~ 12 V
Working Current	Max. 1 A
Residual Voltage	<200 V (coupling surge voltage)

General Parameters

Weight	Approx. 60 kg
Dimension	615 (L)*330 (W)*315 (H) mm
Enclosure	Aluminum alloy
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Package	Carton

Standard Accessories

HV Cable, Grounding Wire, Short Connector, Internet Cable, User Manual

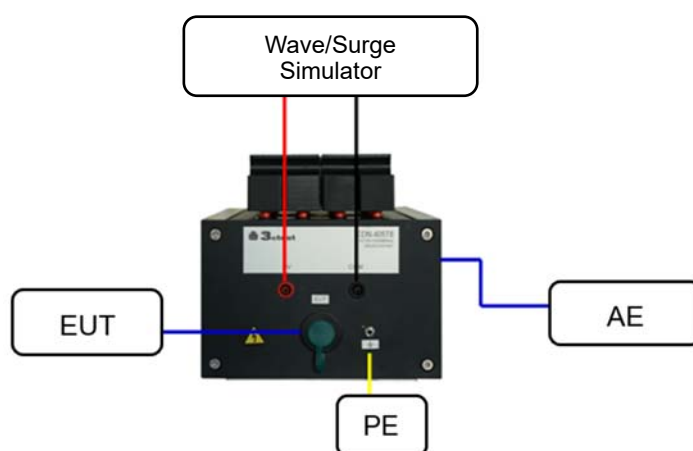
Optional Accesories

1	Wave/Surge Simulator	Model: CWS 600 Output Voltage: 0.25 kV ~ 6.0 kV	
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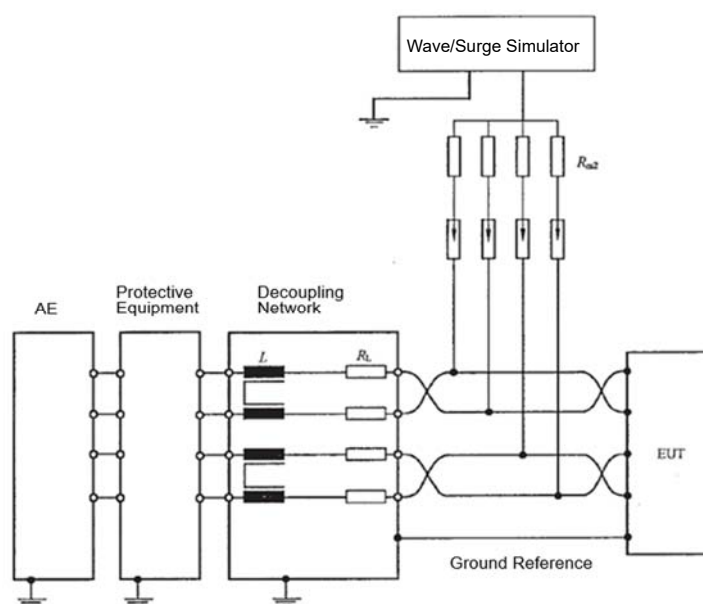
Optional Accesories

1	NR80	80 Ω *2 (for 2 line 1.2/50 μ s, 8/20 μ s)
2	NR160	160 Ω *4 (for 4 line 1.2/50 μ s, 8/20 μ s)
3	NR320	320 Ω *8 (for 8 line 1.2/50 μ s, 8/20 μ s)
4	NR25	25 Ω *8 (for 8 line 10/700 μ s, 5/320 μ s)
*One current-limiting module must be purchased as optional accessories for CDN operation.		

Connection Schematic



Design Schematic



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