

neardi

# LCB3399 System On Module Datasheet V1.0



Shanghai Neardi Technology Co., Ltd.

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## Version History

Version	Date	Description
V1.0	2022/8/23	Initial version

# Contents

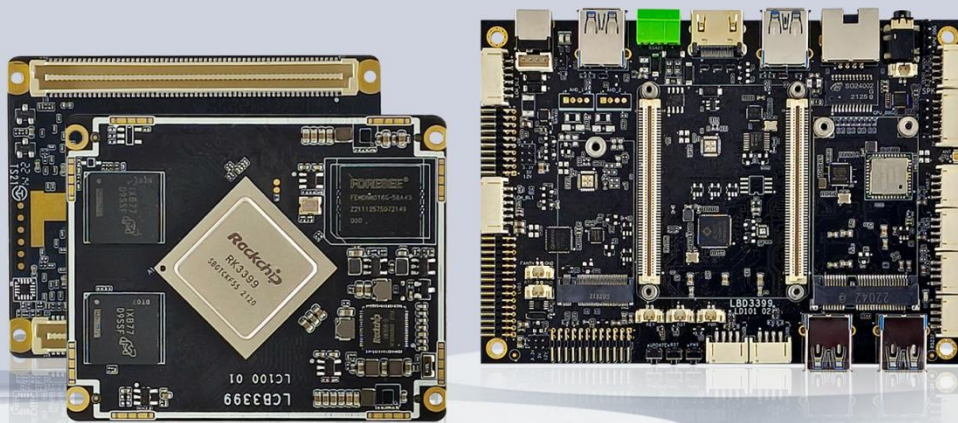
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# 1. Product Introduction

The LCB3399 is a full-featured core module exquisitely designed based on the Rockchip RK3399 chip platform, with dimensions of only 62mm by 50mm. The connection between the core module and the baseboard uses two Tyco/AMP 0.8mm pitch dual-row 120Pin board-to-board connectors, secured with four M2 screws, ensuring stability, reliability, ease of installation, and maintenance.

The LCB3399 includes CPU, DDR, eMMC, and PMU components. The CPU is the RK3399; DDR uses the market mainstream LPDDR3, with dual-channel 64-bit bandwidth, lower power consumption, and higher frequency, available in 2GB/4GB configurations; eMMC adopts the high-speed eMMC 5.1 standard, with various capacity configurations from 4GB to 128GB; the PMU consists of the RK808 and multiple DC-DC and LDO components, with CPU core voltages supporting DVFS (Dynamic Voltage and Frequency Scaling).

The LCB3399 adopts a modular design concept, designing the core part, which has the same requirements and strict standards, as a full-function module, and has undergone comprehensive testing and mass verification. Users can develop products based on this module, saving project development time, reducing corporate costs, and improving company efficiency.



## 2. Function Overview



### High-Performance Processor

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**CPU**

RK3399, Dual Cortex-A72 plus quad Cortex-A53 architecture, with a clock speed up to 1.8GHz, offering high performance and low power consumption.

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**GPU**

ARM Mali-T860MP4 GPU, supporting AFBC (Advanced Frame Buffer Compression).

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**NPU**

3 TOPS of computational power.

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**VPU**

Capable of 4K/1080P video encoding and decoding, with 4K display output.

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**DDR**

LPDDR4, with options for 3GB/6GB.

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**eMMC**

eMMC 5.1, with options for 16GB/64GB.



### Operating System

Android

Linux (Buildroot / Debian / Ubuntu)



### Open Source Materials

WIKI Documentation <http://www.neardi.com/cms/en/wiki.html>

Quick Start

Firmware Upgrade

Android Development

Linux Development

Kernel Drivers

DEMO

System Customization

Accessories

Frequently Asked Questions (FAQ)

Release Notes

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## Hardware Materials

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Chip Datasheet

Product 2D/3D Drawings

Core Board Pin Definitions

Baseboard Reference Schematic

Baseboard Reference PCB

Key Bill of Materials (BOM)

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## Software Materials

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Firmware Tools and Drivers

Android Source Code and Images

U-Boot and Kernel Source Code

Debian/Ubuntu/Buildroot System Files

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### 3. Technical Specifications

#### Basic Parameters

SOC	RK3399, 28 nm HKMG, Big cluster with dual-coreCortex-A72 + little cluster with quad-core Cortex-A53
GPU	Mali- T860 MP4, OpenGL ES1.1/2.0/3.0/3.1/3.2, OpenCL1.2, DirectX11.1
VPU	4K VP9 and 4K H265 up to 60fps video decoding 1080P@60fps multi-format video decoding (MVC, mpeg-1/2/4, VC-1) 1080P video encoding, with h.264, MVC and VP8 format supported Video anti-cross, de-noising, edge/detail/color optimization supported
DDR	LPDDR4/LPDDR4X, 可选 3GB/6GB
eMMC	eMMC 5.1, 可选 16GB/64GB
PMU	RK808
系统	Android / Ubuntu / Buildroot / Debian

#### Hardware Specifications

Camera Interface	Two ISP built-in Dual MIPI-CSI 4 Lane of 1.5 Gbps/Lane ITU-R BT 601/656 compliant Maximum input resolution of one ISP is 14M pixels
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	Two VOP embedded
	Dual MIPI-DSI 4 Lane of 1.5 Gbps/Lane up to 2560x1600@60fps
Display Interface	eDP1.3 4 Lane of 2.7/1.62 Gbps/lane
	DP1.2 4 Lane with HDCP2.2 up to 4kx2k at 60Hz resolution
	HDMI2.0 3 Lane with HDCP2.2
	HOST*2, TYPE-C*1
	TYPE-C Interface
	Type-C PHY with Type-C V1.1 and USB PD2.0
USB Interface	Attach/detach detection and signaling as DFP, UFP and DRP
	Support USB3.0 Type-C and DisplayPort 1.2 Alt Mode
	Up to 5Gbps data rate for USB3.0
	Up to 5.4Gbps (HBR2) data rate for DP1.2
	Two I2S/PCM built-in up to 8 channels TX and 8 channels RX
	SPDIF supported
	Audio resolution from 16bits to 32bits
	Sample rate up to 192KHz
Audio Interface	Provides master and slave work mode, software configurable
	Support 3 I2S formats (normal, left-justified, right-justified)
	Support 4 PCM formats (early, late1, late2, late3)
	Support two 16-bit audio data store together in one 32-bit wide location
	Support 16, 20, 24 bits audio data transfer in linear PCM mode

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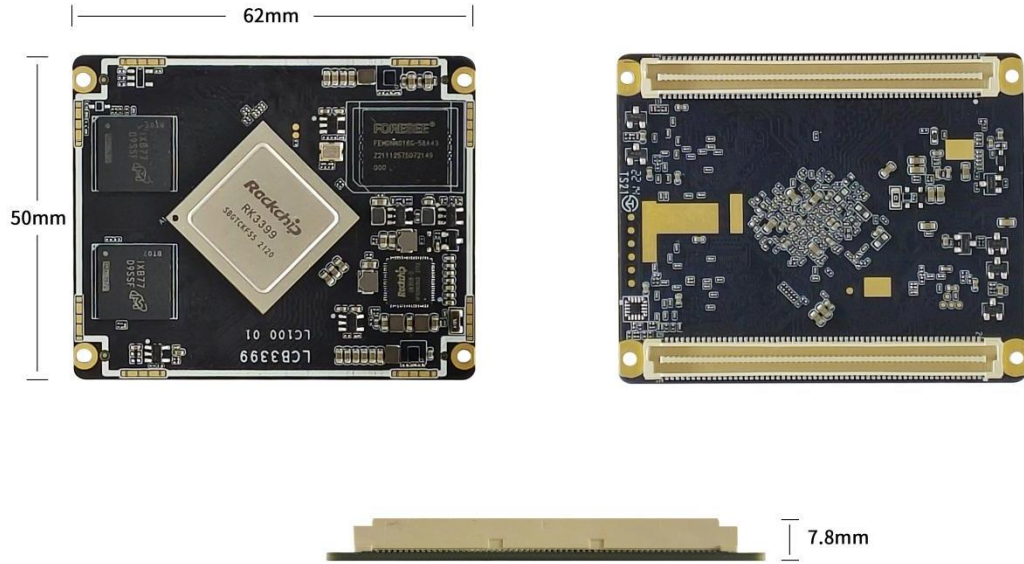
	Compatible with SDIO 3.0 protocol
	GMAC 10/100/1000M Ethernet Controller
	Six on-chip SPI controllers
Connectivity	Five on-chip UART controllers inside
	Eight on-chip I2C controllers
	Five groups of GPIO (GPIO0~GPIO4), totally have 100+ GPIOs
	Five-channel single-ended 10-bit SAR-ADC up to 1MS/s sampling rate

**Other Parameters**

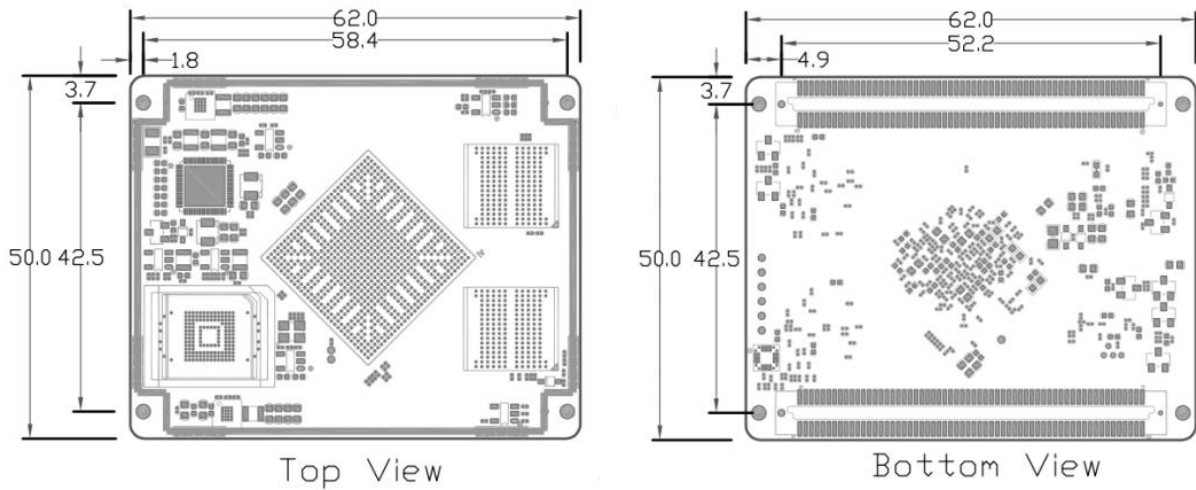
Operating temperature	Enterprise Grade: -20°C to 70°C
	Industrial Grade: -40°C to 85°C
PCB interface	B2B(240 Pin 0.8mm Pitch)
PCB size	L* W *H(mm): 62 *50 * 7.8 (PCB thickness 1.2mm)

# 4. Appearance and Dimensions

## 4.1 Appearance

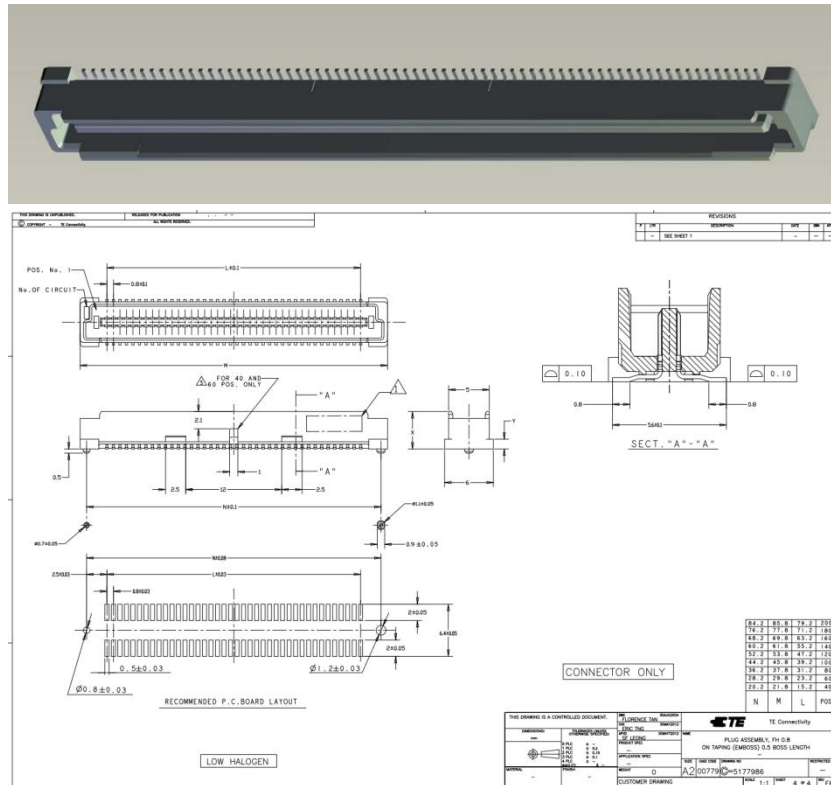


## 4.2 Dimensions

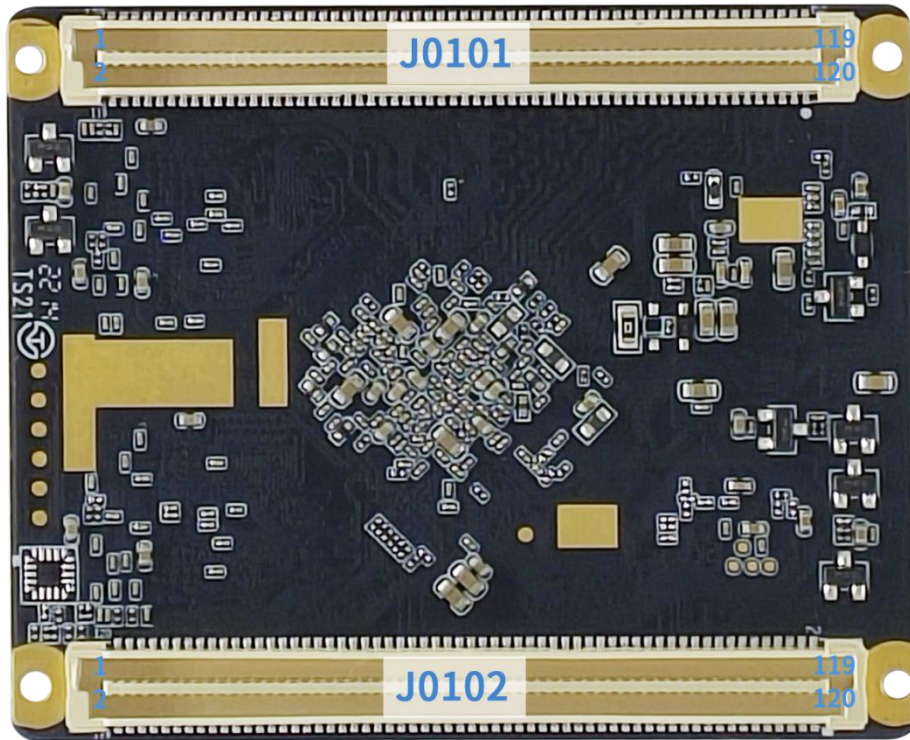


## 4.3 structure

The LCB3399 utilizes two B2B connectors from Tyco Electronics/AMP, which are male headers with a 0.8mm pitch and a 2\*60Pin configuration. The part number for these connectors is 5177986-5, as shown in the figure below.



# 5.Interface Definition



## J0101

Pin No	Pin Name	Pin Type	I/O Def	I/O Pull	Pull Resistor	Description	Power domain	Tablet/VR REF	Excavator/BOX
1	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply
2	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
3	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply
4	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
5	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply
6	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
7	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply
8	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
9	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply
10	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
11	VCC_SYS	P	N/A	N/A	N/A	Power input 5V/3A	N/A	Main power supply	Main power supply

12	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
13	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
14	VCC3V3_SYS	P	N/A	N/A	N/A	Power input 3.3V/2A	N/A	3.3V power supply	3.3V power supply
15	PCIE_RX_1P	A	N/A	N/A	-	PCIE differential lane 1 positive input	-	PCIE_RX_1P	PCIE_RX_1P
16	VCC3V3_SYS	P	N/A	N/A	N/A	Power input 3.3V/2A	N/A	3.3V power supply	3.3V power supply
17	PCIE_RX_1N	A	N/A	N/A	-	PCIE differential lane 1 negative input	-	PCIE_RX_1N	PCIE_RX_1N
18	VCC3V3_S3	P	N/A	N/A	N/A	Power output 3.3V/0.5A	N/A	For external devices used	For AVCC/DVCC of ethernet phy
19	PCIE_TX_1P	A	N/A	N/A	-	PCIE differential lane 1 positive output	-	PCIE_TX_1P	PCIE_TX_1P
20	VCC3V3_S3	P	N/A	N/A	N/A	Power output 3.3V/0.5A	N/A	AVCC/DVCC of ethernet phy	AVCC/DVCC of ethernet phy
21	PCIE_TX_1N	A	N/A	N/A	-	PCIE differential lane 1 negative output	-	PCIE_TX_1N	PCIE_TX_1N
22	VCC1V8_S3	P	N/A	N/A	N/A	Power output 1.8V/0.5A	N/A	IOVCC of LCM/MIPI-CAM /sensor	IOVCC of LCM/CAM/sensor
23	PCIE_RX_0P	A	N/A	N/A	-	PCIE differential lane 0 positive input	-	PCIE_RX_0P	PCIE_RX_0P
24	TYPEC0_U2VBUSDET	A	N/A	N/A	-	TYPEC0 connected/vbus power detect for USB2.0	-	TYPEC0_U2VBU SDET	TYPEC0_U2VBUSDET
25	PCIE_RX_0N	A	N/A	N/A	-	PCIE differential lane 0 negative input	-	PCIE_RX_0N	PCIE_RX_0N
26	TYPEC0_ID	A	N/A	N/A	-	TYPEC0 ID detect input,200kohm internal pull-up to USB_AVDD_1V8	-	TYPEC0_ID	TYPEC0_ID
27	PCIE_TX_0P	A	N/A	N/A	-	PCIE differential lane 0 positive output	-	PCIE_TX_0P	PCIE_TX_0P
28	ADC_IN3	A	N/A	N/A	-	DRAM ID detect input	1.8V	-	RAM_ID
29	PCIE_TX_0N	A	N/A	N/A	-	PCIE differential lane 0 negative output	-	PCIE_TX_0N	PCIE_TX_0N
30	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
31	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
32	HOST0_DM	A	N/A	N/A	-	USB HOST0 Data Minus port	-	HOST0_DM	HOST0_DM
33	PCIE_RCLK_100M_N	A	N/A	N/A	-	PCIE 100MHz reference clock as input to PLL	-	PCIE_RCLK_100 M_N	PCIE_RCLK_100M_N
34	HOST0_DP	A	N/A	N/A	-	USB HOST0 Data Plus	-	HOST0_DP	HOST0_DP

						port				
35	PCIE_RCLK_100M_P	A	N/A	N/A	-	PCIE 100MHz reference clock as input to PLL	-	PCIE_RCLK_100M_P	PCIE_RCLK_100M_P	
36	HOST1_DM	A	N/A	N/A	-	USB HOST1 Data Minus port	-	HOST1_DM	HOST1_DM	
37	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
38	HOST1_DP	A	N/A	N/A	-	USB HOST1 Data Plus port	-	HOST1_DP	HOST1_DP	
39	GPIO4_A5/I2S1_LRCK_TX	I/O	I	down	34k-93k	HDMI input interrupt input I2S 1 port, for BT module	1.8V	HDMIIN_INT	I2S1_LRCK_TX_BT_PCM	
40	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
41	GPIO3_D4/I2S0_SDI1SDO3	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_SDI1	I2S0_SDI1	
42	GPIO0_B2	I/O	I	down	55k-176k	WIFI module power enable	1.8V	WIFI_REG_ON_H	WIFI_REG_ON_H	
43	GPIO3_D5/I2S0_SDI2SDO2	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_SDO2	I2S0_SDI2	
44	GPIO0_B1/PMUIO2_1833_V OLSEL	I/O	I	down	55k-176k	BT module power enable	1.8V	BT_REG_ON_H	BT_REG_ON_H	
45	GPIO3_D6/I2S0_SDI3SDO1	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_SDO1	I2S0_SDI3	
46	GPIO0_A3/SDIO0_WRPT	I/O	I	down	55k-176k	WIFI module wake up AP	1.8V	WIFI_HOST_WAKE_L	WIFI_HOST_WAKE_L	
47	GPIO0_B5/TCPD_VBUS_SO URCE3/TCPD_VBUS_FDIS	I/O	I	down	55k-176k	Type-C1 discharge control Hall Sensor interrupt input	1.8V	DNP	HALL_INT_L	
48	GPIO0_B3	I/O	I	down	55k-176k	Speaker PA power enable	1.8V	SPK_CTL_H	SPK_CTL_H	
49	GPIO1_A4/ISP_PRELIGHT_T RIG	I/O	I	down	34k-93k	ISP_PRELIGHT_TRIG	1.8V	DNP	ISP_PRELIGHT_TRIG	
50	GPIO0_A4/SDIO0_INTn	I/O	I	down	55k-176k	BT module wake up AP	1.8V	BT_HOST_WAKE_L	BT_HOST_WAKE_L	
51	GPIO1_C6/DFTJTAG_TDI/T CPD_VBUS_SOURCE0	I/O	I	down	34k-93k	G-sensor interrupt input	1.8V	GSENSOR_INT_L	GSENSOR_INT_L	
52	GPIO1_B4/I2C4_SCL	I/O	I	up	33k-88k	I2C serial port 4, for MEMS need external pull-up	1.8V	I2C4_SCL	I2C_SCL_MEMS	
53	GPIO1_D0/DFTJTAG_CLK/ TCPD_VBUS_SOURCE2	I/O	I	down	34k-93k	Gyroscope interrupt input FUSB302 interrupt input for Type-C1	1.8V	GYR_INT_L	GYR_INT_L	
54	GPIO1_B3/I2C4_SDA	I/O	I	up	33k-88k	I2C serial port 4, for MEMS need external	1.8V	I2C4_SDA	I2C_SDA_MEMS	

pull-up									
55	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
56	GPIO0_A2/WIFI_26MHZ	I/O	I	down	55k-17 6k	26MHz clock output	1.8V	RK3399_26M_O UT	RK3399_26M_OUT
57	GPIO4_B2/SDMMC0_D2/AP JTAG_TCK	I/O	I	up	33k-88 k	SDMMC0 data port JTAG_TMS	1.8V/3.0V auto	SDMMC0_D2 APJTAG_TCK	SDMMC0_D2 APJTAG_TCK
58	GPIO1_C2/SPI3_CS0	I/O	I	up	33k-88 k	Gas gauge interrupt input Motor power enable CC controller over current flag	1.8V	ALRT_H	Motor_PWR
59	GPIO4_B0/SDMMC0_D0/U ART2DBG_RX	I/O	I	up	33k-88 k	SDMMC0 data port	1.8V/3.0V auto	SDMMC0_D0	SDMMC0_D0
60	GPIO1_C7/DFTJTAG_TDO/T CPD_VBUS_SOURCE1	I/O	I	down	34k-93 k	Adapter insert detect input	1.8V	CHARG_OK_H	DC_DET_H
61	GPIO4_B1/SDMMC0_D1/U ART2DBG_TX	I/O	I	up	33k-88 k	SDMMC0 data port	1.8V/3.0V auto	SDMMC0_D1	SDMMC0_D1
62	GPIO0_A1/DDRIO_PWROF F/TCPD_CCDB_EN	I/O	I	up	54k-12 0k	SDMMC0 power control output	1.8V	SDMMC0_PWR_ H	SDMMC0_PWR_H
63	GPIO4_B5/SDMMC0_CMD/ MCUJTAG_TMS	I/O	I	up	33k-88 k	SDMMC0 command output JTAG TMS for MCU	1.8V/3.0V auto	SDMMC0_CMD MCUJTAG_TMS	SDMMC0_CMD MCUJTAG_TMS
64	GPIO1_B2/SPI1_CS0/PMC U_JTAG_TMS	I/O	I	up	33k-88 k	SPI bus port 1, for FW boot JTAG TMS for PMCU	1.8V	SPI1_CSn0	SPI1_CSn0
65	GPIO0_A7/SDMMC0_DET	I/O	I	up	54k-12 0k	SDMMC0 detect input	1.8V	SDMMC0_DET_L	SDMMC0_DET_L
66	GPIO1_B1/SPI1_CLK/PMCU _JTAG_TCK	I/O	I	up	33k-88 k	SPI bus port 1, for FW boot JTAG TCK for PMCU	1.8V	SPI1_CLK	SPI1_CLK
67	GPIO4_B4/SDMMC0_CLKO UT/MCUJTAG_TCK	I/O	I	down	34k-93 k	SDMMC0 clock output JTAG TCK for MCU	1.8V/3.0V auto	SDMMC0_CLKO MCUJTAG_TCK	SDMMC0_CLKO MCUJTAG_TCK
68	GPIO1_A7/SPI1_RXD/PMCU _UART4DBG_RX	I/O	I	up	33k-88 k	SPI bus port 1, for FW boot Uart4 serial port data output,for PMCU debug	1.8V	SPI1_RXD	SPI1_RXD
69	GPIO4_B3/SDMMC0_D3/AP JTAG_TMS	I/O	I	up	33k-88 k	SDMMC0 data port JTAG_TMS	1.8V/3.0V auto	SDMMC0_D3 APJTAG_TMS	SDMMC0_D3 APJTAG_TMS
70	VCC1V8_DVP	P	N/A	N/A	N/A	Power output 1.8V/0.1A	N/A	IOVCC of CIFI-CAM	IOVCC of CIFI-CAM
71	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
72	GPIO3_C0/MAC_COL/UART 3_CTSN	I/O	I	up	26k-71 k	MAC collision detect	3.3V	-	MAC_COL
73	GPIO1_B0/SPI1_TXD/PMCU _UART4DBG_TX	I/O	I	up	33k-88 k	SPI bus port 1, for FW boot Uart4 serial port data output,for PMCU	1.8V	SPI1_TXD	SPI1_TXD

debug									
74	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
75	GPIO0_B4/TCPD_VBUS_BDI S	I/O	I	down	55k-17 6k	Type-C0 discharge control	1.8V	TYPE_C0_DISCH ARGE	DNP
76	EDP_TX3N	A	N/A	N/A	-	eDP differential lane 3 negative output	-	EDP_TX3N	EDP_TX3N
77	GPIO2_B0/VOP_CLK/CIF_VS YNC/I2C7_SCL	I/O	I	up	33k-88 k	Camera vsync input	1.8V	CIF_VSYNC	GPIO2_B0/CIF_VSYNC/I2C7_SCL
78	EDP_TX3P	A	N/A	N/A	-	eDP differential lane 3 positive output	-	EDP_TX3P	EDP_TX3P
79	GPIO2_A0/VOP_D0/CIF_D0/ I2C2_SDA	I/O	I	up	33k-88 k	Camera data port	1.8V	CIF_D0	GPIO2_A0/CIF_D0/I2C2_SDA
80	EDP_TX2N	A	N/A	N/A	-	eDP differential lane 2 negative output	-	EDP_TX2N	EDP_TX2N
81	GPIO1_B5	I/O	I	down	34k-93 k	LCD panel power enable	1.8V	LCD_EN_H	LCD_EN_H
82	EDP_TX2P	A	N/A	N/A	-	eDP differential lane 2 positive output	-	EDP_TX2P	EDP_TX2P
83	GPIO2_B3/SPI2_CLK/VOP_D EN/CIF_CLKOUT	I/O	I	up	33k-88 k	Camera clock output	1.8V	CIF_CLKO	GPIO2_B3/CIF_CLKO/SPI2_CLK
84	EDP_TX1P	A	N/A	N/A	-	eDP differential lane 1 positive output	-	EDP_TX1P	EDP_TX1P
85	GPIO2_A1/VOP_D1/CIF_D1 LOGIC/CENTERLOG	I/O	I	up	33k-88 k	Camera data port	1.8V	CIF_D1	GPIO2_A1/CIF_D1/I2C2_SCL
86	EDP_TX1N	A	N/A	N/A	-	eDP differential lane 1 negative output	-	EDP_TX1N	EDP_TX1N
87	GPIO1_C3/PWM2	I/O	I	down	34k-93 k	Power dynamic voltage scaling control for LOGIC/CENTERLOG	1.8V	LOG_DVS_PWM	LOG_DVS_PWM
88	EDP_TX0P	A	N/A	N/A	-	eDP differential lane 0 positive output	-	EDP_TX0P	EDP_TX0P
89	RESET_L	I	I	up	10K	manual reset signal of RK3399	1.8V	manual reset signal of RK3399	manual reset signal of RK3399
90	EDP_TX0N	A	N/A	N/A	-	eDP differential lane 0 negative output	-	EDP_TX0N	EDP_TX0N
91	GPIO0_B0/SDMMC0_WRPT /TEST_CLKOUT2	I/O	I	up	54k-12 0k	DVP power enable	1.8V	DNP	DVP_PWR_H
92	EDP_AUXP	A	N/A	N/A	-	eDP differential AUX channel negative output	-	EDP_AUXP	EDP_AUXP
93	GPIO2_A7/VOP_D7/CIF_D7/ I2C7_SDA	I/O	I	up	33k-88 k	Camera data port	1.8V	CIF_D7	GPIO2_A7/CIF_D7/I2C7_SDA
94	EDP_AUXN	A	N/A	N/A	-	eDP differential AUX	-	EDP_AUXN	EDP_AUXN



						channel positive output				
95	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
96	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
97	GPIO3_B5/MAC_MDIO/UAR T1_TX	I/O	I	up	26k-71 k	MAC management command and data PCIe reset input	3.3V	TOUCH_INT_L	MAC_MDIO	
98	GPIO2_B2/SPI2_TXD/CIF_CL KIN/I2C6_SCL	I/O	I	up	33k-88 k	Camera clock input I2C serial port 6,for battery,need external pull-up	1.8V	CIF_CLKI	GPIO2_B2/CIF_CLKI /I2C6_SCL/SPI2_TXD	
99	GPIO3_C1/MAC_TXCLK/UA RT3_RTSN	I/O	I	up	26k-71 k	MAC transmit clock	3.3V	-	MAC_TXCLK	
100	GPIO2_B1/SPI2_RXD/CIF_H REF/I2C6_SDA	I/O	I	up	33k-88 k	Camera href input I2C serial port 6,for battery,need external pull-up	1.8V	CIF_HREF	GPIO2_B1/CIF_HREF/I2C6_SDA/SPI2_R XD	
101	GPIO3_B0/MAC_MDC/SPI0_ CSN1	I/O	I	up	26k-71 k	MAC management clock	3.3V	-	MAC_MDC	
102	GPIO2_B4/SPI2_CSN0	I/O	I	up	33k-88 k	Camera power down control output for front	1.8V	DVP_PDN0_H	GPIO2_B4/DVP_PDN0_H/SPI2_CSN	
103	GPIO3_A2/MAC_RXD2/SPI4 _CLK	I/O	I	up	26k-71 k	MAC receive data	3.3V	-	MAC_RXD2	
104	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
105	GPIO3_A7/MAC_RXD1/SPI0 _CSN0	I/O	I	up	26k-71 k	MAC receive data	3.3V	-	MAC_RXD1	
106	GPIO3_B3/MAC_CLK/I2C5_ SCL	I/O	I	up	26k-71 k	MAC reference clock output I2C serial port 4,need external pull-up	3.3V	I2C_SCL_TP	MAC_MCLK	
107	GPIO3_B6/MAC_RXCLK/UA RT3_RX	I/O	I	up	26k-71 k	MAC receive clock	3.3V	-	MAC_RXCLK	
108	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND	
109	GPIO3_B1/MAC_RXDV	I/O	I	down	27k-10 2k	MAC receive data valid	3.3V	-	MAC_RXDV	
110	GPIO3_A4/MAC_TXD0/SPI0 _RXD	I/O	I	down	27k-10 2k	MAC transmit data	3.3V	LCD_RST	MAC_TXD0	
111	GPIO3_B7/MAC_CRS/UART 3_TX	I/O	I	up	26k-71 k	MAC carrier sense detect	3.3V	-	MAC_CRS	
112	GPIO3_A0/MAC_TXD2/SPI4 _RXD	I/O	I	down	27k-10 2k	MAC transmit data	3.3V	-	MAC_TXD2	
113	GPIO3_A6/MAC_RXD0/SPI0 _CLK	I/O	I	up	26k-71 k	MAC receive data	3.3V	-	MAC_RXD0	
114	GPIO3_A1/MAC_TXD3/SPI4 _TXD	I/O	I	down	27k-10 2k	MAC transmit data	3.3V	CABC_EN	MAC_TXD3	

115	GPIO3_A3/MAC_RXD3/SPI4_CSNO	I/O	I	up	26k-71k	MAC receive data	3.3V	-	MAC_RXD3
116	GPIO3_B2/MAC_RXER/I2C5_SDA	I/O	I	up	26k-71k	MAC receive error I2C serial port 4,need external pull-up	3.3V	I2C_SDA_TP	MAC_RXER
117	GPIO1_A2/ISP_FLASHTRIG_IN/TCPD_CC1_VCONN_EN	I/O	I	down	34k-93k	Charge and cc controller interrupt input	1.8V	CHG_CC_INT_L	CHG_CC_INT_L
118	GPIO3_A5/MAC_TXD1/SPI0_TXD	I/O	I	down	27k-102k	MAC transmit data	3.3V	-	MAC_TXD1
119	GPIO0_A5/EMMC_PWRON	I/O	I	up	54k-120k	Power key detect input	1.8V	PWR_KEY_L	PWR_KEY_L
120	GPIO3_B4/MAC_TXEN/UAR_T1_RX	I/O	I	up	26k-71k	MAC transmit enable AP wake up PCIE	3.3V	TOUCH_RST_L	MAC_TXEN

**J0102**

Pin No	Pin Name	Pin Type	I/O Def	I/O Pull	Pull Resistor	Description	Power domain	Tablet/VR REF	Excavator/BOX
1	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
2	VCC_1V8	P	N/A	N/A	N/A	Power output 1.8V/0.5A	N/A	VDDIO of WIFI/Btsensor	VDDIO of WIFI/Btsensor
3	RTC_CLKO_WIFI	O	O	up	10K	32768HZ clock out	1.8V	RTC CLK of WIFI/BT	RTC CLK of WIFI/BT
4	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
5	POWER_KEY	I	I	up	10K	Power on signal of PMU	VCCA	System power key	System power key
6	TYPECO_DP	A	N/A	N/A	-	TYPECO Data Plus port	-	TYPECO_DP	TYPECO_DP
7	ADC_IN1	A	N/A	N/A	-	AD keyboard input	1.8V	ADKEY_IN	ADKEY_IN
8	TYPECO_DM	A	N/A	N/A	-	TYPECO Data Minus port	-	TYPECO_DM	TYPECO_DM
9	ADC_IN2	A	N/A	N/A	-	Headphone	1.8V	HP_HOOK	HP_HOOK
10	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
11	PMIC_EXT_EN	O	O	down	N/A	EXT_EN of PMU	VCCA	Output enable signal for external power path	Output enable signal for external power path
12	TYPEC1_DP	A	N/A	N/A	-	TYPEC1 Data Plus port	-	TYPEC1_DP	TYPEC1_DP
13	HDMI_HPD	A	N/A	N/A	-	HDMI Hot Plug Detection interrupt with 5V tolerance	-	HDMI_HPD	HDMI_HPD
14	TYPEC1_DM	A	N/A	N/A	-	TYPEC1 Data Minus port	-	TYPEC1_DM	TYPEC1_DM
15	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
16	TYPEC1_TX1P	A	N/A	N/A	-	TYPEC1 positive half of first SuperSpeed RX differential pair.	-	TYPEC1_TX1P	TYPEC1_TX1P
17	HDMI_TX2N	A	N/A	N/A	-	HDMI channel 2	-	HDMI_TX2N	HDMI_TX2N

							differential serial data positive		
18	TYPEC1_TX1M	A	N/A	N/A	-	TYPEC1 negative half of first SuperSpeed RX differential pair.	-	TYPEC1_TX1M	TYPEC1_TX1M
19	HDMI_TX2P	A	N/A	N/A	-	HDMI channel 2 differential serial data positive	-	HDMI_TX2P	HDMI_TX2P
20	TYPEC1_RX1M	A	N/A	N/A	-	TYPEC1 negative half of first SuperSpeed RX differential pair.	-	TYPEC1_RX1M	TYPEC1_RX1M
21	HDMI_TX1N	A	N/A	N/A	-	HDMI channel 1 differential serial data positive	-	HDMI_TX1N	HDMI_TX1N
22	TYPEC1_RX1P	A	N/A	N/A	-	TYPEC1 positive half of first SuperSpeed RX differential pair.	-	TYPEC1_RX1P	TYPEC1_RX1P
23	HDMI_TX1P	A	N/A	N/A	-	HDMI channel 1 differential serial data positive	-	HDMI_TX1P	HDMI_TX1P
24	TYPEC0_TX2P	A	N/A	N/A	-	TYPEC0 positive half of second SuperSpeed RX differential pair.	-	TYPEC0_TX2P	TYPEC0_TX2P
25	HDMI_TX0N	A	N/A	N/A	-	HDMI channel 0 differential serial data positive	-	HDMI_TX0N	HDMI_TX0N
26	TYPEC0_TX2M	A	N/A	N/A	-	TYPEC0 negative half of second SuperSpeed RX differential pair.	-	TYPEC0_TX2M	TYPEC0_TX2M
27	HDMI_TX0P	A	N/A	N/A	-	HDMI channel 0 differential serial data positive	-	HDMI_TX0P	HDMI_TX0P
28	TYPEC0_RX2M	A	N/A	N/A	-	TYPEC0 negative half of second SuperSpeed RX differential pair.	-	TYPEC0_RX2M	TYPEC0_RX2M
29	HDMI_TCN	A	N/A	N/A	-	HDMI differential pixel clock negative	-	HDMI_TCN	HDMI_TCN
30	TYPEC0_RX2P	A	N/A	N/A	-	TYPEC0 positive half of second SuperSpeed RX differential pair.	-	TYPEC0_RX2P	TYPEC0_RX2P
31	HDMI_TCP	A	N/A	N/A	-	HDMI differential pixel clock positive	-	HDMI_TCP	HDMI_TCP
32	TYPEC0_TX1P	A	N/A	N/A	-	TYPEC0 positive half of first SuperSpeed RX	-	TYPEC0_TX1P	TYPEC0_TX1P

						differential pair.			
33	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
34	TYPECO_TX1M	A	N/A	N/A	-	TYPECO negative half of first SuperSpeed RX differential pair.	-	TYPECO_TX1M	TYPECO_TX1M
35	MIPI_TX0_D0P	P	N/A	N/A	-	MIPI-DSIO differential lane 0 positive	-	MIPI_TX0_D0P	MIPI_TX0_D0P
36	TYPECO_RX1M	A	N/A	N/A	-	TYPECO negative half of first SuperSpeed RX differential pair.	-	TYPECO_RX1M	TYPECO_RX1M
37	MIPI_TX0_D0N	A	N/A	N/A	-	MIPI-DSIO differential lane 0 negative	-	MIPI_TX0_D0N	MIPI_TX0_D0N
38	TYPECO_RX1P	A	N/A	N/A	-	TYPECO positive half of first SuperSpeed RX differential pair.	-	TYPECO_RX1P	TYPECO_RX1P
39	MIPI_TX0_D1P	A	N/A	N/A	-	MIPI-DSIO differential lane 1 positive	-	MIPI_TX0_D1P	MIPI_TX0_D1P
40	TYPECO_AUXM	A	N/A	N/A	-	TYPECO AUX differential TX/RX serial data.	-	TYPECO_AUXM	TYPECO_AUXM
41	MIPI_TX0_D1N	A	N/A	N/A	-	MIPI-DSIO differential lane 1 negative	-	MIPI_TX0_D1N	MIPI_TX0_D1N
42	TYPECO_AUXP	A	N/A	N/A	-	TYPECO AUX differential TX/RX serial data.	-	TYPECO_AUXP	TYPECO_AUXP
43	MIPI_TX0_CLKP	A	N/A	N/A	-	MIPI-DSIO differential clock lane positive	-	MIPI_TX0_CLKP	MIPI_TX0_CLKP
44	TYPECO_AUXP_PD_PU	A	N/A	N/A	-	TYPECO AUX pull-up/pull-down polarity reversal pins.	-	TYPECO_AUXP_P D_PU	TYPECO_AUXP_PD_PU
45	MIPI_TX0_CLKN	A	N/A	N/A	-	MIPI-DSIO differential clock lane negative	-	MIPI_TX0_CLKN	MIPI_TX0_CLKN
46	TYPECO_AUXM_PU_PD	A	N/A	N/A	-	TYPECO AUX pull-up/pull-down polarity reversal pins.	-	TYPECO_AUXM_ PU_PD	TYPECO_AUXM_PU_PD
47	MIPI_TX0_D2P	A	N/A	N/A	-	MIPI-DSIO differential lane 2 positive	-	MIPI_TX0_D2P	MIPI_TX0_D2P
48	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
49	MIPI_TX0_D2N	A	N/A	N/A	-	MIPI-DSIO differential lane 2 negative	-	MIPI_TX0_D2N	MIPI_TX0_D2N
50	MIPI_RX0_D0N	P	N/A	N/A	-	MIPI-CSIO differential lane 0 negative	-	MIPI_RX0_D0N	MIPI_RX0_D0N
51	MIPI_TX0_D3P	A	N/A	N/A	-	MIPI-DSIO differential lane 3 positive	-	MIPI_TX0_D3P	MIPI_TX0_D3P
52	MIPI_RX0_D0P	A	N/A	N/A	-	MIPI-CSIO differential lane	-	MIPI_RX0_D0P	MIPI_RX0_D0P

						0 positive			
53	MIPI_TX0_D3N	A	N/A	N/A	-	MIPI-DSI0 differential lane 3 negative	-	MIPI_TX0_D3N	MIPI_TX0_D3N
54	MIPI_RX0_D1N	A	N/A	N/A	-	MIPI-CSIO differential lane 1 negative	-	MIPI_RX0_D1N	MIPI_RX0_D1N
55	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
56	MIPI_RX0_D1P	A	N/A	N/A	-	MIPI-CSIO differential lane 1 positive	-	MIPI_RX0_D1P	MIPI_RX0_D1P
57	GPIO2_C4/SDIO0_D0/SPI5_RXD	I/O	I	up	54k-12 4k	SDIO0 data port ,for WIFI module	1.8V	SDIO0_D0	SDIO0_D0
58	MIPI_RX0_CLKN	A	N/A	N/A	-	MIPI-CSIO differential clock lane negative	-	MIPI_RX0_CLKN	MIPI_RX0_CLKN
59	GPIO2_C7/SDIO0_D3/SPI5_CSN0	I/O	I	up	54k-12 7k	SDIO0 data port ,for WIFI module	1.8V	SDIO0_D3	SDIO0_D3
60	MIPI_RX0_CLKP	A	N/A	N/A	-	MIPI-CSIO differential clock lane positive	-	MIPI_RX0_CLKP	MIPI_RX0_CLKP
61	GPIO2_D0/SDIO0_CMD	I/O	I	up	54k-12 8k	SDIO0 command output,for WIFI module	1.8V	SDIO0_CMD	SDIO0_CMD
62	MIPI_RX0_D2N	A	N/A	N/A	-	MIPI-CSIO differential lane 2 negative	-	MIPI_RX0_D2N	MIPI_RX0_D2N
63	GPIO2_C6/SDIO0_D2/SPI5_CLK	I/O	I	up	54k-12 6k	SDIO0 data port ,for WIFI module	1.8V	SDIO0_D2	SDIO0_D2
64	MIPI_RX0_D2P	A	N/A	N/A	-	MIPI-CSIO differential lane 2 positive	-	MIPI_RX0_D2P	MIPI_RX0_D2P
65	GPIO2_C5/SDIO0_D1/SPI5_TXD	I/O	I	up	54k-12 5k	SDIO0 data port ,for WIFI module	1.8V	SDIO0_D1	SDIO0_D1
66	MIPI_RX0_D3N	A	N/A	N/A	-	MIPI-CSIO differential lane 3 negative	-	MIPI_RX0_D3N	MIPI_RX0_D3N
67	GPIO2_D1/SDIO0_CLKOUT /TEST_CLKOUT1	I/O	I	up	54k-12 9k	SDIO0 clock output,for WIFI module	1.8V	SDIO0_CLK	SDIO0_CLK
68	MIPI_RX0_D3P	A	N/A	N/A	-	MIPI-CSIO differential lane 3 positive	-	MIPI_RX0_D3P	MIPI_RX0_D3P
69	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
70	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
71	GPIO4_C4/UART2DBG_TX	I/O	I	up	33k-89 k	Uart2 serial port data output,for AP debug	3.0V	UART2_TXD	UART2_TXD
72	MIPI_TX1/RX1_D3N	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 3 positive	-	MIPI_TX1/RX1_D3N	MIPI_TX1/RX1_D3N
73	GPIO4_C0/I2C3_SDA_HDMI /UART2DBG_RX	I/O	I	up	33k-89 k	I2C serial port 3,for HDMI,need external pull-up	3.0V	I2C_SDA_HDMI	I2C_SDA_HDMI
74	MIPI_TX1/RX1_D3P	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 3 positive	-	MIPI_TX1/RX1_D3P	MIPI_TX1/RX1_D3P

75	GPIO4_C1/I2C3_SCL_HDMI /UART2DBG_TX	I/O	I	up	33k-89 k	I2C serial port 3,for HDMI,need external pull-up	3.0V	I2C_SCL_HDMI	I2C_SCL_HDMI
76	MIPI_TX1/RX1_D2N	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 2 positive	-	MIPI_TX1/RX1_ D2N	MIPI_TX1/RX1_D2N
77	GPIO4_A6/I2S1_SDI0	I/O	I	down	34k-93 k	HDMI input standby enable I2S 1 port, for BT module	1.8V	HDMIIN_STBY	I2S1_SDI0_BT_PCM
78	MIPI_TX1/RX1_D2P	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 2 positive	-	MIPI_TX1/RX1_ D2P	MIPI_TX1/RX1_D2P
79	GPIO4_D0/PCIE_CLKREQN	I/O	I	up	33k-89 k	ALS sensor interrupt input	3.0V	LIGHT_INT_L	LIGHT_INT_L
80	MIPI_TX1/RX1_CLKN	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential clock lane positive	-	MIPI_TX1/RX1_C LKN	MIPI_TX1/RX1_CLKN
81	GPIO4_C2/PWM0/VOP1_P WM_CABC	I/O	I	down	34k-95 k	LCD panel backlight brightness control output	3.0V	LCD_BL_PWM	LCD_BL_PWM
82	MIPI_TX1/RX1_CLKP	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential clock lane positive	-	MIPI_TX1/RX1_C LKP	MIPI_TX1/RX1_CLKP
83	GPIO4_A0/I2S_CLK	I/O	I	down	34k-93 k	I2S MCLK, for both I2S0 and I2S1	1.8V	I2S_MCLK	I2S_MCLK
84	MIPI_TX1/RX1_D1N	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 1 negative	-	MIPI_TX1/RX1_ D1N	MIPI_TX1/RX1_D1N
85	GPIO4_A3/I2S1_SCLK	I/O	I	down	34k-93 k	HDMI input power enable for VCC1V8 I2S 1 port, for BT module	1.8V	HDMIIN_PWRE N18	I2S1_SCLK_BT_PCM
86	MIPI_TX1/RX1_D1P	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 1 positive	-	MIPI_TX1/RX1_ D1P	MIPI_TX1/RX1_D1P
87	GPIO3_D1/I2S0_LRCK_RX	I/O	I	down	34k-93 k	I2S 0 port, for audio codec	1.8V	I2S0_LRCK_RX	I2S0_LRCK_RX
88	MIPI_TX1/RX1_D0N	A	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 0negative	-	MIPI_TX1/RX1_ D0N	MIPI_TX1/RX1_D0N
89	GPIO4_A7/I2S1_SDO0	I/O	I	down	34k-93 k	I2S 1 port, for BT module	1.8V	HDMIIN_PWRE N33	I2S1_SDO0_BT_PCM
90	MIPI_TX1/RX1_D0P	P	N/A	N/A	-	MIPI-DSI1/CSI1 differential lane 0 positive	-	MIPI_TX1/RX1_ D0P	MIPI_TX1/RX1_D0P
91	VCCA1V8_CODEC	P	N/A	N/A	N/A	Power output 1.8V/0.2A	N/A	VDDIO of Audio Codec	VDDIO of Audio Codec
92	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
93	GPIO3_D3/I2S0_SDI0	I/O	I	down	34k-93 k	I2S 0 port, for audio codec	1.8V	I2S0_SDI0	I2S0_SDI0
94	GPIO2_C3/UART0_RTSN	I/O	I	up	54k-12 3k	UART0 serial port, for BT module	1.8V	UART0_RTS	UART0_RTS

95	GPIO4_A4/I2S1_LRCK_RX	I/O	I	down	34k-93k	HDMI input reset output I2S 1 port, for BT module	1.8V	HDMIIN_RST	I2S1_LRCK_RX_BT_PCM
96	GPIO4_D4	I/O	I	down	34k-95k	Headphone insert detect input	3.0V	HP_DET_H	HP_DET_H
97	GPIO4_A1/I2C1_SDA	I/O	I	up	33k-88k	I2C serial port 1, for Audio, need external pull-up	1.8V	I2C1_SDA	I2C_SDA_AUDIO
98	GPIO2_D2/SDIO0_DETNP/PCIE_CLKREQN	I/O	I	up	54k-130k	AP wake up BT module	1.8V	BT_WAKE_L	BT_WAKE_L
99	GPIO4_A2/I2C1_SCL	I/O	I	up	33k-88k	I2C serial port 1, for Audio, need external pull-up	1.8V	I2C1_SCL	I2C_SCL_AUDIO
100	GPIO4_D1/DP_HOTPLUG	I/O	I	down	34k-95k	USB HOST power control output	3.0V	VCC5V0_HOST_EN	VCC5V0_HOST_EN
101	GPIO4_C5/SPDIF_TX	I/O	I	down	34k-95k	HDMI digital audio optical output	3.0V	-	SPDIF_TX
102	GPIO4_C6/PWM1	I/O	I	down	34k-95k	Touch panel reset input	3.0V	-	TOUCH_RST_L
103	GPIO4_C3/UART2DBG_RX	I/O	I	up	33k-89k	Uart2 serial port data input, for AP debug	3.0V	UART2_RXD	UART2_RXD
104	GPIO2_C0/UART0_RX	I/O	I	up	54k-120k	UART0 serial port, for BT module	1.8V	UART0_RXD	UART0_RXD
105	GPIO3_D2/I2S0_LRCK_TX	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_LRCK_TX	I2S0_LRCK_TX
106	GPIO2_D3/SDIO0_PWREN	I/O	I	down	55k-176k	MIPI camera reset output MEMSI interrupt input	1.8V	Camera_RST_L	DNP
107	GPIO4_D5	I/O	I	down	34k-95k	LCD panel CABC enable LCD panel reset output	3.0V	-	CABC_EN
108	GPIO2_C2/UART0_CTSN	I/O	I	up	54k-122k	UART0 serial port, for BT module	1.8V	UART0_CTS	UART0_CTS
109	GPIO4_C7/HDMI_CECINOUT/EDP_HOTPLUG	I/O	I	up	33k-89k	HDMI CEC communication	3.0V	HDMI_CEC	HDMI_CEC
110	GPIO2_D4/SDIO0_BKPWR	I/O	I	down	55k-176k	Camera power down control output for rear	1.8V	DVP_PDN1_H	DVP_PDN1_H
111	GPIO3_D7/I2S0_SDO0	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_SDO0	I2S0_SDO0
112	PWR_EN	I	I	down	N/A	Adapter voltage detect input	3.3V~12V	system power on signal by adapter plug in	system power on signal by adapter plug in
113	GPIO3_D0/I2S0_SCLK	I/O	I	down	34k-93k	I2S 0 port, for audio codec	1.8V	I2S0_SCLK	I2S0_SCLK
114	GND	G	N/A	N/A	N/A	power ground	N/A	GND	GND
115	GPIO2_C1/UART0_TX	I/O	I	up	54k-121k	UART0 serial port, for BT module	1.8V	UART0_TXD	UART0_TXD

116	VCC2V8_DVP	P	N/A	N/A	N/A	Power output 2.8V/0.15A	N/A	AVDD of Camera	AVDD of Camera
117	VCC_3V0	P	N/A	N/A	N/A	Power output 3.0V/0.25A	N/A	VDD pull up of APIO4	VDD pull up of APIO4
118	VCC3V3_S0	P	N/A	N/A	N/A	Power output 3.3V/0.15A	N/A	VCCIO of display panel	VCCIO of display panel
119	VCCA	P	N/A	N/A	N/A	Power input 3.3V~5V/0.1A	N/A	VCC_RTC/VCCA of PMU	VCC_RTC/VCCA of PMU
120	VCCA3V0_CODEC	P	N/A	N/A	N/A	Power output 3.0V/0.3A	N/A	AVDD of Audio IC	AVDD of Audio IC

Notes:

①:Pin Type: I = input, O = output, I/O = input/output (bidirectional), P=power supply, A = Analog input

②:I/O Pull: u=default pull-up, d=default pull-down, Z=default high-Z, fix up=default pull-up and can't be configured to pull-down

③:Output Drive Unit is mA, only Digital IO has driver strength value;

### Power Supply Voltage Parameters

Symbol	Parameter	Current Typ	Voltage		
			Min (V)	Typ (V)	Max (V)
VCC_SYS	Main power input for LCB3399	3A	3.5	5	5.5
VCCA	Backup voltage input for RTC and power on detect	60uA	VCC_SYS-0.5	VCC_SYS	5.5
VCC3V3_SYS	3.3V power input for LCB3399	2A	3.2	3.3	3.4
VCC3V3_S3	3.3V output for carrier board use	0.5A	3.2	3.3	3.4
VCC_3V0	3.0V output for carrier board use	0.25A	2.9	3	3.1
VCC_1V8	1.8V output for carrier board use	0.5A	1.7	1.8	1.9
VCC1V8_S3	1.8V output for carrier board use	0.5A	1.7	1.8	1.9
VCC1V8_DVP	1.8V output for carrier board use	0.1A	1.7	1.8	1.9
VCC2V8_DVP	2.8V output for carrier board use	0.15A	2.7	2.8	2.9
VCCA1V8_CODEC	1.8V output for carrier board use	0.2A	1.7	1.8	1.9
VCCA3V0_CODEC	3.0V output for carrier board use	0.3A	2.9	3	3.1
PMIC_EXT_EN	Output enable for external BUCK	-	0	VCCA	VCCA+0.3
PWR_EN (threshold)	System Power on signal input	-	3	5	12





## 6.Application Scenarios



**AI**



**Machine Vision**



**Industrial Control**



**Energy and Power**



**Smart Tablet**



**VR**



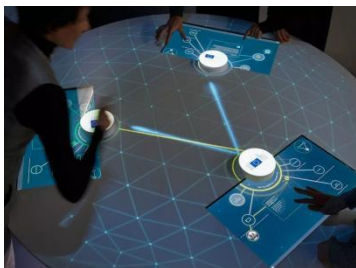
**Smart Logistics**



**New**



**Smart Commercial**



**Object Recognition**



**Vehicle terminal**



**Security Surveillance**

## 7.Ordering Model

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<b>Product Model</b>	<b>Status</b>	<b>CPU</b>	<b>DDR</b>	<b>eMMC</b>	<b>Operating Temperature</b>
LC10121600	ACTIVE	RK3399	2GB	16GB	-10°C - 70°C
LC10141600	ACTIVE	RK3399	4GB	16GB	-10°C - 70°C
LC10146400	ACTIVE	RK3399	4GB	64GB	-10°C - 70°C

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\*For customized non-standard orders, please contact us via email at [sales@neardi.com](mailto:sales@neardi.com).

# 8.About NearDi
















Shanghai NearDi Technology Co., Ltd., established in 2014, is a national-level high-tech enterprise, a strategic partner of Rockchip, and an authorized agent for Black Sesame Technologies. We focus on the research and development and production of enterprise-level open-source hardware platforms, offering customers core modules, industry-specific boards, development boards, touch panels, and industrial control hosts. Adhering to the core philosophy of technological innovation and professional service, leveraging NearDi Technology's technical strengths and industry experience, we assist our partners in achieving rapid mass production of their products.

## Company Advantages

Software Design / Custom OS / Product ODM / Bulk Delivery

## Products

### Rockchip

System On Module				
 LCB3588/J	 LCB3568/J	 LCB3566	 LCB3399Pro	 LCB3399
Development Board				
 LKD3588/J	 LKD3568/J	 LKD3566	 LKD3399Pro	 LKD3399
Embedded Computer				
 LPB3588	 LPM3588	 LPC3588	 LPB3568	 LPB3399Pro






### Black Sesame Technologies

 SOM-A-A1000	 SOM-π-A1000	 SOM-B-A1000	 SOM-A1000 开发者套件
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### Vehicle Terminal

 LPA3588	 LPA3568	 LPA3399Pro	 LPS3399Pro
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### WIFI Module

 FD7352S	 FD7352P	 FD7352M	 FD7155U	 FD7256S
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