Connect Tech’s COM Express® Type 10 Mini Carrier Board is an extremely small carrier board.

The carrier board is ideal for space constrained applications, harsh environments, demanding conditions and supports extended temperature ranges of -40°C to +85°C.

This mini carrier board features rugged, locking connectors and offers the ultimate in durability.

**FEATURES**
- ✓ Extremely small size 84mm x 55mm
- ✓ All ruggedized latching connectors
- ✓ Support for the latest generation of low-powered CPUs
- ✓ Extended Temperature Range: -40°C to +85°C (-40°F to +185°F)

**SPECIFICATIONS**

| Compatibility | COM Express® Type 10 Modules
|               | PICMG COM Express® COM.0 R2.1
| Storage       | CCG010: 1x mSATA, 1x External SATA
|               | CCG020: 1x mSATA
| Network       | 2x Gigabit (10/100/1000) Ports
|               | 1 from COM Express®
|               | 1 from on-board Intel 82574 PHY/Controller
| Display       | 1x DisplayPort++ (DDI) interface
|               | Can be used for DisplayPort, HDMI, DVI or VGA
|               | 1x LVDS interface (18-bit, 3 data pairs)
| Serial        | 2x RS-232/422/485 hardware selectable ports
| Power         | Single wide input range
|               | +6V to +14V (may be module dependent)
| Temperature   | -40°C to +85°C (-40°F to +185°F)
| Weight        | 49g (1.73oz)

**Mini-PCIe Expansion**
- 2x half-size cards OR 1x full length card
- Both sockets have PCIe and USB signaling, one socket can be configured as mSATA

**USB**
- CCG010: 8x USB 2.0 Ports (6 to connectors, 2 to miniPCIe)
- CCG020: 2x USB 3.0 Ports (Only if supported by COM Express Module)
- 6x USB 2.0 Ports (2 to USB 3.0 connector, 2 to USB 2.0 connector, 2 to miniPCIe)

**GPIO**
- 8-bit GPIO

**Audio**
- HD Audio (Cirrus Logic CS4207 codec)
- 1x stereo input
- 1x stereo output

**Misc. External Interfaces**
- SMBus
- I2C
- Battery Low Indication
- System Status (S3 and Reset Outputs)

**Connectors**
- All shrouded locking ruggedized 2mm pitch headers
- Can be mated to CTI custom cable set to panel mount or PC MIL type connectors

**Dimensions**
- 84mm x 55mm (3.307” x 2.165”)

**Support**
- 2 Year Warranty and Free Technical Support
## MINI CARRIER BOARD
FOR COM EXPRESS® TYPE 10

**PART NUMBER:** CCG010, CCG020

---

### COM Express® Type 10 Mini Carrier Board Comparison

<table>
<thead>
<tr>
<th>Specifications</th>
<th>CCG010</th>
<th>CCG020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini PCI Express</td>
<td>2 slots</td>
<td>2 slots</td>
</tr>
<tr>
<td>PMC/XMC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HDMI</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DisplayPort</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DVI</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>LVDS</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>VGA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gigabit Ethernet</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>USB 2.0/3.0</td>
<td>6/0</td>
<td>4/2</td>
</tr>
<tr>
<td>USB Client Port</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Serial RS-232 / RS-485</td>
<td>2/2</td>
<td>2/2</td>
</tr>
<tr>
<td>HD Audio</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>GPIO</td>
<td>8 bits</td>
<td>8 bits</td>
</tr>
<tr>
<td>SATA</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>mSATA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Compact Flash</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SD Card</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Input Power Options</td>
<td>+6V to +14V</td>
<td>+6V to +14V</td>
</tr>
<tr>
<td>PCI-104 / PCIe/104</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dimensions</td>
<td>84mm x 55mm (3.307” x 2.165”)</td>
<td>84mm x 55mm (3.307” x 2.165”)</td>
</tr>
<tr>
<td>Temperature</td>
<td>40°C to 85°C (-40°F to 185°F)</td>
<td>40°C to 85°C (-40°F to 185°F)</td>
</tr>
</tbody>
</table>

---

**RoHS**

Specifications subject to change without notice.

©2020 Connect Tech Inc. All trademarks are property of their respective holder. CTIX-00106(0.06) - 2021-07-20