µTCA Starter Kit

Fully Integrated MicroTCA Development Platform with pre-loaded bootable Linux

NEW

Features

- MIC-5602 Processor AMC with Intel® Core2 Duo Processor
- MIC-5401 SAS/SATA AMC with 80GB SATA Hard Drive
- UTCA-5503 MicroTCA Carrier Hub
- ELMA blu!eco 6-slot MicroTCA Carrier with 300W AC Power Supply

Introduction

The MicroTCA Starter Kit is a comprehensive and fully integrated system platform for the evaluation of MicroTCA technology and for application development. The system is preloaded with a bootable Linux distribution to provide an easy-to-use turnkey, out-of-the-box experience to the developer. The system is based on three Advantech AMC's: the MIC-5602 with Intel® Core2 Duo U7500 CPU and 1GB DDR2 memory, the MIC-5401 storage AMC with 80GB HDD and the UTCA-5503 MicroTCA Carrier Hub (MCH) pre-integrated and tested in an Elma Electronics blu!eco 6-slot MicroTCA system. The system incorporates a pluggable +12V / 300 W AC power supply and integrates IPMI for power switching, hot-swap functionality and fan control onto the backplane. The backplane is optimized for high-speed routing and provides a single-star topology to all slots, as well as integrated slot-to-slot links for SATA and PCI Express. One mid-size AMC slot and two full-size AMC slots are available for further expansion.

Specifications

MIC-5602 Processor AMC

Processor System	CPU	CPU Intel® Core™ 2 Duo ULV (U7500)
	Chipset	Intel 3100
	BIOS	Intel AMI (1. Dual images with update rollback, 2. CMOS settings can be changed over IPMI, and 3. CMOS backup works without battery)
Bus	Front Side Bus	400/533 MHz
	PCI Express	PCI Express rev1.0a : one x8 and two x4 routed to AMC connector
Memory	Technology	DDR2 400 with ECC
	Capacity	1GB (soldered on-board) Higher memory capacities are available on different models
Ethernet	Controller	Intel 82571EB dual-port Gigabit Ethernet controller (support 802.3d compliant link aggregation)
	Interface	One GbE accessible on front panel via RJ-45 and two SerDes links to AMC common options region ports 0 and 1
Mass Storage	CompactFlash	Optional expansion board with CF type-1 socket
	Onboard	1GB industrial grade internal flash disk (used as NV storage, emergency boot disk or diagnostics boot media)
SATA Interface	AMC edge connector	Two SATA interfaces to common ports region 2-3
	Other	One SATA routed to CF daughter board
Serial Interface	I/O	Routed to front panel as USB Slave interface through onboard USB to Serial converter
USB Interface	AMC Edge Connector	Two USB 2.0 ports connect to rear AMC edge connector
Watchdog Timer		AMC compliant watchdog
Hardware Monitor	Controller	IPMI v1.5 compatible MMC
Firmware	Source Code	Pigeon Point System-based
	Update Standard	HPM.1 compliant
Form Factor	AMC	Mid-size, single-width
	Interface	AMC.0 compliant

UTCA-5503 MicroTCA Carrier Hub (MCH)

Module	Single width, full-size form factor with single PCB. PICMG MTCA.0.R1.0 compliant
Carrier Management	Pigeon Point based MCMC with direct or switched management LAN. Update channel for failover. IMPB-L &IPMB-0 for complete carrier management.
Fabric Support	Layer 2 GbE switch for up to 12 AMC's on Common Options Fabric A
Front Panel	Two RJ-45 Gigabit Ethernet ports and one Console port on mini-usb

Specifications

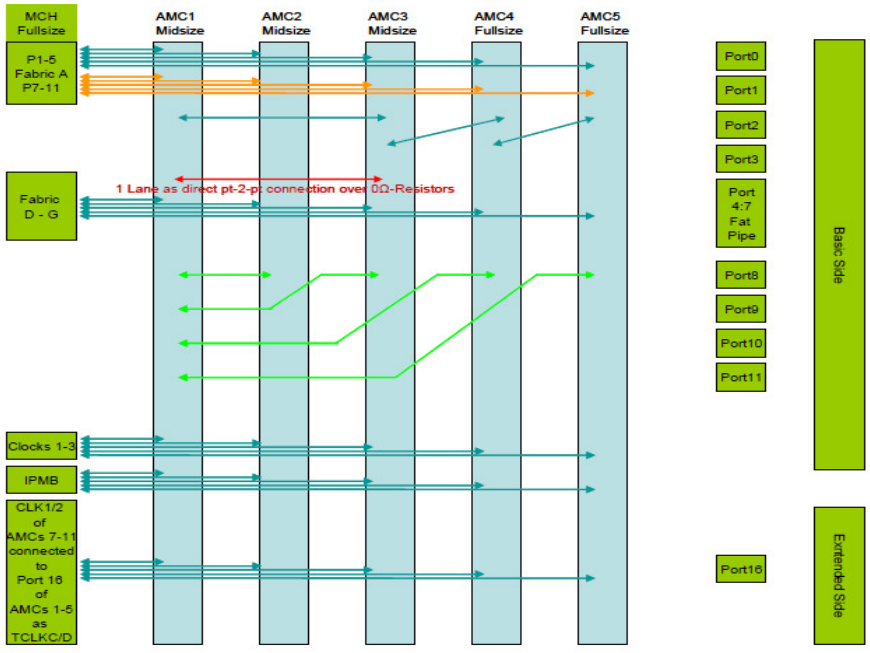
MIC-5401 SAS/SATA AMC

AMC Module	Single width, mid-size form factor (full-size front panel available as an option)
Storage Device	Starter Kit delivered with 80GB SATA Drive. (Also accepts 2.5" SAS or SATA hard disk drives, or 2.5" SATA SSD (solid state drive))
System Management	PICMG 3.0 R2.0, AMC.0 R2.0, and IPMI 1.5 compliant Redundant firmware images based on Pigeon Point Systems' solution supporting HPM.1 compliant upgrades and manual/automatic rollback
Monitor	Power on hour counter Voltage: 12 V, 5 V, and 3.3 V management power. Temperature: two on-board locations using LM75/DS75 sensors
Watchdog	AMC compliant watchdog

blu!eco Chassis

Module	Single width, full-size form factor with single PCB. PICMG MTCA.0.R1.0 compliant		
Backplane	Single-star supporting one MCH and up to 5 single-withmodules (2 full-size and 3 mid-size). See diagram below for fabric support.		
Cooling Unit	Integrated cooling with IPMI monitoring and control. Fan model: Sharkoon S1402515P-3		
Power	FNP300-1012G supports 100-240 VAC input, delivers one high current 12VDC, 25 ADC output, and one 12 VDC, 0.7 ADC. standby output. 3.3 VDC is generated through one DC-to-DC converter integrated on the backplane.		
Max Operating Temp	0°C to 55°C	Max Storage Temp	-40°C to 70°C
Recommended Operating Temp	20°C to 30°C	Recommended Storage Temp	0°C to 55°C
Dimensions	Height 134mm x Width 197mm x Depth 252mm		

Backplane Block Diagam Fabric and Interconnects



Ordering Information

Model number	**ODM-CPCI9001001E-ES**
Description	**MicroTCA Starter Kit including 6-slot blu!eco chassis with 300W AC power supply and cooling unit with MIC-5602 including Intel U7500 CPU and 1GB DDR2 memory with ECC, MIC-5401 with 80GB SATA HDD Linux pre-loaded and UTCA-5503 MCH with GbE Base Fabric switch plus MCMC.**

Notes: For detailed specifications and users manuals of MIC-5602, MIC-5401 and UTCA-5503, please visit our download site at the address in the page footer below. For detailed specifications and users manuals of the Elma blu!eco chassis please download from http://www.elma.com