**COGENT***"ALWAYS COMPLETE"*

Cogent Computer Systems, Inc.

17 Industrial Drive, Smithfield RI 02917**tel: 401-349-3999, fax: 401-349-3998, web: www.cogcomp.com**

CSB1890T10-Kabini - Computer On a Module (COM)

The CSB1890T10-Kabini, designed, developed and manufactured by Cogent Computer Systems, Inc., is a high performance, AMD G-Series SoC (GX-415GA) based COM Express® Module. The CSB1890T10-Kabini provides a small, powerful and flexible engine for embedded multimedia applications of all kinds.

Specifications and Features

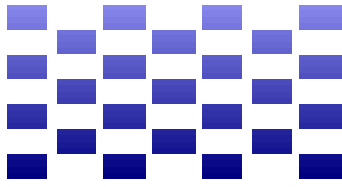
- **CPU** - 1.5Ghz Quad, 64-Bit x86 compatible "Jaguar" Cores
- **CACHE** - 32KByte Instruction and Data Caches; 2MByte L2 Cache
- **FPU** - IEEE 754 Compliant Single/Double Precision Floating Point Unit
- **SDRAM** - 4GByte 64-Bit Wide DDR3-1600 Memory with 8-Bit ECC
- **FLASH** - On-Board 8MByte SPI NOR
- **PCI EXPRESS** - One x4 and Two x1 GEN II (5G/s) Ports
- **ETHERNET** - Single 10/100/1000 Copper Port
- **DISPLAY PORTS** - Dual Simultaneous Display via HDMI, DisplayPort 1.2, eDP or LVDS
- **VIDEO DECODE** - UVD Engine 4.2 supporting: Direct X11.1; Dual HD Video Decode (MPEG-2, H.264, WMV, VC-1, Blu-ray 3D); Dual HD Stream (1080p + 1080i)
- **VIDEO DECODE** - VCE 2.0 Supporting H.264 Video Encode
- **2D/3D GPU** - 500Mhz Radeon 8330E GPU supporting OpenGL 4.2 and OpenCL 1.2
- **SATA** - Two SATA Gen 3 Controllers (1.5Gbit, 3Gbit/sec or 6Gbit/sec)
- **USB** - Two 5Gbit USB 3.0 and Eight 480Mbit USB 2.0 Host Ports
- **SD CARD** - 4-Bit Interface, supporting SDXC (up to 2TByte), UHS-I (104Mb/sec) and SDIO
- **SERIAL I/O** - I2C x2, SPI x1, 2-wire TTL UART and LPC
- **OPERATING VOLTAGE** - Single 8V to 18V Input Rail; On-Board I/O, DDR3 and CPU Supplies
- **OPERATING TEMPERATURE** - 0C to +70C Standard, -40C to +85C optional (at 1.2Ghz)
- **POWER CONSUMPTION** - 10W typ., 15W Max and <100mw Power Down (S5 State)
- **COM EXPRESS® COMPATIBLE** - Industry Standard COM Express® Type 10, r2.1 Pinout
- **FORM FACTOR** - COM Express Mini, 84mm x 55mm x 8mm (Standard 5mm B-B, No Heatsink)
- **BIOS** - Insyde H2O UEFI compliant, supporting Linux and Windows

Introduction and Overview

Ultra small size, high performance, low power quad 64-Bit "Jaguar" x86 cores, multiple high-speed serial interfaces, generous memory size, 10/100/1000 Ethernet and wide voltage input all combine to make the CSB1890T10-Kabini an excellent choice for size restricted, low power, ruggedized embedded applications. In addition, the powerful on-chip Radeon™ HD8330E GPU w/HW Video Decode allows the CSB1890T10-Kabini to excel at Digital Signage applications.

The CSB1890T10-Kabini fully complies with PICMG COM Express® Revision 2.1 for Type 10 Mini Modules. This allows the CSB1890T10-Kabini to be used in all industrial, military and medical applications that require adherence to the COM Express® industry standard. In addition, the use of open source Coreboot gives the CSB1890T10-Kabini the ability to boot any UEFI compliant operating system, including Microsoft Windows7/8, Windows Embedded and Linux.

Constructed using state of the art PCB layout and packaging technology such as: 1600Mhz DDR3 balanced routing; 5GHZ+ high-speed differential signaling; 18 Amp peak switching regulators; and 8-layer, low EMI, impedance controlled stackup, the CSB1890T10-Kabini gives you access to this technology without the learning curve or the risk. You can integrate the CSB1890T10-Kabini using a simple, low cost 4-layer PCB, in just weeks, not months! We can even do it for you through our custom design services group.



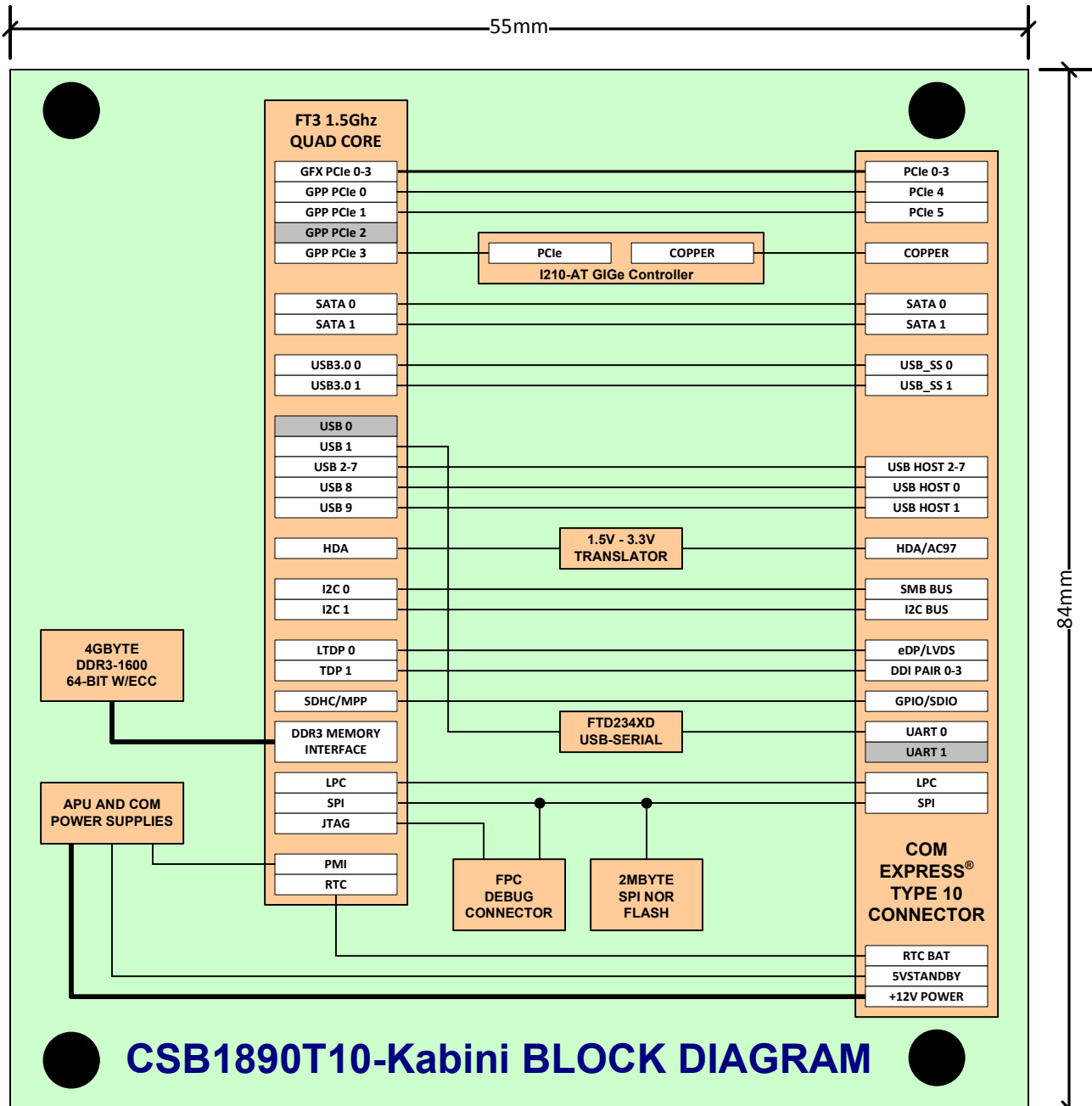
COGENT

"ALWAYS COMPLETE"

Cogent Computer Systems, Inc.

17 Industrial Drive, Smithfield RI 02917

tel: 401-349-3999, fax: 401-349-3998, web: www.cogcomp.com



Development Boards and I/O Expansion

The CSB1890T10-Kabini is fully compatible with the CSB1802 Development Platform. This Mini-ITX size platform provides a COM Express® Type 10 Socket, RS-232 COM Port; Gigabit Twisted-Pair Ethernet; Dual SATA Connectors, Two USB 2.0 only and Two USB 2.0/3.0 Host Connectors. This platform also provides one PCIe Slot (x4) and two Mini-PCIe Sockets (x1). The KIT1890T10 consists of the CSB1890T10-Kabini and the CSB1802 with 12V, 60W Desktop style Power Supply. Contact Cogent for pricing and availability.