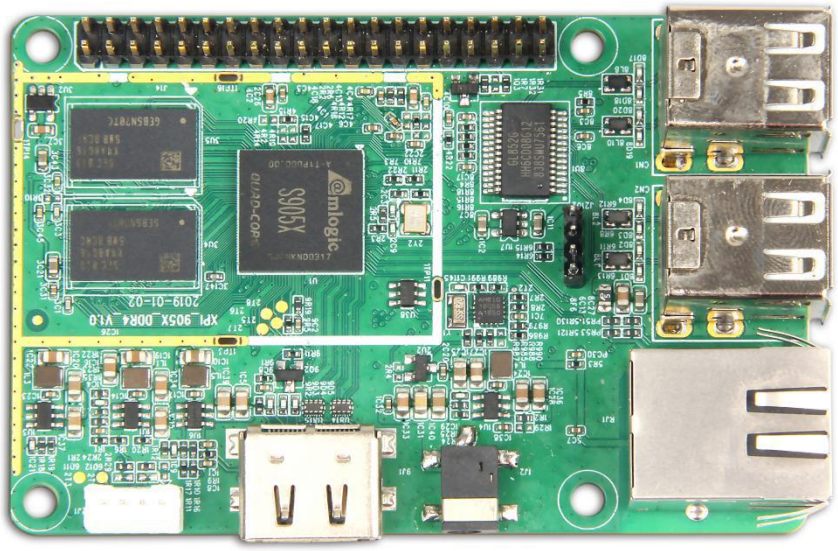
深 圳 金 亚 太 科 技 有 限 公 司

Shenzhen Geniatech Co.,Ltd.

SPECIFICATION

MODEL:XPI(S905X)



Confirmation

REVISION HISTORY					
VERSION	**DATE**	**BOARD ID**	**PAGE**	**DESCRIPTION**	**AUTHOR**
V1.0	2020/03/01	XPI_905X_DDR4_V1.0	7	specification	Olivia Chen

APPROVED BY GENIATECH		
PREPARED BY 编写	**CHECKED BY 审核**	**APPROVED BY 批准**
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Please return the original copy after approved by your company with stamp and signature.
请在贵公司盖章并签字后寄回正本一份。

APPROVED BY CUSTOMER		
COMMENTS 确认意见	**APPROVED BY 批准签字**	**COMPANY STAMP 盖章**

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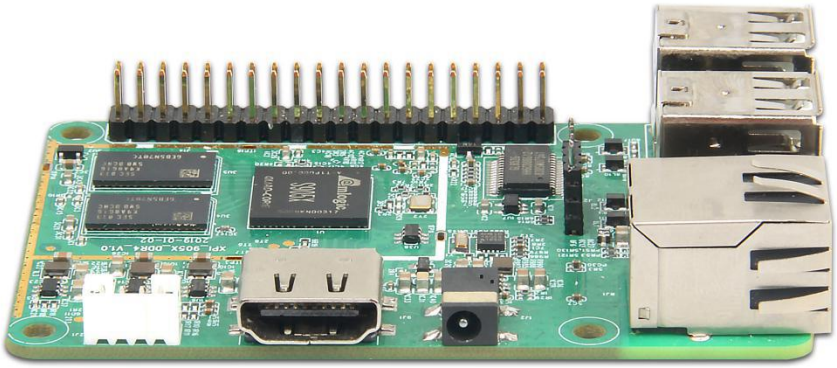
1. GENERAL DESCRIPTION

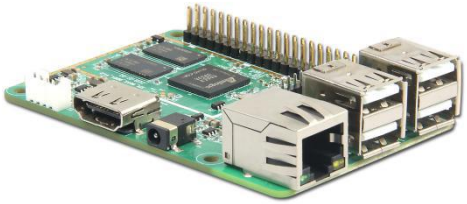
XPI is a DIY product made by Geniatech that uses the form factor of Raspberry Pi. According to the definition of Raspberry Pi, which is suitable for the field of programming education for teenagers. Below is the detailed specification：

(I) 85mm*56mm*1.6mm, Only the size of a bank card
(II) Amlogic S905X with Quad Core Cortex A53 @1.5GHz
(III) 2GB RAM, 8GB eMMc flash
(IV) 4*USB HOST, 1*HDMI Out, 1*UART, 1*GPIO interface
(VI) WiFi and 100M LAN interface
(VII) Micro SD card(TF card : 256G or more)
(VIII)Designed for retail, interactive communication

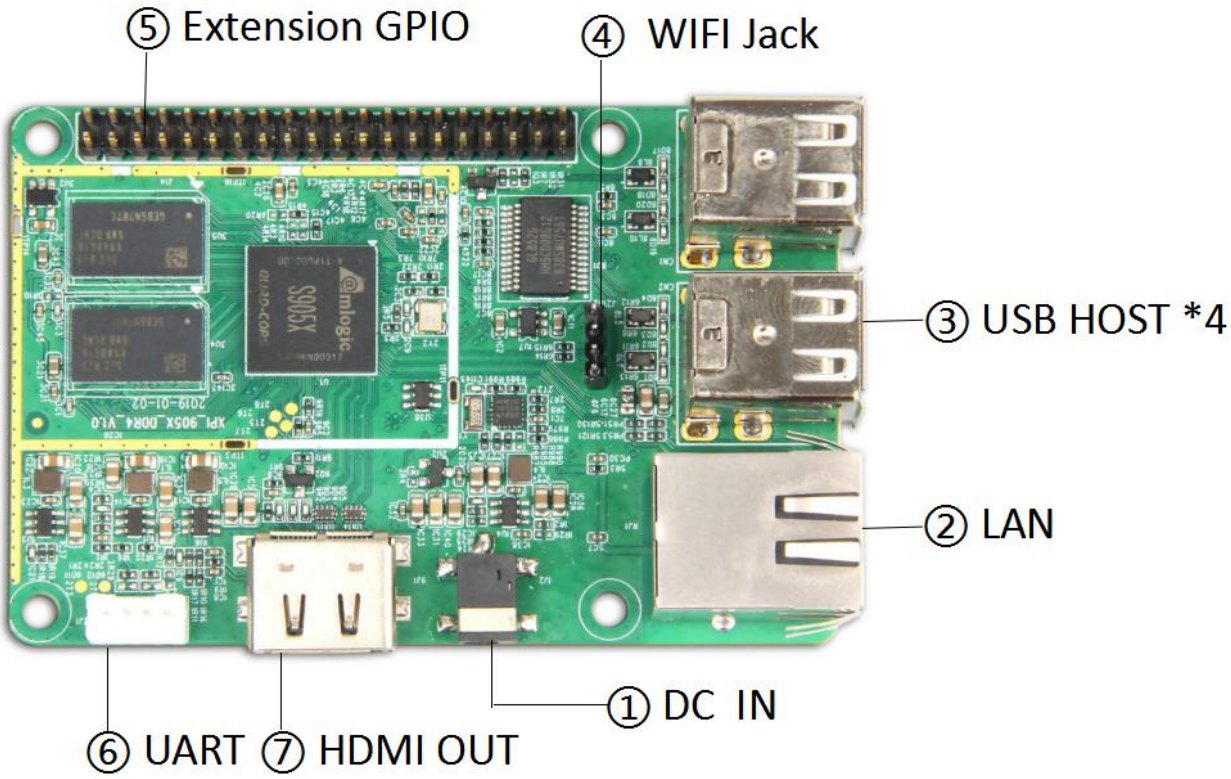
2. PRODUCT LAYOUT

Below pictures are for reference only:



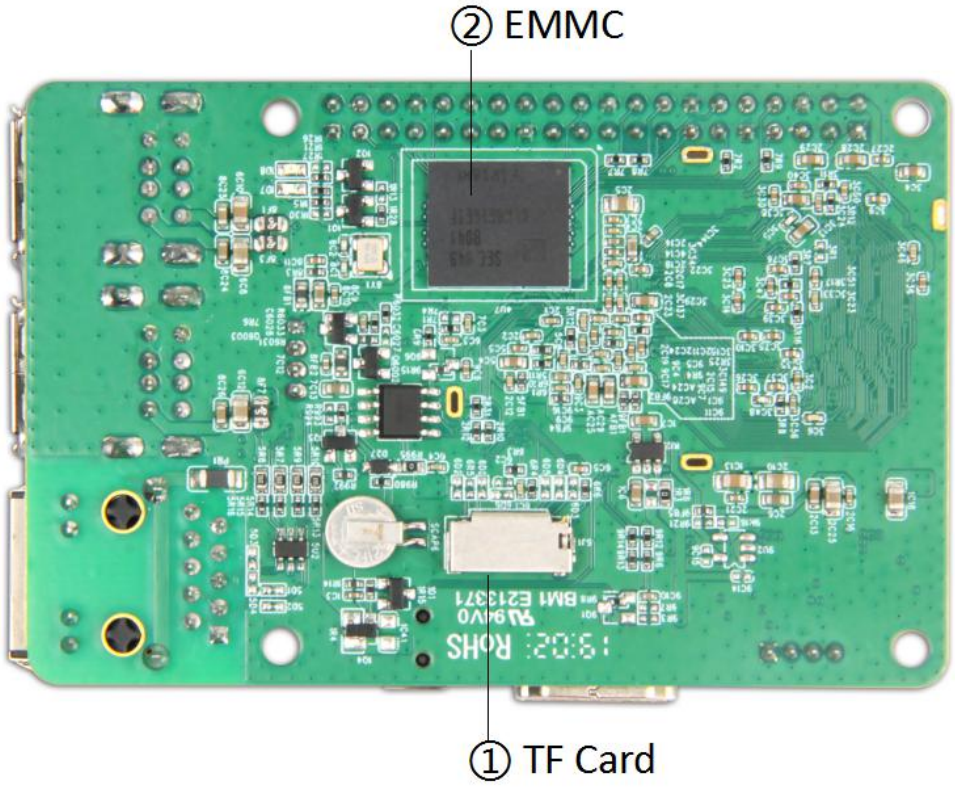


2.1 BOARD FRONT VIEW



No.	Name	Description
1	DC IN	5V/2A
2	LAN	Ethernet 10/100M
3	USB HOST	USB HOST 2.0*4(support USB upgrade)
4	WIFI Jack	WIFI Jack*1
5	Extension GPIO	Extension GPIO
6	UART	UART*1
7	HDMI OUT	HDMI out*1

2.2 BOARD BACK VIEW



No.	Name	Description
1	TF Card Slot	TF card *1(max. 256GB)
2	EMMC	8G EMMC

3.FEATURES

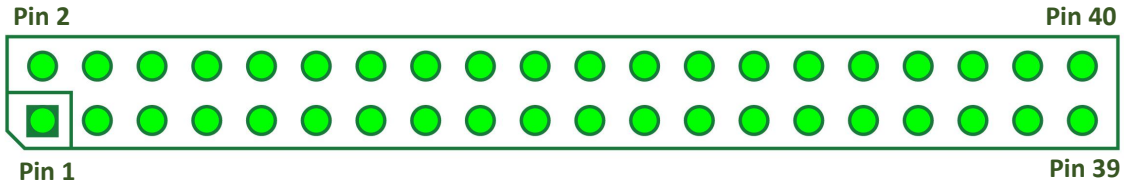
Chipset	Amlogic S905X	
Market area	Global	
OSD Language	English/Chinese(multi language OSD)	
Processor	CPU	Quad Core A53 CPU @ 1.5GHz(DVFS)
	GPU	Penta-core Mali 450 GPU up to 750Mhz
	DDR	2GB
	EMMC FLASH	8GB（16G/32G Optional）
Network	Ethernet	RJ45, 10/100M
	WiFi jack	Optional (Different types of wifi interface can be customized)
Interface	TF Card Slot	TF card *1(max. 256GB)
	HDMI	HDMI out*1
	USB Host	USB Host 2.0*4
	DC IN	DC IN*1
	GPIO	GPIO*1
	UART	UART*1
Weight	45 g	
Dimensions	85 mm * 56 mm * 1.6 mm	
Adapter	DC5V / 2A	
Accessory	N/A, XPI only	

4.Support Formats

Media Remark	Codec
Video	VP9 Profile-2 up to 4Kx2K@60fps
	H.265 HEVC MP-10@L5.1 up to 4Kx2K@60fps
	H.264 AVC HP@L5.1 up to 4Kx2K@30fps
	H.264 MVC up to 1080P @60fps
	MPEG-4 ASP@L5 up to 1080P@60fps (ISO-14496)
	WMV/VC-1 SP/MP/AP up to 1080P@60fps
	AVS-P16(AVS+) /AVS-P2 JiZhun Profile up to 1080P@60fps
	MPEG-2 MP/HL up to 1080P@60fps (ISO-13818)
	MPEG-1 MP/HL up to 1080P@60fps (ISO-11172)
	RealVideo 8/9/10 up to 1080P@60fps
	WebM up to VGA
	Multiple language and multiple format sub-title video support
	MJPEG and JPEG unlimited pixel resolution decoding (ISO/IEC-10918)
	Supports JPEG thumbnail, scaling, rotation and transition effects
	Supports *.mkv,*.wmv,*.mpg, *.mpeg, *.dat, *.avi, *.mov, *.iso, *.mp4, *.rm and *.jpg file formats
Audio	Supports MP3, AAC, WMA, RM, FLAC, Ogg, Dolby Digital Optional , Dolby Digital Plus Optional , DTS Optional and programmable with 7.1/5.1 down-mixing
Photo	H.264, jpeg, jpg,

4.1 Extension GPIO definition

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



Extension GPIO			
PIN	**Default function**	**PIN**	**Default function**
1	VDDIO_AO3.3V	2	VCC5V
3	I2C_SDA_AO	4	VCC5V
5	I2C_SCK_AO	6	GND
7	I2S_A_IN	8	UART_TX_A
9	GND	10	UART_RX_A
11	UART_RX_C	12	PWM_F
13	SPDIF_IN	14	GND
15	SPDIF_OUT	16	I2S_AO_CLK_IN
17	VDDIO_AO3.3V	18	I2S_LR_CLK_IN
19	PCM_OUT_A	20	GND
21	PCM_IN_A	22	I2S_IN
23	PCM_FS_A	24	PCM_CLK
25	GND	26	UART_TX_C
27	I2C_SDA_B	28	I2C_SCK_B
29	GPIOX_17	30	GND
31	I2S_DATA	32	IR
33	PWM_A	34	GND
35	SYS_LED1	36	I2S_MCLK
37	PWM_F_A	38	I2S_SCLK
39	GND	40	I2S_LRCLK

5.Precautions for use

1. Relative humidity: 20% ~ 75% .
2. Storage temperature: -10 ~ 60℃
3. Operation temperature: -5 ~ 30℃
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.