



MAIN FEATURES

- **Coupling networks designed for IEC/EN 61000-4-6**
- **Used for CAN BUS application**
- **D-Sub-9-sockets**
- **Models with frequency range from 10 kHz to 80 MHz and from 150 kHz to 230 MHz**

CDN CAN Series CDN IEC 61000-4-6

IEC / EN 61000-4-6 specifies the design and performance of a range of coupling / de-coupling networks (CDNs). Each CDN is specific to the type of cable and the intended signal carried on the cable. AMETEK CTS with its brand TESEQ offers an extensive range of CDNs which fully comply with the requirements of the standard and provide a simple and reliable method of injecting RF energy into the equipment under test (EUT). In this datasheet, CDN used with unscreened unbalanced for CAN Bus starting from 10 kHz as required by NAMUR NE 21 and also from 150 kHz as required by IEC / EN 61000-4-6 is presented.

The CDN CAN series is used to Inject common mode disturbance signal into unscreened and unbalanced high speed CAN Bus with low currents in the frequency range from 10 kHz to 80 MHz and from 150 kHz to 230 MHz. CDN CAN U5 can be used to inject the disturbed signal into the ground line (Pin 6) also.

Verification results is supplied with each unit. Traceable and accredited calibration according to ISO17025 is available upon request. The CDN can be ordered alone or as a kit, which includes the necessary adapters for verification. please refer to the set order information for more details.

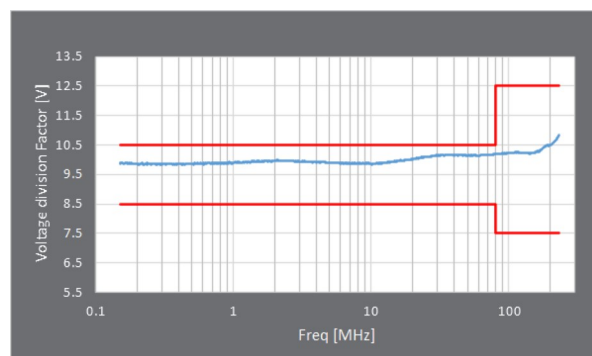
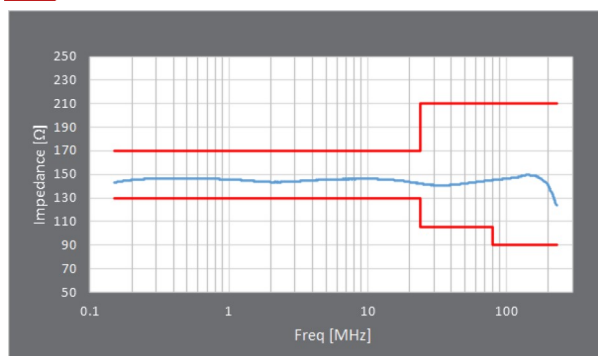
AMTEK CTS cares about the safety of their customers. Hence, a protective earth bolt attached to the bottom plate can be used to increase safety during operations.

Typical performance with limit lines for common mode impedance and voltage division factor is presented in this datasheet.

Electrical Specifications

	CDN CAN-U4-10	CDN CAN-U4	CDN CAN-U5
Frequency Range	10 kHz to 80 MHz	150 kHz to 230 MHz	
Application	4 lines application for unscreened CAN bus		5 lines application for unscreened CAN bus
Connector EUT Port	D-Sub 9 pins (Pin 2, 3, 7, 9)		D-Sub 9 pins (Pin 2,3,6,7,9)
Connector AE Port			
Line Parameters	CAN Bus		
AC max. voltage (L- N)	48 V		
DC max. voltage (L-GND)			
Current Max	3 A for Pin 3 and 9 All other Pins 0,5 A		
Test Voltage, 2 sec.	200 V DC		
Common Mode Impedance (EUT Port)	10 kHz to 26 MHz: 150 Ω ±20 Ω 26 MHz to 80 MHz: 150 Ω +60 Ω / -45 Ω	150 kHz to 26 MHz: 150 Ω ±20 Ω 26 MHz to 80 MHz: 150 Ω +60 Ω / -45 Ω 80 MHz to 230 MHz: 150 Ω ±60 Ω	

Typical Performance for Common Mode Impedance and Voltage Division Factor



RF to EUT/AE Specifications

	CDN CAN-U4-10	CDN CAN-U4	CDN CAN-U5
RF Port	BNC 50 Ω (f)		
RF Voltage	20 V ¹		
Voltage division factor (RF input to EUT port)	10 kHz to 80 MHz: 10 dB ±1 dB	150 kHz to 80 MHz: 9.5 dB ±1 dB 80 MHz to 230 MHz: 9.5 dB +3 / -2 dB	
Transmission bandwidth (wanted signal) EUT / AE B3 dB:	Pin 2+7: > 30 MHz, all other Pins > 20 kHz		
Decoupling of CM disturbance (RF port / AE) typ.	10 kHz: >10 dB 1.5 MHz: >35 dB 26 MHz: >45 dB 80 MHz: >25 dB	150 kHz: >30 dB 1.5 MHz: >60 dB 30 MHz: >50 dB 230 MHz: >30 dB	
Footnote	1. refers to 33 V test level in 300 Ω		

General Specifications

	CDN CAN-U4-10	CDN CAN-U4	CDN CAN-U5
Dimensions (WxHxD)	100 x 100 x 240 mm ³		
Net Weight	approx. 1.5 kg		
Operating Environment	Indoor use only		
Operating Temperature	+5°C to +40 °C		
Humidity	up to 80%		

Set Information

Set Name Order Nr.	CAL U100B 247825	A 50-N 257521	SAR M116 239915	SAR CAN 243689
CDN CAN-U4-10S 256657	2	1	1	2
CDN CAN-U4S 243001	2	1	1	2
CDN CAN-U5S 243002	2	1	1	2