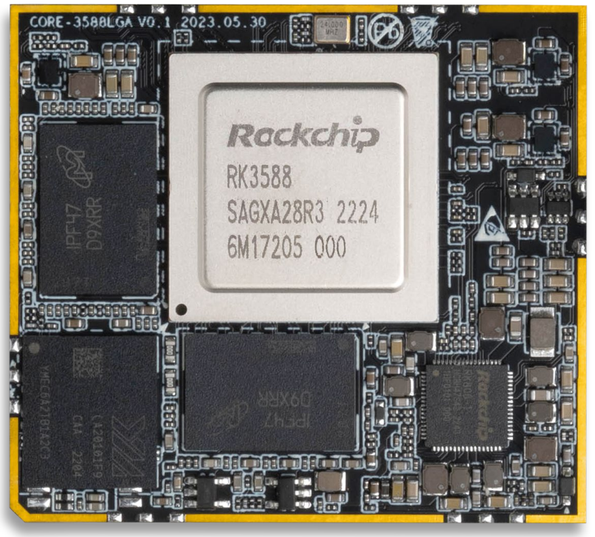
8K AI Core Board

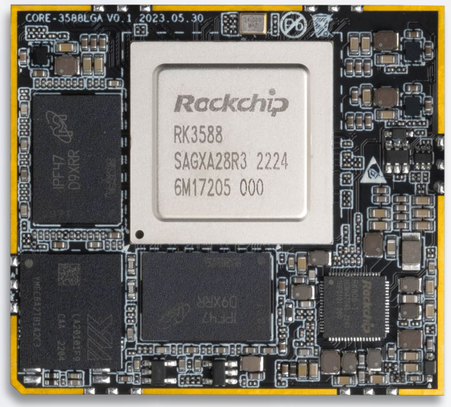
- Core-3588L(Commercial)
- Core-3588JL(Industrial)
- Core-3588ML(Automotive)



V0.1 2024-4-1

T-CHIP INTELLIGENCE TECHNOLOGY

Product features



RK3588 new-gen AIoT SoC

RK3588 is Rockchip's new-gen flagship AIoT SoC with an 8nm lithography process. It features an octa-core 64-bit CPU and frequency of up to 2.4GHz. Integrated with an ARM Mali-G610 MP4 quad-core GPU and a built-in AI accelerator NPU, it provides 6Tops computing power and supports mainstream deep learning frameworks. The powerful RK3588 delivers more optimized performance in various AI application scenarios.

6 TOPS powerful computing power

Equipped with a powerful NPU delivering 6TOPS of computing power, it supports INT4/INT8/INT16 mixed operation and framework switching of TensorFlow / MXNet / PyTorch / Caffe. Its exceptional compatibility is able to meet the edge computing needs of terminal devices.

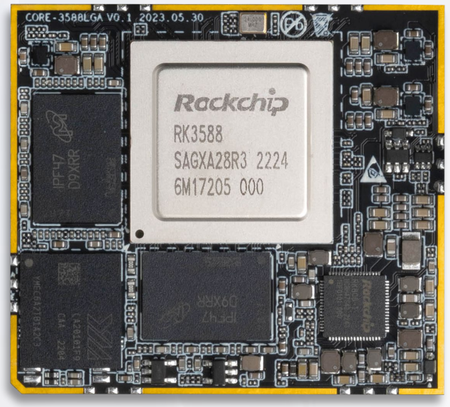
Real 8K experience

This core board supports 8K@60fps H.265/VP9 video decoding, delivering a real 8K high-definition display and delicate picture quality. It offers full compatibility with OpenGL ES 1.1, 2.0, 3.2, OpenCL 2.2, and Vulkan 1.2. The 2D hardware engine significantly enhances display performance, providing smoother operations. This ensures it meets the diverse viewing requirements of users.

A variety of product specifications are supported

It provides three different specifications of commercial grade, industrial grade and automotive grade to meet the needs of industrial-grade applications. The automotive-grade core board supports ADAS/DMS/BSD/APA multi-camera assisted driving, supports 4-, 6-, and 8-channel camera wide-angle seamless splicing, and can realize “one screen and one system” display, accelerating the cross-domain integration of smart cars.

Product features



Support 7-channel camera connections

Equipped with HDMI 2.1/eDP1.3, MIPI-DSI, DP1.4, and BT.1120, this core board supports multiple video output options and multi-channel 8K video output. It can provide seven-screen output with different displays (2 HDMI + 2 MIPI DSI + 2 DP (one DP can be converted to VGA) + 1 BT.1120). This versatile configuration meets the demands of multi-display scenarios. It also supports multi-channel video input interfaces (HDMI RX2.0, MIPI-CSI, and DVP) and up to 7-channel camera interfaces (4 MIPI CSI DPHY + 2 MIPI D/CPHY + 1 * DVP).

Extensive connectivity

A wide range of interface options includes PCIe3.0, PCIe2.0, SATA3.0, I2S, I2C, PWM, CAN, UART, SPDIF, SDIO3.0, MIPI-CSI, MIPI-DSI, USB3.0, USB2.0, Type-C, SPI, ADC, GPIO, and more.

506 Pin LGA package for enhanced stability

The core board uses a LGA package with a total of 506 pins that provide connectivity to the chip's interfaces. With enhanced transmission and stability, it can be applied to various intelligent products, accelerating their development.

A wide range of applications

The core board can be widely used in ARM PCs, edge computing, artificial intelligence, cloud computing, VR/AR, blockchain, intelligent NVR, and more.

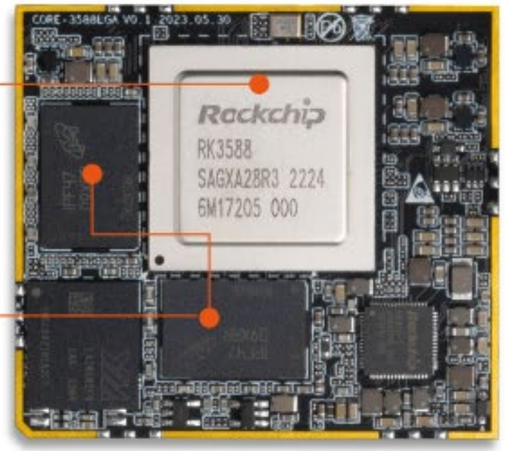
Specifications

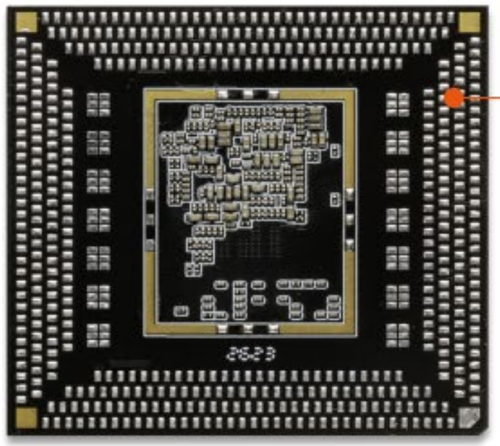
		Core-3588L(Commercial)	Core-3588JL(Industrial)	Core-3588ML(Automotive)
Basic Specifications	CPU	RK3588 Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.4GHz	RK3588J Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 1.6GHz	RK3588M Octa-core 64-bit (4×Cortex-A76+4×Cortex-A55), 8nm lithography process, frequency up to 2.2GHz
	GPU	ARM Mali-G610 MP4 quad-core GPU Support OpenGL ES3.2 / OpenCL 2.2 / Vulkan1.1, 450 GFLOPS		
	NPU	Up to 6TOPs (INT8) Support INT4/INT8/INT16 mixed operation and framework switching of TensorFlow / MXNet / PyTorch / Caffe		
	ISP	48MP ISP Capable of meeting image post-processing needs Support multiple camera inputs		
	VPU	Hard decoding: 8K@60fps H.265/VP9/AVS2, 8K@30fps H.264 AVC/MVC, 4K@60fps AV1, 1080P@60fps MPEG-2/-1/VC-1/VP8 Hard encoding: 8K@30fps H.265 / H.264		
	RAM	LPDDR4/LPDDR4x (4GB/8GB/16GB optional, up to 32GB optional)	LPDDR4/LPDDR4x(industrial) (4GB/8GB/16GB optional, up to 32GB optional)	LPDDR4/LPDDR4x（industrial） (4GB/8GB/16GB optional, up to 32GB optional)
	Storage	eMMC(32GB/64GB/128GB/256GB optional)		
	Power	Voltage: 4V (voltage tolerance: ±5%)		
	OS	Android and Linux OS		
	Interface Type	LGA package, a total pin of 506, 12-layer PCB board design		
	Size	45 mm * 50 mm		
	Weight	≈20 g		
	Environment	Operating temperature: -20℃ ~ 60℃ Operating humidity: 10% ~ 90%RH(non-condensing)	Operating temperature: -40℃ ~ 85℃ Operating humidity: 10% ~ 90%RH(non-condensing)	Operating temperature: -40℃ ~ 85℃ Operating humidity: 10% ~ 90%RH(non-condensing)
Interface Specifications	Network	Integrated GMAC/SDIO3.0/USB3.0 interfaces, with the capability to expand to Gigabit Ethernet, WiFi 6/Bluetooth, and 5G/4G LTE		
	Video Input	4 * MIPI CSI DPHY (DPHY V1.2 (2lanes, 2.5Gbps /lane); 2 sets of 2-lane DPHY can be combined into 1 set of 4-lane DPHY. 2 * MIPI D/CPHY (MIPI DPHY V1.2 (4lanes, 2.5Gbps/lane); MIPI CPHY V1.1 (3lanes, 2.5Gsps/lane)) 1 * HDMI RX (Support HDMI 2.0 (3.4Gbps~6Gbps), HDMI 1.4b (250Mbps~3.4Gbps), HDCP2.3 and HDCP1.4) 1 * DVP (8/10/12/16-bit standard DVP interface, with a maximum 150MHz data input.Support BT.601/BT.656 and BT.1120 VI interface)		
	Video Output	2 * HDMI2.1 TX/eDP1.3 TX (HDMI2.1, up to 1-channel 8K@60Hz with HDCP2.3 support;eDP1.3, 4K@60Hz with HDCP1.3 support HDMI and eDP cannot be used simultaneously) 2 * DP1.4a (Support DP TX 1.4a, shared with USB3.1 Gen1, with compatibility for 1, 2, 4 lanes; up to 7680 * 4320@30Hz; HDCP2.3, HDCP 1.3) 2 * MIPI DSI (Support 2 MIPI DPHY 2.0 or CPHY 1.1, up to 4K@60Hz; Support dual MIPI displays (left-right) and RGB/YUV formats (up to 10 bits)) 1 * BT.1120 Output (Support RGB format (up to 8 bit), with a data rate of up to 150MHz and resolution up to 1920 * 1080@60Hz) Seven-display(Up to seven-screen output with different displays (2 * HDMI + 2 * MIPI DSI + 2 * DP (one DP can be converted to VGA) + 1 * BT.1120))		
	Audio	2 * I2S (8 lane), support TX and RX, audio resolution ranging from 16 to 32 bit and a sampling rate of up to 192KHz 2 * I2S (2 lane), support TX and RX, audio resolution ranging from 16 to 32 bit and a sampling rate of up to 192KHz 2 * SPDIF,support 2×16 bit audio data storage and dual-phase stereo output 2 * PDM (8 lane), up to 8 channels, audio resolution of 16 to 24 bit, a sampling rate of up to 192KHz,support PDM master receive mode, and multiple MIC arrays		
	SATA	3 * SATA3.0 is shared with PCIe 2.1		
	PCIe	3 * PCIe2.1(1Lanes),shared with SATA3,Support RC (Root Complex), with a maximum data rate of 5Gbps 1 * PCIe3.0 (2×2,1×4,4×1) 4 options: 1*4Lane / 2*2Lane / 4*1Lane / (1*2Lane + 2*1Lane); Each channel supports 8Gbps data rate;Support RC and EP		
	USB	2 * USB3.1 OTG (multiplexed with DP (USB3OTG_0 and USB3OTG_1), 1 * USB3.1 HOST (multiplexed with PIPE-PHY2 (USB3OTG_2)) 2 * USB2.0 HOST, 2 * USB2.0 OTG		
	SDIO	1 * SDIO3.0, support SDIO3.0 (4-bit data bus widths)		
	I2C	9 * I2, support 7-bit and 10-bit addressing modes, achieving data transfer rates of up to 100k bits/s in standard mode and up to 400k bits/s in fast mode		
	SPI	5 * SPI, each controller supports 2 chip select outputs;Offer both serial master and serial slave modes, with software configuration		
	UART	10 * UART, Built-in 2-channel 64-bit FIFO, used respectively for TX and RX Support 5-bit, 6-bit, 7-bit, and 8-bit serial data transmission, with a baud rate of up to 4Mbps All 10 UART channels support automatic flow control mode		
	CAN	3 * CAN 2.0B, support CAN standard frames and extended frames for transmission and reception		
	PWM	16 * PWM, support up to 16 on-chip PWM channels, with capture mode		
	ADC	8 * ADC, 12-bit single-ended input SAR-ADC, with a sampling rate of up to 1MS/s		
	GPIO	GPIOs, all GPIOs can be used to generate interrupts		

Core Board Interface description

RK3588
8-Core 64bit CPU
up to 2.4GHz

LPDDR4
up to 32GB



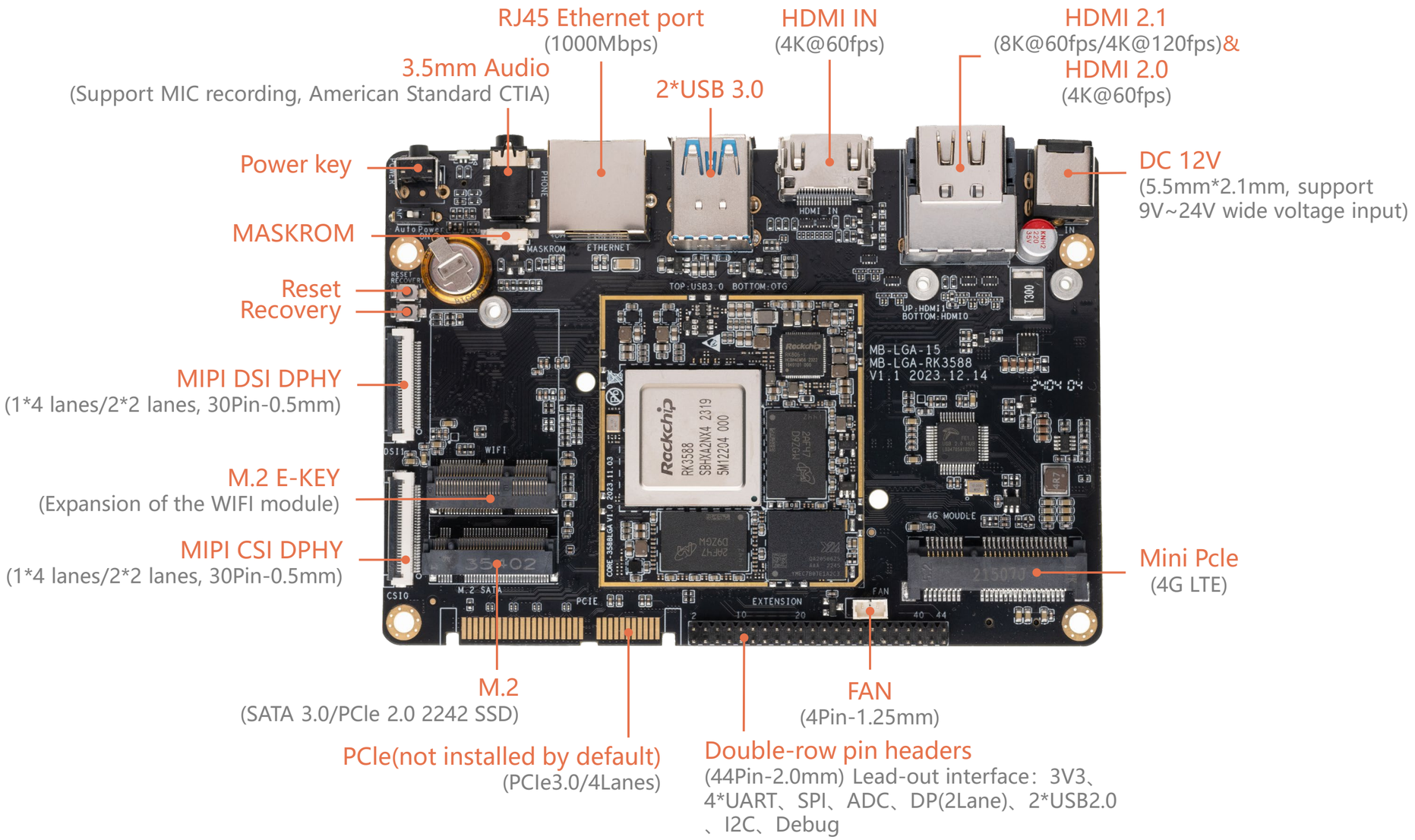


LGA package
506 Pin

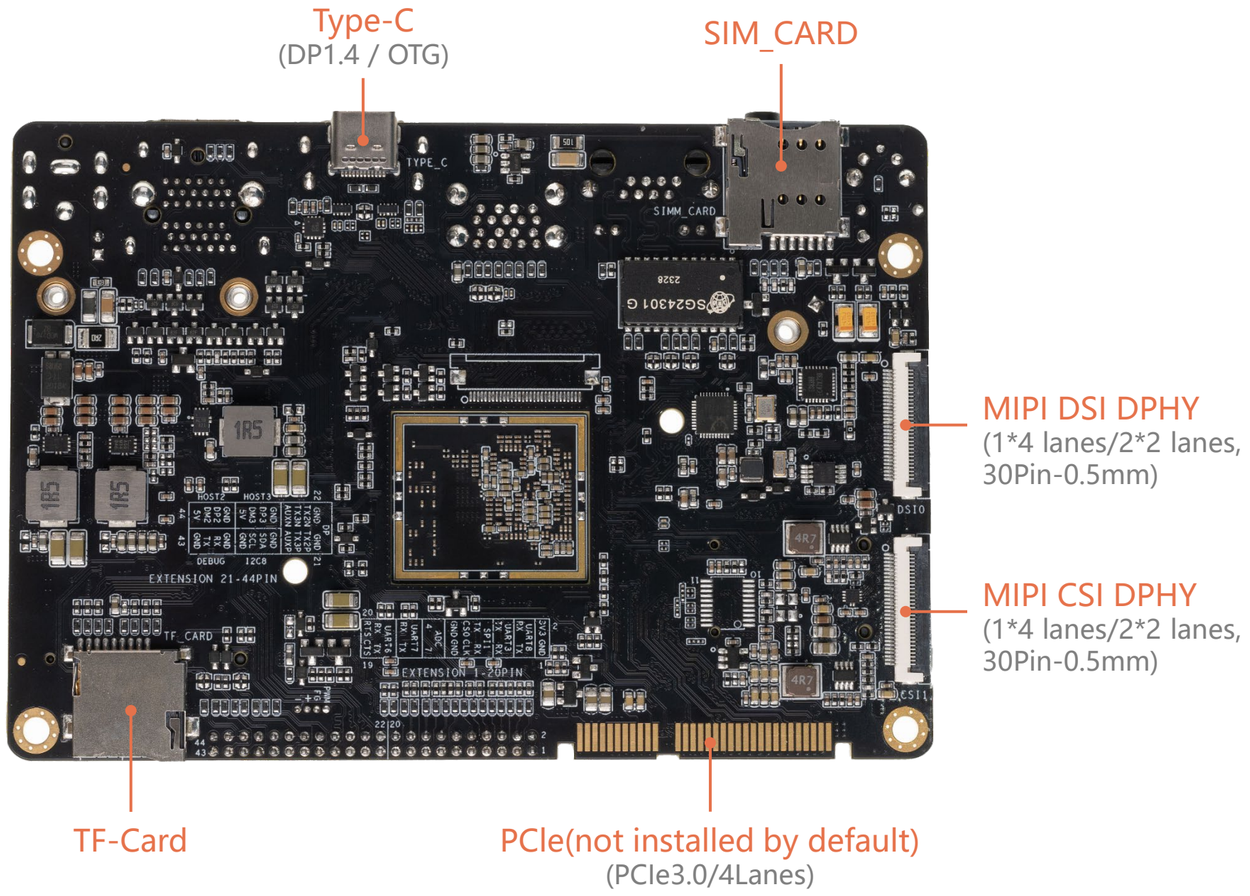
Main Interface

Network	Video input	Video output	Audio	PCIe/SATA/USB	Others
2 * GMAC(RGMII/RMII) WIFI 6/5 (PCIe/SDIO) 5G/4G (PCIe/USB3.0)	4 * MIPI CSI DPHY 2 * MIPI D/CPHY 1 * HDMI RX 1 * DVP	2 * HDMI2.1 TX/eDP 2 * DP1.4a 2 * MIPI DSI 1 * BT.1120	2 * I2S (8-channel) 2 * I2S (2-channel) 2 * PDM (8-channel) 2 * SPDIF	3 * SATA3.0 3 * PCIe2.1(1Lanes) 1 * PCIe3.0(2x2/1x4/4x1) 3 * USB3.1(2*OTG+1*Host) 2 * USB2.0 Host 2 * USB2.0 OTG	1 * SDIO3.0 9 * I2C 5 * SPI 3 * CAN 2.0B 10 * UART 16 * PWM

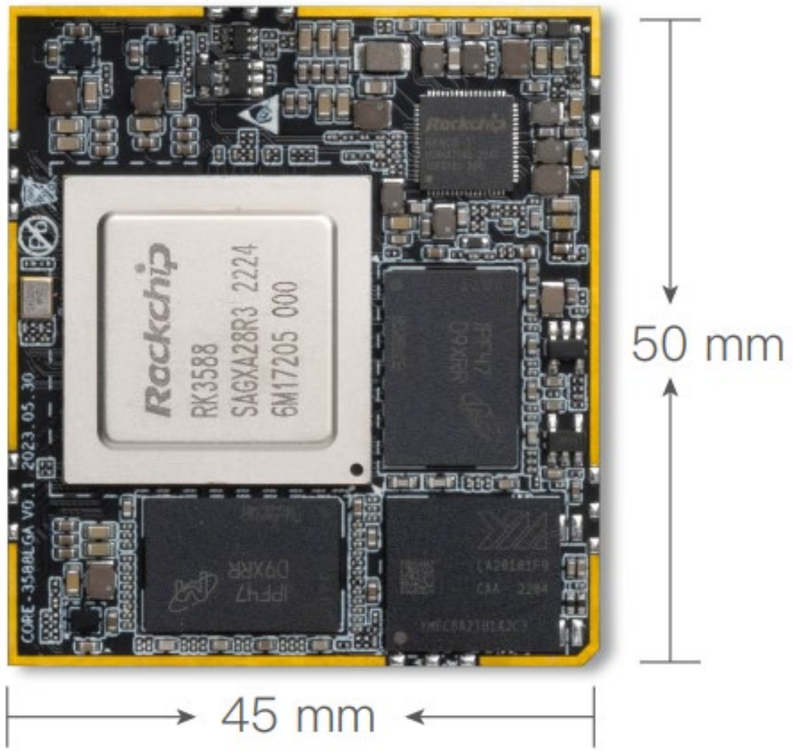
Mainboard Interface description



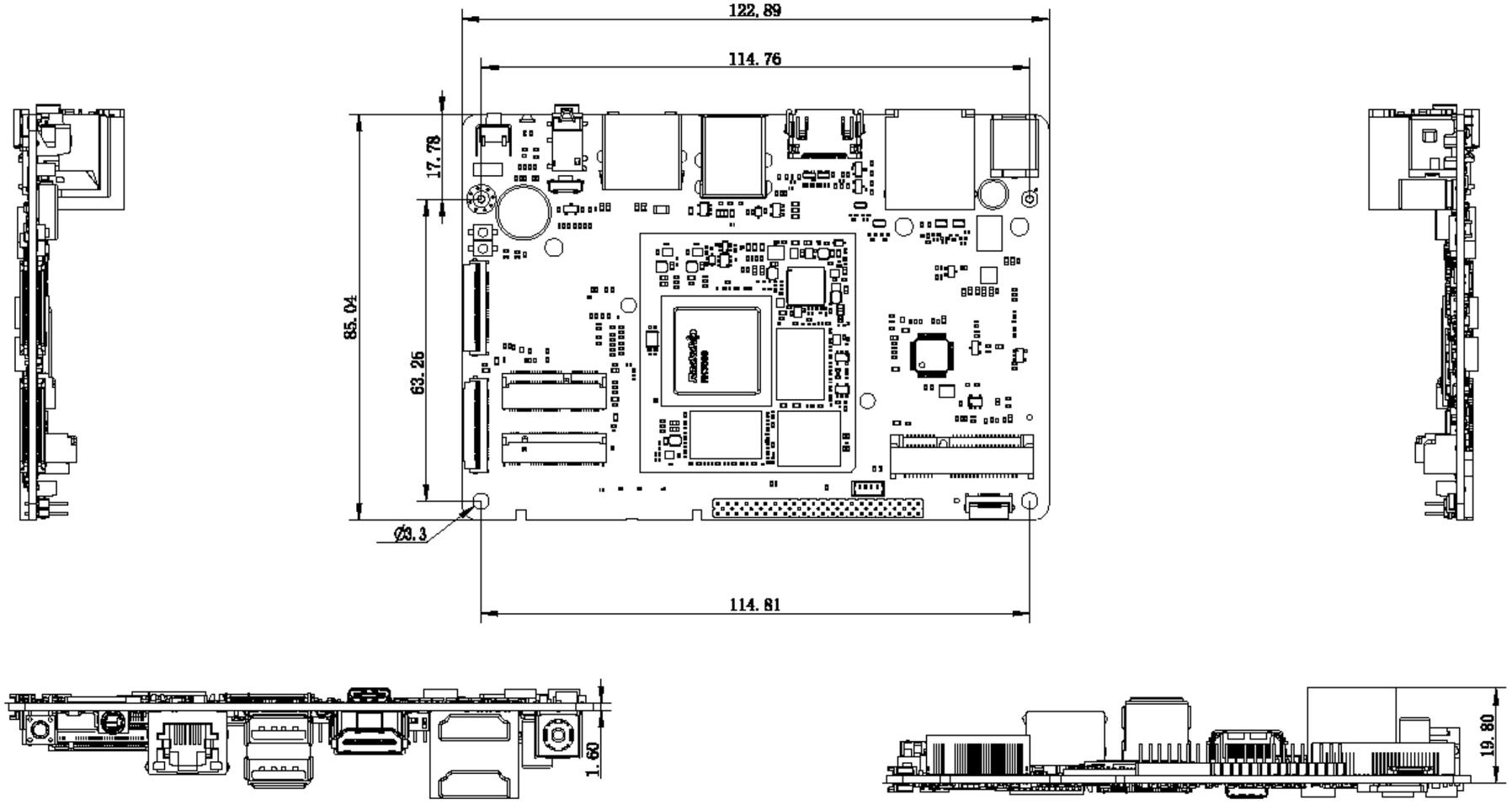
Mainboard Interface description



Core Board Dimension



Mainboard Dimension



Interface definition

① : 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"

PIN	CORE-3588LGA pin definition	RK3588 Pin NO.	Pad type	IO Pull	Function for Main BOARD	Defualt function description	IO Power domain
BD15	RESET_L	M31	I	UP	RESET_L	System reset input, Active L	1.8V
BD8	REFCLK_OUT/GPIO0_A0_d	P33	I/O	DOWN	HUB20_PWR_EN	USB HUB Power_EN, Active H	1.8V
DC30	SDMMC_DET/GPIO0_A4_u	P31	I/O	UP	SDMMC_DET_L	SDMMC0_DET Input, Active L	1.8V
BD5	SPI2_CS1_M2/I2C1_SCL_M1/UART0_RX_M1/GPIO0_B0_z	L30	I/O	Tri-State	RTC_INT_L	RTC_INT_Input ,Active L	1.8V
BD6	CLK32K_IN/CLK32K_OUT0/GPIO0_B2__u	K29	I/O	UP	WIFI_PWR_EN	WIFI Power_ENT Active H	1.8V
AB10	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	3.3V
AC8	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	3.3V
AB11	I2S1_LRCK_M1/PWM0_M0/I2C2_SCL_M0/CAN0_TX_M0/SPI0_CS1_M0/PCIE30X1_1_PERSTN_M0/GPIO0_B7_d	T28	I/O	DOWN	GMAC0_INT/PMEB	GMAC0_INT/PMEB Input ,Active L	3.3V
AA12	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	BT_WAKE_HOST	BT_WAKE_HOST	3.3V
AA11	PMIC_SLEEP4/GPIO0_C2_d	T31	I/O	DOWN	SYS4V0_MODE_L	MP8759_MODE: H--PWM;L--PFM	3.3V
AA10	PDM0_CLK1_M1/PWM2_M0/UART0_RX_M0/I2C4_SDA_M2/DP0_HPDIN_M1/PCIE30X1_0_WAKEN_M0/GPIO0_C4_d	R30	I/O	DOWN	WIFI_REG_ON	WIFI_EN, Active H	3.3V
AC12	I2S1_SDI0_M1/GPU_AVS/UART0_TX_M0/I2C4_SCL_M2/DP1_HPDIN_M1/PWM4_M0/PCIE30X1_0_PERSTN_M0/GPIO0_C5_u	P30	I/O	UP	HOST_WAKE_BT_H	HOST WAKE BT, Active H	3.3V
AC9	I2S1_SDI1_M1/NPU_AVS/UART0_RTSN/PWM5_M1/SPI0_CLK_M0/PCIE30X4_CLKREQN_M0/SATA_CP_POD/GPIO0_C6_u	T29	I/O	UP	BT_REG_ON	BT_EN ,Active H	3.3V
AA13	I2S1_SDI2_M1/PDM0_SDI0_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	3.3V
AB12	I2S1_SDI3_M1/PDM0_SDI1_M1/I2C6_SCL_M0/UART1_CTSN_M2/PWM7_IR_M0/SPI3_MISO_M2/PCIE30X4_PERSTN_M0/GPIO0_D0_d	W31	I/O	DOWN	I2C6_SCL_M0	I2C6_SCL_M0	3.3V

AA16	LITCPU_AVS/SPI3_CLK_M2/GPIO0_D3_u	U33	I/O	UP	CC_INT_L	TYPEC CC_INT, Active L	3.3V
AC26	I2C3_SDA_M0/UART3_RX_M0/SPI4_MISO_M0/GPIO1_C0_z	G29	I/O	Tri-State	I2C3_SDA_M0_MIPI	I2C3_SDA_M0_MIPI	VCCIO1_1V8
AC25	I2C3_SCL_M0/UART3_TX_M0/SPI4_MOSI_M0/GPIO1_C1_z	G27	I/O	Tri-State	I2C3_SCL_M0_MIPI	I2C3_SCL_M0_MIPI	VCCIO1_1V8
AA30	I2S0_MCLK/I2C6_SDA_M1/UART3_RTSN/PWM3_IR_M2/SPI4_CLK_M0/GPIO1_C2_d	F30	I/O	DOWN	I2S0_MCLK	I2S0_MCLK Output	VCCIO1_1V8
AB29	I2S0_SCLK/I2C6_SCL_M1/UART3_CTSN/PWM7_IR_M2/SPI4_CS0_M0/GPIO1_C3_d	E31	I/O	DOWN	I2S0_SCLK_TX	I2S0_SCLK Output	VCCIO1_1V8
AA28	PDM0_CLK1_M0/I2C2_SDA_M3/PWM11_IR_M2/SPI4_CS1_M0/GPIO1_C4_d	E30	I/O	DOWN	HP_DET_L	HP_DET_Input, Active L	VCCIO1_1V8
AB30	I2S0_LRCK/I2C2_SCL_M3/UART4_RTSN/GPIO1_C5_d	D30	I/O	DOWN	I2S0_LRCK_TX	I2S0_LR CLK_Output	VCCIO1_1V8
AA27	PDM0_CLK0_M0/I2C4_SDA_M4/PWM15_IR_M2/GPIO1_C6_d	D29	I/O	DOWN	PWM15_M2	PWM15_M2 Output	VCCIO1_1V8
AA31	I2S0_SDO0/I2C4_SCL_M4/UART4_CTSN/GPIO1_C7_d	E29	I/O	DOWN	I2S0_SDO0	I2S0_SDO0 Output	VCCIO1_1V8
AC27	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_SCL_M0	SPI1_MISO_M2/UART6_TX_M2/I2C7_SCL_M0	VCCIO1_1V8
AB28	I2S0_SDO2/I2S0_SDI3/PDM0_SDI1_M0/I2C7_SDA_M0/UART6_RX_M2/SPI1_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	VCCIO1_1V8
AB26	I2S0_SDO3/I2S0_SDI2/PDM0_SDI2_M0/I2C1_SCL_M4/UART4_TX_M0/PWM0_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	VCCIO1_1V8
AC24	I2S0_SDI1/PDM0_SDI3_M0/I2C1_SDA_M4/UART4_RX_M0/PWM1_M1/SPI1_CS0_M2/GPIO1_D3_d	E28		DOWN	SPI1_CS0_M2/UART4_RX_M0/I2C1_SDA_M4	SPI1_CS0_M2/UART4_RX_M0/I2C1_SDA_M4	VCCIO1_1V8
AA32	I2S0_SDI0/GPIO1_D4_d	D28	I/O	DOWN	I2S0_SDI0	I2S0_SDI0 Input	VCCIO1_1V8
AC23	PDM0_SDI0_M0/SPI1_CS1_M2/GPIO1_D5_d	G26	I/O	DOWN	HDMIIRX_DET_L	HDMIIRX DET Input,Active L	VCCIO1_1V8
AB5	VCCIO1_1V8		P		VCC_1V8_S0	VCCIO1_1.8V Input (Max:300mA)	1.8V/3.3V
BC19	GMAC0_RXD2/SDIO_D0_M0/FSPI_D0_M1/UART6_RX_M0/GPIO2_A6_u	AC32	I/O	UP	GMAC0_RXD2	GMAC0_RXD2	VCCIO3_1V8
BA21	GMAC0_RXD3/SDIO_D1_M0/FSPI_D1_M1/UART6_TX_M0/GPIO2_A7_u	AC31	I/O	UP	GMAC0_RXD3	GMAC0_RXD3	VCCIO3_1V8
BB20	GMAC0_RXCLK/SDIO_D2_M0/FSPI_D2_M1/I2C8_SCL_M1/UART6_RTSN_M0/GPIO2_B0_u	AE32	I/O	UP	GMAC0_RXCLK	GMAC0_RXCLK	VCCIO3_1V8
BA20	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	VCCIO3_1V8

BB19	GMAC0_TXD3/SDIO_CMD_M0/I2C3_SCL_M3/GPIO2_B2_u	AC34	I/O	UP	GMAC0_TXD3	GMAC0_TXD3	VCCIO3_1V8
BC18	GMAC0_TXCLK/SDIO_CLK_M0/FSPI_CLK_M1/I2C3_SDA_M3/GPIO2_B3_d	AE33	I/O	DOWN	GMAC0_TXCLK	GMAC0_TXCLK	VCCIO3_1V8
BD17	GMAC0_PTP_REFCLK/FSPI_CS0N_M1/HDMI_TX1_SDA_M0/I2C4_SDA_M1/UART7_RX_M0/GPIO2_B4_u	AB31	I/O	UP	MIPI_PDN0	MIPI_PDN0	VCCIO3_1V8
BD18	GMAC0_PPSTRIG/FSPI_CS1N_M1/HDMI_TX1_SCL_M0/I2C4_SCL_M1/UART7_TX_M0/GPIO2_B5_u	AB30	I/O	UP	MIPI_RESET0	MIPI_Reset0, Active L	VCCIO3_1V8
BC23	GMAC0_TXD0/I2S2_MCLK_M0/I2C5_SCL_M4/UART1_RX_M0/GPIO2_B6_d	AD33	I/O	DOWN	GMAC0_TXD0	GMAC0_TXD0	VCCIO3_1V8
BB22	GMAC0_TXD1/I2S2_SCLK_M0/I2C5_SDA_M4/UART1_TX_M0/GPIO2_B7_d	AD34	I/O	DOWN	GMAC0_TXD1	GMAC0_TXD1	VCCIO3_1V8
BB21	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	VCCIO3_1V8
BA24	GMAC0_RXD0/I2C2_SCL_M1/UART1_CTSN_M0/SPI1_MISO_M0/GPIO2_C1_d	AD32	I/O	DOWN	GMAC0_RXD0	GMAC0_RXD0	VCCIO3_1V8
BA23	GMAC0_RXD1/I2C6_SDA_M2/UART9_TX_M0/SPI1_MOSI_M0/GPIO2_C2_d	AD31	I/O	DOWN	GMAC0_RXD1	GMAC0_RXD1	VCCIO3_1V8
BA22	ETH0_REFCLKO_25M/I2S2_SDI_M0/I2C6_SCL_M2/SPI1_CS0_M0/GPIO2_C3_d	AD30	I/O	DOWN	DIY_LED	DIY_LED Output, Active H	VCCIO3_1V8
BC21	GMAC0_PPSCLK/TEST_CLKOUT_M1/HDMI_TX1_CEC_M0/UART9_RX_M0/SPI1_CS1_M0/GPIO2_C4_d	AC30	I/O	DOWN	MIPI_PDN1	MIPI_PDN1	VCCIO3_1V8
BD21	CLK32K_OUT1/GPIO2_C5_d	AE30	I/O	DOWN	MIPI_RESET1	MIPI_Reset1 Output Active L	VCCIO3_1V8
BB24	GMAC0_RXDV_CRS/UART7_RTSN_M0/PWM2_M2/SPI3_CS0_M0/GPIO4_C2_d	AE31	I/O	DOWN	GMAC0_RXDV_CRS	GMAC0_RXDV_CRS	VCCIO3_1V8
BD19	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,	VCCIO3_1V8
BC22	GMAC0_MDC/I2C7_SDA_M1/UART9_RTSN_M0/PWM5_M2/SPI3_MISO_M0/GPIO4_C4_d	AB34	I/O	DOWN	GMAC0_MDC	GMAC0_MDC	VCCIO3_1V8
BB23	GMAC0_MDIO/I2C0_SCL_M1/UART9_CTSN_M0/PWM6_M2/SPI3_MOSI_M0/GPIO4_C5_d	AB33	I/O	DOWN	GMAC0_MDIO	GMAC0_MDIO	VCCIO3_1V8
BD20	GMAC0_TXER/I2C0_SDA_M1/UART7_CTSN_M0/PWM7_IR_M3/SPI3_CLK_M0/GPIO4_C6_d	AF33	I/O	DOWN	SATA_PWREN_H	SATA Power_EN, Active H	VCCIO3_1V8
BD25	VCCIO3_1V8		P		VCC_1V8_S3	VCCIO3_1.8V Input (Max:300mA)	1.8V/3.3V
CD12	BOOT_SARADC_IN0	AM16	I		BOOT_SARADC_IN0	BOOT_ADC0 Input core board pull up resistance 100K BOOT MODE: FSPI_M2-FSPI_M1-FSPI_M0	1.8V

						-EMMC-SD Card-USB	
CD11	SARADC_IN1/Recovery	AL16	I		SARADC_VIN1_KEY/RECOVERY	ADC1/RECOVERY_KEY Input core board pull up resistance 10K	1.8V
CD13	SARADC_IN2	AK16	I		SARADC_IN2	ADC2 Input	1.8V
CC12	SARADC_IN3	AN17	I		SARADC_VIN3_HP_HOOK	ADC3_HP_HOOK Input	1.8V
CC11	SARADC_IN4	AM17	I		SARADC_IN4	ADC4 Input	1.8V
CC14	SARADC_IN5	AK15	I		NC	NC	1.8V
CD10	SARADC_IN6	AL17	I		SARADC_IN6	ADC6 Input	1.8V
CD9	SARADC_IN7	AK17	I		SARADC_IN7	ADC7 Input	1.8V
DD4	VDC_EXT		I		VDC_EXT	RK806-1 VDC Input, (DC IN Auto Power ON),Active H	3~5V
DD3	VCCA_RK806		I		LDO_5V	PMIC system Power Input, (PMIC ON:5mA; PMIC Off:8uA)	4V/5V
DB1	PMIC_EXT_EN_OUT		O		PMIC_EXT_EN_OUT	PMIC_EXT_EN_OUTPUT, Active H	**VCCA_RK806**
DC29	PWRON_L		I		PWRON_L	RK806-1 POWER_KEY Input, Active L	**VCCA_RK806**
DC5	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	VCCIO6
DC7	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	VCCIO6
DB23	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	SDMMC_PWREN	SD Power_EN, Active H	VCCIO6
AC18	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	HDMI0_TX_ON_H	HDMI0_TX_ON_H H: HDMI 2.0 ; L: HDMI 2.1	VCCIO6
DC4	CIF_HREF/BT1120_D8/I2S1_SDO1_M0/PCIE30X1_1_BUTTON_RSTN/I2C7_SCL_M3/UART8_R	AK25	I/O	UP	TYPEC0_SBU1_DC/GPIO4_A6_d	TYPEC0_SBU1_DC	VCCIO6

	TSN_M0/PWM14_M1/SPI0_CS0_M1/CAN1_RX_M1/GPIO4_B2_u						
BC17	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	TYPEC0_SBU2_DC/GPIO4_A7_d	TYPEC0_SBU2_DC	VCCIO6
DB22	CIF_CLKOUT/BT1120_D10/I2S1_SDO3_M0/PCIE30X4_CLKREQN_M1/DP0_HPDIN_M0/SPDIF0_TX_M1/UART9_TX_M1/PWM11_IR_M1/GPIO4_B4_u	AL26	I/O	UP	PCIE30X4_CLKREQn_M1_L	PCIE30X4_CLKREQN_Input,Active L	VCCIO6
DB24	BT1120_D11/PCIE30X4_WAKEN_M1/HDMI_RX_CEC_M0/SATA1_ACT_LED_M0/UART9_RX_M1/PWM12_M1/SPI3_MISO_M1/GPIO4_B5_d	AJ26	I/O	DOWN	PCIE30X4_WAKEN_M1_L	PCIE30X4_WAKEN_M1_L	VCCIO6
DC25	BT1120_D12/PCIE30X4_PERSTN_M1/HDMI_RX_HPDOUT_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_Output, Active L	VCCIO6
DC6	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	VCCIO6
AA26	CIF_D0/BT1120_D0/I2S1_MCLK_M0/PCIE30X1_1_CLKREQN_M1/UART9_RTSN_M1/SPI0_MISO_M1/GPIO4_A0_d	AK30	I/O	DOWN	PCIE30X1_1_CLKREQn_M1_L	PCIE30X1_1_CLKREQn_M1_L	VCCIO6
AC19	CIF_D1/BT1120_D1/I2S1_SCLK_M0/PCIE30X1_1_WAKEN_M1/UART9_CTSN_M1/SPI0_MOSI_M1/GPIO4_A1_d	AL30	I/O	DOWN	PCIE30X1_1_WAKEn_M1_L	PCIE30X1_1_WAKEn_M1_L	VCCIO6
AA20	CIF_D2/BT1120_D2/I2S1_LRCK_M0/PCIE30X1_1_PERSTN_M1/SPI0_CLK_M1/GPIO4_A2_d	AM29	I/O	DOWN	PCIE30X1_1_PERSTn_M1_L	PCIE30X1_1_PERSTn_M1_L	VCCIO6
DA24	CIF_D3/BT1120_D3/PCIE30X1_0_CLKREQN_M1/UART0_TX_M2/GPIO4_A3_d	AL29	I/O	DOWN	TYPEC5V_PWREN_H	TYPEC 5V Output Active H	VCCIO6
DA25	CIF_D4/BT1120_D4/PCIE30X1_0_WAKEN_M1/I2C3_SCL_M2/UART0_RX_M2/SPI2_MISO_M1/GPIO4_A4_d	AL28	I/O	DOWN	PCIEx1_0_WAKEn_M1_L	PCIEx1_0_WAKEn_M1_L	VCCIO6
AC17	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	PCIEx1_0_PERSTn_M1_L	PCIEx1_0_PERSTn_M1_L	VCCIO6
DB25	CIF_D6/BT1120_D6/I2S1_SDI1_M0/PCIE30X2_CLKREQN_M1/I2C5_SCL_M2/UART3_RX_M2/SPI2_CLK_M1/GPIO4_A6_d	AL27	I/O	DOWN	PCIEx1_0_CLKREQn_M1_L	PCIEx1_0_CLKREQn_M1_L	VCCIO6
DA26	CIF_D7/BT1120_D7/I2S1_SDI2_M0/PCIE30X2_WAKEN_M1/I2C5_SDA_M2/SPI2_CS0_M1/GPIO4_A7_d	AM27	I/O	DOWN	PHONE_CTL	PHONE_CTL, Active H	VCCIO6
BD26	VCCIO6		P		VCC_3V3_S0	GPIO power 1.8V/3.3V Input (Max:300mA)	1.8V/3.3V
BD27	VCCIO6_1V8		P		VCC_1V8_S0	VCCIO6_1.8V Input (Max:300mA)	1.8V
AA19	PCIE30X1_1_CLKREQN_M2/DP0_HPDIN_M2/I2C2_SDA_M4/UART6_RX_M1/SPI4_MISO_M2/GPIO1_A0_d	A24	I/O	DOWN	UART6_RX_M1_BT	UART6_RX_M1 for BT	VCCIO4

AB19	PCIE30X1_1_WAKEN_M2/DP1_HPDIN_M2/SATA1_ACT_LED_M1/I2C2_SCL_M4/UART6_TX_M1/SPI4_MOSI_M2/GPIO1_A1_d	A25	I/O	DOWN	UART6_TX_M1_BT	UART6_TX_M1 for BT	VCCIO4
AB18	VOP_POST_EMPTY/I2C4_SDA_M3/UART6_RTSN_M1/PWM0_M2/SPI4_CLK_M2/GPIO1_A2_d	A26	I/O	DOWN	UART6_RTSn_M1_BT	UART6_RTSn_M1_BT	VCCIO4
AC15	HDMI_TX1_SDA_M2/I2C4_SCL_M3/UART6_CTSN_M1/PWM1_M2/SPI4_CS0_M2/GPIO1_A3_d	A27	I/O	DOWN	UART6_CTSN_M1_BT	UART6_CTSN_M1 for BT	VCCIO4
AA15	HDMI_TX1_SCL_M2/SPI2_MISO_M0/GPIO1_A4_d	B25	I/O	DOWN	LCD1_BL_EN	LCD1_BL_EN, Active H	VCCIO4
AB22	HDMI_TX0_HPD_M0/SPI2_MOSI_M0/GPIO1_A5_d	B26	I/O	DOWN	HDMITX0_HPDIN_M0	HDMITX0_HPD Input, Active H	VCCIO4
AB21	HDMI_TX1_HPD_M0/SPI2_CLK_M0/GPIO1_A6_d	C24	I/O	DOWN	HDMITX1_HPDIN_M0	HDMI_TX1_HPD Input, Active H	VCCIO4
AC20	PDM1_SDI0_M1/PCIE30X1_1_PERSTN_M2/PWM3_IR_M3/SPI2_CS0_M0/GPIO1_A7_u	C25	I/O	UP	SATA_DEVSLP	SATA_DEVSLP	VCCIO4
AB24	PDM1_SDI1_M1/PCIE30X4_CLKREQN_M3/SPI2_CS1_M0/GPIO1_B0_u	C27	I/O	UP	PCIE30X4_PRSNT_L	PCIE30X4_PRSNT_L	VCCIO4
AB20	PDM1_SDI2_M1/PCIE30X4_WAKEN_M3/SPI0_MISO_M2/GPIO1_B1_d	D25	I/O	DOWN	LCD0_BL_EN	LCD0_BL_EN, Active H	VCCIO4
AC21	PDM1_SDI3_M1/PCIE30X4_PERSTN_M3/UART4_RX_M2/SPI0_MOSI_M2/GPIO1_B2_d	D26	I/O	DOWN	EDP_BL_EN	EDP_Power_EN, Active H	VCCIO4
AA22	PDM1_CLK1_M1/PCIE30X1_0_WAKEN_M2/SATA0_ACT_LED_M1/UART4_TX_M2/SPI0_CLK_M2/GPIO1_B3_d	D27	I/O	DOWN	PCIE_PWREN_H	PCIE_Power_EN, Active H	VCCIO4
AB15	PDM1_CLK0_M1/PCIE30X1_0_PERSTN_M2/UART7_RX_M2/SPI0_CS0_M2/GPIO1_B4_u	E24	I/O	UP	EDP_TP_RST	EDP_TP_Reset, Active L	VCCIO4
AA21	PCIE30X1_0_CLKREQN_M2/UART7_TX_M2/SPI0_CS1_M2/GPIO1_B5_u	E25	I/O	UP	EDP_TP_INT	EDP_TP_INT Input Active L	VCCIO4
AA23	MIPI_CAMERA1_CLK_M0/SPDIF0_TX_M0/PCIE30X2_WAKEN_M3/HDMI_RX_HPDOUT_M2/I2C5_SCL_M3/UART1_TX_M1/GPIO1_B6_u	E26	I/O	UP	MIPI_CAM0_CLKOUT	MIPI_CAM0_CLK OUTPUT	VCCIO4
AA25	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	MIPI_CAM1_CLKOUT	MIPI_CAM1_CLK OUTPUT	VCCIO4
AC14	MIPI_CAMERA3_CLK_M0/HDMI_RX_SCL_M2/I2C8_SCL_M2/UART1_RTSN_M1/PWM14_M2/GPIO1_D6_u	F24	I/O	UP	EDP_BL_PWM14_M2	EDP_BL_PWM14_M2 OUTPUT	VCCIO4
AA24	MIPI_CAMERA4_CLK_M0/PCIE30X2_CLKREQN_M3/HDMI_RX_SDA_M2/I2C8_SDA_M2/UART1_CTSN_M1/PWM15_IR_M3/GPIO1_D7_u	F25	I/O	UP	EDP_EN	EDP_EN, Active H	VCCIO4
AA18	VCCIO4		P		VCC_3V3_S0	GPIO power 1.8V/3.3V Input (Max:300mA)	1.8V/3.3V
AB13	VCCIO4_1V8		P		VCC_1V8_S0	VCCIO4_1.8V Input (Max:300mA)	1.8V

DB17	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	LCD1_PWR_EN	LCD1_Power_EN, Active H	VCCIO5
DC13	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	TP1_INT	TP1_INT Input, Active L	VCCIO5
DB20	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	UART8_TX_M1	UART8_TX_M1	VCCIO5
DA20	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	UART8_RX_M1	UART8_RX_M1	VCCIO5
DA17	GMAC1_TXCLK/SDIO_CMD_M1/I2S3_SDI/AUDDSM_RP/UART8_RTSN_M1/SPI4_CS1_M1/GPIO3_A4_d	AD28	I/O	DOWN	LCD1_RESET	LCD1_RESET Output, Active L	VCCIO5
DA18	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	TP1_RESET	TP1_RESET Output, Active L	VCCIO5
DC20	ETH1_REFCLKO_25M/MIPI_CAMERA1_CLK_M1/I2C4_SCL_M0/GPIO3_A6_d	AH27	I/O	DOWN	USB30_VCC5V0_EN	USB3.0 5V Output Active H	3.3V
DC18	GMAC1_RXD0/MIPI_CAMERA2_CLK_M1/PWM8_M0/GPIO3_A7_u	AG29	I/O	UP	PWM8_M0	PWM8_M0 Output	VCCIO5
DB19	GMAC1_RXD1/MIPI_CAMERA3_CLK_M1/PWM9_M0/GPIO3_B0_u	AG28	I/O	UP	PWM9_M0	PWM9_M0 Output	VCCIO5
DC19	GMAC1_RXDV_CRS/MIPI_CAMERA4_CLK_M1/UART2_TX_M2/PWM2_M1/GPIO3_B1_d	AH29	I/O	DOWN	TP0_INT	TP0_INT Input, Active L	VCCIO5
BD22	GMAC1_TXER/I2S2_SDI_M1/UART2_RX_M2/PWM3_IR_M1/GPIO3_B2_d	AE28	I/O	DOWN	WORK_LED	WORK_LED,Active H	VCCIO5
DB18	GMAC1_TXD0/I2S2_SDO_M1/UART2_RTSN/GPIO3_B3_u	AC28	I/O	UP	LCD_RESET	MIPI_DSI0_RESET Output, Active L	VCCIO5
DC15	GMAC1_TXD1/I2S2_MCLK_M1/UART2_CTSN/GPIO3_B4_u	AC29	I/O	UP	TP0_RESET	TP0_RESET Output, Active L	VCCIO5
DA16	GMAC1_TXEN/I2S2_SCLK_M1/CAN1_RX_M0/UART3_TX_M1/PWM12_M0/GPIO3_B5_u	AD29	I/O	UP	UART3_TX_M1/CAN1_RX_M0	CAN1_RX_M0	VCCIO5
DC17	GMAC1_MCLKINOUT/I2S2_LRCK_M1/CAN1_TX_M0/UART3_RX_M1/PWM13_M0/GPIO3_B6_d	AE29	I/O	DOWN	UART3_RX_M1/CAN1_TX_M0	CAN1_TX_M0	VCCIO5
DC14	GMAC1_PTP_REF_CLK/HDMI_TX1_HPD_M1/I2C3_SCL_M1/SPI1_MOSI_M1/GPIO3_B7_d	AA28	I/O	DOWN	LCD0_PWR_EN	LCD0_Power_EN Output, Active H	VCCIO5
DC22	GMAC1_PPSTRIG/I2C3_SDA_M1/UART7_TX_M1/SPI1_MISO_M1/GPIO3_C0_d	Y29	I/O	DOWN	UART7_TX_M1	UART7_TX_M1	VCCIO5
DA23	GMAC1_PPSCLK/PCIE30X2_BUTTON_RSTN/UART7_RX_M1/SPI1_CLK_M1/GPIO3_C1_d	Y27	I/O	DOWN	UART7_RX_M1	UART7_RX_M1	VCCIO5
DB16	GMAC1_MDC/MIPI_TE0/I2C8_SCL_M4/UART7_RTSN_M1/PWM14_M0/SPI1_CS0_M1/GPIO3_C2_d	Y31	I/O	DOWN	I2C8_SCL_M4	I2C8_SCL_M4	VCCIO5

DC11	GMAC1_MDIO/MIPI_TE1/I2C8_SDA_M4/UART7_CTSN_M1/PWM15_IR_M0/SPI1_CS1_M1/GPIO3_C3_d	Y30	I/O	DOWN	I2C8_SDA_M4	I2C8_SDA_M4	VCCIO5
DC1	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	VCCIO5
DC3	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	VCCIO5
DC2	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	VCCIO5
BD16	CIF_D11/PCIE20X1_2_CLKREQN_M0/HDMI_TX0_SCL_M2/I2C5_SCL_M0/SPI3_MOSI_M3/GPIO3_C7_u	AJ24	I/O	UP	GMAC0_RSTN_L	GMAC0_Reset Output, Active L	VCCIO5
DC24	CIF_D12/PCIE20X1_2_WAKEN_M0/HDMI_TX0_SDA_M2/I2C5_SDA_M0/UART4_RX_M1/PWM8_M2/SPI3_CLK_M3/GPIO3_D0_u	AH24	I/O	UP	HDMI1_TX_ON_H	HDMI1_TX_ON_H H: HDMI 2.0 ; L: HDMI 2.1	VCCIO5
DD7	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	VCCIO5
DD6	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	VCCIO5
DD5	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	VCCIO5
DC23	HDMI_TX0_HPD_M1/PCIE30X2_PERSTN_M2/HDMI_RX_HPDOUT_M1/MCU_JTAG_TCK_M1/UART9_RX_M2/SPI0_CS0_M3/GPIO3_D4_d	AA27	I/O	DOWN	HDMIIRX_HPDOUT_H	HDMIIRX_HPD OUTPUT, Active H	VCCIO5
DA22	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	EDP_HPDIN_M1	EDP_HPD_IN_M1, , Active H	VCCIO5
BD23	VCCIO5		P		VCC_3V3_S0	GPIO power 1.8V/3.3V Input (Max:300mA)	1.8V/3.3V
BD24	VCCIO5_1V8		P		VCC_1V8_S0	VCCIO5_1.8V Input (Max:300mA)	1.8V
DC28	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/UART2_TX_M1	VCCIO_SD_S0 1.8V/3.3V Auto
DA30	SDMMC_D1/PDM1_SDI2_M0/JTAG_TMS_M1/I2C3_SDA_M4/UART2_RX_M1/PWM9_M1/GPIO4_D1_u	AD1	I/O	UP	SDMMC0_D1/UART2_RX_M1	SDMMC0_D1/UART2_RX_M1	VCCIO_SD_S0 1.8V/3.3V Auto
DA28	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	VCCIO_SD_S0 1.8V/3.3V Auto

DB28	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	VCCIO_SD_S0 1.8V/3.3V Auto
DC27	SDMMC_CMD/PDM1_CLK1_M0/MCU_JTAG_TCK_M0/CAN0_TX_M1/UART5_RX_M0/PWM7_IR_M1/GPIO4_D4_u	AE2	I/O	UP	SDMMC_CMD	SDMMC_CMD	VCCIO_SD_S0 1.8V/3.3V Auto
DA29	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	VCCIO_SD_S0 1.8V/3.3V Auto
DA9	HDMI_TX0_SBDP/EDP_TX0_AUXP	AG2			HDMI0_TX_SBDP/EDP0_TX_AUXP	HDMI0_TX_SBDP/EDP0_TX_AUXP	
DB9	HDMI_TX0_SBDN/EDP_TX0_AUXN	AG1			HDMI0_TX_SBDN/EDP0_TX_AUXN	HDMI0_TX_SBDN/EDP0_TX_AUXN	
DA6	HDMI_TX0_D0P/EDP_TX0_D0P	AJ2	O		HDMI0_TX0P_PORT/EDP0_TX_D0P	HDMI0_TX0P_PORT/EDP0_TX_D0P	
DB6	HDMI_TX0_D0N/EDP_TX0_D0N	AJ1	O		HDMI0_TX0N_PORT/EDP0_TX_D0N	HDMI0_TX0N_PORT/EDP0_TX_D0N	
DB4	HDMI_TX0_D1P/EDP_TX0_D1P	AK3	O		HDMI0_TX1P_PORT/EDP0_TX_D1P	HDMI0_TX1P_PORT/EDP0_TX_D1P	
DA5	HDMI_TX0_D1N/EDP_TX0_D1N	AK2	O		HDMI0_TX1N_PORT/EDP0_TX_D1N	HDMI0_TX1N_PORT/EDP0_TX_D1N	
DA3	HDMI_TX0_D2P/EDP_TX0_D2P	AL2	O		HDMI0_TX2P_PORT/EDP0_TX_D2P	HDMI0_TX2P_PORT/EDP0_TX_D2P	
DB3	HDMI_TX0_D2N/EDP_TX0_D2N	AL1	O		HDMI0_TX2N_PORT/EDP0_TX_D2N	HDMI0_TX2N_PORT/EDP0_TX_D2N	
DB7	HDMI_TX0_D3P/EDP_TX0_D3P	AH3	O		HDMI0_TX3P_PORT/EDP0_TX_D3P	HDMI0_TX3P_PORT/EDP0_TX_D3P	
DA8	HDMI_TX0_D3N/EDP_TX0_D3N	AH2	O		HDMI0_TX3N_PORT/EDP0_TX_D3N	HDMI0_TX3N_PORT/EDP0_TX_D3N	
DA1	HDMI_TX1_SBDP/EDP_TX1_AUXP	AN2			HDMI1_TX_SBDP/EDP1_TX_AUXP	HDMI1_TX_SBDP/EDP1_TX_AUXP	
DA2	HDMI_TX1_SBDN/EDP_TX1_AUXN	AP2			HDMI1_TX_SBDN/EDP1_TX_AUXN	HDMI1_TX_SBDN/EDP1_TX_AUXN	
CA30	HDMI_TX1_D0P/EDP_TX1_D0P	AN4	O		HDMI1_TX0P_PORT/EDP1_TX_D0P	HDMI1_TX0P_PORT/EDP1_TX_D0P	

CB30	HDMI_TX1_D0N/EDP_TX1_D0N	AP4	O		HDMI1_TX0N_PORT/EDP1_TX_D0N	HDMI1_TX0N_PORT/EDP1_TX_D0N	
CB28	HDMI_TX1_D1P/EDP_TX1_D1P	AM5	O		HDMI1_TX1P_PORT/EDP1_TX_D1P	HDMI1_TX1P_PORT/EDP1_TX_D1P	
CA29	HDMI_TX1_D1N/EDP_TX1_D1N	AN5	O		HDMI1_TX1N_PORT/EDP1_TX_D1N	HDMI1_TX1N_PORT/EDP1_TX_D1N	
CA27	HDMI_TX1_D2P/EDP_TX1_D2P	AN6	O		HDMI1_TX2P_PORT/EDP1_TX_D2P	HDMI1_TX2P_PORT/EDP1_TX_D2P	
CB27	HDMI_TX1_D2N/EDP_TX1_D2N	AP6	O		HDMI1_TX2N_PORT/EDP1_TX_D2N	HDMI1_TX2N_PORT/EDP1_TX_D2N	
CB31	HDMI_TX1_D3P/EDP_TX1_D3P	AM3	O		HDMI1_TX3P_PORT/EDP1_TX_D3P	HDMI1_TX3P_PORT/EDP1_TX_D3P	
CA32	HDMI_TX1_D3N/EDP_TX1_D3N	AN3	O		HDMI1_TX3N_PORT/EDP1_TX_D3N	HDMI1_TX3N_PORT/EDP1_TX_D3N	
DA15	HDMI_RX_CLKP	AF6	I		HDMI_RX_CLKP	HDMI_RX_CLKP Input	
DB15	HDMI_RX_CLKN	AF5	I		HDMI_RX_CLKN	HDMI_RX_CLKN Input	
DA14	HDMI_RX_D0P	AG5	I		HDMI_RX_D0P	HDMI_RX_D0P Input	
DB14	HDMI_RX_D0N	AG4	I		HDMI_RX_D0N	HDMI_RX_D0N Input	
DA12	HDMI_RX_D1P	AH6	I		HDMI_RX_D1P	HDMI_RX_D1P Input	
DB12	HDMI_RX_D1N	AH5	I		HDMI_RX_D1N	HDMI_RX_D1N Input	
DA11	HDMI_RX_D2P	AJ5	I		HDMI_RX_D2P	HDMI_RX_D2P Input	
DB11	HDMI_RX_D2N	AJ4	I		HDMI_RX_D2N	HDMI_RX_D2N Input	
CB8	MIPI_DPHY0_TX_CLKP/MIPI_CPHY0_TX_TRIO1_C	AN26	O		MIPI_DPHY0_TX_CLKP	MIPI_DPHY0_TX_CLKP	
CA9	MIPI_DPHY0_TX_CLKN/MIPI_CPHY0_TX_TRIO1_B	AP26	O		MIPI_DPHY0_TX_CLKN	MIPI_DPHY0_TX_CLKN	
CB10	MIPI_DPHY0_TX_D0P/MIPI_CPHY0_TX_TRIO0_B	AN24	O		MIPI_DPHY0_TX_D0P	MIPI_DPHY0_TX_D0P	
CA11	MIPI_DPHY0_TX_D0N/MIPI_CPHY0_TX_TRIO0_A	AP24	O		MIPI_DPHY0_TX_D0N	NC	

CB9	MIPI_DPHY0_TX_D1P/MIPI_CPHY0_TX_TRIO1_A	AN25	O		MIPI_DPHY0_TX_D1P	MIPI_DPHY0_TX_D1P	
CA10	MIPI_DPHY0_TX_D1N/MIPI_CPHY0_TX_TRIO0_C	AP25	O		MIPI_DPHY0_TX_D1N	MIPI_DPHY0_TX_D1N	
CB7	MIPI_DPHY0_TX_D2P/MIPI_CPHY0_TX_TRIO2_B	AN27	O		MIPI_DPHY0_TX_D2P	MIPI_DPHY0_TX_D2P	
CA8	MIPI_DPHY0_TX_D2N/MIPI_CPHY0_TX_TRIO2_A	AP27	O		MIPI_DPHY0_TX_D2N	MIPI_DPHY0_TX_D2N	
CB6	MIPI_DPHY0_TX_D3P/NO_USE	AN28	O		MIPI_DPHY0_TX_D3P	MIPI_DPHY0_TX_D3P	
CA7	MIPI_DPHY0_TX_D3N/MIPI_CPHY0_TX_TRIO2_C	AP28	O		MIPI_DPHY0_TX_D3N	MIPI_DPHY0_TX_D3N	
CA3	MIPI_DPHY0_RX_CLKP/MIPI_CPHY0_RX_TRIO1_C	AN32	I		MIPI_DPHY0_RX_CLKP	MIPI_DPHY0_RX_CLKP	
CB3	MIPI_DPHY0_RX_CLKN/MIPI_CPHY0_RX_TRIO1_B	AP31	I		MIPI_DPHY0_RX_CLKN	MIPI_DPHY0_RX_CLKN	
CA5	MIPI_DPHY0_RX_D0P/MIPI_CPHY0_RX_TRIO0_B	AN29	I		MIPI_DPHY0_RX_D0P	MIPI_DPHY0_RX_D0P	
CB5	MIPI_DPHY0_RX_D0N/MIPI_CPHY0_RX_TRIO0_A	AP29	I		MIPI_DPHY0_RX_D0N	MIPI_DPHY0_RX_D0N	
CA4	MIPI_DPHY0_RX_D1P/MIPI_CPHY0_RX_TRIO1_A	AN30	I		MIPI_DPHY0_RX_D1P	MIPI_DPHY0_RX_D1P	
CB4	MIPI_DPHY0_RX_D1N/MIPI_CPHY0_RX_TRIO0_C	AP30	I		MIPI_DPHY0_RX_D1N	MIPI_DPHY0_RX_D1N	
CA2	MIPI_DPHY0_RX_D2P/MIPI_CPHY0_RX_TRIO2_B	AN33	I		MIPI_DPHY0_RX_D2P	MIPI_DPHY0_RX_D2P	
CB2	MIPI_DPHY0_RX_D2N/MIPI_CPHY0_RX_Trio2_A	AP32	I		MIPI_DPHY0_RX_D2N	MIPI_DPHY0_RX_D2N	
CA1	MIPI_DPHY0_RX_D3P/NO_USE	AN34	I		MIPI_DPHY0_RX_D3P	MIPI_DPHY0_RX_D3P	
CB1	MIPI_DPHY0_RX_D3N/MIPI_CPHY0_RX_TRIO2_C	AP33	I		MIPI_DPHY0_RX_D3N	MIPI_DPHY0_RX_D3N	
BB27	MIPI_CSI0_CLK0P	AJ33	I		MIPI_CSI0_RX_CLK0P	MIPI_CSI0_RX_CLK0P	
BA27	MIPI_CSI0_CLK0N	AJ34	I		MIPI_CSI0_RX_CLK0N	MIPI_CSI0_RX_CLK0N	
BB25	MIPI_CSI0_D0P	AG33	I		MIPI_CSI0_RX_D0P	MIPI_CSI0_RX_D0P	
BA25	MIPI_CSI0_D0N	AG34	I		MIPI_CSI0_RX_D0N	MIPI_CSI0_RX_D0N	
BB26	MIPI_CSI0_D1P	AH33	I		MIPI_CSI0_RX_D1P	MIPI_CSI0_RX_D1P	
BA26	MIPI_CSI0_D1N	AH34	I		MIPI_CSI0_RX_D1N	MIPI_CSI0_RX_D1N	

BB30	MIPI_CSI0_CLK1P	AM33	I		MIPI_CSI0_RX_CLK1P	MIPI_CSI0_RX_CLK1P	
BA30	MIPI_CSI0_CLK1N	AM34	I		MIPI_CSI0_RX_CLK1N	MIPI_CSI0_RX_CLK1N	
BB28	MIPI_CSI0_D2P	AK33	I		MIPI_CSI0_RX_D2P	MIPI_CSI0_RX_D2P	
BA28	MIPI_CSI0_D2N	AK34	I		MIPI_CSI0_RX_D2N	MIPI_CSI0_RX_D2N	
BB29	MIPI_CSI0_D3P	AL33	I		MIPI_CSI0_RX_D3P	MIPI_CSI0_RX_D3P	
BA29	MIPI_CSI0_D3N	AL34	I		MIPI_CSI0_RX_D3N	MIPI_CSI0_RX_D3N	
BB33	MIPI_CSI1_CLK0P	AJ31	I		MIPI_CSI1_RX_CLK0P	MIPI_CSI1_RX_CLK0P	
BA33	MIPI_CSI1_CLK0N	AJ32	I		MIPI_CSI1_RX_CLK0N	MIPI_CSI1_RX_CLK0N	
BB31	MIPI_CSI1_D0P	AG31	I		MIPI_CSI1_RX_D0P	MIPI_CSI1_RX_D0P	
BA31	MIPI_CSI1_D0N	AG32	I		MIPI_CSI1_RX_D0N	MIPI_CSI1_RX_D0N	
BB32	MIPI_CSI1_D1P	AH31	I		MIPI_CSI1_RX_D1P	MIPI_CSI1_RX_D1P	
BA32	MIPI_CSI1_D1N	AH32	I		MIPI_CSI1_RX_D1N	MIPI_CSI1_RX_D1N	
BC30	MIPI_CSI1_CLK1P	AM31	I		MIPI_CSI1_RX_CLK1P	MIPI_CSI1_RX_CLK1P	
BC31	MIPI_CSI1_CLK1N	AM32	I		MIPI_CSI1_RX_CLK1N	MIPI_CSI1_RX_CLK1N	
BB34	MIPI_CSI1_D2P	AK31	I		MIPI_CSI1_RX_D2P	MIPI_CSI1_RX_D2P	
BA34	MIPI_CSI1_D2N	AK32	I		MIPI_CSI1_RX_D2N	MIPI_CSI1_RX_D2N	
BA36	MIPI_CSI1_D3P	AL31	I		MIPI_CSI1_RX_D3P	MIPI_CSI1_RX_D3P	
BA35	MIPI_CSI1_D3N	AL32	I		MIPI_CSI1_RX_D3N	MIPI_CSI1_RX_D3N	
CB13	MIPI_DPHY1_TX_CLKP/MIPI_CPHY1_TX_TRIO1_C	AN20	O		MIPI_DPHY1_TX_CLKP	NC	
CA14	MIPI_DPHY1_TX_CLKN/MIPI_CPHY1_TX_TRIO1_B	AP20	O		MIPI_DPHY1_TX_CLKN	NC	
CB15	MIPI_DPHY1_TX_D0P/MIPI_CPHY1_TX_TRIO0_B	AN18	O		MIPI_DPHY1_TX_D0P	NC	
CA16	MIPI_DPHY1_TX_D0N/MIPI_CPHY1_TX_TRIO0_A	AP18	O		MIPI_DPHY1_TX_D0N	NC	

CB14	MIPI_DPHY1_TX_D1P/MIPI_CPHY1_TX_TRIO1_A	AN19	O		MIPI_DPHY1_TX_D1P	NC	
CA15	MIPI_DPHY1_TX_D1N/MIPI_CPHY1_TX_TRIO0_C	AP19	O		MIPI_DPHY1_TX_D1N	NC	
CB12	MIPI_DPHY1_TX_D2P/MIPI_CPHY1_TX_TRIO2_B	AN21	O		MIPI_DPHY1_TX_D2P	NC	
CA13	MIPI_DPHY1_TX_D2N/MIPI_CPHY1_TX_TRIO2_A	AP21	O		MIPI_DPHY1_TX_D2N	NC	
CB11	MIPI_DPHY1_TX_D3P/NO_USE	AN22	O		MIPI_DPHY1_TX_D3P	MIPI_DPHY0_TX_D0N	
CA12	MIPI_DPHY1_TX_D3N/MIPI_CPHY1_TX_TRIO2_C	AP22	O		MIPI_DPHY1_TX_D3N	NC	
CD4	MIPI_DPHY1_RX_CLKP/MIPI_CPHY1_RX_TRIO1_C	AK20	I		MIPI_DPHY1_RX_CLKP	NC	
CC6	MIPI_DPHY1_RX_CLKN/MIPI_CPHY1_RX_TRIO1_B	AL20	I		MIPI_DPHY1_RX_CLKN	NC	
CD7	MIPI_DPHY1_RX_D0P/MIPI_CPHY1_RX_TRIO0_B	AK18	I		MIPI_DPHY1_RX_D0P	NC	
CC9	MIPI_DPHY1_RX_D0N/MIPI_CPHY1_RX_TRIO0_A	AL18	I		MIPI_DPHY1_RX_D0N	NC	
CC7	MIPI_DPHY1_RX_D1P/MIPI_CPHY1_RX_TRIO1_A	AK19	I		MIPI_DPHY1_RX_D1P	NC	
CD6	MIPI_DPHY1_RX_D1N/MIPI_CPHY1_RX_TRIO0_C	AL19	I		MIPI_DPHY1_RX_D1N	NC	
CC4	MIPI_DPHY1_RX_D2P/MIPI_CPHY1_RX_TRIO2_B	AK21	I		MIPI_DPHY1_RX_D2P	NC	
CD3	MIPI_DPHY1_RX_D2N/MIPI_CPHY1_RX_TRIO2_A	AL21	I		MIPI_DPHY1_RX_D2N	NC	
CC2	MIPI_DPHY1_RX_D3P/NO_USE	AK22	I		MIPI_DPHY1_RX_D3P	NC	
CC3	MIPI_DPHY1_RX_D3N/MIPI_CPHY1_RX_TRIO2_C	AL22	I		MIPI_DPHY1_RX_D3N	NC	
CC16	TYPEC0_SBU1/DP0_AUXP	AL15			TYPEC0_SBU1	TYPEC0_SBU1	1.8V
CD15	TYPEC0_SBU2/DP0_AUXN	AM15			TYPEC0_SBU2	TYPEC0_SBU2	1.8V
CB20	TYPEC0_SSRX1P/DP0_TX0P	AN13			TYPEC0_SSRX1P	TYPEC0_SSRX1P	
CA21	TYPEC0_SSRX1N/DP0_TX0N	AP13			TYPEC0_SSRX1N	TYPEC0_SSRX1N	
CA20	TYPEC0_SSTX1P/DP0_TX1P	AP14			TYPEC0_SSTX1P	TYPEC0_SSTX1P	
CB19	TYPEC0_SSTX1N/DP0_TX1N	AN14			TYPEC0_SSTX1N	TYPEC0_SSTX1N	

CA18	TYPEC0_SSRX2P/DP0_TX2P	AN15			TYPEC0_SSRX2P	TYPEC0_SSRX2P	
CB18	TYPEC0_SSRX2N/DP0_TX2N	AP15			TYPEC0_SSRX2N	TYPEC0_SSRX2N	
CB17	TYPEC0_SSTX2P/DP0_TX3P	AP16			TYPEC0_SSTX2P	TYPEC0_SSTX2P	
CA17	TYPEC0_SSTX2N/DP0_TX3N	AN16			TYPEC0_SSTX2N	TYPEC0_SSTX2N	
CC20	TYPEC1_SBU1/DP1_AUXP	AL10			DP1_AUXP	DP1_AUXP	
CD19	TYPEC1_SBU2/DP1_AUXN	AM10			DP1_AUXN	DP1_AUXN	
CB25	TYPEC1_SSRX1P/DP1_TX0P	AN8	I		TYPEC1_SSRX1P	TYPEC1_SSRX1P	
CA26	TYPEC1_SSRX1N/DP1_TX0N	AP8	I		TYPEC1_SSRX1N	TYPEC1_SSRX1N	
CA25	TYPEC1_SSTX1P/DP1_TX1P	AP9	O		TYPEC1_SSTX1P	TYPEC1_SSTX1P	
CB24	TYPEC1_SSTX1N/DP1_TX1N	AN9	O		TYPEC1_SSTX1N	TYPEC1_SSTX1N	
CA23	TYPEC1_SSRX2P/DP1_TX2P	AN10			DP1_TX2P	DP1_TX2P	
CB23	TYPEC1_SSRX2N/DP1_TX2N	AP10			DP1_TX2N	DP1_TX2N	
CB22	TYPEC1_SSTX2P/DP1_TX3P	AP11			DP1_TX3P	DP1_TX3P	
CA22	TYPEC1_SSTX2N/DP1_TX3N	AN11			DP1_TX3N	DP1_TX3N	
CD17	TYPEC0_USB20_OTG_DP	AL12			TYPEC0_OTG_DP	TYPEC0_OTG_DP	
CD18	TYPEC0_USB20_OTG_DM	AM12			TYPEC0_OTG_DM	TYPEC0_OTG_DM	
CD16	TYPEC0_USB20_OTG_ID	AL14	I		NC	TYPEC0_USB20_OTG_ID	1.8V
CC18	TYPEC0_USB20_VBUSDET	AM14	I		TYPEC0_USB20_VBUSDET	TYPEC0_USB20_VBUSDET, Active H	3.3V
CD20	TYPEC1_USB20_OTG_DP	AK9			TYPEC1_OTG_DP	TYPEC1_OTG_DP	
CC22	TYPEC1_USB20_OTG_DM	AL9			TYPEC1_OTG_DM	TYPEC1_OTG_DM	
CD21	TYPEC1_USB20_OTG_ID	AK8	I		NC	TYPEC1_USB20_OTG_ID	1.8V
CD22	TYPEC1_USB20_VBUSDET	AL8	I		NC	TYPEC1_USB20_VBUSDET,	3.3V

						Active H	
CC26	USB20_HOST0_DP	AK6			USB20_HOST0_DP	USB20_HOST0_DP	
CD24	USB20_HOST0_DM	AL6			USB20_HOST0_DM	USB20_HOST0_DM	
CD23	USB20_HOST1_DP	AL7			USB20_HOST1_DP	USB20_HOST1_DP	
CC24	USB20_HOST1_DM	AM7			USB20_HOST1_DM	USB20_HOST1_DM	
BB16	PCIE20_0_REFCLKP	L32	O		PCIE20_0_REFCLKP	PCIE20_0_REFCLKP Output	
BA16	PCIE20_0_REFCLKN	L33	O		PCIE20_0_REFCLKN	PCIE20_0_REFCLKN Output	
BA17	PCIE20_0_TXP/SATA30_0_TXP	M34	O		PCIE20_0_TXP/SATA30_0_TXP	PCIE20_0_TXP/SATA30_0_TXP	
BB17	PCIE20_0_TXN/SATA30_0_TXN	M33	O		PCIE20_0_TXN/SATA30_0_TXN	PCIE20_0_TXN/SATA30_0_TXN	
BB18	PCIE20_0_RXP/SATA30_0_RXP	N33	I		PCIE20_0_RXP/SATA30_0_RXP	PCIE20_0_RXP/SATA30_0_RXP	
BA18	PCIE20_0_RXN/SATA30_0_RXN	N34	I		PCIE20_0_RXN/SATA30_0_RXN	PCIE20_0_RXN/SATA30_0_RXN	
BD10	PCIE20_1_REFCLKP	H32	O		PCIE20_1_REFCLKP	PCIE20_1_REFCLKP Output	
BC11	PCIE20_1_REFCLKN	H33	O		PCIE20_1_REFCLKN	PCIE20_1_REFCLKN Output	
BD14	PCIE20_1_TXP/SATA30_1_TXP	K33	O		PCIE20_1_TXP	PCIE20_1_TXP	
BC15	PCIE20_1_TXN/SATA30_1_TXN	K34	O		PCIE20_1_TXN	PCIE20_1_TXN	
BD11	PCIE20_1_RXP/SATA30_1_RXP	J33	I		PCIE20_1_RXP	PCIE20_1_RXP	
BC13	PCIE20_1_RXN/SATA30_1_RXN	J34	I		PCIE20_1_RXN	PCIE20_1_RXN	
BB13	PCIE20_2_REFCLKP	G31	O		NC	NC	
BA13	PCIE20_2_REFCLKN	G30	O		NC	NC	
BB15	PCIE20_2_TXP/SATA30_2_TXP/USB30_2_SSTXP	H30	O		USB30_2_SSTXP	USB30_2_SSTXP	
BA15	PCIE20_2_TXN/SATA30_2_TXN/USB30_2_SSTXN	H29	O		USB30_2_SSTXN	USB30_2_SSTXN	

BB14	PCIE20_2_RXP/SATA30_2_RXP/USB30_2_SSRXP	J31	I		USB30_2_SSRXP	USB30_2_SSRXP	
BA14	PCIE20_2_RXN/SATA30_2_RXN/USB30_2_SSRXN	J30	I		USB30_2_SSRXN	USB30_2_SSRXN	
BA12	PCIE30_PORT0_REFCLKP	E33	I		PCIE30_PORT0_REFCLKP_IN	PCIE30_PORT0_REFCLKP_INPUT	
BB11	PCIE30_PORT0_REFCLKN	E34	I		PCIE30_PORT0_REFCLKN_IN	PCIE30_PORT0_REFCLKN_INPUT	
BA9	PCIE30_PORT0_TX0P	D32	O		PCIE30_PORT0_TX0P	PCIE30_PORT0_TX0P	
BB8	PCIE30_PORT0_TX0N	D33	O		PCIE30_PORT0_TX0N	PCIE30_PORT0_TX0N	
BA11	PCIE30_PORT0_RX0P	G33	I		PCIE30_PORT0_RX0P	PCIE30_PORT0_RX0P	
BB10	PCIE30_PORT0_RX0N	G34	I		PCIE30_PORT0_RX0N	PCIE30_PORT0_RX0N	
BA8	PCIE30_PORT0_TX1P	C33	O		PCIE30_PORT0_TX1P	PCIE30_PORT0_TX1P	
BB7	PCIE30_PORT0_TX1N	C34	O		PCIE30_PORT0_TX1N	PCIE30_PORT0_TX1N	
BA10	PCIE30_PORT0_RX1P	F32	I		PCIE30_PORT0_RX1P	PCIE30_PORT0_RX1P	
BB9	PCIE30_PORT0_RX1N	F33	I		PCIE30_PORT0_RX1N	PCIE30_PORT0_RX1N	
BB6	PCIE30_PORT1_REF_CLKP	A28	I		PCIE30_PORT1_REFCLKP_IN	PCIE30_PORT1_REFCLKP_IN	
BA6	PCIE30_PORT1_REF_CLKN	B28	I		PCIE30_PORT1_REFCLKN_IN	PCIE30_PORT1_REFCLKN_IN	
BB3	PCIE30_PORT1_TX0P	B30	O		PCIE30_PORT1_TX2P	PCIE30_PORT1_TX2P	
BA3	PCIE30_PORT1_TX0N	A30	O		PCIE30_PORT1_TX2N	PCIE30_PORT1_TX2N	
BB5	PCIE30_PORT1_RX0P	B32	I		PCIE30_PORT1_RX2P	PCIE30_PORT1_RX2P	
BA5	PCIE30_PORT1_RX0N	A32	I		PCIE30_PORT1_RX2N	PCIE30_PORT1_RX2N	
BB2	PCIE30_PORT1_TX1P	C29	O		PCIE30_PORT1_TX3P	PCIE30_PORT1_TX3P	
BA2	PCIE30_PORT1_TX1N	B29	O		PCIE30_PORT1_TX3N	PCIE30_PORT1_TX3N	
BB4	PCIE30_PORT1_RX1P	C31	I		PCIE30_PORT1_RX3P	PCIE30_PORT1_RX3P	

BA4	PCIE30_PORT1_RX1N	B31	I		PCIE30_PORT1_RX3N	PCIE30_PORT1_RX3N	
DA31	VCC4V0_SYS		P		VCC4V0_CORE	Power supply Input: 4.0V +/-5%	4.0V
DA32							4.0V
DA33							4.0V
DB31							4.0V
DB32							4.0V
AA1	VCC_3V3_S0		P		VCC_3V3_S0	3.3V Output Max:300mA	3.3V
AA3	VCC_3V3_S3		P		VCC_3V3_S3	3.3V Output Max:300mA	3.3V
AA6	VCC_1V8_S0		P		VCC_1V8_S0	1.8V Output Max:200mA	1.8V
AA8	VCCA_1V8_S0		P		NC	1.8V Output Max:200mA	1.8V
AA5	VCC_1V8_S3		P		VCC_1V8_S3	1.8V Output Max:200mA	1.8V
A1	GND		G		GND	GND	GND
AA2							GND
DC16							GND
AA7							GND
AA9							GND
DA21	GND		G		GND	GND	GND
DC21							GND
AA17							GND
DA27							GND
AA29							GND
AB1	GND		G		GND	GND	GND

AB2							GND
DC10							GND
DA19							GND
AB6							GND
AB7							GND
AB8							GND
AB9	GND		G		GND	GND	GND
AB14							GND
AA14							GND
AB25							GND
AB27							GND
AB31	GND		G		GND	GND	GND
DB10							GND
BD7							GND
AC13							GND
AC4							GND
AC5	GND		G		GND	GND	GND
AC6							GND
AC7							GND
AC10							GND
AC11	GND		G		GND	GND	GND
AC16							GND

AB16							GND
AC28							GND
AD2							GND
AD3							GND
AD4	GND		G		GND	GND	GND
AD5							GND
AD6							GND
AD7						GND	GND
AD8							GND
AD9	GND		G		GND		GND
AD10							GND
AD11							GND
AD12						GND	GND
AD13							GND
AD14	GND		G		GND		GND
AD15							GND
AD16							GND
AD17						GND	GND
AD18							GND
AD19	GND		G		GND		GND
AD20							GND
AD21							GND

AD22	GND		G		GND	GND	GND
AD23							GND
AD24							GND
B1							GND
BA1							GND
BA7	GND		G		GND	GND	GND
BA19							GND
BB1							GND
BB12							GND
BB35							GND
BC1	GND		G		GND	GND	GND
BC2							GND
BC3							GND
BC4							GND
BC5							GND
BC6	GND		G		GND	GND	GND
BC7							GND
BC8							GND
BC9							GND
BC10							GND
BC12	GND		G		GND	GND	GND
BC14							GND

BC16							GND
DB26							GND
BC20							GND
BC24						GND	GND
BC25							GND
BC26	GND		G		GND		GND
BC27							GND
BC28							GND
BC29						GND	GND
BC32							GND
BD2	GND		G		GND		GND
BD3							GND
BD4							GND
BD9						GND	GND
BD12							GND
BD13	GND		G		GND		GND
AB17							GND
AC22							GND
BD28						GND	GND
C1	GND		G		GND		GND
CA6							GND
CA19							GND

CA24							GND
CA28	GND		G		GND	GND	GND
CA31							GND
CB16							GND
CB21							GND
CB26							GND
CB29	GND		G		GND	GND	GND
CC1							GND
CC5							GND
CC8							GND
CC10							GND
CC13	GND		G		GND	GND	GND
CC15							GND
CC17							GND
CC19							GND
CC21							GND
CC23	GND		G		GND	GND	GND
CC25							GND
CC27							GND
CC28							GND
CD2							GND
CD5	GND		G		GND	GND	GND

CD8							GND
CD14							GND
D1							GND
DA4							GND
DA7						GND	GND
DA10							GND
AB23	GND		G		GND		GND
DA34							GND
DA35							GND
DA36						GND	GND
DB2							GND
DB5	GND		G		GND		GND
DB8							GND
DB13							GND
DB21						GND	GND
DB27							GND
DB29	GND		G		GND		GND
DB30							GND
DB33							GND
DB34						GND	GND
DB35	GND		G		GND		GND
DA13							GND

DC9							GND
DC8							GND
DC26						GND	GND
DC12							GND
DC31	GND		G		GND		GND
DC32							GND
DD2							GND
DD8						GND	GND
DD9							GND
DD10	GND		G		GND		GND
DD11							GND
DD12							GND
DD13						GND	GND
DD14							GND
DD15	GND		G		GND		GND
DD16							GND
DD17							GND
DD18						GND	GND
DD19							GND
DD20	GND		G		GND		GND
DD21							GND
DD22							GND

DD23	GND		G		GND	GND	GND
DD24							GND
DD25							GND
DD26							GND
DD27							GND
DD28	GND		G		GND	GND	GND
H1							GND
H2							GND
H3							GND
H4							GND
H5	GND		G		GND	GND	GND
H6							GND
H7							GND
H8							GND
H9							GND
H10	GND		G		GND	GND	GND
H11							GND
H12							GND
H13							GND
H14							GND
AC1	GND		G		GND	GND	GND
AC2							GND

AC3							GND
AA4							GND
AB3							GND
AB4	GND		G		GND	GND	GND

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