6 Slot MicroTCA®
Starter Kit

APPLICATIONS

The SY AMC/235 is a MicroTCA® starter kit for use with single-width AdvancedMC™ (AMC) modules. This 6 slot system is configured to provide engineers with a practical, high performance, high quality development environment for MicroTCA applications. The chassis is a desk-mounting enclosure providing 5 vertically mounting AMC slots and an MCH slot on a MicroTCA backplane, with a 300W removable power supply.

To enable fast track development, the system comes pre-installed with a dual-core AMC SBC and a PCI Express® MicroTCA Carrier Hub. The AMC SBC comes with an 8 Gbyte Flash drive. For larger storage requirements an optional SATA mass storage drive is available. The system uses standard Concurrent Technologies products allowing easy progression from development to implementation.

HIGHLIGHTS

- MicroTCA® Starter Kit:
  - supports 6 single-width modules
  - supports PICMG® MicroTCA.0 1.0 and PICMG AMC.0
- MicroTCA Backplane provides 6 vertically mounted card slots:
  - 2 x single-width full-height AMC slots
  - 3 x single-width mid-height AMC slots
  - 1 MicroTCA Carrier Hub (MCH) slot
- Pre-installed system boards:
  - 1 x Intel® Core™ i7 AMC SBC with 8Gbytes Flash Drive Module
  - 1 x Mass Storage AMC (optional)
  - 1 x MicroTCA Carrier Hub
- Pre-installed system I/O features include:
  - 1 x RS232 port, 1 x USB 2.0 port
  - 1 x DisplayPort
  - 2 x Gigabit Ethernet Serdes ports (AMC.2)
  - 2 x Serial ATA interfaces (AMC.3)
  - x4 PCI Express® fabric ports (AMC.1), SBC via MCH
  - 3 x Ethernet ports (1 port via SBC and 2 ports via MCH)

- IPMI (Intelligent Platform Management Interface):
  - IPMI supported on backplane (AMC.0)
- Hot swap compliance (AMC.0)
- Pluggable power supply:
  - 300W
  - AC 100-240V, 50Hz to 60Hz input via standard IEC connector at front of unit
- Cooling system
- Carrier Manager firmware built-in
- System support for Linux®, Windows® Server 2003, Windows® XP, Windows® XP Embedded, Windows® 7, Windows® Embedded Standard 7, VXWorks® and QNX®

MicroTCA Starter Kit
- the MicroTCA® Starter Kit:
  - supports single-width AMC modules
  - supports PICMG® MicroTCA.0 1.0 and PICMG AMC.0
- MicroTCA Backplane provides 6 vertically mounted card slots:
  - 2 x single-width full-height slots
  - 3 x single-width mid-height slots
  - 1 x MicroTCA Carrier Hub (MCH) slot

Configuration
- pre-installed system boards:
  - 1 x AM 310/302, dual-core 2.2 GHz Intel® Core™ i7-2655LE AMC SBC
  - 1 x MT MCH/002, MicroTCA Carrier Hub
- optional Mass Storage AMC
  - 1 x AM 600/301, fitted with 2.5-inch SATA HDD
- available slots for AMC development:
  - 2 x single-width full-height slots
  - 2 x single-width mid-height slot (1x when fitted with the optional mass storage AMC)
- hot swap control (AMC.0)

AM 310/302 Processor AMC SBC
- single-width mid-height AMC module
- utilizing the dual-core 2.2 GHz Intel® Core™ i7-2655LE processor:
  - 1333 MHz memory bus
  - 4 Mbytes last level cache
- 4 Gbytes soldered DDR3-1333 ECC DRAM
- 8 Gbytes Flash drive module
- x4 PCI Express® fabric connection:
  - AMC.1 Type 4
  - Gen 1 and Gen 2
  - transfer rate up to 4 Gbytes/s
- 2 x SATA300 channel:
  - AMC.3 Type S2
- 2 x Gigabit Ethernet channels:
  - AMC.2 Type E2
  - supports Serdes type 1000Base-BX via AMC connector
- front panel interfaces:
  - 1 x RS232 channel
  - 1 x USB 2.0 interface
  - 1 x Gigabit Ethernet port
  - 1 x DisplayPort (VGA via adaptor*)
- Watchdog timer and Long Duration Timer
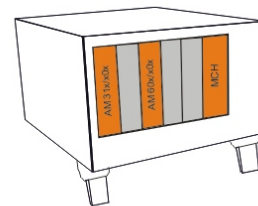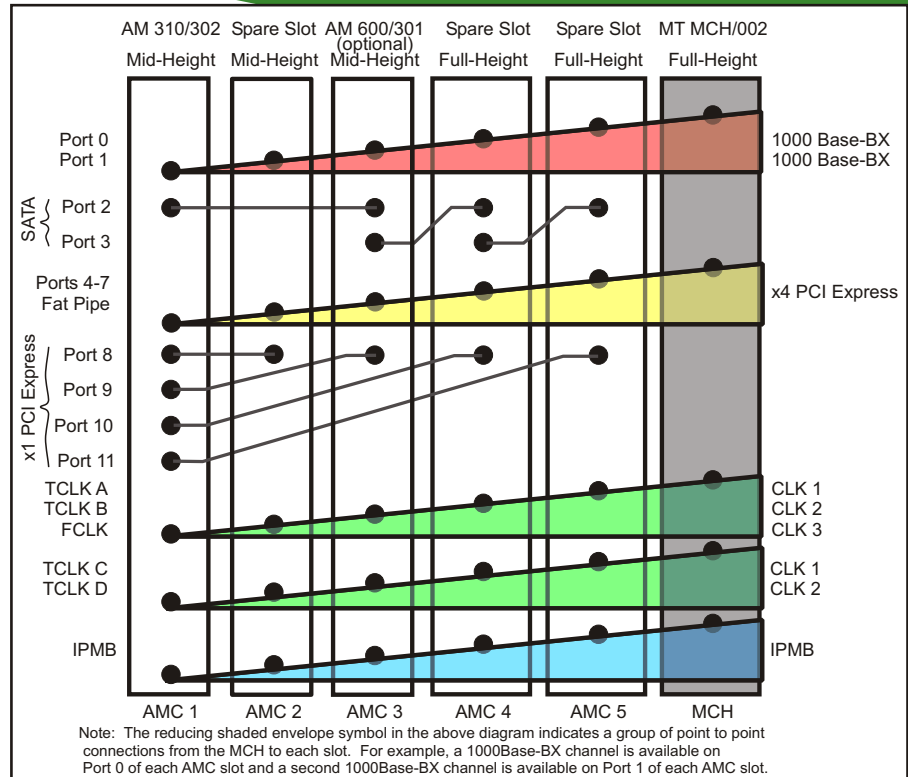- IPMI version 1.5 according to AMC.0

AM 600/301 Mass-Storage AMC (optional)
- single-width mid-height AMC module
- fitted with 2.5-inch SATA HDD
- SATA300 interface:
  - AMC.3 Type S2
  - transfer rate up to 300 Mbytes/s
  - 1 x SATA connection on AMC Port 2
- IPMI version 1.5 according to AMC.0

Software Support
- support for Linux®, Windows® Server 2003, Windows® XP, Windows® XP Embedded, Windows® 7, Windows® Embedded Standard 7, VXWorks® and QNX®
- starter kit supplied without operating system

  * This DisplayPort only supports conversion to VGA output, it does not support conversion to DVI output

Note: The reducing shaded envelope symbol in the above diagram indicates a group of point to point connections from the MCH to each slot. For example, a 1000Base-BX channel is available on Port 0 of each AMC slot and a second 1000Base-BX channel is available on Port 1 of each AMC slot.

AM 31x/x0x = CCT Processor Card
AM 60x/x0x = CCT Storage
MCH = AMC Controller Hub

Fitted at factory
Available for Customer use

MT MCH/002 MicroTCA Carrier Hub
- MicroTCA Carrier Management Controller (MCMC):
  - supports up to 5 AMCs, 1 cooling unit and 1 power module
  - IPMI Version 1.5 (AMC.0)
- 2 x front panel Gigabit Ethernet ports:
  - 1 x Gigabit Ethernet upload port
  - 1 x Gigabit Ethernet upload port or MCH management port
- base fabric 6-port unmanaged Gigabit Ethernet switch (AMC.2)
- PCI Express switch (AMC.1) providing switching for six x4 PCI Express links
- clock distribution module supporting:
  - telecom clock from internal or external source
- Carrier Manager firmware built-in

Power Supply
- removable Power Supply Unit:
  - +12V output
  - rated power 300 Watt
  - AC 100-240V, 50Hz to 60Hz input

Safety
- PCBs (PWB) manufactured with flammability rating of 94V-0
- CE mark

Environmental Specification
- operating temperatures:
  - +5°C to +40°C (operating)
  - -25°C to +65°C (storage)
- Relative Humidity, non-condensing:
  - 10% to 85% (operating)
  - 5% to 85% (storage)

Mechanical Specification
- chassis weight including AMC modules is 4.7Kg (10.3 pounds)
- chassis dimensions:
  - w 197mm (7.8 inch) x d 252mm (9.9 inch) x h 158mm (6.2 inch) - with legs folded h 202mm (8.0 inches) - with legs extended

ORDERING INFORMATION

Order Number	Product Description (Hardware)
SY AMC/235-10	MicroTCA Starter Kit with 4 free AMC (2 mid-height and 2 full-height) slots, including MicroTCA Carrier Hub and 2.2 GHz Core i7 SBC AMC
SY AMC/235-15	MicroTCA Starter Kit with 3 free AMC (1 mid-height and 2 full-height) slots, including MicroTCA Carrier Hub, 2.2 GHz Core i7 SBC AMC and SATA Mass Storage AMC

For further information please contact your local Concurrent Technologies sales office
For Concurrent Technologies' range of AMC modules, please contact your local sales office or visit their website www.gocct.com