

## Coupling/Decoupling Networks for Damped Oscillatory Waves

### Testing on Unshielded Symmetrical High-Speed

#### Communication Lines

#### CDN 418TH8



#### In Compliance with

- > IEC 61000 – 4 -18
- > EN 61000 – 4 -18
- > GB/T 17626.18

#### Introduction

CND 418TH8 is designed for coupling damped oscillatory waves onto high-speed unshielded symmetrical communication lines in accordance with Standard IEC/EN 61000-4-18 and can be applied to ISDN, 10 MBit/s / 100 MBit/s / 1,000 MBit/s Ethernet test. Its powerful decoupling capability makes Auxiliary Equipment(AE) free from the influence of damped oscillatory wave and ensure the test repeatability. The maximum residual voltage is only 90 V left at AE port for 2 kV damped oscillatory test without using additional decoupling devices. Decoupling performance and transmission rate are stable. Compact size makes it easy to carry and use.

#### Features

- > Applied to ISDN, 10 MBit/s/100 MBit/s/1,000 MBit/s Ethernet test;
- > Capable of test output to 1-pair, 2-pair or 4-pair communication line simultaneously;
- > Compatible with the output port of generators from other corporations;
- > No additional protection for AE is needed:

#### Application Areas

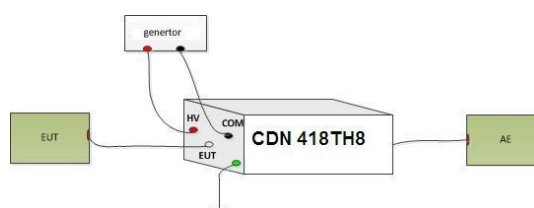
- > Communication
- > Telecom
- > Medical
- > Broadcast
- > Railway
- > IT
- > Military
- > Avionics
- > New energy
- > New energy vehicles

Technical Parameters	
Standard	IEC / EN 61000 -4 -18
Coupling Waveform	Damped oscillation wave 100KHz/1MHz
Impulse Voltage	4 kV (6 kV on request)
Coupling Mode	4 to 8 wire unshielded symmetry
Coupling Component	Capacitor (built-in)
Communication Frequency	10 MB/100 MB/1000 MB
Communication Interface Specification	Female RJ45 Connector
Pin Assignment	Pair 1: pins 1 / 2
	Pair 2: pins 3 / 4
	Pair 3: pins 5 / 6
	Pair 4: pins 7 / 8
Data Rate	Up to 1000 MBit /s
Operating Voltage	Max. 250 V dc
Operating Current	Max. 1 A
Decoupling Inductance	20 mH
Residual Voltage	<10 %

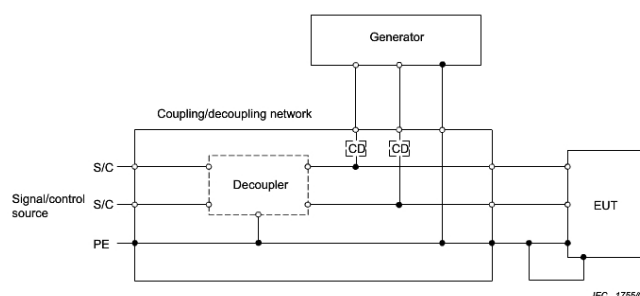
General Parameters	
Weight	Approx. 10 kg
Dimension	360 mm(L) × 220 mm(W) × 135 mm(H)
Enclosure Material	Aluminum
Ambient Temperature	15°C - 35°C (Operating conditions)
Relative Humidity	45% - 75% (Operating conditions)
Package Case	Carton

Accessories		
HV Cable	1 m HV silicon cable with banana plug	1 pc
Grounded Cable	0.5 m yellowish green	1 pc
Short-Circuit line	Black	1 pc
Connecting Cable	1 m	2 pcs
Materials	Factory Inspection Report	1 set
	Operating Instruction	1 set

**Test Connection Schematic Drawing:**



**Design Schematic Diagram:**



As per IEC 61000-4-18: 2006 Figure 11b



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