

CAN Interface Boards - Technical Data



CAN protocol and available APIs	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
CAN V2.0 (11/29 bit IDs)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CAN-API	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
LeanCANopen-API ³⁾	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
CANopen-API ⁴⁾			✓	✓	✓	-	-	-	✓	✓	✓	✓	✓	-				
DeviceNet-API ⁵⁾	-	-	-	-	✓	-	-	-	-	-	-	✓	✓	-				
CAN bus connection	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
Connector	9 pin D-Sub male			5 pin Open Style		9 pin D-Sub male on a ribbon cable		9 pin D-Sub male on a ribbon cable				5 pin Open Style on a ribbon cable		9 pin D-Sub male				
# of channels	1	2	1	2	1	1	2	2	1	2	2	1	2	1				
Galvanically isolated	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓				
Physical layer	ISO 11898-2 (CAN high speed)							ISO 11898-2 (CAN high speed)										
Supports different physical layers	-	ISO 11898-3 (fault tolerant, piggy-back)			-	ISO 11898-3 (fault tolerant), on request		ISO 11898-3 (fault tolerant), on request		-	-	-	-	ISO 11898-3 (fault tolerant), variant				
PC Interface	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
Interface	PCI Express		PCI			PC/104plus (PCI)		PC/104plus (PCI)		PC/104			PC Card (PCMCIA)	USB				
Dual port memory	512 kbytes		4 kbytes			512 kbytes		512 kbytes		4 kbytes				-				
Interrupts	Plug and Play							Plug and Play		5, 9, 10, 11, 12, 15			Plug and Play					
Environment / Dimensions	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
Operating temperature	0 °C .. +70 °C ⁶⁾					0 °C .. +70 °C ⁶⁾		-40 °C .. +85 °C ⁶⁾		0 °C .. +70 °C ⁶⁾			-40 °C .. +85 °C ⁶⁾		0 °C .. +70 °C ⁶⁾		0 °C .. +55 °C	
Storage temperature	-20 °C .. +70 °C					-20 °C .. +70 °C		-40 °C .. +85 °C		-20 °C .. +70 °C			-40 °C .. +85 °C		-20 °C .. +70 °C			
Relative humidity	< 90%, non-condensing							< 90%, non-condensing										
Dimensions [mm]	168 x 69	168 x 103	160 x 100			90.2 x 96	90.2 x 96	90.2 x 96						PC Card Type II	110 x 55 x 25			
Power supply	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
Supply voltage	3.3V / 12V (± 5%) DC		5V (± 5%) DC			5V / 3.3V (± 5%) DC			5V (± 5%) DC									
Current consumption [mA]	typ. 500 / 60	typ. 500 / 90	typ. 380	typ. 410	typ. 340	typ. 300 / 150	typ. 350 / 150	typ. 350 / 150	typ. 500	typ. 570	typ. 570	typ. 500	typ. 300	typ. 300				
Certificates	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
CE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
FCC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Drivers available for	PCI Express (single channel) ¹⁾	PCI Express (dual channel)	PCI (single channel)	PCI (dual channel)	PCI (single channel) DeviceNet	PC/104plus (single channel) ²⁾	PC/104plus (dual channel) ²⁾	PC/104plus (dual channel) extended Temperature range ²⁾	PC/104 (single channel)	PC/104 (dual channel)	PC/104 (dual channel) extended Temperature range	PC/104 (single channel) DeviceNet	PC Card (dual channel)	USB (single channel)				
Windows 7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows Vista	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows XP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows Server 2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows Server 2003 R2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows 2000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Windows Embedded CE 6.0	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Linux	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-				
Miscellaneous			A),C),D)	A),C),D)	A)				A),B),C),D),E)	A),B),C),D),E)	A),B),C),D),E)	A)	A)					
Part number	CAN-PRO1-PCIE /LP ¹⁾	CAN-PRO2-PCIE	CAN-AC1-PCI	CAN-AC2-PCI	CAN-AC1-PCI/DN	CAN-PRO1-PC104+	CAN-PRO2-PC104+	CAN-PRO2-PC104+XT	CAN-AC1-104	CAN-AC2-104	CAN-AC2-104I	CAN-AC1-104/DN	CANcard2	CANusb				

¹⁾ The single channel PCI Express is also available with a low profile slot bracket.

²⁾ also available as PCI/104

³⁾ LeanCANopen is a CANopen master implementation that runs on the PC on top of a CAN interface board. It supports single channel and dual channel boards.

⁴⁾ The CANopen API is interfacing with a CANopen master protocol stack that is executed directly on the interface board. The CANopen API communicates over channel 1 only (the second channel on a dual channel board is not used!)

⁵⁾ The DeviceNet API is interfacing with a DeviceNet master and slave protocol stack that is executed directly on the interface board. The DeviceNet API communicates over channel 1 only (the second channel on a dual channel board is not used!)

⁶⁾ Ambient temperature of the board inside the PC

^{A)} Win NT/ME/98/95 ^{B)} DOS ^{C)} Win CE.NET 4.x/5.0
^{D)} Ardence RTX ^{E)} QNX: optional, no free download