

Coupling Network

CN 405AF4



In Compliance with

- > EN/IEC 61000-4-5
- > GB/T 17626.5
- > TB/T 3498-2018

Introduction

CN 405AF4 is a product designed according to the lightning test method of railway communication signal equipment. The design of pluggable coupler is convenient for customers to choose the corresponding coupler according to different test conditions, which is suitable for balanced communication transmission line-ground test and line test. It is also suitable for non-balanced communication transmission wire-to-ground test and wire-to-wire test. It is compact and easy to carry and use.

Features

- > Meet the requirements of TB/T 3498-2018 standard;
- > 1/2/3/4 Line to line/line to ground;
- > Coupled waveforms 1.2/50 μ s&8/20 μ s and 10/700 μ s&5/320 μ s;
- > Pulse voltage up to 10KV;
- > The interface specification is 4mm banana head;
- > Replace couplers according to test requirements

Application Areas

- > Communication > IT
- > Telecom > Military
- > Medical > Avionics
- > TV Broadcasting > New energy electrical
- > Railway > New energy vehicles

Technical Parameters	
Model No.	CN 405AF4
Standard	TB/T 3498-2018
Coupling Waveform	1.2/50μs、8/20μs Combination wave 10/700μs、5/320μs Combination wave 4/300μs voltage wave
impulse voltage	10 kV (determined by coupler)
Coupled Mode	1/2/3/4 Wire Unshielded wire to wire/ wire to ground
Coupled Apparatus	CD-GDT90、CD-TVS76、CD-C05
Communication interface Specification	4 mm canned banana flowers
Working Voltage	The injection voltage is determined by the coupler The maximum injection voltage of TVS76 device DC < 48V; GDT 90 device maximum injection voltage DC < 12V; C05 device maximum injection voltage AC 380V;

General Parameters	
Weight	Approx. 3.5 kg
Dimension	358 mm×200 mm×133 mm (length × width × height)
Case Material	Aluminum alloy
Ambient Temperature	15 °C - 35 °C (Operating conditions)
Relative Humidity	45% - 75% (Operating conditions)
Package Case	Carton

standard accessories	
Test Line	Test line number
High Pressure Injection line	One red and one black
Coupled Apparatus	CD-GDT90 2 PCs CD-TVS76 2 PCs CD-C05 2 PCs
Data	Original test certificate User manual

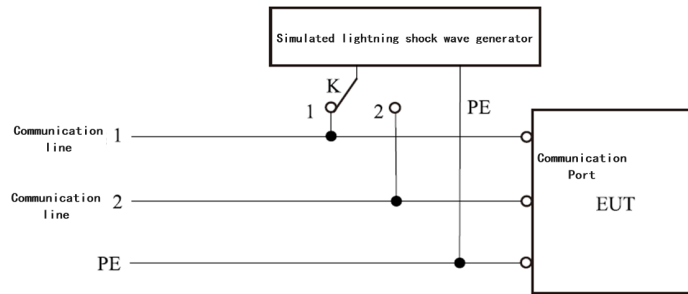
Example coupler:



Coupler CD-GDT90

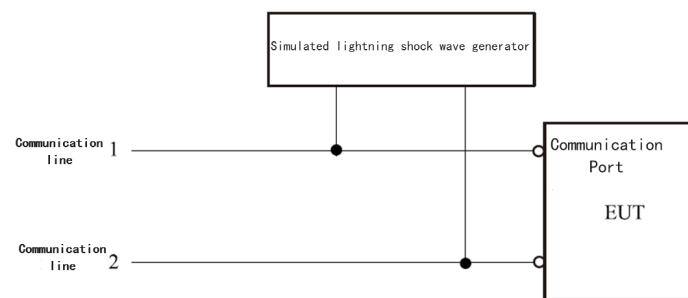
Coupled Module	Test Voltage and Waveform	Annotation
CD-C05	1.2/50μs 4KV	The maximum operating voltage of EUT is 400VAC / 1000VDC
CD-TVS76	1.2/50μs 10KV 4/300μs 10KV 10/700μs 10KV	The maximum operating voltage of the EUT is 48VDC
CD-GDT90	1.2/50μs 10KV 4/300μs 10KV 10/700μs 10KV	The maximum operating voltage of the EUT is 12VDC

The standard connection diagram is as follows:



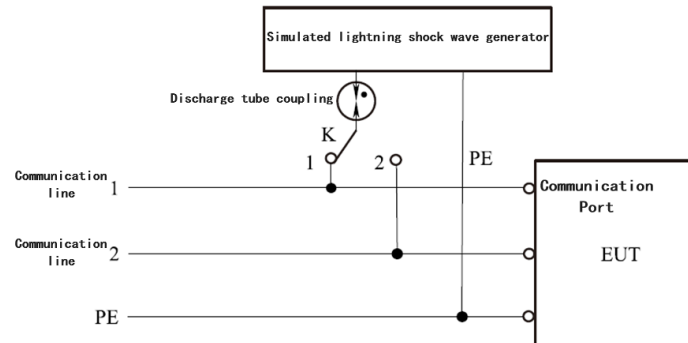
Description: In the wire-ground test, the shock wave is applied between the communication wire and the ground wire respectively

Figure 15 Balance communication transmission line wire-ground lightning test circuit diagram (direct coupling)



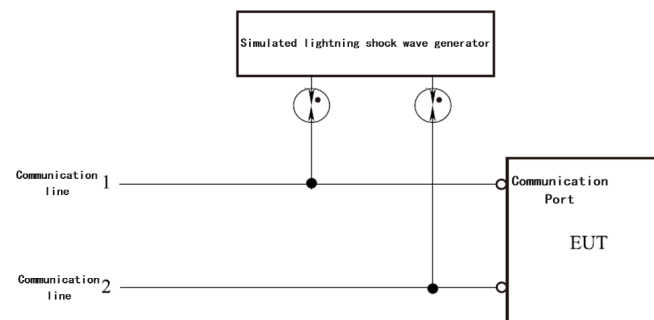
Description: Wire-to-wire test, shock wave applied between two lines of balanced communication line

Figure 16 Balanced communication transmission line wire-to-wire lightning test circuit diagram (direct coupling)



Description: In the wire-ground test, the shock wave is applied between the communication wire and the ground wire respectively

Figure 17 Balanced communication line transmission line wire-ground lightning test circuit diagram



Description: Wire-to-wire test, shock wave applied between two lines of balanced communication line

Figure 18 Balance communication transmission line wire-to-wire lightning test circuit diagram (discharge tube coupling)



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