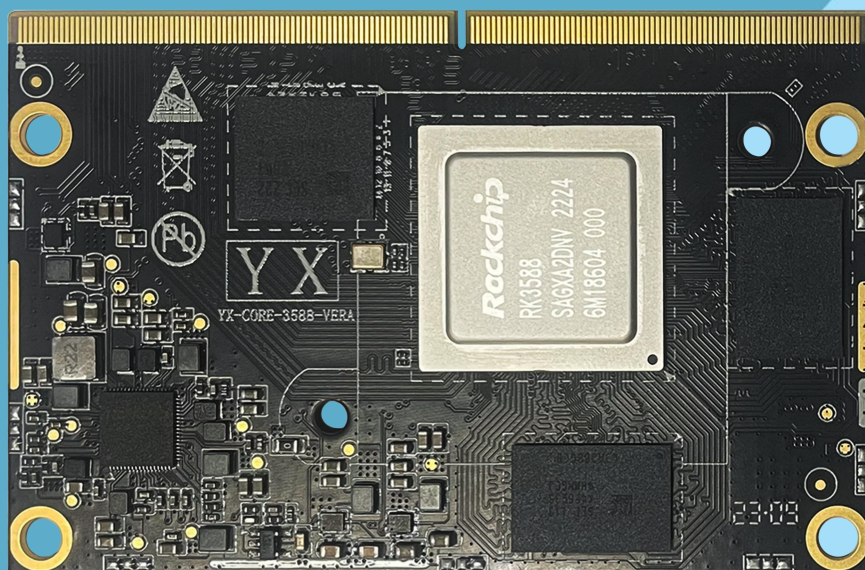


深圳市昱显科技有限公司

C3588-VerA

RK3588 主板规格书

RK3588 Motherboard Specifications



智能硬件综合解决方案

Intelligent Hardware Integrated Solution

www.sunshine-tek.com

更新记录 Update Record

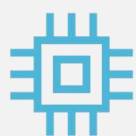
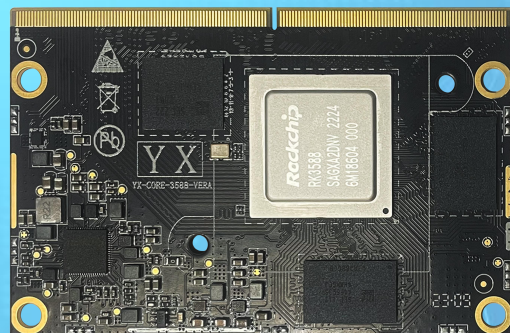
硬件版本 Hardware Version	更新日期 Updated	更新内容 Update Content	拟制人 Producer
VerA	2023-2-14	首次发行 INITIAL ISSUE	Anson

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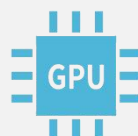
1. 产品概述 Product Description

C3588 核心主板，采用瑞芯微 RK3588 八核芯片，其配置为 64 位 4 核 Cortex A76 + 4 核 Cortex A55 CPU，主频高达 2.4GHz，GPU 为 Mali-G610 MP4，NPU 拥有 6Tops 算力，最高可配 32GB 大内存，支持 8K 视频编解码，可支持千兆以太网、5G/4G LTE、Wifi6 和蓝牙 5.1 模块功能，拥有丰富的接口，支持多种视频显示输入输出；支持安卓、Linux 等操作系统，也支持系统定制。可提供全方位技术支持服务，加快产品上市周期。



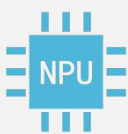
全新八核 RK3588 芯片

八核 64 位大小核架构 CPU，主频最高达 2.4GHz



Mali-G610 MP4 处理引擎

集成 ARM Mali-G610 MP4 四核 GPU



超高算力 NPU

6Tops 算力，三核架构，支持 int4/int8/int16/FP16/BF16/TF32



32G 超大内存

板载 64bit LPDDR4 (最高可配 32GB 大内存)，轻松应对多应用同时运行



多通道输入输出

HDMI2.1/eDP1.3/MIPI-DSI/DP1.4/VEG 视频输出，HDMI-IN/双 MIPI-CSI/DVP 视频输入，多路 8K 视频输出和 4K 输入



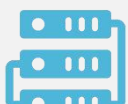
强大的网络通讯功能

扩展多路以太网、Wifi6/蓝牙 5.1、4G/5G LTE，让网络通讯拥有更高的速率



支持多种操作系统

Android 12、Linux 操作系统，也支持系统定制



丰富的拓展接口

配置 USB2.0、USB3.0、I2S、I2C、SPI、GPIO、SATA3.0、CAN、PCIe3.0 等接口

2. 规格参数 Specifications

基本参数

Basic Parameters

CPU	瑞芯微 RK3588 八核 64 位大小核架构, 4*Cortex-A76 + 4*Cortex-A55, 主频最高达 2.4GHz
GPU	ARM Mali-G610 MP4 四核 GPU, 支持 OpenGL ES3.2/OpenCL2.2/Vulkan1.1, 450 GFLOPS
NPU	高达 6TOPS 算力, 支持 INT4/INT8/INT16 混合运算, 可实现基于 TensorFlow / MXNet / PTorch / Caffe 等系列框架的网络模型转换
ISP	集成 48MP ISP with HDR&3DNR
内存	LPDDR4: 4GB/8GB/16GB 64bit (最高可配 32GB)
内置存储容量	EMMC: 16GBB/32GB/64GB/128GB 可选
视频编解码	视频解码: 8K@60fps H.265/VP9/AVS2 8K@30fps H.264 AVC/MVC 4K@60fps AV1 1080P@60fps MPEG-2/-1/VC-1/VP8 视频编码: 8K@30fps 编码, 支持 H.265 / H.264 *最高可实现 32 路 1080P@30fps 解码 和 16 路 1080P@30fps 编码

硬件参数

Hardware Parameters

音频	2 × 8 通道 I2S 2 × 2 通道 I2S 2 × SPDIF 2 × 8 通道 PDM (支持多 MIC 阵列) 1 × 双通道数字音频编解码器 (16 位 DAC) 1 × VAD
视频输入	1 × HDMI-IN (4K@60fps), 支持 HDCP 2.3 1 × MIPI CSI (4 Lane) 或者 2 × MIPI CSI (2 Lane) 2 × MIPI DC () 4 通道 DPHY v2.0 或 3 通道 CPHY V1.1) 1 × DVP 摄像头接口 (最高 150MHz 输入数据) 支持多路 4K 视频输入
视频输出	1 × HDMI2.1 (8K@60fps 或 4K@120fps) 1 × HDMI2.0 (4K@60fps) 2 × MIPI-DSI (4K@60fps)

	2 × DP1.4 (8K@30fps, 与 USB 3.0 复用) 2 × eDP1.3 (4K@60Hz) 1 × BT.1120 (1080@60fps) 支持多路 8K 视频输出, 可多屏异显
以太网	可扩展多路千兆以太网
4G/5G	可扩展 5G/4G LTE
Wifi/蓝牙	WiFi6/蓝牙 5.1
USB	3×USB3.0、4×USB2.0 Host、2×USB2.0 OTG
PCIe	PCIe3.0 (2×2lanes, 1×4lanes, 4×1lanes) 3×PCIe2.0(1 lanes)
SATA	3×SATA3.0
其他接口	9 × I2C、10 × UART、5 × SPI、7 × ADC 、16 × PWM 、 1 × SDMMC、GPIO
电源	4V (电压误差±5%)

系统软件

System Software

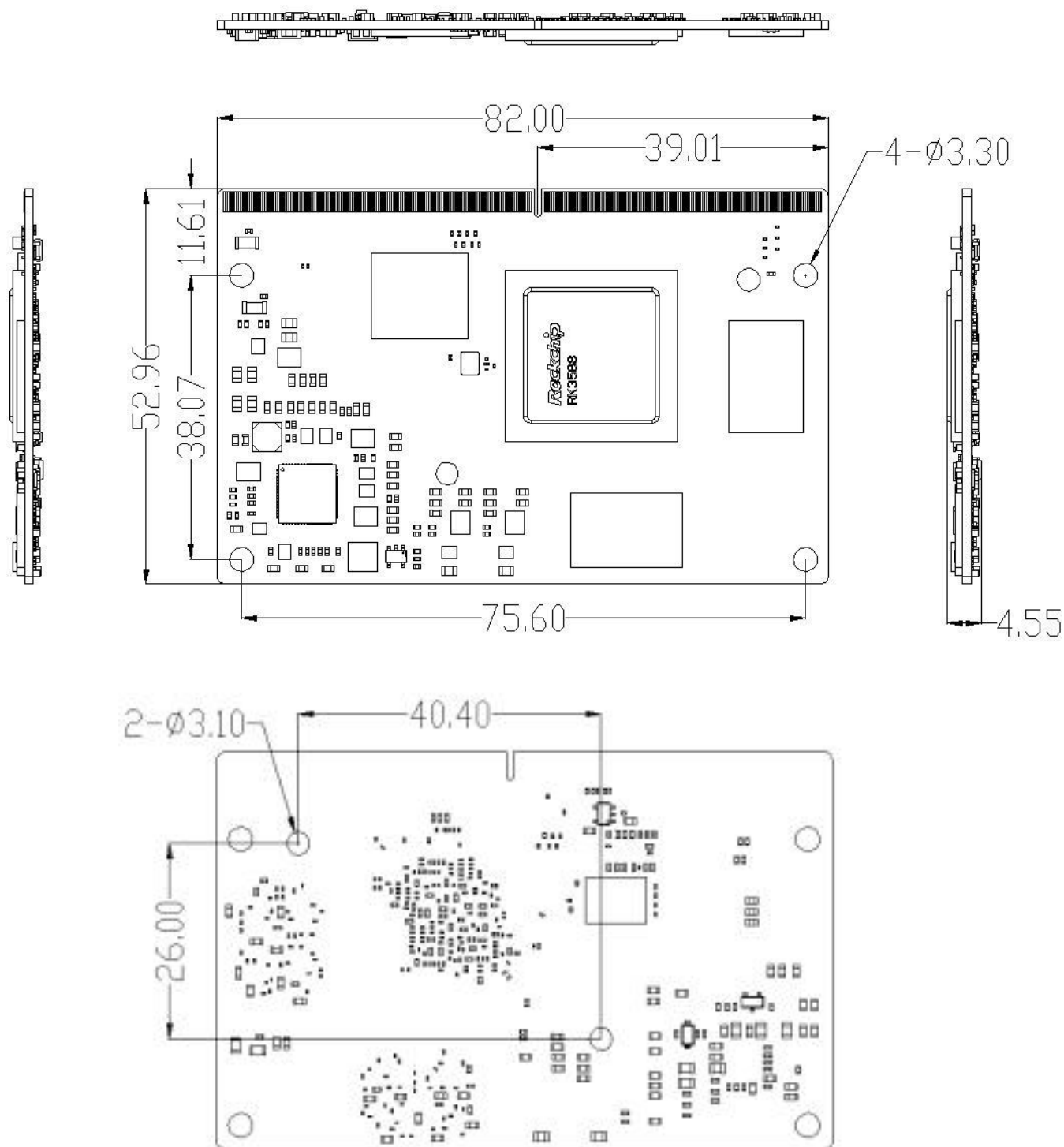
操作系统	安卓 12、Linux
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其他参数

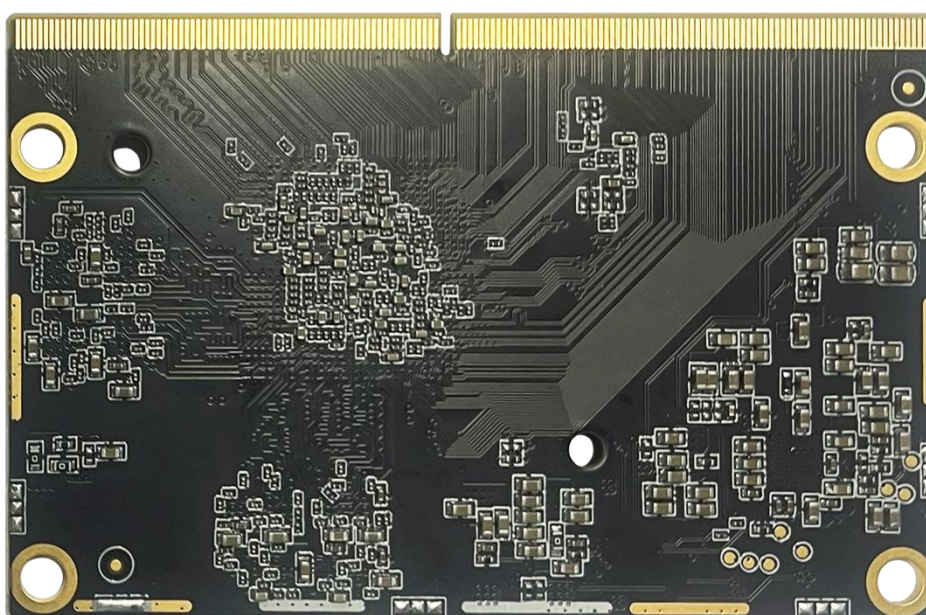
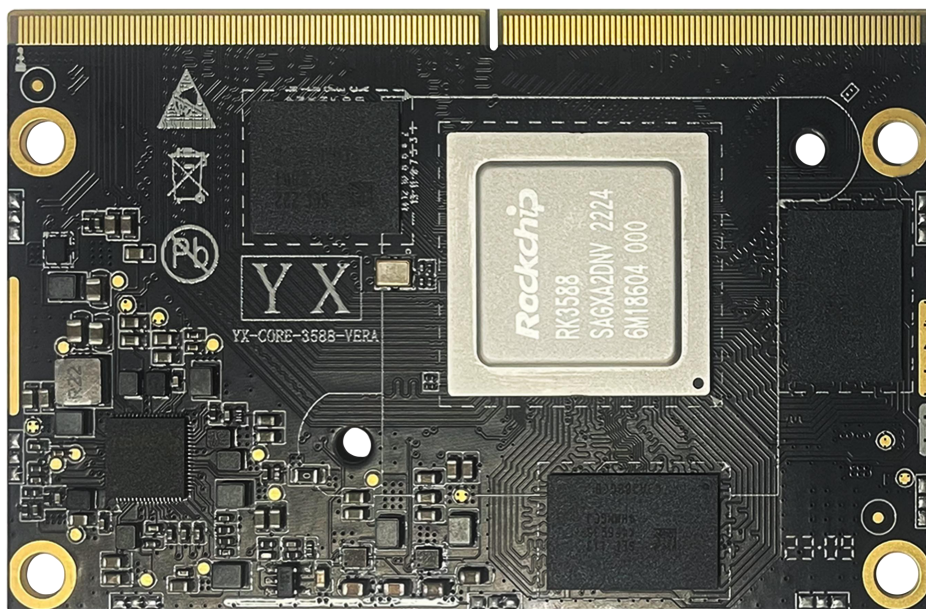
Other Parameters

接口类型	MXM3.0 (314PIN, 0.5mm 间距)
散热	散热片安装孔距: 45mm
功耗	待机功耗: 约 1.35W (12V/110mA) 典型功耗: 约 4.8W (12V/400mA) 最大功耗: 约 20W (12V/1700mA)
环境	工作温度: -20℃~60℃ 储存温度: -20℃~70℃ 储存湿度: 10%~80%
尺寸	长*宽=82*53mm

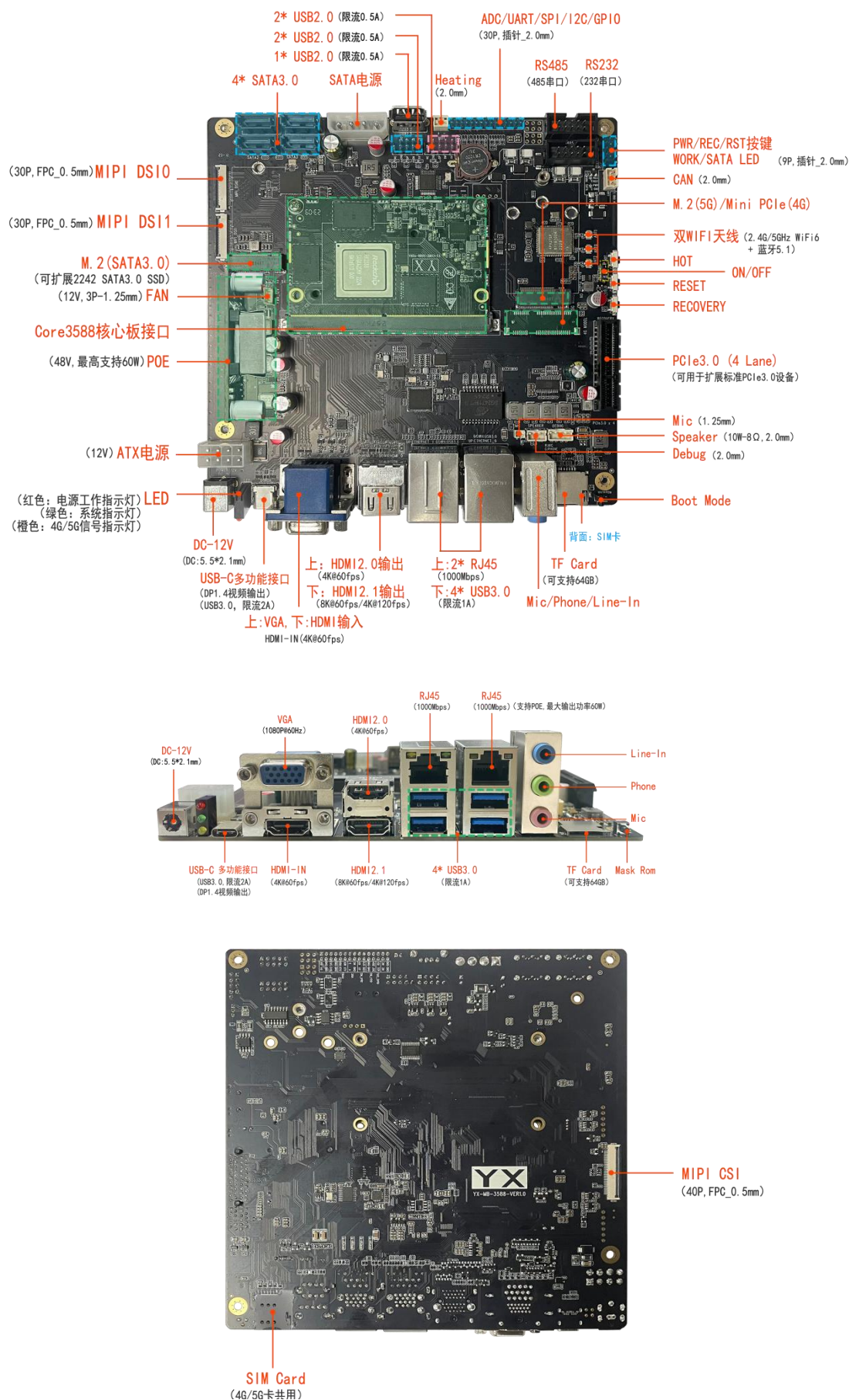
3. 主板尺寸 Motherboard Size



4. 接口描述 Interface Description



行业主板接口描述:



5. 接口定义 Interface Definition

PartA							
PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
1	VCC4V0_SYS		P		VCC4V0_CORE	Input Voltage 4.0V	4.0V
3			P				4.0V
5			P				4.0V
7			P				4.0V
9			P				4.0V
11			P				4.0V
13	GND		G		GND	GND	GND
15			G				GND
17			G				GND
19			G				GND
21			G				GND
23	VCC_3V3_S3		P		VCC_3V3_S3	3.3V Output (Pin23/24 Total Max:800mA)	3.3V
25	VCC_1V8_S3		P		VCC_1V8_S3	1.8V Output (Pin25/26 Total Max:400mA)	1.8V
27	VCC_1V8_S0		P		VCC_1V8_S0	1.8V Output Max:200mA	1.8V
29	NPOR	M31	I	UP	RESET_L	System reset input, Active L	1.8V
31	I2S0_SDO3/I2S0_SDI2/PDM0_SDI2_M0/I2C1_SCL_M4/UART4_TX_M0 /PW M0_M1/SPI1_CLK_M2/GPIO1_D2_d	F28	I/O	DOWN	SPI1_CLK_M2/UART4_TX_M0/I2C1_SCL_M4	SPI1_CLK_M2/UART4_TX_M0/I2C1_SCL_M4	1.8V
33	PDM0_SDI0_M0/SPI1_CS1_M2/GPIO1_D5_d	G26	I/O	DOWN	HDMIIRX_DET_L	HDMIIRX DETECT,Active L	1.8V
35	CLK32K_IN/CLK32K_OUT0/GPIO0_B2_u	K29	I/O	UP	WIFI_WAKE_HOST_H	WIFI_WAKE_HOST Active H	1.8V
37	I2S1_SDI0_M1/GPU_AVS/UART0_TX_M0/I2C4_SCL_M2/DP1_HPDIN_M1/P WM4_M0/PCIE30X1_0_PERSTN_M0/GPIO0_C5_u	P30	I/O	UP	HOST_WAKE_BT_H	HOST WAKE BT, Active H	1.8V
39	REFCLK_OUT/GPIO0_A0_d	P33	I/O	DOWN	BT_WAKE_HOST_H	BT WAKE HOST, Active H	1.8V
41	I2S1_SDI1_M1/NPU_AVS/UART0_RTSN/PWM5_M1/SPI0_CLK_M0/PCIE30 X4_CLKREQN_M0/SATA_CP_POD/GPIO0_C6_u	T29	I/O	UP	BT_REG_ON_H	BT_REG_ON ,Active H	1.8V
43	I2S1_SDO3_M1/CPU_BIG1_AVS/I2C1_SDA_M2/CAN2_TX_M1/HDMI_TX0_SCL_M1/SPI3_CS1_M2/SATA_MP_SWITCH/GPIO0_D5_u	V28	I/O	UP	I2C1_SDA_M2_TP	I2C1 SDA for TP Core board Pull up resistance 2.2K	1.8V
45	I2S1_SDO2_M1/PDM0_SDI2_M1/PWM3_IR_M0/I2C1_SCL_M2/CAN2_RX_M1/HDMI_TX0_SDA_M1/SPI3_CS0_M2/PCIE30X2_PERSTN_M0/SATA_CPDET/GPIO0_D4_u	V29	I/O	UP	I2C1_SCL_M2_TP	I2C1 SCL for TP Core board Pull up resistance 2.2K	1.8V
47	PDM0_CLK1_M1/PWM2_M0/UART0_RX_M0/I2C4_SDA_M2/DP0_HPDIN_M 1/PCIE30X1_0_WAKEN_M0/GPIO0_C4_d	R30	I/O	DOWN	WIFI_REG_ON_H	WIFI_REG_ON, Active H	1.8V
49	LITCPU_AVS/SPI3_CLK_M2/GPIO0_D3_u	U33	I/O	UP	CC_INT_L	TYPEC CC_INT,Active L	1.8V
51	PCIE30X1_1_CLKREQN_M2/DP0_HPDIN_M2/I2C2_SDA_M4/UART6_RX_M 1/SPI4_MISO_M2/GPIO1_A0_d	A24	I/O	DOWN	UART6_RX_M1_BT	UART6_RX_M1 for BT	1.8V
53	PCIE30X1_1_WAKEN_M2/DP1_HPDIN_M2/SATA1_ACT_LED_M1/I2C2_SC L_M4/UART6_TX_M1/SPI4_MOSI_M2/GPIO1_A1_d	A25	I/O	DOWN	UART6_TX_M1_BT	UART6_TX_M1 for BT	1.8V
55	HDMI_TX0_HPD_M0/SPI2_MOSI_M0/GPIO1_A5_d	B26	I/O	DOWN	HDMITX0_HPDIN_M0	HDMITX0_HPD IN, Active H	1.8V
57	VOP_POST_EMPTY/I2C4_SDA_M3/UART6_RTSN_M1/PWM0_M2/SPI4_CL K_M2/GPIO1_A2_d	A26	I/O	DOWN	UART6_RTSN_M1_BT	UART6_RTSN_M1 for BT	1.8V
59	PDM1_CLK1_M1/PCIE30X1_0_WAKEN_M2/SATA0_ACT_LED_M1/UART4_TX_M2/SPI0_CLK_M2/GPIO1_B3_d	D27	I/O	DOWN	PCIEX1_0_WAKEN_M1_L/GPIO1_B3	PCIEX1_0_WAKEN_M1_L /GPIO1_B3	1.8V
61	HDMI_TX1_SDA_M2/I2C4_SCL_M3/UART6_CTSN_M1/PWM1_M2/SPI4_CS 0_M2/GPIO1_A3_d	A27	I/O	DOWN	UART6_CTSN_M1_BT	UART6_CTSN_M1 for BT	1.8V
63	PDM1_CLK0_M1/PCIE30X1_0_PERSTN_M2/UART7_RX_M2/SPI0_CS0_M2 /GPIO1_B4_u	E24	I/O	UP	PCIEX1_0_PERSTN_M1_L	PCIEX1_0_PERSTN_M1, Active L	1.8V
65	PDM1_SDI0_M1/PCIE30X1_1_PERSTN_M2/PWM3_IR_M3/SPI2_CS0_M0/G PIO1_A7_u	C25	I/O	UP	MIPI_CAM3_PDN_L	MIPI_CAM3_PDN, Active L	1.8V
67	HDMI_TX1_SCL_M2/SPI2_MISO_M0/GPIO1_A4_d	B25	I/O	DOWN	VGA_HPDIN_L	VGA_HPD IN, Active L	1.8V
69	HDMI_TX1_HPD_M0/SPI2_CLK_M0/GPIO1_A6_d	C24	I/O	DOWN	HDMITX1_HPDIN_M0	HDMI_TX1_HPD IN, Active H	1.8V
71	PCIE30X1_0_CLKREQN_M2/UART7_TX_M2/SPI0_CS1_M2/GPIO1_B5_u	E25	I/O	UP	PCIEX1_0_CLKREQN_M1_L	PCIEX1_0_CLKREQN_M1 , Active L	1.8V
73	PDM1_SDI2_M1/PCIE30X4_WAKEN_M3/SPI0_MISO_M2/GPIO1_B1_d	D25	I/O	DOWN	MIPI_CAM4_PWREN_H	MIPI_CAM4_PWREN, Active H	1.8V
75	PDM1_SDI3_M1/PCIE30X4_PERSTN_M3/UART4_RX_M2/SPI0_MOSI_M2/ GPIO1_B2_d	D26	I/O	DOWN	MIPI_CAM3_PWREN_H	MIPI_CAM3_PWREN, Active H	1.8V
77	I2S0_SDI1/PDM0_SDI3_M0/I2C1_SDA_M4/UART4_RX_M0/PWM1_M1 /SPI1_CS0_M2/GPIO1_D3_d	E28	I/O	DOWN	SPI1_CS0_M2/UART4_RX_M0/I2C1_SDA_M4	SPI1_CS0_M2/UART4_RX_M0/I2C1_SDA_M4	1.8V
79	PDM1_SDI1_M1/PCIE30X4_CLKREQN_M3/SPI2_CS1_M0/GPIO1_B0_u	C27	I/O	UP	RESET0_CAM	RESET0_CAM	1.8V
81	I2S0_SDO1/I2C7_SCL_M0/UART6_TX_M2/SPI1_MISO_M2/GPIO1_D0_d	F26	I/O	DOWN	SPI1_MISO_M2/UART6_TX_M2/I2C7_SC	SPI1_MISO_M2/UART6_TX_M2/I2C7_SCL_M0	1.8V
83	I2S0_SDO2/I2S0_SDI3/PDM0_SDI1_M0/I2C7_SDA_M0/UART6_RX_M2/SPI 1_MOSI_M2/GPIO1_D1_d	F27	I/O	DOWN	SPI1_MOSI_M2/UART6_RX_M2/I2C7_SDA_M0	SPI1_MOSI_M2/UART6_RX_M2/I2C7_SDA_M0	1.8V
85	PDM0_CLK0_M0/I2C4_SDA_M4/PWM15_IR_M2/GPIO1_C6_d	D29	I/O	DOWN	PWM15_M2	PWM15_M2	1.8V
87	I2S0_LRCK/I2C2_SCL_M3/UART4_RTSN/GPIO1_C5_d	D30	I/O	DOWN	I2S0_LRCK_TX	I2S0_LRCK_TX	1.8V
89	I2S0_SDI0/GPIO1_D4_d	D28	I/O	DOWN	I2S0_SDI0	I2S0_SDI0	1.8V
91	PDM0_CLK1_M0/I2C2_SDA_M3/PWM11_IR_M2/SPI4_CS1_M0/GPIO1_C4_d	E30	I/O	DOWN	HP_DET_L	HP_DET_L, Active L	1.8V
93	I2S0_SCLK/I2C6_SCL_M1/UART3_CTSN/PWM7_IR_M2/SPI4_CS0_M0/GPI O1_C3_d	E31	I/O	DOWN	I2S0_SCLK_TX	I2S0_SCLK_TX	1.8V
95	I2S0_SDO0/I2C4_SCL_M4/UART4_CTSN/GPIO1_C7_d	E29	I/O	DOWN	I2S0_SDO0	I2S0_SDO0	1.8V

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
97	I2S0_MCLK/I2C6_SDA_M1/UART3_RTSN/PWM3_IR_M2/SPI4_CLK_M0/GPI O1_C2_d	F30	I/O	DOWN	I2S0_MCLK	I2S0_MCLK	1.8V
99	GND		G		GND	GND	
101	PCIE20_2_REFCLKP	G31			PCIE20_2_REFCLKP	PCIE20_2_REFCLKP	1.8V
103	PCIE20_2_REFCLKN	G30			PCIE20_2_REFCLKN	PCIE20_2_REFCLKN	1.8V
105	PCIE20_2_TXP/SATA30_2_TXP/USB30_2_SSTXP	H30			PCIE20_2_TXP/SATA30_0_2_TXP	PCIE20_2_TXP/SATA30_2_TXP	1.8V
107	PCIE20_2_TXN/SATA30_2_TXN/USB30_2_SSTXN	H29			PCIE20_2_TXN/SATA30_0_2_TXN	PCIE20_2_TXN/SATA30_2_TXN	1.8V
109	PCIE20_2_RXP/SATA30_2_RXP/USB30_2_SSRXP	J31			PCIE20_2_RXP/SATA30_0_2_RXP	PCIE20_2_RXP/SATA30_2_RXP	1.8V
111	PCIE20_2_RXN/SATA30_2_RXN/USB30_2_SSRXN	J30			PCIE20_2_RXN/SATA30_0_2_RXN	PCIE20_2_RXN/SATA30_2_RXN	1.8V
113	GND				GND	GND	
115	SPI2_CS1_M2/I2C1_SCL_M1/UART0_RX_M1/GPIO0_B0_z	L30	I/O	Tri-State	RTC_INT_L	RTC IC_INT ,Active L	1.8V
117	I2S1_MCLK_M1/JTAG_TCK_M2/I2C1_SCL_M0/UART2_TX_M0/PCIE30X1_1_CLKREQN_M0/GPIO0_B5_d	P29	I/O	DOWN	UART2_TX_M0_DEBUG	UART2_TX_M0_DEBUG	1.8V
119	I2S1_SCLK_M1/JTAG_TMS_M2/I2C1_SDA_M0/UART2_RX_M0/PCIE30X1_1_WAKEN_M0/GPIO0_B6_d	R29	I/O	DOWN	UART2_RX_M0_DEBUG	UART2_RX_M0_DEBUG	1.8V
121	I2S1_LRCK_M1/PWM0_M0/I2C2_SCL_M0/CAN0_TX_M0/SPI0_CS1_M0/PCI E30X1_1_PERSTN_M0/GPIO0_B7_d	T28	I/O	DOWN	GMAC0_INT/PMEB_1V8	GMAC0_INT/PMEB	1.8V
123	PDM0_CLK0_M1/PWM1_M0/I2C2_SDA_M0/CAN0_RX_M0/SPI0_MOSI_M0/ PCIE30X1_0_CLKREQN_M0/GPIO0_C0_d	T31	I/O	DOWN	GMAC1_INT/PMEB_1V8	GMAC1_INT/PMEB	1.8V
125	I2S1_SDI2_M1/PDM0_SDIO_M1/I2C6_SDA_M0/UART1_RTSN_M2/PWM6_M0/SPI0_MISO_M0/PCIE30X4_WAKEN_M0/GPIO0_C7_d	V31	I/O	DOWN	I2C6_SDA_M0	I2C6_SDA_M0	1.8V
127	I2S1_SDI3_M1/PDM0_SDI1_M1/I2C6_SCL_M0/UART1_CTSN_M2/PWM7_I_R_M0/SPI3_MISO_M2/PCIE30X4_PERSTN_M0/GPIO0_D0_d	W31	I/O	DOWN	I2C6_SCL_M0	I2C6_SCL_M0	1.8V
129	GND		G		GND		1.8V
131	GMAC0_RXD2/SDIO_D0_M0/FSPI_D0_M1/UART6_RX_M0/GPIO2_A6_u	AC32	I/O	UP	GMAC0_RXD2	GMAC0_RXD2	1.8V
133	GMAC0_RXD3/SDIO_D1_M0/FSPI_D1_M1/UART6_TX_M0/GPIO2_A7_u	AC31	I/O	UP	GMAC0_RXD3	GMAC0_RXD3	1.8V
135	GMAC0_RXD0/I2C2_SCL_M1/UART1_CTSN_M0/SPI1_MISO_M0/GPIO2_C1_d	AD32	I/O	DOWN	GMAC0_RXD0	GMAC0_RXD0	1.8V
137	GMAC0_RXD1/I2C6_SDA_M2/UART9_TX_M0/SPI1_MOSI_M0/GPIO2_C2_d	AD31	I/O	DOWN	GMAC0_RXD1	GMAC0_RXD1	1.8V
139	GMAC0_RXCLK/SDIO_D2_M0/FSPI_D2_M1/I2C8_SCL_M1/UART6_RT SN_M0/GPIO2_B0_u	AE32	I/O	UP	GMAC0_RXCLK	GMAC0_RXCLK	1.8V
141	GMAC0_RXDV_CRS/UART7_RTSN_M0/PWM2_M2/SPI3_CS0_M0/GPIO4_C2_d	AE31	I/O	DOWN	GMAC0_RXDV_CRS	GMAC0_RXDV_CRS	1.8V
143	GMAC1_MDIO/MIPI_TE1/I2C8_SDA_M4/UART7_CTSN_M1/PWM15_IR_M0/ SPI1_CS1_M1/GPIO3_C3_d	Y30	I/O	DOWN	GMAC1_MDIO	GMAC1_MDIO	3.3V
145	GMAC1_MDC/MIPI_TE0/I2C8_SCL_M4/UART7_RTSN_M1/PWM14_M0 /SPI 1_CS0_M1/GPIO3_C2_d	Y31	I/O	DOWN	GMAC1_MDC	GMAC1_MDC	3.3V
147	GMAC1_PTP_REF_CLK/HDMI_TX1_HPD_M1/I2C3_SCL_M1/SPI1_MOSI_M1/GPIO3_B7_d	AA28	I/O	DOWN	GMAC1_RSTN_L	GMAC1_RESET, Active L	3.3V
149	ETH0_REFCLKO_25M/I2S2_SDI_M0/I2C6_SCL_M2/SPI1_CS0_M0/GPIO2_C3_d	AD30	I/O	DOWN	LCD1_RST_1V8	MIPI TX RESET	
151	GMAC1_MCLKINOUT/I2S2_LRCK_M1/CAN1_TX_M0/UART3_RX_M1/PWM13_M0/GPIO3_B6_d	AE29	I/O	DOWN	GMAC1_MCLKINOUT	GMAC1_MCLK INPUT/OUTPUT core board series resistance 0R	3.3V
153	GMAC1_TXD3/SDIO_D1_M1/I2S3_SCLK/AUDDSM_LN/FSPI_D1_M2/I2C6_SCL_M4/PWM11_IR_M0/SPI4_MOSI_M1/GPIO3_A1_u	AA30	I/O	UP	GMAC1_TXD3	GMAC1_TXD3_M1, core board series resistance 0R	3.3V
155	GMAC1_TXD2/SDIO_D0_M1/I2S3_MCLK/FSPI_D0_M2/I2C6_SDA_M4/PWM10_M0/SPI4_MISO_M1/GPIO3_A0_u	AA29	I/O	UP	GMAC1_TXD2	GMAC1_TXD2,core board series resistance 0R	3.3V
157	GMAC1_TXEN/I2S2_SCLK_M1/CAN1_RX_M0/UART3_TX_M1/PWM12_M0/ GPIO3_B5_u	AD29	I/O	UP	GMAC1_TXEN	GMAC1_TXEN,core board series resistance 0R	3.3V
159	GMAC1_TXD1/I2S2_MCLK_M1/UART2_CTSN/GPIO3_B4_u	AC29	I/O	UP	GMAC1_TXD1	GMAC1_TXD1,core board series resistance 0R	3.3V
161	GMAC1_TXCLK/SDIO_CMD_M1/I2S3_SDI/AUDDSM_RP/UART8_RT SN_M1 /SPI4_CS1_M1/GPIO3_A4_d	AD28	I/O	DOWN	GMAC1_TXCLK	GMAC1_TXCLK,core board series resistance 0R	3.3V
163	GMAC1_RXD0/MIPI_CAMERA2_CLK_M1/PWM8_M0/GPIO3_A7_u	AG29	I/O	UP	GMAC1_RXD0	GMAC1_RXD0	3.3V
165	GMAC1_TXD0/I2S2_SDO_M1/UART2_RTSN/GPIO3_B3_u	AC28	I/O	UP	GMAC1_TXD0	GMAC1_TXD0,core board series resistance 0R	3.3V
167	GMAC1_RXCLK/SDIO_CLK_M1/MIPI_CAMERA0_CLK_M1/FSPI_CLK_M2/I2C4_SDA_M0/UART8_CTSN_M1/GPIO3_A5_d	AH30	I/O	DOWN	GMAC1_RXCLK	GMAC1_RXCLK	3.3V
169	GMAC1_RXD1/MIPI_CAMERA3_CLK_M1/PWM9_M0/GPIO3_B0_u	AG28	I/O	UP	GMAC1_RXD1	GMAC1_RXD1	3.3V
171	GMAC1_RXDV_CRS/MIPI_CAMERA4_CLK_M1/UART2_TX_M2/PWM2_M1/ GPIO3_B1_d	AH29	I/O	DOWN	GMAC1_RXDV_CRS	GMAC1_RXDV_CRS	3.3V
173	GMAC1_RXD2/SDIO_D2_M1/I2S3_LRCK/AUDDSM_LP/FSPI_D2_M2/UART8_TX_M1/SPI4_CLK_M1/GPIO3_A2_u	AD27	I/O	UP	GMAC1_RXD2	GMAC1_RXD2	3.3V
175	GMAC1_RXD3/SDIO_D3_M1/I2S3_SDO/AUDDSM_RN/FSPI_D3_M2/UART8_RX_M1/SPI4_CS0_M1/GPIO3_A3_u	AE27	I/O	UP	GMAC1_RXD3	GMAC1_RXD3	3.3V
177	ETH1_REFCLKO_25M/MIPI_CAMERA1_CLK_M1/I2C4_SCL_M0/GPIO3_A6_d	AH27	I/O	DOWN	TP1_INT	TOUCH PANEL INT	3.3V
179	GND		G		GND	GND	
181	CIF_D0/BT1120_D0/I2S1_MCLK_M0/PCIE30X1_1_CLKREQN_M1/UART9_RTSN_M1/SPI0_MISO_M1/GPIO4_A0_d	AK30	I/O	DOWN	HDMI0_TX_ON_H	HDMI0_TX_ON,GMAC1_RST	3.3V
183	CIF_D2/BT1120_D2/I2S1_LRCK_M0/PCIE30X1_1_PERSTN_M1/SPI0_CLK_M1/GPIO4_A2_d	AM29	I/O	DOWN	I2S1_LRCK_M0_BT	I2S1_LRCK_M0_BT	3.3V
185	CIF_D1/BT1120_D1/I2S1_SCLK_M0/PCIE30X1_1_WAKEN_M1/UART9_CTSN_M1/SPI0_MOSI_M1/GPIO4_A1_d	AL30	I/O	DOWN	I2S1_SCLK_M0_BT	I2S1_SCLK_M0_BT	3.3V

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
187	CIF_D3/BT1120_D3/PCIE30X1_0_CLKREQN_M1/UART0_TX_M2/GPIO4_A3_d	AL29	I/O	DOWN	UART0_TX_M2	UART0_TX_M2	3.3V
189	CIF_D4/BT1120_D4/PCIE30X1_0_WAKEN_M1/I2C3_SCL_M2/UART0_RX_M2/SPI2_MISO_M1/GPIO4_A4_d	AL28	I/O	DOWN	UART0_RX_M2	UART0_RX_M2	3.3V
191	CIF_D7/BT1120_D7/I2S1_SDI2_M0/PCIE30X2_WAKEN_M1/I2C5_SDA_M2/ SPI2_CS0_M1/GPIO4_A7_d	AM27	I/O	DOWN	TYPEC0_SBU2_DC	TYPEC0_SBU2_DC	3.3V
193	CIF_D6/BT1120_D6/I2S1_SDI1_M0/PCIE30X2_CLKREQN_M1/I2C5_SCL_M 2/UART3_RX_M2/SPI2_CLK_M1/GPIO4_A6_d	AL27	I/O	DOWN	TYPEC0_SBU1_DC	TYPEC0_SBU1_DC	3.3V
195	CIF_D5/BT1120_D5/I2S1_SDI0_M0/PCIE30X1_0_PERSTN_M1/I2C3_SDA_M2/UART3_TX_M2/SPI2_MOSI_M1/GPIO4_A5_d	AK27	I/O	DOWN	I2S1_SDI_M0_BT	I2S1_SDI_M0_BT	3.3V
197	CIF_CLKOUT/BT1120_D10/I2S1_SDO3_M0/PCIE30X4_CLKREQN_M1/DP0_HPDIIN_M0/SPDIF0_TX_M1/UART9_TX_M1/PWM11_IR_M1/GPIO4_B4_u	AL26	I/O	UP	PCIE30X4_CLKREQN_M1_L	PCIE30X4_CLKREQN_M1_L	3.3V
199	CIF_VSYNC/BT1120_D9/I2S1_SDO2_M0/PCIE20X1_2_BUTTON_RSTN/I2C7_SDA_M3/UART8_CTSN_M0/PWM15_IR_M1/CAN1_TX_M1/GPIO4_B3_u	AM25	I/O	UP	PCIE30X4_PRSNT_L/GPIO4_B3	PCIE30X4_PRSNT_L/GPIO4_B3	3.3V
201	MIPI_CAMERA0_CLK_M0/SPDIF1_TX_M1/I2S1_SDO0_M0/PCIE30X1_0_BUTTON_RSTN/SATA2_ACT_LED_M0/I2C6_SCL_M3/UART8_RX_M0/SPI0_CS1_M1/GPIO4_B1_u	AL24	I/O	UP	I2S1_SDO_M0_BT	I2S1_SDO_M0_BT	3.3V
203	CIF_HREF/BT1120_D8/I2S1_SDO1_M0/PCIE30X1_1_BUTTON_RSTN/I2C7_SCL_M3/UART8_RTSN_M0/PWM14_M1/SPI0_CS0_M1/CAN1_RX_M1/GPIO4_B2_u	AK25	I/O	UP	CAN1_RX_M1/GPIO4_B2	CAN1_RX_M1/GPIO4_B2	3.3V
205	BT1120_D12/PCIE30X4_PERSTN_M1/HDMI_RX_HPDIOUT_M0/SATA0_ACT_LED_M0/I2C5_SCL_M1/PWM13_M1/SPI3_MOSI_M1/GPIO4_B6_d	AJ27	I/O	DOWN	PCIE30X4_PERSTN_M1_L	PCIE30X4_PERSTN_M1_L	3.3V
207	CIF_CLKIN/BT1120_CLKOUT/I2S1_SDI3_M0/PCIE30X2_PERSTN_M1/I2C6_SDA_M3/UART8_TX_M0/SPI2_CS1_M1/GPIO4_B0_d	AK26	I/O	DOWN	PHONE_CTL	PHONE_CTL	3.3V
209	BT1120_D11/PCIE30X4_WAKEN_M1/HDMI_RX_CEC_M0/SATA1_ACT_LE D_M0/UART9_RX_M1/PWM12_M1/SPI3_MISO_M1/GPIO4_B5_d	AJ26	I/O	DOWN	PCIE30X4_WAKEN_M1_L/GPIO4_B5	PCIE30X4_WAKEN_M1_L/GPIO4_B5	3.3V
211	CIF_D11/PCIE20X1_2_CLKREQN_M0/HDMI_TX0_SCL_M2/I2C5_SCL_M0/S PI3_MOSI_M3/GPIO3_C7_u	AJ24	I/O	UP	GMAC0_RSTN_L_GPIO3_C7	GMAC0_RSTN_L_GPIO3_C7	1.8V
213	CIF_D12/PCIE20X1_2_WAKEN_M0/HDMI_TX0_SDA_M2/I2C5_SDA_M0/UA RT4_RX_M1/PWM8_M2/SPI3_CLK_M3/GPIO3_D0_u	AH24	I/O	UP	HDMI1_TX_ON_H	HDMI1_TX_ON_H	1.8V
215	SARADC_IN6	AL17			SARADC_IN6	SARADC_IN6	1.8V
217	SARADC_IN4	AM17			SARADC_IN4	SARADC_IN4	1.8V
219	SARADC_IN3	AN17			SARADC_VIN3_HP_HO OK	SARADC_VIN3_HP_HOO K	1.8V
221	SARADC_IN2	AK16			SARADC_IN2	SARADC_IN2	1.8V
223	SARADC_IN0_BOOT	AM16			BOOT_SARADC_IN0	BOOT_SARADC_IN0 core board pull up resistance 100K BOOT MODE: FSPI_M2-FSPI_M1-FSPI_M0 -EMMC-SD Card-USB	1.8V
225	SARADC_IN1	AL16			SARADC_VIN1_KEY/RE COVERY	SARADC_VIN1_KEY/REC OVERY core board pull up resistance 10K	1.8V
227	TYPEC0_USB20_VBUSDET	AM14	I		TYPEC0_USB20_VBUS DET	TYPEC0_USB20_VBUSD ET	3.3V
229	TYPEC0_USB20_OTG_ID	AL14	I		TYPEC0_USB20_OTG_I D	TYPEC0_USB20_OTG_ID	1.8V
231	TYPEC1_USB20_OTG_ID	AK8	I		TYPEC1_USB20_OTG_I D	TYPEC1_USB20_OTG_ID	1.8V
233	TYPEC1_USB20_VBUSDET	AL8	I		TYPEC1_USB20_VBUS DET	TYPEC1_USB20_VBUSD ET	3.3V
235	TYPEC0_SBU2/DP0_AUXN	AM15			TYPEC0_SBU2	TYPEC0_SBU2	1.8V
237	TYPEC0_SBU1/DP0_AUXP	AL15			TYPEC0_SBU1	TYPEC0_SBU1	1.8V
239	GND		G		GND	GND	
241	TYPEC0_USB20_OTG_DM	AM12			TYPEC0_OTG_DM	TYPEC0_OTG_DM	3.3V
243	TYPEC0_USB20_OTG_DP	AL12			TYPEC0_OTG_DP	TYPEC0_OTG_DP	3.3V
245	TYPEC1_SBU2/DP1_AUXN	AM10			DP1_AUXN	DP1_AUXN	1.8V
247	TYPEC1_SBU1/DP1_AUXP	AL10			DP1_AUXP	DP1_AUXP	1.8V
249	TYPEC1_USB20_OTG_DP	AK9			TYPEC1_OTG_DP	TYPEC1_OTG_DP	3.3V
251	TYPEC1_USB20_OTG_DM	AL9			TYPEC1_OTG_DM	TYPEC1_OTG_DM	3.3V
253	USB20_HOST1_DM	AM7			USB20_HOST1_DM	USB20_HOST1_DM	3.3V
255	USB20_HOST1_DP	AL7			USB20_HOST1_DP	USB20_HOST1_DP	3.3V
257	USB20_HOST0_DM	AL6			USB20_HOST0_DM	USB20_HOST0_DM	3.3V
259	USB20_HOST0_DP	AK6			USB20_HOST0_DP	USB20_HOST0_DP	3.3V
261	GND		G		GND	GND	
263	HDMI_RX_D2P	AJ5	I		HDMI_RX_D2P	HDMI_RX_D2P	3.3V
265	HDMI_RX_D2N	AJ4	I		HDMI_RX_D2N	HDMI_RX_D2N	3.3V
267	HDMI_RX_D1P	AH6	I		HDMI_RX_D1P	HDMI_RX_D1P	3.3V
269	HDMI_RX_D1N	AH5	I		HDMI_RX_D1N	HDMI_RX_D1N	3.3V
271	HDMI_RX_D0P	AG5	I		HDMI_RX_D0P	HDMI_RX_D0P	3.3V
273	HDMI_RX_D0N	AG4	I		HDMI_RX_D0N	HDMI_RX_D0N	3.3V
275	HDMI_RX_CLKP	AF6	I		HDMI_RX_CLKP	HDMI_RX_CLKP	3.3V
277	HDMI_RX_CLKN	AF5	I		HDMI_RX_CLKN	HDMI_RX_CLKN	3.3V
279	GND		G		GND	GND	
281	MIPI_CAMERA4_CLK_M0/PCIE30X2_CLKREQN_M3/HDMI_RX_SDA_M2/I2 C8_SDA_M2/UART1_CTSN_M1/PWM15_IR_M3/GPIO1_D7_u	F25	I/O	UP	MIPI_CAM4_CLKOUT	MIPI_CAM4_CLK OUT	1.8V

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
283	MIPI_CAMERA2_CLK_M0/SPDIF1_TX_M0/PCIE30X2_PERSTN_M3/HDMI_RX_CEC_M2/SATA2_ACT_LED_M1/I2C5_SDA_M3/UART1_RX_M1/PWM13_M2/GPIO1_B7_u	E27	I/O	UP	I2C5_SDA_M3/UART1_RX_M1	I2C5_SDA_M3/UART1_RX_M1	1.8V
285	MIPI_CAMERA3_CLK_M0/HDMI_RX_SCL_M2/I2C8_SCL_M2/UART1_RTSN_M1/PWM14_M2/GPIO1_D6_u	F24	I/O	UP	MIPI_CAM3_CLKOUT	MIPI_CAM3_CLKOUT	1.8V
287	MIPI_CAMERA1_CLK_M0/SPDIF0_TX_M0/PCIE30X2_WAKEN_M3/HDMI_RX_HPDOOUT_M2/I2C5_SCL_M3/UART1_TX_M1/GPIO1_B6_u	E26	I/O	UP	I2C5_SCL_M3/UART1_TX_M1	I2C5_SCL_M3/UART1_TX_M1	1.8V
289	SDMMC_DET/GPIO0_A4_u	P31	I/O	UP	SDMMC_DET_L	100KSDMMC0_DET Input, Active L core board pull up resistance 100K	1.8V
291	GMAC1_PPSCCLK/PCIE30X2_BUTTON_RSTN/UART7_RX_M1/SPI1_CLK_M1/GPIO3_C1_d	Y27	I/O	DOWN	TP0_RST_L	TP RESET,Active L	3.3V
293	GMAC1_PPSTRIG/I2C3_SDA_M1/UART7_TX_M1/SPI1_MISO_M1/GPIO3_C0_d	Y29	I/O	DOWN	TP0_INT_L	TP INT, Active L	3.3V
295	CIF_D15/PCIE30X2_WAKEN_M2/HDMI_RX_SDA_M1/I2C7_SDA_M2/UART9_CTSN_M2/PWM10_M2/SPI0_CLK_M3/GPIO3_D3_d	AG24	I/O	DOWN	HDMI_RX_SDA_M1	HDMI_RX_SDA_M1	3.3V
297	CIF_D14/PCIE30X2_CLKREQN_M2/HDMI_RX_SCL_M1/I2C7_SCL_M2/UART9_RTSN_M2/SPI0_MOSI_M3/GPIO3_D2_d	AG25	I/O	DOWN	HDMI_RX_SCL_M1	HDMI_RX_SCL_M1	3.3V
299	CIF_D13/PCIE20X1_2_PERSTN_M0/HDMI_RX_CEC_M1/UART4_TX_M1/PWM9_M2/SPI0_MISO_M3/GPIO3_D1_d	AG23	I/O	DOWN	HDMI_RX_CEC	HDMI_RX_CEC	3.3V
301	CIF_D10/PCIE30X4_PERSTN_M2/HDMI_TX1_SCL_M1/SPI3_MISO_M3/GPIO3_C6_u	AG26	I/O	UP	HDMITX1_SCL_M1	HDMITX1_SCL_M1	3.3V
303	CIF_D9/FSPI_CS1N_M2/PCIE30X4_WAKEN_M2/HDMI_TX1_SDA_M1/CAN2_TX_M0/UART5_RX_M1/SPI3_CS1_M3/GPIO3_C5_u	AH25	I/O	UP	HDMITX1_SDA_M1	HDMITX1_SDA_M1	3.3V
305	CIF_D8/FSPI_CS0N_M2/PCIE30X4_CLKREQN_M2/HDMI_TX1_CEC_M2/CAN2_RX_M0/UART5_TX_M1/SPI3_CS0_M3/GPIO3_C4_u	AH26	I/O	UP	HDMITX1_CEC_M2	HDMITX1_CEC_M2	3.3V
307	BT1120_D15/SPDIF1_TX_M2/PCIE20X1_2_PERSTN_M1/HDMI_TX0_CEC_M0/I2C8_SDA_M3/PWM6_M1/SPI3_CS1_M1/GPIO4_C1_d	AK24	I/O	DOWN	HDMITX0_CEC_M0	HDMITX0_CEC_M0	3.3V
309	BT1120_D14/PCIE20X1_2_WAKEN_M1/HDMI_TX0_SDA_M0/I2C8_SCL_M3/SPI3_CS0_M1/GPIO4_C0_u	AJ25	I/O	UP	HDMITX0_SDA_M0	HDMITX0_SDA_M0	3.3V
311	BT1120_D13/PCIE20X1_2_CLKREQN_M1/HDMI_TX0_SCL_M0/I2C5_SDA_M1/SPI3_CLK_M1/GPIO4_B7_u	AJ28	I/O	UP	HDMITX0_SCL_M0	HDMITX0_SCL_M0	3.3V
313	GMAC1_TXER/I2S2_SDI_M1/UART2_RX_M2/PWM3_IR_M1/GPIO3_B2_d	AE28	I/O	DOWN	SPK_CTL_H	SPK_CTL,Active H	3.3V

PartB							
PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
2	VCC4V0_SYS		P		VCC4V0_CORE	Input Voltage 4 .0V	4.0V
4			P				4.0V
6			P				4.0V
8			P				4.0V
10			P				4.0V
12			P				4.0V
14	GND		G		GND	GND	GND
16			G				GND
18			G				GND
20			G				GND
22			G				GND
24	VCC_3V3_S3		P		VCC_3V3_S3	3.3V Output (Pin23/24 Total Max:800mA)	3.3V
26	VCC_1V8_S3		P		VCC_1V8_S3	1.8V Output (Pin25/26 Total Max:400mA)	1.8V
28	VCCA_3V3_S0		P		VCCA_3V3_S0	3 .3V Output Max:300mA	3.3V
30	PWRON_L				PWRON_L	RK806- 1 POWER EN, Active L	5V
32	VDC_EXT				VDC_EXT	RK806- 1 VDC IN(DC IN Auto Power ON	3~5V
34	PMIC_EXT_EN_OUT				PMIC_EXT_EN_OUT	PMIC_EXT_EN_OUTPUT, Active H	5V
36	VCCA_RK806				VCC_5V_S	PMIC Power supply of PLDO6 and system	5V
38	GMAC0_TXER/I2C0_SDA_M1/UART7_CTSN_M0/PWM7_IR_M3/SPI3_CLK_M0/GPIO4_C6_d	AF33	I/O	DOWN	LCD1_BL_EN	MIPI_DPHY1_TX_BL_EN, Active H	1.8V
40	I2C3_SCL_M0/UART3_TX_M0/SPI4_MOSI_M0/GPIO1_C1_z	G27	I/O	Tri-State	I2C3_SCL_M0_MIP	I2C3_SCL_M0_MIP	1.8V
42	I2C3_SDA_M0/UART3_RX_M0/SPI4_MISO_M0/GPIO1_C0_z	G29	I/O	Tri-State	I2C3_SDA_M0_MIP	I2C3_SDA_M0_MIP	1.8V
44	I2S1_SDO0_M1/CPU_BIG0_AVS/I2C0_SCL_M2/UART0_CTSN/UART1_TX_M2/HDMI_RX_SDA_M0/SPI0_CS0_M0/PCIE30X2_CLKREQN_M0/HDMI_TX0_CEC_M1/GPIO0_D1_u	W30	I/O	UP	NC	Core board Pull up resistance 2.2K	1.8V
46	I2S1_SDO1_M1/I2C0_SDA_M2/UART1_RX_M2/HDMI_RX_SCL_M0/SPI3_MOSI_M2/PCIE30X2_WAKEN_M0/HDMI_TX1_CEC_M1/GPIO0_D2_u	W29	I/O	UP	NC	Core board Pull up resistance 2.2K	1.8V

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
48	GND		G		GND	GND	
50	PCIE30_PORT1_REF_CLKP	A28			PCIE30_PORT1_REF_CLKP_IN	PCIE30_PORT1_REFCLKP_INPUT	1.8V
52	PCIE30_PORT1_REF_CLKN	B28			PCIE30_PORT1_REF_CLKN_IN	PCIE30_PORT1_REFCLKN_INPUT	1.8V
54	PCIE30_PORT1_TX1N	B29			PCIE30_PORT1_TX3N	PCIE30_PORT1_TX3N	1.8V
56	PCIE30_PORT1_TX1P	C29			PCIE30_PORT1_TX3P	PCIE30_PORT1_TX3P	1.8V
58	PCIE30_PORT1_TX0N	A30			PCIE30_PORT1_TX2N	PCIE30_PORT1_TX2N	1.8V
60	PCIE30_PORT1_TX0P	B30			PCIE30_PORT1_TX2P	PCIE30_PORT1_TX2P	1.8V
62	PCIE30_PORT1_RX1N	B31			PCIE30_PORT1_RX3N	PCIE30_PORT1_RX3N	1.8V
64	PCIE30_PORT1_RX1P	C31			PCIE30_PORT1_RX3P	PCIE30_PORT1_RX3P	1.8V
66	PCIE30_PORT1_RX0N	A32			PCIE30_PORT1_RX2N	PCIE30_PORT1_RX2N	1.8V
68	PCIE30_PORT1_RX0P	B32			PCIE30_PORT1_RX2P	PCIE30_PORT1_RX2P	1.8V
70	GND		G		GND	GND	
72	PCIE30_PORT0_TX1N	C34			PCIE30_PORT0_TX1N	PCIE30_PORT0_TX1N	1.8V
74	PCIE30_PORT0_TX1P	C33			PCIE30_PORT0_TX1P	PCIE30_PORT0_TX1P	1.8V
76	PCIE30_PORT0_TX0N	D33			PCIE30_PORT0_TX0N	PCIE30_PORT0_TX0N	1.8V
78	PCIE30_PORT0_TX0P	D32			PCIE30_PORT0_TX0P	PCIE30_PORT0_TX0P	1.8V
80	PCIE30_PORT0_REF_CLKN	E34			PCIE30_PORT0_REF_CLKN_IN	PCIE30_PORT0_REFCLKN_INPUT	1.8V
82	PCIE30_PORT0_REF_CLKP	E33			PCIE30_PORT0_REF_CLKP_IN	PCIE30_PORT0_REFCLKP_INPUT	1.8V
84	PCIE30_PORT0_RX1N	F33			PCIE30_PORT0_RX1N	PCIE30_PORT0_RX1N	1.8V
86	PCIE30_PORT0_RX1P	F32			PCIE30_PORT0_RX1P	PCIE30_PORT0_RX1P	1.8V
88	PCIE30_PORT0_RX0N	G34			PCIE30_PORT0_RX0N	PCIE30_PORT0_RX0N	1.8V
90	PCIE30_PORT0_RX0P	G33			PCIE30_PORT0_RX0P	PCIE30_PORT0_RX0P	1.8V
92	GND		G		GND	GND	
94	PCIE20_1_REFCLKN	H33			PCIE20_1_REFCLKN	PCIE20_1_REFCLKN	1.8V
96	PCIE20_1_REFCLKP	H32			PCIE20_1_REFCLKP	PCIE20_1_REFCLKP	1.8V
98	PCIE20_1_RXN/SATA30_1_RXN	J34			PCIE20_1_RXN/SATA30_1_RXN	PCIE20_1_RXN/SATA30_1_RXN	1.8V
100	PCIE20_1_RXP/SATA30_1_RXP	J33			PCIE20_1_RXP/SATA30_1_RXP	PCIE20_1_RXP/SATA30_1_RXP	1.8V
102	PCIE20_1_TXN/SATA30_1_TXN	K34			PCIE20_1_TXN/SATA30_1_TXN	PCIE20_1_TXN/SATA30_1_TXN	1.8V
104	PCIE20_1_TXP/SATA30_1_TXP	K33			PCIE20_1_TXP/SATA30_1_TXP	PCIE20_1_TXP/SATA30_1_TXP	1.8V
106	GND				GND	GND	
108	PCIE20_0_REFCLKN	L33			PCIE20_0_REFCLKN	PCIE20_0_REFCLKN	1.8V
110	PCIE20_0_REFCLKP	L32			PCIE20_0_REFCLKP	PCIE20_0_REFCLKP	1.8V
112	PCIE20_0_TXN/SATA30_0_TXN	M33			PCIE20_0_TXN/SATA30_0_TXN	PCIE20_0_TXN/SATA30_0_TXN	1.8V
114	PCIE20_0_TXP/SATA30_0_TXP	M34			PCIE20_0_TXP/SATA30_0_TXP	PCIE20_0_TXP/SATA30_0_TXP	1.8V
116	PCIE20_0_RXN/SATA30_0_RXN	N34			PCIE20_0_RXN/SATA30_0_RXN	PCIE20_0_RXN/SATA30_0_RXN	1.8V
118	PCIE20_0_RXP/SATA30_0_RXP	N33			PCIE20_0_RXP/SATA30_0_RXP	PCIE20_0_RXP/SATA30_0_RXP	1.8V
120	GND		G		GND	GND	
122	GMAC0_MDC/I2C7_SDA_M1/UART9_RTSN_M0/PWM5_M2/SPI3_MISO_M0/GPIO4_C4_d	AB34	I/O	DOWN	GMAC0_MDC	GMAC0_MDC	1.8V
124	GMAC0_MDIO/I2C0_SCL_M1/UART9_CTSN_M0/PWM6_M2/SPI3_MOSI_M0/GPIO4_C5_d	AB33	I/O	DOWN	GMAC0_MDIO	GMAC0_MDIO,core board series resistance 0R	1.8V
126	GMAC0_TXD3/SDIO_CMD_M0/I2C3_SCL_M3/GPIO2_B2_u	AC34	I/O	UP	GMAC0_TXD3	GMAC0_TXD3,core board series resistance 0R	1.8V
128	GMAC0_TXD2/SDIO_D3_M0/FSPI_D3_M1/I2C8_SDA_M1/UART6_CTSN_M0/GPIO2_B1_u	AC33	I/O	UP	GMAC0_TXD2	GMAC0_TXD2,core board series resistance 0R	1.8V
130	GMAC0_TXD1/I2S2_SCLK_M0/I2C5_SDA_M4/UART1_TX_M0/GPIO2_B7_d	AD34	I/O	DOWN	GMAC0_TXD1	GMAC0_TXD1,core board series resistance 0R	1.8V
132	GMAC0_TXD0/I2S2_MCLK_M0/I2C5_SCL_M4/UART1_RX_M0/GPIO2_B6_d	AD33	I/O	DOWN	GMAC0_TXD0	GMAC0_TXD0,core board series resistance 0R	1.8V
134	GMAC0_TXEN/I2S2_LRCK_M0/I2C2_SDA_M1/UART1_RTSN_M0/SPI1_CLK_M0/GPIO2_C0_d	AE34	I/O	DOWN	GMAC0_TXEN	GMAC0_TXEN,core board series resistance 0R	1.8V
136	GMAC0_TXCLK/SDIO_CLK_M0/FSPI_CLK_M1/I2C3_SDA_M3/GPIO2_B3_d	AE33	I/O	DOWN	GMAC0_TXCLK	GMAC0_TXCLK,core board series resistance	1.8V
138	GMAC0_MCLKINOUT/I2S2_SDO_M0/I2C7_SCL_M1/PWM4_M1/SPI3_CS1_M0/GPIO4_C3_d	AF34	I/O	DOWN	GMAC0_MCLKINOUT	GMAC0_MCLK INPUT/OUTPUT,core board series resistance 0R	1.8V
140	GND		G		GND	GND	GND

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
142	MIPI_CSI0_D0N	AG34			MIPI_CSI0_RX_D0N	MIPI_CSI0_RX_D0N	1.8V
144	MIPI_CSI0_D0P	AG33			MIPI_CSI0_RX_D0P	MIPI_CSI0_RX_D0P	1.8V
146	MIPI_CSI0_D1N	AH34			MIPI_CSI0_RX_D1N	MIPI_CSI0_RX_D1N	1.8V
148	MIPI_CSI0_D1P	AH33			MIPI_CSI0_RX_D1P	MIPI_CSI0_RX_D1P	1.8V
150	MIPI_CSI0_CLK0N	AJ34			MIPI_CSI0_RX_CLK0N	MIPI_CSI0_RX_CLK0N	1.8V
152	MIPI_CSI0_CLK0P	AJ33			MIPI_CSI0_RX_CLK0P	MIPI_CSI0_RX_CLK0P	1.8V
154	MIPI_CSI0_D2N	AK34			MIPI_CSI0_RX_D2N	MIPI_CSI0_RX_D2N	1.8V
156	MIPI_CSI0_D2P	AK33			MIPI_CSI0_RX_D2P	MIPI_CSI0_RX_D2P	1.8V
158	MIPI_CSI0_D3N	AL34			MIPI_CSI0_RX_D3N	MIPI_CSI0_RX_D3N	1.8V
160	MIPI_CSI0_D3P	AL33			MIPI_CSI0_RX_D3P	MIPI_CSI0_RX_D3P	1.8V
162	MIPI_CSI0_CLK1N	AM34			MIPI_CSI0_RX_CLK1N	MIPI_CSI0_RX_CLK1N	1.8V
164	MIPI_CSI0_CLK1P	AM33			MIPI_CSI0_RX_CLK1P	MIPI_CSI0_RX_CLK1P	1.8V
166	MIPI_DPHY0_TX_D3N/MIPI_CPHY0_TX_TRIO2_C	AP28			MIPI_DPHY0_TX_D3N	MIPI_DPHY0_TX_D3N	1.8V
168	MIPI_DPHY0_TX_D3P/NO_USE	AN28			MIPI_DPHY0_TX_D3P	MIPI_DPHY0_TX_D3P	1.8V
170	MIPI_DPHY0_TX_D2N/MIPI_CPHY0_TX_TRIO2_A	AP27			MIPI_DPHY0_TX_D2N	MIPI_DPHY0_TX_D2N	1.8V
172	MIPI_DPHY0_TX_D2P/MIPI_CPHY0_TX_TRIO2_B	AN27			MIPI_DPHY0_TX_D2P	MIPI_DPHY0_TX_D2P	1.8V
174	MIPI_DPHY0_TX_CLKN/MIPI_CPHY0_TX_TRIO1_B	AP26			MIPI_DPHY0_TX_CLKN	MIPI_DPHY0_TX_CLKN	1.8V
176	MIPI_DPHY0_TX_CLKP/MIPI_CPHY0_TX_TRIO1_C	AN26			MIPI_DPHY0_TX_CLKP	MIPI_DPHY0_TX_CLKP	1.8V
178	MIPI_DPHY0_TX_D1N/MIPI_CPHY0_TX_TRIO0_C	AP25			MIPI_DPHY0_TX_D1N	MIPI_DPHY0_TX_D1N	1.8V
180	MIPI_DPHY0_TX_D1P/MIPI_CPHY0_TX_TRIO1_A	AN25			MIPI_DPHY0_TX_D1P	MIPI_DPHY0_TX_D1P	1.8V
182	MIPI_DPHY0_TX_D0N/MIPI_CPHY0_TX_TRIO0_A	AP24			MIPI_DPHY0_TX_D0N	MIPI_DPHY0_TX_D0N	1.8V
184	MIPI_DPHY0_TX_D0P/MIPI_CPHY0_TX_TRIO0_B	AN24			MIPI_DPHY0_TX_D0P	MIPI_DPHY0_TX_D0P	1.8V
186	GND		G		GND	GND	
188	MIPI_DPHY1_TX_D3N/MIPI_CPHY1_TX_TRIO2_C	AP22			MIPI_DPHY1_TX_D3N	MIPI_DPHY1_TX_D3N	1.8V
190	MIPI_DPHY1_TX_D3P/NO_USE	AN22			MIPI_DPHY1_TX_D3P	MIPI_DPHY1_TX_D3P	1.8V
192	MIPI_DPHY1_TX_D2N/MIPI_CPHY1_TX_TRIO2_A	AP21			MIPI_DPHY1_TX_D2N	MIPI_DPHY1_TX_D2N	1.8V
194	MIPI_DPHY1_TX_D2P/MIPI_CPHY1_TX_TRIO2_B	AN21			MIPI_DPHY1_TX_D2P	MIPI_DPHY1_TX_D2P	1.8V
196	MIPI_DPHY1_TX_CLKN/MIPI_CPHY1_TX_TRIO1_B	AP20			MIPI_DPHY1_TX_CLKN	MIPI_DPHY1_TX_CLKN	1.8V
198	MIPI_DPHY1_TX_CLKP/MIPI_CPHY1_TX_TRIO1_C	AN20			MIPI_DPHY1_TX_CLKP	MIPI_DPHY1_TX_CLKP	1.8V
200	MIPI_DPHY1_TX_D1N/MIPI_CPHY1_TX_TRIO0_C	AP19			MIPI_DPHY1_TX_D1N	MIPI_DPHY1_TX_D1N	1.8V
202	MIPI_DPHY1_TX_D1P/MIPI_CPHY1_TX_TRIO1_A	AN19			MIPI_DPHY1_TX_D1P	MIPI_DPHY1_TX_D1P	1.8V
204	MIPI_DPHY1_TX_D0N/MIPI_CPHY1_TX_TRIO0_A	AP18			MIPI_DPHY1_TX_D0N	MIPI_DPHY1_TX_D0N	1.8V
206	MIPI_DPHY1_TX_D0P/MIPI_CPHY1_TX_TRIO0_B	AN18			MIPI_DPHY1_TX_D0P	MIPI_DPHY1_TX_D0P	1.8V
208	GND		G		GND	GND	
210	TYPEC0_SSTX2N/DP0_TX3N	AN16			TYPEC0_SSTX2N	TYPEC0_SSTX2N	1.8V
212	TYPEC0_SSTX2P/DP0_TX3P	AP16			TYPEC0_SSTX2P	TYPEC0_SSTX2P	1.8V
214	TYPEC0_SSRX2P/DP0_TX2P	AN15			TYPEC0_SSRX2P	TYPEC0_SSRX2P	1.8V
216	TYPEC0_SSRX2N/DP0_TX2N	AP15			TYPEC0_SSRX2N	TYPEC0_SSRX2N	1.8V
218	TYPEC0_SSTX1N/DP0_TX1N	AN14			TYPEC0_SSTX1N	TYPEC0_SSTX1N	1.8V
220	TYPEC0_SSTX1P/DP0_TX1P	AP14			TYPEC0_SSTX1P	TYPEC0_SSTX1P	1.8V
222	TYPEC0_SSRX1P/DP0_TX0P	AN13			TYPEC0_SSRX1P	TYPEC0_SSRX1P	1.8V
224	TYPEC0_SSRX1N/DP0_TX0N	AP13			TYPEC0_SSRX1N	TYPEC0_SSRX1N	1.8V
226	GND		G		GND	GND	GND
228	TYPEC1_SSTX2N/DP1_TX3N	AN11			DP1_TX3N	DP1_TX3N	1.8V
230	TYPEC1_SSTX2P/DP1_TX3P	AP11			DP1_TX3P	DP1_TX3P	1.8V
232	TYPEC1_SSRX2P/DP1_TX2P	AN10			DP1_TX2P	DP1_TX2P	1.8V
234	TYPEC1_SSRX2N/DP1_TX2N	AP10			DP1_TX2N	DP1_TX2N	1.8V
236	TYPEC1_SSTX1N/DP1_TX1N	AN9			TYPEC1_SSTX1N	TYPEC1_SSTX1N	1.8V
238	TYPEC1_SSTX1P/DP1_TX1P	AP9			TYPEC1_SSTX1P	TYPEC1_SSTX1P	1.8V
240	TYPEC1_SSRX1P/DP1_TX0P	AN8			TYPEC1_SSRX1P	TYPEC1_SSRX1P	1.8V
242	TYPEC1_SSRX1N/DP1_TX0N	AP8			TYPEC1_SSRX1N	TYPEC1_SSRX1N	1.8V
244	GND		G		GND	GND	GND
246	HDMI_TX1_D2P/EDP_TX1_D2P	AN6			HDMI1_TX2P_PORT/EDP1_TX_D2P	HDMI1_TX2P_PORT/EDP1_TX_D2P	1.8V
248	HDMI_TX1_D2N/EDP_TX1_D2N	AP6			HDMI1_TX2N_PORT/EDP1_TX_D2N	HDMI1_TX2N_PORT/EDP1_TX_D2N	1.8V
250	HDMI_TX1_D1P/EDP_TX1_D1P	AM5			HDMI1_TX1P_PORT/EDP1_TX_D1P	HDMI1_TX1P_PORT/EDP1_TX_D1P	1.8V
252	HDMI_TX1_D1N/EDP_TX1_D1N	AN5			HDMI1_TX1N_PORT/EDP1_TX_D1N	HDMI1_TX1N_PORT/EDP1_TX_D1N	1.8V

PIN	Pin Definition	Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defual Function Description	IO Power Domain
254	HDMI_TX1_D0P/EDP_TX1_D0P	AN4			HDMI1_TX0P_PORT /EDP1_TX_D0P	HDMI1_TX0P_PORT/EDP1_TX_D0P	1.8V
256	HDMI_TX1_D0N/EDP_TX1_D0N	AP4			HDMI1_TX0N_PORT /EDP1_TX_D0N	HDMI1_TX0N_PORT/EDP1_TX_D0N	1.8V
258	HDMI_TX1_D3P/EDP_TX1_D3P	AM3			HDMI1_TX3P_PORT /EDP1_TX_D3P	HDMI1_TX3P_PORT/EDP1_TX_D3P	1.8V
260	HDMI_TX1_D3N/EDP_TX1_D3N	AN3			HDMI1_TX3N_PORT /EDP1_TX_D3N	HDMI1_TX3N_PORT/EDP1_TX_D3N	1.8V
262	HDMI_TX1_SBDP/EDP_TX1_AUXP	AN2			HDMI1_TX_SBDP/EDP1_TX_AUXP	HDMI1_TX_SBDP/EDP1_TX_AUXP	1.8V
264	HDMI_TX1_SBDN/EDP_TX1_AUXN	AP2			HDMI1_TX_SBDN/EDP1_TX_AUXN	HDMI1_TX_SBDN/EDP1_TX_AUXN	1.8V
266	GND		G		GND	GND	GND
268	HDMI_TX0_D2P/EDP_TX0_D2P	AL2			HDMI0_TX2P_PORT /EDP0_TX_D2P	HDMI0_TX2P_PORT/EDP0_TX_D2P	1.8V
270	HDMI_TX0_D2N/EDP_TX0_D2N	AL1			HDMI0_TX2N_PORT /EDP0_TX_D2N	HDMI0_TX2N_PORT/EDP0_TX_D2N	1.8V
272	HDMI_TX0_D1P/EDP_TX0_D1P	AK3			HDMI0_TX1P_PORT /EDP0_TX_D1P	HDMI0_TX1P_PORT/EDP0_TX_D1P	1.8V
274	HDMI_TX0_D1N/EDP_TX0_D1N	AK2			HDMI0_TX1N_PORT /EDP0_TX_D1N	HDMI0_TX1N_PORT/EDP0_TX_D1N	1.8V
276	HDMI_TX0_D0P/EDP_TX0_D0P	AJ2			HDMI0_TX0P_PORT /EDP0_TX_D0P	HDMI0_TX0P_PORT/EDP0_TX_D0P	1.8V
278	HDMI_TX0_D0N/EDP_TX0_D0N	AJ1			HDMI0_TX0N_PORT /EDP0_TX_D0N	HDMI0_TX0N_PORT/EDP0_TX_D0N	1.8V
280	HDMI_TX0_D3P/EDP_TX0_D3P	AH3			HDMI0_TX3P_PORT /EDP0_TX_D3P	HDMI0_TX3P_PORT/EDP0_TX_D3P	1.8V
282	HDMI_TX0_D3N/EDP_TX0_D3N	AH2			HDMI0_TX3N_PORT /EDP0_TX_D3N	HDMI0_TX3N_PORT/EDP0_TX_D3N	1.8V
284	HDMI_TX0_SBDP/EDP_TX0_AUXP	AG2			HDMI0_TX_SBDP/EDP0_TX_AUXP	HDMI0_TX_SBDP/EDP0_TX_AUXP	1.8V
286	HDMI_TX0_SBDN/EDP_TX0_AUXN	AG1			HDMI0_TX_SBDN/EDP0_TX_AUXN	HDMI0_TX_SBDN/EDP0_TX_AUXN	1.8V
288	GND		G		GND		GND
290	SDMMC_D2/PDM1_SDI1_M0/JTAG_TCK_M0/I2C8_SCL_M0/UART5_CTSN_M0/GPIO4_D2_u	AF2	I/O	UP	SDMMC_D2	SDMMC_D2 to TF Card,Core board Pull up resistance 10K	3.3V
292	SDMMC_D3/PDM1_SDI0_M0/JTAG_TMS_M0/I2C8_SDA_M0/UART5_RTSN_M0/PWM10_M1/GPIO4_D3_u	AF1	I/O	UP	SDMMC_D3	SDMMC_D3 to TF Card,Core board Pull up resistance 10K	3.3V
294	SDMMC_CMD/PDM1_CLK1_M0/MCU_JTAG_TCK_M0/CAN0_TX_M1/UART 5_RX_M0/PWM7_IR_M1/GPIO4_D4_u	AE2	I/O	UP	SDMMC_CMD	SDMMC_CMD to TF Card,Core board Pull up resistance 10K	3.3V
296	SDMMC_CLK/PDM1_CLK0_M0/TEST_CLKOUT_M0/MCU_JTAG_TMS_M0/ CAN0_RX_M1/UART5_TX_M0/GPIO4_D5_d	AE1	I/O	DOWN	SDMMC_CLK	SDMMC_CLK to TF Card,Core board Pull up resistance 10K	3.3V
298	SDMMC_D0/PDM1_SDI3_M0/JTAG_TCK_M1/I2C3_SCL_M4/UART2_TX_M1 /PWM8_M1/GPIO4_D0_u	AD2	I/O	UP	SDMMC0_D0/UART2_TX_M1	SDMMC0_D0 to TF Card,Core board Pull up resistance 10K	3.3V
300	SDMMC_D1/PDM1_SDI2_M0/JTAG_TMS_M1/I2C3_SDA_M4/UART2_RX_M 1/PWM9_M1/GPIO4_D1_u	AD1	I/O	UP	SDMMC0_D1/UART2_RX_M1	SDMMC0_D1 to TF Card,Core board Pull up resistance 10K	3.3V
302	GND		G		GND		GND
304	HDMI_TX0_HPD_M1/PCIE30X2_PERSTN_M2/HDMI_RX_HPDOUT_M1/MC U_JTAG_TCK_M1/UART9_RX_M2/SPI0_CS0_M3/GPIO3_D4_d	AA27	I/O	DOWN	HDMIIRX_HPDOUT_H	HDMIIRX_HPD OUTPUT, Active H	3.3V
306	PCIE30X4_BUTTON_RSTN/DP1_HPDIN_M0/MCU_JTAG_TMS_M1/UART9_TX_M2/PWM11_IR_M3/SPI0_CS1_M3/GPIO3_D5_d	AB28	I/O	DOWN	PWM11_M3	PWM11_M3 for Mipi	3.3V
308	GMAC0_PPSTRIG/FSPI_CS1N_M1/HDMI_TX1_SCL_M0/I2C4_SCL_M1/UA RT7_TX_M0/GPIO2_B5_u	AB30	I/O	UP	TP1_RESET	TP1_RESET , Active L	1.8V
310	CLK32K_OUT1/GPIO2_C5_d	AE30	I/O	DOWN	PCIE_PWREN_H	PCIE_Power EN, Active H	1.8V
312	GMAC0_PTP_REFCLK/FSPI_CS0N_M1/HDMI_TX1_SDA_M0/I2C4_SDA_M1 /UART7_RX_M0/GPIO2_B4_u	AB31	I/O	UP	LCD_RESET_L	MIPI RESET,Active L	1.8V
314	GMAC0_PPSCLK/TEST_CLKOUT_M1/HDMI_TX1_CEC_M0/UART9_RX_M0 /SPI1_CS1_M0/GPIO2_C4_d	AC30	I/O	DOWN	LCD0_BL_EN	MIPI BL ENABLE	1.8V

6. 注意事项 Precautions

6.1. 环境特性要求 Environmental Characteristics

6.11 环境温度 Temperature

Operating: 0°C to +40°C

Store: -20°C to +70°C

6.12 环境湿度 HumidityStore

Operating: 10% to 90% (non-condensing)

Store: 5% to 95% (non-condensing)

6.13 海拔高度 Altitude

Operating: 10,000 ft.(max)

Store: 20,000ft.(max)

6.14 高温负荷与存储 High Temperature & Storage

测试方法和测试条件参见 GB2423.2 “试验 Bd & Bb”之说明

Test method &condition please refer to the description of GB2423.2 “Test Bd & Bb”

6.15 低温负荷与存储 Low Temperature & Storage

测试方法和测试条件参见 GB2423.1 “试验 Ad & Ab”之说明

Test method &condition please refer to the description of GB2423.1 “Test Ad & Ab”

6.16 潮热试验 Humidity &Temperature Test

测试方法和测试条件参见 GB2423.3 “试验 Ca” 和 GB2423.22“试验 Nb”之说明

Test method &condition please refer to the description of GB2423.3 “Test Ca” & GB2423.22“Test Nb”

6.2 组装使用注意事项 Precautions for assembly and use

在组装使用过程中，请注意并检查以下（且不限于）问题点：

During assembly and use, please pay attention to and check the following (and not limited to) problem points:

1. 主板是否会与屏的外框、支架等外设短路；
Whether the motherboard will be short-circuited with peripherals such as the frame and bracket of the screen;
2. 在安装固定过程中，避免主板因固定原因而造成主板变形；
During the installation and fixing process, avoid the motherboard deformation caused by the fixing reasons;
3. 安装 LVDS 屏时，注意屏电压，跳帽在正确的电压是上，注意屏座子第 1 脚方向。
When installing the LVDS screen, pay attention to the screen voltage, the jumper cap is on the correct voltage, and pay attention to the direction of the first pin of the screen seat;
4. 安装 LVDS 屏时，注意屏背光电压、电流是否符合，注意屏背光的功率在 20W 以上的话，考虑是否使用其他电源板供电；
When installing an LVDS screen, pay attention to whether the voltage and current of the backlight of the screen are in compliance. If the power of the backlight of the screen is above 20W, consider whether to use other power boards for power supply;
5. 外设（USB, IO, ETC）安装时，注意外设 IO 属性和电流输出问题；
When installing peripherals (USB, IO, ETC), pay attention to peripheral IO levels and current output issues;
6. 串口安装时，注意是否直连了 RS232, TTL 设备，TX、RX 接法是否正确，属性是否正确。
When installing the serial port, pay attention to whether the RS232 and TTL devices are directly connected, whether the TX and RX connection methods are correct, and whether the level is correct;
7. 输入电源是否接在电源输入接口上，根据总外设评估输入电源电压、电流等是否满足要求。
Whether the input power is connected to the power input interface, and whether the input power voltage, current, etc. meet the requirements according to the total peripherals.

7. 关于我们 About us

公司简介 Company Profile

深圳市昱昱科技有限公司，作为嵌入式终端产品的方案提供商，一直致力于智能主板研发:提供从电子电路硬件设计，嵌入式软件定制，Android、Linux 主板系统定制到整套解决方案。

Shenzhen Sunshine Technology Co., Ltd., as a solution provider of embedded terminal products, has been committed to the research and development of intelligent motherboards: providing a complete set of solutions from electronic circuit hardware design, embedded software customization, Android, Linux motherboard system customization.

昱昱坚持以自主研发和行业应用为基础，基于强大的自主研发创新和对行业需求的深刻理解，在 ARM 工控主板、人脸识别门禁考勤、刷脸支付、智慧商显、电子班牌等信息建设领域为用户提供最全面、周到的应用解决方案。无论是商用、工业等应用领域，均已形成严谨的、系统的产品服务体系。

Sunshine-Tek insists on independent research and development and industrial applications as the basis, based on strong independent research and development innovation and a deep understanding of industry needs, in ARM industrial control motherboard, face recognition access control attendance, face payment, smart business display, electronic class card and other information The construction field provides users with the most comprehensive and thoughtful application solutions. Whether it is commercial, industrial and other application fields, a rigorous and systematic product service system has been formed.

昱昱以人为本，以客户为中心，开放、务实的管理理念贯穿在日常经营管理工作中，造就了和谐互助的团队氛围，给每一位员工提供良好的发展环境。通过我们的共同努力，实现公司、员工、客户三者的共赢。

Sunshine-Tek is people-oriented, customer-centric, and the open and pragmatic management concept runs through its daily operation and management, creating a harmonious and mutually helpful team atmosphere and providing a good development environment for every employee. Through our joint efforts, we will achieve a win-win situation for the company, employees and customers.

昱昱以服务和质量作为开拓国内市场的基础，以快揭的服务和稳定的质量求生存，秉承“为您创造更多价值”为服务宗旨。始终不渝地以更专业的技术和更个性化的服务全力支持合作伙伴，合作共赢是我们生存的唯一理由。

Sunshine-Tek takes service and quality as the basis for developing the domestic market, strives for survival with quick service and stable quality, and adheres to the service tenet of "creating more value for you". Unswervingly support our partners with more professional technology and more personalized services, and win-win cooperation is the only reason for our survival.

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