

C320Turbo (PCI Express)

8 to 32-port intelligent PCI Express serial board



- > PCI Express x 1 compliant
- > Low profile form factor fits small-sized PCs
- > Supports 128 high-performance serial ports per system
- > Dramatically decreases host CPU load
- > Modular design makes port expansion easy
- > Monitor transmission status with LEDs on the module and two 7-segment displays
- > Drivers provided for a broad selection of operating systems
- > 460.8 kbps maximum baudrate

PCom Lite



Overview

The intelligent C320Turbo PCI Express serial board is an expandable and versatile COM/TTY solution for RS-232/RS-422 applications that require connecting up to 128 serial devices to one computer. The

C320Turbo's on-board CPU and large dual-port memory alleviate the load of host system resources when performance and scalability are critical for large-scale systems.

Specifications

Hardware

Comm. Controller: 16C550C or compatible x 8

Bus: PCI Express x 1

Connector: DB25 female

Processor: TI DSP TMS320BC52PJ

Memory: 512 KB

Serial Interface

Number of Ports: 32 per control board (max.)

Serial Standards: RS-232 (RS-422 available with desktop option)

Max. No. of Boards per PC: 4

Performance

Baudrate: 50 bps to 460.8 kbps

Serial Communication Parameters

Data Bits: 5, 6, 7, 8

Stop Bits: 1, 1.5, 2

Parity: None, Even, Odd, Space, Mark

Serial Signals

RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

RS-422: TxD+/-, RxD+/-, RTS+/-, CTS+/-, GND

Physical Characteristics

Dimensions: 135 x 67 mm (5.32 x 2.64 in)

Driver Support

Windows: Windows 2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2/2016 (x64)

Linux: Linux 2.4.x, 2.6.x, 3.x

Unix-like Systems: QNX 6, SCO OpenServer, UnixWare 7, Solaris 10

Note: Please refer to Moxa's website for the latest driver support information.

Environmental Limits

Operating Temperature: 0 to 55°C (32 to 131°F)

Storage Temperature: -20 to 55°C (-4 to 131°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

EMC: EN 55032/24

EMI: CISPR 32, FCC Part 15B Class A

EMS:

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m

IEC 61000-4-4 EFT: Power: 1 kV

IEC 61000-4-5 Surge: Power: 2 kV

IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m

IEC 61000-4-8 PFMF

IEC 61000-4-11

MTBF (mean time between failures)

Time: 2,937,578 hrs

Standard: Telcordia (Bellcore) TR/SR

Power Requirements

Input Current: 1,160 mA @ 3.3 VDC

Warranty

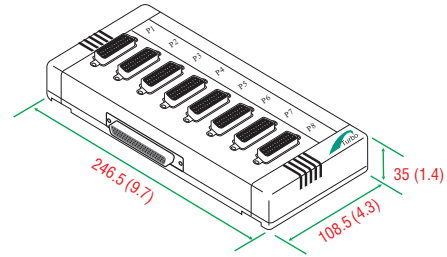
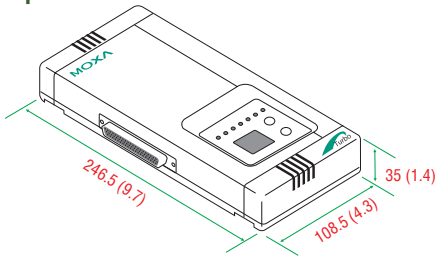
Warranty Period: 5 years

Details: See www.moxa.com/warranty

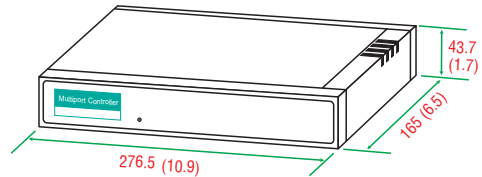
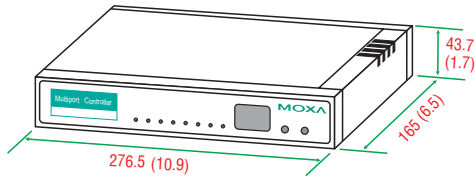
Dimensions

Unit: mm (inch)

Desktop Solution



Rackmount Solution



	C32010T/PCIEL	C32030T	C32045T	C32047T	C32061T
Dimensions	67 x 135 mm (2.64 x 5.32 in)	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)
Weight	80 g (0.18 lb)	425 g (0.94 lb)	500 g (1.11 lb)	485 g (1.07 lb)	488 g (1.08 lb)
Input Current	1.16 A @ 3.3 VDC	0.59 A @ +5 VDC	0.28 A @ +5 VDC 0.095 A @ +12 VDC 0.06 A @ -12 VDC	0.28 A @ +5 VDC 0.095 A @ +12 VDC 0.06 A @ -12 VDC	0.485 A @ +5 VDC

	C32065T	C32071T	C32080T	C32081T	C32082T	C32083T
Dimensions	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)	247 x 108 x 35 mm (9.73 x 4.25 x 1.38 in)	277 x 165 x 44 mm (10.91 x 6.51 x 1.74 in)	277 x 165 x 44 mm (10.91 x 6.51 x 1.74 in)	277 x 165 x 44 mm (10.91 x 6.51 x 1.74 in)	277 x 165 x 44 mm (10.91 x 6.51 x 1.74 in)
Weight	525 g (1.16 lb)	525 g (1.16 lb)	1,020 g (2.25 lb)	1,120 g (2.47 lb)	920 g (2.03 lb)	1,000 g (2.21 lb)
Input Current	1.32 A @ +5 VDC	0.28 A @ +5 VDC 0.095 A @ +12 VDC 0.06 A @ -12 VDC	0.88 A @ +5 VDC 0.095 A @ +12 VDC 0.06 A @ -12 VDC	1.22 A @ +5 VDC 0.19 A @ +12 VDC 0.12 A @ -12 VDC	0.34 A @ +5 VDC 0.095 A @ +12 VDC 0.06 A @ -12 VDC	0.67 A @ +5 VDC 0.19 A @ +12 VDC

Ordering Information

Available Models

Control Boards (must choose one)

C32010T/PCIEL: PCI Express board

External Modules

Rackmount Option

Basic Modules (must choose one)

C32080T: 8 RS-232 ports, 10-pin RJ45 connectors

C32081T: 16-port, RS-232, 10-pin RJ45

Expansion Modules (optional)

C32082T: 8 RS-232 ports, 10-pin RJ45 connectors

C32083T: 16 RS-232 ports, 10-pin RJ45 connectors

- Long-range Extension Kit (optional)
- C32050T: Includes the following items
- 2-meter DB25-M to DB25-F 10-wire cable (generally used for set-up)
- 90 to 240 VAC switching power adapter (0 to 30°C operating temperature)

NOTE: Build your own DB25-M to DB25-F 10-wire cable for connecting up to 100 meters.

Desktop Option

- CPU module
- One or more UART modules (32 ports maximum per board)

Rackmount Option

- Basic module
- Zero or more expansion modules (32 ports maximum per board)

Connection Cable (required)

C32020T: 2 meter DB25-M to DB25-F cable with 25 pins for short-range usage

Desktop Option

CPU Module (required)

C32030T: Connects directly to one UART module

8-port UART Modules (choose at least one)

C32045T: RS-232, DB25-F connectors

C32047T: RS-232, DB25-M connectors

C32071T: RS-232, DB25-F connectors

C32061T: RS-422, DB25-F connectors

C32065T: RS-422, DB25-F connectors (2 kV electrical isolation)

Package Checklist

- 1 C320Turbo/PCI board
- Power cable
- SATA to 4-pin IDE power cable
- Low-profile bracket
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card