

#### MITYSOM-AM57(F): DSP + ARM + FPGA SYSTEM ON MODULE

The MitySOM-AM57F features a Texas Instruments AM57xx series 1.5 GHz Sitara Processor tightly integrated with the optional Xilinx Artix-7 Field Programmable Gate Array (FPGA), NOR FLASH, and DDR3 RAM memory subsystems. The design is highly configurable and allows end-users the capability to develop programs/logic images for all of the compute elements on the TI AM57xx as well as for the FPGA.

- PRODUCTION READY, INDUSTRIAL PERFORMANCE SOM
- MINIMIZE RISK AND DEVELOPMENT TIME
- MAXIMIZE YOUR RESOURCES

# A FULLY INTEGRATED SYSTEM ON MODULE BUILT FOR ———— INDUSTRIAL APPLICATIONS:

- Texas Instruments Sitara
   AM572x or AM574x
- 1.5GHz Dual Cortex-A15 ARM
- Dual C66x floating-point DSPs
- Xilinx Artix-7 FPGA, 15 or 50KLE
- Commercial and industrial temp options

#### **FEATURES**

#### TI AM572X/AM574X SITARA PROCESSOR

#### 1.5 GHz Dual ARM Cortex-A15

- ARM Neon and HW floating point
- 32 KB L1 Program/Data Cache
- 2 MB L2 cache

#### Up to 2 C66x floating-point DSPs

- 750 MHz operation
- 32 KB L1 Program/Data Cache
- 288 KB Internal SRAM

#### Hardware Acceleration

- Dual-core Power VR SGX544 3D GPU
- H.264 Video Encode/Decode
- Up to 4 Embedded Vision Engines
- 2x dual ARM Cortex-M4 coprocessors
- 2x dual-core PRUs
- Crypto Hardware accelerators

### ON-BOARD XILINX ARTIX-7 FPGA (OPTIONAL)

- Up to XC7A50T
- PCle Gen 2 x 2 Interface to AM57x
- 2 Transceivers available for external IO

#### UP TO 4 GB DDR3 RAM ON DUAL BANKS

#### UP TO 32 MB QSPI BASED NOR FLASH

#### INTEGRATED POWER MANAGEMENT

#### DUAL EDGE AND BOARD TO BOARD CONNECTORS

#### 96 FPGA I/O Pins 223 AM57xx Multiplexed IO's

- 2x 10/100/1000 EMAC / MDIO
- 2x 10/100 EMAC supporting EtherCAT
- McASP (audio) interface
- Camera/Video Input
- 2x MMC/SD
- SATA-2 (6 Gbps)
- HDMI 1.4a Output
- 3x I2C, 3x UART, > 50 GPIO

1x USB 2.0 dual-role 1x USB 3.0 dual-role





## PRODUCTION-READY **SOLUTION** FOR **BROAD MARKET APPLICATIONS**:

- Industrial Automation
- Industrial Communication
- Embedded Instrumentation
- Human Machine Interface
- Test & Measurement
- Machine Vision
- Medical Imaging
- Digital Signage
- Software Defined Radio

#### **DEVELOPMENT KIT FEATURES**

- FMC Connector
- 4 ethernet ports (dual Gigabit + dual 10/100)
- Wifi / BT Option
- MicroSD & SATA
- Audio in/out
- USB-C, 4x USB 2
- Industrial protocol support



#### MitySOM-AM57(F) Development Kit HDMI Mic. In Audio EEPROM FMC CODEC Stereo Out Expansion Header SATA MitySOM-AM57(F) MicroSD Card WiFi/ Bluetooth WiLink Connector I2C Power 10/100 10/100 1Gb USB 2.0 USB 2.0 +12VDC Ethernet Ethernet Ethernet Ethernet To +5V PHY 1 PHY 2 PHY 1 PHY 2 4x USB 2.0 Micro-USB USB-C Dual +12VDC

#### THE MITYSOM-AM57(F) DEVELOPMENT KIT

The MitySOM-AM57(F) Development Kit provides all the necessary hardware and software to begin product development immediately, including a base board reference design, Linux development environment, sample applications, and a design guide for customizing the base board for your specific requirements.

Developers can also work with Critical Link engineers to handle any customizations. Full technical documentation and wiki-based support for the MitySOM-AM57(F), and other members of the Critical Link SOM family, are available at www.CriticalLink.com.







Contact Us: 6712 Brooklawn Parkway Syracuse NY 13211 315.425.4045 info@CriticalLink.com