



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

CDN 405T4

- IEC/EN 61000-4-5
- GB/T 17626.5
- ITU-T K.20
- ITU-T K.21
- ITU-T K.44
- ITU-T K.45

Features

- > Max. pulse voltage 6 kV
- > Support data transmission rate up to 100 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
- > Support two coupling methods: 1-pair (2-wire) and 2-pair (4-wire) unshielded balanced lines, line-to-ground; 2-wire unshielded unbalanced lines, line-to-line
- > External coupling elements and current-limiting resistor are replaceable

Introduction

The CDN 405T4 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 100 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 405T4 with excellent decoupling capability 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
Coupling Method	Line-to-line: 1-pair (2-wire) and 2-pair (4-wire) unshielded symmetrical lines Line-to-ground: 2-wire unshielded unsymmetrical lines
Coupling Module	CD-GDT90, CD-TVS76, CD-C10, CD-C05, CD-TSS15 (optional)
Decoupling Module	DP-GDT90, DP-TVS76, DP-TVS 200, DP-C250 (optional)
Output Impedance	80 Ω impedance module*2 (1-pair balanced line) 160 Ω impedance module*4 (2-pair balanced lines)
Communication Interface Specifications	4 mm banana plug
Data Rate	100 Mbit/s
Working Voltage	Depend on coupling module and decoupling module
Working Current	Max. 1 A
Decoupling Inductor	20 mH

General Parameters

Weight	Approx. 10 kg
Dimension	475 (L)*235 (W)*195 (H) mm
Enclosure	Aluminum alloy
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75%
Package	Carton

Standard Accessories

Test Cable, Current-limiting Module, User Manual

Optional Accesories

1	Wave/Surge Simulator	Model: CWS 600 Output Voltage: 0.25 kV ~ 6.0 kV	
2	Coupling Module	Model: CD-GDT90 Clamping Voltage: DC 90 V	
	Coupling Module	Model: CD-TVS76 Clamping Voltage: DC 76 V	
	Coupling Module	Model: CD-TSS15 Clamping Voltage: DC 15 V	

Optional Accesories

2	Coupling Module	Model: CD-C10 Capacitor: 10 μ F Rated Voltage: AC 250 V	
	Coupling Module	Model: CD-C05 Capacitor: 0.5 μ F Rated Voltage: AC 250 V	
3	Decoupling Module	Model: CD-GDT90 Clamping Voltage: DC 90 V	
	Decoupling Module	Model: CD-TVS76 Clamping Voltage: DC 76 V	
	Decoupling Module	Model: CD-TVS200 Clamping Voltage: DC 200 V	
	Decoupling Module	Model: DP-C250 Rated Voltage: AC 250 V	
*One coupling module and one decoupling module must be purchased as optional accessories for CDN operation. Residual voltage waveform and amplitude vary with decoupling module type.			

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