



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

CDN 405T8-C

- 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
- > Support EMC generators of all brands, quick connection without extra adaptation
- > Superior decoupling, no extra auxiliary protection; plug-and-play to cut setup cost

Introduction

The CDN 405T8-C 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 405T8-C with excellent decoupling capability (<2%) can protect auxiliary equipment from influence of interferences and cut system complexity and improve 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
Pulse Voltage	6 kV (10 kV need to customize)
Coupling Method	8 lines (4 pairs) unshielded symmetrical Common mode (L-PE)
Coupling Elements	Capacitor
Output Impedance	Built-in resistance 160 Ω *4 8 lines equivalent resistance 40 Ω
Decoupling Inductor	20 mH
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	Max. 100 V DC
Working Current	Max. 1 A
Residual Voltage	<2% (coupling surge voltage)

General Parameters

Weight	Approx. 30 kg
Dimension	475 (L)*235 (W)*195 (H) mm
Enclosure	Aluminum alloy
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Package	Suitcase

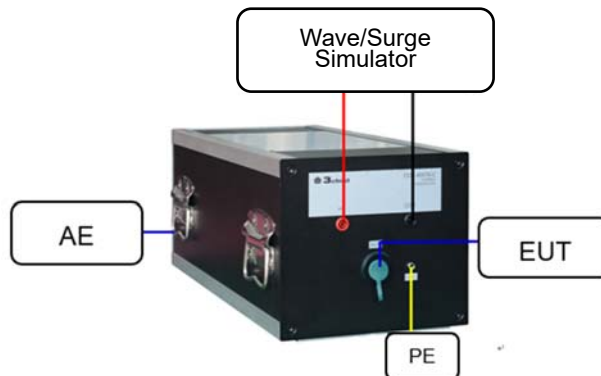
Standard Accessories

HV Cable, Grounding Wire, Internet Cable, User Manual

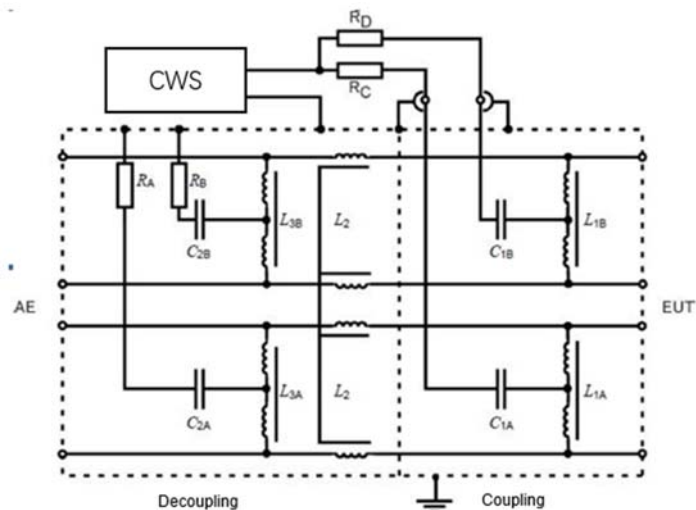
Optional Accessories

1	Wave/Surge Simulator	Model: CWS 600 Output Voltage: 0.25 kV ~ 6.0 kV	
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Connection Schematic



Design Schematic



According to IEC 61000-4-5: 2017 Figure 11

SUZHOU 3CTEST ELECTRONIC CO., LTD.

Address: No. 99 E'meishan Road, SND, Suzhou, Jiangsu Province, China

E-mail: globalsales@3ctest.cn

Service: service@3ctest.cn

Tel: +86 - 512 - 68077192

Web: www.3ctest.com



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