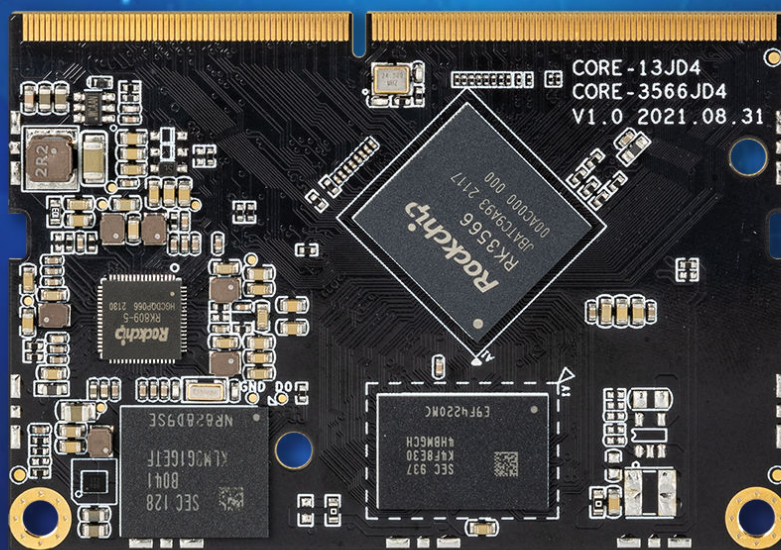


# Core-3566JD4

Quad-Core 64-Bit AI Core Board

V1.0



T-CHIP INTELLIGENCE TECHNOLOGY CO.,LTD.

[www.t-firefly.com](http://www.t-firefly.com)

# Update history

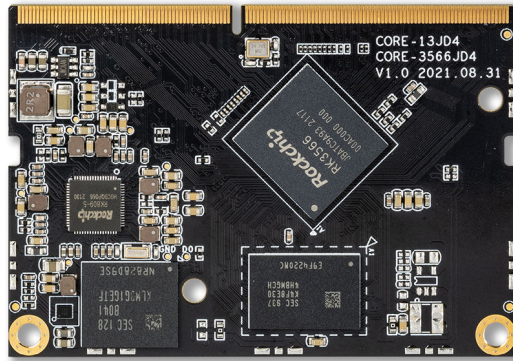
Version	Date	Details
V1.0	2021-12-14	Original version

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# Overview

Equipped with RK3566 quad-core 64-bit processor, and integrated with dual-core GPU and high-efficiency NPU, the core board supports PCIe2.1 and SATA3.0 interfaces for large hard disk expansion and supports various operating systems. Backplane reference design and other open resources are provided for users to make further customization.



- **RK3566 quad-core 64-bit processor**

RK3566 quad-core 64-bit Cortex-A55 processor has frequency up to 1.8GHz. With 22nm lithography process, it features low power consumption and high performance.

- **8GB large RAM, all-data-link ECC**

It supports up to 8GB RAM, and supports all-data-link ECC, making data safer and more reliable, and meeting the requirements of running large-memory products.

- **PCIe2.1 and SATA3.0 interfaces**

PCIe2.1 interface can be connected with NVMe SSD, and SATA3.0 interface can be connected with SSD/HDD, owning the superiority of high-speed reading and writing and large storage.

- **A variety of interfaces**

The core board has interfaces like UART, I2C, ADC, PWM, GPIO, PCIE2.1, SATA3.0, USB2.0, USB3.0, HDMI, EDP, MIPI CSI, MIPI DSI, I2S, SPEAK and HPOUT.

- **To form high-performance mainboard**

The core board with SODIMM 260P interface can be combined with a backplane to form a complete high-performance industrial mainboard delivering more powerful performance, which can be directly applied to various smart products to accelerate the product development process.

- **Backplane reference design is provided**

Backplane reference design and complete technical information are provided, so users can efficiently proceed secondary development to quickly create independent and controllable products.

- **Supports various operating systems**

It supports Android, Ubuntu Buildroot+QT, OpenWRT, Debian and other operating systems, stable and reliable.

- **Abundant resources for customization**

A complete SDK, development documents, examples, technology documents, tutorials and other resources are provided for users to make further customization.

## Basic Specifications

<b>SOC</b>	RockChip RK3566
<b>CPU</b>	Quad-core 64-bit Cortex-A55, 22nm lithography process, up to 1.8GHz
<b>GPU</b>	ARM G52 2EE GPU Supports OpenGL ES 1.1/2.0/3.2. OpenCL 2.0. Vulkan 1.1 Embedded high-performance 2D acceleration hardware
<b>NPU</b>	Integrated RKNN NPU AI accelerator, 0.8Tops@INT8 Supports one-click switching of Caffe/TensorFlow/TFLite/ONNX/PyTorch/Keras/Darknet
<b>VPU</b>	4K@60fps H.265/H.264/VP9 video decoding 1080P 100fps H.265/H.264 video encoding
<b>RAM</b>	1GB/2GB/4GB/8GB LPDDR4
<b>Storage</b>	8GB/16GB/32GB/64GB/128GB eMMC

## Hardware Specifications

<b>Ethernet</b>	Integrated GMAC Ethernet controller, supports 1000Mbps Ethernet (RJ45)
<b>Wireless</b>	Extend to WiFi+Bluetooth combo module through SDIO interface: -Supports 2.4GHz / 5GHz dual-band WiFi, 802.11a/b/g/n/ac protocol -Supports Bluetooth5.0 Supports extended 4G LTE/3G wireless network
<b>Display</b>	1 x HDMI2.0, supports up to 4K@60fps output 2 x MIPI DSI, supports single/dual channel mode, supports up to 2560*1440@60fps output 1 x eDP1.3, supports up to 2560x1600@60fps output
<b>Audio</b>	1 x I2S (8-channel input and output), 2 x I2S (2-channel input and output) , 1 x I2S (HDMI)
<b>Camera</b>	MIPI-CSI (4-channel), supports 2-channel input, built-in 8M ISP, Supports single-lens 8M camera / dual-lens 2M camera
<b>USB</b>	USB2.0×5、USB3.0×1
<b>PCIe</b>	PCIe 2.1
<b>SATA</b>	SATA3.0
<b>Interface</b>	UART×10、I2C×6、ADC×4、PWM×15、GPIO×118、 I2S×4、SPEAK×1、HPOUT×1

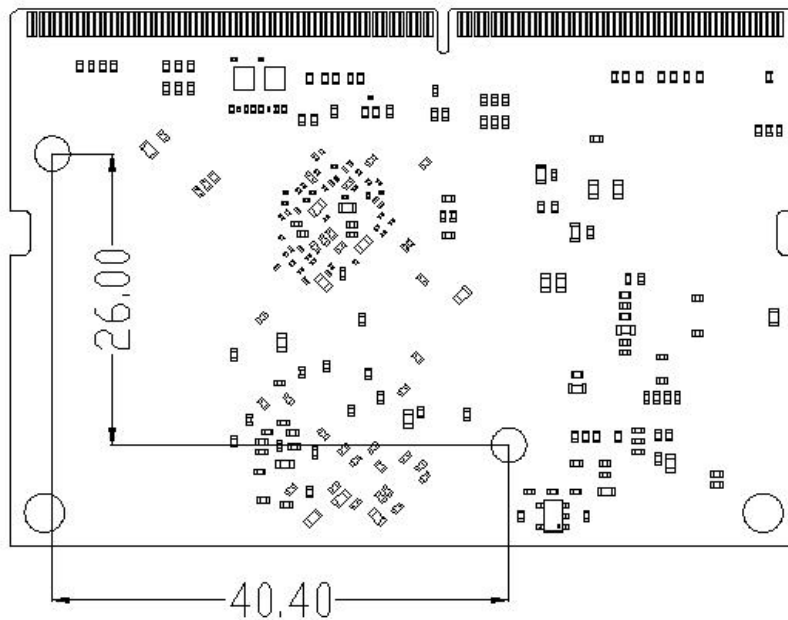
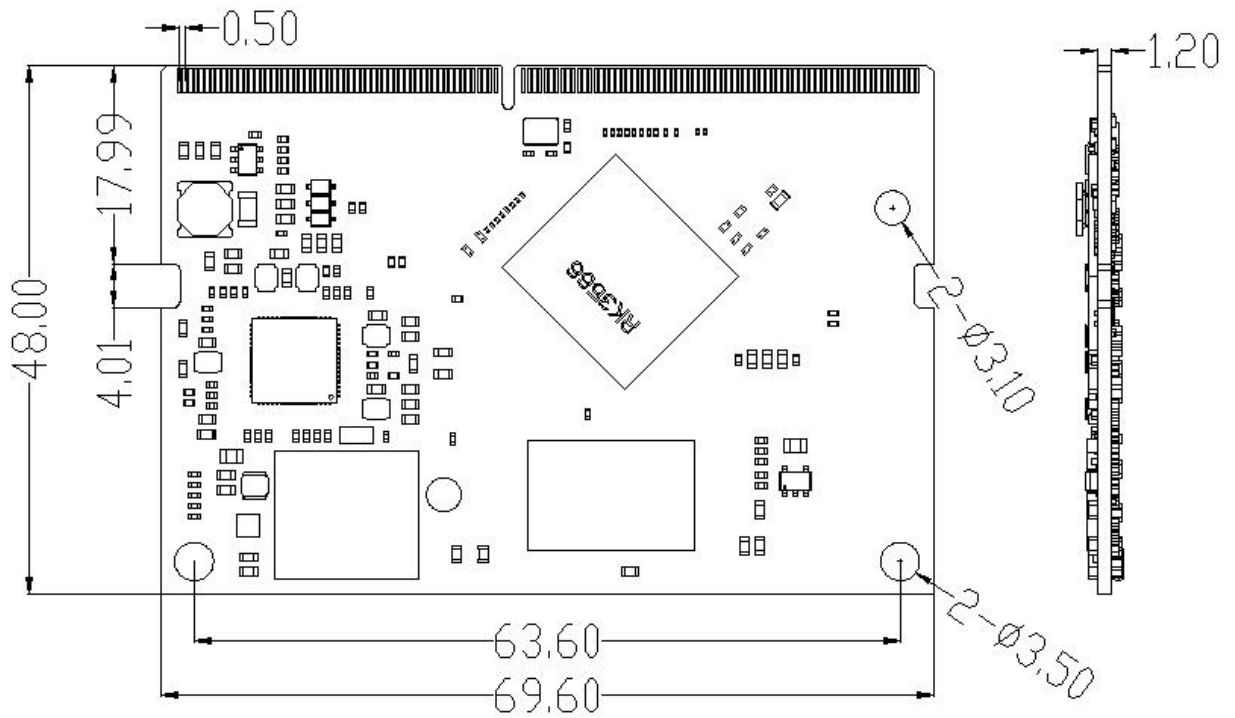
## OS / Software

<b>OS</b>	Android、Ubuntu、Buildroot+QT、OpenWRT、Debian
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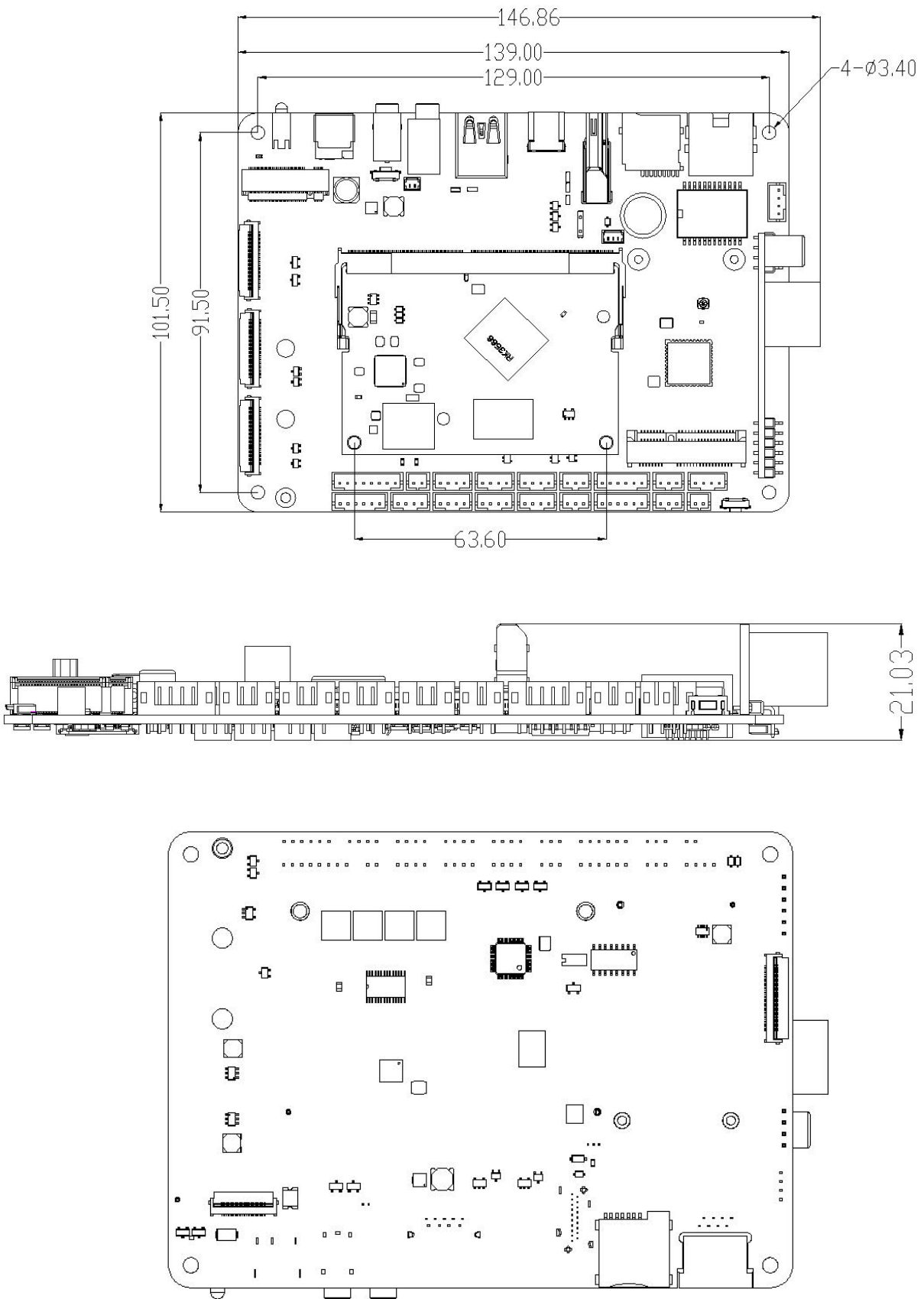
## General

<b>Interface Type</b>	Gold Finger (SODIMM 260P standard interface, 0.5mm pitch)
<b>Size</b>	69.6mm × 48mm
<b>Heat Dissipation</b>	Heat sink installation hole pitch: 45mm
<b>Power Consumption</b>	Idle: 0.075W Normal: 2.8W Max: 4.6W
<b>Environment</b>	Operating Temperature: -20°C-60°C, Storage Temperature: -20°C-70°C, Storage Humidity: 10%-80%

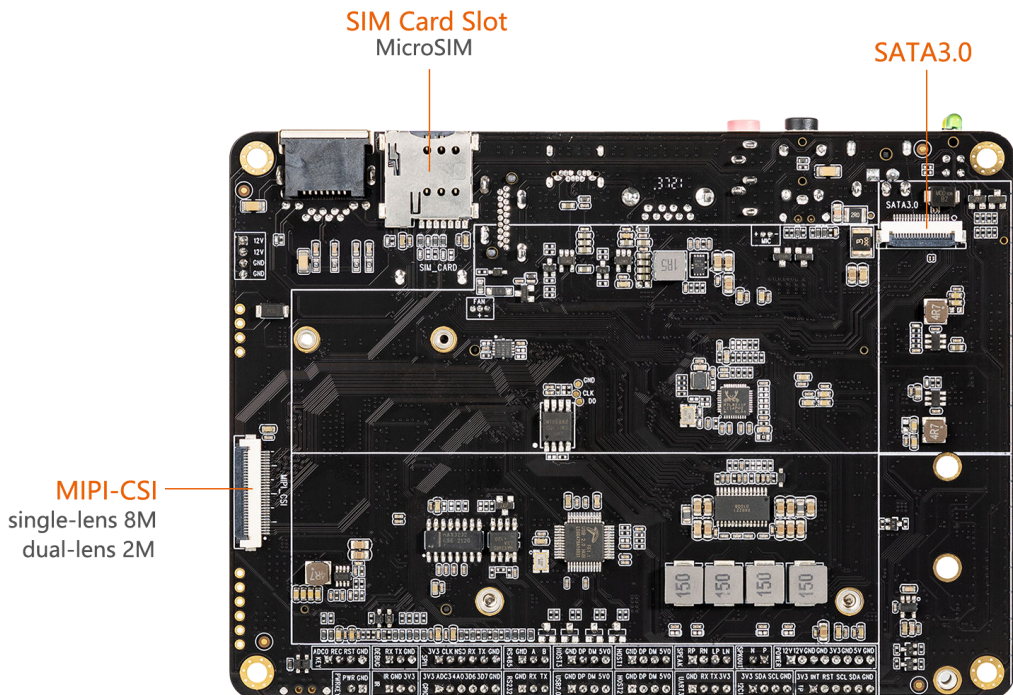
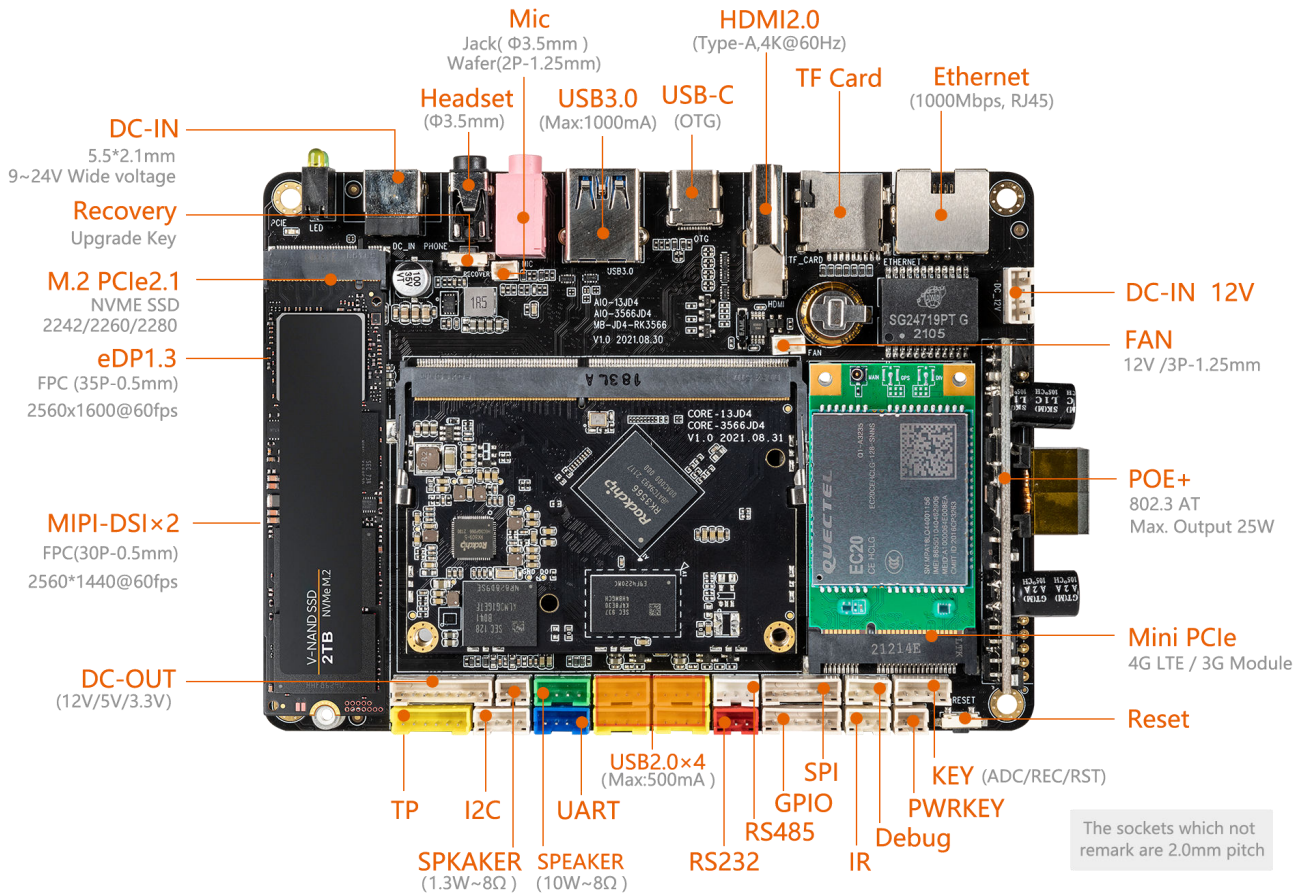
# Core Board Size



# Mainboard Size



# Interface describe





# Interface Definition

Notes1:  
Pad types: I = input, O = output, I/O = input/output (bidirectional) , G = Ground , P = power sUPply, DOWN = Internal pull DOWN , UP = Internal pull UP L = Lowe Level H = High level, AI=Analog Input, AO=Analog Output, AI/O=Analog Input/Output

Part A	PIN	Core board pin definition	Pad type	IO Pull	Function for Floor(MB-JD4-RK3566)	Default function description	IO Power domain	RK3566 Pin Number	RK3566 Pin Name
1	I2S1_LCLK_RX_M1	I/O	DOWN	MIPI_MCLK0	MIPI_MCLK0 OUT		1.8V	1N1	CAM_CLKOUT0/EB3_SDCIE/GMAC1_RXD0_M1/SPI3_CS1_M0/I2S1_LRCK_RX_M1/GPIO4_A7_d
3	I2S2_MCLK	I/O	DOWN	WORK_LED	LED EN_active H		1.8V	1L1	CIF_HREF/EB3_SDL/E/GMAC1_MDC_M1/UART1_RTsn_M1/I2S2_MCLK_M1/GPIO4_B6_d
5	I2S1_SDO1_M1	I/O	DOWN	DIY_LED	LED EN_active H		1.8V	1L2	CAM_CLKOUT1/EB3_SDCIE/GMAC1_RXD1_M1/SPI3_MISO_M0/I2S1_SDO1_M1/GPIO4_B0_d
7	GND	G		GND	GND				
9	USB_HOST2_DM	AI/O		USB_HOST2_DM	USB_HOST2_DM		3.3V	V1	USB_HOST2_DM
11	USB_HOST2_DP	AI/O		USB_HOST2_DP	USB_HOST2_DP		3.3V	V2	USB_HOST2_DP
13	GND	G		GND	GND				
15	USB_HOST3_DM	AI/O		USB_HOST3_DM	USB_HOST3_DM		3.3V	Y1	USB_HOST3_DM
17	USB_HOST3_DP	AI/O		USB_HOST3_DP	USB_HOST3_DP		3.3V	Y2	USB_HOST3_DP
19	GND	G		GND	GND				
21	CIF_CLKOUT	I/O	DOWN	MIPI_MCLK1	MIPI_MCLK1 OUT		1.8V	AB2	CIF_CLKOUT/EB3_GDCLK/PWM11_IR_M1/GPIO4_C0_d
23	I2S2_SCLK_TX	I/O	DOWN	SENSOR_INT_L_GPIO4_B7	SENSOR interrupt		1.8V	AC2	CIF_VSYNC/EB3_SDOE/GMAC1_MDIO_M1/I2S2_SCLK_TX_M1/GPIO4_B7_d
25	I2C4_SCL_M0	I/O	DOWN	I2C4_SCL_M0	I2C4_SCL_M0 Core board Pull up resistance 2.2K to 1.8V		1.8V	AE2	I2C4_SCL_M0/EB3_GDDE/ETH1_REFCLK0_25M_M1/SPI3_CLK_M0/I2S2_SDO_M1/GPIO4_B3_d
27	I2C4_SDA_M0	I/O	DOWN	I2C4_SDA_M0	I2C4_SDA_M0 Core board Pull up resistance 2.2K to 1.8V		1.8V	AF2	I2C4_SDA_M0/EB3_VCOM/GMAC1_RXER_M1/SPI3_MOSI_M0/I2S2_SDI_M1/GPIO4_B2_d
29	I2S1_SDO2_M1	I/O	DOWN	MIPI_PDN1_CAM	MIPI CSI power down 1		1.8V	AG2	ISP_PRELIGHT_TRIG/EB3_SDCIE/GMAC1_RXDV_CRS_M1/I2S1_SDO2_M1/GPIO4_B1_d
31	I2S2_LRCK_TX	I/O	DOWN	MIPI_RESET1_CAM	MIPI CSI reset 1		1.8V	1N2	CIF_D14/EB3_SDD014/GMAC1_TXD0_M1/UART9_TX_M2/I2S2_LRCK_TX_M1/GPIO4_A4_d
33	I2S2_LRCK_RX	I/O	DOWN	VCC5V0_USB30_EN	USB 3.0 power_EN Active H		1.8V	AJ1	CIF_D15/EB3_SDD015/GMAC1_TXD1_M1/UART9_RX_M2/I2S2_LRCK_RX_M1/GPIO4_A5_d
35	ETH1_REFCLK0_25M_M0	I/O	DOWN	HUB_RST	Hub reset Active H		3.3V	AR7	VOP_B11120_D6/ETH1_REFCLK0_25M_M0/SDMMC2_PWREN_M1/GPIO3_B0_d
37	HDMITX_SDA	I/O	UP	HDMITX_SDA	I2C SDA for HDMI		3.3V	AP11	HDMITX_SDA/I2C5_SDA_M1/GPIO4_D0_u
39	HDMITX_SCL	I/O	UP	HDMITX_SCL	I2C SCL for HDMI		3.3V	AR12	HDMITX_SCL/I2C5_SCL_M1/GPIO4_C7_u
41	HDMITX_CEC_M0	I/O	UP	HDMITX_CEC_M0	HDMITX_CEC_M0		3.3V	1V5	HDMITX_CEC_M0/SPI3_CS1_M1/GPIO4_D1_u
43	GND	G		GND					
45	MIPI_CSI_RX_D3N	AI		MIPI_CSI_RX_D3N	MIPI_CSI_RX_D3N		1.8V	AP14	MIPI_CSI_RX_D3N
47	MIPI_CSI_RX_D3P	AI		MIPI_CSI_RX_D3P	MIPI_CSI_RX_D3P		1.8V	AR14	MIPI_CSI_RX_D3P
49	MIPI_CSI_RX_D2N	AI		MIPI_CSI_RX_D2N	MIPI_CSI_RX_D2N		1.8V	AR15	MIPI_CSI_RX_D2N
51	MIPI_CSI_RX_D2P	AI		MIPI_CSI_RX_D2P	MIPI_CSI_RX_D2P		1.8V	AP15	MIPI_CSI_RX_D2P
53	MIPI_CSI_RX_D1N	AI		MIPI_CSI_RX_D1N	MIPI_CSI_RX_D1N		1.8V	AP17	MIPI_CSI_RX_D1N
55	MIPI_CSI_RX_D1P	AI		MIPI_CSI_RX_D1P	MIPI_CSI_RX_D1P		1.8V	AR17	MIPI_CSI_RX_D1P
57	MIPI_CSI_RX_D0N	AI		MIPI_CSI_RX_D0N	MIPI_CSI_RX_D0N		1.8V	AR18	MIPI_CSI_RX_D0N
59	MIPI_CSI_RX_D0P	AI		MIPI_CSI_RX_D0P	MIPI_CSI_RX_D0P		1.8V	AP18	MIPI_CSI_RX_D0P
61	GND	G		GND					
63	MIPI_DSI_TX1_D3N	AO		MIPI_DSI_TX1_D3N	MIPI_DSI_TX1_D3N		1.8V	AP20	MIPI_DSI_TX1_D3N
65	MIPI_DSI_TX1_D3P	AO		MIPI_DSI_TX1_D3P	MIPI_DSI_TX1_D3P		1.8V	AR20	MIPI_DSI_TX1_D3P
67	MIPI_DSI_TX1_D2N	AO		MIPI_DSI_TX1_D2N	MIPI_DSI_TX1_D2N		1.8V	AR21	MIPI_DSI_TX1_D2N
69	MIPI_DSI_TX1_D2P	AO		MIPI_DSI_TX1_D2P	MIPI_DSI_TX1_D2P		1.8V	AP21	MIPI_DSI_TX1_D2P
71	MIPI_DSI_TX1_D1N	AO		MIPI_DSI_TX1_D1N	MIPI_DSI_TX1_D1N		1.8V	AP23	MIPI_DSI_TX1_D1N
73	MIPI_DSI_TX1_D1P	AO		MIPI_DSI_TX1_D1P	MIPI_DSI_TX1_D1P		1.8V	AR23	MIPI_DSI_TX1_D1P
75	MIPI_DSI_TX1_D0N	AO		MIPI_DSI_TX1_D0N	MIPI_DSI_TX1_D0N		1.8V	AR24	MIPI_DSI_TX1_D0N
77	MIPI_DSI_TX1_D0P	AO		MIPI_DSI_TX1_D0P	MIPI_DSI_TX1_D0P		1.8V	AP24	MIPI_DSI_TX1_D0P
79	GND	G		GND					
81	MIPI_DSI_TX0_D3N/LVDS_TX0_D3N	AO		MIPI_DSI_TX0_D3N/LVDS_TX0_D3N	MIPI_DSI_TX0_D3N/LVDS_TX0_D3N		1.8V	AP26	MIPI_DSI_TX0_D3N/LVDS_TX0_D3N
83	MIPI_DSI_TX0_D3P/LVDS_TX0_D3P	AO		MIPI_DSI_TX0_D3P/LVDS_TX0_D3P	MIPI_DSI_TX0_D3P/LVDS_TX0_D3P		1.8V	AR26	MIPI_DSI_TX0_D3P/LVDS_TX0_D3P
85	MIPI_DSI_TX0_D2N/LVDS_TX0_D2N	AO		MIPI_DSI_TX0_D2N/LVDS_TX0_D2N	MIPI_DSI_TX0_D2N/LVDS_TX0_D2N		1.8V	AR27	MIPI_DSI_TX0_D2N/LVDS_TX0_D2N
87	MIPI_DSI_TX0_D2P/LVDS_TX0_D2P	AO		MIPI_DSI_TX0_D2P/LVDS_TX0_D2P	MIPI_DSI_TX0_D2P/LVDS_TX0_D2P		1.8V	AP27	MIPI_DSI_TX0_D2P/LVDS_TX0_D2P
89	MIPI_DSI_TX0_D1N/LVDS_TX0_D1N	AO		MIPI_DSI_TX0_D1N/LVDS_TX0_D1N	MIPI_DSI_TX0_D1N/LVDS_TX0_D1N		1.8V	AP29	MIPI_DSI_TX0_D1N/LVDS_TX0_D1N
91	MIPI_DSI_TX0_D1P/LVDS_TX0_D1P	AO		MIPI_DSI_TX0_D1P/LVDS_TX0_D1P	MIPI_DSI_TX0_D1P/LVDS_TX0_D1P		1.8V	AR29	MIPI_DSI_TX0_D1P/LVDS_TX0_D1P
93	MIPI_DSI_TX0_D0N/LVDS_TX0_D0N	AO		MIPI_DSI_TX0_D0N/LVDS_TX0_D0N	MIPI_DSI_TX0_D0N/LVDS_TX0_D0N		1.8V	AR30	MIPI_DSI_TX0_D0N/LVDS_TX0_D0N
95	MIPI_DSI_TX0_D0P/LVDS_TX0_D0P	AO		MIPI_DSI_TX0_D0P/LVDS_TX0_D0P	MIPI_DSI_TX0_D0P/LVDS_TX0_D0P		1.8V	AP30	MIPI_DSI_TX0_D0P/LVDS_TX0_D0P
97	GND	G		GND					
99	HDMI_TXCLKN_PORT	AO		HDMI_TXCLKN_PORT	HDMI_TXCLKN		1.8V	AP32	HDMI_TX_CLKN
101	HDMI_TXCLKP_PORT	AO		HDMI_TXCLKP_PORT	HDMI_TXCLKP		1.8V	AR32	HDMI_TX_CLKP
103	HDMI_TX0N_PORT	AO		HDMI_TX0N_PORT	HDMI_TX0N		1.8V	AR33	HDMI_TX_D0N
105	HDMI_TX0P_PORT	AO		HDMI_TX0P_PORT	HDMI_TX0P		1.8V	AP33	HDMI_TX_D0P
107	HDMI_TX1N_PORT	AO		HDMI_TX1N_PORT	HDMI_TX1N		1.8V	AP35	HDMI_TX_D1N
109	HDMI_TX1P_PORT	AO		HDMI_TX1P_PORT	HDMI_TX1P		1.8V	AR35	HDMI_TX_D1P
111	HDMI_TX2N_PORT	AO		HDMI_TX2N_PORT	HDMI_TX2N		1.8V	AR36	HDMI_TX_D2N
113	HDMI_TX2P_PORT	AO		HDMI_TX2P_PORT	HDMI_TX2P		1.8V	AP36	HDMI_TX_D2P
115	GND	G		GND					
117	TP_INT_L_GPIO0_C4	I/O	DOWN	EDP_BL_PWM5	EDP Backlight EN Active H		3.3V	AN37	PWMS/SPI0_CS1_M0/UART0_RTsn/GPIO0_C4_d
119	LCD0_BL_PWM4	I/O	DOWN	LCD0_BL_PWM4	LCD Backlight EN for MIPI DSI0 Active H		3.3V	AN38	PWM4/VOP_PWM_M0/MCU_JTAG_TRSTn/GPIO0_C3_d
121	I2C1_SDA	I/O	UP	I2C1_SDA	I2C1_SDA Core board Pull up resistance 2.2K to 3.3V		3.3V/2.2K	AM38	I2C1_SDA/PCIE20_BUTTONnRSTn/MCU_JTAG_TCK/GPIO0_B4_u
123	I2C1_SCL	I/O	UP	I2C1_SCL	I2C1_SCL Core board Pull up resistance 2.2K to 3.3V		3.3V/2.2K	AK37	I2C1_SCL/MCU_JTAG_TDO/GPIO0_B3_u
125	SPK_CTL	I/O	DOWN	LCD_PWR_EN_GPIO0_A6_D	MIPI DSI 1 power en Active L		3.3V	AJ38	GPU_PWREN/SATA_CP_POD/GPIO0_A6_d
127	SDMMC_PWREN	I/O	DOWN	TP_INT_GPIO0_A5_D	MIPI DSI 1 TP interrupt input Active L		3.3V	AG37	SDMMC0_PWREN/SATA_MP_SWITCH/PCIE20_CLKReqn_M0/GPIO0_A5_d
129	SDMMC0_DET_L	I/O	UP	SDMMC0_DET	SDMMC0_DET Active L		3.3V	AF37	SDMMC0_DET/SATA_CP_DET/GPIO0_A4_u
131	GND	G							
133	USB_OTG0_DP	AI/O		USB_OTG0_DP	USB_OTG0_DP		3.3V	R37	USB_OTG0_DP
135	USB_OTG0_DM	AI/O		USB_OTG0_DM	USB_OTG0_DM		3.3V	R38	USB_OTG0_DM
137	GND	G							
139	PCIE20_RXP/SATA2_RXP	AI/O		PCIE20_RXP/SATA2_RXP	PCIE20_RXP/SATA2_RXP		1.8V	AB37	PCIE20_RXP/SATA2_RXP
141	PCIE20_RXN/SATA2_RXN	AI/O		PCIE20_RXN/SATA2_RXN	PCIE20_RXN/SATA2_RXN		1.8V	AB38	PCIE20_RXN/SATA2_RXN
143	GPIO0_D4_D	I/O	DOWN	RTCIC_INT_L_GPIO0_D4_D	RTC IC interrupt		1.8V	1M19	GPIO0_D4_D
145	USB_OTG0_VBUSDET	I		USB_OTG0_VBUSDET	OTG0_VBUSDET Input Active H		3.3V	T38	USB_OTG0_VBUSDET
147	GND	G							
149	PCIE20_TXN/SATA2_TXN	AI/O		PCIE20_TXN/SATA2_TXN	PCIE20_TXN/SATA2_TXN		1.8V	AA38	PCIE20_TXN/SATA2_TXN
151	PCIE20_TXP/SATA2_TXP	AI/O		PCIE20_TXP/SATA2_TXP	PCIE20_TXP/SATA2_TXP		1.8V	AA37	PCIE20_TXP/SATA2_TXP
153	GND	G							
155	USB3_HOST1_SSTXP	AI/O		USB3_HOST1_SSTXP	USB3_HOST1_SSTXP		3.3V	W37	USB3_HOST1_SSTXP/SATA1_TXP
157	USB3_HOST1_SSTXN	AI/O		USB3_HOST1_SSTXN	USB3_HOST1_SSTXN		3.3V	W38	USB3_HOST1_SSTXN/SATA1_TXN
159	USB3_HOST1_SSRXP	AI/O		USB3_HOST1_SSRXP	USB3_HOST1_SSRXP		3.3V	V38	USB3_HOST1_SSRXP/SATA1_RXP
161	USB3_HOST1_SSRXN	AI/O		USB3_HOST1_SSRXN	USB3_HOST1_SSRXN		3.3V	V37	USB3_HOST1_SSRXN/SATA1_RXN
163	GND	G							
165	EDP_TX_D3P	AO		EDP_TX_D3P	EDP_TX_D3P core board series capacitance 0.1uF		1.8V	N37	EDP_TX_D3P
167	EDP_TX_D3N	AO		EDP_TX_D3N	EDP_TX_D3N core board series capacitance 0.1uF		1.8V	N38	EDP_TX_D3N
169	EDP_TX_D2N	AO		EDP_TX_D2N	EDP_TX_D2N core board series capacitance 0.1uF		1.8V	M38	EDP_TX_D2N

# Interface Definition

Part B	PIN	Core board pin definition	Pad type	IO Pull	Function for Floor(MB-JM3-RK3568)	Default function description	IO Power domain	RK3568 Pin Number	RK3568 Pin Name
	171	EDP_TX_D2P	AO		EDP_TX_D2P core board series capacitance 0.1uF	EDP_TX_D2P core board series capacitance 0.1uF	1.8V	M37	EDP_TX_D2P
	173	EDP_TX_D1N	AO		EDP_TX_D1N core board series capacitance 0.1uF	EDP_TX_D1N core board series capacitance 0.1uF	1.8V	K37	EDP_TX_D1N
	175	EDP_TX_D1P	AO		EDP_TX_D1P core board series capacitance 0.1uF	EDP_TX_D1P core board series capacitance 0.1uF	1.8V	K38	EDP_TX_D1P
	177	EDP_TX_D0N	AO		EDP_TX_D0N core board series capacitance 0.1uF	EDP_TX_D0N core board series capacitance 0.1uF	1.8V	J38	EDP_TX_D0N
	179	EDP_TX_D0P	AO		EDP_TX_D0P core board series capacitance 0.1uF	EDP_TX_D0P core board series capacitance 0.1uF	1.8V	J37	EDP_TX_D0P
	181	EDP_TX_AUXP	AO		EDP_TX_AUXP core board series capacitance 0.1uF	EDP_TX_AUXP core board series capacitance 0.1uF	1.8V	1H19	EDP_TX_AUXP
	183	EDP_TX_AUXN	AO		EDP_TX_AUXN core board series capacitance 0.1uF	EDP_TX_AUXN core board series capacitance 0.1uF	1.8V	1H20	EDP_TX_AUXN
	185	GND	G		GND	GND			
	187	UART1_CTSn_M0	I/O	UP	UART1_CTSn_M0	UART1_CTSn_M0	1.8V	G37	UART1_CTSn_M0/SPI1_MISO_M0/GPIO2_B6_u
	189	UART1_RX_M0	I/O	UP	UART1_RX_M0	UART1_RX_M0	1.8V	1C20	UART1_RX_M0/GPIO2_B3_u
	191	UART1_TX_M0	I/O	UP	UART1_TX_M0	UART1_TX_M0	1.8V	F38	UART1_TX_M0/GPIO2_B4_u
	193	UART1_RTSn_M0	I/O	UP	UART1_RTSn_M0	UART1_RTSn_M0	1.8V	F37	UART1_RTSn_M0/SPI1_CLK_M0/GPIO2_B5_u
	195	BT_REG_ON_H_GPIO2_B7	I/O	DOWN	BT_REG_ON_H_GPIO2_B7	BT_REG_ONActive H	1.8V	D38	I2S2_SCLK_RX_M0/UART6_RTSn_M0/SPI1_MOSI_M0/GPIO2_B7_d
	197	CLK32K_OUT1_WIFI	I/O	DOWN	CLK32K_OUT1_WIFI	32KHz clock out for WIFI	1.8V	B38	CLK32K_OUT1/UART8_RX_M0/SPI1_CS1_M0/GPIO2_C6_d
	199	BT_WAKE_HOST_H_GPIO2_C0	I/O	DOWN	BT_WAKE_HOST_H_GPIO2_C0	BT_WAKE_HOSTActive H	1.8V	A37	I2S2_LRCK_RX_M0/UART6_CTSn_M0/SPI1_CS0_M0/GPIO2_C0_d
	201	HOST_WAKE_BT_H_GPIO2_C1	I/O	DOWN	HOST_WAKE_BT_H_GPIO2_C1	HOST_WAKE_BTActive H	1.8V	B36	I2S2_MCLK_M0/ETH0_REFCLK0_25M/UART7_RTSn_M0/SPI2_CLK_M0/GPIO2_C1_d
	203	WiFi_REG_ON_H_GPIO2_B1	I/O	DOWN	WiFi_REG_ON_H_GPIO2_B1	WiFi_REG_ONActive H	1.8V	A35	SDMMC1_PWREN/I2C4_SDA_M1/UART8_RTSn_M0/GPIO2_B1_d
	205	WiFi_WAKE_HOST_H_GPIO2_B2	I/O	UP	WiFi_WAKE_HOST_H_GPIO2_B2	WiFi_WAKE_HOSTActive H	1.8V	B34	SDMMC1_DET/I2C4_SCL_M1/UART8_CTSn_M0/GPIO2_B2_u
	207	PCIE_WAKE	I/O	DOWN	PCIE_WAKE	PCIE_WAKE	3.3V	A26	I2S1_SDO2_M0/I2S1_SDI2_M0/PDM_SDI2_M0/PCIE20_WAKEn_M2/GPIO1_B1_d
	209	PCIE_RST	I/O	DOWN	PCIE_RST	PCIE RESET	3.3V	B26	I2S1_SDO3_M0/I2S1_SDI1_M0/PDM_SDI1_M0/PCIE20_PERSTn_M2/GPIO1_B2_d
	211	PCIE_CLKREQ	I/O	DOWN	PCIE_CLKREQ	PCIE_CLK REQ	3.3V	1B13	I2S1_SDO1_M0/I2S1_SDI3_M0/PDM_SDI3_M0/PCIE20_CLKREQn_M2/GPIO1_B0_d
	213	GPIO1_A4	I/O	DOWN	SPK_CTL_H_GPIO1_A4	SPEAK CONTROLActive H	3.3V	1A13	I2S1_SCLK_RX_M0/UART4_RX_M0/PDM_CLK1_M0/SPDIF_TX_M0/GPIO1_A4_d
	215	I2C3_SDA_M0/GPIO1_A0	I/O	UP	I2C3_SDA_M0/UART3_RX_M0	I2C3_SDA_M0/UART3_RX_M0 Core board Pull up resistance 2.2K to 3.3V	3.3V	A22	I2C3_SDA_M0/UART3_RX_M0/AUDIOPWM_LOUT_P/GPIO1_A0_u
	217	I2C3_SCL_M0/GPIO1_A1	I/O	UP	I2C3_SCL_M0/UART3_TX_M0	I2C3_SCL_M0/UART3_TX_M0 Core board Pull up resistance 2.2K to 3.3V	3.3V	B22	I2C3_SCL_M0/UART3_TX_M0/AUDIOPWM_LOUT_N/GPIO1_A1_u
	219	GND	G						
	221	PMIC_PWRON			PMIC_PWRON	PMIC POWER ON			PMIC_PWRON
	223	PMIC_VDC			VCC_5V_S	PMIC_VDC InputActive H	5V		PMIC_VDC
	225	VCCIO_WL	P		VCCIO_WL	WiFi VCCIO Output 1.8V or 3.3V option (Core board Default1.8V)	1.8V		Pin224/225 Total Max 300mA
	227	VCC3V3_SD	P		VCC3V3_SD	3.3V Output TF Card Power_VCC3V3_SD	3.3V		Pin226/227 Total Max:500mA
	229	VCC_1V8	P		VCC_1V8	1.8V Output_VCC_1V8	3.3V		Pin228/229 Total Max:1.0A
	231	VCCIO_ACODEC	P		VCCIO_ACODEC	3.3V Output For codec_VCCIO_ACODEC	3.3V		Pin230/231 Total Max:300mA
	233	VCC_5V_S	P		VCC_5V_S	5V Input (LDO)	5V		
	235	VCC3V3_SYS	P		VCC3V3_SYS	3.3V Output_VCC3V3_SYS	3.3V		Pin234/235 Total Max:1.5A
	237	HP_SNS			HP_SNS	HeadPhone_OUT GND			
	239	MIC2_IN			MIC2_IN	MIC1_INPUT- core board series capacitance 0.1uF	3.3V		
	241	MIC1_IN			MIC1_IN	MIC1_INPUT+ core board series capacitance 0.1uF	3.3V		
	243	GND	G		GND				
	245	GND	G		GND				
	247	GND	G		GND				
	249	GND	G		GND				
	251	VCC5V0_SYS	P		VCC5V0_SYS		5V		CORE BOARD 5.0V Supply current: Normal: 600mA Max: 1.0A Recommend:1.5A
	253	VCC5V0_SYS	P		VCC5V0_SYS		5V		
	255	VCC5V0_SYS	P		VCC5V0_SYS	Input Voltage 4.8V-5.5V	5V		
	257	VCC5V0_SYS	P		VCC5V0_SYS		5V		
	259	VCC5V0_SYS	P		VCC5V0_SYS		5V		
Part B	PIN	Core board pin definition	Pad type	IO Pull	Function for Floor(MB-JM3-RK3568)	Default function description	IO Power domain	RK3568 Pin Number	RK3568 Pin Name
	2	GND	G		GND				
	4	I2S2_SCLK_RX	I/O	DOWN	EDP_LCD_EN	EDP_LCD_EN	1.8V	AB1	CIF_CLKIN/EBC_SCLK/GMAC1_MCLKINOUT_M1/UART1_CTSn_M1/I2S2_SCLK_RX_M1/GPIO4_C1_d
	6	PDM_SDI1_M1	I/O	DOWN	FAN_CTL	FAN control	1.8V	1P2	CIF_D11/EBC_SDD011/GMAC1_RXD2_M1/PDM_SDI1_M1/GPIO4_A1_d
	8	PDM_SDI2_M1	I/O	DOWN	EDP_TP_INT	EDP_TP interrupt	1.8V	1R1	CIF_D12/EBC_SDD012/GMAC1_RXD3_M1/UART7_TX_M2/PDM_SDI2_M1/GPIO4_A2_d
	10	PDM_SDI3_M1	I/O	DOWN	EDP_TP_RESET	EDP_TP Reset	1.8V	AJ2	CIF_D13/EBC_SDD013/GMAC1_RXCLK_M1/UART7_RX_M2/PDM_SDI3_M1/GPIO4_A3_d
	12	PDM_CLK1_M1	I/O	DOWN	GPIO4_A0_D	GPIO4_A0_D	1.8V	AK2	CIF_D10/EBC_SDD010/GMAC1_TXCLK_M1/PDM_CLK1_M1/GPIO4_A0_d
	14	PDM_CLK0_M1	I/O	DOWN	GPIO3_D6_D	GPIO3_D6_D	1.8V	AL2	CIF_D8/EBC_SDD08/GMAC1_TXD2_M1/UART1_TX_M1/PDM_CLK0_M1/GPIO3_D6_d
	16	PDM_SDI0_M1	I/O	DOWN	GPIO3_D7_D	GPIO3_D7_D	1.8V	AL1	CIF_D9/EBC_SDD09/GMAC1_TXD3_M1/UART1_RX_M1/PDM_SDI0_M1/GPIO3_D7_d
	18	I2S1_SDI2_M1	I/O	DOWN	MIPI_PDN0_CAM	MIPI CSI powerdown	1.8V	1R2	CIF_D6/EBC_SDD06/SDMMC2_DET_M0/I2S1_SDI2_M1/VOP_BT656_D6_M1/GPIO3_D4_d
	20	I2S1_SDI3_M1	I/O	DOWN	MIPI_RESET0_CAM	MIPI CSI reset	1.8V	1T1	CIF_D7/EBC_SDD07/SDMMC2_PWREN_M0/I2S1_SDI3_M1/VOP_BT656_D7_M1/GPIO3_D5_d
	22	I2C2_SDA_M1	I/O	DOWN	NC		1.8V	AF1	I2C2_SDA_M1/EBC_GDSP/ISP_FLASH_TRIGIN/VOP_BT656_CLK_M1/GPIO4_B4_d
	24	I2C2_SCL_M1	I/O	DOWN	LCDD_PWR_EN	MIPI D510 LCD Power EN	1.8V	AD1	I2C2_SCL_M1/EBC_SDSHR/I2S1_SDO3_M1/GPIO4_B5_d
	26	I2S1_SCLK_RX_M1	I/O	DOWN	TP0_RST_L_GPIO4_A6	MIPI D510 TP Reset	1.8V	AH2	ISP_FLASHTRIGOUT/EBC_SDC0/GMAC1_TXEN_M1/SPI3_CS0_M0/I2S1_SCLK_RX_M1/GPIO4_A6_d
	28	I2S1_MCLK_M1	I/O	DOWN	LCDD_RST_L_GPIO3_C6	MIPI D510 LCD Reset	1.8V	1T2	CIF_D0/EBC_SDD00/SDMMC2_D0_M0/I2S1_MCLK_M1/VOP_BT656_D0_M1/GPIO3_C6_d
	30	I2S1_SCLK_TX_M1	I/O	DOWN	TP1_RST_L_GPIO3_C7	MIPI D511 TP Reset	1.8V	1U1	CIF_D1/EBC_SDD01/SDMMC2_D1_M0/I2S1_SCLK_TX_M1/VOP_BT656_D1_M1/GPIO3_C7_d
	32	I2S1_SDI1_M1	I/O	DOWN	LCD1_RST_L_GPIO3_D3	MIPI D511 LCD Reset	1.8V	AM1	CIF_D5/EBC_SDD05/SDMMC2_CLK_M0/I2S1_SDI1_M1/VOP_BT656_D5_M1/GPIO3_D3_d
	34	I2S1_SDI0_M1	I/O	DOWN	VCC5V0_HOST_EN	HOST Power EN	1.8V	AM2	CIF_D4/EBC_SDD04/SDMMC2_DET_M0/I2S1_SDI0_M1/VOP_BT656_D4_M1/GPIO3_D2_d
	36	I2S1_SDO0_M1	I/O	DOWN	VCC5V0_OTG_EN	OTG Power EN	1.8V	AN2	CIF_D3/EBC_SDD03/SDMMC2_D3_M0/I2S1_SDO0_M1/VOP_BT656_D3_M1/GPIO3_D1_d
	38	I2S1_LCLK_TX_M1	I/O	DOWN	EAR_CTL	Headphone output control, Active H	1.8V	AP1	CIF_D2/EBC_SDD02/SDMMC2_D2_M0/I2S1_LRCK_TX_M1/VOP_BT656_D2_M1/GPIO3_D0_d
	40	SPI1_CLK_M1	I/O	DOWN	SPI1_CLK_M1/UART5_RX	SPI1_CLK_M1/UART5_RX	3.3V	AR2	VOP_BT1120_D15/SPI1_CLK_M1/UART5_RX_M1/I2S1_SCLK_RX_M2/GPIO3_C3_d
	42	SPI1_MISO_M1	I/O	DOWN	SPI1_MISO_M1/UART5_TX	SPI1_MISO_M1/UART5_TX	3.3V	AP3	VOP_BT1120_D14/SPI1_MISO_M1/UART5_TX_M1/I2S1_SDO3_M2/GPIO3_C2_d
	44	SPI1_MOSI_M1	I/O	DOWN	SPI1_MOSI_M1	SPI1_MOSI_M1	3.3V	AP4	VOP_BT1120_D13/SPI1_MOSI_M1/PCIE20_PERSTn_M1/I2S1_SDO2_M2/GPIO3_C1_d
	46	SPI1_CS0_M1	I/O	DOWN	SPI1_CS0_M1	SPI1_CS0_M1	3.3V	1U5	VOP_BT1120_D0/SPI1_CS0_M1/SDMMC2_D0_M1/GPIO3_A1_d
	48	HP_DET_L_GPIO4_C4	I/O	DOWN	SATA2_ACT_LED	SATA2_ACT_LED EnActive H	3.3V	1V6	EDP_HPDIN_M0/SPDIF_TX_M2/SATA2_ACT_LED/I2S3_LRCK_M1/GPIO4_C4_d
	50	SPI3_MOSI_M1/GPIO4_C3	I/O	DOWN	TP_INT_L_GPIO4_C3	MIPI D510 TP interrupt	3.3V	AP12	PWM15_IR_M1/SPI3_MOSI_M1/I2S3_SCLK_M1/GPIO4_C3_d
	52	UART9_RX_M1/SPI3_CS0_M1/GPIO4_C6	I/O	DOWN	UART9_RX_M1	UART9_RX_M1	3.3V	1T6	PWM13_M1/SPI3_CS0_M1/SATA0_ACT_LED/UART9_RX_M1/I2S3_SDI1_M1/GPIO4_C6_d
	54	UART9_TX_M1/SPI3_MISO_M1/GPIO4_C5	I/O	DOWN	UART9_TX_M1	UART9_TX_M1	3.3V	1U6	PWM12_M1/SPI3_MISO_M1/SATA1_ACT_LED/UART9_TX_M1/I2S3_SDO_M1/GPIO4_C5_d
	56	SPI3_CLK_M1/GPIO4_C2	I/O	DOWN	EDP_HPD	EDP_HPD det Active H	3.3V	1U7	PWM14_M1/SPI3_CLK_M1/I2S3_MCLK_M1/GPIO4_C2_d
	58	GND	G		GND				
	60	MIPI_CSI_RX_CLK1N	AI		MIPI_CSI_RX_CLK1N	MIPI_CSI_RX_CLK1N	1.8V	1U8	MIPI_CSI_RX_CLK1N
	62	MIPI_CSI_RX_CLK1P	AI		MIPI_CSI_RX_CLK1P	MIPI_CSI_RX_CLK1P	1.8V	1V8	MIPI_CSI_RX_CLK1P
	64	GND	G		GND				
	66	MIPI_CSI_RX_CLK0N	AI		MIPI_CSI_RX_CLK0N	MIPI_CSI_RX_CLK0N	1.8V	1U9	MIPI_CSI_RX_CLK0N
	68	MIPI_CSI_RX_CLK0P	AI		MIPI_CSI_RX_CLK0P	MIPI_CSI_RX_CLK0P	1.8V	1V9	MIPI_CSI_RX_CLK0P
	70	GND	G		GND				
	72	MIPI_DSI_TX1_CLKN	AO		MIPI_DSI_TX1_CLKN	MIPI_DSI_TX1_CLKN	1.8V	1U11	MIPI_DSI_TX1_CLKN
	74	MIPI_DSI_TX1_CLKP	AO		MIPI_DSI_TX1_CLKP	MIPI_DSI_TX1_CLKP	1.8V	1V11	MIPI_DSI_TX1_CLKP
	76	GND	G		GND				
	78	FSPI_D2	I/O	DOWN	FSPI_D2	FSPI_D2	1.8V	1B16	EMMC_RSTn/FSPI_D2/FLASH_WPn/GPIO1_C7_d
	80	FSPI_D3	I/O	DOWN	FSPI_D3	FSPI_D3	1.8V	1C15	FSPI_D3/FLASH_CS1n/GPIO1_D4_u
	82	FSPI_CLK	I/O	DOWN	FSPI_CLK	FSPI_CLK	1.8V	1A15	FSPI_CLK/FLASH_ALE/GPIO1_D0_d

# Interface Definition

	84	FSPI_CS0n	I/O	DOWN	FSPI_CS0n	FSPI_CS0n	1.8V	1B17	FSPI_CS0n/FLASH_CS0n/GPIO1_D3_u
	86	FSPI_D0	I/O	DOWN	FSPI_D0	FSPI_D0	1.8V	1A17	FSPI_D0/FLASH_RDY/GPIO1_D1_u
	88	FSPI_D1	I/O	DOWN	FSPI_D1	FSPI_D1	1.8V	1A18	FSPI_D1/FLASH_RDn/GPIO1_D2_u
	90	MIPI_DSI_TX0_CLKN/LVDS_TX0_CLKN	AO		MIPI_DSI_TX0_CLKN/LVDS_TX0_CLKN	MIPI_DSI_TX0_CLKN/LVDS_TX0_CLKN	1.8V	1V15	MIPI_DSI_TX0_CLKN/LVDS_TX0_CLKN
	92	MIPI_DSI_TX0_CLKP/LVDS_TX0_CLKP	AO		MIPI_DSI_TX0_CLKP/LVDS_TX0_CLKP	MIPI_DSI_TX0_CLKP/LVDS_TX0_CLKP	1.8V	1V16	MIPI_DSI_TX0_CLKP/LVDS_TX0_CLKP
	94	GND	G		GND				
	96	HDMI_TX_HPDIN	AO		HDMI_TX_HPDIN	HDMI_TX_HPDIN	1.8V	1V17	HDMI_TX_HPDIN
	98	PWM7_IR	I/O	DOWN	PWM7_IR	PWM7_IR	3.3V	1T18	PWM7_IR/SPI0_CS0_M0/GPIO0_C6_d
	100	UART2_RX_M0	I/O	UP	UART2_RX_M0_DEBUG	UART2_RX_M0 (DEBUG)	3.3V	1V19	UART2_RX_M0/GPIO0_D0_u
	102	UART2_TX_M0	I/O	UP	UART2_TX_M0_DEBUG	UART2_TX_M0 (DEBUG)	3.3V	1U18	UART2_TX_M0/GPIO0_D1_u
	104	LCDO_PWREN_H_GPIO0_C7	I/O	DOWN	LCDO_BL_PWM0_M1	LCDO Backlight EN, Active H	3.3V	1V20	HDMITX_CEC_M1/PWM0_M1/UART0_CTSn/GPIO0_C7_d
	106	TP_RST_L_GPIO0_C5	I/O	DOWN	EDP_BL_EN	EDP Backlight EN, Active H	3.3V	1U19	PWM6/SPI0_MISO_M0/GPIO0_C5_d
	108	I2C2_SCL_M0	I/O	UP	I2C2_SCL_M0	I2C2_SCL_M0 Core board Pull up resistance 2.2K to 3.3V	3.3V/2.2k	1U20	I2C2_SCL_M0/SPI0_CLK_M0/PCIE20_WAKEn_M0/PWM1_M1/GPIO0_B5_u
	110	I2C2_SDA_M0	I/O	UP	I2C2_SDA_M0	I2C2_SDA_M0 Core board Pull up resistance 2.2K to 3.3V	3.3V/2.2k	1R16	I2C2_SDA_M0/SPI0_MOSI_M0/PCIE20_PERSn_M0/PWM2_M1/GPIO0_B6_u
	112	UART0_TX	I/O	DOWN	UART0_TX	UART0_TX	3.3V	1R18	PWM2_M0/NPUAVS/UART0_TX/MCU_JTAG_TD/GPIO0_C1_d
	114	UART0_RX	I/O	DOWN	UART0_RX	UART0_RX	3.3V	1T19	PWM1_M0/GPUAVS/UART0_RX/GPIO0_C0_d
	116	LCDO_RST_L_GPIO0_C2	I/O	DOWN	BL_EN_GPIO0_C2	BL_EN	3.3V	AM37	PWM3_IR/EDP_HPDIN_M1/MCU_JTAG_TMS/GPIO0_C2_d
	118	GPIO0_D6_D	I/O	DOWN	VCC_5V_EN_GPIO0_D6_D	VCC_5V power EN	1.8V	1P20	GPIO0_D6_d
	120	GPIO0_A0_D	I/O	DOWN	BL_EN_GPIO0_A0_D	MIPI DSI1 Backlight EN, Active H	3.3V	1P18	REFCLK_OUT7/GPIO0_A0_d
	122	GPIO0_D3_D	I/O	DOWN	4G_PWR_EN_GPIO0_D3_D	4G Module Power EN	1.8V	1N19	GPIO0_D3_d
	124	GPIO0_D5_D	I/O	DOWN	EDP_TP_PWREN	EDP TP Power EN	1.8V	1N20	GPIO0_D5_d
	126	PCIE20_REFCLKP	A/I/O		PCIE20_REFCLKP	PCIE20_REFCLKP	1.8V	1K19	PCIE20_REFCLKP
	128	PCIE20_REFCLKN	A/I/O		PCIE20_REFCLKN	PCIE20_REFCLKN	1.8V	1K20	PCIE20_REFCLKN
	130	GND	G		GND				
	132	USB3_HOST1_DP	A/I/O		USB3_HOST1_DP	USB3_HOST1_DP	3.3V	1J19	USB3_HOST1_DP
	134	USB3_HOST1_DM	A/I/O		USB3_HOST1_DM	USB3_HOST1_DM	3.3V	1J20	USB3_HOST1_DM
	136	GND	G		GND				
	138	SDMMC0_D1	I/O	UP	SDMMC0_D1	SDMMC0_D1	3.3V	1F19	SDMMC0_D1/UART2_RX_M1/UART6_RX_M1/PWM9_M1/GPIO1_D6_u
	140	SDMMC0_D3	I/O	UP	SDMMC0_D3	SDMMC0_D3	3.3V	1F18	SDMMC0_D3/ARM_JTAG_TMS/UART5_RTSn_M0/GPIO2_A0_u
	142	SDMMC0_D0	I/O	UP	SDMMC0_D0	SDMMC0_D0	3.3V	1E20	SDMMC0_D0/UART2_TX_M1/UART6_TX_M1/PWM8_M1/GPIO1_D5_u
	144	SDMMC0_CMD	I/O	UP	SDMMC0_CMD	SDMMC0_CMD	3.3V	1E19	SDMMC0_CMD/PWM10_M1/UART5_RX_M0/GPIO2_A1_u
	146	SDMMC0_D2	I/O	UP	SDMMC0_D2	SDMMC0_D2	3.3V	1D20	SDMMC0_D2/ARM_JTAG_TCK/UART5_CTSn_M0/GPIO1_D7_u
	148	SDMMC0_CLK	I/O	UP	SDMMC0_CLK	SDMMC0_CLK	3.3V	G38	SDMMC0_CLK/TEST_CLKOUT/UART5_TX_M0/GPIO2_A2_d
	150	SARADC_VIN1	AI		SARADC_VIN1	SARADC_VIN1	1.8V	1C17	SARADC_VIN1
	152	SARADC_VIN0_KEY/RECOVERY	AI		RECOVERY	RECOVERY	1.8V	1D17	SARADC_VIN0
	154	SARADC_VIN2_HP_HOOK	AI		SARADC_VIN2	SARADC_VIN2	1.8V	1B18	SARADC_VIN2
	156	SARADC_VIN3	AI		SARADC_VIN3	SARADC_VIN3	1.8V	1A19	SARADC_VIN3
	158	GND	G		GND				
	160	SDMMC1_D2	I/O	UP	SDMMC1_D2	SDMMC1_D2	1.8V	1D18	SDMMC1_D2/UART7_RX_M0/GPIO2_A5_u
	162	SDMMC1_D3	I/O	UP	SDMMC1_D3	SDMMC1_D3	1.8V	1A20	SDMMC1_D3/UART7_TX_M0/GPIO2_A6_u
	164	SDMMC1_CMD	I/O	UP	SDMMC1_CMD	SDMMC1_CMD	1.8V	B35	SDMMC1_CMD/UART9_RX_M0/GPIO2_A7_u
	166	SDMMC1_CLK	I/O	UP	SDMMC1_CLK	SDMMC1_CLK core board series resistance 22R	1.8V	B37	SDMMC1_CLK/UART9_TX_M0/GPIO2_B0_d
	168	SDMMC1_D0	I/O	UP	SDMMC1_D0	SDMMC1_D0	1.8V	1C19	SDMMC1_D0/UART6_RX_M0/GPIO2_A3_u
	170	SDMMC1_D1	I/O	UP	SDMMC1_D1	SDMMC1_D1	1.8V	1E18	SDMMC1_D1/UART6_TX_M0/GPIO2_A4_u
	172	GND	G		GND				
	174	I2S2_SCLK_TX_M0	I/O	DOWN	I2S2_SCLK_TX_M0	I2S2_SCLK_TX_M0	1.8V	C37	I2S2_SCLK_TX_M0/UART7_CTSn_M0/SPI2_MISO_M0/GPIO2_C2_d
	176	I2S2_LRCK_TX_M0	I/O	DOWN	I2S2_LRCK_TX_M0	I2S2_LRCK_TX_M0	1.8V	1D19	I2S2_LRCK_TX_M0/UART9_RTSn_M0/SPI2_MOSI_M0/GPIO2_C3_d
	178	I2S2_SDO_M0	I/O	DOWN	I2S2_SDO_M0	I2S2_SDO_M0	1.8V	1B20	I2S2_SDO_M0/UART9_CTSn_M0/SPI2_CS0_M0/GPIO2_C4_d
	180	I2S2_SDI_M0	I/O	DOWN	I2S2_SDI_M0	I2S2_SDI_M0	1.8V	D37	I2S2_SDI_M0/UART8_TX_M0/SPI2_CS1_M0/GPIO2_C5_d
	182	GMAC1_MDIO_M0	I/O	DOWN	MAC_MDIO	MAC_MDIO	3.3V	1P4	PWM15_IR_M0/SPDIF_TX_M1/GMAC1_MDIO_M0/UART7_RX_M1/I2S1_LRCK_RX_M2/GPIO3_C5_d
	184	GMAC1_MDC_M0	I/O	DOWN	MAC_MDC	MAC_MDC	3.3V	1P3	PWM14_M0/VOP_PWM_M1/GMAC1_MDC_M0/UART7_TX_M1/PDM_CLK1_M2/GPIO3_C4_d
	186	GMAC1_TXCLK_M0	I/O	DOWN	PHY_TXCLK	PHY_TXCLK	3.3V	1U4	VOP_BT1120_CLK/GMAC1_TXCLK_M0/I2S3_SDI_M0/SDMMC2_CLK_M1/GPIO3_A6_d
	188	GMAC1_RXCLK_M0	I/O	DOWN	MAC_RXCLK	MAC_RXCLK	3.3V	1V3	VOP_BT1120_D5/GMAC1_RXCLK_M0/SDMMC2_DET_M1/GPIO3_A7_d
	190	GND	G		GND				
	192	GMAC1_MCLKINOUT_M0	I/O	DOWN	MAC_CLK	MAC_CLK	3.3V	AR4	PWM13_M0/GMAC1_MCLKINOUT_M0/UART3_RX_M1/PDM_SDI3_M2/GPIO3_C0_d
	194	GMAC1_RXD1_M0	I/O	DOWN	MAC_RXD1	MAC_RXD1	3.3V	AR6	VOP_BT1120_D8/GMAC1_RXD1_M0/UART4_TX_M1/PWM9_M0/GPIO3_B2_d
	196	GMAC1_RXD3_M0	I/O	DOWN	MAC_RXD3	MAC_RXD3	3.3V	AP9	VOP_BT1120_D4/GMAC1_RXD3_M0/I2S3_SDO_M0/SDMMC2_CMD_M1/GPIO3_A5_d
	198	GMAC1_RXD0_M0	I/O	DOWN	MAC_RXD0	MAC_RXD0	3.3V	AP7	VOP_BT1120_D7/GMAC1_RXD0_M0/UART4_RX_M1/PWM8_M0/GPIO3_B1_d
	200	GMAC1_RXD2_M0	I/O	DOWN	MAC_RXD2	MAC_RXD2	3.3V	AR9	VOP_BT1120_D3/GMAC1_RXD2_M0/I2S3_LRCK_M0/SDMMC2_D3_M1/GPIO3_A4_d
	202	GMAC1_RXDV_CRS_M0	I/O	DOWN	MAC_RXDV	MAC_RXDV	3.3V	AP6	VOP_BT1120_D9/GMAC1_RXDV_CRS_M0/I2C5_SCL_M0/PDM_SDI0_M2/GPIO3_B3_d
	204	GMAC1_TXD0_M0	I/O	DOWN	PHY_TXD0	PHY_TXD0 core board series resistance 22R	3.3V	1T4	VOP_BT1120_D1/GMAC1_TXD0_M0/I2C3_SCL_M1/PWM10_M0/GPIO3_B5_d
	206	GMAC1_TXD2_M0	I/O	DOWN	PHY_TXD2	PHY_TXD2 core board series resistance 22R	3.3V	AR10	VOP_BT1120_D1/GMAC1_TXD2_M0/I2S3_MCLK_M0/SDMMC2_D1_M1/GPIO3_A2_d
	208	GMAC1_TXD3_M0	I/O	DOWN	PHY_TXD3	PHY_TXD3 core board series resistance 22R	3.3V	AP10	VOP_BT1120_D2/GMAC1_TXD3_M0/I2S3_SCLK_M0/SDMMC2_D2_M1/GPIO3_A3_d
	210	GMAC1_TXD1_M0	I/O	DOWN	PHY_TXD1	PHY_TXD1 core board series resistance 22R	3.3V	1V2	VOP_BT1120_D12/GMAC1_TXD1_M0/I2C3_SDA_M1/PWM11_IR_M0/GPIO3_B6_d
	212	GMAC1_TXEN_M0	I/O	DOWN	PHY_TXEN	PHY_TXEN core board series resistance 22R	3.3V	AP5	PWM12_M0/GMAC1_TXEN_M0/UART3_TX_M1/PDM_SDI2_M2/GPIO3_B7_d
	214	GMAC1_INT/PMEB_GPIO3_B4	I/O	DOWN	PHY_INT/PMEB	Phy interrupt	3.3V	1U3	VOP_BT1120_D10/GMAC1_RXER_M0/I2C5_SDA_M0/PDM_SDI1_M2/GPIO3_B4_d
	216	GMAC1_RSTn_GPIO0_B7	I/O	DOWN	PHY_RST	Phy reset	3.3V	1R17	PWM0_M0/CPUAVS/GPIO0_B7_d
	218	RST_KEY	I	UP	SYS_RESET	System reset input. Reset key, Active L. Pull up resistance 10K, series resistance 22R			RESET_KEY
	220	EXT_POWER_EN			NC				PMIC_EXT_EN
	222	GND	G		GND				
	224	VCCIO_WL	P		VCCIO_WL	WiFi VCCIO Output 1.8V or 3.3V option (Core board Default:1.8V)	1.8V		Pin224/225 Total Max 300mA
	226	VCC3V3_SD	P		VCC3V3_SD	3.3V Output TF Card Power,VCC3V3_SD	3.3V		Pin226/227 Total Max500mA
	228	VCC_1V8	P		VCC_1V8	1.8V Output_VCC_1V8	1.8V		Pin228/229 Total Max:1.0A
	230	VCCIO_ACODEC	P		VCCIO_ACODEC	3.3V Output For codec,VCCIO_ACODEC	3.3V		Pin230/231 Total Max300mA
	232	PMIC_32KOUT_WIFI	P		PMIC_32KOUT_WIFI	32KHz for WiFi	3.3V		
	234	VCC3V3_SYS	P		VCC3V3_SYS	3.3V Output_VCC3V3_SYS	3.3V		Pin234/235 Total Max:1.5A
	236	SPKP_OUT			SPKP_OUT	RK809 Speak out +	5V		MAX:1.3W ClassD @ 8Q
	238	SPKN_OUT			SPKN_OUT	RK809 Speak out -	5V		MAX:1.3W ClassD @ 8Q
	240	HPL_OUT			HPL_OUT	RK809 HeadPhone_OUT_L			MAX:0.5Vrms @ 32Q/ 0.8Vrms @ 300Q
	242	HPR_OUT			HPR_OUT	RK809 HeadPhone_OUT_R			MAX:0.5Vrms @ 32Q/ 0.8Vrms @ 300Q
	244	GND	G		GND				
	246	GND	G		GND				
	248	GND	G		GND				
	250	GND	G		GND				
	252	VCC5V0_SYS	P		VCC5V0_SYS		5V		CORE BOARD 5.0V Supply current: Normal: 600mA Max: 1.0A Recommend :1.5A
	254	VCC5V0_SYS	P		VCC5V0_SYS		5V		
	256	VCC5V0_SYS	P		VCC5V0_SYS	Input Voltage 4.8V-5.5V	5V		
	258	VCC5V0_SYS	P		VCC5V0_SYS		5V		
	260	VCC5V0_SYS	P		VCC5V0_SYS		5V		
	260	VCC5V0_SYS	P		VCC5V0_SYS		5V		

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