



COM Express Compact Type 6 Carrier Board

Part: 12010-00 | **Model:** 12010 COM Express Compact Type 6 Carrier Board

The 12010 COM Express Compact Type 6 Carrier Board carrier board meets the needs of a wide variety of applications from systems integration to autonomous transportation with its diverse I/O mix. Compliant with the PICMG COM Express® specification, the 12010 provides a combination of ruggedness, reliability, and unmatched I/O from the industry leader in critical communications. With support for a variety of 95mm x 95mm Compact Modules, the 12010 offers the widest variety of I/O available yet in a standard carrier board from Sealevel – making it ideal for evaluation or volume integration in fielded installations.

Intense I/O & Expansion

Onboard I/O for the 12010 includes Ethernet, serial, USB, and digital interfaces, as well as an mPCIe expansion slot. The design for the 12010 COM Express Carrier Board is fully SWaP-C² optimized, allowing for a condensed 7.75" x 5.75" footprint without sacrificing I/O. For a variety of applications, the following connectors are integrated: DisplayPort, power, touchscreen, LVDS, and backlight.

Powerful Processing & Performance

Natively, the 12010 COM Express Compact Type 6 Carrier Board supports the following modules from congatec: conga-TCA3 Bay Trail, conga-TCA7 Elkhart Lake, and conga-TC570 Tiger Lake. The 12010 carrier board is intentionally designed for compatibility with future industrial COM modules as technology evolves, ensuring a long lifecycle and future-proof performance. The 12010 Carrier Board features a wide operating temperature of -40°C to 60°C.

Secure Software for the Edge

Microsoft Windows 10 IoT ENT LTSC is factory-installed to provide the fastest time to market and flexibility for customer-specific software. Sealevel SeaCOM and SeaMAX hardware drivers are included to support system I/O. Serial application code samples assist with custom application development and complete support documentation expedites configuration.

Features & Specifications

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Features

- COM Express Compact Type 6 Carrier Board
- Touchscreen Connector
- LVDS Connector
- Backlight Connector
- Onboard LED Indicators for Power and COM Activity
- On/Off Switch
- Real-time Clock
- 21VDC Input (2 position) Molex Eurostyle Connector
- Reset Button

Specifications

Dimensions	7.75" x 5.75"
Humidity Range	10 – 90%
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Temperature	-20°C to 80°C (-4°F to 176°F)
Power Requirement	10 – 30 VDC
COM Express Module Support	congatec® conga-TCA3 Bay Trail, conga-TCA7 Elkhart Lake, conga-TCC570 Tiger Lake
Ethernet	(3) Gigabit Ethernet Ports
USB 2.0 Ports	(4) USB 2.0 Ports
Expansion Slots	(1) mPCIe Expansion Slot (1) CFast Slot
Serial Ports	(2) Isolated RS-422/485 Serial Ports (2) Non-Isolated RS-232 3-Wire Ports (With modem controls)
Digital Outputs	(4) Open Collector Outputs
Display Support	(1) DisplayPort Connector