



uCOM-M700/M510

SMARC Module

User's Manual 1st Ed

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Packing List

Before setting up your product, please make sure the following items have been shipped:

Item	Quantity
● uCOM-M700/M510	1

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

About this Document

This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the product page on AAEON.com for the latest version of this document.

Safety Precautions

Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
7. Always disconnect this device from any AC supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls.
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for high temperatures when the system is running.
14. Do not touch the heat sink or heat spreader when the system is running.
15. Never pour any liquid into the openings. This could cause fire or electric shock.
16. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.

17. If any of the following situations arises, please the contact our service personnel:
 - i. Damaged power cord or plug
 - ii. Liquid intrusion to the device
 - iii. Exposure to moisture
 - iv. Device is not working as expected or in a manner as described in this manual
 - v. The device is dropped or damaged
 - vi. Any obvious signs of damage displayed on the device
18. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -40°C (-40°F) OR ABOVE 85°C (185°F) TO PREVENT DAMAGE.**

FCC Statement

Warning!



This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON 主板/子板/背板

QQ4-381 Rev.A2

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板 及其电子组件	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
本表格依据 SJ/T 11364 的规定编制。 ○：表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572标准规定的限量要求以下。 ×：表示该有害物质的某一均质材料超出了GB/T 26572的限量要求，然而该部件仍符合欧盟指令2011/65/EU 的规范。 环保使用期限(EFUP (Environmental Friendly Use Period)) : 10年 备注：此产品所标示之环保使用期限，系指在一般正常使用状况下。						

China RoHS Requirement (EN)

Name and content of hazardous substances in product

AAEON Main Board/Daughter Board/Backplane

QO4-381 Rev.A2

Part Name	Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
PCB Assemblies	×	○	○	○	○	○
Connector and Cable	×	○	○	○	○	○
The table is prepared in accordance with the provisions of SJ/T 11364. ○: Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572. ×: Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572. But this product still be compliance with 2011/65/EU Directive (allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1). EFUP (Environment Friendly Use Period) value: 10 years Notes: This product defined period of use is under normal condition.						

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Chapter 1

Product Specifications

1.1 Specifications

System

Form Factor	SMARC 2.1 Compliant
CPU	MediaTek Genio 700 (MT8390): Dual-core Arm® Cortex®-A78, 2.2GHz Hexa-core Arm® Cortex®-A55, 2.0GHz Arm® Mali™-G57 MC3 GPU, 4 TOPs MediaTek Genio 510 (MT8370): Dual-core Arm® Cortex®-A78, 2.0GHz Quad-core Arm® Cortex®-A55, 2.0GHz Arm® Mali™-G57 MC2 GPU, 3.2 TOPs
Chipset	—
Memory	Onboard LPDDR4, up to 8GB
Storage	eMMC 5.1, 16GB (Optional: 32GB/64GB/128GB) SDIO 3.0 x 1 (for SD Card)
BIOS	—
MTBF (Hours)	3,092,590
Wake on LAN	—
Watchdog Timer	Yes
Real Time Clock	RTC x 1
Boot Select	Module eMMC Flash
Security	TPM 2.0 (optional)

Display

Graphics Controller	Arm® Mali™-G57 MC2/MC3 GPU, supports OpenGL® ES 1.1/2.0/3.2 and Vulkan® 1.0/1.1 (MC3 for model 700, MC2 for model 510)
Video Output	HDMI 2.0 x 1 DP 1.4 x 1 (4K @60Hz) eDP 1.2 (2-Lane) x 1 MIPI-DSI (4-Lane) x 1 (by request) *Supports up to dual display (4K x 1 + 2K x 1)

I/O

Ethernet	Gigabit Ethernet x 1 (TSN support)
USB	USB 3.0 + 2.0 x 1 USB 2.0 x 5
Serial Port	UART x 2 (4-wire, 1.8V) UART x 2 (2-wire, 1.8V, one for debug port)
Audio	I2S x 1
PCIE	PCIe 2.0 x 1
CANBus	—
MIPI-CSI	MIPI-CSI x 2 (4-Lane x 1 + 2-Lane x 1, by request)
GPIO	12-bit
Other Interfaces	SPI x 1, I2C x 5

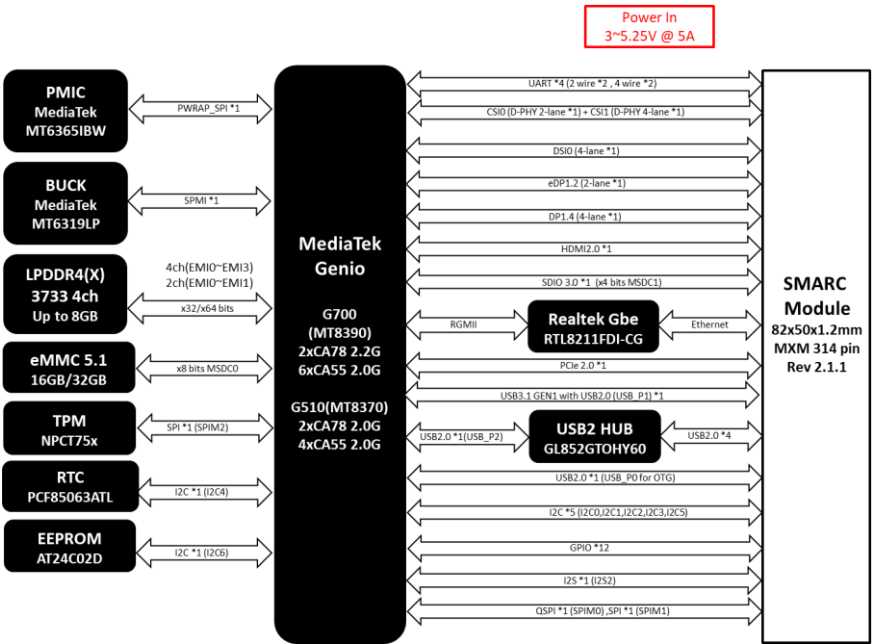
Power

Power Requirement	DC 3V ~ 5.25V, AT (Optional: ATX for Yocto)
Power Consumption	4.25W

Environmental

Dimensions	3.23" x 1.97" (82mm x 50mm)
Weight	0.0374 lb (0.017 kg)
Operating Temperature	-40°F ~ 185°F (-40°C ~ 85°C) Optional: 32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 95% relative humidity, non-condensing
Certification	CE/FCC Class A
OS Support	Yocto 4.0 (Kernel 5.15) Ubuntu (by request) Android 14 (by request) Debian 13 (Kernel 6.14.0) (by request)
Support Protocol	By request

1.2 Block Diagram

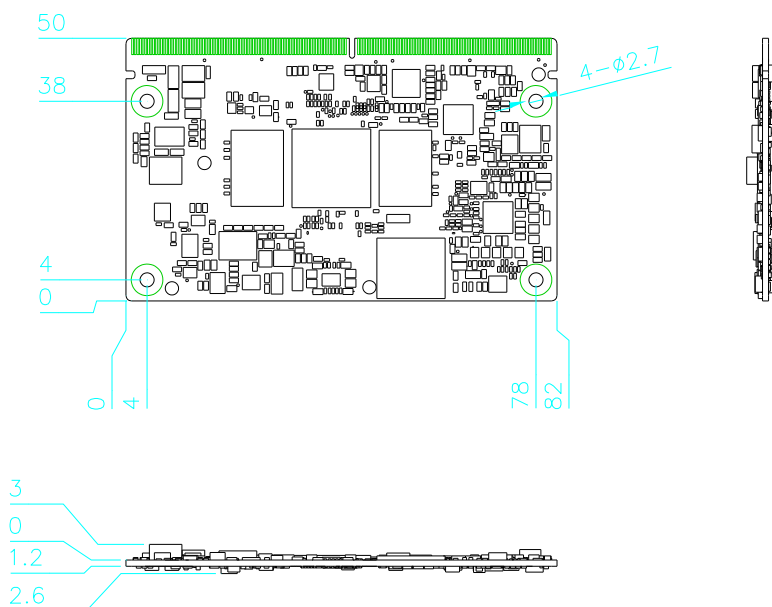


Chapter 2

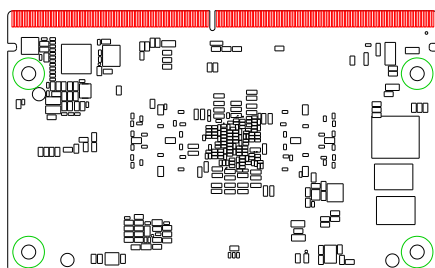
Hardware Information

2.1 Dimensions

Top Side

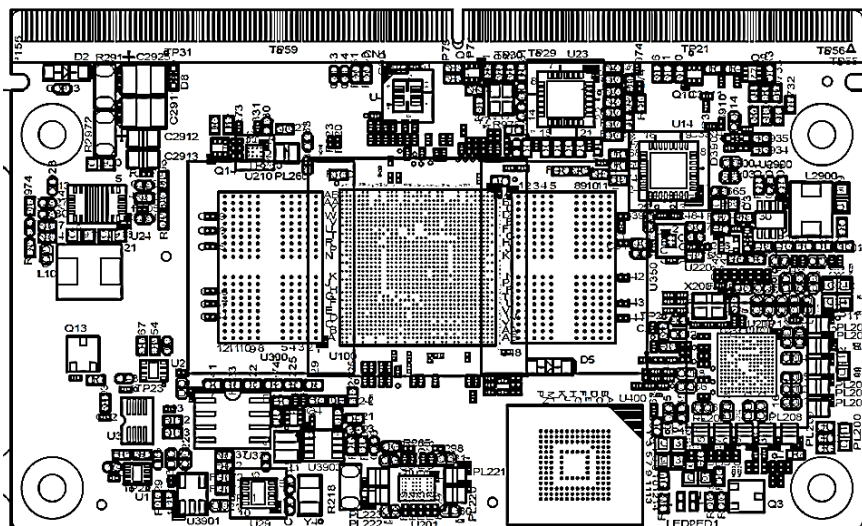


Bottom Side

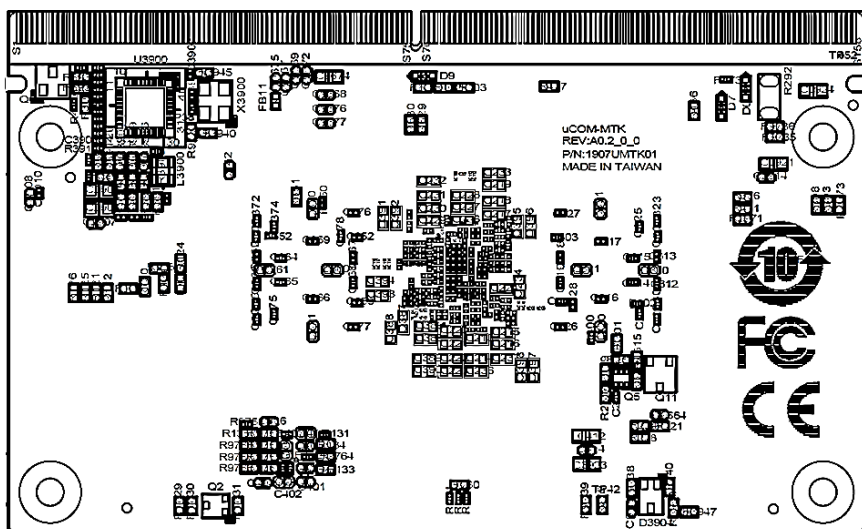


2.2 Jumpers and Connectors

Top Side



Bottom Side



2.3 MXM Gold Finger (CN1)

Pin	SMARC R2.2 SPEC	Pin	SMARC R2.2 SPEC
P1	SMB_ALERT# (1.8V to 5V)	S1	CSI1_TX+ / I2C_CAM1_CK (1.8V)
P2	GND	S2	CSI1_TX- / I2C_CAM1_DAT (1.8V)
P3	CSI1_CK+	S3	GND
P4	CSI1_CK-	S4	RSVD
P5	GBE1_SDP (3.3V)	S5	CSI0_TX+ / I2C_CAM0_CK (1.8V)
P6	GBE0_SDP (3.3V)	S6	CAM_MCK (1.8V)
P7	CSI1_RX0+	S7	CSI0_TX- / I2C_CAM0_DAT (1.8V)
P8	CSI1_RX0-	S8	CSI0_CK+
P9	GND	S9	CSI0_CK-
P10	CSI1_RX1+	S10	GND
P11	CSI1_RX1-	S11	CSI0_RX0+
P12	GND	S12	CSI0_RX0-
P13	CSI1_RX2+	S13	GND
P14	CSI1_RX2-	S14	CSI0_RX1+
P15	GND	S15	CSI0_RX1-
P16	CSI1_RX3+	S16	GND
P17	CSI1_RX3-	S17	GBE1_MDI0+
P18	GND	S18	GBE1_MDI0-
P19	GBE0_MDI3-	S19	GBE1_LINK100# (3.3V)
P20	GBE0_MDI3+	S20	GBE1_MDI1+
P21	GBE0_LINK100# (3.3V)	S21	GBE1_MDI1-
P22	GBE0_LINK1000# (3.3V)	S22	GBE1_LINK1000# (3.3V)
P23	GBE0_MDI2-	S23	GBE1_MDI2+
P24	GBE0_MDI2+	S24	GBE1_MDI2-
P25	GBE0_LINK_ACT# (3.3V)	S25	GND
P26	GBE0_MDI1-	S26	GBE1_MDI3+
P27	GBE0_MDI1+	S27	GBE1_MDI3-
P28	GBE0_CTREF (0 to 3.3V max)	S28	GBE1_CTREF (0 to 3.3V max)
P29	GBE0_MDI0-	S29	PCIE_D_TX+ / SERDES_0_TX+
P30	GBE0_MDI0+	S30	PCIE_D_TX- / SERDES_0_TX-
P31	SPI0_CS1# (1.8V)	S31	GBE1_LINK_ACT# (3.3V)
P32	GND	S32	PCIE_D_RX+ / SERDES_0_RX+
P33	SDIO_WP (1.8V/3.3V)	S33	PCIE_D_RX- / SERDES_0_RX-
P34	SDIO_CMD (1.8V/3.3V)	S34	GND
P35	SDIO_CD# (1.8V/3.3V)	S35	USB4+
P36	SDIO_CK (1.8V/3.3V)	S36	USB4-
P37	SDIO_PWR_EN (3.3V)	S37	USB3_VBUS_DET (5V)

Pin	SMARC R2.2 SPEC	Pin	SMARC R2.2 SPEC
P38	GND	S38	AUDIO_MCK (1.8V)
P39	SDIO_D0 (1.8V/3.3V)	S39	I2S0_LRCK (1.8V)
P40	SDIO_D1 (1.8V/3.3V)	S40	I2S0_SDOUT (1.8V)
P41	SDIO_D2 (1.8V/3.3V)	S41	I2S0_SDIN (1.8V)
P42	SDIO_D3 (1.8V/3.3V)	S42	I2S0_CK (1.8V)
P43	SPI0_CS0# (1.8V)	S43	ESPI_ALERT0# (1.8V)
P44	SPI0_CK (1.8V)	S44	ESPI_ALERT1# (1.8V)
P45	SPI0_DIN (1.8V)	S45	MDIO_CLK (1.8V)
P46	SPI0_DO (1.8V)	S46	MDIO_DAT (1.8V)
P47	GND	S47	GND
P48	SATA_TX+	S48	I2C_GP_CK (1.8V)
P49	SATA_TX-	S49	I2C_GP_DAT (1.8V)
P50	GND	S50	HDA_SYNC (1.8V/1.5V) / I2S2_LRCK (1.8V)
P51	SATA_RX+	S51	HDA_SDO (1.8V/1.5V) / I2S2_SDOUT (1.8V)
P52	SATA_RX-	S52	HDA_SDI (1.8V/1.5V) / I2S2_SDIN (1.8V)
P53	GND	S53	HDA_CK (1.8V/1.5V) / I2S2_CK (1.8V)
P54	ESPI_CS0#/SPI1_CS0#/QSPI_CS0# (1.8V)	S54	SATA_ACT# (3.3V)
P55	ESPI_CS1#/SPI1_CS1#/QSPI_CS1# (1.8V)	S55	USB5_EN_OC# (3.3V)
P56	ESPI_CK / SPI1_CK / QSPI_CK (1.8V)	S56	ESPI_IO_2 / QSPI_IO_2 (1.8V)
P57	ESPI_IO_1/SPI1_DIN/QSPI_IO_1 (1.8V)	S57	ESPI_IO_3 / QSPI_IO_3 (1.8V)
P58	ESPI_IO_0/SPI1_DO/QSPI_IO_0 (1.8V)	S58	ESPI_RESET# (1.8V)
P59	GND	S59	USB5+
P60	USB0+	S60	USB5-
P61	USB0-	S61	GND
P62	USB0_EN_OC# (3.3V)	S62	USB3_SSTX+
P63	USB0_VBUS_DET (5V)	S63	USB3_SSTX-
P64	USB0_OTG_ID	S64	GND
P65	USB1+	S65	USB3_SSRX+
P66	USB1-	S66	USB3_SSRX-
P67	USB1_EN_OC# (3.3V)	S67	GND
P68	GND	S68	USB3+
P69	USB2+	S69	USB3-
P70	USB2-	S70	GND

Pin	SMARC R2.2 SPEC	Pin	SMARC R2.2 SPEC
P71	USB2_EN_OC#	S71	USB2_SSTX+
P72	RSVD	S72	USB2_SSTX-
P73	RSVD	S73	GND
P74	USB3_EN_OC# (3.3V)	S74	USB2_SSRX+
P75	PCIE_A_RST# (3.3V)	S75	USB2_SSRX-
P76	USB4_EN_OC# (3.3V)	S76	PCIE_B_RST# (3.3V)
P77	PCIE_B_CKREQ# (3.3V)	S77	PCIE_C_RST# (3.3V)
P78	PCIE_A_CKREQ# (3.3V)	S78	PCIE_C_RX+ / SERDES_1_RX+
P79	GND	S79	PCIE_C_RX- / SERDES_1_RX-
P80	PCIE_C_REFCK+	S80	GND
P81	PCIE_C_REFCK-	S81	PCIE_C_TX+ / SERDES_1_TX+
P82	GND	S82	PCIE_C_TX- / SERDES_1_TX-
P83	PCIE_A_REFCK+	S83	GND
P84	PCIE_A_REFCK-	S84	PCIE_B_REFCK+
P85	GND	S85	PCIE_B_REFCK-
P86	PCIE_A_RX+	S86	GND
P87	PCIE_A_RX-	S87	PCIE_B_RX+
P88	GND	S88	PCIE_B_RX-
P89	PCIE_A_TX+	S89	GND
P90	PCIE_A_TX-	S90	PCIE_B_TX+
P91	GND	S91	PCIE_B_TX-
P92	HDMI_D2+ / DP1_LANE0+	S92	GND
P93	HDMI_D2- / DP1_LANE0-	S93	DPO_LANE0+
P94	GND	S94	DPO_LANE0-
P95	HDMI_D1+ / DP1_LANE1+	S95	DPO_AUX_SEL (1.8V)
P96	HDMI_D1- / DP1_LANE1-	S96	DPO_LANE1+
P97	GND	S97	DPO_LANE1-
P98	HDMI_D0+ / DP1_LANE2+	S98	DPO_HPD (1.8V)
P99	HDMI_D0- / DP1_LANE2-	S99	DPO_LANE2+
P100	GND	S100	DPO_LANE2-
P101	HDMI_CK+ / DP1_LANE3+	S101	GND
P102	HDMI_CK- / DP1_LANE3-	S102	DPO_LANE3+
P103	GND	S103	DPO_LANE3-
P104	HDMI_HPD (1.8V) / DP1_HPD (1.8V)	S104	USB3_OTG_ID (3.3V)
P105	HDMI_CTRL_CK (1.8V)/DP1_AUX+(3.3V)	S105	DPO_AUX+ (3.3V)
P106	HDMI_CTRL_DAT (1.8V)/DP1_AUX- (3.3V)	S106	DPO_AUX- (3.3V)
P107	DP1_AUX_SEL	S107	LCD1_BKLT_EN (1.8V)

Pin	SMARC R2.2 SPEC	Pin	SMARC R2.2 SPEC
P108	GPIO0 / CAM0_PWR# (1.8V)	S108	LVDS1_CK+ / eDP1_AUX+ / DSI1_CLK+
P109	GPIO1 / CAM1_PWR# (1.8V)	S109	LVDS1_CK- / eDP1_AUX- / DSI1_CLK-
P110	GPIO2 / CAM0_RST# (1.8V)	S110	GND
P111	GPIO3 / CAM1_RST# (1.8V)	S111	LVDS1_0+ / eDP1_TX0+ / DSI1_D0+
P112	GPIO4 (1.8V) / HDA_RST# (1.8V/1.5V)	S112	LVDS1_0- / eDP1_TX0- / DSI1_D0-
P113	GPIO5 (1.8V) / PWM_OUT (1.8V)	S113	eDP1_HPD / DSI1_TE (1.8V)
P114	GPIO6 (1.8V) / TACHIN (1.8V)	S114	LVDS1_1+ / eDP1_TX1+ / DSI1_D1+
P115	GPIO7 (1.8V)	S115	LVDS1_1- / eDP1_TX1- / DSI1_D1-
P116	GPIO8 (1.8V)	S116	LCD1_VDD_EN (1.8V)
P117	GPIO9 (1.8V)	S117	LVDS1_2+ / eDP1_TX2+ / DSI1_D2+
P118	GPIO10 (1.8V)	S118	LVDS1_2- / eDP1_TX2- / DSI1_D2-
P119	GPIO11 (1.8V)	S119	GND
P120	GND	S120	LVDS1_3+ / eDP1_TX3+ / DSI1_D3+
P121	I2C_PM_CK (1.8V)	S121	LVDS1_3- / eDP1_TX3- / DSI1_D3-
P122	I2C_PM_DAT (1.8V)	S122	LCD1_BKLT_PWM (1.8V)
P123	BOOT_SEL0# (1.8V)	S123	GPIO13 (1.8V)
P124	BOOT_SEL1# (1.8V)	S124	GND
P125	BOOT_SEL2# (1.8V)	S125	LVDS0_0+ / eDP0_TX0+ / DSI0_D0+
P126	RESET_OUT# (1.8V to 5V)	S126	LVDS0_0- / eDP0_TX0- / DSI0_D0-
P127	RESET_IN# (1.8V to 5V)	S127	LCD0_BKLT_EN (1.8V)
P128	POWER_BTN# (1.8V to 5V)	S128	LVDS0_1+ / eDP0_TX1+ / DSI0_D1+
P129	SER0_TX (1.8V)	S129	LVDS0_1- / eDP0_TX1- / DSI0_D1-
P130	SER0_RX (1.8V)	S130	GND
P131	SER0_RTS# (1.8V)	S131	LVDS0_2+ / eDP0_TX2+ / DSI0_D2+
P132	SER0_CTS# (1.8V)	S132	LVDS0_2- / eDP0_TX2- / DSI0_D2-
P133	GND	S133	LCD0_VDD_EN (1.8V)
P134	SER1_TX (1.8V)	S134	LVDS0_CK+ / eDP0_AUX+ / DSI0_CLK+
P135	SER1_RX (1.8V)	S135	LVDS0_CK- / eDP0_AUX- / DSI0_CLK-
P136	SER2_TX (1.8V)	S136	GND
P137	SER2_RX (1.8V)	S137	LVDS0_3+ / eDP0_TX3+ / DSI0_D3+
P138	SER2_RTS# (1.8V)	S138	LVDS0_3- / eDP0_TX3- / DSI0_D3-
P139	SER2_CTS# (1.8V)	S139	I2C_LCD_CK (1.8V)
P140	SER3_TX (1.8V)	S140	I2C_LCD_DAT (1.8V)
P141	SER3_RX (1.8V)	S141	LCD0_BKLT_PWM (1.8V)
P142	GND	S142	GPIO12 (1.8V)
P143	CAN0_TX (1.8V)	S143	GND
P144	CAN0_RX (1.8V)	S144	eDP0_HPD / DSI0_TE (1.8V)

Pin	SMARC R2.2 SPEC	Pin	SMARC R2.2 SPEC
P145	CAN1_TX (1.8V)	S145	WDT_TIME_OUT# (1.8V)
P146	CAN1_RX (1.8V)	S146	PCIE_WAKE# (3.3V)
P147	VDD_IN	S147	VDD_RTC (2.0V to 3.25V)
P148	VDD_IN	S148	LID# (1.8V to 5V)
P149	VDD_IN	S149	SLEEP# (1.8V to 5V)
P150	VDD_IN	S150	VIN_PWR_BAD# (3.0V to 5.25V)
P151	VDD_IN	S151	CHARGING# (1.8V to 5V)
P152	VDD_IN	S152	CHARGER_PRSENT# (1.8V to 5V)
P153	VDD_IN	S153	CARRIER_STBY# (1.8V)
P154	VDD_IN	S154	CARRIER_PWR_ON (1.8V)
P155	VDD_IN	S155	FORCE_RECOV# (1.8V)
P156	VDD_IN	S156	BATLOW# (1.8V to 5V)
		S157	TEST# (1.8V to 5V)
		S158	GND

Chapter 3

Product Setup and Configuration

3.1 System Account Management

This section outlines the steps for managing system accounts, including logging in, modifying accounts, and changing passwords.

3.1.1 Boot Select Signals

	Carrier Connection			Boot Source
	BOOT_SEL2#(P123)	BOOT_SEL1#(P124)	BOOT_SEL0#(P125)	
4	Float	GND	GND	Module device (Genio-flash)
6	Float	Float	GND	Module eMMC Flash

3.1.2 Debug Console

Baud rate: 921600

Signal Name	Pin #	Device node
SER1_TX(Debug console)	P134	/dev/ttyS0
SER1_RX(Debug console)	P135	

3.1.2.1 User & Login

User: root

3.2 I/O Control Command and Examples

3.2.1 GPIO

There are two ways to access the GPIO.
Please note that the module only supports up to 14 GPIOs.

Signal Name	Pin #	Chip Number	Offset	Description
GPIO0	P108	0	0	
GPIO1	P109	0	1	
GPIO2	P110	0	3	
GPIO3	P111	0	5	
GPIO4/HDA_RST#	P112	0	6	
GPIO5	P113	0	7	
GPIO6	P114	0	123	
GPIO7	P115	0	9	
GPIO8	P116	0	10	
GPIO9	P117	0	11	
GPIO10	P118	0	12	
GPIO11	P119	0	13	
GPIO12	S142	0	24	Default used as TPM RST(Optional)
GPIO13	S123	0	14	

3.2.2 RTC

PCF85063ATL	CPU internal RTC
/dev/rtc0	/dev/rtc1

3.2.3 Asynchronous Serial Ports

Signal Name	Pin #	Device node
SER0_TX	P129	/dev/ttyS1
SER0_RX	P130	
SER0_RTS#	P131	
SER0_CTS#	P132	

Signal Name	Pin #	Device node
SER1_TX(Debug console)	P134	/dev/ttyS0
SER1_RX(Debug console)	P135	
SER2_TX	P136	/dev/ttyS2
SER2_RX	P137	
SER2_RTS#	P138	
SER2_CTS#	P139	
SER3_TX	P140	/dev/ttyS3
SER3_RX	P141	

3.2.4 TPM

Device Node
/dev/tpm0

3.2.5 Watchdog

Signal Name	Pin #	Device node
WDT_TIME_OUT#	S145	/dev/watchdog0

3.2.6 SDIO Card (4 bit) Interface

Signal Name	Pin #	Device node
SDIO_D0	P39	/dev/mmcblk1
SDIO_D1	P40	
SDIO_D2	P41	
SDIO_D3	P42	
SDIO_CMD	P34	
SDIO_CD#	P35	
SDIO_CK	P36	
SDIO_PWR_EN	P37	

3.2.7 eMMC

Device Node
/dev/mmcblk0

3.2.8 I2C

Signal Name	Pin #	I2C Bus
I2C_CAM1_CK	S1	3
I2C_CAM1_DAT	S2	
I2C_CAM0_CK	S5	5
I2C_CAM0_DAT	S7	
I2C_GP_CK	S48	0
I2C_GP_DAT	S49	
I2C_LCD_CK	S139	2
I2C_LCD_DAT	S140	

3.2.9 EEPROM

I2C Bus	Slaver Address
6	0x57

3.2.10 SPI Interfaces

Signal Name	Signal Name	Pin #
SPI0_CS0#	P43	/dev/spidev1.0
SPI0_CK	P44	
SPI0_DIN	P45	
SPI0_DO	P46	
SPI1_CS0#	P54	/dev/spidev0.0
SPI1_CK	P56	
SPI1_DIN	P57	
SPI1_DO	P58	