

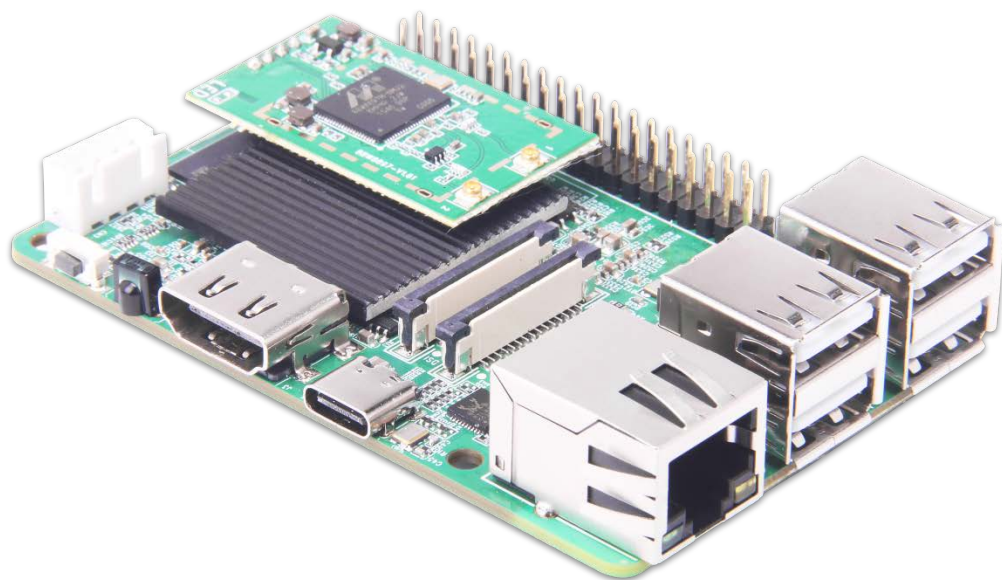
深圳金亚太科技有限公司
Shenzhen Geniatech Co.,Ltd.

XPI-3288 SPECIFICATION

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SPECIFICATION

MODEL:XPI-3288



Confirmation

REVISION HISTORY					
VERSION	DATE	BOARD ID	PAGE	DESCRIPTION	AUTHOR
V1.0	2021/03/01	XPI_RK3288_V1.0	7	specification	

APPROVED BY GENIATECH		
PREPARED BY 编写	CHECKED BY 审核	APPROVED BY 批准

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1. GENERAL DESCRIPTION

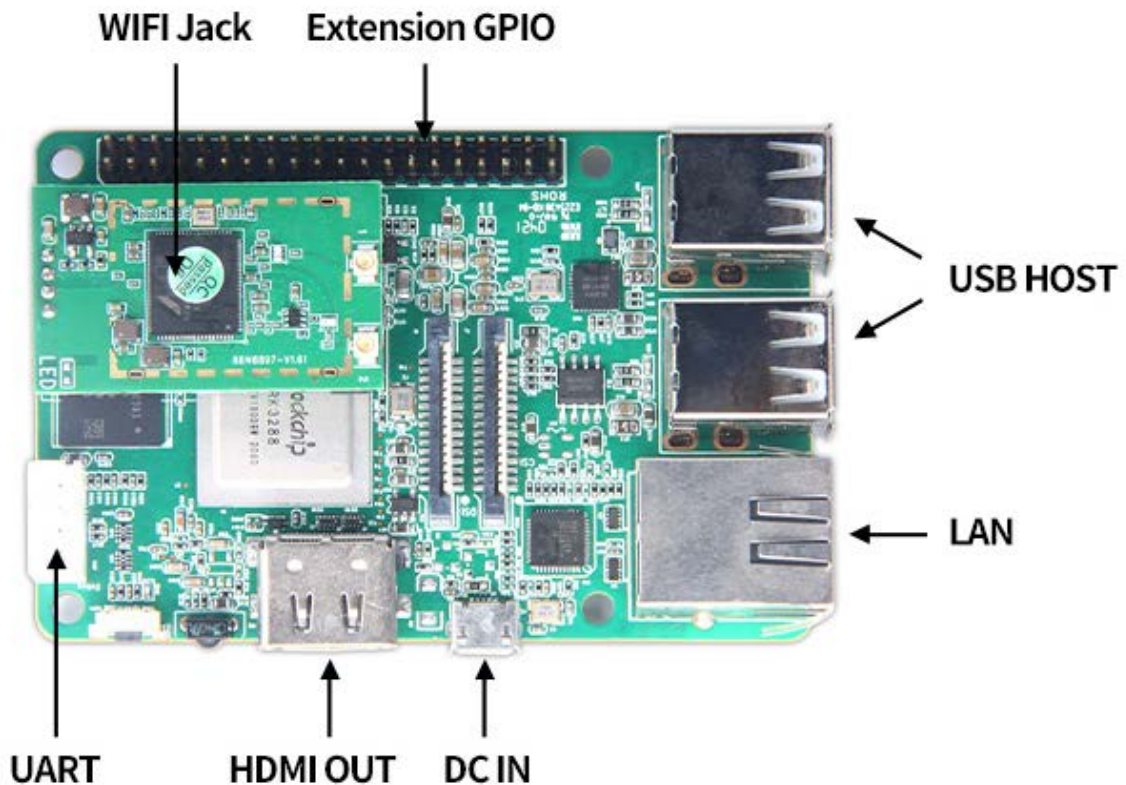
XPI-3288 is a DIY product made by Geniatech that uses the form factor of Raspberry Pi. According to the definition of Raspberry Pi, which is suitable for the field of programming education for teenagers. Below is the detailed specification:

- (I) 85mm*56mm, Only the size of a bank card
- (II) Rockchip RK3288 with Quad-core Cortex-A17 up to 1.6GHz
- (III) 2G RAM, 16GB eMMC flash
- (IV) 4*USB2.0, 1*HDMI Out, 1*Micro USB, 1*UART, 1* Extension GPIO interface
- (VI) WiFi and 1000M LAN interface
- (VII) Micro SD card(TF card : Max64G)
- (VIII) Designed for retail, interactive communication

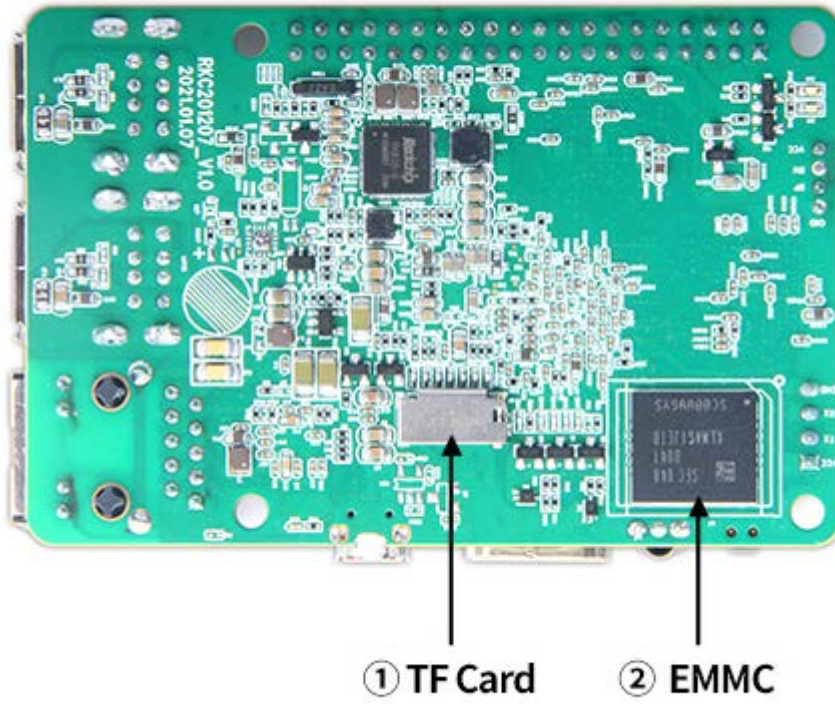
2. PRODUCT LAYOUT

Below pictures are for reference only:

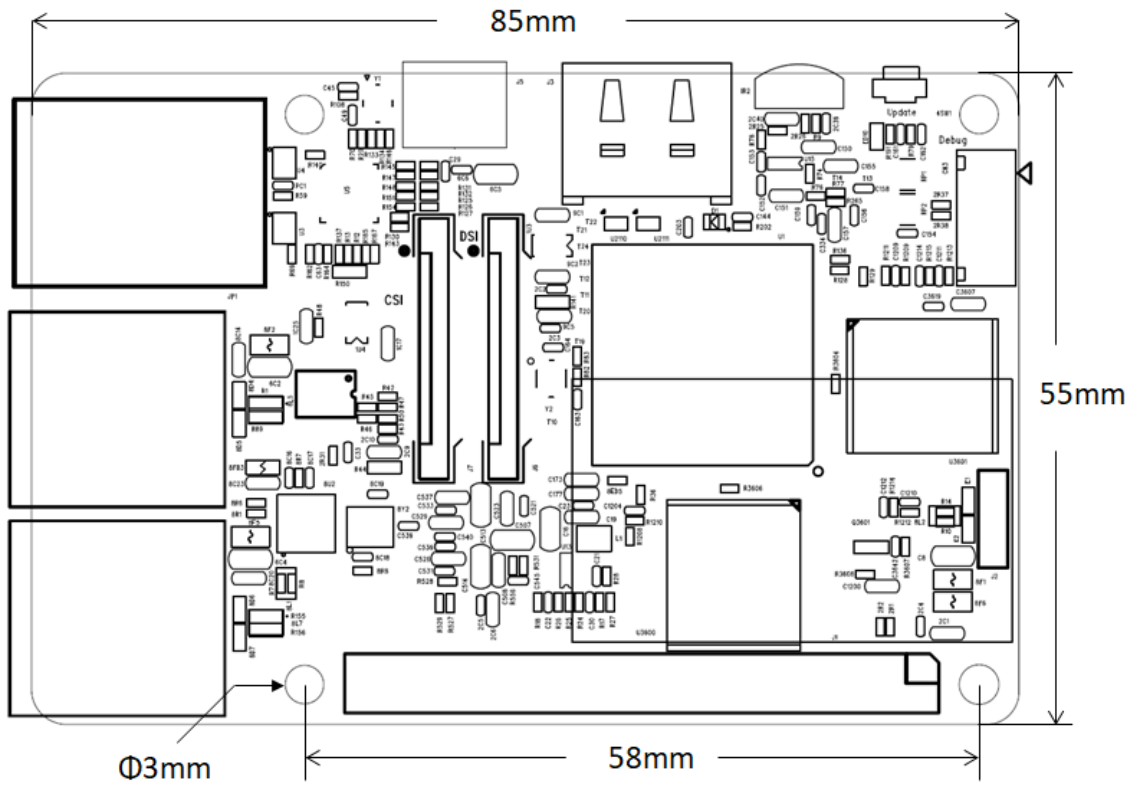
2.1 BOARD FRONT VIEW



2.2 BOARD BACK VIEW



2.3 STRUCTURE VIEW



3.FEATURES

Chipset	Rockchip RK3288	
Market area	Global	
OSD Language	English/Chinese(multi language OSD)	
Processor	CPU	Quad-core Cortex-A17 up to 1.6GHz
	GPU	Mali-T764
	DDR	2GB
	EMMC FLASH	16GB (8G/32G Optional)
Network	Ethernet	RJ45, 1000M
	WiFi	2.4G/5G Dual Band
	Bluetooth	BT4.0
Interface	TF Card Slot	TF card *1(max. 64GB)
	HDMI	HDMI out*1
	USB Host	USB Host 2.0*4
	TYPE-C	Power IN*1
	GPIO	GPIO*28
Dimensions	85 mm * 55 mm	
Adapter	DC5V / 3A	
Accessory	N/A, XPI only	

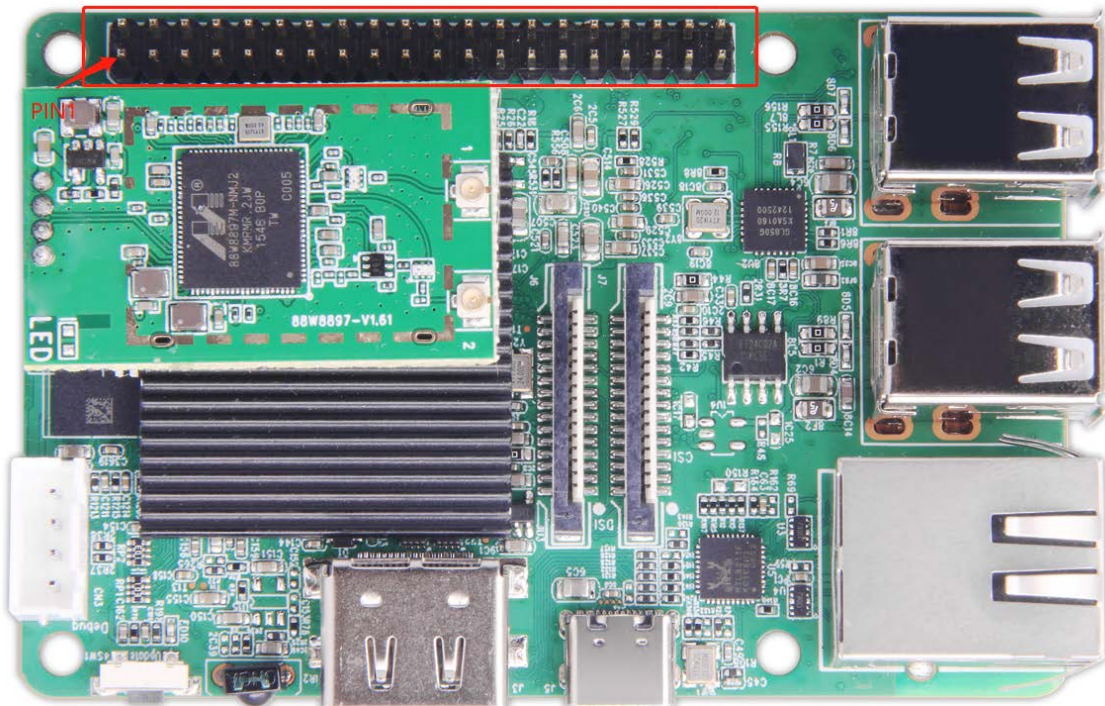
4.Support Formats

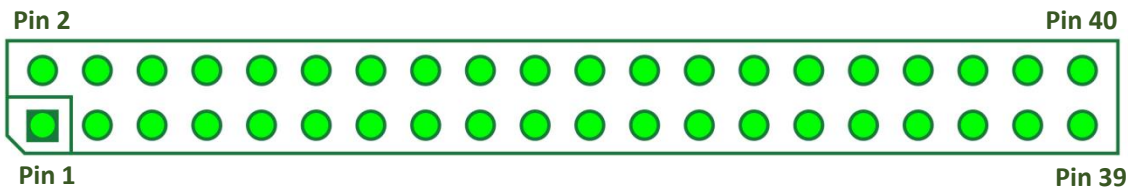
Media Remark	Codec	Remark
VIDEO	MPEG-1	up to MP:1080p@60fps (1920x1080)
	MPEG-2	up to MP : 1080p@60fps (1920x1080)
	MPEG-4	up to ASP level 5 : 1080p@60fps (1920x1080) GMC(global motion compensation)not supported
	H.263	576p@60fps(720x576)
	H.264	up to HP level 5.1 : 2160p@24fps (3840x2160) image cropping not supported
	AVS	1080p@60fps (1920x1080) 4:4:4 sampling not supported
	VC-1	up to AP level 3 : 1080p@30fps (1920x1080)
	VP8	1080p@60fps (1920x1080)
	MVC	1080p@60fps (1920x1080)
AUDIO	MP3/WMA/AAC etc.	
PHOTO	Jpeg, jpg,png	

5 INTERFACE SPECIFICATION

5.1 Extension GPIO definition

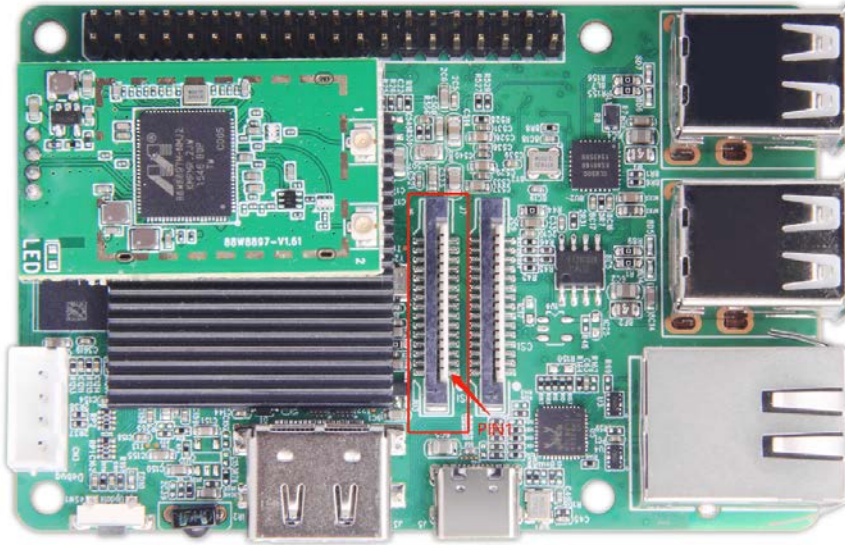
*Please note that the missing corner in the lower left corner identifies Pin No. 1





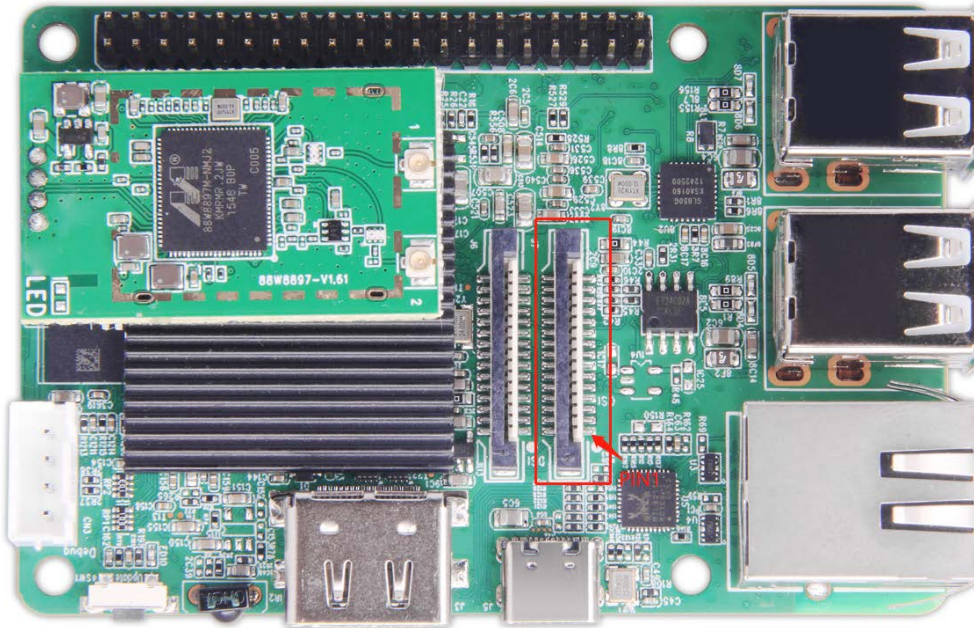
No.	Definition	No.	Definition
1	VCC_3_3V	2	VCC_5V
3	I2C4_SDA/GPIO7_C1	4	VCC_5V
5	I2C4_SCL/GPIO7_C2	6	GND
7	I2S0_MCLK	8	UART3_TX/GPIO_B0
9	GND	10	UART3_RX/GPIO7_A7
11	UART1_CTSN/GPIO5_B2	12	UART1_RTSN/GPIO5_B3
13	UART1_TX/GPIO5_B1	14	GND
15	UART1_RX/GPIO5_B0	16	UART3_CTSn/GPIO_B1
17	VCC_3_3V	18	UART3_RTSn/GPIO_B2
19	SPIO_TXD/UART4_TX/GPIO5_B6	20	GND
21	SPIO_RXD/UART4_RX/GPIO5_B7	22	TS0_ERR/GPIO5_C3
23	SPIO_CLK/UART4_CTSN/GPIO5_B4	24	SPI1_CSN0/GPIO7_B5
25	GND	26	SPI2_CSN0/SC_DET_T1/GPIO8_A7
27	I2C2_SDA_AUDIO	28	I2C2_SCL_AUDIO
29	SPIO_CSN0/UART4_RTSN/GPIO5_B5	30	GND
31	SPIO_CSN1/GPIO5_C0	32	SPI1_TXD/GPIO7_B7
33	I2S0_LRCK_RX	34	GND
35	I2S0_SCLK	36	SPI1_RXD/GPIO7_B6
37	I2S0_LRCK_TX	38	I2S0_SDI
39	GND	40	I2S0_SDO0

5.2 MIPI DSI



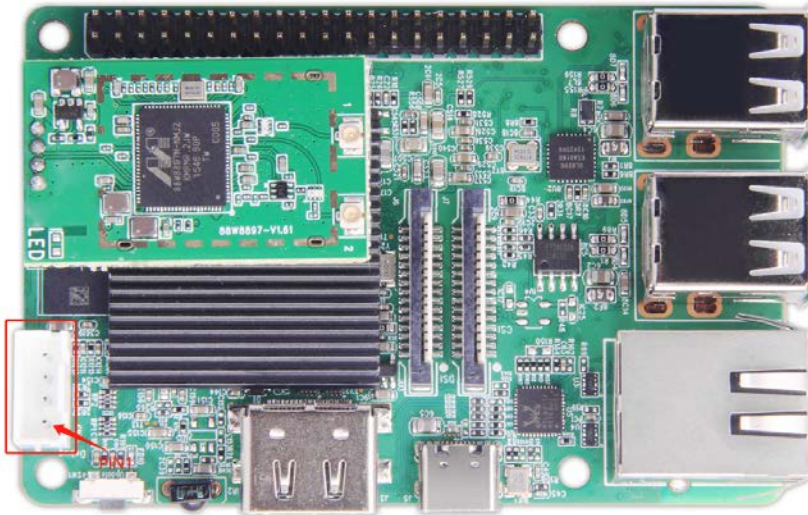
No.	Definition	No.	Definition
1	GND	2	MIPI_TX_D1N
3	MIPI_TX_D1P	4	GND
5	MIPI_TX_CLKN	6	MIPI_TX_CLKP
7	GND	8	MIPI_TX_D0N
9	MIPI_TX_D0P	10	GND
11	I2C_SCK_D	12	I2C_SDA_D
13	GND	14	VCC_3_3V
15	VCC_3_3V	16	NC
17	NC	18	NC
19	NC	20	NC
21	NC	22	NC
23	NC	24	NC
25	NC	26	NC
27	NC	28	NC
29	NC	30	NC

5.2 MIPI CSI



No.	Definition	No.	Definition
1	GND	2	MIPI_RX_D1N
3	MIPI_RX_D1P	4	GND
5	MIPI_RX_CLKN	6	MIPI_RX_CLKP
7	GND	8	MIPI_RX_D0N
9	MIPI_RX_D0P	10	GND
11	TS0_CLK/GPIO5_C2	12	NC
13	I2C_SCK_D	14	I2C_SDA_D
15	VCC_3_3V	16	NC
17	NC	18	NC
19	NC	20	NC
21	NC	22	NC
23	NC	24	NC
25	NC	26	NC
27	NC	28	NC
29	NC	30	NC

5.3 DEBUG



No.	Definition	No.	Definition
1	VCC_3_3V	2	UART1_TX/GPIO5_B1
3	UART1_RX/GPIO5_B0	4	GND

6.Precautions for use

1. Relative humidity: 10% ~ 90% .
2. Storage temperature: -10 ~ 125 °C
3. Operation temperature: 0 ~ 70 °C
4. Do not squeeze、 distort or disassemble the board.
5. Keep the board away from static electricity .
6. Keep the board away from water and other liquid.
7. Clean the board with soft and clean dry cloth when it's dirty.
8. Don't use long connect wires which may affect performance and image quality.