

## Coupling/Decoupling Networks for Surge Testing on Unshielded

### Unsymmetrical Communication Lines

### CDN 21AF8

### heet



#### In Compliance with

- > ITU-T K.21
- > GB/T17626.5
- > YD/T 993

#### Introduction

The CDN 21AF8 is designed to couple surge pulses onto 8 lines (4 pairs) unshielded unsymmetrical communication lines for voltage up to 6 kV and maximum transmission rate up to 10 MBit/s. It fully meets the requirement of ITU-T K.21 -2011, GB/T17626.5 and YD/T 993.

#### Features

- > Maximum peak voltage is 6 kV;
- > Maximum transmission rate up to 10 MBit/s;

#### Application Areas

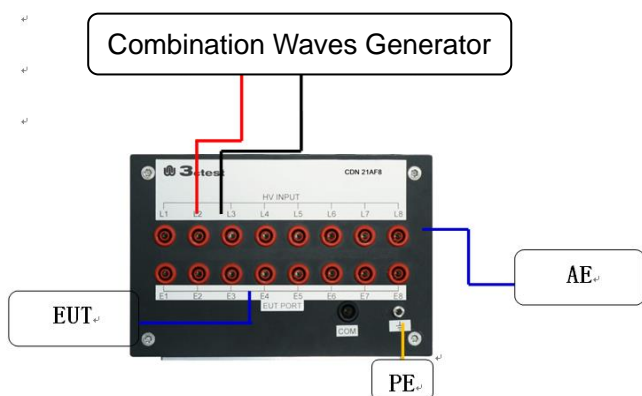
- |                 |             |
|-----------------|-------------|
| > Communication | >IT         |
| > Telecom       | >Military   |
| > Medical       | >Avionics   |
| > Broadcast     | >New energy |
| > Railway       |             |

Technical Parameters	
Standard	IEC/EN 61000-4-5/ ITU-T K.21 -2011
Coupling Waveform	1.2/50 $\mu$ s、 8/20 $\mu$ s
Output Impedance	SZR40 (40 $\Omega$ ±5%) (Standard equipped)
Coupling Waveform	10/700 $\mu$ s、 5/320 $\mu$ s
Output Impedance	SZR0 (0 $\Omega$ ) (Standard) (The source impedance of generator is 40 $\Omega$ )
Impulse Voltage	6 kV (10 kV on request)
Coupling Mode	8 lines (4 pairs) unshielded unsymmetrical L-PE, L-L
Coupling Component	SCD90 (90 V Air Discharge Tube) built-in standard
Communication Port	Female RJ45 Connector, connect with telecom cables
Data Rate	Up to 10 MBit/s
Operating Voltage	Max. 90 V DC
Operating Current	Max. 1 A
Decoupling Inductance	20 mH
Residual Voltage	90 V (Coupling surge voltage)

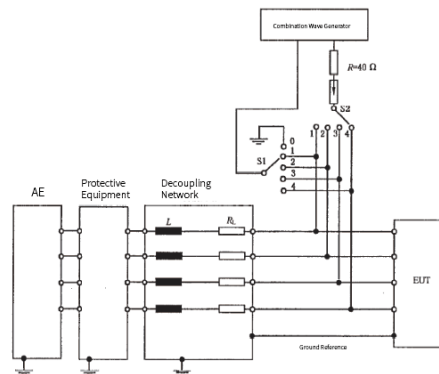
General Parameters	
Weight	Approx. 10 kg
Dimension	360 mm(L) x 220 mm(W)x135 mm(H)
Enclosure Material	Aluminum
Ambient Temperature	15°C-35°C
Relative Humidity	45% - 75%
Package Case	Carton

Accessories	
Test cables	red、 black (double-end sheath) Yellowish green (with sheathing clamp at one end and sheath at the other end)
Ethernet cable	1 m (with Ethernet cable at one end and 8-line at the other end) 1 m (Cable 4 and Cable 6 are jumper at equipment end)
Resistance Module	SZR0, SZR40

**Test Connection Schematic Illustration**



**Design Schematic Circuit**



As per IEC 61000-4-5: 2017 Figure 9



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