



CDN CAN COUPLING / DECOUPLING NETWORK (CDN) FOR CAN BUS APPLICATIONS



For CAN (CAN – Controller Area Network) applications Teseq offers two different Coupling / Decoupling Networks for immunity tests according IEC/EN 61000-4-6. The CDN CAN-U4 and CDN CAN-U5 are special designed for unshielded cables. It was developed so that symmetrical signals can pass the CDN up to a transmission bandwidth of 30 MHz (sine) and nevertheless was reached a high decoupling from asymmetrical disturbances.

Both networks are supplied with D-Sub-9- sockets. CAN-L (pin 2) and CAN-H (pin 7) is the symmetrical data pair of the CAN cable. The CDN CAN-U4 connects 4 lines and the CDN CAN-U5 has an additional ground line.



- Two different types for four or five lines
- Designed for IEC/EN 61000-4-6
- CAN BUS application
- D-Sub-9-sockets

Technical specifications

Frequency range:	150 kHz to 230 MHz
Power rating (EUT- and AE Port)	
AC max. voltage:	48 V
DC max. voltage:	48 V
Current max :	3 A (pin 3 + 9, all other 0.5 A)
Test voltage:	200 VDC, 2 sec
Common mode impedance (EUT port)	
150 kHz to 26 MHz:	150 Ω ±20 Ω
26 MHz to 230 MHz:	150 Ω +60 Ω / -45 Ω
Coupling path (In/Out-port/EUT)	
Connection:	BNC 50 Ω
RF voltage:	<20 V
Voltage division factor (RF input to EUT port)	
150 kHz to 80 MHz:	9.5 dB ±1 dB
80 MHz to 230 MHz:	9.5 dB +3 / -2 dB
Transmission bandwidth EUT/AE B3 dB	
Symmetrical pair (pin 2 + 7):	>30 MHz sin.
all other lines:	>20 kHz
Decoupling of CM disturbance (In-port / AE)	
150 kHz	>30 dB
1.5 MHz	>60 dB
30 MHz	>50 dB
230 MHz	<30 dB

Mechanical specifications

Size (L x W x H in mm):	240 x 100 x 100
Weight:	approx. 1.5 kg



Advanced Test Solutions for EMC

CDN CAN

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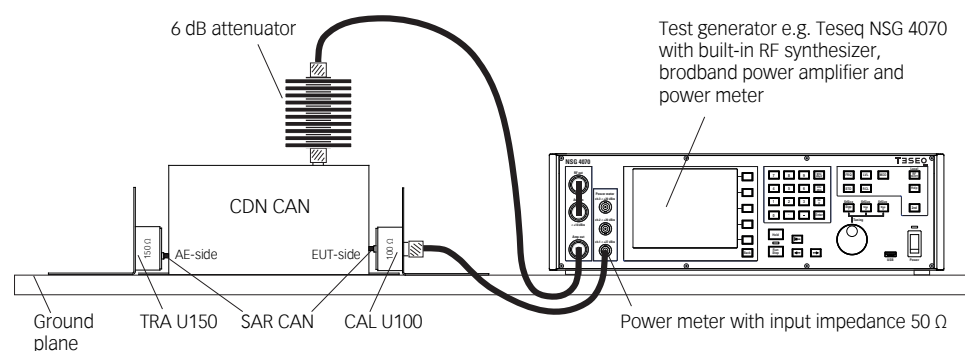


CDN CAN, view to the EUT port

Application

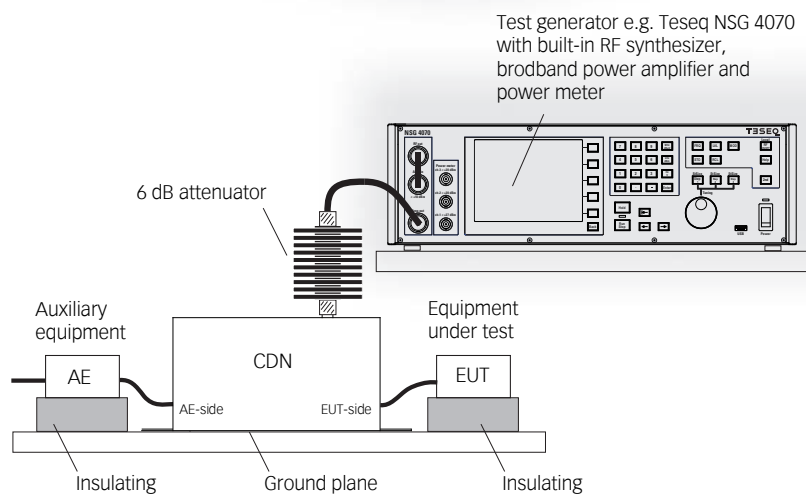
Pin number of D-Sub-9 socket	CAN BUS signal	Description	CDN CAN-U4	CDN CAN-U5
1	-	reserved		
2	CAN_L	dominant low	X	X
3	CAN_GND	ground	X	X
4	-	reserved		
5	CAN_SHLD	optional		
6	GND	optional		X
7	CAN_H	dominant high	X	X
8	-	reserved		
9	CAN_V+	+24 V supply voltage	X	X

Test set-up calibration



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EUT test set-up



Delivery information

Part number	Description
243005	CDN CAN-U4 CDN for CAN Bus, unshielded 4 lines
243001	CDN CAN-U4S CDN for CAN Bus, unshielded 4 lines with calibration adapter set in storage case
243006	CDN CAN-U5 CDN for CAN Bus, unshielded 5 lines
243002	CDN CAN-U5S CDN for CAN Bus, unshielded 5 lines with calibration adapter set in storage case
97-231024	CDN-TC Traceable calibration (ISO17025) for IEC 61000-4-6 requirements, order only with device CDN M, AF, S or T00x type