



"ALWAYS COMPLETE"

## Cogent Computer Systems, Inc.

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## CSB1802MITX - CSB18xx COM Development Board

The CSB1802MITX, designed, developed and manufactured by Cogent Computer Systems, Inc., is a Mini-ITX form factor board designed to allow quick, effective, time to market software and hardware development with the CSB18xx series of Type 10 COM Express modules.

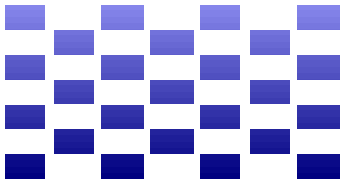
### Specifications and Features

- **PCI EXPRESS SOCKET** - This Socket is an x16, connected to COM PCI Express Port 0-3. Actual width is COM Specific (x1, x2 or x4)
- **Mini-PCI EXPRESS 0** - This Socket is connected to COM PCI Express Port 4 and COM USB2.0 Port 4.
- **Mini-PCI EXPRESS 1** - This Socket is connected to COM PCI Express Port 5 and COM USB2.0 Port 5. This socket has a standard SIM Card socket attached for Cellular Voice and Modem Applications.
- **10/100/1000 ETHERNET** - An RJ45 Connector with Integrated Magnetics provides access to the COM Ethernet Port. It is compatible with both 10/100 and Gigabit COM's.
- **USB 3.0** - A Dual USB3.0 Connector provides access to COM USB3.0 Ports 0 & 1, as well as COM USB2.0 Ports 0 & 1.
- **USB2.0** - A Dual USB2.0 Connector provides access to COM USB Ports 6 & 7. Additionally, a 10-pin USB2.0 Header provides access to COM USB Ports 2 & 3.
- **SATA** - Two Standard 22-Pin SATA Connectors with Power allow access to COM SATA Ports 0 and 1.
- **REMOTE DISPLAY I/F** - A high speed Mini-SAS Connector provides access to the COM LVDS Port. Contact Cogent for more information on compatible LVDS Panel adapters.
- **VIDEO OUTPUT** - An HDMI Connector provides access to the Digital Video Output of the COM.
- **SD/MMC SOCKET** - A Micro SD/MMC socket provides access to the COM SD/MMC Port.
- **HIGH DEFINITION AUDIO** - An on-board HDA Codec provides Headphone Out And Line In via 3.5mm jacks, and routes Microphone In and Line Out to the Remote Display I/F.
- **CONSOLE I/O** - COM Port UART 0 is converted to USB and accessed via a Mini-B Connector.
- **LPC DEBUG HEADER** - A 16-Pin Header provides access to the COM LPC Port as well as COM I2C.
- **COM EXPRESS TYPE10** - The CSB1802MITX accepts one COM Express Type10 Pinout module, in either Mini (55mm x 84mm) or Basic (95mm x 95mm) size.
- **WIDE INPUT VOLTAGE** - On-Board 3.3V and 5.0V DC-DC converters power the CSB1802MITX and CSB18xx COM from a single, Wide Range 6V to 24V input.
- **MINI-ITX SIZE** - 170mm x 170mm (7.5" x 7.5") Board fits into almost any off the shelf Mini-ITX Enclosure

### Introduction and Overview

The PCI Express Socket, Dual Mini-PCI Express Cards, USB, SATA, 10/100/1000 Copper Ethernet, Remote Display Interface and HDMI Video Output on a standard Mini-ITX Form Factor Motherboard all combine to make the CSB1802MITX the ideal Software and Hardware Development Platform for any Multimedia oriented CSB18xx COM. To accelerate this process, the Schematics and Gerbers of the CSB1802MITX are provided by Cogent at no charge. This IP can then be freely adapted to quickly enable custom CSB18xx targets.

Cogent also offers a custom Rapid Prototyping Program to create the exact carrier board for your specific application. Minimal production commitments, low NRE and quick turn around time are a standard part of this service! Contact us today to get your project started.



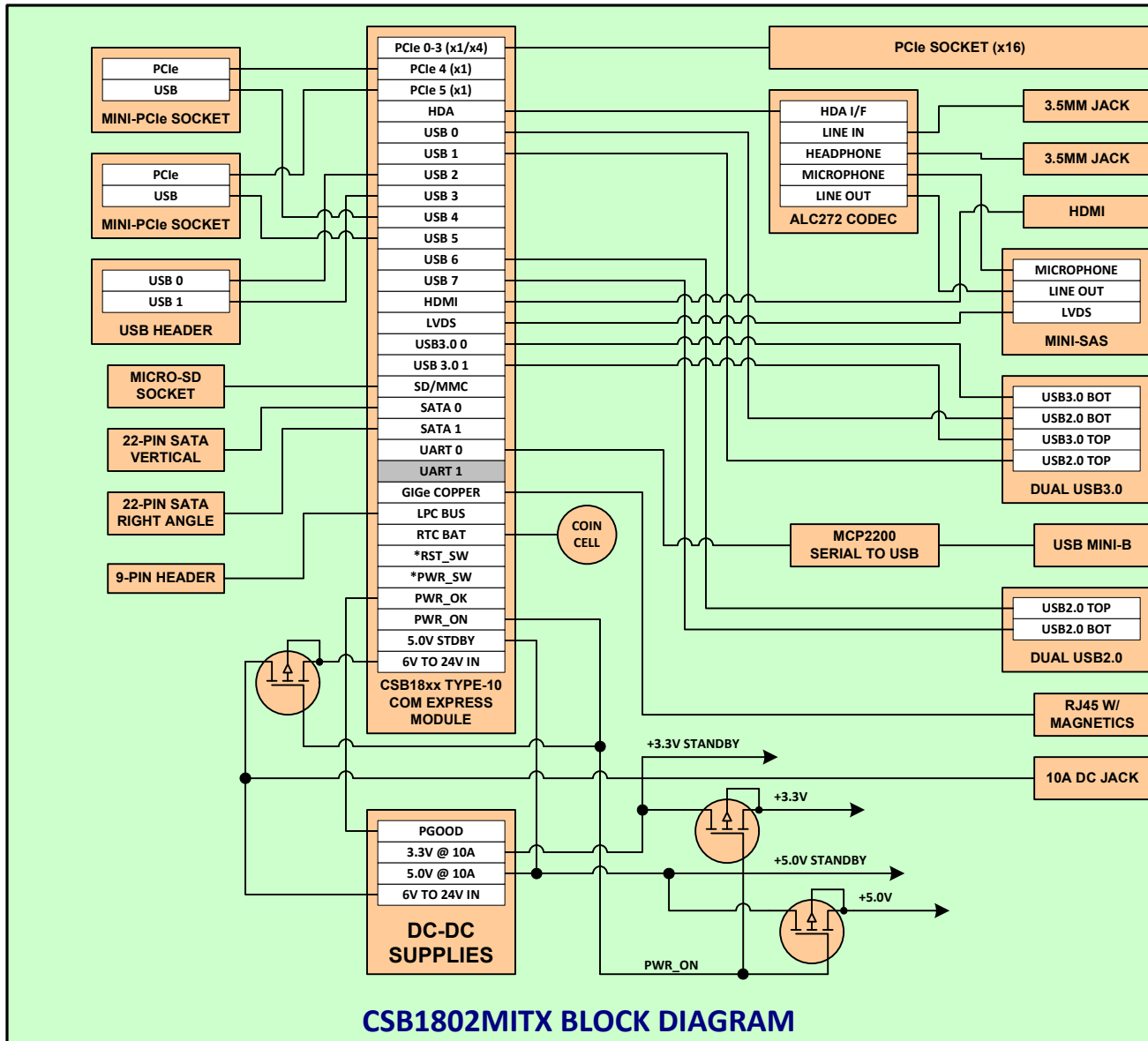
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## Cogent Development Kits

The CSB1802MITX is an integral part of each Cogent KIT18xx Multimedia Development Kit (replace xx with the CSB18xx module, ie - KIT1790T10 for the CSB18190T10 AMD KABINI COM Type-10). Included in each KIT18xx is a 100W Desktop Style 12V Power Supply w/US Power Cord, USB-A to Mini-B Serial Cable, and an Ethernet Cable.

An optional LCD display can be added via the Remote Display Interface (if supported by the COM LVDS port). Contact Cogent for more information on the CSB1802MITX, KIT18xx Series and the CSB19xx Display adapter family.