

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**
 - Power VR SGX544 3D GPU
 - H.264 Video Encode/Decode
 - Up to 4 Embedded Vision Engines
 - 2x dual ARM Cortex-M4 co-processors
 - 2x dual-core PRUs
 - Crypto Hardware accelerators
- 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
 - **253 AM57xx Multiplexed IO's**
 - 2x 10/100/1000 EMAC / MDIO
 - 2x 10/100 EMAC supporting EtherCAT
 - McASP (audio) interface
 - 2x MMC/SD
 - 3x I2C, 3x UART
 - 2x Camera/Video Input
 - 3x Display Parallel Interfaces
 - 1x USB 2.0 dual-role
 - 1x USB 3.0 dual-role
 - SATA-2 (6 Gbps)
 - HDMI 1.4a Output



APPLICATIONS

- Embedded Instrumentation
- Factory Automation
- Industrial Communication
- Grid Infrastructure
- Industrial Drives
- Medical Instrumentation
- Embedded Control Processing
- Network Enabled Data Acquisition
- Test and Measurement
- Software Defined Radio
- Power Protection Systems
- Embedded Cameras
- Smart Vision Systems

BENEFITS

- Rapid Development / Deployment
- Multiple Connectivity and Interface Options
- Rich User Interfaces
- High System Integration
- Fixed & Floating Point Operations
- High-Level OS Support
 - Linux
 - Android
- Embedded Digital Signal Processing

DESCRIPTION

The MitySOM-AM57 is a highly configurable, very small form-factor processor card that features a Texas Instruments AM57xx series 1.5 GHz Sitara Processor tightly integrated with NOR FLASH and DDR3 RAM memory subsystems. The design of the MitySOM-AM57 allows end-users the capability to develop programs/logic images for all of the compute elements on the AM57xx. The MitySOM-AM57 provides a complete and flexible digital processing infrastructure necessary for the most demanding embedded applications development.

The onboard processor provides a dual CPU core topology. The Sitara AM57xx processor family includes a dual ARM Cortex-A15 microprocessor unit (MPU) subsystem capable of running the rich software applications programmer interfaces (APIs) expected by modern system designers. The ARM architecture

supports several operating systems, including Linux and Android. In addition to the MPU, the AM57xx also includes up to two DSP C66x floating-point digital signal processing (DSP) cores. The DSP cores support the freely provided TI SYSBIOS real-time kernel. Users can leverage the DSP to execute real-time compute algorithms (codecs, image/data processing, compression techniques, filtering, etc.).

For additional acceleration, the AM5xx provides 2 Programmable Real-Time Unit Subsystem and Industrial Communication Subsystem (PRU-ICSS) processing modules, and options are available for up to 4 Embedded Vision Engines (EVE), programmable image and vision processing engines. Two dual ARM Cortex-M4 co-processors are also available.

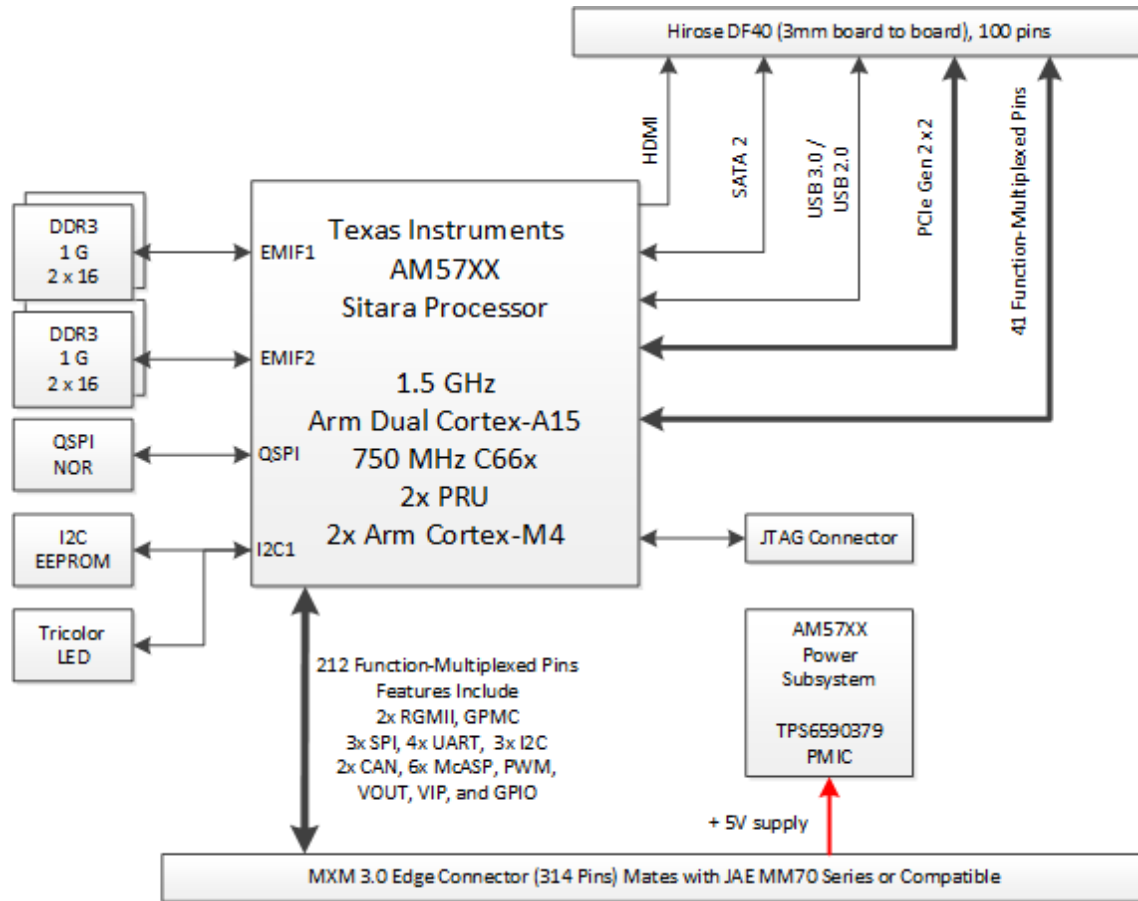


Figure 1 MitySOM-AM57 Block Diagram

Figure 1 provides a top-level block diagram of the MitySOM-AM57 processor card. As shown in the figure, there are two main interfaces to the module: a 314 pin Mobile PCI Express Module (MXM) style card-edge connector (J1), with 310 positions utilized, and a 100 pin Hirose DF40 series board-to-board connector (J3). The MXM card-edge connector interface provides power, 212 function multiplex pins from the Sitara processor (supporting 2x RGMII Ethernet MACs, 2x MII Ethercat master or slave interfaces, multiple I2C, UART, digital audio and SPI peripherals as well as standard GPIO). The Hirose connector provides a high-speed interface for the AM57xx HDMI, SATA, USB 3.0, PCIe interfaces, and up to 41 function multiplex pins.

AM57xx DDR3 Memory Interface

The AM57xx processor includes two dedicated 32-bit DDR3 1066 SDRAM external memory interfaces (EMIF) shared between the onboard ARM, DSP, and hardware acceleration modules. Each bank is

configured with up to 2 GB of DDR3, resulting in 4 GB available memory for the processor subsystem. Each bank is capable of burst bandwidths up to 4,264 MB/sec.

AM57xx QSPI NOR FLASH Interface

The MitySOM-AM57 includes up to 32 MB of Quad-SPI NOR FLASH. This FLASH memory is intended to store a factory provided bootloader, and typically a compressed image of a Linux kernel for the ARM core processor if alternate boot media such as Micro-SD card or eMMC is not available.

AM57xx Video Interfaces

The AM57xx includes a dedicated HDMI 1.4a output interface and up to 3 Display Parallel Interface (DPI) Video Output Ports as indicated in the Multifunction IO pins in the interfaces section. The AM57xx provides 2 Video Input Ports.

AM57xx USB Interfaces

The AM57xx processor includes provisions for one USB 3.0 SuperSpeed (SS) dual-role and a second USB 2.0 dual-role device. Both of these interfaces have been routed to the external interface connectors (USB 3.0 on J3, USB 2.0 on J1) for connection to a carrier card. The USB 3.0 SS TX data lanes have been AC coupled on the SOM with 0.1uF ceramic decoupling capacitors.

The USB_VBUS (pin 240 J1) signal is connected to a comparator on the SOM's TPS6590379 VBUS pin. When USB_VBUS is greater than 2.9V, its VBUSDET signal will go high which is connected to GPIO4_22 on the SOM. This is used by the USB driver to detect USB insertion and enable/disable USBx_DRVVBUS. If not used, this pin should be pulled to ground.

AM57xx SATA Interface

The AM57xx processor includes a physical interface and driver for a SATA-II data channel interface. The signals for this interface have been routed to the J3 connector. These signals have been AC coupled using a 0.01uF ceramic capacitor.

AM57xx PCIe Interface

The AM57xx processor includes a peripheral component interconnect express interface which supports connecting to PCIe-compliant devices. Two PCIe lanes are available and both are routed to the J3 connector. The PCIe interface supports both Gen-II (5 Gbps per lane) and Gen-I (2.5 Gbps per lane) and can be configured with either 2 ports x 1 lane or 1 port x 2 lanes.

AM57xx Multifunction Input/Output (MFIO) Interfaces

The MitySOM-AM57 routes more than 200 multifunction IO pins from the AM57x to the external J1 or J3 connectors on the module for customer use. All of the pins operate on a 1.8V voltage domain excluding the mmc1 pins (vddshv8/LDO1) which default to 3.3V. The specific connection and available functions are included in the connector descriptions in the following sections. Functions supported include:

- Up to 10 UARTS
- Up to 3 SPI busses
- Up to 1 McASP port with up to 7 data lanes
- Up to 2 DCAN busses
- Up to 2 RGMII busses
- Up to 2 additional MII busses supporting Ethercat master and slave
- Up to 4 I2C busses
- Up to 3 MMC/SD IO interfaces

The MitySOM-AM57 does use some AM57xx multi-function pins as dedicated functions on the SOM, including:

- UART3 (balls D27, C28) as a dedicated console port
- I2C1 (balls C20, C21) used to communicate to the following peripherals:
 - Factory configuration EEPROM (24AA32AFT, Address 7b1010xxx)

- RGB LED controller (TCA6507RUEP, Address 7b1000101)
- Power Management IC (TPS6590379ZWST, Address 7b10010xx)
- GPIO1[0] (ball AD17) used for PMIC interrupts
- GPIO4[22] (ball C11) used for VBUS_DET signal from PMIC
- GPIO7[11] (ball A22) used to control DDR VTT termination
- QSPI (balls P2, R2, P3, R3, U1, U2, and T2) to support up to 32MB of bootable QSPI NOR

AM57xx Boot Media Mode

The MitySOM-AM57 can be configured to boot using 2 different boot sequences according to the AM57_BOOT_MODE pin (J3 - Pin 74). The pin is pulled up to +1.8V on the SOM and results in the default boot mode being the “high” mode shown below. If the “low” mode is desired this signal should be pulled to GND on the carrier board.

- The boot sequence when AM57_BOOT_MODE **high** is:
 - SD card (MMC1 - Table 1)
 - eMMC (MMC2 - Table 2)
 - HS USB 2.0 (USB1 - Table 3)
- The boot sequence when AM57_BOOT_MODE **low** is:
 - On SOM Quad SPI NOR (QSPI1 - Table 4)
 - SD card (MMC1 - Table 1)
 - HS USB 2.0 (USB1 - Table 3)

Table 1: SD Card (MMC1) Boot Mode Signals

| Interface Signal | AM57xx Ball | MitySOM-AM57 Pin |
|------------------|-------------|------------------|
| mmc1_clk | W6 | J1 – Pin 165 |
| mmc1_cmd | Y6 | J1 – Pin 167 |
| mmc1_dat0 | AA6 | J1 – Pin 175 |
| mmc1_dat1 | Y4 | J1 – Pin 173 |
| mmc1_dat2 | AA5 | J1 – Pin 171 |
| mmc1_dat3 | Y3 | J1 – Pin 169 |

Table 2: eMMC (MMC2) Boot Mode Signals

| Interface Signal | AM57xx Ball | MitySOM-AM57 Pin |
|------------------|-------------|------------------|
| mmc2_clk | J7 | J1 – Pin 135 |
| mmc2_cmd | H6 | J1 – Pin 137 |
| mmc2_dat0 | J4 | J1 – Pin 139 |
| mmc2_dat1 | J6 | J1 – Pin 141 |
| mmc2_dat2 | H4 | J1 – Pin 143 |
| mmc2_dat3 | H5 | J1 – Pin 145 |
| mmc2_dat4 | K7 | J1 – Pin 147 |
| mmc2_dat5 | M7 | J1 – Pin 149 |
| mmc2_dat6 | J5 | J1 – Pin 151 |
| mmc2_dat7 | K6 | J1 – Pin 153 |

Table 3: HS USB 2.0 (USB1) Boot Mode Signals

| Interface Signal | AM57xx Ball | MitySOM-AM57 Pin |
|------------------|-------------|------------------|
| usb1_dp | AC12 | J3 – Pin 45 |
| usb1_dm | AD12 | J3 – Pin 43 |

Table 4: On-SOM QSPI NOR (QSPI1) Boot Mode Signals

| Interface Signal | AM57xx Ball | MitySOM-AM57 Pin |
|------------------|-------------|------------------|
| qspi1_rtclk | R3 | N/A |
| qspi1_sclk | R2 | N/A |
| qspi1_cs0 | P2 | N/A |
| qspi1_d0 | U1 | N/A |
| qspi1_d1 | P3 | N/A |
| qspi1_d2 | U2 | N/A |
| qspi1_d3 | T2 | N/A |

AM57xx Secure Boot Features

Secure boot features are available with MitySOM-AM57 modules that feature the AM5748 and AM5749 processors. Please contact your Critical Link sales representative for additional details if you require this feature.

Power Interface

The MitySOM-AM57 is powered via a +5.0V external supply on the VDD_5V0 pins and via the VCCO_34_EXT and VCCO_15_EXT pins.

The MitySOM-AM57 leverages a TPS659037 power management IC for managing the power sequencing/monitoring of the AM57xx. The PMIC will automatically power on when power is applied and the U-boot initialization code will set DEV_CTRL.DEV_ON to 1 to keep the PMIC powered on. This allows the software to power off the SOM at the end of power down by setting this bit to 0. The PMIC_POWERHOLD signal (PMIC ball G9), which is available external to the module at J1 Pin E3-7 should be left floating in this scenario.

Alternatively, control of the module's power state, on/off, from the baseboard can be accomplished with the PMIC_POWERHOLD signal, PMIC ball G9, which is available external to the module at J1 Pin E3-7. Driving this signal high allows the module to stay on and pulling this signal low will cause the PMIC to begin its sequential power down process. Note this does not allow the OS to power down safely, it needs to be told to shut down separately and shutdown needs to complete before this signal goes low. Additional supply management is performed on board to support the proper powering of the on-board DDR3.

Debug LEDs

There are 3 debug LEDs on the MitySOM-AM57 module. Two are an on/off status LED tied to a specific condition and the other is controlled by software through the LED controller, TCA6507RUEP, on the I2C1 interface.

Power Debug LED

D2 (POK) indicates that the module power sequence has completed successfully by lighting this yellow LED. The LED is enabled from the "PMIC_POWERGOOD" output which is also exposed at the card-edge connector pin E3-6 of the module.

I2C Controllable LED

D1 is an RGB LED that is software controllable by the TCA6507RUEP connected to the I2C1 interface of the AM57xx processor.

Green – U-boot turns on this LED when its loaded then off when it finishes.

Blue – The Kernel uses this LED to indicate SD card (mmc0) activity.

Software and Application Development Support

Users of the MitySOM-AM57 are encouraged to develop applications and firmware using the hardware and software development kit provided by Critical Link. The development kit includes a board support package providing a Linux based distribution and compatible GCC compiler toolchain with debugger based on the TI Linux Software Development Kit. In addition, the development kit includes support libraries necessary to program the DSP core using the TI Code Composer Studio DSP compiler toolchain.

Growth Options

The MitySOM-AM57 has been designed to support several options to provide customers with the ability to develop cost-optimize solutions for production volumes based on their project technical needs. These options include various processor options, memory configurations, and operating temperature specifications including commercial and industrial temperature ranges. The available options are listed in the section below, containing ordering information. For additional ordering information and details regarding these options, or to inquire about a particular configuration not listed below, please contact Critical Link at info@criticallink.com.

ABSOLUTE MAXIMUM RATINGS

| | |
|-----------------------------|---------------|
| Maximum Supply Voltage, Vcc | 5.5 V |
| Storage Temperature Range | -65°C to 80°C |
| Shock, Z-Axis | ±10 g |
| Shock, X/Y-Axis | ±10 g |

OPERATING CONDITIONS

| | |
|--------------------------------------|-----------------------------------|
| Ambient Temperature Range Commercial | 0°C to 70°C |
| Ambient Temperature Range Industrial | -40°C to 85°C |
| Humidity | 0 to 95% Non-condensing |
| MIL-STD-810F | Contact Critical Link for Details |

The following are the minimum temperature ratings for the components that are installed on a MitySOM-AM57. For specifications not contained in this table please contact a Critical Link sales representative. Please see the Thermal Management section below for additional information.

Table 5: Module Component Temperature Rating (minimum)

| Temperature Range Description | Component Ratings (minimum) |
|-------------------------------|-----------------------------|
| Commercial (-RC model number) | 0°C to 70°C |
| Industrial (-RI model number) | -40°C to 85°C |

Thermal Management

The MitySOM-AM57 module requires consideration of thermal management depending on processor selection, loading, and other considerations. Thermal management is a system-level issue that must be addressed in conjunction with the overall system design. Every end product is different and it is advisable to perform thorough testing to ensure that the product will meet desired performance and longevity specifications.

Critical Link has developed a sample heat-spreader that is compatible with the MitySOM-AM57. Please contact your Critical Link representative for further details and ordering information.

Card-Edge Interface Description (J1)

The first interface connector for the MitySOM-AM57 is the MXM style 314 pin card-edge interface with 310 positions utilized. The Keys are shown in the numbering but no actual pins exist. The connector interface uses 310-pins counted as follows: 281 total “pins”, minus 7 for the “keys”, plus 36 for the E1, E2, E3, and E4 pin-groups as four of these are no connects “NC”. This allows the module to be compatible with either 314 or 310 loaded position MXM connectors.

The interface contains 4 types of signals:

- Power input and ground/return (PWR / GND)
- Multi-function signals mapped to the AM57XX device (MFIO)
- Module fixed-function pins (FF)
- Dedicated signals mapped to the Power Management IC (PMIO)

Table 6 contains a summary of the MitySOM-AM57 MXM card-edge interface pin mapping which includes:

- Connector pin assignment
- Voltage domains
- AM57XX ball for direct connect pins
- Signal Options / name for each pin

Card-Edge Mating Connector

The MitySOM-AM57 module mates with two connectors, J1 & J3, which contain the power and I/O connections for the module. The primary connector is J1 which is the card-edge interface based on the MXM connector standard.

Due to the secondary connector, J3, being a 3.0mm board to board height connector the primary connector must result in a similar board height. Critical Link recommends that a 3.0mm board height MXM connector be used, such as the JAE MM70-314-310B series, however other connectors may be used as long as the board to board height is +/- 10%; 2.7mm to 3.3mm.

Table 6 J1 Pin-Out

| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 1 | NC | - | - | | | | | | | | | | | | | |
| 2 | NC | - | - | | | | | | | | | | | | | |
| 3 | NC | - | - | | | | | | | | | | | | | |
| 4 | NC | - | - | | | | | | | | | | | | | |
| 5 | NC | - | - | | | | | | | | | | | | | |
| 6 | NC | - | - | | | | | | | | | | | | | |
| 7 | NC | - | - | | | | | | | | | | | | | |
| 8 | GND | - | - | GND | | | | | | | | | | | | |
| 9 | NC | - | - | | | | | | | | | | | | | |
| 10 | NC | - | - | | | | | | | | | | | | | |
| 11 | NC | - | - | | | | | | | | | | | | | |
| 12 | NC | - | - | | | | | | | | | | | | | |
| 13 | GND | - | - | GND | | | | | | | | | | | | |
| 14 | NC | - | - | | | | | | | | | | | | | |
| 15 | NC | - | - | | | | | | | | | | | | | |
| 16 | NC | - | - | | | | | | | | | | | | | |
| 17 | NC | - | - | | | | | | | | | | | | | |
| 18 | NC | - | - | | | | | | | | | | | | | |
| 19 | NC | - | - | | | | | | | | | | | | | |
| 20 | NC | - | - | | | | | | | | | | | | | |
| 21 | NC | - | - | | | | | | | | | | | | | |
| 22 | NC | - | - | | | | | | | | | | | | | |
| 23 | NC | - | - | | | | | | | | | | | | | |
| 24 | NC | - | - | | | | | | | | | | | | | |
| 25 | NC | - | - | | | | | | | | | | | | | |

| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------------|---------------------|-------------------------------------|--------------------|-----------------|--------------------|------------------|------------------|------------------|
| 26 | GND | - | - | GND | | | | | | | | | | | | |
| 27 | NC | - | - | | | | | | | | | | | | | |
| 28 | NC | - | - | | | | | | | | | | | | | |
| 29 | NC | - | - | | | | | | | | | | | | | |
| 30 | NC | - | - | | | | | | | | | | | | | |
| 31 | GND | - | - | GND | | | | | | | | | | | | |
| 32 | NC | - | - | | | | | | | | | | | | | |
| 33 | NC | - | - | | | | | | | | | | | | | |
| 34 | NC | - | - | | | | | | | | | | | | | |
| 35 | NC | - | - | | | | | | | | | | | | | |
| 36 | MFIO | 1.8 | E9 | vout1_d4 | emu6 | vin4a_d20 | vin3a_d20 | obs2 | obs18 | pr1_ecap0_e cap_capin_a pwm_o | pr2_pru0_gpi1 | pr2_pru0_gpo1 | gpio8_4 | | | |
| 37 | NC | - | - | | | | | | | | | | | | | |
| 38 | MFIO | 1.8 | F9 | vout1_d5 | emu7 | vin4a_d21 | vin3a_d21 | obs3 | obs19 | pr2_edc_late h0_in | pr2_pru0_gpi2 | pr2_pru0_gpo2 | gpio8_5 | | | |
| 39 | NC | - | - | | | | | | | | | | | | | |
| 40 | MFIO | 1.8 | F8 | vout1_d6 | emu8 | vin4a_d22 | vin3a_d22 | obs4 | obs20 | pr2_edc_late h1_in | pr2_pru0_gpi3 | pr2_pru0_gpo3 | gpio8_6 | | | |
| 41 | MFIO | 1.8 | F11 | vout1_d0 | uart5_rxd | vin4a_d16 | vin3a_d16 | spi3_cs2 | pr1_uart0_cts_ n | pr2_pru1_gpi 18 | pr2_pru1_gpo1 8 | gpio8_0 | | | | |
| 42 | MFIO | 1.8 | E7 | vout1_d7 | emu9 | vin4a_d23 | vin3a_d23 | pr2_edc_syn c0_out | pr2_pru0_gpi4 | pr2_pru0_gp o4 | gpio8_7 | | | | | |
| 43 | MFIO | 1.8 | G10 | vout1_d1 | uart5_bxd | vin4a_d17 | vin3a_d17 | pr1_uart0_rts_ n | pr2_pru1_gpi1 9 | pr2_pru1_gp o19 | gpio8_1 | | | | | |
| 44 | GND | - | - | GND | | | | | | | | | | | | |
| 45 | MFIO | 1.8 | F10 | vout1_d2 | emu2 | vin4a_d18 | vin3a_d18 | obs0 | obs16 | obs_irq1 | pr1_uart0_rxd | pr2_pru1_gpi20 | pr2_pru1_gpo2 0 | gpio8_2 | | |
| 46 | MFIO | 1.8 | A5 | vout1_d12 | emu11 | vin4a_d12 | vin3a_d12 | obs7 | obs23 | pr2_uart0_rts_ n | pr2_pru0_gpi9 | pr2_pru0_gpo9 | gpio8_12 | | | |
| 47 | MFIO | 1.8 | G11 | vout1_d3 | emu5 | vin4a_d19 | vin3a_d19 | obs1 | obs17 | obs_dmarq1 | pr1_uart0_txd | pr2_pru0_gpi0 | pr2_pru0_gpo0 | gpio8_3 | | |
| 48 | MFIO | 1.8 | C6 | vout1_d13 | emu12 | vin4a_d13 | vin3a_d13 | obs8 | obs24 | pr2_uart0_rx d | pr2_pru0_gpi1 0 | pr2_pru0_gpo10 | gpio8_13 | | | |
| 49 | GND | - | - | GND | | | | | | | | | | | | |
| 50 | MFIO | 1.8 | C8 | vout1_d14 | emu13 | vin4a_d14 | vin3a_d14 | obs9 | obs25 | pr2_uart0_tx d | pr2_pru0_gpi1 1 | pr2_pru0_gpo11 | gpio8_14 | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------------|------------------------|-------------------------------------|------------------------|-----------------|--------------------|------------------|------------------|------------------|
| 51 | MFIO | 1.8 | E8 | vout1_d8 | uart6_rxd | vin4a_d8 | vin3a_d8 | pr2_edc_syn c1_out | pr2_pru0_gpi5 | pr2_pru0_gp o5 | gpio8_8 | | | | | |
| 52 | MFIO | 1.8 | C7 | vout1_d15 | emu14 | vin4a_d15 | vin3a_d15 | obs10 | obs26 | pr2_ecap0_e cap_capin_a pwm_o | pr2_pru0_gpi1 2 | pr2_pru0_gpo12 | gpio8_15 | | | |
| 53 | MFIO | 1.8 | D9 | vout1_d9 | uart6_txd | vin4a_d9 | vin3a_d9 | pr2_edio_late h_in | pr2_pru0_gpi6 | pr2_pru0_gp o6 | gpio8_9 | | | | | |
| 54 | MFIO | 1.8 | C9 | vout1_d20 | emu16 | vin4a_d4 | vin3a_d4 | obs13 | obs29 | pr2_edio_dat a_in4 | pr2_edio_data_ out4 | pr2_pru0_gpi17 | pr2_pru0_gpo1 7 | gpio8_20 | | |
| 55 | MFIO | 1.8 | D7 | vout1_d10 | emu3 | vin4a_d10 | vin3a_d10 | obs5 | obs21 | obs_irq2 | pr2_edio_sof | pr2_pru0_gpi7 | pr2_pru0_gpo7 | gpio8_10 | | |
| 56 | MFIO | 1.8 | A9 | vout1_d21 | emu17 | vin4a_d5 | vin3a_d5 | obs14 | obs30 | pr2_edio_dat a_in5 | pr2_edio_data_ out5 | pr2_pru0_gpi18 | pr2_pru0_gpo1 8 | gpio8_21 | | |
| 57 | MFIO | 1.8 | D8 | vout1_d11 | emu10 | vin4a_d11 | vin3a_d11 | obs6 | obs22 | obs_dmarq2 | pr2_uart0_cts_ n | pr2_pru0_gpi8 | pr2_pru0_gpo8 | gpio8_11 | | |
| 58 | MFIO | 1.8 | B9 | vout1_d22 | emu18 | vin4a_d6 | vin3a_d6 | obs15 | obs31 | pr2_edio_dat a_in6 | pr2_edio_data_ out6 | pr2_pru0_gpi19 | pr2_pru0_gpo1 9 | gpio8_22 | | |
| 59 | MFIO | 1.8 | B7 | vout1_d16 | uart7_rxd | vin4a_d0 | vin3a_d0 | pr2_edio_dat a_in0 | pr2_edio_data_ out0 | pr2_pru0_gpi 13 | pr2_pru0_gpo1 3 | gpio8_16 | | | | |
| 60 | MFIO | 1.8 | A10 | vout1_d23 | emu19 | vin4a_d7 | vin3a_d7 | spi3_cs3 | pr2_edio_data_ in7 | pr2_edio_dat a_out7 | pr2_pru0_gpi2 0 | pr2_pru0_gpo20 | gpio8_23 | | | |
| 61 | MFIO | 1.8 | B8 | vout1_d17 | uart7_txd | vin4a_d1 | vin3a_d1 | pr2_edio_dat a_in1 | pr2_edio_data_ out1 | pr2_pru0_gpi 14 | pr2_pru0_gpo1 4 | gpio8_17 | | | | |
| 62 | GND | - | - | GND | | | | | | | | | | | | |
| 63 | MFIO | 1.8 | A7 | vout1_d18 | emu4 | vin4a_d2 | vin3a_d2 | obs11 | obs27 | pr2_edio_dat a_in2 | pr2_edio_data_ out2 | pr2_pru0_gpi15 | pr2_pru0_gpo1 5 | gpio8_18 | | |
| 64 | MFIO | 1.8 | B11 | vout1_fld | vin4a_clk0 | vin3a_clk0 | spi3_cs1 | gpio4_21 | | | | | | | | |
| 65 | MFIO | 1.8 | A8 | vout1_d19 | emu15 | vin4a_d3 | vin3a_d3 | obs12 | obs28 | pr2_edio_dat a_in3 | pr2_edio_data_ out3 | pr2_pru0_gpi16 | pr2_pru0_gpo1 6 | gpio8_19 | | |
| 66 | NC | - | - | | | | | | | | | | | | | |
| 67 | GND | - | - | GND | | | | | | | | | | | | |
| 68 | MFIO | 1.8 | N2 | gpmc_wait0 | gpio2_28 | | | | | | | | | | | |
| 69 | MFIO | 1.8 | P2 | gpmc_cs2 | qspi1_cs0 | gpio2_20 | | | | | | | | | | |
| 70 | NC | - | - | | | | | | | | | | | | | |
| 71 | NC | - | - | | | | | | | | | | | | | |
| 72 | MFIO | 1.8 | M6 | gpmc_ad0 | vin3a_d0 | vout3_d0 | gpio1_6 | sysboot0 | | | | | | | | |
| 73 | MFIO | 1.8 | L5 | gpmc_ad2 | vin3a_d2 | vout3_d2 | gpio1_8 | sysboot2 | | | | | | | | |
| 74 | MFIO | 1.8 | M2 | gpmc_ad1 | vin3a_d1 | vout3_d1 | gpio1_7 | sysboot1 | | | | | | | | |
| 75 | MFIO | 1.8 | L6 | gpmc_ad4 | vin3a_d4 | vout3_d4 | gpio1_10 | sysboot4 | | | | | | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 76 | MFIO | 1.8 | M1 | gpmc_ad3 | vin3a_d3 | vout3_d3 | gpio1_9 | sysboot3 | | | | | | | | |
| 77 | MFIO | 1.8 | L3 | gpmc_ad6 | vin3a_d6 | vout3_d6 | gpio1_12 | sysboot6 | | | | | | | | |
| 78 | MFIO | 1.8 | L4 | gpmc_ad5 | vin3a_d5 | vout3_d5 | gpio1_11 | sysboot5 | | | | | | | | |
| 79 | MFIO | 1.8 | L1 | gpmc_ad8 | vin3a_d8 | vout3_d8 | gpio7_18 | sysboot8 | | | | | | | | |
| 80 | GND | - | - | GND | | | | | | | | | | | | |
| 81 | MFIO | 1.8 | J1 | gpmc_ad10 | vin3a_d10 | vout3_d10 | gpio7_28 | sysboot10 | | | | | | | | |
| 82 | MFIO | 1.8 | L2 | gpmc_ad7 | vin3a_d7 | vout3_d7 | gpio1_13 | sysboot7 | | | | | | | | |
| 83 | MFIO | 1.8 | H1 | gpmc_ad12 | vin3a_d12 | vout3_d12 | gpio1_18 | sysboot12 | | | | | | | | |
| 84 | MFIO | 1.8 | K2 | gpmc_ad9 | vin3a_d9 | vout3_d9 | gpio7_19 | sysboot9 | | | | | | | | |
| 85 | GND | - | - | GND | | | | | | | | | | | | |
| 86 | MFIO | 1.8 | J2 | gpmc_ad11 | vin3a_d11 | vout3_d11 | gpio7_29 | sysboot11 | | | | | | | | |
| 87 | MFIO | 1.8 | J3 | gpmc_ad13 | vin3a_d13 | vout3_d13 | gpio1_19 | sysboot13 | | | | | | | | |
| 88 | MFIO | 1.8 | H2 | gpmc_ad14 | vin3a_d14 | vout3_d14 | gpio1_20 | sysboot14 | | | | | | | | |
| 89 | MFIO | 1.8 | H3 | gpmc_ad15 | vin3a_d15 | vout3_d15 | gpio1_21 | sysboot15 | | | | | | | | |
| 90 | MFIO | 1.8 | N1 | gpmc_advn_ale | gpmc_cs6 | clkout2 | gpmc_wait1 | vin4a_vsync0 | gpmc_a2 | gpmc_a23 | timer3 | i2c3_sda | dma_evt2 | gpio2_23 | | |
| 91 | MFIO | 1.8 | M5 | gpmc_oen_ren | gpio2_24 | | | | | | | | | | | |
| 92 | MFIO | 1.8 | M4 | gpmc_ben1 | gpmc_cs5 | vin1b_de1 | vin3b_clk1 | gpmc_a3 | vin3b_fid1 | timer1 | dma_evt4 | gpio2_27 | | | | |
| 93 | MFIO | 1.8 | N6 | gpmc_ben0 | gpmc_cs4 | vin1b_hsync1 | vin3b_de1 | timer2 | dma_evt3 | gpio2_26 | | | | | | |
| 94 | MFIO | 1.8 | T1 | gpmc_cs0 | gpio2_19 | | | | | | | | | | | |
| 95 | MFIO | 1.8 | M3 | gpmc_wen | gpio2_25 | | | | | | | | | | | |
| 96 | MFIO | 1.8 | P7 | gpmc_clk | gpmc_cs7 | clkout1 | gpmc_wait1 | vin4a_hsync0 | vin4a_de0 | vin3b_clk1 | timer4 | i2c3_scl | dma_evt1 | gpio2_22 | | |
| 97 | NC | - | - | | | | | | | | | | | | | |
| 98 | GND | - | - | GND | | | | | | | | | | | | |
| 99 | MFIO | 1.8 | AB16 | Wakeup2 | sys_nirq2 | gpio1_2 | | | | | | | | | | |
| 100 | MFIO | 1.8 | U6 | RGMII0_TXD0 | RGMII0_RXD0 | MII0_RXD0 | VIN2A_D10 | SPI4_CS0 | UART4_RTSN | PR1_MII0_RXD0 | PR2_PRU1_GPI10 | PR2_PRU1_GPO10 | GPI05_25 | | | |
| 101 | MFIO | 1.8 | D21 | nmin_dsp | | | | | | | | | | | | |



| Pin | Type | Volt | 57xxball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|------------------|------------------|
| 102 | MFIO | 1.8 | V6 | RGMII0_TXD1 | RMIIO_RXD1 | MII0_RXD1 | VIN2A_VSYNC0 | VIN4B_VSYNC1 | SPI4_D0 | UART4_CTSN | PR1_MII0_RXD1 | PR2_PRU1_GPI9 | PR2_PRU1_GPO9 | GPI05_24 | | |
| 103 | GND | | - | GND | | | | | | | | | | | | |
| 104 | MFIO | 1.8 | U7 | RGMII0_TXD2 | RMIIO_RXER | MII0_RXER | VIN2A_HSYNC0 | VIN4B_HSYNC1 | SPI4_D1 | UART4_TXD | PR1_MII0_RXER | PR2_PRU1_GPI8 | PR2_PRU1_GPO8 | GPI05_23 | | |
| 105 | MFIO | 1.8 | Y1 | SPI3_D1 | UART3_TXD | RMIH1_RXER | MII0_RXCLK | VIN2A_D2 | VIN4B_D2 | SPI4_CS1 | PR1_MII0_MR0_CLK | PR2_PRU1_GPI4 | PR2_PRU1_GPO4 | GPI05_19 | | |
| 106 | MFIO | 1.8 | V7 | RGMII0_TXD3 | RMIIO_CRS | MII0_CRS | VIN2A_DE0 | VIN4B_DE1 | SPI4_SCLK | UART4_RXD | PR1_MII0_CRS | PR2_PRU1_GPI7 | PR2_PRU1_GPO7 | GPI05_22 | | |
| 107 | MFIO | 1.8 | V2 | SPI3_SCLK | UART3_RXD | RMIH1_CRS | MII0_RXDV | VIN2A_D1 | VIN4B_D1 | PR1_MII0_RXDV | PR2_PRU1_GPI3 | PR2_PRU1_GPO3 | GPI05_18 | | | |
| 108 | MFIO | 1.8 | W9 | RGMII0_TXC | UART3_CTSN | RMIH1_RXD1 | MII0_RXD3 | VIN2A_D3 | VIN4B_D3 | SPI3_D0 | SPI4_CS2 | PR1_MII0_RXD3 | PR2_PRU1_GPI5 | PR2_PRU1_GPO5 | GPI05_20 | |
| 109 | MFIO | 3.3 | Y9 | MMC1_SDWP | UART6_TXD | I2C4_SCL | GPI06_28 | | | | | | | | | |
| 110 | MFIO | 1.8 | V9 | RGMII0_TXC TL | UART3_RTSN | RMIH1_RXD0 | MII0_RXD2 | VIN2A_D4 | VIN4B_D4 | SPI3_CS0 | SPI4_CS3 | PR1_MII0_RXD2 | PR2_PRU1_GPI6 | PR2_PRU1_GPO6 | GPI05_21 | |
| 111 | MFIO | 1.8 | C14 | PR2_MDIO_MDCLK | MCASP1_ACLKX | VIN6A_FLD0 | I2C3_SDA | PR2_PRU1_GPI7 | PR2_PRU1_GPO7 | GPI07_31 | | | | | | |
| 112 | GND | | - | GND | | | | | | | | | | | | |
| 113 | MFIO | 1.8 | D14 | PR2_MDIO_DATA | MCASP1_FSX | VIN6A_DE0 | I2C3_SCL | GPI07_30 | | | | | | | | |
| 114 | MFIO | 1.8 | V4 | RGMII0_RXD3 | RMIH1_TXD0 | MII0_TXD2 | VIN2A_D7 | VIN4B_D7 | PR1_MII0_TXD2 | PR2_PRU1_GPI13 | PR2_PRU1_GPO13 | GPI05_28 | | | | |
| 115 | MFIO | 1.8 | G16 | UART4_RXD | MCASP4_AXR0 | SPI3_D0 | UART8_CTSN | VOUT2_D18 | VIN4A_D18 | VIN5A_D13 | | | | | | |
| 116 | MFIO | 1.8 | V3 | RGMII0_RXD2 | RMIIO_TXEN | MII0_TXEN | VIN2A_D8 | PR1_MII0_TXEN | PR2_PRU1_GPI14 | PR2_PRU1_GPO14 | GPI05_29 | | | | | |
| 117 | MFIO | 1.8 | E12 | MCASP4_AXR2 | MCASP1_AXR4 | VOUT2_D4 | VIN4A_D4 | GPI05_6 | | | | | | | | |
| 118 | MFIO | 1.8 | Y2 | RGMII0_RXD1 | RMIIO_TXD1 | MII0_TXD1 | VIN2A_D9 | PR1_MII0_TXD1 | PR2_PRU1_GPI15 | PR2_PRU1_GPO15 | GPI05_30 | | | | | |
| 119 | MFIO | 1.8 | D17 | MCASP4_AXR1 | SPI3_CS0 | UART8_RTSN | UART4_TXD | VOUT2_D19 | VIN4A_D19 | VIN5A_D12 | PR2_PRU1_GPI0 | PR2_PRU1_GPO0 | | | | |
| 120 | MFIO | 1.8 | W2 | RGMII0_RXD0 | RMIIO_TXD0 | MII0_TXD0 | VIN2A_FLD0 | VIN4B_FLD1 | PR1_MII0_TXD0 | PR2_PRU1_GPI16 | PR2_PRU1_GPO16 | GPI05_31 | | | | |
| 121 | MFIO | 1.8 | C18 | MCASP4_ACLKX | MCASP4_ACLKR | SPI3_SCLK | UART8_RXD | I2C4_SDA | VOUT2_D16 | VIN4A_D16 | VIN5A_D15 | | | | | |
| 122 | MFIO | 1.8 | V5 | RGMII0_RXCTL | RMIH1_TXD1 | MII0_TXD3 | VIN2A_D6 | VIN4B_D6 | PR1_MII0_TXD3 | PR2_PRU1_GPI12 | PR2_PRU1_GPO12 | GPI05_27 | | | | |
| 123 | MFIO | 1.8 | A21 | MCASP4_FSX | MCASP4_FSR | SPI3_D1 | UART8_TXD | I2C4_SCL | VOUT2_D17 | VIN4A_D17 | VIN5A_D14 | | | | | |
| 124 | MFIO | 1.8 | U5 | RGMII0_RXC | RMIH1_TXEN | MII0_TXCLK | VIN2A_D5 | VIN4B_D5 | PR1_MII0_MT0_CLK | PR2_PRU1_GPI11 | PR2_PRU1_GPO11 | GPI05_26 | | | | |
| 125 | MFIO | 1.8 | - | PMIC_GPIO4 | | | | | | | | | | | | |
| 126 | KEY | | - | | | | | | | | | | | | | |
| 127 | KEY | | - | | | | | | | | | | | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------|-------------------|-----------------|------------------|------------------|------------------|------------------|
| 128 | KEY | - | - | | | | | | | | | | | | | |
| 129 | KEY | - | - | | | | | | | | | | | | | |
| 130 | KEY | - | - | | | | | | | | | | | | | |
| 131 | KEY | - | - | | | | | | | | | | | | | |
| 132 | KEY | - | - | | | | | | | | | | | | | |
| 133 | GND | - | - | GND | | | | | | | | | | | | |
| 134 | GND | - | - | GND | | | | | | | | | | | | |
| 135 | MFIO | 1.8 | J7 | MMC2_CLK | GPMC_A23 | GPMC_A17 | VIN4A_FLD0 | VIN3B_D4 | GPIO2_13 | | | | | | | |
| 136 | MFIO | 1.8 | D6 | RGMII1_TXD0 | VIN2A_D17 | VIN2B_D6 | VOUT2_D6 | VIN3A_D9 | MII1_TXD2 | EHRPWM3A | PR1_MII1_RXD2 | PR1_PRU1_GPI14 | PR1_PRU1_GPO14 | GPIO4_25 | | |
| 137 | MFIO | 1.8 | H6 | MMC2_CMD | GPMC_CS1 | GPMC_A22 | VIN4A_DE0 | VIN3B_VSYNC1 | GPIO2_18 | | | | | | | |
| 138 | MFIO | 1.8 | B2 | RGMII1_TXD1 | VIN2A_D16 | VIN2B_D7 | VOUT2_D7 | VIN3A_D8 | MII1_TXD1 | EQEP3_STR_OBE | PR1_MII1_RXD3 | PR1_PRU1_GPI13 | PR1_PRU1_GPO13 | GPIO4_24 | | |
| 139 | MFIO | 1.8 | J4 | MMC2_DAT0 | GPMC_A24 | GPMC_A18 | VIN3B_D5 | GPIO2_14 | | | | | | | | |
| 140 | MFIO | 1.8 | C4 | RGMII1_TXD2 | VIN2A_D15 | VOUT2_D8 | MII1_TXD0 | EQEP3_IND EX | PR1_MII1_RXDV | PR1_PRU1_GPH12 | PR1_PRU1_GPO12 | GPIO4_16 | | | | |
| 141 | MFIO | 1.8 | J6 | MMC2_DAT1 | GPMC_A25 | GPMC_A19 | VIN3B_D6 | GPIO2_15 | | | | | | | | |
| 142 | MFIO | 1.8 | C3 | RGMII1_TXD3 | VIN2A_D14 | VOUT2_D9 | MII1_TXCLK | EQEP3B_IN | PR1_MII1_MR1_CLK | PR1_PRU1_GPH11 | PR1_PRU1_GPO11 | GPIO4_15 | | | | |
| 143 | MFIO | 1.8 | H4 | MMC2_DAT2 | GPMC_A26 | GPMC_A20 | VIN3B_D7 | GPIO2_16 | | | | | | | | |
| 144 | MFIO | 1.8 | D5 | RGMII1_TXC | VIN2A_D12 | VOUT2_D11 | MII1_RXCLK | KBD_COL8 | ECAP2_IN_PWM2_OUT | PR1_MII1_TXD1 | PR1_PRU1_GPI9 | PR1_PRU1_GPO9 | GPIO4_13 | | | |
| 145 | MFIO | 1.8 | H5 | MMC2_DAT3 | GPMC_A27 | GPMC_A21 | VIN3B_HSYNC1 | GPIO2_17 | | | | | | | | |
| 146 | MFIO | 1.8 | C2 | RGMII1_TXCTL | VIN2A_D13 | VOUT2_D10 | MII1_RXDV | KBD_ROW8 | EQEP3A_IN | PR1_MII1_TXD0 | PR1_PRU1_GPI10 | PR1_PRU1_GPO10 | GPIO4_14 | | | |
| 147 | MFIO | 1.8 | K7 | GPMC_A19 | MMC2_DAT4 | GPMC_A13 | VIN4A_D12 | VIN3B_D0 | GPIO2_9 | | | | | | | |
| 148 | GND | - | - | GND | | | | | | | | | | | | |
| 149 | MFIO | 1.8 | M7 | GPMC_A20 | MMC2_DAT5 | GPMC_A14 | VIN4A_D13 | VIN3B_D1 | GPIO2_10 | | | | | | | |
| 150 | MFIO | 1.8 | B3 | RGMII1_RXD3 | VIN2A_D20 | VIN2B_D3 | VOUT2_D3 | VIN3A_DE0 | VIN3A_D12 | MII1_RXER | ECAP3_IN_PWM3_OUT | PR1_MII1_RXER | PR1_PRU1_GPI17 | PR1_PRU1_GPO17 | GPIO4_28 | |
| 151 | MFIO | 1.8 | J5 | GPMC_A21 | MMC2_DAT6 | GPMC_A15 | VIN4A_D14 | VIN3B_D2 | GPIO2_11 | | | | | | | |
| 152 | MFIO | 1.8 | B4 | RGMII1_RXD2 | VIN2A_D21 | VIN2B_D2 | VOUT2_D2 | VIN3A_FLD0 | VIN3A_D13 | MII1_COL | PR1_MII1_RXLINK | PR1_PRU1_GPI18 | PR1_PRU1_GPO18 | GPIO4_29 | | |
| 153 | MFIO | 1.8 | K6 | GPMC_A22 | MMC2_DAT7 | GPMC_A16 | VIN4A_D15 | VIN3B_D3 | GPIO2_12 | | | | | | | |



| Pin | Type | Volt | 57xxball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|----------|-------------------|------------------|-----------------|-----------------|-----------------|------------------|--------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 154 | MFIO | 1.8 | B5 | RGMII1_RX D1 | VIN2A_D2 2 | VIN2B_D1 | VOUT2_D1 | VIN3A_HSY NC0 | VIN3A_D14 | MII1_CRS | PR1_MII1_CO L | PR1_PRU1_GPI 19 | PR1_PRU1_G PO19 | GPIO4_30 | | |
| 155 | GND | - | - | GND | | | | | | | | | | | | |
| 156 | MFIO | 1.8 | A4 | RGMII1_RX D0 | VIN2A_D2 3 | VIN2B_D0 | VOUT2_D0 | VIN3A_VSY NC0 | VIN3A_D15 | MII1_TXEN | PR1_MII1_CR S | PR1_PRU1_GPI 20 | PR1_PRU1_G PO20 | GPIO4_31 | | |
| 157 | MFIO | 1.8 | U3 | GPIOS_17 | RMII_MHZ _50_CLK | VIN2A_D11 | PR2_PRU1_G PI2 | PR2_PRU1_ GPO2 | | | | | | | | |
| 158 | MFIO | 1.8 | A3 | RGMII1_RX CTL | VIN2A_D1 9 | VIN2B_D4 | VOUT2_D4 | VIN3A_D11 | MII1_TXER | EHRPWM3_ TRIPZ_IN | PR1_MII1_RX D0 | PR1_PRU1_GPI 16 | PR1_PRU1_G PO16 | GPIO4_27 | | |
| 159 | MFIO | 1.8 | U4 | MDIO_D | UART3_C TSN | MII0_TXER | VIN2A_D0 | VIN4B_D0 | PR1_MII0_RXL INK | PR2_PRU1_ GP11 | PR2_PRU1_G PO1 | GPIO5_16 | | | | |
| 160 | MFIO | 1.8 | C5 | RGMII1_RX C | VIN2A_D1 8 | VIN2B_D5 | VOUT2_D5 | VIN3A_D10 | MII1_TXD3 | EHRPWM3B | PR1_MII1_RX D1 | PR1_PRU1_GPI 15 | PR1_PRU1_G PO15 | GPIO4_26 | | |
| 161 | MFIO | 1.8 | V1 | MDIO_MCLK | UART3_R TSN | MII0_COL | VIN2A_CLK0 | VIN4B_CLK1 | PR1_MII0_CO L | PR2_PRU1_ GP10 | PR2_PRU1_G PO0 | GPIO5_15 | | | | |
| 162 | GND | - | - | GND | | | | | | | | | | | | |
| 163 | MFIO | 3.3 | W7 | MMC1_SDC D | UART6_R XD | I2C4_SDA | GPIO6_27 | | | | | | | | | |
| 164 | MFIO | 1.8 | AC9 | PR2_MII1_MR 1_CLK | MMC3_DA T2 | SPI3_CS0 | UART5_CTSN | VIN2B_D3 | VIN5A_D3 | EQEP3_IND EX | PR2_PRU0_G PI6 | PR2_PRU0_GP O6 | GPIO7_1 | | | |
| 165 | MFIO | 3.3 | W6 | MMC1_CLK | GPIO6_21 | | | | | | | | | | | |
| 166 | MFIO | 1.8 | AC3 | PR2_MII1_R XDV | MMC3_DA T3 | SPI3_CS1 | UART5_RTSN | VIN2B_D2 | VIN5A_D2 | EQEP3_STR OBE | PR2_PRU0_G PI7 | PR2_PRU0_GP O7 | GPIO7_2 | | | |
| 167 | MFIO | 3.3 | Y6 | MMC1_CMD | GPIO6_22 | | | | | | | | | | | |
| 168 | MFIO | 1.8 | E17 | PR2_MII1_C RS | XREF_CL K1 | MCASP2_AX R9 | MCASP1_AXR 5 | MCASP2_AH CLKX | MCASP6_AHC LKX | VIN6A_CLK0 | TIMER14 | PR2_PRU1_GPI 6 | PR2_PRU1_G PO6 | GPIO6_18 | | |
| 169 | MFIO | 3.3 | Y3 | MMC1_DAT 3 | GPIO6_26 | | | | | | | | | | | |
| 170 | MFIO | 1.8 | B19 | PR2_MII1_R XER | MCASP3_ AXR0 | MCASP2_AX R14 | UART7_CTSN | UART5_RXD | VIN6A_D1 | PR2_PRU0_ GP14 | PR2_PRU0_G PO14 | | | | | |
| 171 | MFIO | 3.3 | AA5 | MMC1_DAT 2 | GPIO6_25 | | | | | | | | | | | |
| 172 | MFIO | 1.8 | D18 | PR2_MII1_C OL | XREF_CL K0 | MCASP2_AX R8 | MCASP1_AXR 4 | MCASP1_AH CLKX | MCASP5_AHC LKX | VIN6A_D0 | HDQ0 | CLKOUT2 | TIMER13 | PR2_PRU 1_GPI5 | PR2_PR U1_GPO 5 | GPIO6_ 17 |
| 173 | MFIO | 3.3 | Y4 | MMC1_DAT 1 | GPIO6_24 | | | | | | | | | | | |
| 174 | MFIO | 1.8 | AB5 | PR2_MII1_R XD0 | MMC3_DA T7 | SPI4_CS0 | UART10_RTS N | VIN2B_CLK1 | VIN5A_VSYNC 0 | ECAP3_IN_ PWM3_OUT | PR2_PRU0_G PI11 | PR2_PRU0_GP O11 | GPIO1_25 | | | |
| 175 | MFIO | 3.3 | AA6 | MMC1_DAT 0 | GPIO6_23 | | | | | | | | | | | |
| 176 | MFIO | 1.8 | AB8 | PR2_MII1_R XD1 | MMC3_DA T6 | SPI4_D0 | UART10_CTS N | VIN2B_DE1 | VIN5A_HSYNC 0 | EHRPWM3_ TRIPZ_IN | PR2_PRU0_G PI10 | PR2_PRU0_GP O10 | GPIO1_24 | | | |
| 177 | GND | - | - | GND | | | | | | | | | | | | |
| 178 | MFIO | 1.8 | AD6 | PR2_MII1_R XD2 | MMC3_DA T5 | SPI4_D1 | UART10_TXD | VIN2B_D0 | VIN5A_D0 | EHRPWM3B | PR2_PRU0_G PI9 | PR2_PRU0_GP O9 | GPIO1_23 | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|------------------|-----------------|-----------------|-----------------|------------------|-------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 179 | MFIO | 1.8 | P4 | GPMC_A12 | VIN4A_CLK0 | GPMC_A0 | VIN4B_FLD1 | TIMER8 | SPI4_CS1 | DMA_EVT1 | GPIO2_2 | | | | | |
| 180 | MFIO | 1.8 | AC8 | PR2_MII1_RXD3 | MMC3_DATA4 | SPI4_SCLK | UART10_RXD | VIN2B_D1 | VIN5A_D1 | EHRPWM3A | PR2_PRU0_GPI8 | PR2_PRU0_GPO8 | GPIO1_22 | | | |
| 181 | MFIO | 1.8 | N9 | GPMC_A10 | VIN3A_DE0 | VOUT3_DE | VIN4B_CLK1 | TIMER10 | SPI4_D0 | GPIO2_0 | | | | | | |
| 182 | MFIO | 1.8 | C17 | PR2_MII1_RXLINK | MCASP3_AXR1 | MCASP2_AXR15 | UART7_RTSN | UART5_TXD | VIN6A_D0 | VIN5A_FLD0 | PR2_PRU0_GPI15 | PR2_PRU0_GPO15 | | | | |
| 183 | MFIO | 1.8 | P9 | GPMC_A11 | VIN3A_FLD0 | VOUT3_FLD | VIN4A_FLD0 | VIN4B_DE1 | TIMER9 | SPI4_CS0 | GPIO2_1 | | | | | |
| 184 | MFIO | 1.8 | AC5 | PR2_MII1_MT1_CLK | GPIO6_10 | MDIO_MCLK | I2C3_SDA | VIN2B_HSYNC1 | VIN5A_CLK0 | EHRPWM2A | PR2_PRU0_GPI0 | PR2_PRU0_GPO0 | GPIO6_10 | | | |
| 185 | MFIO | 1.8 | P6 | I2C5_SCL | GPMC_A4 | QSPI1_CS3 | VIN3A_D20 | VOUT3_D20 | VIN4A_D4 | VIN4B_D4 | UART6_RXD | GPIO1_26 | | | | |
| 186 | MFIO | 1.8 | AB4 | PR2_MII1_TXEN | GPIO6_11 | MDIO_D | I2C3_SCL | VIN2B_VSYNC1 | VIN5A_DE0 | EHRPWM2B | PR2_PRU0_GPI1 | PR2_PRU0_GPO1 | GPIO6_11 | | | |
| 187 | MFIO | 1.8 | P5 | GPMC_A7 | VIN3A_D23 | VOUT3_D23 | VIN4A_D7 | VIN4B_D7 | UART8_TXD | UART6_RTSN | GPIO1_29 | | | | | |
| 188 | MFIO | 1.8 | AC6 | PR2_MII1_TXD0 | MMC3_DATA1 | SPI3_D0 | UART5_TXD | VIN2B_D4 | VIN5A_D4 | EQEP3B_IN | PR2_PRU0_GPI5 | PR2_PRU0_GPO5 | GPIO7_0 | | | |
| 189 | MFIO | 1.8 | G20 | DCAN1_TX | UART8_RXD | MMC2_SDCD | HDMI1_HPD | GPIO1_14 | | | | | | | | |
| 190 | MFIO | 1.8 | AC7 | PR2_MII1_TXD1 | MMC3_DATA0 | SPI3_D1 | UART5_RXD | VIN2B_D5 | VIN5A_D5 | EQEP3A_IN | PR2_PRU0_GPI4 | PR2_PRU0_GPO4 | GPIO6_31 | | | |
| 191 | MFIO | 1.8 | G19 | DCAN1_RX | UART8_TXD | MMC2_SDWDP | SATA1_LED | HDMI1_CEC | GPIO1_15 | | | | | | | |
| 192 | MFIO | 1.8 | AC4 | PR2_MII1_TXD2 | MMC3_CMD | SPI3_SCLK | VIN2B_D6 | VIN5A_D6 | ECAP2_IN_PWM2_OUT | PR2_PRU0_GPI3 | PR2_PRU0_GPO3 | GPIO6_30 | | | | |
| 193 | MFIO | 1.8 | F20 | UART10_TXD | GPIO6_15 | MCASP1_AXR9 | DCAN2_RX | VOUT2_VSYNC0 | VIN4A_VSYNC0 | I2C3_SCL | TIMER2 | GPIO6_15 | | | | |
| 194 | MFIO | 1.8 | AD4 | PR2_MII1_TXD3 | MMC3_CLK | VIN2B_D7 | VIN5A_D7 | EHRPWM2_TRIPZ_IN | PR2_PRU0_GPI2 | PR2_PRU0_GPO2 | GPIO6_29 | | | | | |
| 195 | MFIO | 1.8 | G17 | SPI2_D0 | UART3_CTSN | UART5_RXD | GPIO7_16 | | | | | | | | | |
| 196 | GND | - | - | GND | | | | | | | | | | | | |
| 197 | MFIO | 1.8 | E15 | MCASP2_ACLKR | MCASP8_AXR2 | VOUT2_D8 | VIN4A_D8 | | | | | | | | | |
| 198 | MFIO | 1.8 | A13 | PR2_MII1_MR0_CLK | MCASP1_AXR13 | MCASP7_AXR1 | VIN6A_D10 | TIMER10 | PR2_PRU1_GPI15 | PR2_PRU1_GPO15 | GPIO6_4 | | | | | |
| 199 | MFIO | 1.8 | F16 | SPI1_D1 | GPIO7_8 | | | | | | | | | | | |
| 200 | MFIO | 1.8 | G14 | PR2_MII0_RXDV | MCASP1_AXR14 | MCASP7_ACLKX | MCASP7_ACLKR | VIN6A_D9 | TIMER11 | PR2_PRU1_GPI16 | PR2_PRU1_GPO16 | GPIO6_5 | | | | |
| 201 | MFIO | 1.8 | C26 | UART1_TXD | MMC4_SDWDP | GPIO7_23 | | | | | | | | | | |
| 202 | MFIO | 1.8 | B18 | PR2_MII0_CRS | MCASP3_ACLKX | MCASP3_ACLKR | MCASP2_AXR12 | UART7_RXD | VIN6A_D3 | PR2_PRU0_GPI12 | PR2_PRU0_GPO12 | GPIO5_13 | | | | |
| 203 | MFIO | 1.8 | T6 | GPMC_A2 | VIN3A_D18 | VOUT3_D18 | VIN4A_D2 | VIN4B_D2 | UART7_RXD | UART5_CTSN | GPIO7_5 | | | | | |
| 204 | MFIO | 1.8 | G12 | PR2_MII0_RXER | MCASP1_AXR0 | UART6_RXD | VIN6A_VSYNC0 | I2C5_SDA | PR2_PRU1_GPI8 | PR2_PRU1_GPO8 | GPIO5_2 | | | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 205 | MFIO | 1.8 | T7 | GPMC_A3 | QSPI1_CS2 | VIN3A_D19 | VOUT3_D19 | VIN4A_D3 | VIN4B_D3 | UART7_TXD | UART5_RTSN | GPIO7_6 | | | | |
| 206 | MFIO | 1.8 | F15 | PR2_MII0_COL | MCASP3_FSX | MCASP3_FSX | MCASP2_AXR13 | UART7_TXD | VIN6A_D2 | PR2_PRU0_GPI13 | PR2_PRU0_GPO13 | GPIO5_14 | | | | |
| 207 | MFIO | 1.8 | R9 | I2C5_SDA | GPMC_A5 | VIN3A_D21 | VOUT3_D21 | VIN4A_D5 | VIN4B_D5 | UART6_TXD | GPIO1_27 | | | | | |
| 208 | MFIO | 1.8 | C15 | PR2_MII0_RXD0 | MCASP2_AXR2 | MCASP3_AXR2 | VIN6A_D5 | PR2_PRU0_GPI16 | PR2_PRU0_GPO16 | GPIO6_8 | | | | | | |
| 209 | MFIO | 1.8 | T9 | I2C4_SDA | GPMC_A1 | VIN3A_D17 | VOUT3_D17 | VIN4A_D1 | VIN4B_D1 | UART5_TXD | GPIO7_4 | | | | | |
| 210 | MFIO | 1.8 | A18 | PR2_MII0_RXD1 | MCASP2_FSX | VIN6A_D6 | PR2_PRU0_GPI19 | PR2_PRU0_GPO19 | | | | | | | | |
| 211 | MFIO | 1.8 | G13 | MCASP1_AXR2 | MCASP6_AXR2 | UART6_CTSN | VOUT2_D2 | VIN4A_D2 | GPIO5_4 | | | | | | | |
| 212 | MFIO | 1.8 | A19 | PR2_MII0_RXD2 | MCASP2_ACLKX | VIN6A_D7 | PR2_PRU0_GPI18 | PR2_PRU0_GPO18 | | | | | | | | |
| 213 | MFIO | 1.8 | J11 | MCASP1_AXR3 | MCASP6_AXR3 | UART6_RTSN | VOUT2_D3 | VIN4A_D3 | GPIO5_5 | | | | | | | |
| 214 | MFIO | 1.8 | F14 | PR2_MII0_RXD3 | MCASP1_AXR15 | MCASP7_FSX | MCASP7_FSR | VIN6A_D8 | TIMER12 | PR2_PRU0_GPI20 | PR2_PRU0_GPO20 | GPIO6_6 | | | | |
| 215 | MFIO | 1.8 | N7 | GPMC_A8 | VIN3A_HSYNC0 | VOUT3_HSYNC | VIN4B_HSYNC1 | TIMER12 | SPI4_SCLK | GPIO1_30 | | | | | | |
| 216 | MFIO | 1.8 | A16 | PR2_MII0_RXLINK | MCASP2_AXR3 | MCASP3_AXR3 | VIN6A_D4 | PR2_PRU0_GPI17 | PR2_PRU0_GPO17 | GPIO6_9 | | | | | | |
| 217 | MFIO | 1.8 | R4 | GPMC_A9 | VIN3A_VSYNC0 | VOUT3_VSYNC | VIN4B_VSYNC1 | TIMER11 | SPI4_D1 | GPIO1_31 | | | | | | |
| 218 | MFIO | 1.8 | F12 | PR2_MII0_CLK | MCASP1_AXR1 | UART6_TXD | VIN6A_HSYNC0 | I2C5_SCL | PR2_PRU1_GPI9 | PR2_PRU1_GPO9 | GPIO5_3 | | | | | |
| 219 | MFIO | 1.8 | R5 | GPMC_A6 | VIN3A_D22 | VOUT3_D22 | VIN4A_D6 | VIN4B_D6 | UART8_RXD | UART6_CTSN | GPIO1_28 | | | | | |
| 220 | MFIO | 1.8 | B12 | PR2_MII0_TXEN | MCASP1_AXR8 | MCASP6_AXR0 | SPI3_SCLK | VIN6A_D15 | TIMER5 | PR2_PRU1_GPI10 | PR2_PRU1_GPO10 | GPIO5_10 | | | | |
| 221 | MFIO | 1.8 | R6 | I2C4_SCL | GPMC_A0 | VIN3A_D16 | VOUT3_D16 | VIN4A_D0 | VIN4B_D0 | UART5_RXD | GPIO7_3 | | | | | |
| 222 | MFIO | 1.8 | E14 | PR2_MII0_TXD0 | MCASP1_AXR12 | MCASP7_AXR0 | SPI3_CS1 | VIN6A_D11 | TIMER9 | PR2_PRU1_GPI14 | PR2_PRU1_GPO14 | GPIO4_18 | | | | |
| 223 | MFIO | 1.8 | F21 | GPIO6_16 | MCASP1_AXR10 | VOUT2_FLD | VIN4A_FLD0 | CLKOUT1 | TIMER3 | GPIO6_16 | | | | | | |
| 224 | MFIO | 1.8 | A12 | PR2_MII0_TXD1 | MCASP1_AXR11 | MCASP6_FSX | MCASP6_FSR | SPI3_CS0 | VIN6A_D12 | TIMER8 | PR2_PRU1_GPI13 | PR2_PRU1_GPO13 | GPIO4_17 | | | |
| 225 | GND | - | - | GND | | | | | | | | | | | | |
| 226 | MFIO | 1.8 | B13 | PR2_MII0_TXD2 | MCASP1_AXR10 | MCASP6_ACLKX | MCASP6_ACLKR | SPI3_D0 | VIN6A_D13 | TIMER7 | PR2_PRU1_GPI12 | PR2_PRU1_GPO12 | GPIO5_12 | | | |
| 227 | MFIO | 1.8 | E21 | UART10_RXD | GPIO6_14 | MCASP1_AXR8 | DCAN2_TX | VOUT2_HSYNC | VIN4A_HSYNC0 | I2C3_SDA | TIMER1 | GPIO6_14 | | | | |
| 228 | MFIO | 1.8 | A11 | PR2_MII0_TXD3 | MCASP1_AXR9 | MCASP6_AXR1 | SPI3_D1 | VIN6A_D14 | TIMER6 | PR2_PRU1_GPI11 | PR2_PRU1_GPO11 | GPIO5_11 | | | | |
| 229 | MFIO | 1.8 | B22 | SPI2_D1 | UART3_TXD | GPIO7_15 | | | | | | | | | | |
| 230 | GND | - | - | GND | | | | | | | | | | | | |



| Pin | Type | Volt | 57xxball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|
| 231 | MFIO | 1.8 | D28 | UART2_RXD | UART3_CTSN | UART3_RCTX | MMC4_DAT0 | UART1_DCDN | GPIO7_26 | | | | | | | |
| 232 | MFIO | 1.8 | AC10 | USB2_DRVVBUS | TIMER15 | GPIO6_13 | | | | | | | | | | |
| 233 | MFIO | 1.8 | D26 | UART2_TXD | UART3_RTSN | UART3_SD | MMC4_DAT1 | UART1_DSRN | GPIO7_27 | | | | | | | |
| 234 | MFIO | 1.8 | E25 | GPIO7_24 | UART1_CTSN | UART9_RXD | MMC4_CLK | | | | | | | | | |
| 235 | MFIO | 1.8 | G2 | VIN2A_DE0 | VIN2A_FLDO | VIN2B_FLD1 | VIN2B_DE1 | VOUT2_DE | EMU6 | KBD_ROW1 | EQEP1B_IN | PR1_EDIO_DATA_IN1 | PR1_EDIO_DATA_OUT1 | GPIO3_29 | | |
| 236 | MFIO | 1.8 | AE11 | USB2_DP | | | | | | | | | | | | |
| 237 | MFIO | 1.8 | G1 | GPIO3_31 | VIN2A_HSYNCO | VIN2B_HSYNCO | VOUT2_HSYNCO | EMU8 | UART9_RXD | SPI4_SCLK | KBD_ROW2 | EQEP1_STROBE | PR1_UART0_CTS_N | PR1_EDIO_D_IN3 | PR1_EDIO_D_OUT3 | |
| 238 | MFIO | 1.8 | AF11 | USB2_DM | | | | | | | | | | | | |
| 239 | MFIO | 1.8 | F3 | VIN2A_D1 | VOUT2_D22 | EMU11 | UART9_RTSN | SPI4_CS0 | KBD_ROW5 | EHRPWM1_TRIPZ_IN | PR1_UART0_TXD | PR1_EDIO_DATA_IN6 | PR1_EDIO_DATA_OUT6 | GPIO4_2 | | |
| 240 | PWR | +5V | - | USB2_VBUS | | | | | | | | | | | | |
| 241 | MFIO | 1.8 | F2 | VIN2A_D0 | VOUT2_D23 | EMU10 | UART9_CTSN | SPI4_D0 | KBD_ROW4 | EHRPWM1B | PR1_UART0_RXD | PR1_EDIO_DATA_IN5 | PR1_EDIO_DATA_OUT5 | GPIO4_1 | | |
| 242 | GND | - | - | GND | | | | | | | | | | | | |
| 243 | MFIO | 1.8 | E1 | VIN2A_CLK0 | VOUT2_FLDO | EMU5 | KBD_ROW0 | EQEP1A_IN | PR1_EDIO_DATA_IN0 | PR1_EDIO_DATA_OUT0 | GPIO3_28 | | | | | |
| 244 | MFIO | 1.8 | J14 | GPIO5_1 | MCASP1_FSR | MCASP7_AXR3 | VOUT2_D1 | VIN4A_D1 | I2C4_SCL | | | | | | | |
| 245 | MFIO | 1.8 | E2 | VIN2A_D3 | VOUT2_D20 | EMU13 | UART10_TXD | KBD_COL0 | EHRPWM1_SYNCI | PR1_EDC_LATCH0_IN | PR1_PRU1_GPI0 | PR1_PRU1_GPO0 | GPIO4_4 | | | |
| 246 | MFIO | 1.8 | F13 | GPIO5_7 | MCASP1_AXR5 | MCASP4_AXR3 | VOUT2_D5 | VIN4A_D5 | | | | | | | | |
| 247 | MFIO | 1.8 | D1 | VIN2A_D2 | VOUT2_D21 | EMU12 | UART10_RXD | KBD_ROW6 | ECAP1_IN_PWM1_OUT | PR1_ECAP0_ECAP_CAP1_N_APWM_O | PR1_EDIO_DATA_IN7 | PR1_EDIO_DATA_OUT7 | GPIO4_3 | | | |
| 248 | MFIO | 1.8 | C12 | GPIO5_8 | MCASP1_AXR6 | MCASP5_AXR2 | VOUT2_D6 | VIN4A_D6 | | | | | | | | |
| 249 | MFIO | 1.8 | D2 | UART10_CTSN | VIN2A_D4 | VOUT2_D19 | EMU14 | KBD_COL1 | EHRPWM1_SYNCO | PR1_EDC_SYNCO_OUT | PR1_PRU1_GPI1 | PR1_PRU1_GPO1 | GPIO4_5 | | | |
| 250 | MFIO | 1.8 | H7 | GPIO3_30 | VIN2A_FLDO | VIN2B_CLK1 | VOUT2_CLK | EMU7 | EQEP1_INDEX | PR1_EDIO_DATA_IN2 | PR1_EDIO_DATA_OUT2 | | | | | |
| 251 | MFIO | 1.8 | C1 | VIN2A_D6 | VOUT2_D17 | EMU16 | MI11_RXD1 | KBD_COL3 | EQEP2B_IN | PR1_MIL_MT1_CLK | PR1_PRU1_GPI3 | PR1_PRU1_GPO3 | GPIO4_7 | | | |
| 252 | MFIO | 1.8 | B14 | GPIO5_0 | MCASP1_ACLKR | MCASP7_AXR2 | VOUT2_D0 | VIN4A_D0 | I2C4_SDA | | | | | | | |
| 253 | MFIO | 1.8 | D3 | VIN2A_D10 | MDIO_MCLK | VOUT2_D13 | KBD_COL7 | EHRPWM2B | PR1_MDIO_MCLK | PR1_PRU1_GPI7 | PR1_PRU1_GPO7 | GPIO4_11 | | | | |
| 254 | MFIO | 1.8 | A15 | MCASP2_AXR1 | VOUT2_D11 | VIN4A_D11 | | | | | | | | | | |
| 255 | MFIO | 1.8 | E4 | VIN2A_D7 | VOUT2_D16 | EMU17 | MI11_RXD2 | KBD_COL4 | EQEP2_INDEX | PR1_MI11_TXEN | PR1_PRU1_GPI4 | PR1_PRU1_GPO4 | GPIO4_8 | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-----|------|------|-----------|-----------------|-----------------|-----------------|-----------------|------------------------|-----------------|-----------------|-----------------|-----------------|-------------------|--------------------|------------------|------------------|
| 256 | MFIO | 1.8 | B15 | MCASP2_AXR0 | VOUT2_D10 | VIN4A_D10 | | | | | | | | | | |
| 257 | MFIO | 1.8 | F4 | UART10_RT SN | VIN2A_D5 | VOUT2_D18 | EMU15 | KBD_COL2 | EQEP2A_IN | PR1_EDIO_SOF | PR1_PRU1_GPI2 | PR1_PRU1_GP02 | GPIO4_6 | | | |
| 258 | MFIO | 1.8 | D15 | MCASP8_AXR0 | MCASP2_AXR4 | VOUT2_D12 | VIN4A_D12 | GPIO1_4 | | | | | | | | |
| 259 | MFIO | 1.8 | F5 | VIN2A_D8 | VOUT2_D15 | EMU18 | MI11_RXD3 | KBD_COL5 | EQEP2_STROBE | PR1_MI11_TXD3 | PR1_PRU1_GPI5 | PR1_PRU1_GP05 | GPIO4_9 | | | |
| 260 | MFIO | 1.8 | C23 | MCASP8_AHCLKX | XREF_CLK3 | MCASP2_AXR11 | MCASP1_AXR7 | MCASP4_AHCLKX | VOUT2_DE | HDQ0 | VIN4A_DE0 | CLKOUT3 | TIMER16 | GPIO6_20 | | |
| 261 | MFIO | 1.8 | E6 | VIN2A_D9 | VOUT2_D14 | EMU19 | MI11_RXD0 | KBD_COL6 | EHRPWM2A | PR1_MI11_TXD2 | PR1_PRU1_GPI6 | PR1_PRU1_GP06 | GPIO4_10 | | | |
| 262 | MFIO | 1.8 | B16 | MCASP8_AXR1 | MCASP2_AXR5 | VOUT2_D13 | VIN4A_D13 | GPIO6_7 | | | | | | | | |
| 263 | MFIO | 1.8 | F6 | VIN2A_D11 | MDIO_D | VOUT2_D12 | KBD_ROW7 | EHRPWM2_TRIPZONE_INPUT | PR1_MDIO_DATA | PR1_PRU1_GPI8 | PR1_PRU1_GPO8 | GPIO4_12 | | | | |
| 264 | MFIO | 1.8 | A17 | MCASP8_FSX | MCASP2_AXR7 | MCASP8_FS_R | VOUT2_D15 | VIN4A_D15 | GPIO1_5 | | | | | | | |
| 265 | MFIO | 1.8 | G6 | VIN2A_VSYNC0 | VIN2B_VSYNC1 | VOUT2_VSYNC | EMU9 | UART9_TXD | SPI4_D1 | KBD_ROW3 | EHRPWM1A | PR1_UART0_RTS_N | PR1_EDIO_DATA_IN4 | PR1_EDIO_DATA_OUT4 | GPIO4_0 | |
| 266 | MFIO | 1.8 | B17 | MCASP8_ACLKX | MCASP2_AXR6 | MCASP8_ACLKR | VOUT2_D14 | VIN4A_D14 | GPIO2_29 | | | | | | | |
| 267 | MFIO | 1.8 | B10 | VOUT1_DE | VIN4A_DE0 | VIN3A_DE0 | SPI3_D1 | GPIO4_20 | | | | | | | | |
| 268 | MFIO | 1.8 | A20 | MCASP2_FS_R | MCASP8_AXR3 | VOUT2_D9 | VIN4A_D9 | | | | | | | | | |
| 269 | MFIO | 1.8 | D11 | VOUT1_CLK | VIN4A_FL_D0 | VIN3A_FL_D0 | SPI3_CS0 | GPIO4_19 | | | | | | | | |
| 270 | MFIO | 1.8 | B24 | SPI2_CS0 | UART3_RTSN | UART5_TXD | GPIO7_17 | | | | | | | | | |
| 271 | MFIO | 1.8 | E11 | VOUT1_VSYNC | VIN4A_VSYNC0 | VIN3A_VSYNC0 | SPI3_SCLK | PR2_PRU1_GPI17 | PR2_PRU1_GPO17 | GPIO4_23 | | | | | | |
| 272 | MFIO | 1.8 | A25 | SPI1_SCLK | GPIO7_7 | | | | | | | | | | | |
| 273 | MFIO | 1.8 | D12 | MCASP1_AXR7 | MCASP5_AXR3 | VOUT2_D7 | VIN4A_D7 | TIMER4 | GPIO5_9 | | | | | | | |
| 274 | MFIO | 1.8 | B25 | SPI1_D0 | GPIO7_9 | | | | | | | | | | | |
| 275 | MFIO | 1.8 | B27 | UART1_RXD | MMC4_SDCD | GPIO7_22 | | | | | | | | | | |
| 276 | MFIO | 1.8 | A26 | SPI2_SCLK | UART3_RXD | GPIO7_14 | | | | | | | | | | |
| 277 | GND | - | - | GND | | | | | | | | | | | | |
| 278 | MFIO | 1.8 | B26 | XREF_CLK2 | MCASP2_AXR10 | MCASP1_AXR6 | MCASP3_AHCLKX | MCASP7_AHCLKX | VOUT2_CLK | VIN4A_CLK0 | TIMER15 | GPIO6_19 | | | | |
| 279 | MFIO | 1.8 | D27 | UART3_RXD | UART2_CTSN | MMC4_DAT2 | UART10_RXD | UART1_DTRN | GPIO1_16 | | | | | | | |
| 280 | GND | - | - | GND | | | | | | | | | | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-------|------|------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| 281 | MFIO | 1.8 | C28 | UART3_TXD | UART2_RTSN | UART3_IRTX | MMC4_DAT3 | UART10_TXD | UART1_RIN | GPIO1_17 | | | | | | |
| E1-1 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E1-2 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E1-3 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E1-4 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E1-5 | GND | - | - | GND | | | | | | | | | | | | |
| E1-6 | GND | - | - | GND | | | | | | | | | | | | |
| E1-7 | GND | - | - | GND | | | | | | | | | | | | |
| E1-8 | PWR | B34 | - | VCCIO_34_EXT | | | | | | | | | | | | |
| E1-9 | PWR | B34 | - | VCCIO_34_EXT | | | | | | | | | | | | |
| E1-10 | NC | - | - | | | | | | | | | | | | | |
| E2-1 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E2-2 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E2-3 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E2-4 | PWR | 5.0 | - | VDD_5V0 | | | | | | | | | | | | |
| E2-5 | GND | - | - | GND | | | | | | | | | | | | |
| E2-6 | GND | - | - | GND | | | | | | | | | | | | |
| E2-7 | PWR | B15 | - | VCCO_15_EXT | | | | | | | | | | | | |
| E2-8 | PWR | B15 | - | VCCO_15_EXT | | | | | | | | | | | | |
| E2-9 | OUT | 1.8 | - | VDD_1V8F | | | | | | | | | | | | |
| E2-10 | NC | - | - | | | | | | | | | | | | | |
| E3-1 | NC | - | - | | | | | | | | | | | | | |
| E3-2 | OUT | 3.3 | - | PS_3V3 | | | | | | | | | | | | |
| E3-3 | OUT | 3.3 | - | PS_3V3 | | | | | | | | | | | | |
| E3-4 | PMIO | - | - | AUXFAN_EN | | | | | | | | | | | | |
| E3-5 | FF | 3.3 | - | PB_RESETn | | | | | | | | | | | | |



| Pin | Type | Volt | 57xxb all | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 | Signal Option 11 | Signal Option 12 | Signal Option 13 |
|-------|------|------|-----------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| E3-6 | PMIO | - | - | PMIC_POW ERGOOD | | | | | | | | | | | | |
| E3-7 | PMIO | - | - | PMIC_POW ERHOLD | | | | | | | | | | | | |
| E3-8 | GND | - | - | GND | | | | | | | | | | | | |
| E3-9 | NC | - | - | | | | | | | | | | | | | |
| E3-10 | NC | - | - | | | | | | | | | | | | | |
| E4-1 | NC | - | - | | | | | | | | | | | | | |
| E4-2 | OUT | - | - | VDD_1V8F | | | | | | | | | | | | |
| E4-3 | OUT | - | - | VDD_1V8F | | | | | | | | | | | | |
| E4-4 | MFIO | 1.8 | - | WAKEUP1 | DCAN2_RX | GPIO1_1 | | | | | | | | | | |
| E4-5 | GND | - | - | GND | | | | | | | | | | | | |
| E4-6 | NC | - | - | | | | | | | | | | | | | |
| E4-7 | NC | - | - | | | | | | | | | | | | | |
| E4-8 | NC | - | - | | | | | | | | | | | | | |
| E4-9 | NC | - | - | | | | | | | | | | | | | |
| E4-10 | NC | - | - | | | | | | | | | | | | | |

Hirose 100 Pin Interface Description (J3)

The second interface connector for the MitySOM-AM57 is a Hirose DF40C-100DP-0.4V(51) 100 pin board-to-board interface which contains 6 types of signals:

- Power input and ground/return (PWR / GND)
- Multi-function signals mapped to the AM57XX device (MFIO)
- Module fixed-function pins (FF)
- Dedicated signals mapped to the Power Management IC (PMIC)

Table 7 contains a summary of the MitySOM-AM57 100 Pin Hirose connector pin mapping which includes:

- Connector pin assignment
- Voltage domains
- AM57XX ball for direct connect pins
- Signal Options / name for each pin

Table 7 J3 Pin-Out

| Pin | Type | V | AM5728 Ball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 |
|-----|------|-----|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|
| 1 | GND | - | - | GND | | | | | | | | | |
| 2 | GND | - | - | GND | | | | | | | | | |
| 3 | FF | - | AH19 | HDMI1_DATA2Y | | | | | | | | | |
| 4 | MFIO | 1.8 | B21 | HDMI1_HPD | SPI1_CS2 | UART4_RXD | MMC3_SDCD | SPI2_CS2 | DCAN2_TX | MDIO_MCLK | GPIO7_12 | | |
| 5 | FF | - | AG19 | HDMI1_DATA2X | | | | | | | | | |
| 6 | MFIO | 1.8 | B20 | HDMI1_CEC | SPI1_CS3 | UART4_TXD | MMC3_SDWP | SPI2_CS3 | DCAN2_RX | MDIO_D | GPIO7_13 | | |
| 7 | GND | - | - | GND | | | | | | | | | |
| 8 | MFIO | 1.8 | C25 | HDMI1_DDC_SCL | I2C2_SDA | | | | | | | | |
| 9 | FF | - | AH18 | HDMI1_DATA1Y | | | | | | | | | |
| 10 | MFIO | 1.8 | F17 | HDMI1_DDC_SDA | I2C2_SCL | | | | | | | | |
| 11 | FF | - | AG18 | HDMI1_DATA1X | | | | | | | | | |
| 12 | MFIO | 1.8 | A24 | SPI1_CS0 | GPIO7_10 | | | | | | | | |
| 13 | GND | - | - | GND | | | | | | | | | |
| 14 | MFIO | 1.8 | AG8 | VIN1A_CLK0 | VOUT3_D16 | VOUT3_FLD | GPIO2_30 | | | | | | |
| 15 | FF | - | AH17 | HDMI1_DATA0Y | | | | | | | | | |
| 16 | GND | - | - | GND | | | | | | | | | |
| 17 | FF | - | AG17 | HDMI1_DATA0X | | | | | | | | | |
| 18 | MFIO | 1.8 | AA3 | MCASP5_ACLKX | MCASP5_ACLKR | SPI4_SCLK | UART9_RXD | I2C5_SDA | VOUT2_D20 | VIN4A_D20 | VIN5A_D11 | PR2_PRU1_G PI1 | PR2_PRU1_G PO1 |
| 19 | GND | - | - | GND | | | | | | | | | |
| 20 | MFIO | 1.8 | AB9 | MCASP5_FSX | MCASP5_FSR | SPI4_D1 | UART9_TXD | I2C5_SCL | VOUT2_D21 | VIN4A_D21 | VIN5A_D10 | PR2_PRU1_G PI2 | PR2_PRU1_G PO2 |
| 21 | FF | - | AH16 | HDMI1_CLOCKY | | | | | | | | | |
| 22 | MFIO | 1.8 | AD9 | GPIO3_0 | VIN1A_DE0 | VIN1B_HSYNC1 | VOUT3_D17 | VOUT3_DE | UART7_RXD | TIMER16 | SPI3_SCLK | KBD_ROW0 | EQEP1A_IN |
| 23 | FF | - | AG16 | HDMI1_CLOCKX | | | | | | | | | |
| 24 | MFIO | 1.8 | AD8 | GPIO3_5 | VIN1A_D1 | VOUT3_D6 | VOUT3_D22 | UART8_TXD | EHRPWM1B | | | | |
| 25 | GND | - | - | GND | | | | | | | | | |



| Pin | Type | V | AM5728 Ball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 |
|-----|------|-----|-------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------------|--------------------|-----------------|-----------------|------------------|
| 26 | MFIO | 1.8 | AF8 | GPIO3_3 | VIN1A_VSYNC0 | VIN1B_DE1 | VOUT3_VSYNC | UART7_RTSN | TIMER13 | SPI3_CS0 | EQEP1_STROBE | | |
| 27 | FF | - | AC11 | USB1_SSRX_N | | | | | | | | | |
| 28 | MFIO | 1.8 | AE8 | GPIO3_4 | VIN1A_D0 | VOUT3_D7 | VOUT3_D23 | UART8_RXD | EHRPWM1A | | | | |
| 29 | FF | - | AD11 | USB1_SSRX_P | | | | | | | | | |
| 30 | MFIO | 1.8 | AF6 | VIN1A_D13 | VIN1B_D2 | VOUT3_D10 | GPMC_A25 | KBD_ROW7 | PR1_EDC_SYNC1_OUT | PR1_PRU0_GPI10 | PR1_PRU0_GPO10 | GPIO3_17 | |
| 31 | GND | - | - | GND | | | | | | | | | |
| 32 | MFIO | 1.8 | AE6 | VIN1A_D21 | VIN1B_D2 | VOUT3_D2 | VIN3A_D5 | KBD_COL6 | PR1_EDIO_DATA_IN5 | PR1_EDIO_DATA_OUT5 | PR1_PRU0_GPI18 | PR1_PRU0_GPO18 | GPIO3_25 |
| 33 | FF | - | AF12 | USB1_SSTX_N | | | | | | | | | |
| 34 | MFIO | 1.8 | AA4 | MCASP5_AXR1 | SPI4_CS0 | UART9_RTSN | UART3_TXD | VOUT2_D23 | VIN4A_D23 | VIN5A_D8 | PR2_MDIO_DATA | PR2_PRU1_GPI4 | PR2_PRU1_GPO4 |
| 35 | FF | - | AE12 | USB1_SSTX_P | | | | | | | | | |
| 36 | MFIO | 1.8 | AB3 | MCASP5_AXR0 | SPI4_D0 | UART9_CTSN | UART3_RXD | VOUT2_D22 | VIN4A_D22 | VIN5A_D9 | PR2_MDIO_MDCCLK | PR2_PRU1_GPI3 | PR2_PRU1_GPO3 |
| 37 | GND | - | - | GND | | | | | | | | | |
| 38 | MFIO | 1.8 | AE9 | GPIO3_2 | VIN1A_HSYNC0 | VIN1B_FLD1 | VOUT3_HSYNC | UART7_CTSN | TIMER14 | SPI3_D0 | EQEP1_INDEX | | |
| 39 | MFIO | 1.8 | C27 | GPIO7_25 | UART1_RTSN | UART9_TXD | MMC4_CMD | | | | | | |
| 40 | MFIO | 1.8 | AF9 | GPIO3_1 | VIN1A_FLD0 | VIN1B_VSYNC1 | VOUT3_CLK | UART7_TXD | TIMER15 | SPI3_D1 | KBD_ROW1 | EQEP1B_IN | |
| 41 | MFIO | 1.8 | AB10 | USB1_DRVVBUS | TIMER16 | GPIO6_12 | | | | | | | |
| 42 | MFIO | 1.8 | AG7 | GPIO3_6 | VIN1A_D2 | VOUT3_D5 | VOUT3_D21 | UART8_CTSN | EHRPWM1_TRIPZONE_INPUT | | | | |
| 43 | FF | - | AC12 | USB1_DM | | | | | | | | | |
| 44 | MFIO | 1.8 | AH7 | VIN1B_CLK1 | VIN3A_CLK0 | GPIO2_31 | | | | | | | |
| 45 | FF | - | AD12 | USB1_DP | | | | | | | | | |
| 46 | MFIO | 1.8 | AG6 | VIN1A_D6 | VOUT3_D1 | VOUT3_D17 | EQEP2A_IN | PR1_PRU0_GPI3 | PR1_PRU0_GPO3 | GPIO3_10 | | | |
| 47 | GND | - | - | GND | | | | | | | | | |
| 48 | MFIO | 1.8 | AH6 | VIN1A_D3 | VOUT3_D4 | VOUT3_D20 | UART8_RTSN | ECAP1_IN_PWM1_OUT | PR1_PRU0_GPI0 | PR1_PRU0_GPO0 | GPIO3_7 | | |
| 49 | FF | - | AH10 | SATA1_TXP0 | | | | | | | | | |
| 50 | MFIO | 1.8 | AG5 | VIN1A_D11 | VIN1B_D4 | VOUT3_D12 | GPMC_A23 | KBD_ROW5 | PR1_EDC_LATCH1_IN | PR1_PRU0_GPI8 | PR1_PRU0_GPO8 | GPIO3_15 | |
| 51 | FF | - | AG10 | SATA1_TXN0 | | | | | | | | | |



| Pin | Type | V | AM5728 Ball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 |
|-----|------|-----|-------------|-----------------|-----------------|-----------------|-----------------|--------------------|-------------------|--------------------|-----------------|-----------------|------------------|
| 52 | MFIO | 1.8 | AH5 | VIN1A_D5 | VOUT3_D2 | VOUT3_D18 | EHRPWM1_SYNCO | PR1_PRU0_GPI2 | PR1_PRU0_GPO2 | GPIO3_9 | | | |
| 53 | GND | - | - | GND | | | | | | | | | |
| 54 | MFIO | 1.8 | AG4 | VIN1A_D8 | VIN1B_D7 | VOUT3_D15 | KBD_ROW2 | EQEP2_INDEX | PR1_PRU0_GPI5 | PR1_PRU0_GPO5 | GPIO3_12 | | |
| 55 | FF | - | AH9 | SATA1_RXN0 | | | | | | | | | |
| 56 | MFIO | 1.8 | AH4 | VIN1A_D7 | VOUT3_D0 | VOUT3_D16 | EQEP2B_IN | PR1_PRU0_GPI4 | PR1_PRU0_GPO4 | GPIO3_11 | | | |
| 57 | FF | - | AG9 | SATA1_RXP0 | | | | | | | | | |
| 58 | MFIO | 1.8 | AG3 | VIN1A_D10 | VIN1B_D5 | VOUT3_D13 | KBD_ROW4 | PR1_EDC_LATCH_0_IN | PR1_PRU0_GPI7 | PR1_PRU0_GPO7 | GPIO3_14 | | |
| 59 | GND | - | - | GND | | | | | | | | | |
| 60 | MFIO | 1.8 | AH3 | VIN1A_D4 | VOUT3_D3 | VOUT3_D19 | EHRPWM1_SYNCI | PR1_PRU0_GPI1 | PR1_PRU0_GPO1 | GPIO3_8 | | | |
| 61 | MFIO | 1.8 | AE3 | VIN1A_D17 | VIN1B_D6 | VOUT3_D6 | VIN3A_D1 | KBD_COL2 | PR1_EDIO_DATA_IN1 | PR1_EDIO_DATA_OUT1 | PR1_PRU0_GPI14 | PR1_PRU0_GPO14 | GPIO3_21 |
| 62 | MFIO | 1.8 | AG2 | VIN1A_D9 | VIN1B_D6 | VOUT3_D14 | KBD_ROW3 | EQEP2_STROBE | PR1_PRU0_GPI6 | PR1_PRU0_GPO6 | GPIO3_13 | | |
| 63 | MFIO | 1.8 | AF4 | VIN1A_D15 | VIN1B_D0 | VOUT3_D8 | GPMC_A27 | KBD_COL0 | PR1_EDIO_SOF | PR1_PRU0_GPI12 | PR1_PRU0_GPO12 | GPIO3_19 | |
| 64 | MFIO | 1.8 | AF2 | VIN1A_D12 | VIN1B_D3 | VOUT3_D11 | GPMC_A24 | KBD_ROW6 | PR1_EDC_SYNC0_OUT | PR1_PRU0_GPI9 | PR1_PRU0_GPO9 | GPIO3_16 | |
| 65 | MFIO | 1.8 | AE5 | VIN1A_D18 | VIN1B_D5 | VOUT3_D5 | VIN3A_D2 | KBD_COL3 | PR1_EDIO_DATA_IN2 | PR1_EDIO_DATA_OUT2 | PR1_PRU0_GPI15 | PR1_PRU0_GPO15 | GPIO3_22 |
| 66 | MFIO | 1.8 | AF1 | VIN1A_D16 | VIN1B_D7 | VOUT3_D7 | VIN3A_D0 | KBD_COL1 | PR1_EDIO_DATA_IN0 | PR1_EDIO_DATA_OUT0 | PR1_PRU0_GPI13 | PR1_PRU0_GPO13 | GPIO3_20 |
| 67 | MFIO | 1.8 | AD3 | VIN1A_D23 | VIN1B_D0 | VOUT3_D0 | VIN3A_D7 | KBD_COL8 | PR1_EDIO_DATA_IN7 | PR1_EDIO_DATA_OUT7 | PR1_PRU0_GPI20 | PR1_PRU0_GPO20 | GPIO3_27 |
| 68 | MFIO | 1.8 | AF3 | VIN1A_D14 | VIN1B_D1 | VOUT3_D9 | GPMC_A26 | KBD_ROW8 | PR1_EDIO_LATCH_IN | PR1_PRU0_GPI11 | PR1_PRU0_GPO11 | GPIO3_18 | |
| 69 | GND | - | - | GND | | | | | | | | | |
| 70 | MFIO | 1.8 | AE2 | VIN1A_D20 | VIN1B_D3 | VOUT3_D3 | VIN3A_D4 | KBD_COL5 | PR1_EDIO_DATA_IN4 | PR1_EDIO_DATA_OUT4 | PR1_PRU0_GPI17 | PR1_PRU0_GPO17 | GPIO3_24 |
| 71 | XCVR | - | - | PCIe_REF_CLK_P | | | | | | | | | |
| 72 | MFIO | 1.8 | AD2 | VIN1A_D22 | VIN1B_D1 | VOUT3_D1 | VIN3A_D6 | KBD_COL7 | PR1_EDIO_DATA_IN6 | PR1_EDIO_DATA_OUT6 | PR1_PRU0_GPI19 | PR1_PRU0_GPO19 | GPIO3_26 |
| 73 | XCVR | - | - | PCIe_REF_CLK_N | | | | | | | | | |
| 74 | FF | - | - | AM57_BOOT_MODE | | | | | | | | | |
| 75 | GND | - | - | GND | | | | | | | | | |
| 76 | PWR | - | K14 | OTP_VPP1 | | | | | | | | | |
| 77 | XCVR | - | AH14 | PCIe0_TX_P | | | | | | | | | |



| Pin | Type | V | AM5728 Ball | Signal Option 1 | Signal Option 2 | Signal Option 3 | Signal Option 4 | Signal Option 5 | Signal Option 6 | Signal Option 7 | Signal Option 8 | Signal Option 9 | Signal Option 10 |
|-----|------|-----|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|--------------------|-----------------|-----------------|------------------|
| 78 | GND | - | - | GND | | | | | | | | | |
| 79 | XCVR | | AG14 | PCIe0_TX_N | | | | | | | | | |
| 80 | FF | | AC1 | RESERVED (NC) | | | | | | | | | |
| 81 | GND | - | - | GND | | | | | | | | | |
| 82 | FF | | AC2 | RESERVED (NC) | | | | | | | | | |
| 83 | XCVR | | AH13 | PCIe0_RX_P | | | | | | | | | |
| 84 | FF | | AB1 | RESERVED (NC) | | | | | | | | | |
| 85 | XCVR | | AG13 | PCIe0_RX_N | | | | | | | | | |
| 86 | FF | | AB2 | RESERVED (NC) | | | | | | | | | |
| 87 | GND | - | - | GND | | | | | | | | | |
| 88 | FF | | AA1 | RESERVED (NC) | | | | | | | | | |
| 89 | XCVR | | AH12 | PCIe1_TX_P | | | | | | | | | |
| 90 | FF | | AA2 | RESERVED (NC) | | | | | | | | | |
| 91 | XCVR | | AG12 | PCIe1_TX_N | | | | | | | | | |
| 92 | GND | - | - | GND | | | | | | | | | |
| 93 | GND | - | - | GND | | | | | | | | | |
| 94 | NC | - | - | | | | | | | | | | |
| 95 | XCVR | | AH11 | PCIe1_RX_P | | | | | | | | | |
| 96 | NC | - | - | | | | | | | | | | |
| 97 | XCVR | | AG11 | PCIe1_RX_N | | | | | | | | | |
| 98 | NC | - | - | | | | | | | | | | |
| 99 | GND | - | - | GND | | | | | | | | | |
| 100 | MFIO | 1.8 | AE1 | vin1a_d19 | vin1b_d4 | vout3_d4 | vin3a_d3 | kbd_col4 | pr1_edio_data_in3 | pr1_edio_data_out3 | pr1_pru0_gpi16 | pr1_pru0_gpo16 | gpio3_23 |

Note1: The OTP_VPP signal, K14, should typically be left floating. Please contact your Critical Link representative for further questions about the usage of this pin.

DEBUG INTERFACE

The JTAG interface and emulator signals for the AM57xx processor have been brought out to a 20 pin header, J4.

Debug Interface Connector Description (J4)

Table 8: MitySOM-AM57 Debug Connector (J4)

| Pin | I/O | Signal | Pin | I/O | Signal |
|-----|-----|-------------|-----|-----|-------------|
| 1 | I | AM57xx TMS | 2 | I | AM57xx TRST |
| 3 | I | AM57xx TDI | 4 | - | NC |
| 5 | - | 1.8V | 6 | - | Key |
| 7 | O | AM57xx TDO | 8 | - | GND |
| 9 | O | AM57xx RTCK | 10 | - | GND |
| 11 | I | AM57xx TCK | 12 | - | GND |
| 13 | O | AM57xx EMU0 | 14 | O | AM57xx EMU1 |
| 15 | - | NC | 16 | - | GND |
| 17 | - | NC | 18 | - | GND |
| 19 | - | NC | 20 | - | GND |

This header, J4, can be removed for production units; please contact Critical Link at info@criticallink.com for details.

ELECTRICAL CHARACTERISTICS

Table 9: Electrical Characteristics

| Symbol | Parameter | Conditions | Min | Typ | Max | Units |
|-------------|---|------------|------|--------------------|--------------------|-------|
| V_5 | Voltage supply, 5 volt input. | | 4.5 | 5 | 5.25 | Volts |
| I_5 | Quiescent Current draw, 5 volt input | | | TBS ^{1,2} | TBS ^{1,2} | mA |
| I_{5-max} | Max current draw, positive 5 volt input. | | | TBS ^{1,2} | TBS ^{1,2} | mA |
| F_{CPU} | CPU internal clock Frequency (PLL output) | | 1500 | 1500 | 1500 | MHz |
| F_{EMIFA} | DDR3 bus frequency, each bank | | - | 533 | - | MHz |
| $I_{o3.3}$ | Max output current 3.3V output | | | | 1000 | mA |
| $I_{o1.8}$ | Max output current 1.8V output | | | | 1500 | mA |
| | 1. Power utilization of the MitySOM-AM57 is heavily dependent on end-user application. Major factors include: ARM CPU PLL configuration, DSP Utilization, and external DDR3L RAM utilization. 2. For power utilization information please visit our Redmine Wiki pages on support.criticallink.com | | | | | |

ORDERING INFORMATION

The following table lists the standard module configurations. For shipping status, availability, and lead time of these or other configurations please contact Critical Link at info@criticallink.com.

Table 10: Standard Model Numbers

| Module P/N | CPU | NOR | RAM Bank 1 | RAM Bank 2 | Component Temperature Rating |
|----------------|--------|------|------------|------------|------------------------------|
| 5728-PX-4AA-RI | AM5728 | 32MB | 1 GB | 1 GB | -40°C to 85°C |
| 5728-PX-4AA-RC | AM5728 | 32MB | 1 GB | 1 GB | 0°C to 70°C |
| 5729-PX-4AA-RI | AM5729 | 32MB | 1 GB | 1 GB | -40°C to 85°C |
| 5729-PX-4AA-RC | AM5729 | 32MB | 1 GB | 1 GB | 0°C to 70°C |
| 5746-PX-4AA-RI | AM5746 | 32MB | 1 GB | 1 GB | -40°C to 85°C |
| 5746-PX-4AA-RC | AM5746 | 32MB | 1 GB | 1 GB | 0°C to 70°C |
| 5749-PX-4AA-RI | AM5749 | 32MB | 1 GB | 1 GB | -40°C to 85°C |
| 5749-PX-4AA-RC | AM5749 | 32MB | 1 GB | 1 GB | 0°C to 70°C |

MECHANICAL INTERFACE

The dimension of the MitySOM-AM57 are 88.000mm (~3.46in) x 69.417mm (~2.73in) and features two mounting holes at the rear of the module where the 100-pin connector, J3, is. If a heat spreader/sink solution is required Critical Link recommends placing two additional mounting holes near the MXM connector as shown in Figure 2.

The mechanical outline of the MitySOM-AM57 is illustrated in Figure 2, as shown below.

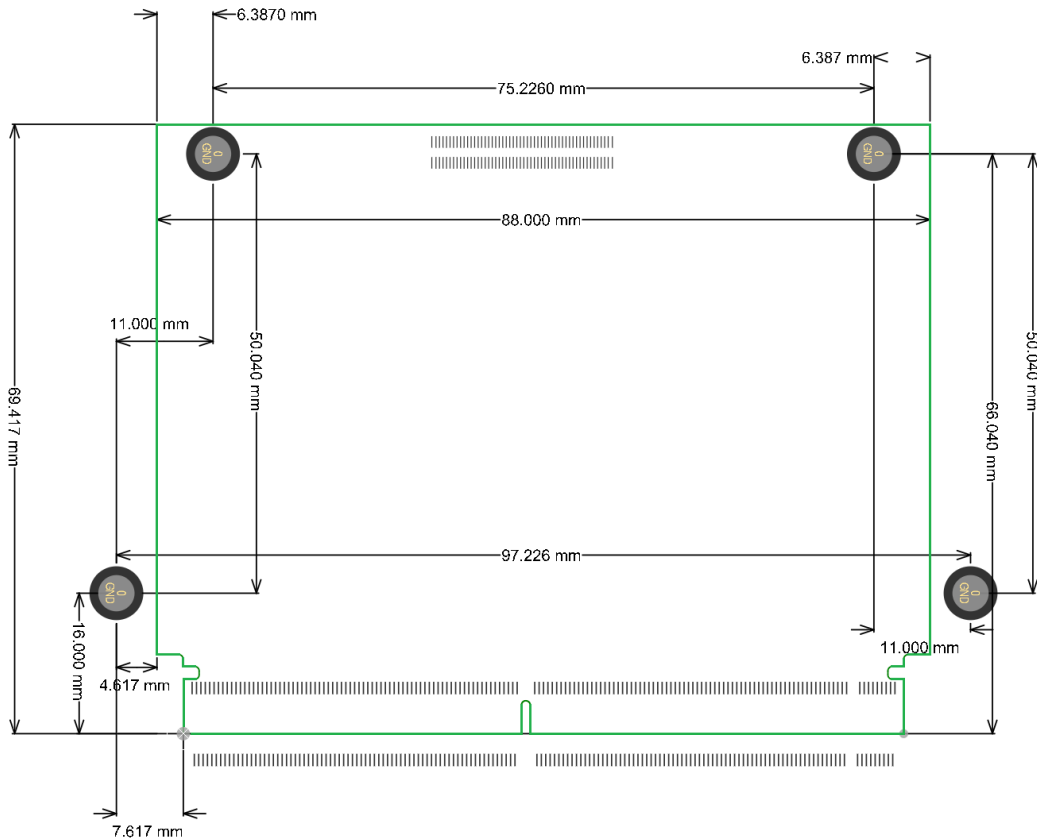


Figure 2 MitySOM-AM57 Mechanical Outline

REVISION HISTORY

| Rev | Date | Change Description |
|------------|--------------|---------------------------|
| 1A | 29-SEPT-2021 | Initial Release |