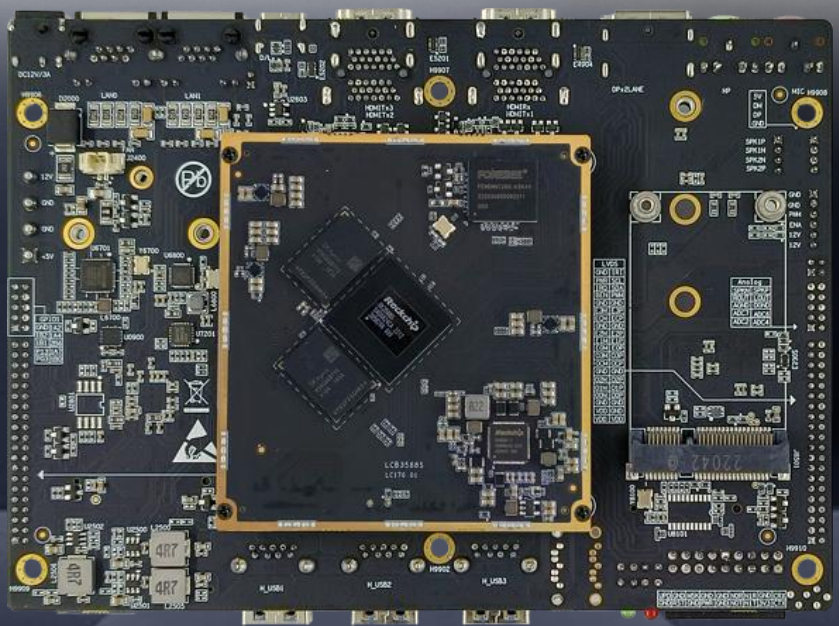
neardi临滴

LKD3588S 开发板

产品手册

V2.3



上海临滴科技有限公司

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版本历史

版本	日期	说明
V1.0	2022/8/23	初始版本
V2.0	2024/3/11	产品手册优化
V2.1	2024/4/25	数据更新
V2.3	2024/7/31	数据更新

目录

1.产品介绍

LKD3588S 是基于瑞芯微 RK3588 芯片平台精心设计的一款多功能开发评估板，其由我司的 LCB3588S 核心模块与底板组成。核心模块与底板采用 B2B 连接器的方式连接，并通过 4 颗 M2 的螺丝固定，稳定可靠。整板功能多样，接口丰富，尺寸小巧，轻薄平整，适用于结构空间受限的产品。

LKD3588S 板载 3 路 Type-A USB3.0，1 路 Type-C USB 3.1 以及 1 路 4pin PH2.0 插口的 USB2.0 接口，可以外接多个 USB 摄像头；板载 1 个 mini-PCIe 接口，除了可以外接 4G 模块，LKD3588S 还支持双频 WIFI6、BT5.0、双路 1000M 以太网、UART、I2C、RS232、RS485、CANBUS 等常用通讯模块接口，支持 2 路 HDMI 输出、1 路双通道 LVDS 输出、1 路 DP 接口输出等多种显示接口并支持多屏异显；另外还可支持多路 mipi-csi 摄像头接口输入以及 1 路 HDMI2.0 接口输入。

LKD3588S 支持 Android、buildroot、Debian 和 Ubuntu 系统，具备高性能、高可靠性、高扩展性等优势，为用户开放系统源码。用户可基于此款产品二次开发和定制，我司为开发者和企业用户提供全方位的技术支持，使其高效的完成研究开发工作，大量缩短产品研发量产周期。

2. 功能概述

高性能处理器

CPU	8nm 先进制程，8 核 64 位架构，高性能，低功耗
GPU	ARM Mali-G610 MC4 GPU，专用 2D 图形加速模块
NPU	6TOPS 算力
VPU	8K 视频编解码 ，8K 显示输出
DDR	LPDDR4,可选 4/8/16GB
eMMC	eMMC 5.1,可选 32/64/128GB

接口丰富

2 路 HDMI2.1 输出，一路双 8 位 LVDS 输出，多屏异显

4 路 mipi-csi (2lane) 接口，最多 6 个 mipi 摄像头输入

2 路千兆网口，双频 WIFI6

3 路 Type-A USB3.0，1 路 Type-C USB3.1，1 路 4Pin PH2.0 插座 USB2.0

3*Uart, 1*I2C, 1*CAN

操作系统

Android

Linux （Buildroot / Debian / Ubuntu）

开源资料

WIKI 资料

http://www.neardi.com/cms/index/wiki.html

快速入门

升级固件

Android 开发

Linux 开发

内核驱动

DEMO

系统定制

配件

常见问题

发布说明

硬件资料

芯片 Datesheet

核心板引脚定义

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底板参考 PCB

关键物料清单

产品 2/3D 图

软件资料

烧写工具及驱动

Android 源码及镜像

uboot 及内核源码

Debian/Ubuntu/Buildroot 的系统文件

3.规格参数

基本参数

SOC	RK3588S 8nm；8 核 64 位架构处理器 （4*A76+4*A55）
GPU	ARM Mali-G610 MC4；OpenGL ES 1.1/2.0/3.1/3.2；Vulkan 1.1/1.2 OpenCL 1.1/1.23/2.0；高性能 2D 图像加速模块
NPU	6TOPS 算力 / 3 核架构；支持 int4/int8/int16/FP16/BF16/TF32
VPU	支持 H.265/H.264/AV1/VP9/AVS2 视频解码，最高支持 8K60FPS 支持 H.264/H.265 视频编码，最高支持 8K30FPS
DDR	LPDDR4，可选 4GB/8GB/16GB
eMMC	eMMC 5.1，可选 32GB/64GB/128GB
PMU	RK806
系统	Android / Ubuntu / Buildroot / Debian

硬件参数

Power	DC12V - 3A (DC Jack 5.5*2.1mm / PH2.0 wafer connector)
USB	3*Type-A USB3.0
	1*Type-C USB3.1
	1*4Pin PH2.0 USB2.0
Display	2*Type-A HDMI 2.1 up to 8K@60fps or 4K@120fps
	Duel channel LVDS up to 1080P@60HZ

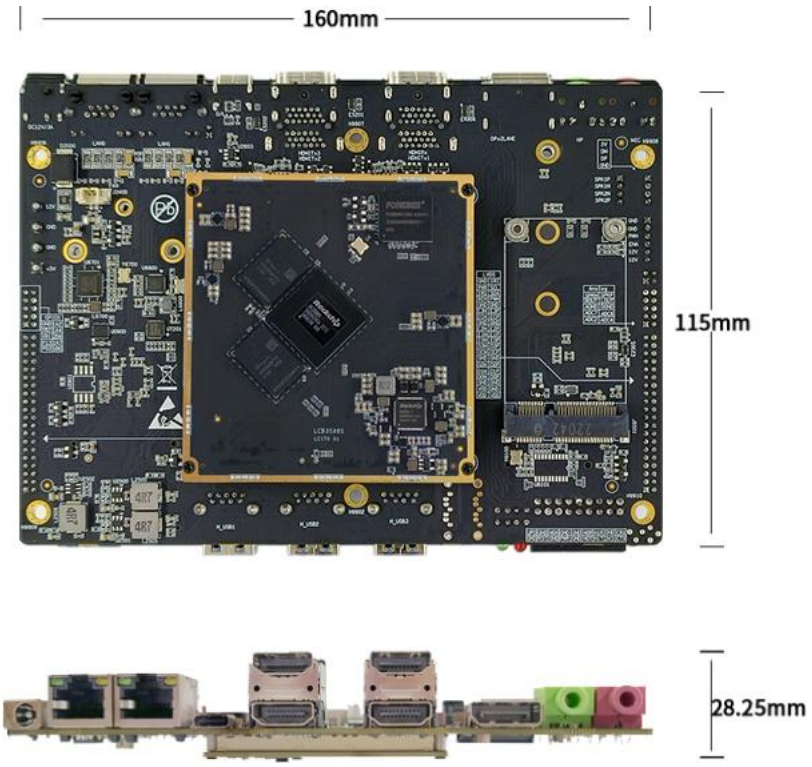
Audio	φ3.5mm earphone Jack with L/R audio out
	φ3.5mm micphone Jack with Mic in
	1*HDMI audio out
Camera	3* MIPI CSI (4 Lane) 或者 2*MIPI CSI (2 Lane) + 2* MIPI CSI (4 Lane)
SD card	Compatible with SDIO 3.0 protocol, system boot up supported
SIM card	Micro sim slot for Mini-PCIe 4G LTE module
RJ-45	2*10/100/1000-Mbps data transfer rates
RTC	RTC power on and off supported
Serial port	3*Uart, 1*I2C, 1*CAN
Keys	3* keys (power, reset, update)
Power output	12V, 5V, 3.3V,1.8V

其他参数

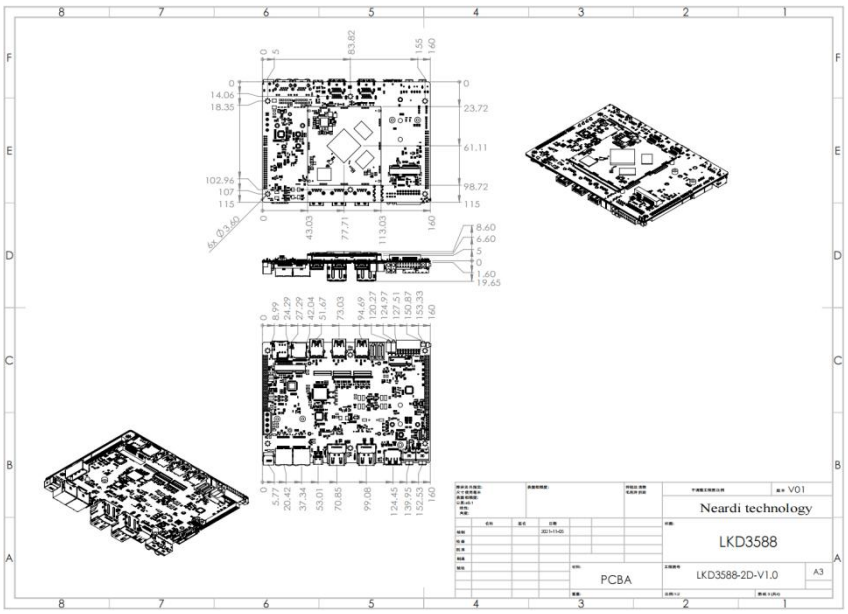
尺寸	L*W*H(mm) 160*115*28.25
温度	工作温度 -10 - 70℃
重量	约 200g（不含外设）

4. 外观和尺寸

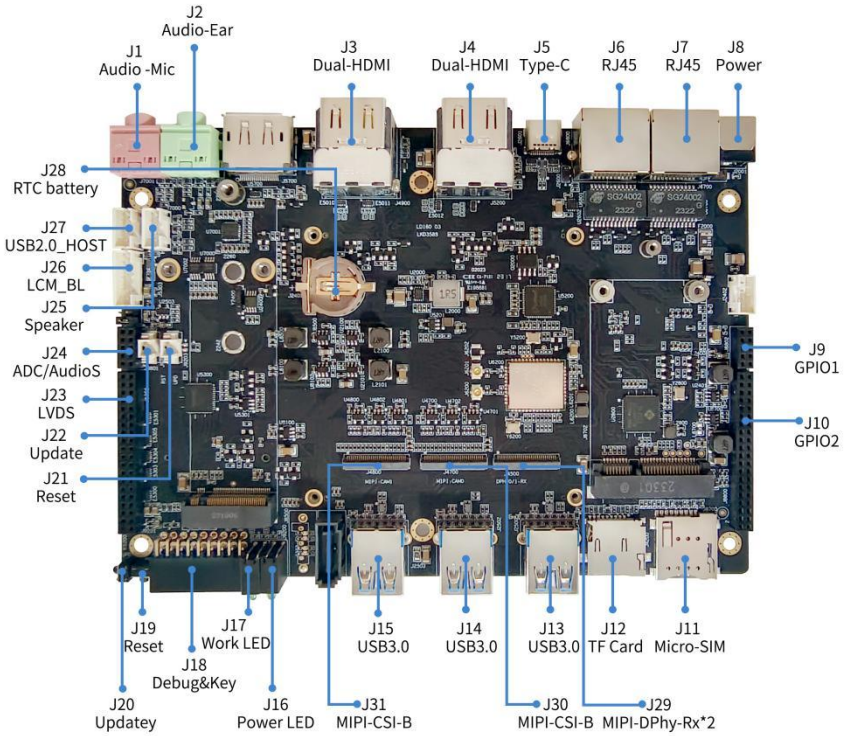
4.1 外观



4.2 尺寸



5.接口定义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Audio-Ear
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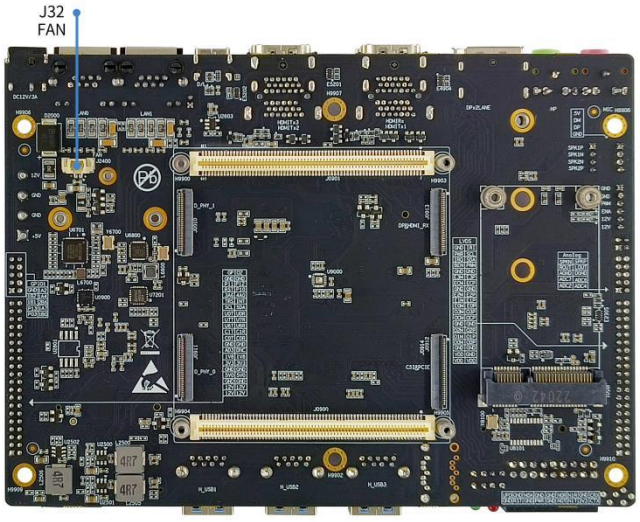
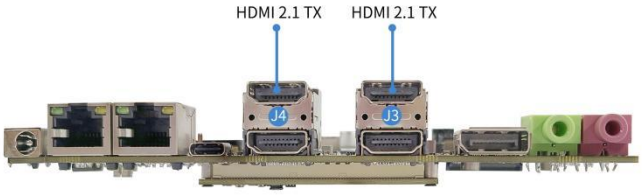

J32
FAN


HDMI 2.1 TX
HDMI 2.1 TX
J4
J3

Part reference	Part Name	Part Specifications	Part Description
J1	Audio Jack-Mic	φ3.5mm 3-L Jack	Micphone In
J2	Audio Jack-Ear	φ3.5mm 3-L Jack	L/R audio out
J3	Dual-HDMI	Type-A HDMI 2in1	HDMI2.1 Tx
J4	Dual-HDMI	Type-A HDMI 2in1	HDMI2.1 Tx
J5	Type-C	Type-C Socket	Type-C with USB3.0 or Display port / Debug
J6	RJ45	Gigabit Ethernet	10/100/1000-Mbps data transfer rates
J7	RJ45	Gigabit Ethernet	10/100/1000-Mbps data transfer rates
J8	power	DC 5.5*2.1mm	Main power supply, DC12V – 3A
J9	GPIO1	PH2.0mm 2x5pin header	GPIO for external usage
J10	GPIO2	PH2.0mm 2x20pin header	GPIO and Power for external usage
J11	Micro-SIM	Push-Push Micro SIM Socket	For Micro SIM Card (1.8/3.3V)
J12	TF Card	Push-Push TF socket	TF Card
J13	USB3.0	Type-A USB3.0	USB3.0
J14	USB3.0	Type-A USB3.0	USB3.0
J15	USB3.0	Type-A USB3.0	USB3.0
J16	Power LED	Red and Green LEDs	Power status indicate
J17	Work LED	Green led *2	Work status and 3G/4G Module Status Indicator
J18	Debug&Key	PH2.54mm 2x9pin Receptacle	Debug and Key and 3.3V out
J19	Reset	push-button	Key for system reset
J20	Update	push-button	Key for system recovery or other function
J21	Reset	PH2.0mm 2pin wafer	Connector for external Reset key
J22	Update	PH2.0mm 2pin wafer	Connector for external update key
J23	LVDS	PH2.0mm 2x20pin header	Dual channel 24bit LVDS output
J24	ADC/Audio	PH2.0mm 2x5pin header	ADC In and Audio Out
J25	SPEAKER	PH2.0mm 4pin wafer	Dual channel audio Output for Speaker
J26	LCM_BL	PH2.0mm 6pin wafer	LCM backlight control
J27	USB2.0	PH2.0mm 4pin wafer	USB2.0 for external devices
J28	RTC battery	CR1220 Socket	RTC battery power input 3.0V
J29	MIPI-DPhy-Rx*2	30pin 0.5mm pitch FPC connector	Dual MIPI 4Lane Rx
J30	MIPI-CSI-B	30pin 0.5mm pitch FPC connector	MIPI-CSI 4lane or 2*2Lane for external cameras
J31	MIPI-CSI-A	30pin 0.5mm pitch FPC connector	MIPI-CSI 4lane or 2*2Lane for external cameras
J32	FAN	PH2.0mm 2pin wafer	12V Output for FAN Power

6.引脚定义

Audio Jack-Mic（J1）			
Pin number	**Pin name**	**Voltage level**	**Notice**
1	GND	GND	-
2	Mic in	-	Vp-p < 0.8V
3	NC	-	-
4	NC	-	-
5	Mic in	-	Vp-p < 0.8V
Audio Jack-Earphone（J2）			
Pin number	**Pin name**	**Voltage level**	**Notice**
1	GND	GND	-
2	EarPhone right out	-	0.5V RMS @32Ohm Load
3	NC	-	Not Connected
4	Detect	-	Low-Plug Out; High-Plug In
5	EarPhone right out	-	0.5V RMS @32Ohm Load
Dual-HDMI（J3）			
Pin number	**Pin name**	**Voltage level**	**Notice**
U1	D2P	-	HDMI2.1 Output 0
U2	D2_GND	GND	-
U3	D2N	-	HDMI2.1 Output 0
U4	D1P	-	HDMI2.1 Output 0
U5	D1_GND	GND	-
U6	D1N	-	HDMI2.1 Output 0
U7	D0P	-	HDMI2.1 Output 0
U8	D0_GND	GND	-
U9	D0N	-	HDMI2.1 Output 0
U10	CLKP	-	HDMI2.1 Output 0
U11	CLK_GND	GND	-
U12	CLKN	-	HDMI2.1 Output 0
U13	NC	-	Not Connected
U14	AUXP	-	AUXP for eARC
U15	SCL	5V	I2C-SCL for HDMI2.1 Tx0(GPIO4_B7_u)
U16	SDA	5V	I2C-SDA for HDMI2.1Tx0(GPIO4_C0_u)
U17	GND	GND	-
U18	+5V	+5V	-
U19	AUXN	-	AUXN for eARC
D1	NC	-	-

D2	NC	-	-
D3	NC	-	-
D4	NC	-	-
D5	NC	-	-
D6	NC	-	-
D7	NC	-	-
D8	NC	-	-
D9	NC	-	-
D10	NC	-	-
D11	NC	-	-
D12	NC	-	-
，D13	NC	-	-
D14	NC	-	-
D15	NC	-	-
D16	NC	-	-
D17	NC	-	-
D18	NC	-	-
D19	NC	-	-

Dual-HDMI（J4）

Pin number	Pin name	Voltage level	Notice
U1	D2P	-	HDMI2.1 Output 1
U2	D2_GND	GND	-
U3	D2N	-	HDMI2.1 Output 1
U4	D1P	-	HDMI2.1 Output 1
U5	D1_GND	GND	-
U6	D1N	-	HDMI2.1 Output 1
U7	D0P	-	HDMI2.1 Output 1
U8	D0_GND	GND	-
U9	D0N	-	HDMI2.1 Output 1
U10	CLKP	-	HDMI2.1 Output 1
U11	CLK_GND	GND	-
U12	CLKN	-	HDMI2.1 Output 1
U13	NC	-	Not Connected
U14	AUXP	-	AUXP for eARC
U15	SCL	5V	I2C-SCL for HDMI2.1 Tx0(GPIO3_C6_u)
U16	SDA	5V	I2C-SDA for HDMI2.1Tx0(GPIO3_C5_u)
U17	GND	GND	-
U18	+5V	+5V	-
U19	AUXN	-	AUXN for eARC
D1	NC	-	-

D2	NC	-	-
D3	NC	-	-
D4	NC	-	-
D5	NC	-	-
D6	NC	-	-
D7	NC	-	-
D8	NC	-	-
D9	NC	-	-
D10	NC	-	-
D11	NC	-	-
D12	NC	-	-
D13	NC	-	-
D14	NC	-	-
D15	NC	-	-
D16	NC	-	-
D17	NC	-	-
D18	NC	-	-
D19	NC	-	-

Type-C（J5）

Pin number	Pin name	Voltage level	Notice
A1	GND	GND	-
A2	TYPEC0TX1P	-	-
A3	TYPEC0TX1N	-	-
A4	VBUS5V0_TYPEC	+5V	-
A5	TYPEC0_CC1	-	-
A6	TYPEC0_OTGDP	-	-
A7	TYPEC0_OTGDM	-	-
A8	TYPEC0_AUXP	-	-
A9	VBUS5V0_TYPEC	+5V	-
A10	TYPEC0RX2N	-	-
A11	TYPEC0RX2P	-	-
A12	GND	GND	-
B1	GND	GND	-
B2	TYPEC0TX2P	-	-
B3	TYPEC0TX2N	-	-
B4	VBUS5V0_TYPEC	+5V	-
B5	TYPEC0_CC2	-	-
B6	TYPEC0_OTGDP	-	-
B7	TYPEC0_OTGDM	-	-
B8	TYPEC0_AUXM	-	-
B9	VBUS5V0_TYPEC	+5V	-

B10	TYPEC0RX1N	-	-
B11	TYPEC0RX1P	-	-
B12	GND	GND	-

RJ45（J6）

Pin number	Pin name	Voltage level	Notice
1	DA+	-	-
2	DA-	-	-
3	DB+	-	-
4	DC+	-	-
5	DC-	-	-
6	DB-	-	-
7	DD+	-	-
8	DD-	-	-

RJ45（J7）

Pin number	Pin name	Voltage level	Notice
1	DA+	-	-
2	DA-	-	-
3	DB+	-	-
4	DC+	-	-
5	DC-	-	-
6	DB-	-	-
7	DD+	-	-
8	DD-	-	-

Power（J8）

Pin number	Pin name	Voltage level	Notice
1	DC-IN	12V	-
2	DC-IN	12V	-
3	GND	GND	-
4	GND	GND	-

GPIO1（J9）

Pin number	Pin name	Voltage level	Notice
1	EXTIO_P0_3	3.3V	Extended IO from AW9523
2	MIPI_CAM4_PDN_L	1.8V	GPIO1_B0_u
3	EXTIO_P1_3	3.3V	Extended IO from AW9523
4	MIPI_CAM3_PDN_L	1.8V	GPIO1_A7_u
5	MIPI_CAM4_PWREN_H	1.8V	GPIO0_B1_d
6	MIPI_CAM3/4_RESET_L	1.8V	GPIO2_B6_d
7	MIPI_CAM3_PWREN_H	1.8V	GPIO1_B2_d
8	MIPI_CAM2_PDN_L	1.8V	GPIO1_A4_d
9	GND	GND	-
10	MIPI_CAM1_PDN_L	1.8V	GPIO1_A2_d

GPIO2（J10）

Pin number	Pin name	Voltage level	Notice
1	VCC12V_DCIN	12V	+12V Input/Output
2	VCC12V_DCIN	12V	
3	VCC12V_DCIN	12V	
4	VCC12V_DCIN	12V	
5	GND	GND	-
6	GND	GND	-
7	VCC_5V0	5V	+5V Output (2A)
8	VCC_5V0	5V	
9	GND	GND	-
10	GND	GND	-
11	VCC3V3_EXT	3.3V	+3.3V Output (2A)
12	VCC3V3_EXT	3.3V	
13	VCC1V8_EXT	1.8V	+1.8V Output (0.2A)
14	VCC1V8_EXT	1.8V	
15	SARADC_VIN3_HP_HOOK	0~1.8V	ADC input
16	NC	-	Not Connected
17	GND	GND	-
18	GND	GND	-
19	CAN0_TX_3V3	3.3V	CAN0-Tx-M0/GPIO0_B7_d
20	CAN0_RX_3V3	3.3V	CAN0-Rx-M0/GPIO0_C0_d
21	NC	-	-
22	NC	-	-
23	UART6_TX_M2_3V3	3.3V	GPIO1_D0_d
24	UART6_RX_M2_3V3	3.3V	GPIO1_D1_d
25	UART4_TX_M0_3V3	3.3V	GPIO2_B5_u
26	UART4_RX_M0_3V3	3.3V	GPIO2_B4_u
27	UART9_TX_M2_3V3	3.3V	GPIO4_A3_d
28	UART9_RX_M2_3V3	3.3V	GPIO4_A4_d
29	I2C4_SCL_M0_3V3	3.3V	GPIO0_D0_d
30	I2C4_SDA_M0_3V3	3.3V	GPIO0_C7_d
31	TP_RST_L_3V3	3.3V	GPIO3_C1_d
32	TP_INT_L_3V3	3.3V	GPIO3_C0_d(In:3.3V/Out:1.8V)
33	GPIO3A6D_1V8	1.8V	GPIO3_A6_d
34	SPK_CTRL_H_3V3	3.3V	GPIO4_A0_d
35	MIPI_CAM1/2_RESET_L	1.8V	GPIO1_A3_d
36	EXTIO_P1_0	3.3V	Extended IO from AW9523
37	EXTIO_P1_1	3.3V	Extended IO from AW9523
38	EXTIO_P1_2	3.3V	Extended IO from AW9523
39	GND	GND	-

40	GND	GND	-

Micro-SIM（J11）

Pin number	Pin name	Voltage level	Notice
1	CD	SIM_VCC	SimCard insert detect - Low:SIM card pluged in; High: SIM card pulled out.
2	NC	-	-
3	NC	-	-
4	SIM-IO	SIM_VCC	Data of SIM Card
5	SIM-Clock	SIM_VCC	Clock of SIM Card
6	NC	-	-
7	SIM-Reset	SIM_VCC	Reset of SIM Card
8	GND	-	-
9	SIM-VCC	-	1.8V/3.3V Auto Switched

TF Card（J12）

Pin number	Pin name	Voltage level	Notice
1	Data2	VCCIO_SD	GPIO4_D2_u
2	Data3	VCCIO_SD	GPIO4_D3_u
3	CMD	VCCIO_SD	GPIO4_D4_u
4	VDD	VCCIO_SD	-
5	CLK	VCCIO_SD	GPIO4_D5_d
6	GND	GND	-
7	Data0	VCCIO_SD	GPIO4_D0_u
8	Data1	VCCIO_SD	GPIO4_D1_u
9	Card-Detect	1.8V	GPIO0_A4-u

USB3.0（J13）

Pin number	Pin name	Voltage level	Notice
1	VBUS	+5V	5V/1A Output
2	D-	GND	USB 1.1/2.0 DP
3	D+	-	USB 1.1/2.0 DM
4	GND	GND	-
5	RX-	-	USB3.0 SSRX-
6	RX+	-	USB3.0 SSR+
7	GND	GND	-
8	TX-	-	USB3.0 SSTX-
9	TX+	-	USB3.0 SSTX+

USB3.0（J14）

Pin number	Pin name	Voltage level	Notice
1	VBUS	+5V	5V/1A Output
2	D-	GND	USB 1.1/2.0 DP
3	D+	-	USB 1.1/2.0 DM
4	GND	GND	-

5	RX-	-	USB3.0 SSRX-
6	RX+	-	USB3.0 SSR+
7	GND	GND	-
8	TX-	-	USB3.0 SSTX-
9	TX+	-	USB3.0 SSTX+

USB3.0（J15）

Pin number	Pin name	Voltage level	Notice
1	VBUS	+5V	5V/1A Output
2	D-	GND	USB 1.1/2.0 DP
3	D+	-	USB 1.1/2.0 DM
4	GND	GND	-
5	RX-	-	USB3.0 SSRX-
6	RX+	-	USB3.0 SSR+
7	GND	GND	-
8	TX-	-	USB3.0 SSTX-
9	TX+	-	USB3.0 SSTX+

Power LED（J16）

Pin number	Pin name	Voltage level	Notice
1	LED1+	-	Red LED for Power OK
2	LED1-	-	-
3	LED2+	-	Green LED for system status
4	LED2-	-	-

Work LED（J17）

Pin number	Pin name	Voltage level	Notice
1	LED1+	-	Green LED for 3G/4G Modue
2	LED1-	-	-
3	LED2+	-	Green LED for system status
4	LED2-	-	-

Debug&Key（J18）

Pin number	Pin name	Voltage level	Notice
1	CPU_DBG_TX	3.3V	1.5M bps Datarate/GPIO0_B5_d
2	CPU_DBG_RX	3.3V	1.5M bps Datarate/GPIO0_B6_d
3	VCC3V3_EXT	3.3V	3.3V/1A Output
4	GND	GND	-
5	NPU1_TX	3.3V	UART From PCIe Slot(J41)
6	NPU1_RX	3.3V	UART From PCIe Slot(J41)
7	NPU2_TX	3.3V	UART From PCIe Slot(J33)
8	NPU2_RX	3.3V	UART From PCIe Slot(J33)
9	GND	GND	-
10	GND	GND	-
11	PWR_KEY	+3.3V	Pulled up internally by 30K Ohm resistor

12	GND	GND	-
13	GND	-	-
14	BOOT_SARADC_IN0_IO	-	Pulled up internally. Pull Low to make system enter USB download mode
15	RST_KEY	-	Pulled up internally. Pull Low to reboot the entire system.
16	GND	GND	-
17	GND	GND	-
18	UPDATE_KEY	-	Key for system recovery or other function

Reset Key（J19）

Pin number	Pin name	Voltage level	Notice
1	RESETn	-	Push to Reset the system

Update（J20）

Pin number	Pin name	Voltage level	Notice
1	SARADC_VIN1	0~1.8V	Key for system recovery or other function

Reset for external key(J21)

Pin number	Pin name	Voltage level	Notice
1	RESETn	-	Push to Reset the system
2	GND	GND	-

Update for external key (J22)

Pin number	Pin name	Voltage level	Notice
1	SARADC_VIN1	0~1.8V	Key for system recovery or other function
2	GND	GND	-

LVDS（J23）

Pin number	Pin name	Voltage level	Notice
1	VCC_LVDS	3.3V/5V optional by J27	-
2	VCC_LVDS		-
3	VCC_LVDS		-
4	GND	GND	-
5	GND	GND	-
6	GND	GND	-
7	RXO0M	-	-
8	RXO0P	-	-
9	RXO1M	-	-
10	RXO1P	-	-
11	RXO2M	-	-
12	RXO2P	-	-
13	GND	GND	-

14	GND	GND	-
15	RXOCM	-	-
16	RXOCP	-	-
17	RXO3M	-	-
18	RXO3P	-	-
19	RXE0M	-	-
20	RXE0P	-	-
21	RXE1M	-	-
22	RXE1P	-	-
23	RXE2M	-	-
24	RXE2P	-	-
25	GND	GND	-
26	GND	GND	-
27	RXECM	-	-
28	RXECP	-	-
29	RXE3M	-	-
30	RXE3P	-	-
31	GND	-	-
32	GND	-	-
33	LVDS_BL_EN	1.8V	GPIO2_C1_d
34	LVDS_BL_PWM0	1.8V	GPIO4_C6_d
35	LVDS_IRQ	3.3V	Connected to GM8775
36	I2C_SDA_LVDS	1.8V	I2C2_SDA_M4/GPIO1_A0_d
37	LVDS_PWR_EN	1.8V	GPIO1_D6_u
38	I2C_SCL_LVDS	1.8V	I2C2_SCL_M4/GPIO1_A1_d
39	GND	-	-
40	NC	-	Not Connected

ADC/Audio (J24)

Pin number	Pin name	Voltage level	Notice
1	SARADC_VIN2	0～1.8V	ADC Input Channel 5
2	SARADC_VIN4	0～1.8V	ADC Input Channel 4
3	NC	-	-
4	NC	-	-
5	HP_GND	Analog GND	-
6	GND	GND	-
7	HPR_OUT	Analog	HeadPhone Right Channel Output
8	HPL_OUT	Analog	HeadPhone Left Channel Output
9	SPKN_OUT	Analog	Speaker Output N（3W @4 Ohm Load）
10	SPKP_OUT	Analog	Speaker Output P（3W @4 Ohm Load）

SPEAKER (J25)

Pin number	Pin name	Voltage level	Notice
1	SPK_OUT_R+	-	3W ClassD audio Output
2	SPK_OUT_R-	-	
3	SPK_OUT_L-	-	3W ClassD audio Output
4	SPK_OUT_L+	-	

LCM_BL (J26)

Pin number	Pin name	Voltage level	Notice
1	GND	GND	-
2	GND	GND	-
3	BL_ADJ	1.8V	GPIO4_C6_d
4	BL_EN	1.8V	GPIO2_C1_d
5	VCC12V_BL	12V	12V Output for BackLight
6	VCC12V_BL	12V	12V Output for BackLight

USB2.0 (J27)

Pin number	Pin name	Voltage level	Notice
1	+5V	+5V	5V/1A Output
2	D-	-	-
3	D+	-	-
4	GND	GND	-

RTC Battery (J28)

CR1220 lithium battery Socket 3V

MIPI-DPhy-Rx*2 (J29)

Pin number	Pin name	Voltage level	Notice
3,6,9,12,15,18,21,24,27,30	GND	GND	-
1	MIPI_DPHY0_RX_CLKP	-	-
2	MIPI_DPHY0_RX_CLKN	-	-
4	MIPI_DPHY0_RX_D0P	-	-
5	MIPI_DPHY0_RX_D0N	-	-
7	MIPI_DPHY0_RX_D1P	-	-
8	MIPI_DPHY0_RX_D1N	-	-
10	MIPI_DPHY0_RX_D2P	-	-
11	MIPI_DPHY0_RX_D2N	-	-
13	MIPI_DPHY0_RX_D3P	-	-
14	MIPI_DPHY0_RX_D3N	-	-
16	MIPI_DPHY1_RX_CLKP	-	-
17	MIPI_DPHY1_RX_CLKN	-	-
19	MIPI_DPHY1_RX_D0P	-	-
20	MIPI_DPHY1_RX_D0N	-	-
22	MIPI_DPHY1_RX_D1P	-	-
23	MIPI_DPHY1_RX_D1N	-	-
25	MIPI_DPHY1_RX_D2P	-	-

26	MIPI_DPHY1_RX_D2N	-	-
28	MIPI_DPHY1_RX_D3P	-	-
29	MIPI_DPHY1_RX_D3N	-	-

MIPI-CSI-B (J30)

Pin number	Pin name	Voltage level	Notice
1,4,7,10,13,16,19	GND	GND	-
2	MIPI_CAM2_RX_D0P	-	-
3	MIPI_CAM2_RX_D0N	-	-
5	MIPI_CAM2_RX_D1P	-	-
6	MIPI_CAM2_RX_D1N	-	-
8	MIPI_CAM2_RX_CLK0N	-	-
9	MIPI_CAM2_RX_CLK0P	-	-
11	MIPI_CAM2_RX_D2P	-	-
12	MIPI_CAM2_RX_D2N	-	-
14	MIPI_CAM2_RX_D3P	-	-
15	MIPI_CAM2_RX_D3N	-	-
17	MIPI_CAM2_RX_CLK1P	-	-
18	MIPI_CAM2_RX_CLK1N	-	-
20	MIPI_CAM2_CLK	1.8V	GPIO1_B7-u
21	CAMB_RST1	1.8V	GPIO2_B6-d
22	CAMB_PDN1_L	1.8V	GPIO1_A7-u
23	CAMB_RST2	1.8V	GPIO2_B6-d
24	CAMB_PDN2_L	1.8V	GPIO1_B0-u
25	I2C_SCL_CAM2	1.8V	I2C2_SCL_M4/GPIO1_A1-d
26	I2C_SDA_CAM2	1.8V	I2C2_SDA_M4/GPIO1_A0-d
27	VCC1V8_DOVDD_DVP0	1.8V	1.8V Output (300mA)
28	VDD1V2_DVDD_DVP0	1.2V	1.2V Output (300mA)
29	VCC2V8_DVP0	2.8V	2.8V Output (300mA)
30	VCC2V8_AVDD_DVP0	2.8V	2.8V Output (300mA)

Note: This MIPI can be used as a 4-Lane or 2*2Lane input.

MIPI-CSI-A (J31)

Pin number	Pin name	Voltage level	Notice
1,4,7,10,13,16,19	GND	GND	-
2	MIPI_CAM1_RX_D0P	-	-
3	MIPI_CAM1_RX_D0N	-	-
5	MIPI_CAM1_RX_D1P	-	-
6	MIPI_CAM1_RX_D1N	-	-
8	MIPI_CAM1_RX_CLK0N	-	-
9	MIPI_CAM1_RX_CLK0P	-	-
11	MIPI_CAM1_RX_D2P	-	-
12	MIPI_CAM1_RX_D2N	-	-

14	MIPI_CAM1_RX_D3P	-	-
15	MIPI_CAM1_RX_D3N	-	-
17	MIPI_CAM1_RX_CLK1P	-	-
18	MIPI_CAM1_RX_CLK1N	-	-
20	MIPI_CAM1_CLK	1.8V	GPIO1_B6-u
21	CAMA_RST1	1.8V	GPIO1_A3-d
22	CAMA_PDN1_L	1.8V	GPIO1_A2-d
23	CAMA_RST2	1.8V	GPIO1_A3-d
24	CAMA_PDN2_L	1.8V	GPIO1_A4-d
25	I2C_SCL_CAM1	1.8V	I2C3_SCL_M0/GPIO1_C1-z
26	I2C_SDA_CAM1	1.8V	I2C3_SDA_M0/GPIO1_C0-z
27	VCC1V8_DOVDD_DVP0	1.8V	1.8V Output (300mA)
28	VDD1V2_DVDD_DVP0	1.2V	1.2V Output (300mA)
29	VCC2V8_DVP0	2.8V	2.8V Output (300mA)
30	VCC2V8_AVDD_DVP0	2.8V	2.8V Output (300mA)
Note: This MIPI can be used as a 4-Lane or 2*2Lane input.			

Fan Power(J32)

Pin number	Pin name	Voltage level	Notice
1	Fan Power out	+12V	+12V out for fan power
2	GND	GND	-

7.应用场景

人工智能

机器视觉

工业控制

能源电力

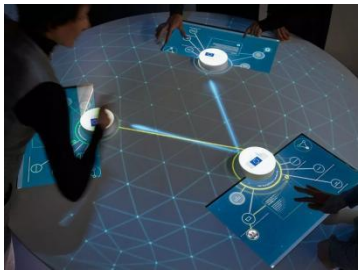
智慧平板

虚拟现实 VR

智慧物流

新零售

智慧商显



物体识别

车载终端

安防监控

8.订购型号

产品型号	状 态	CPU 型号	DDR 容量	eMMC 容量	工作温度
LZ16343200	ACTIVE	RK3588S	4GB	32GB	-10℃ - 70℃
LZ16386400	ACTIVE	RK3588S	8GB	64GB	-10℃ - 70℃
LZ1639A800	ACTIVE	RK3588S	16GB	128GB	-10℃ - 70℃

*非标定制请邮件咨询 sales@neardi.com

9.关于临滴

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公众号　　淘宝店铺　　B 站

Rockchip-产品线

核心模块


LCB3588/J


LCB3568/J


LCB3566


LCB3399Pro


LCB3399

开发板/行业板


LKD3588/J


LKD3568/J


LKD3566


LKD3399Pro


LKD3399

嵌入式智能计算机


LPB3588


LPM3588


LPC3588


LPB3568


LPB3399Pro

BST 黑芝麻-产品线


SOM-A-A1000


SOM-π-A1000


SOM-B-A1000


SOM-A1000 开发者套件

车载终端-产品线


LPA3588


LPA3568


LPA3399Pro


LPS3399Pro

WIFI 模块-产品线


FD7352S


FD7352P


FD7352M


FD7155U


FD7256S