

Carbon AM67 OSM-MF

Datasheet

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Introduction

This document describes key hardware aspects of Ezurio's Carbon AM67 OSM-MF system-on-module which is based on the TI AM67A and AM67 Sitara™ processor family. Carbon AM67 OSM-MF is a module that conforms to the [SGET Open Standard Module \(OSM\)](#) version 1.2 standards specification.

Overview

Carbon AM67 OSM-MF uses the TI AM67A and AM67 Sitara™ processors which integrate up to four Arm® Cortex®-A53 cores with 64-bit architecture, a Vision Processing Accelerator (VPAC) with Image Signal Processor (ISP) and multiple vision assist accelerators, Deep Learning (DL), Dense Optical Flow (DOF) video and 3D Graphics accelerators, a 800 MHz Cortex®-R5F MCU Island core and two 800MHz Cortex®- R5F cores for Device and Run-time Management.

General Description

In addition, the extensive set of peripherals included with Carbon AM67 OSM-MF enables system-level connectivity, such as: LVDS display output, USB 2.0, USB 3.0, gigabit ethernet, MMC/SD/SDIO, MIPI-CSI camera interface, MIPI-DSI display interface, UART, SPI, I2C, CAN-FD, PWM, and GPIO. Carbon AM67 OSM-MF supports our EZ BSP Chain of Trust's secure boot, secure image, and secure storage protection using the built-in Hardware Security Module (HSM). In addition, Carbon AM67 OSM-MF employs advanced power management support for portable and power-sensitive applications.

Note: This datasheet is subject to change. Please [contact Ezurio](#) for further information.

Application Areas

- Smart Building Control, HVAC
- Energy Meters, Energy Storage, Smart Electrical Panels
- Test and Measurement Equipment
- Industrial Vision and Camera Systems
- Commercial Food and Beverage Equipment
- Medical and Healthcare Devices
- Human-Machine Interfaces (HMI) and Kiosk Systems

Features & Benefits

The Carbon AM67 OSM-MF module is based on the AM67x family from Texas Instruments which offers a variety of interfaces and different memory configurations. The following feature summary list follows Carbon AM67's implementation of the OSM v1.2 standard. If customer does not need to conform to OSM v1.2, most of the interfaces described in TI's AM67x datasheet are available via the processor pinmux configuration in our software releases.

Key features of Carbon AM67 OSM-MF are described below.

Feature	Description
Graphics, Displays, and Cameras	Up to 3 independent displays, GPU, camera support
OSM-MF v1.2 Compatible	Built in the size optimized 45x30mm OSM Size-MF form factor and pin-compatible with our full range of OSM-MF modules
Robust Software and Board Support	Choose from Yocto Linux, Buildroot Linux, Android, Debian, or QNX for Cortex-A53, FreeRTOS for Cortex-R5F
Secure Enclave and Secure Boot	Dedicated on-board security hardware, secure boot Linux, high-performance and flexible secure storage for passwords, certificates, and data storage.

Choose your Sona Wi-Fi and Bluetooth Module	Select from our line of Wi-Fi 6 and Wi-Fi 6E modules that include up to Bluetooth 5.4 and global radio certifications
Personal Support from Design to Manufacture	Our industry-renowned support and field application engineering team is passionate about helping you speed your design to market.

Specification Summary

Processor / SoC

Processor	- Up to Quad 64-bit Arm® Cortex®-A53 microprocessor subsystem at up to 1.4GHz - Quad-core Cortex-A53 cluster with 512KB L2 shared cache with SECEDED ECC - Each A53 core has 32KB L1 DCache with SECEDED ECC and 32KB L1 ICache with Parity protection - Processor can provide 2 basic levels of performance as dictated by the primary clock rate of 1.25 or 1.4GHz which requires 2 different VDD_CORE supply voltage levels of 0.75V or 0.85V (1.4GHz, 0.85V or 1.25GHz, 0.75V) and then transition to a different performance level using system software.
Applications MCU	- Single-core Arm® Cortex®-R5F at up to 800MHz, integrated as part of MCU Channel with FFI 32KB ICache, 32KB L1 DCache, and 64KB TCM with SECEDED ECC on all memories 512KB SRAM with SECEDED ECC
Device Management MCU	- Single-core Arm® Cortex®-R5F at up to 800MHz, integrated to support Device Management 32KB ICache, 32KB L1 DCache, and 64KB TCM with SECEDED ECC on all memories
Run-Time Management MCU	- Single-core Arm® Cortex®-R5F at up to 800MHz, integrated to support Run-time Management 32KB ICache, 32KB L1 DCache, and 64KB TCM with SECEDED ECC on all memories
GPU	Optional 3D Graphics Processing Unit - IMG BXS-4-64 with 256KB cache - Up to 50 GFLOPS - Single shader core - OpenGL ES3.2 and Vulkan 1.2 API support

	1. 2x Deep Learning Accelerator 2. up to 4 TOPS total
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Memory

RAM	4GB or 8GB LPDDR4
Storage	Up to 128 GB eMMC (16GB eMMC default)

Wi-Fi

Standards	(Optional): - Sona TI351: Wi-Fi 6 - Sona IF513: Wi-Fi 6E - Sona NX611: Wi-Fi 6
Interface	SDIO
Frequency Range	- Wi-Fi 6: 2.4/5 GHz - Wi-Fi 6E: 2.4/5/6 GHz

Radio Performance

Interfaces

Peripheral Interface	
Ethernet	2x Gigabit Ethernet - RGMII (10/100/1000) - IEEE1588 (Annex D, Annex E, Annex F with 802.1AS PTP) - Clause 45 MDIO PHY management - Packet Classifier based on ALE engine with 512 classifiers - Priority based flow control - Time sensitive networking (TSN) support - Four CPU H/W interrupt Pacing - IP/UDP/TCP checksum offload in hardware

UART	Up to 4 x 4-wire UART* 1x 2-wire UART The additional Interfaces beyond OSM-MF v1.2 spec are available on OSM's GPIO pins
USB	1 x USB3.1-Gen1 Port - One enhanced SuperSpeed Gen1 port - Port configurable as USB host, USB peripheral, or USB Dual-Role Device - Integrated USB VBUS detection 1 x USB2.0 Port - Port configurable as USB host, USB peripheral, or USB Dual-Role Device (DRD mode) - Integrated USB VBUS detection
GPIO	- up to 30 x GPIO 1 x GPO
PWM	up to 6 x PWM
CAN	2x CAN-FD
I2C	up to 4 x I2C
SPI	2 x SPI
SDIO	1x 4-bit MMC/SD/SDIO 3.0 port Speeds up to UHS-1
	1 x I2S

Display	Display subsystem • Triple display support • 1x LVDS (up to 2 channels)*, up to 1920 x 1080 @ 60 fps per Single Link, up to 3840 x 1080 at 60 fps in Dual Link • 1x MIPI-DSI, up to 3840 x 1080 @ 60 fps • Four display pipelines with hardware overlay support. A maximum of two display pipelines may be used per display. • Support safety feature such as freeze frame detection and MISR data check Not to OSM-MF v1.2 spec, but pin-compatible with other Ezurio OSM-MF modules
Camera	4 x Camera Serial interface (MIPI-CSI-2): • 4-Lane CSI-RX with DPHY • MIPI® CSI-2 v1.3 Compliant + MIPI D-PHY 1.2 • Support for 1,2,3 or 4 data lane mode up to 2.5Gbps • ECC verification/correction with CRC check + ECC on RAM • Support for up to 16 virtual channels • Ability to write stream data directly to DDR via DMA
Audio	1x I2S (Inter-IC Sound) • Clocks up to 50 MHz

Power

Power Modes	Low power modes supported by Device/Power Manager • Partial IO support for CAN/GPIO/UART wakeup • DeepSleep • MCU Only • Standby • Dynamic frequency scaling for Cortex-A53
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Software

Security	EZ BSP - Chain of Trust • Device security framework using secure boot with hardware root of trust and secure device storage • Production-Grade Image Signing - Secure signing service for generating signed firmware and certificates, backed by AWS • Manufacturing Provisioning - Mass programming of hardware root of trust and secure image programming with optional provisioning of customer-specific application keys, certificates, and credentials EZ BSP - Security BSP Releases • LTS Linux kernel, Yocto, and Buildroot releases out of our normal cycle to address CVEs • Ezurio QA re-tests the BSP/hardware combination to preserve features • Customer outsources the burden of retesting core BSP functionality • Yocto & Buildroot generate SBOMs for use in customer's CVE scanner or each build system's built in CVE scanner. Supports EU CRA, EO 14028 & NTIA SBOM EZ BSP - FIPS Cryptographic Module • FIPS 140-3 Level 1 certified • Wi-Fi data-in-transit • TLS data-in-transit • Currently on 60 Series SOM • In design for select SMARC and OSM SOMs • Required for medical, government, defense Secure boot supported • Hardware-enforced Root-of-Trust (RoT) • Support to switch RoT via backup key • Support for takeover protection, IP protection, and anti-roll back protection Trusted Execution Environment (TEE) supported • Arm TrustZone® based TEE • Extensive firewall support for isolation • Secure watchdog/timer/IPC • Secure storage support • Replay Protected Memory Block (RPMB) support Cryptographic acceleration supported • Session-aware cryptographic engine with ability to auto-switch key-material based on incoming data stream • AES - 128-/192-/256-Bit key sizes • SHA2 - 224-/256-/384-/512-Bit key sizes • DRBG with true random number generator • PKA (Public Key Accelerator) to Assist in RSA/ECC processing for secure boot Debugging • Secure software controlled debug access • Security aware debugging
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	Dedicated Security Controller with user programmable HSM core and dedicated security DMA & IPC subsystem for isolated processing
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Environmental

Lead Free	Lead-free and RoHS Compliant
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Warranty

Warranty Terms	One Year Warranty
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Functional Descriptions

Power-Up Sequence and Timing

Boot Mode

The Carbon AM67 OSM-MF module can be configured to boot from a different interface by selecting the BOOT_SEL0#, BOOT_SEL1#, and FORCE_RECOVERY# pins. These bits are latched externally during boot-up. The selected boot mode is the mode attempted after reset.

All BOOT_SEL0#, BOOT_SEL1#, and FORCE_RECOVERY# pins signals must be pulled high through a resistor to 1.8V, or pulled low to ground, they must not be left floating.

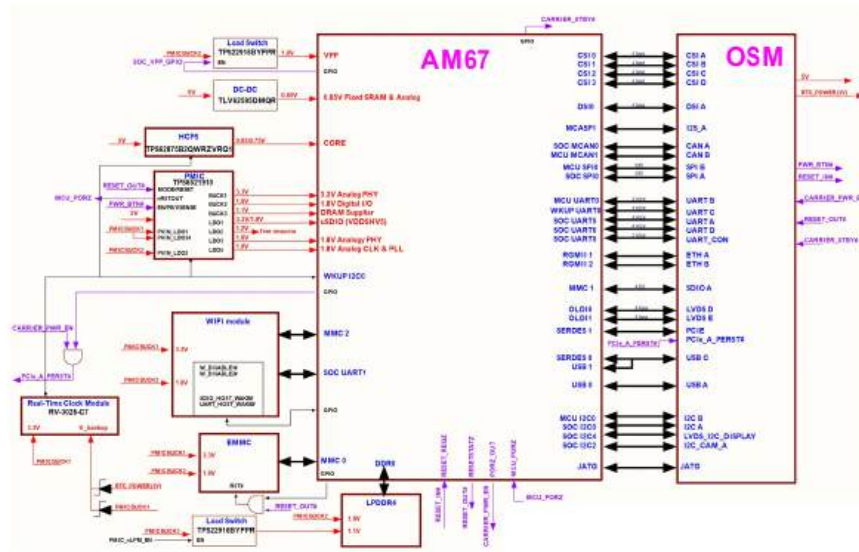
This allows more combinations as shown in the following table.

BOOT_SEL0	BOOT_SEL1#	FORCE_RECOVERY#	BOOT MODE
0	1	0	MMCSDBoot (SD Card Boot or eMMC Boot using UDA)
1	0	0	eMMC Boot
0	0	1	USB DFU

Hardware Architecture

Block Diagrams

The figure below shows the block diagram of the Carbon AM67 OSM-MF which contains the TI AM67x processor and TI PMIC (TPS65219).



Tables listed below show the pin multiplexing of the Carbon AM67 OSM-MF.

The table below defines I/O Types used in the pin mux tables.

Table: I/O Types

I/O Type	Description
I	Input to the Module
O	Output from the Module
I/O	Bi-directional Input / Output signal
OD	Open Drain Output
I OD	Input to the module, where an OD output on the carrier is expected
P	Power to the module
PO	Power source from the module
Analog	Analog signal between defined voltage
CMOS	Logic input or output.
USB	USB compatible differential signal. Please refer to the USB Specification for details.
USB SS	USB SuperSpeed signal. Please refer to the USB 3.x specification for details.
MDI	Media Dependent Interface, differential signal.

LVDS D-PHY	MIPI-DSI/CSI differential signal. Please refer to the MIPI D-PHY specification
LVDS M-PHY	MIPI-DSI/CSI differential signal. Please refer to the MIPI M-PHY specification
LVDS PCIE	PCI Express compatible differential signal. Please refer to the PCI Express Specification for details.
LVDS UFS	UFS compatible differential signal. Please refer to the UFS specification by JEDEC.
LVDS DP	DisplayPort compatible differential signal. Please refer to the DisplayPort specification for details.
LVDS LCD	Low Voltage Differential signals for connecting an LCD. Please refer to the LDI/OLDI specification for details.

TI processor has configurable internal Pull-up (PU) and pull-down (PD) resistor whose values are listed below. During a reset condition, the PU and PD state are pre-defined and cannot be changed.

Table: Resistor Characteristics

Parameter	Conditions	Min	Typ	Max	Unit
Pull-up (PU) resistor	VDD=1.65 to 1.95V	15	22	30	kΩ
Pull-down (PD) resistor	Temp=0 to 95°C	15	22	30	kΩ
Pull-up (PU) resistor	VDD=3.0 to 3.6V	15	22	30	kΩ
Pull-down (PD) resistor	Temp=0 to 95°C	15	22	30	kΩ

Our board support package’s default pin muxing is highlighted in red. Pin configuration for the TI AM67x is achieved using a suite of evaluation and configuration tools that assists users from initial evaluation to production software development. In order to know how to mux each pin, one would need to check the SysConfig tool from TI: <https://dev.ti.com/sysconfig/#/start>

Table: Size-0 Power Supply and Ground

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold= default muxing)	I/O Type	I/O Level	Comments
VCC_2_TEST	M19		VDD_IO_1V8		PO	1.8V	
VCC_3_TEST	Y16		VDD_RAM_0V8 5		PO	0.85V	

VCC_4_TEST	Y20		VDD_CORE		PO	0.75V - 0.85V	Scales by software with CPU frequency 1.4GHz : 0.85V 1.25GHz : 0.75V
VCC_IN_5V	Y17		VSYS_5V		P	5V	
VCC_IN_3V3	Y19	NC	NC		P	3.3V	
V_BAT	AA18, AB18	NC	NC		P		
GND	D18, E15, E21, F16, F20, J16, J20, L18, M16, M20, P18, R16, R20, V16, V20, Y18, AA14, AA17, AA19, AA22, AB15, AB21				P		
RESET_IN#	U17	E26	RESET_REQZ	RESET_REQZ	I OD CMOS	1.8V	10K PU on module
RESET_OUT#	Y14	E27	RESETSTATZ	RESETSTATZ	O CMOS	1.8V	10K PD on module
CARRIER_PWR_EN	V17	D27	PORZ_OUT	PORZ_OUT	O CMOS	1.8V	10K PD on module
CARRIER_STBY #	Y13	V26	GPMC0_AD12	GPMC0_AD12 VOUT0_DATA20 UART4_RXD MCASP2_AFSX TRC_DATA22 GPIO0_27 BOOTMODE12	O CMOS	1.8V	A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
VCC_OUT_IO	U18	NC	NC		PO	1.8V	

RTC_PWR	W17				P	3V	Low current RTC circuit backup power – 3V nominal. May be sourced from a Carrier based Lithium cell or Super Cap.
BOOT_SELO#	U19				I OD CMOS	1.8V	See Boot Mode ; 10K PU on module
BOOT_SEL1#	R18				I OD CMOS	1.8V	See Boot Mode ; 10K PU on module
FORCE_RECOVERY#	T17				I OD CMOS	1.8V	See Boot Mode ; 10K PU on module

Table: Size 0 JTAG

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
JTAG_TCK(SWCLK)	N17	A11	TCK	TCK	I CMOS	1.8V	
JTAG_TMS(SWDIO)	N19	F11	TMS	TMS	I CMOS	1.8V	
JTAG_TDI	P17	E12	TDI	TDI	I CMOS	1.8V	
JTAG_RTCK	P19	NC	NC		O CMOS	1.8V	
JTAG_TDO(SWO)	R17	F10	TDO	TDO	O CMOS	1.8V	
JTAG_nTRST	R19	B10	TRSTN	TRSTN	I CMOS	1.8V	
DEBUG_EN	AC18	C9	EMU0	EMU0	I CMOS	1.8V	Suggest 10K pull-ups on the carrier, not recommend to float this pin
TEST_GENERIC/ TEST_BOUNDARY_SCAN	C18	F9	EMU1	EMU1	I/O CMOS	1.8V	Suggest 10K pull-ups on the carrier, not recommend to float this pin

Table: Size 0 UART

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
UART_A_RX	A14	K22	OSPI0_CSn2	OSPI0_CSn2 SPI1_CS1 OSPI0_RESET_OUT1 MCASP1_AFSR MCASP1_AXR2 UART5_RXD GPIO0_13	I CMOS	1.8V	
UART_A_TX	B13	J22	OSPI0_CSn3	OSPI0_CSn3 OSPI0_RESET_OUT0 OSPI0_ECC_FAIL MCASP1_ACLKR MCASP1_AXR3 UART5_TXD GPIO0_14	O CMOS	1.8V	
UART_A_RTS	C13	L23	OSPI0_LBCLKO	OSPI0_LBCLKO UART5_RTSn GPIO0_1	O CMOS	1.8V	
UART_A_CTS	C14	L22	OSPI0_DQS	OSPI0_DQS UART5_CTSn GPIO0_2	I CMOS	1.8V	

UART_B_RX/ UART_B_MCS_RX	D14	B8	MCU_UART0_RXD	MCU_UART0_RXD MCU_GPIO0_5	I CMOS	1.8V	
UART_B_TX/ UART_B_MCS_TX	D13	B4	MCU_UART0_TXD	MCU_UART0_TXD MCU_GPIO0_6	O CMOS	1.8V	
UART_B_RTS/ UART_B_MCU_RTS	D15	C5	MCU_UART0_RTSn	MCU_UART0_RTSn MCU_TIMER_IO1 MCU_SPI1_D1 MCU_GPIO0_8	O CMOS	1.8V	
UART_B_CTS/ UART_B_MCU_CTS	D16	B5	MCU_UART0_CTSn	MCU_UART0_CTSn MCU_TIMER_IO0 MCU_SPI1_D0 MCU_GPIO0_7	I CMOS	1.8V	
UART_C_RX/ UART_C_ALT_RX	A22	B3	WKUP_UART0_RXD	WKUP_UART0_RXD MCU_SPI0_CS2 MCU_GPIO0_9	I CMOS	1.8V	
UART_C_TX/ UART_C_ALT_TX	B23	C8	WKUP_UART0_TXD	WKUP_UART0_TXD MCU_SPI1_CS2 MCU_GPIO0_10	O CMOS	1.8V	

UART_D_RX	C22	L21	OSPI0_D4	OSPI0_D4 SPI1_CS0 MCASP1_AXR1 UART6_RXD GPIO0_7	I CMOS	1.8V	
UART_D_TX	C23	M26	OSPI0_D5	OSPI0_D5 SPI1_CLK MCASP1_AXR0 UART6_TXD GPIO0_8	O CMOS	1.8V	

Table: Size 0 UART Console

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (red = default muxing)	I/O Type	I/O Level	Comments
UART_CON_RX	D22	F19	UART0_RXD	UART0_RXD ECAP1_IN_APW M_OUT SPI2_D0 EHRPWM2_A GPIO1_20	I CMOS	1.8V	

UART_CON_TX	D23	F20	UART0_TXD	UART0_TXD ECAP2_IN_APW M_OUT SPI2_D1 EHRPWM2_B GPIO1_21	OCMOS	1.8V	
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Table: Size 0 Ethernet

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (red = default muxing)	I/O Type	I/O Level	Comments
ETH_A_(R) (G)MII_CRS	E16	NC	NC		ICMOS	1.8V/3.3V	
ETH_A_(R) (G)MII_COL	F15	NC	NC		ICMOS	1.8V/3.3V	
ETH_A_(S)(R) (G)MII_TXD0	H15	AF27	RGMII1_TD0	RGMII1_TD0 RMII1_TXD0 GPIO0_75	OCMOS	1.8V	
ETH_A_(S)(R) (G)MII_TXD1	G15	AE23	RGMII1_TD1	RGMII1_TD1 RMII1_TXD1 GPIO0_76	OCMOS	1.8V	
ETH_A_(S)(R) (G)MII_TXD2	H16	AG25	RGMII1_TD2	RGMII1_TD2 GPIO0_77	OCMOS	1.8V	
ETH_A_(S)(R) (G)MII_TXD3	G16	AF24	RGMII1_TD3	RGMII1_TD3 CLKOUT0 GPIO0_78	OCMOS	1.8V	

ETH_A_(R) (G)MII_TX_EN(_ER)	K16	AF25	RGMII1_TX_CTL	RGMII1_TX_CTL RMII1_TX_EN GPIO0_73	OCMOS	1.8V	
ETH_A_(R) (G)MII_TX_CLK	J15	AG26	RGMII1_TXC	RGMII1_TXC RMII1_CRS_DV GPIO0_74	I/O CMOS	1.8V	
ETH_A_(S)(R) (G)MII_RXD0	K15	AC25	RGMII1_RD0	RGMII1_RD0 RMII1_RXD0 GPIO0_81	ICMOS	1.8V	
TH_A_(S)(R) (G)MII_RXD1	L15	AD27	RGMII1_RD1	RGMII1_RD1 RMII1_RXD1 GPIO0_82	ICMOS	1.8V	
ETH_A_(R) (G)MII_RXD2	N15	AE24	RGMII1_RD2	RGMII1_RD2 GPIO0_83	ICMOS	1.8V	
ETH_A_(R) (G)MII_RXD3	P15	AE26	RGMII1_RD3	RGMII1_RD3 GPIO0_84	ICMOS	1.8V	
ETH_A_(R) (G)MII_RX_ER	L16	NC	NC		ICMOS	1.8V/3.3V	
ETH_A_(R) (G)MII_RX_DV(_ER)	M15	AD23	RGMII1_RX_CTL	RGMII1_RX_CTL RMII1_RX_ER GPIO0_79	ICMOS	1.8V	

ETH_A_(R) (G)MII_RX_CLK	R15	AE27	RGMII1_RXC	RGMII1_RXC RMII1_REF_CLK GPIO0_80	I/O CMOS	1.8V	
ETH_A_SDP	N16	NC	NC		O CMOS	1.8V/3.3V	
ETH_MDIO/ ETH_A_MDIO	T15	AD25	MDIO0_MDIO	MDIO0_MDIO GPIO0_85	I/O CMOS	1.8V	
ETH_MDC/ ETH_A_MDC	T16	AC24	MDIO0_MDC	MDIO0_MDC GPIO0_86	O CMOS	1.8V/	
ETH_IOPWR	M17				PO	1.8V	

Table: Size 0 GPIO

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
GPIO_A_0/ SDIO_B_RST	D17	F26	MMC2_SDCD	MMC2_SDCD MCASP1_ACLKX UART4_RXD EHRPWM2_A EHRPWM_TZn_IN1 GPIO0_71	I/O CMOS	1.8V	

GPIO_A_1/ ETH_A_RST	E17	N25	GPMC0_DIR	GPMC0_DIR MCASP2_AXR13 MAIN_ERRORn TRC_DATA14 GPIO0_40 EQEP2_S	I/O CMOS	1.8V	
GPIO_A_2/ ETH_A_INTR	F17	P26	GPMC0_BE1n	GPMC0_BE1n MCASP2_AXR12 TRC_DATA11 GPIO0_36	I/O CMOS	1.8V	
GPIO_A_3/ USB_A_PD_RST	G17	W25	VOUT0_DATA1	VOUT0_DATA1 GPMC0_A1 UART2_TXD MCASP3_AFSX GPIO0_46	I/O CMOS	1.8V	
GPIO_A_4/ USB_C_PD_RST	H17	W27	VOUT0_DATA0	VOUT0_DATA0 GPMC0_A0 UART2_RXD MCASP3_ACLK X GPIO0_45	I/O CMOS	1.8V	

GPIO_A_5/ I2S_AB_RST	J17	N22	GPMC0_OEn_R En	GPMC0_OEn_R En MCASP1_AXR1 TRC_DATA8 GPIO0_33	I/O CMOS	1.8V	
GPIO_A_6/ SPI_A_CS1#	K17	C20	SPI0_CS1	SPI0_CS1 CP_GEMAC_CP TS0_TS_COMP EHRPWM0_B ECAP0_IN_APW M_OUT MAIN_ERRORn GPIO1_16 EHRPWM_TZn_ IN5	I/O CMOS	1.8V	
GPIO_A_7/ SPI_B_CS1#	L17	A10	MCU_SPI0_CS1	MCU_SPI0_CS 1 MCU_OBSCCLK0 MCU_SYSCCLK0 UT0 MCU_EXT_REF CLK0 MCU_TIMER_IO 1 MCU_GPIO0_1	I/O CMOS	1.8V	

GPIO_B_0/ UART_C_ALT_R TS	D19	C3	WKUP_UART0_ RTSn	WKUP_UART0_ RTSn WKUP_TIMER_I O1 MCU_SPI1_CLK MCU_GPIO0_12	I/O CMOS	1.8V	
GPIO_B_1/ UART_C_ALT_C TS	E19	C4	WKUP_UART0_ CTSn	WKUP_UART0_ CTSn WKUP_TIMER_I O0 MCU_SPI1_CS0 MCU_GPIO0_11	I/O CMOS	1.8V	
GPIO_B_2/ UART_D_RTS	F19	N27	OSPI0_D6	OSPI0_D6 SPI1_D0 MCASP1_ACLKX UART6_RTSn GPIO0_9	I/O CMOS	1.8V	
GPIO_B_3/ UART_D_CTS	G19	M27	OSPI0_D7	OSPI0_D7 SPI1_D1 MCASP1_AFSX UART6_CTSn GPIO0_10	I/O CMOS	1.8V	

GPIO_B_4/ I2C_C_SCL/ I2C_DISPLAY_C LK	H19	R27	GPMC0_CSn0	GPMC0_CSn0 I2C4_SCL MCASP2_AXR14 TRC_DATA15 GPIO0_41	I/O CMOS	1.8V	
GPIO_B_5/ I2C_C_SDA/ I2C_DISPLAY_D AT	J19	P21	GPMC0_CSn1	GPMC0_CSn1 I2C4_SDA MCASP2_AXR15 TRC_DATA16 GPIO0_42	I/O CMOS	1.8V	
GPIO_B_6/ LVDS_D_VDD_E N	K19	Y26	VOUT0_DATA6	VOUT0_DATA6 GPMC0_A6 UART5_RXD EQEP2_A MCASP3_AXR6 GPIO0_51 MCASP3_ACLK R	I/O CMOS	1.8V	
GPIO_B_7/ LVDS_D_BL_EN	L19	Y27	VOUT0_DATA7	VOUT0_DATA7 GPMC0_A7 UART5_TXD EQEP2_B MCASP3_AXR7 GPIO0_52 MCASP3_AFSR	I/O CMOS	1.8V	

Table: Size 0 SDIO

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
SDIO_A_CMD	E20	H22	MMC1_CMD	MMC1_CMD TIMER_IO5 UART3_TXD SPI1_CLK SPI2_CS0 GPIO1_47	I/O CMOS	1.8V or 3.3V	
SDIO_A_CLK	F21	H24	MMC1_CLK	MMC1_CLK TIMER_IO4 UART3_RXD SPI1_CS0 SPI2_CS2 GPIO1_46	O CMOS	1.8V or 3.3V	
SDIO_A_D0	G20	H23	MMC1_DAT0	MMC1_DAT0 CP_GEMAC_CP TS0_HW2TSPU SH TIMER_IO3 UART2_CTSn ECAP2_IN_APW M_OUT SPI2_D1 GPIO1_45	I/O CMOS	1.8V or 3.3V	

SDIO_A_D1	G21	H20	MMC1_DAT1	MMC1_DAT1 CP_GEMAC_CP TS0_HWITSPUS H TIMER_IO2 UART2_RTSn ECAP1_IN_APW M_OUT SPI1_CS2 SPI2_D0 GPIO1_44	I/O CMOS	1.8V or 3.3V	
SDIO_A_D2	H20	J23	MMC1_DAT2	MMC1_DAT2 CP_GEMAC_CP TS0_TS_SYNC TIMER_IO1 UART2_TXD MCAN1_RX SPI1_D1 SPI2_CS3 GPIO1_43	I/O CMOS	1.8V or 3.3V	

SDIO_A_D3	H21	H25	MMC1_DAT3	MMC1_DAT3 CP_GEMAC_CP TS0_TS_COMP TIMER_IO0 UART2_RXD MCAN1_TX SPI1_D0 SPI2_CS1 GPIO1_42	I/O CMOS	1.8V or 3.3V	
SDIO_A_CD#	J21	B24	MMC1_SDCD	MMC1_SDCD UART6_RXD TIMER_IO6 UART3_RTSn MCAN1_TX SPI1_CS3 SPI2_CLK GPIO1_48	I OD CMOS	1.8V or 3.3V	
SDIO_A_WP	D20	A24	MMC1_SDWP	MMC1_SDWP UART6_TXD TIMER_IO7 UART3_CTSn MCAN1_RX SPI1_CS1 GPIO1_49	I OD CMOS	1.8V or 3.3V	

SDIO_A_PWR_EN	D21	R22	GPMC0_AD0	GPMC0_AD0 MCASP2_AXR4 TRC_CLK GPIOD_15 BOOTMODE00	OCMOS	1.8V or 3.3V	10k PU on module A Buffer is between SoC contact and SOM contact (SN74LVC244ARWP)
SDIO_A_IOPWR	C20				PO	1.8V or 3.3V	
SDIO_B_CLK	K20	NC	NC		OCMOS	1.8V or 3.3V	
SDIO_B_CMD	K21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D0	L20	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D1	L21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D2	M21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D3	N20	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D4	N21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D5	P20	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D6	P21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_D7	R21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_CD#	T21	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_WP	U20	NC	NC		I/O CMOS	1.8V or 3.3V	
SDIO_B_PWR_EN	U21	NC	NC		OCMOS	1.8V or 3.3V	
SDIO_B_IOPWR	T20	NC	NC		PO	1.8V or 3.3V	

Table: Size 0 PWM

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
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PWM_0/ DSI_A_E_BL_P WM/ LVDS_A_BL_PW M	E18	A22	I2C1_SDA	I2C1_SDA UART1_TXD TIMER_IO1 SPI2_CLK EHRPWM0_SYN CO GPIO1_29 EHRPWM2_B MMC2_SDWP	O CMOS	1.8V	
LVDS_D_BL_P WM / PWM_1	F18	C24	I2C1_SCL	I2C1_SCL UART1_RXD TIMER_IO0 SPI2_CS1 EHRPWM0_SYN CI GPIO1_28 EHRPWM2_A MMC2_SDCD	O CMOS	1.8V	
RGB_BL_PWM / LVDS_E_BL_PW M / PWM_2	G18	B25	MCASP0_AXR1	MCASP0_AXR1 SPI2_CS2 ECAP1_IN_APW M_OUT MAIN_ERRORn EHRPWM1_A GPIO1_9 EQEP0_S	O CMOS	1.8V	

CAM_B_MCK / PWM_3	H18	A23	EXT_REFCLK1	EXT_REFCLK1 SYNC1_OUT SPI2_CS3 SYSCLKOUT0 TIMER_IO4 CLKOUT0 CP_GEMAC_CP TS0_RFT_CLK GPIO1_30 ECAP0_IN_AP WM_OUT	O CMOS	1.8V	
CAM_C_MCK / PWM_4	J18	B21	UART0_RTSn	UART0_RTSn SPI0_CS3 I2C3_SDA UART2_TXD TIMER_IO7 AUDIO_EXT_RE FCLK1 GPIO1_23 MCASP2_ACLK X MMC2_SDWP	O CMOS	1.8V	
CAM_D_MCK / PWM_5	K18	F23	MCASP0_AXR0	MCASP0_AXR0 AUDIO_EXT_RE FCLK0 EHRPWM1_B GPIO1_10 EQEP0_I	O CMOS	1.8V	

Table: Size 0 Analog Signals

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
ADC_0	M18	NC	NC		O CMOS	0V – 1.8V	
ADC_1	N18	NC	NC		O CMOS	0V – 1.8V	

Table: Size 0 SPI

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
SPI_A_SDI_(IO1)	U15	E20	SPI0_D1	SPI0_D1 CP_GEMAC_CP TS0_HW2TSPU SH EHRPWM_TZn_ IN0 GPIO1_19	IO CMOS	1.8V	
SPI_A_SDO_(IO0)	V15	E19	SPI0_D0	SPI0_D0 CP_GEMAC_CP TS0_HW1TSPUS H EHRPWM1_B GPIO1_18	IO CMOS	1.8V	
SPI_A_WP_(IO2)	W16	NC	NC		IO CMOS	1.8V	
SPI_A_HOLD_(IO3)	W15	NC	NC		IO CMOS	1.8V	

SPI_A_CS0#	Y15	B20	SPI0_CS0	SPI0_CS0 EHRPWM0_A GPIO1_15	OCMOS	1.8V	
SPI_A_CS1#/ GPIO_A_6	K17	C20	SPI0_CS1	SPI0_CS1 CP_GEMAC_CP TS0_TS_COMP EHRPWM0_B ECAP0_IN_APW M_OUT MAIN_ERRORn GPIO1_16 EHRPWM_TZn_ IN5	OCMOS	1.8V	
SPI_A_SCK	U16	D20	SPI0_CLK	SPI0_CLK CP_GEMAC_CP TS0_TS_SYNC EHRPWM1_A GPIO1_17	OCMOS	1.8V	
SPI_B_SDI/ SPI_B_MCU_SDI	Y22	C11	MCU_SPI0_D1	MCU_SPI0_D1 MCU_GPIO0_4	ICMOS	1.8V	
SPI_B_SDO/ SPI_B_MCU_SDO	Y23	B12	MCU_SPI0_D0	MCU_SPI0_D0 MCU_GPIO0_3	OCMOS	1.8V	
SPI_B_CS0#/ SPI_B_MCU_CS0#	AA23	C12	MCU_SPI0_CS0	MCU_SPI0_CS0 WKUP_TIMER_I O1 MCU_GPIO0_0	OCMOS	1.8V	

SPI_B_CS1#/GPIO_A_7	L17	A10	MCU_SPI0_CS1	MCU_SPI0_CS1 MCU_OBSCLK0 MCU_SYSCCLK0 UT0 MCU_EXT_REFCLK0 MCU_TIMER_IO1 MCU_GPIO0_1	OCMOS	1.8V	
SPI_B_SCK/SPI_B_MCU_SCK	Y21	A9	MCU_SPI0_CLK	MCU_SPI0_CLK MCU_GPIO0_2	OCMOS	1.8V	

Table: Size 0 I2S

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
I2S_A_DATA_IN	V21	N21	GPMC0_ADVn_ALE	GPMC0_ADVN_ALE MCASP1_AXR2 TRC_DATA7 GPIO0_32	I/O CMOS	1.8V	
I2S_A_DATA_OUT	W21	N23	GPMC0_WEN	GPMC0_WEN MCASP1_AXR0 TRC_DATA9 GPIO0_34	I/O CMOS	1.8V	
I2S_B_DATA_IN	V19	NC	NC		I/O CMOS	1.8V	

I2S_B_DATA_OUT	W19	NC	NC		I/O CMOS	1.8V	
I2S_MCLK/ I2S_AB_MCLK	V18	N24	GPMC0_WPn	GPMC0_WPn AUDIO_EXT_RE FCLK1 GPMC0_A22 UART6_TXD TRC_DATA13 GPIO0_39	I/O CMOS	1.8V	
I2S_A_LRCLK	W18	V21	GPMC0_WAIT0	GPMC0_WAIT0 MCASP1_AFSX TRC_DATA12 GPIO0_37	I/O CMOS	1.8V	
I2S_A_BITCLK	W20	P27	GPMC0_BE0N_CLE	GPMC0_BE0N_CLE MCASP1_ACLK X TRC_DATA10 GPIO0_35	I/O CMOS	1.8V	
I2S_B_LRCLK	T18	NC	NC		I/O CMOS	1.8V	
I2S_B_BITCLK	T19	NC	NC		I/O CMOS	1.8V	

Table: Size 0 CAN

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments

CAN_A_TX	AC17	D22	MCAN0_TX	MCAN0_TX UART5_RXD TIMER_IO2 SYNC2_OUT UART1_DTRn EQEP2_I I2C4_SCL GPIO1_24 MCASP2_AXR0 EHRPWM_TZn_ IN3	OCMOS	1.8V	
CAN_A_RX	AB17	C22	MCAN0_RX	MCAN0_RX UART5_TXD TIMER_IO3 SYNC3_OUT UART1_RIn EQEP2_S I2C4_SDA GPIO1_25 MCASP2_AXR1 EHRPWM_TZn_ IN4	ICMOS	1.8V	

CAN_B_TX/ CAN_B_MCU_TX	AC19	C1	MCU_MCAN1_TX	MCU_MCAN1_TX WKUP_TIMER_IO2 MCU_SPI1_CS1 MCU_EXT_REFCLK0 MCU_GPIO0_15	OCMOS	1.8V	
CAN_B_RX/ CAN_B_MCU_RX	AB19	B1	MCU_MCAN1_RX	MCU_MCAN1_RX MCU_TIMER_IO3 MCU_SPI0_CS2 MCU_SPI1_CS2 MCU_SPI1_CLK MCU_GPIO0_16	ICMOS	1.8V	

Table: Size 0 USB

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
USB_A_D_N	AB13	AB5	USB0_DM	USB0_DM	I/O USB	USB	
USB_A_D_P	AC14	AA6	USB0_DP	USB0_DP	I/O USB	USB	

USB_A_ID	AB14	U27	GPMC0_AD8	GPMC0_AD8 VOUT0_DATA16 UART2_RXD MCASP2_AXR0 GPIO0_23 BOOTMODE08	I OD CMOS	1.8V	10k PU on module A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
USB_A_OC#	AC15	U26	GPMC0_AD9	GPMC0_AD9 VOUT0_DATA17 UART2_TXD MCASP2_AXR1 GPIO0_24 BOOTMODE09	I OD CMOS	1.8V	10k PU on module A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
USB_A_VBUS	AB16	W7	USB0_VBUS	USB0_VBUS	I USB VBUS 5V	USB VBUS 5V	
USB_A_EN	AC16	E25	USB0_DRVVBUS	USB0_DRVVBUS GPIO1_50	O CMOS	1.8V	
USB_B_D_N	AB23	NC	NC		I/O USB	USB	
USB_B_D_P	AC22	NC	NC		I/O USB	USB	
USB_B_ID	AB22	NC	NC		I CMOS	1.8V	
USB_B_OC#	AC21	NC	NC		I OD CMOS	1.8V	
USB_B_VBUS	AB20	NC	NC		I USB VBUS 5V	USB VBUS 5V	
USB_B_EN	AC20	NC	NC		O CMOS	1.8V	USB1_DRVVBUS

Table: Size 0 I2C

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
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I2C_A_SCL	AA15	D23	I2C0_SCL	I2C0_SCL SYNC0_OUT OBSCLK1 UART1_DCDn EQEP2_A EHRPWM_SOCA GPIO1_26 ECAP1_IN_APW M_OUT SPI2_CS0	I/O OD CMOS	1.8V	2.2K PU on module
I2C_A_SDA	AA16	B22	I2C0_SDA	I2C0_SDA SPI2_CS2 TIMER_IO5 UART1_DSRn EQEP2_B EHRPWM_SOCB GPIO1_27 ECAP2_IN_APW M_OUT	I/O OD CMOS	1.8V	2.2K PU on module
I2C_B_SCL/ I2C_B_MCU_SCL	AA20	B13	MCU_I2C0_SCL	MCU_I2C0_SCL MCU_GPIO0_17	I/O OD CMOS	1.8V	2.2K PU on module
I2C_B_SDA/ I2C_B_MCU_SDA	AA21	E11	MCU_I2C0_SDA	MCU_I2C0_SDA MCU_GPIO0_18	I/O OD CMOS	1.8V	2.2K PU on module

Table: Size 0 Communication Area - Fieldbus Mode

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
COM_AREA_01	A15	NC	NC		I MDI		
COM_AREA_02	A16	NC	NC		O OD CMOS	3.3V	
COM_AREA_03	A17	NC	NC		O MDI		
COM_AREA_04	A18	NC	NC		O CMOS	3.3V	
COM_AREA_05	A19	NC	NC		I MDI		
COM_AREA_06	A20	NC	NC		O OD CMOS	3.3V	
COM_AREA_07	A21	NC	NC		O MDI		
COM_AREA_08	B15	NC	NC		I MDI		
COM_AREA_09	B16	NC	NC		O OD CMOS	3.3V	
COM_AREA_10	B17	NC	NC		O MDI		
COM_AREA_11	B18	NC	NC		O CMOS	3.3V	
COM_AREA_12	B19	NC	NC		I MDI		
COM_AREA_13	B20	NC	NC		O OD CMOS	3.3V	
COM_AREA_14	B21	NC	NC		O MDI		
COM_AREA_15	C15	NC	NC		Analog	0 to 3.3V	
COM_AREA_16	C17	NC	NC		Analog	0 to 3.3V	
COM_AREA_17	C19	NC	NC		Analog	0 to 3.3V	
COM_AREA_18	C21	NC	NC		Analog	0 to 3.3V	

Table: Size 0 Reserved Contacts

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
RESERVED	AA13	NC	NC				

Table: Size 0 Vendor-Defined Contacts

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
Vendor Defined/GPIO_V0_0	B22	T25	GPMC0_AD4	GPMC0_AD4 MCASP2_AXR8 TRC_DATA2 GPIO0_19 BOOTMODE4	O CMOS	1.8V	Only GPO function A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
Vendor Defined/GPIO_V0_1	C16	NC	NC				
Vendor Defined/GPIO_V0_2	P16	NC	NC				

Table: Size S Power + Ground

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
VCC_5_TEST	Y3		VDD_3V3		PO	3.3V	
VCC_6_TEST	C5				PO	1.1V	
VCC_IN_5V	Y8, Y9, Y10, Y11		VSYS_5V		P	5V	
GND	A4, A7, A10, B2, B5, B8, B9, C11, D1, D5, D8, E2, H2, H4, L2, L4, P2, P4, R1, U2, U4, V1, W3, Y2, AA1, AA4, AA7, AA8, AA10, AA11, AB3, AB6, AB9, AC4, AC7, AC10		GND		P	3.3V	
PWR_BTN#	AA9				I OD CMOS	1.8 to 5V	10K PU on module

Table: Size S Ethernet

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
ETH_B_(R) (G)MII_CRS	D2	NC	NC		I CMOS	1.8V/3.3V	
ETH_B_(R) (G)MII_COL	E1	NC	NC		I CMOS	1.8V/3.3V	
ETH_B_(S)(R) (G)MII_TXD0	G1	AA25	VOUT0_DATA10	VOUT0_DATA10 GPMC0_A10 RGMII2_TD0 RMII2_TXD0 UART6_RTSn MCASP4_AXR6 GPIO0_55 MCASP4_ACLK R	O CMOS	1.8V	
ETH_B_(S)(R) (G)MII_TXD1	F1	AB25	VOUT0_DATA11	VOUT0_DATA11 GPMC0_A11 RGMII2_TD1 RMII2_TXD1 UART6_CTSn MCASP4_AXR7 GPIO0_56 MCASP4_AFSR	O CMOS	1.8V	

ETH_B_(S)(R) (G)MII_TXD2	G2	AA23	VOUT0_DATA12	VOUT0_DATA12 GPMC0_A12 RGMII2_TD2 UART5_RTSn MCASP4_AXR0 GPIO0_57	O CMOS	1.8V	
ETH_B_(S)(R) (G)MII_TXD3	F2	AA22	VOUT0_DATA13	VOUT0_DATA13 GPMC0_A13 RGMII2_TD3 CLKOUT0 UART5_CTSn MCASP4_AXR1 GPIO0_58	O CMOS	1.8V	
ETH_B_(R) (G)MII_TX_EN(_ER)	J2	AA24	VOUT0_DATA8	VOUT0_DATA8 GPMC0_A8 RGMII2_TX_CTL RMII2_TX_EN UART6_RXD MCASP3_AXR4 GPIO0_53	O CMOS	1.8V	

ETH_B_(R) (G)MII_TX_CLK	H1	AA27	VOUT0_DATA9	VOUT0_DATA9 GPMC0_A9 RGMII2_TXC RMII2_CRS_DV UART6_TXD MCASP3_AXR5 GPIO0_54	I/O CMOS	1.8V	
ETH_B_(S)(R) (G)MII_RXD0	J1	AB24	VOUT0_HSYNC	VOUT0_HSYNC GPMC0_A16 RGMII2_RD0 RMII2_RXD0 UART3_RTSn MCASP4_AXR4 GPIO0_61	I CMOS	1.8V	
ETH_B_(S)(R) (G)MII_RXD1	K1	AC27	VOUT0_DE	VOUT0_DE GPMC0_A17 RGMII2_RD1 RMII2_RXD1 UART3_CTSn MCASP4_AXR5 GPIO0_62	I CMOS	1.8V	

ETH_B_(R) (G)MII_RXD2	M1	AB23	VOUT0_VSYNC	VOUT0_VSYNC GPMC0_A18 RGMII2_RD2 UART2_RTSn MCASP4_ACLK X GPIO0_63	I CMOS	1.8V	
ETH_B_(R) (G)MII_RXD3	N1	AC26	VOUT0_PCLK	VOUT0_PCLK GPMC0_A19 RGMII2_RD3 UART2_CTSn MCASP4_AFSX GPIO0_64	I CMOS	1.8V	
ETH_B_(R) (G)MII_RX_ER	K2	NC	NC		I CMOS	1.8V/3.3V	
ETH_B_(R) (G)MII_RX_DV(_ER)	L1	AB26	VOUT0_DATA14	VOUT0_DATA14 GPMC0_A14 RGMII2_RX_CTL RMII2_RX_ER UART4_RTSn MCASP4_AXR2 GPIO0_59	I CMOS	1.8V	

ETH_B_(R) (G)MII_RX_CLK	P1	AB27	VOUT0_DATA15	VOUT0_DATA15 GPMC0_A15 RGMII2_RXC RMII2_REF_CLK UART4_CTSn MCASP4_AXR3 GPIO0_60	I/O CMOS	1.8V	
ETH_B_SDP	M2	NC	NC		O CMOS	1.8V/3.3V	
ETH_B_MDIO	C7	AD25	MDIO0_MDIO	MDIO0_MDIO GPIO0_85	I/O CMOS	1.8V	
ETH_B_MDC	C6	AC24	MDIO0_MDC	MDIO0_MDC GPIO0_86	O CMOS	1.8V	

Table: Size S GPIO

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
GPIO_C_0/ ETH_B_RST	D3	W24	VOUT0_DATA2	VOUT0_DATA2 GPMC0_A2 UART3_RXD MCASP3_AXR0 GPIO0_47	I/O CMOS	1.8V	

GPIO_C_1/ ETH_B_INTR	D4	W23	VOUT0_DATA3	VOUT0_DATA3 GPMC0_A3 UART3_TXD AUDIO_EXT_RE FCLK0 MCASP3_AXR1 GPIO0_48	I/O CMOS	1.8V	
GPIO_C_2/RGB _VDD_EN/LVDS _E_VDD_EN	E3	W22	VOUT0_DATA4	VOUT0_DATA4 GPMC0_A4 UART4_RXD EQEP2_I MCASP3_AXR2 GPIO0_49	I/O CMOS	1.8V	
GPIO_C_3/RGB _BL_EN/LVDS_ E_BL_EN	E4	W21	VOUT0_DATA5	VOUT0_DATA5 GPMC0_A5 UART4_TXD EQEP2_S MCASP3_AXR3 GPIO0_50	I/O CMOS	1.8V	

DISP_VDD_EN/ GPIO_C_4 / DSI_A_VDD_EN /LVDS_A_VDD_ EN	F3	V24	GPMC0_AD13	GPMC0_AD13 VOUT0_DATA21 UART4_TXD MCASP2_ACLK X TRC_DATA21 GPIO0_28 BOOTMODE13	I/O CMOS	1.8V	A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
DISP_BL_EN/GP IO_C_5 / DSI_A_BL_EN/L VDS_A_BL_EN	F4	V22	GPMC0_AD14	GPMC0_AD14 VOUT0_DATA22 UART5_RXD MCASP2_AFSR MCASP2_AXR4 TRC_DATA20 GPIO0_29 UART2_CTSn BOOTMODE14	I/O CMOS	1.8V	A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
GPIO_C_6/ CAM_A_PWR	G3	L24	OSPI0_CLK	OSPI0_CLK GPIO0_0	I/O CMOS	1.8V	
GPIO_C_7/ CAM_A_RST#	G4	L25	OSPI0_D3	OSPI0_D3 GPIO0_6	I/O CMOS	1.8V	

Table: Size S MIPI DSI

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
DSI_DATA0_N/LVDS_A_LANE0_N / DSI_A_DATA0_N/LVDS_A_LANE0_N	AB11	AD17	DSI0_TXN0	DSI0_TXN0	O LVDS D-PHY		
DSI_DATA0_P/LVDS_A_LANE0_P / DSI_A_DATA0_P/LVDS_A_LANE0_P	AB10	AD18	DSI0_TXP0	DSI0_TXP0	O LVDS D-PHY		
DSI_DATA1_N/LVDS_A_LANE1_N / DSI_A_DATA1_N/LVDS_A_LANE1_N	AC9	AF15	DSI0_TXN1	DSI0_TXN1	O LVDS D-PHY		
DSI_DATA1_P/LVDS_A_LANE1_P / DSI_A_DATA1_P/LVDS_A_LANE1_P	AC8	AF16	DSI0_TXP1	DSI0_TXP1	O LVDS D-PHY		
DSI_DATA2_N/LVDS_A_LANE2_N / DSI_A_DATA2_N/LVDS_A_LANE2_N	AC6	AG14	DSI0_TXN2	DSI0_TXN2	O LVDS D-PHY		
DSI_DATA2_P/LVDS_A_LANE2_P / DSI_A_DATA2_P/LVDS_A_LANE2_P	AC5	AG15	DSI0_TXP2	DSI0_TXP2	O LVDS D-PHY		
DSI_DATA3_N/LVDS_A_LANE3_N / DSI_A_DATA3_N/LVDS_A_LANE3_N	AB5	AC18	DSI0_TXN3	DSI0_TXN3	O LVDS D-PHY		

DSI_DATA3_P/LVDS_A_LANE3_P / DSI_A_DATA3_P/LVDS_A_LANE3_P	AB4	AC19	DSI0_TXP3	DSI0_TXP3	O LVDS D-PHY		
DSI_CLOCK_N/LVDS_A_CLK_N / DSI_A_CLOCK_N/LVDS_A_CLK_N	AB8	AE16	DSI0_TXCLKN	DSI0_TXCLKN	O LVDS D-PHY		
DSI_CLOCK_P/LVDS_A_CLK_P / DSI_A_CLOCK_P/LVDS_A_CLK_P	AB7	AE17	DSI0_TXCLKP	DSI0_TXCLKP	O LVDS D-PHY		
DSI_TE / DSI_A_TE	AA3	T23	GPMC0_CLK	GPMC0_CLK MCASP1_AXR3 GPMC0_FCLK_MUX TRC_DATA6 GPIOD_31	I CMOS	1.8V	
DISP_VDD_EN/GPIOD_C_4 / DSI_A_VDD_EN /LVDS_A_VDD_EN	F3	V24	GPMC0_AD13	GPMC0_AD13 VOUT0_DATA21 UART4_TXD MCASP2_ACLKX TRC_DATA21 GPIOD_28 BOOTMODE13	I/O CMOS	1.8V	A Buffer is between SoC contact and SOM contact (SN74LVC244ARWP)

DISP_BL_EN/GP IO_C_5 / DSI_A_BL_EN/L VDS_A_BL_EN	F4	V22	GPMC0_AD14	GPMC0_AD14 VOUT0_DATA22 UART5_RXD MCASP2_AFSR MCASP2_AXR4 TRC_DATA20 GPIOD_29 UART2_CTSn BOOTMODE14	I/O CMOS	1.8V	A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
PWM_0/ DSI_A_E_BL_P WM/ LVDS_A_BL_PW M	E18	A22	I2C1_SDA	I2C1_SDA UART1_TXD TIMER_IO1 SPI2_CLK EHRPWM0_SYN CO GPIO1_29 EHRPWM2_B MMC2_SDWP	O CMOS	1.8V	

Table: Size S MIPI CSI

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
CSI_A_DATA0_ N	C1	AD6	CSI0_RXN0	CSI0_RXN0	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA0_ P	B1	AD5	CSI0_RXP0	CSI0_RXP0	I LVDS D-PHY/ I LVDS M-PHY		

CSI_A_DATA1_N	A2	AE5	CSI0_RXN1	CSI0_RXN1	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA1_P	A3	AE4	CSI0_RXP1	CSI0_RXP1	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA2_N	A5	AF4	CSI0_RXN2	CSI0_RXN2	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA2_P	A6	AF3	CSI0_RXP2	CSI0_RXP2	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA3_N	B6	AG3	CSI0_RXN3	CSI0_RXN3	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_DATA3_P	B7	AG2	CSI0_RXP3	CSI0_RXP3	I LVDS D-PHY/ I LVDS M-PHY		
CSI_A_CLOCK_N	B3	AC7	CSI0_RXCLKN	CSI0_RXCLKN	I LVDS D-PHY		
CSI_A_CLOCK_P	B4	AC6	CSI0_RXCLKP	CSI0_RXCLKP	I LVDS D-PHY		
CAM_MCK/ CAM_A_MCK	C2	E22	UART0_CTSn	UART0_CTSn SPI0_CS2 I2C3_SCL UART2_RXD TIMER_IO6 AUDIO_EXT_RE FCLK0 GPIO1_22 MCASP2_AFSX MMC2_SDCD	OCMOS	1.8V	

CAM_A_SDA / CSI_A_TX_N	C3	P23	GPMC0_CSn3	GPMC0_CSn3 I2C2_SDA GPMC0_A20 UART4_TXD MCASP1_AXR5 MCAN1_RX TRC_DATA18 GPIO0_44 MCASP1_ACLKR	I/O OD CMOS / O LVDS M-PHY	1.8V	2.2K PU on module
CAM_A_SCL / CSI_A_TX_P	C4	P22	GPMC0_CSn2	GPMC0_CSn2 I2C2_SCL MCASP1_AXR4 UART4_RXD MCAN1_TX TRC_DATA17 GPIO0_43 MCASP1_AFSR	I/O OD CMOS / O LVDS M-PHY	1.8V	2.2K PU on module
GPIO_C_6 / CAM_A_PWR	G3	L24	OSPI0_CLK	OSPI0_CLK GPIO0_0	I/O CMOS	1.8V	
GPIO_C_7 / CAM_A_RST#	G4	L25	OSPI0_D3	OSPI0_D3 GPIO0_6	I/O CMOS	1.8V	

Table: Size S Parallel RGB Display

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
RGB_R0	Y7	NC	NC		OCMOS	3.3V	
RGB_R1	AA6	NC	NC		OCMOS	3.3V	
RGB_R2	Y6	NC	NC		OCMOS	3.3V	
RGB_R3	AA5	NC	NC		OCMOS	3.3V	
RGB_R4	Y5	NC	NC		OCMOS	3.3V	
RGB_R5	Y4	NC	NC		OCMOS	3.3V	
RGB_G0	W4	NC	NC		OCMOS	3.3V	
RGB_G1	V3	NC	NC		OCMOS	3.3V	
RGB_G2	V4	NC	NC		OCMOS	3.3V	
RGB_G3	U3	NC	NC		OCMOS	3.3V	
RGB_G4	T3	NC	NC		OCMOS	3.3V	
RGB_G5	T4	NC	NC		OCMOS	3.3V	
RGB_B0	R4	NC	NC		OCMOS	3.3V	
RGB_B1	R3	NC	NC		OCMOS	3.3V	
RGB_B2	P3	NC	NC		OCMOS	3.3V	
RGB_B3	N3	NC	NC		OCMOS	3.3V	
RGB_B4	N4	NC	NC		OCMOS	3.3V	
RGB_B5	M3	NC	NC		OCMOS	3.3V	
RGB_(PIXEL)CLK	M4	NC	NC		OCMOS	3.3V	
RGB_VSYNC	L3	NC	NC		OCMOS	3.3V	
RGB_HSYNC	K3	NC	NC		OCMOS	3.3V	
RGB_DISP	K4	NC	NC		OCMOS	3.3V	
RGB_DE	J4	NC	NC		OCMOS	3.3V	
RGB_RESET#	J3	NC	NC		OCMOS	3.3V	
RGB_CS#	H3	NC	NC		OCMOS	3.3V	

GPIO_C_2/RGB_VDD_EN/LVDS_E_VDD_EN	E3	W22	VOUT0_DATA4	VOUT0_DATA4 GPMC0_A4 UART4_RXD EQEP2_I MCASP3_AXR2 GPIO0_49	I/O CMOS	1.8V	
GPIO_C_3/RGB_BL_EN/LVDS_E_BL_EN	E4	W21	VOUT0_DATA5	VOUT0_DATA5 GPMC0_A5 UART4_TXD EQEP2_S MCASP3_AXR3 GPIO0_50	I/O CMOS	1.8V	
RGB_BL_PWM / LVDS_E_BL_PWM / PWM_2	G18	B25	MCASP0_AXR1	MCASP0_AXR1 SPI2_CS2 ECAP1_IN_APWM_OUT MAIN_ERRORn EHRPWM1_A GPIO1_9 EQEP0_S	O CMOS	1.8V	

Table: Size S USB

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
USB_C_D_N	D11	E17	USB1_DM	USB1_DM	I/O USB	USB	

USB_C_D_P	D10	D17	USB1_DP	USB1_DP	I/O USB	USB	
USB_C_ID	D9	V27	GPMC0_AD10	GPMC0_AD10 VOUT0_DATA18 UART3_RXD MCASP2_AXR2 GPIO0_25 OBSCLK0 BOOTMODE10	I OD CMOS	1.8V	10k PU on module A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
USB_C_OC#	C8	V25	GPMC0_AD11	GPMC0_AD11 VOUT0_DATA19 UART3_TXD MCASP2_AXR3 TRC_DATA23 GPIO0_26 BOOTMODE11	I OD CMOS	1.8V	10k PU on module A Buffer is between SoC contact and SOM contact (SN74LVC244AR WP)
USB_C_VBUS	C9	F18	USB1_VBUS	USB1_VBUS	I USB VBUS 5V	USB VBS 5V	
USB_C_EN	C10	B27	USB1_DRVVBUS	USB1_DRVVBUS	O CMOS	1.8V	
USB_C_SSTX_N	A9	B19	SERDES0_TX0_N	SERDES0_TX0_N	O USB SS	USB SS	
USB_C_SSTX_P	A8	B18	SERDES0_TX0_P	SERDES0_TX0_P	O USB SS	USB SS	
USB_C_SSRX_N	B11	A20	SERDES0_RX0_N	SERDES0_RX0_N	I USB SS	USB SS	
USB_C_SSRX_P	B10	A19	SERDES0_RX0_P	SERDES0_RX0_P	I USB SS	USB SS	

Table: Size S PCIe

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
PCle_A_HSI0_P	AB1	C15	SERDES1_RX0_P	SERDES1_RX0_P	I LVDS PCIE		
PCle_A_HSI0_N	AB2	C14	SERDES1_RX0_N	SERDES1_RX0_N	I LVDS PCIE		
PCle_A_HSO0_P	AC2	A14	SERDES1_TX0_P	SERDES1_TX0_P	O LVDS PCIE		
PCle_A_HSO0_N	AC3	A13	SERDES1_TX0_N	SERDES1_TX0_N	O LVDS PCIE		
PCle_CLKREQ#	W2	F25	PCIE0_CLKREQn	PCIE0_CLKREQn GPI01_72	I OD CMOS	1.8V	10K PU on module
PCle_A_PERST#	V2	V23	GPMC0_AD15	GPMC0_AD15 VOUT0_DATA23 UART5_TXD MCASP2_ACLKR MCASP2_AXR5 TRC_DATA19 GPI00_30 UART2_RTSn BOOTMODE15	OCMOS	1.8V	it is output of AND gate with 56K PU on module, the input of AND gate are SOC pin V23 (via buffer) and SOC pin D27.
		D27	PORz_OUT	PORz_OUT	OCMOS	1.8V	
PCle_REFCLK_P	W1	B16	SERDES1_REFC LK0P	SERDES1_REFC LK0P	O LVDS PCIE		49.9 ohm PD on module
PCle_REFCLK_N	Y1	B15	SERDES1_REFC LK0N	SERDES1_REFC LK0N	O LVDS PCIE		49.9 ohm PD on module

PCle_WAKE#	T2	D25	MCASP0_ACLK X	MCASP0_ACLK X SPI2_CS1 ECAP2_IN_APW M_OUT GPIO1_11 EQEP1_A	I OD CMOS	1.8V	10K PU on module
PCle_SMDAT	U1	NC	NC		I/O OD CMOS	1.8V	
PCle_SMCLK	T1	NC	NC		O OD CMOS	1.8V	
PCle_SM_ALER T#	R2	NC	NC		I OD CMOS	1.8V	

Table: Size S Reserved Contacts

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
RESERVED	N2	NC	NC				
RESERVED	AA2	NC	NC				

Table: Size S Vendor Defined Contacts

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
VENDOR DEFINED	D6	NC	NC				
VENDOR DEFINED	D7	NC	NC				

Table: Size M Power + Ground

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
VCC_7_TEST	AA33		VDA_PLL_1V8		PO	1.8V	
VCC_8_TEST	B29		VDA_PHY_1V8		PO	1.8V	
VCC_IN_5V	Y25, Y26, Y27, Y28		VSYS_5V		P	5V	
GND	A26, A29, A32, B27, B28, B30, B33, C25, C32, C35, D28, D34, F33, F35, G34, H32, J33, J35, K34, M35, N34, T34, W34, AA25, AA26, AA27, AA28, AA32, AB28, AB31, AB34, AC27, AC30, AC33, K32, M32, R32				P		

Table 34: Size M Ethernet / MIPI CSI_C

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
ETH_C_(R) (G)MII_CRS/ CSI_C_DATA0_ P	AC34	AF10	CSI2_RXP0	CSI2_RXP0	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(R) (G)MII_COL/ CSI_C_DATA0_ N	AB35	AF9	CSI2_RXN0	CSI2_RXN0	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(S)(R) (G)MII_TXD0/ CSI_C_DATA1_ P	Y35	AE11	CSI2_RXP1	CSI2_RXP1	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(S)(R) (G)MII_TXD1/ CSI_C_DATA1_ N	AA35	AE10	CSI2_RXN1	CSI2_RXN1	I LVDS D-PHY/ I LVDS M-PHY		

ETH_C_(S)(R) (G)MII_TXD2/ CSI_C_DATA2_ P	Y34	AD12	CSI2_RXP2	CSI2_RXP2	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(S)(R) (G)MII_TXD3/ CSI_C_DATA2_ N	AA34	AD11	CSI2_RXN2	CSI2_RXN2	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(R) (G)MII_TX_EN(_ER)/ CSI_C_DATA3_ P	V34	AC12	CSI2_RXP3	CSI2_RXP3	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_(R) (G)MII_TX_CLK	N35	NC	NC				
ETH_C_(S)(R) (G)MII_RXD0/ CSI_C_CLOCK_ P	V35	AG9	CSI2_RXCLKP	CSI2_RXCLKP	I LVDS D-PHY		
ETH_C_(S)(R) (G)MII_RXD1/ CSI_C_CLOCK_ N	U35	AG8	CSI2_RXCLKN	CSI2_RXCLKN	I LVDS D-PHY		
ETH_C_(R) (G)MII_RXD2	R35	NC	NC		I CMOS	1.8V/2.5V/3.3V	
ETH_C_(R) (G)MII_RXD3	P35	NC	NC		I CMOS	1.8V/2.5V/3.3V	
ETH_C_(R) (G)MII_RX_ER	U34	NC	NC		I CMOS	1.8V/2.5V/3.3V	
ETH_C_(R) (G)MII_RX_DV(_ER)	T35	NC	NC		I CMOS	1.8V/2.5V/3.3V	
ETH_C_(R) (G)MII_RX_CLK/ CSI_C_DATA3_ N	W35	AC13	CSI2_RXN3	CSI2_RXN3	I LVDS D-PHY/ I LVDS M-PHY		
ETH_C_SDP	R34	NC	NC		O CMOS	1.8V/2.5V/3.3V	
ETH_CDE_MDIO	P33	NC	NC		I/O CMOS	1.8V/2.5V/3.3V	
ETH_CDE_MDC	N33	NC	NC		O CMOS	1.8V/2.5V/3.3V	
CAM_C_PWR / GPIO_D_2	V32	K27	OSPI0_D0	OSPI0_D0 GPIO0_3	I/O CMOS	1.8V	

CAM_C_RST# / GPIO_D_3	V33	L27	OSPI0_D1	OSPI0_D1 GPIO0_4	I/O CMOS	1.8V	
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Table: Size M GPIO

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
CAM_B_PWR / GPIO_D_0	U32	K26	OSPI0_CSn0	OSPI0_CSn0 GPIO0_11	I/O CMOS	1.8V	
CAM_B_RST# / GPIO_D_1	U33	K23	OSPI0_CSn1	OSPI0_CSn1 GPIO0_12	I/O CMOS	1.8V	
CAM_C_PWR / GPIO_D_2	V32	K27	OSPI0_D0	OSPI0_D0 GPIO0_3	I/O CMOS	1.8V	
CAM_C_RST# / GPIO_D_3	V33	L27	OSPI0_D1	OSPI0_D1 GPIO0_4	I/O CMOS	1.8V	
CAM_D_PWR / GPIO_D_4	W32	L26	OSPI0_D2	OSPI0_D2 GPIO0_5	I/O CMOS	1.8V	
CAM_D_RST# / GPIO_D_5	W33	H21	MMC2_SDWP	MMC2_SDWP MCASP1_AFSX UART4_TXD EHRPWM2_B EHRPWM_TZn_IN2 GPIO0_72	I/O CMOS	1.8V	

GPIO_D_6	Y32	B2	MCU_MCAN0_TX	MCU_MCAN0_TX WKUP_TIMER_I00 MCU_SPI0_CS3 MCU_GPIO0_13	I/O CMOS	1.8V	
SPI_C_CS1#/GPIO_D_7	Y33	W26	GPMC0_WAIT1	GPMC0_WAIT1 VOUT0_EXTPCLKIN GPMC0_A21 UART6_RXD AUDIO_EXT_REFCCLK2 GPIO0_38 EQEP2_I	I/O CMOS	1.8V	

Table: Size M SPI

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
SPI_C_SDI	C29	NC	NC		I CMOS	1.8V	
SPI_C_SDO	D30	NC	NC		O CMOS	1.8V	
SPI_C_CS0#	C30	NC	NC		O CMOS	1.8V	

SPI_C_CS1#/GPIO_D_7	Y33	W26	GPMC0_WAIT1	GPMC0_WAIT1 VOUT0_EXTPCLKIN GPMC0_A21 UART6_RXD AUDIO_EXT_REFCCLK2 GPIO0_38 EQEP2_I	I/O CMOS	1.8V	
SPI_C_SCK	D29	NC	NC		O CMOS	1.8V	

Table: Size M UFS / MIPI CSI_D

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
UFS_TX0_N/CSI_D_DATA0_N	AC29	AF13	CSI3_RXN0	CSI3_RXN0	I LVDS D-PHY/ I LVDS M-PHY		
UFS_TX0_P/CSI_D_DATA0_P	AC28	AF12	CSI3_RXP0	CSI3_RXP0	I LVDS D-PHY/ I LVDS M-PHY		
UFS_RX0_N/CSI_D_DATA1_N	AC32	AE14	CSI3_RXN1	CSI3_RXN1	I LVDS D-PHY/ I LVDS M-PHY		
UFS_RX0_P/CSI_D_DATA1_P	AC31	AE13	CSI3_RXP1	CSI3_RXP1	I LVDS D-PHY/ I LVDS M-PHY		
UFS_TX1_N/CSI_D_DATA2_N	AB30	AD15	CSI3_RXN2	CSI3_RXN2	I LVDS D-PHY/ I LVDS M-PHY		
UFS_TX1_P/CSI_D_DATA2_P	AB29	AD14	CSI3_RXP2	CSI3_RXP2	I LVDS D-PHY/ I LVDS M-PHY		
UFS_RX1_N/CSI_D_DATA3_N	AB33	AC15	CSI3_RXN3	CSI3_RXN3	I LVDS D-PHY/ I LVDS M-PHY		

UFS_RX1_P/ CSI_D_DATA3_ P	AB32	AC16	CSI3_RXP3	CSI3_RXP3	I LVDS D-PHY/ I LVDS M-PHY		
UFS_RESET#/ /CSI_D_CLOCK_ _N	AB27	AG12	CSI3_RXCLKN	CSI3_RXCLKN	I LVDS D-PHY		
UFS_CLK/ CSI_D_CLOCK_ P	AC26	AG11	CSI3_RXCLKP	CSI3_RXCLKP	I LVDS D-PHY		
CAM_D_PWR / GPIO_D_4	W32	L26	OSPI0_D2	OSPI0_D2 GPIO0_5	I/O CMOS	1.8V	
CAM_D_RST# / GPIO_D_5	W33	H21	MMC2_SDWP	MMC2_SDWP MCASP1_AFSX UART4_TXD EHRPWM2_B EHRPWM_TZn_ IN2 GPIO0_72	I/O CMOS	1.8V	

Table: Size M USB

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
USB_D_D_N	D26	NC	NC		I/O USB	USB	
USB_D_D_P	D25	NC	NC		I/O USB	USB	
USB_D_ID	D27	NC	NC		I OD CMOS	1.8V	
USB_D_OC#	C28	NC	NC		I OD CMOS	1.8V	
USB_D_VBUS	C27	NC	NC		I USB VBUS 5V	USB VBUS 5V	
USB_D_EN	C26	NC	NC		O CMOS	1.8V	
USB_D_SSTX_ N	A28	NC	NC		O USB SS	USB SS	

USB_D_SSTX_P	A27	NC	NC		O USB SS	USB SS	
USB_D_SSRX_N	B26	NC	NC		I USB SS	USB SS	
USB_D_SSRX_P	B25	NC	NC		I USB SS	USB SS	

Table: Size M PCIe

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
PCIe_B_HSI0_P	L34	NC	NC		I LVDS PCIE		
PCIe_B_HSI0_N	M34	NC	NC		I LVDS PCIE		
PCIe_B_HSO0_P	K35	NC	NC		O LVDS PCIE		
PCIe_B_HSO0_N	L35	NC	NC		O LVDS PCIE		
PCIe_B_PERST #	L33	NC	NC		O CMOS	1.8V	

Table: Size M eDP

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
eDP_A_LANE0_P/ LVDS_D_LANE0_P	A30	AG24	OLDI0_A0P	OLDI0_A0P GPIO1_52	O LVDS DP		
eDP_A_LANE0_N/ LVDS_D_LANE0_N	A31	AF23	OLDI0_A0N	OLDI0_A0N GPIO1_53	O LVDS DP		
eDP_A_LANE1_P/ LVDS_D_LANE1_P	B31	AG23	OLDI0_A1P	OLDI0_A1P GPIO1_54	O LVDS DP		

eDP_A_LANE1_N/ LVDS_D_LANE1_N	B32	AG22	OLDIO_A1N	OLDIO_A1N GPIO1_55	O LVDS DP		
eDP_A_LANE2_P/ LVDS_D_LANE2_P	A33	AB21	OLDIO_A2P	OLDIO_A2P GPIO1_56	O LVDS DP		
eDP_A_LANE2_N/ LVDS_D_LANE2_N	A34	AB20	OLDIO_A2N	OLDIO_A2N GPIO1_57	O LVDS DP		
eDP_A_LANE3_P/ LVDS_D_LANE3_P	B34	AG21	OLDIO_A3P	OLDIO_A3P GPIO1_58	O LVDS DP		
eDP_A_LANE3_N/ LVDS_D_LANE3_N	B35	AG20	OLDIO_A3N	OLDIO_A3N GPIO1_59	O LVDS DP		
eDP_A_AUX_P/ LVDS_D_CLK_P	C33	AE20	OLDIO_CLK0P	OLDIO_CLK0P GPIO1_68	I/O LVDS DP		
eDP_A_AUX_N/ LVDS_D_CLK_N	C34	AF21	OLDIO_CLK0N	OLDIO_CLK0N GPIO1_69	I/O LVDS DP		
eDP_A_AUX_SE L	D32		NC		I CMOS	1.8V	
eDP_A_BL_HPD	D33		NC		I CMOS	1.8V	
eDP_A_BL_EN	D31		NC		O CMOS	1.8V	
eDP_A_BL_PWM	C31		NC		O CMOS	1.8V	
eDP_B_LANE0_P/ LVDS_E_LANE0_P	D35	AC21	OLDIO_A4P	OLDIO_A4P GPIO1_60	O LVDS DP		
eDP_B_LANE0_N/ LVDS_E_LANE0_N	E35	AD21	OLDIO_A4N	OLDIO_A4N GPIO1_61	O LVDS DP		

eDP_B_LANE1_P/ LVDS_E_LANE1_P	E34	AF18	OLDIO_A5P	OLDIO_A5P GPIO1_62	O LVDS DP		
eDP_B_LANE1_N/ LVDS_E_LANE1_N	F34	AF19	OLDIO_A5N	OLDIO_A5N GPIO1_63	O LVDS DP		
eDP_B_LANE2_P/ LVDS_E_LANE2_P	G35	AG18	OLDIO_A6P	OLDIO_A6P GPIO1_64	O LVDS DP		
eDP_B_LANE2_N/ LVDS_E_LANE2_N	H35	AG17	OLDIO_A6N	OLDIO_A6N GPIO1_65	O LVDS DP		
eDP_B_LANE3_P/ LVDS_E_LANE3_P	H34	AA20	OLDIO_A7P	OLDIO_A7P GPIO1_66	O LVDS DP		
eDP_B_LANE3_N/ LVDS_E_LANE3_N	J34	AB19	OLDIO_A7N	OLDIO_A7N GPIO1_67	O LVDS DP		
eDP_B_AUX_P/ P/LVDS_E_CLK_P	G33	AE19	OLDIO_CLK1P	OLDIO_CLK1P GPIO1_70	I/O LVDS DP		
eDP_B_AUX_N/ LVDS_E_CLK_N	H33	AD20	OLDIO_CLK1N	OLDIO_CLK1N GPIO1_71	I/O LVDS DP		
eDP_B_AUX_SE L	F32		NC		I CMOS	1.8V	
eDP_B_BL_HPD	G32		NC		I CMOS	1.8V	
eDP_B_BL_EN	E32		NC		O CMOS	1.8V	
eDP_B_BL_PWM	E33		NC		O CMOS	1.8V	

Table: Size M MIPI CSI_B

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
CSI_B_DATA0_N	L32	AF7	CSI1_RXN0	CSI1_RXN0	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA0_P	M33	AF6	CSI1_RXP0	CSI1_RXP0	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA1_N	N32	AE8	CSI1_RXN1	CSI1_RXN1	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA1_P	P32	AE7	CSI1_RXP1	CSI1_RXP1	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA2_N	P34	AD9	CSI1_RXN2	CSI1_RXN2	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA2_P	R33	AD8	CSI1_RXP2	CSI1_RXP2	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA3_N	T32	AC10	CSI1_RXN3	CSI1_RXN3	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_DATA3_P	T33	AC9	CSI1_RXP3	CSI1_RXP3	I LVDS D-PHY/ I LVDS M-PHY		
CSI_B_CLOCK_N	J32	AG6	CSI1_RXCLKN	CSI1_RXCLKN	I LVDS D-PHY		
CSI_B_CLOCK_P	K33	AG5	CSI1_RXCLKP	CSI1_RXCLKP	I LVDS D-PHY		
CAM_B_SDA / CSI_B_TX_N	AB26	NC	NC		I/O OD CMOS / O LVDS M-PHY	1.8V	Default implementation is CAM_A, CAM_B, CAM_C, CAM_D to share CAM_A_SDA / CSA_A_TX_N
CAM_B_SCL / CSI_B_TX_P	AB25	NC	NC		I/O OD CMOS / O LVDS M-PHY	1.8V	Default implementation is CAM_A, CAM_B, CAM_C, CAM_D to share CAM_A_SSCL / CSA_A_TX_P

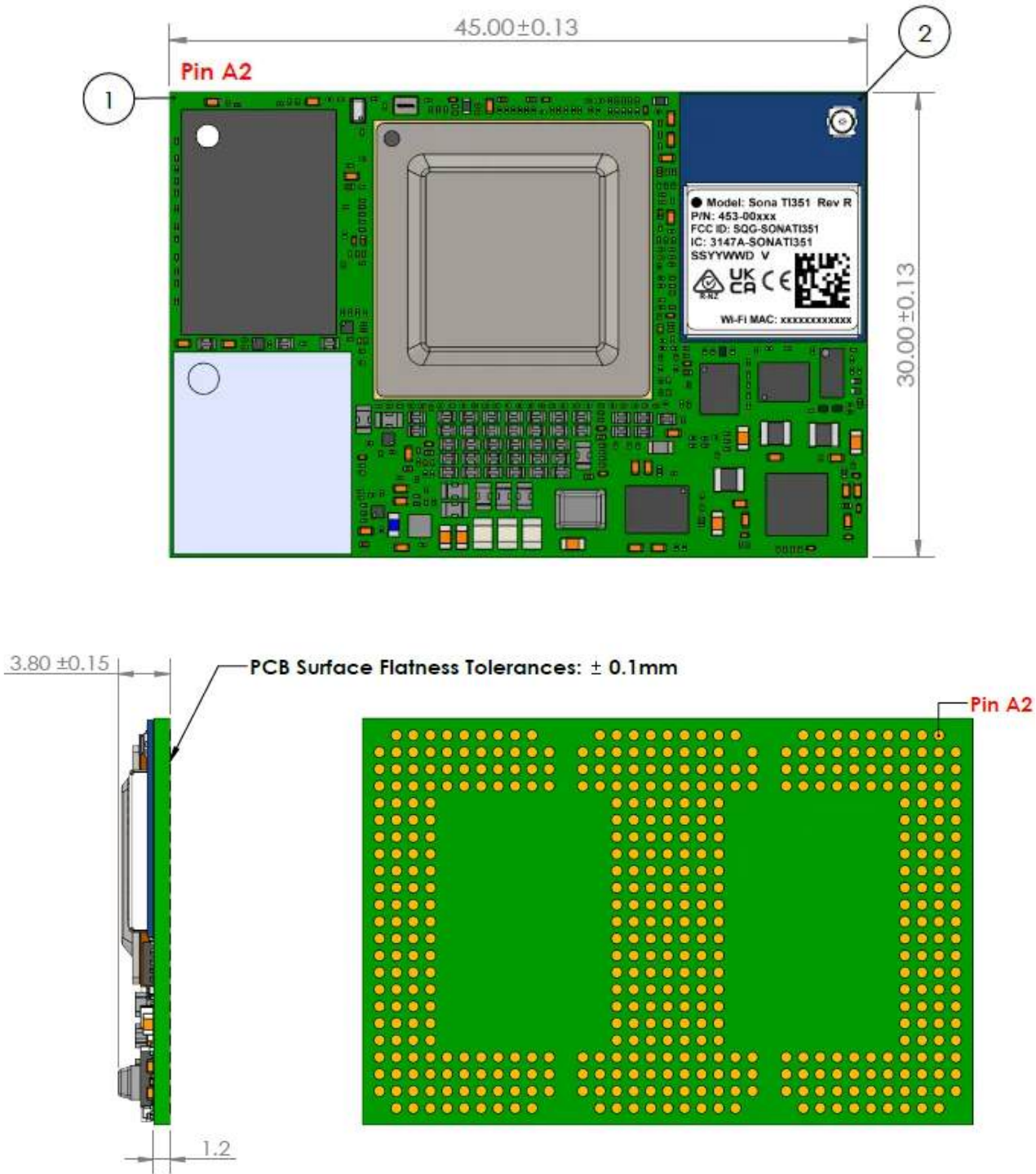
CAM_B_PWR / GPIO_D_0	U32	K26	OSPI0_CSn0	OSPI0_CSn0 GPIO0_11	I/O CMOS	1.8V	
CAM_B_RST# / GPIO_D_1	U33	K23	OSPI0_CSn1	OSPI0_CSn1 GPIO0_12	I/O CMOS	1.8V	

Table: Size M Vendor Defined Contacts

SOM Contact Name	SOM Contact Acronym	Contact Number on SoC	Contact Name on SoC	SoC PIN Multiplexing (bold = default muxing)	I/O Type	I/O Level	Comments
GPIO_VM_0	Y29	NC	NC		I/O CMOS	1.8V	
GPIO_VM_1	Y30	NC	NC		I/O CMOS	1.8V	
GPIO_VM_2	Y31	NC	NC		I/O CMOS	1.8V	
GPIO_VM_3	AA29	NC	NC		I/O CMOS	1.8V	
GPIO_VM_4	AA30	NC	NC		I/O CMOS	1.8V	
GPIO_VM_5	AA31	NC	NC		I/O CMOS	1.8V	

Mechanical Drawings

Module dimensions of the Carbon AM67 OSM-MF SOM with onboard M.2 1216 footprint Wi-Fi-BT module are 30mm x 45mm. Detail drawings are shown below.



Electrical Characteristics

Absolute Maximum Ratings

The following table summarizes the absolute maximum ratings for the Carbon AM67 OSM-MF SOM product series. Absolute maximum ratings are those values beyond which damage to the device can occur. Functional operation under these conditions, or at any other condition beyond

those indicated in the operational sections of this document, is not recommended.

Note: Maximum rating for signals follows the supply domain of the signals.

Table: Absolute Maximum Ratings

Symbol (Domain)	Parameter	Min.	Max	Unit
VSYS_5V	Input voltage for the SOM	-0.5	+6.0	V
I/O Input/output voltage range	Any I/O pin referred to 1.8V	-0.3	+1.98	V
I/O Input/output voltage range	Any I/O pin referred to 3.3V	-0.3	+3.63	V
T _{STORAGE}	Storage Temperature Range	-40	+125	°C
ESD	Electrostatic discharge tolerance	-2000	+2000	V

Recommended Operating Conditions

Table: Recommended Operating Conditions

Symbol (Domain)	Parameter	Min	Typ	Max	Unit
VSYS_5V	Input voltage for the SOM	3.3	5.0	5.5	V
I/O Input/output voltage range	Any I/O pin referred to 1.8V	1.71	1.8	1.89	V
I/O Input/output voltage range	Any I/O pin referred to 3.3V	3.135	3.3	3.465	V
T-ambient	Operating Ambient temperature	-40	25	85	°C

The operating ambient temperature ratings are highly dependent on the design-case, such as the enclosure design, system design, processor activity, GPU/VPU activity, and peripherals used. Running over 75° C ambient temperature typically requires the implementation of thermal management strategies such as passive (heatsink/spreader). Please [contact Ezurio](#) if you need information and guidance for thermal management.

DC Electrical Characteristics / Current Consumption

Several power saving modes are available and are listed below.

Note: These figures are estimates and subject to change.

Table: Typical Current Consumption

Measurement is on VSYS_5V

Model	WiFi condition	CPU loading	current average	current maximum	note
AM67 + Sona TI351 4GB LPDDR4	Wi-Fi connection only.	25			
		50	520	630	
		75			
		100	580	670	
	Wi-Fi iPerf	25	560	700	iPerf 2.4GHz, 1M data rate
		50	570	720	
		75	610	720	
		100	630	770	
AM67 + Sona IF513 8GB LPDDR4	Wi-Fi connection only.	25			
		50	530	670	
		75			
		100	590	670	
	Wi-Fi iPerf	25	580	690	iPerf 2.4GHz, 1M data rate
		50	610	730	
		75	630	730	
		100	660	750	

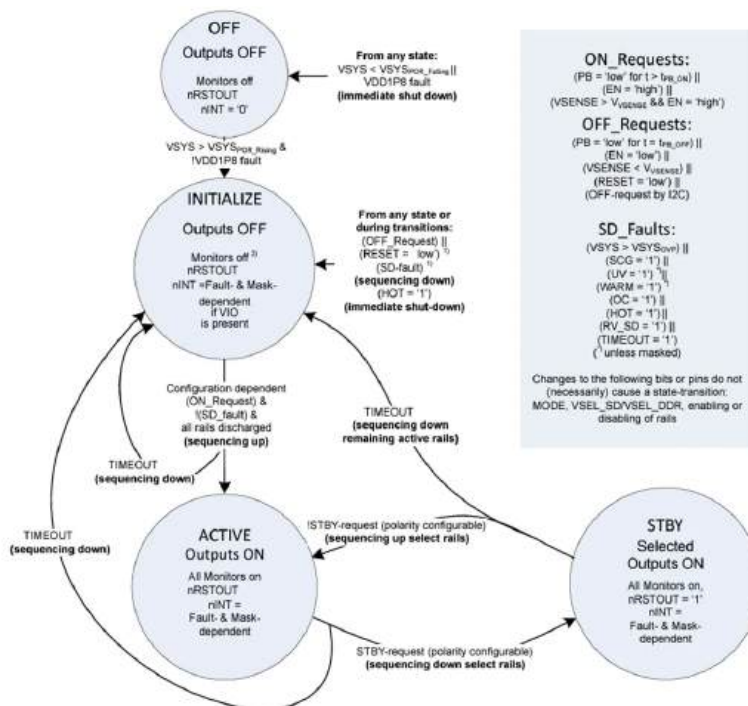
Power Management & Consumption

The Carbon AM67 OSM-MF requires a primary 5V power supply (VSYS_5V) input. This supply is the main power domain to the on-module TI TPS65219 power management IC (PMIC), which generates all required supply voltages for the module components.



Power Modes

The TI TPS65219 has four power states: OFF, INITIALIZE, ACTIVE and STBY. Below the figure shows the state transition diagram showing the conditions to enter and exit each state.



- OFF mode:**

In OFF state, the PMIC is insufficiently supplied. Neither internal logic nor external rails are available. If VSYS exceeds VSYS_POR voltage and the internal 1.8V-rail (VDD1P8) is in regulation, the device enters the INITIALIZE state.

- INITIALIZE Mode:**

In INITIALIZE state, the device is completely shut down with the exception of a few circuits to monitor the EN/PB/VSENSE input. Whenever entering the INITIALIZE state, the PMIC reads the memory and loads the registers to their EEPROM-default values. The I2C communication interface is turned off.

- ACTIVE Mode:**

The ACTIVE state is the normal mode of operation when the system is up and running. All enabled buck converters and LDOs are operational and can be controlled through the I2C interface. After a wake-up event, the PMIC discharges potential residual voltages on the outputs, regardless of the discharge-configuration.

- STBY Mode:**

STBY state is a low-power mode of operation intended to support system standby. The mode can be entered by the MODE/STBY pin, if configured as 'STBY' or by an I2C-command to STBY_I2C_CTRL in MFP_CTRL register. Typically, the majority of power rails are turned off with the exception of rails required by the SoC during this state. Which rails power down in STBY state can be configured in STBY_1_CONFIG and STBY_2_CONFIG register.

Environmental and Reliability

Environmental Requirements

Required Storage Conditions

- **Prior to Opening the Dry Packing**

The following are required storage conditions prior to opening the dry packing:

- Normal temperature: 5~40°C
- Normal humidity: 80% (Relative humidity) or less
- Storage period: One year or less

Ordering Information

Part	Description
Evaluation Kits	
EZOMI-67A-0416-00199-2-K2	Carbon AM67 OSM-MF Evaluation Kit: 7 in Display / Eval Board / HDMI Adapter / SOM with Adapter / AM67 / 4GB RAM / 16GB eMMC / TI351 Wi-Fi-BT / Accessories
EZOMI-67A-0416-00199-2-KC	Carbon AM67 OSM-MF Evaluation Kit: 7 in Display / 8.3MP Camera / Eval Board / HDMI Adapter / SOM on Adapter / AM67 / 4GB RAM / 16GB eMMC / TI351 Wi-Fi-BT / Accessories
Boards for Evaluation Kits	
EZOMI-67A-0416-00000-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 4GB / 16GB eMMC / Without Wireless / For Use with OSM EVK
EZOMI-67A-0416-00199-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 4GB / 16GB eMMC / TI351 Wi-Fi-BT / For Use with OSM EVK
EZOMI-67A-0416-00184-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 4GB / 16GB eMMC / IF513 Wi-Fi-BT / For Use with OSM EVK
EZOMI-67A-0816-00000-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 8GB / 16GB eMMC / Without Wireless / For Use with OSM EVK
EZOMI-67A-0816-00199-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 8GB / 16GB eMMC / TI351 Wi-Fi-BT / For Use with OSM EVK
EZOMI-67A-0816-00184-2-IK	Carbon AM67 OSM-MF SOM with Adapter: AM67A / 8GB / 16GB eMMC / IF513 Wi-Fi-BT / For Use with OSM EVK
Distribution-stocked super set variants for evaluation and prototyping	
EZOMI-67A-0416-00000-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Without Wireless / -40 to +85°C / Cut Tape
EZOMI-67A-0416-00199-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Cut Tape
EZOMI-67A-0416-00199-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Cut Tape

EZOMI-67A-0816-00199-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Cut Tape
OSM Boards (AM675)	
<i>Without Wireless</i>	
EZOMC-675-0416-00000-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-675-0416-00000-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Without Wireless / -40 to +85°C / Tape and Reel
EZOMC-675-0816-00000-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-675-0816-00000-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Without Wireless / -40 to +85°C / Tape and Reel
<i>With Sona TI351</i>	
EZOMC-675-0416-00199-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0416-00199-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-675-0816-00199-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0816-00199-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
<i>With Sona IF513</i>	
EZOMC-675-0416-00184-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0416-00184-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-675-0816-00184-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0816-00184-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
<i>With Sona NX611</i>	
EZOMC-675-0416-00158-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0416-00158-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 4GB / 16GB eMMC / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-675-0816-00158-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-675-0816-00158-2R	Carbon AM67 OSM-MF: AM675 / 4 A53 / 8GB / 16GB eMMC / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel
OSM Boards (AM67A)	
<i>Without Wireless</i>	
EZOMC-67A-0416-00000-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-67A-0416-00000-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Without Wireless / -40 to +85°C / Tape and Reel

EZOMC-67A-0816-00000-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Without Wireless / 0 to +70°C / Tape and Reel
EZOMI-67A-0816-00000-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Without Wireless / -40 to +85°C / Tape and Reel
EZOMI-67A-0416-00000-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Without Wireless / -40 to +85°C / Cut Tape
<i>With Sona TI351</i>	
EZOMC-67A-0416-00199-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0416-00199-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-67A-0816-00199-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona TI351 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0816-00199-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Tape and Reel
EZOMI-67A-0416-00199-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona TI351 1MHF4L / -40 to +85°C / Cut Tape
<i>With Sona IF513</i>	
EZOMC-67A-0416-00184-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0416-00184-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-67A-0816-00184-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona IF513 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0816-00184-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona IF513 1MHF4L / -40 to +85°C / Tape and Reel
EZOMI-67A-0416-00184-2C	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona IF513 1MHF4L / -40 to +85°C / Cut Tape
<i>With Sona NX611</i>	
EZOMC-67A-0416-00158-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0416-00158-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 4GB / 16GB eMMC / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel
EZOMC-67A-0816-00158-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona NX611 1MHF4L / 0 to +70°C / Tape and Reel
EZOMI-67A-0816-00158-2R	Carbon AM67 OSM-MF: AM67A / 4 A53 / 8GB / 16GB eMMC / Sona NX611 1MHF4L / -40 to +85°C / Tape and Reel

Additional Information

Please contact your local sales representative or our support team for further assistance:

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