Geniatech

Raspberry PI Developer Board Model: XPI-3288 User's Guide



Thank you for purchasing this Geniatech product. .Before using it, be sure to read the precautions contained in this User's Guide. .Keep the User's Guide in a safe place for future reference. .For the most up-to-date information about this product, visit official website at <u>http://www.geniatech.com</u>

Contents

1. Safety Information, P4-5 1.1 Warning, P4 1.2 Precautions, P4-5 1.3 Handling Cautions, P5 2. Introduction, *P6-8* 2.1 Package Contents, P6 2.2 Product Features, P6 2.3 Interface Introduction, P7 2.4 Display when Power Up, P8 3. Settings, P8-23 3.1 WiFi, P9 3.2 Bluetooth, P10 3.3 Ethernet, P10 3.4 Data usage, P11 3.5 Wireless & networks, P11 3.6 users, *P12* 3.7 Sound, P12 3.8 Display, *P13-15* 3.9 Storage, P15 3.10 Apps, P16 3.11 Google services, P16 3.12 Notification, P17 3.13 Location, P17 3.14 Security, P18 3.15 Language & input, P18 3.16 Reset, P19 3.17 Sleep, P19 3.18 Add an account, P20 3.19 Date & Time, P20 3.20 Choose wallpaper from, P21 3.21 Screen saver, P21 3.22 About device, *P22* 3.23 Camera mode, P22 3.24 HDMI, P23 3.25 Printing, *P23*

- 4. Apps Install & Uninstall, P24
- 5. Firmware Update, *P24*
- 6. Trouble Shooting/FAQ, P24
- 7. Repairs, P25
- 8. Specification, *P25* 9. Trademark Notice, *P26*

1. Safety Information

Read and understand all instructions before using this product. If damage is caused by failure to follow the instructions, the warranty does not apply.

1.1 Warning

To reduce the risk of electric shock, DO NOT remove the cover (or back).

DO NOT attempt to repair the product, this could lead to the risk of injury, damage to the product .

To reduce the risk of fire or electric shock, keep this product away from exposed direct sunlight, naked flames or heat, large amounts of moisture, dust, and sand. FCC Note (for U.S.A)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on.

The user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Consult the dealer or an experienced radio/TV technician for help.

- This class B digital product meets all requirements of the Canadian Interference - Causing Equipment Regulations.

1.2 Precautions

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below.

Keep these operating instructions handy for future reference.

1.2.1 Read these instructions.

1.2.2 Keep these instructions.

1.2.3 Heed all warnings.

1.2.4 Follow all instructions.

1.2.5 DO NOT use this apparatus near water.

1.2.6 DO NOT clean with any chemical detergent. Clean only with a dry cloth.

1.2.7 DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.

1.2.8 DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

1.2.9 Protect the power cord from being walked on or pinched particularly at plugs,

convenience receptacles, and the point where it exits the apparatus.

1.2.10 Only use attachments/accessories specified by the manufacturer.

1.2.11 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

1.2.12 Unplug this apparatus during lightning storms or when unused for long period of time.

1.2.13 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

1.3 Handling Cautions

1.3.1 DO NOT expose this apparatus to dripping or splashing. Do not put objects filled with liquids, such as vases on the apparatus.

1.3.2 To turn this apparatus off completely, you must pull the power plug out of the wall socket. Consequently, the power plug must be easily and readily accessible at all times.

1.3.3 DO NOT plug multiple electric devices into the same wall socket. Overloading a socket can cause it to overheat, resulting in a fire.

1.3.4 Before connecting other components to this player, be sure to turn them off.

1.3.5 If the product makes an abnormal noise or produces a burning smell or smoke, turn off the power switch immediately and disconnect the power plug from the wall outlet. Then, contact the nearest customer service center for technical assistance. Do not use the product. Using the product as it is may cause a fire or an electric shock.

2. Introduction

2.1 Package Contents

Raspberry PI Developer Board XPI-3288

User's Guide

HDMI Cable

IR Control
Power Adapter, Input: AC100 ~ 240V, 50/60Hz, Output: 5V

2.2 Product Features

- Quad Core Cortex A17 @1.6GHz, 2GB RAM, 16GB eMMc flash,
- Android 7.1 OS
- 4*USB2.0, 1*HDMI Out, 1*Micro USB, 1*UART, 1* Extension GPIO interface
- Support Micro SD card(TF card : Max64G)
- 85mm*56mm, Only the size of a bank card
- WiFi and 1000M LAN interface
- Multiple display interfaces (HDMI OUT, MIPI DSI)
- Support GPIO
- Support MIPI CSI camera.

2.3 Interface Introduction





7

2.4 Display when Power Up

2.4.1 After booting up, during the loading process, the TV will first display the "Android" interface, When the load is complete, it will go to the home screen.



2.4.2 Home Screen display.



3. Settings

From the screen drop down the status bar, as shown in the figure below.

Select icon then press OK key.

<u>1</u> E			米 6:28
Settings			Q
	Wirele	ss & networks	
	•	Wi-Fi Disconnected	
	*	Bluetooth Disconnected	
	ø	Ethernet	
	0	Data usage 0 B of data used	
		More	
	Device		
	ø	Display Adaptive brightness is OFF	
	۰	Notifications All apps allowed to send	
	•	Sound Ring volume at 71%	
			

3.1 WiFi

3.1.1 It will automatically scan ambient WiFi networks when select "ON". Connect an available WiFi network. If connect a secured WiFi network, corresponding password will be input firstly. Or fail to connect and need reset password. Once build up the connection with a certain WiFi network successfully, XPI-3288 will connect this WiFi network automatically when restart. Note: If factory reset, the password of WiFi network have to be reset.



3.2 Bluetooth



3.3 Ethernet

-	ψ				* 🖘 🗉 9:21
÷	Ethernet				
	IP address 192.168.1.108				
	netmask 255.255.255.0				
	gateway 192.168.1.120				
	dns1 114.114.114				
	dns2 192.168.1.120				
	Ethernet Ip mode				
	MAC address 0e:9f:ee:83:e1:b0				
	Ø	4	0	4	

3.4 Date usage

Show data usage information.

- ?	ψ						* 🖹 🖬 9:18
=	Data	usage					:
		Usage OBWi-Fidata Jul 16 - Aug 13					
		0 B				2.00 GB	
		Data saver Off					
		Wi-Fi					
		Wi-Fi data usage 0 B used between Jul 16 - Aug 13					
		Network restrictions					
_	_						
		Q	\triangleleft	0			

3.5 Wireless & networks

10 <u>t</u> 89				 	 \$ 7:52
≡ w	ireless & networks				
	Tethering & portable hotspot				
	VPN				
	Network settings reset				
	۵	4	0	d)	

3.6 users

You can add user or configuration here

- 7	Ψ						\$ ↔ 🕅 🖸 9:24
=	Users						
	U	sers & profiles					
		You (Owner)					
		9 Guest					
	-	Add user or profile					
	L	ock screen settings					
	A 	dd users hen device is locked				()*	
		Ø	4	0	d)		

3.7 Sound

3.7.1 Volumes

Increase or decrease sound volumes

3.7.2 Touch Sounds

If enable Touch sound, sound will be heard while move remote controller.

- 3.7.3 Sound Input Devices
- 3.7.4 Sound Output Devices

Media volume			
Alarm volume			
			•
Notification volume			
		•	
Do not disturb			
Default notification ringtone pixiedust			
Default alarm ringtone Alarm_Classic			
Other sounds			
Cast			

3.8 Display

3.8.1 Display size

make the items on your screen smaller or larger. Some apps on your screen may change position.



3.8.2 Font size Change the font size of OSD., Make the text on screen smaller or larger

🖬 🧌 🛉							≱ ↔ 🗽 🖪 9:22
← Fon	t size						
	Sample text The Wonderful Wizard of Chapter 11: The Wonderful Eme Even with eyes protected by the gree were at first dazded by the brillancy lined with beaufful houses al built o with sparkling emeralds. They walke marble, and where the blocks were jo set closely, and glittering in the brigh of green glass, even the sky above th the sun were green. If diressed in green clothes and Dorothy and her strangely assorted of children all ran away and hid behindi but a everything in them was selling bogtet it Dorothy could see that they there seemed to be no horse not was able things around in little green carts, wi seemed happy and contented and p	Oz rald City of Oz n spectacles Dorothy of the wonderül City Green mable and at J over a parement of Green angle a parement of e City had a green tim an and children, walkki had greenish skine. ompany with wonde e City had a green terno heir mothers when th ps stood in the strees en candy and green eren candy and green eren candy and green green hats and g green iernonade, an paid for it with green inmals of any kind; th rosperous.	and her friends The streets were udded everywhere the same green ows of emeralds, window panes were the same green the same street the same street the same st	A Make the text on scre	Default	A	
	Preview	4	0		d)		

3.8.3 Brightness level

- 2	Ψ				\$ ↔ 🕅 🖬 9:22
	Display		¢	e .	
	Brightness level				
	Wallpaper				
	Sleep Never				
	Screen saver Clock				
	Font size Default				
	Display size Default				
	When device is rotated Rotate the contents of the screen				
	Cast				
	HDMI				
	Camera mode	\triangleleft	0		

3.8.4 Screenshot Here you can set the screen shot time and select the image location

. 🤋	ψ					 ≱⇔≣ 🛿 9:23
=	Scre	enshotSetting				
		ScreenshotSetting				
		Select delay time to capture 15s later capture	the screen			
		Set the location of screensho Internal Storage	ot storage			
		Show the screenshot button	in the statusbar			
		Ø	4	0	D)	

3.9 Storage

Shows the storage used of the OS and SD card.

1 🖘 🗉	7					* 8:03
=	Internal shared storage					
	484 MB Used of 4.49 GB					
	Apps				200 MB	
	Images				0	
	Videos				0	
	Audio				0	
	Other				283 MB	
	Cached data				410 KB	
	Explore	⊲	0	d»	<u>i</u>	

3.10 Apps

List all apps installed.

-	ψ						\$ ↔	9:23
	Apps						\$:
			Android Keyboard (AOSF 110 KB	?)				
		•	Apkinstaller 7.00 KB					
		Ð	App Backup & Restore 20.27 MB					
		0	Camera 14.50 KB					
		Ø	Chrome 71.44 MB					
		9	Clock 57.00 KB					
		4	Explorer 10.50 KB					
		//	Gallery 18.50 KB					
		-	Google Play services	\triangleleft	0	Ø		

You can choose an application and force to shut down the app, uninstall the app, clear user data, move to SD card and clear cache data.

3.11 Google services

•	Ŷ					* 😔 🗟 9:24
÷	Google					:
Servic	es					
Ads						
Andro	bid Auto					
Cast	media controls					
Devic	es					
Locat	tion					
Neart	ру					
Resto	ore contacts					
Secu	rity					
Set u	p nearby device					
Set u	p your work profile					
		Q	4	0		

3.12 Notification

	ψ					*⇔≣	9:23
≡	Notification	5				۰	:
	All apps		•				
	#	Android Keyboard (AOSP)					
	•	Apkinstaller					
	Ð	App Backup & Restore					
	3	Camera					
	Ø	Chrome					
	9	Clock					
	6	Explorer					
		Gallk, G	٦	0			

3.13 Location

- 1	ψ							≱ ⇔ 🖉 🚨 9:24
=	Loca	ation						:
		On					۲	
		Mode Device	only					
		Recent	location requests					
					No apps have request	ed location recently		
		Locatio	n services					
		G	Emergency Location Ser	vice				
		G	Google Location History					
		G	Google Location Sharing					
			\$	\triangleleft	0			

3.14 Security

- 1	ψ						* 🕬 🖩 🖬 9:24
=	Secu	ity					
		Device security					
		Screen lock None					
		Smart Lock To use, first set a screen lock					
		Encryption					
		Encrypt tablet					
		Passwords					
		Make passwords visible					
		Device administration					
		Device administrators View or deactivate device admini	strators				
		Unknown sources					
		Allow installation of apps from u	nknown sources	0	٩	(p)	

3.15 Language & input

-	ψ					≭⇔≣ 🛿 9:25
=	Lang	juages & input				
		Languages English (United States)				
		Spell checker Android Spell Checker (AOSP)				
		Personal dictionary				
		Keyboard and input methods				
		Virtual keyboard				
		Physical keyboard				
		Speech				
		Text-to-speech output				
		Mouse/trackpad				
		Pointer speed				
		Ø	4	0		

Change OSD language and input method. The default input method is android standard keyboard.

3.16 Reset

. 🤋 🕴	,						*⇔≣ 🕻
=	Rese	t					
		Factory data reset					
		Ø	4	0		(pi	

Factory data rest:

You can reset all the settings and apps to factory default.

Note: You might want to backup important data before resetting the box. Once you choose to rest to factory default, all data/apps will be deleted.

3.17 Sleep

Find the display button and find Sleep. You can select the Sleep time of the product. There are 8 options for sleep time. The shortest is' Never 'and the longest is 30 minutes.



3.18 Add an account

- 92	ψ							\$ ⇔ 🗟 🖻 9:24
	Accoun	its						:
	4	t	Add account					
			Ø	⊲	0		ē,	

3.19 Date & time

. 🦷	ų					* 😔 🖺 9:25
=	Date & time					
	Automatic date & time Use network-provided time					
	Set date August 13, 2019					
	Set tíme 9:25 AM					
	Select time zone GMT+00:00					
	Use 24-hour format 1:00 PM					
	Ø	⊲	0		(p	

3.20 Choose wallpaper from

Users can choose wallpaper photos from albums and historical wallpapers according to their preferences. Display-Wallpaper-Choose wallpaper from

🖬 🧐 🕈						* 🖘 🗟 9:22
Choose wal	lpaper fr	om				
	[]	Sallery				
	-	Wallpapers				
		Q	4	0	C)	

3.21 Screen saver

Interface Settings: can set the clock, color, theme, page photos.

- 97	ψ					د	ሩ 🗟 🚺 9:22
÷	Screen save	r					:
	On					۲	
	9	Clock				•	
		Colors				0	
		Photo Frame				0	
	5	Photo Table				0	
		Ø	4	0	۵	S.	

3.22 About device.

- N	ψ					* ↔	1 9:25
=	Table	t status					
		Upgrade					
		Status Status of the battery, network, and of	her information				
		Legal information					
		Regulatory labels					
		Model rk3288					
		Android version 7.1.2					
		Android security patch level April 5, 2017					
		Baseband version Unknown					
		Kernel version					
		jenkins@ubt1 193 Thu Jul 25 11 az 36 CST 2019	⊲	0	٩		

3.23 Camera mode

set the USB camera to back/front mode

≡ Display	
Wallpap	r
Sleep Never	
Screen Clock	camera mode
Font siz	Set the usb camera to back mode
Display Default	Ze CANCEL
When d Rotate th	vice is rotated contents of the screen
Cast	
HDMI	
Gamera Set the c	

3.24 HDMI

User can set the screen, display resolution, zoom in/out screen, rotate screen, dual screen display in this part.

1 💎 🖼							孝 9:28				
← нс	- ндмі 										
	Off					•					
	HDMI Resolution										
	Screen Zoom										
	dual screen										
	Portrait or Landscape Display										
	L)	\triangleleft	0		J)						
						1					

3.25 Printing

If you have a printer installed, you can print in this part.

	ψ						* <> 🗟 9:25
=	Printing						
					2		
				No services ins	talled		
		\Box	\triangleleft	0			

4. Apps Install & Uninstall

On XPI-3288, you can install apps from Android Market over the Internet or other sources, such as other online sources, the internal storage and the USB storage device and SD card that you have mounted onto XPI-3288.

You also can manage apps on XPI-3288 and SD card, install/uninstall apps, stop running apps, or select other options.

5. Firmware Update

You can download newest firmware from Geniatech Official website: <u>www.geniatech.com</u>

6. Trouble Shooting/FAQ

6.1 No Picture

Ensure that the mainframe is powered on and the key switch is normally turned on. It can be judged by observing whether the indicator light in the mainframe is on.

6.2 USB Content cannot be read

- . The format of USB storage device is not supported
- . The supported memory size is 64G maximum.
- . Make sure that this player supports these files.

6.3 The firmware updating is not complete after a long time

If you update the firmware over the online service, it may take a long time to download the firmware update files from the server. To save your time, update the firmware through the SD card.

7. Repairs

If you contact us to repair your player, an administration fee may be charged if either:

An engineer is called out to your home at your request and there is no defect in the product.

You bring the unit to a repair center and there is no defect in the product. We will provide you with the amount of the administration fee before we make a home visit or begin any work on your player.

We recommend you read this manual throughly, search for a solution on line at <u>www.geniatech.com</u>, or contact Geniatech Customer Care before seeking to repair your player.

8. Specification

CPU	Quad-core Cortex-A17 up to 1.6GHz
GPU	Mali-T764
RAM	2GB LPDDR3 (4G optional)
ROM	16GB (16-32G optional)
OS	Android 7.1
USB	USB Host 2.0*4
HDMI	HDMI out*1
DC Input	5V DC IN*1
TF Card Slot	TF card*1(max 64GB)
Micro USB	Type-C
GPIO	GPIO*28
LAN	RJ45 10/100M Ethernet interface
WiFi	802.11a/b/g/n/ac,802.11b/g/n optional
BT	BT4.0
	Real-time video decoder of MPEG-1, MPEG-2, MPEG-4,H.263, H.264, AVS, VC-1,VP8, MVC
	H.264 up to HP level 5.1 : 2160p@24fps (3840x2160)
	MPEG-4 up to ASP level 5 : 1080p@60fps (1920x1088)
Video CODEC	MPEG-2 up to MP: 1080p@60fps (1920x1088)
	MPEG-1 up to MP: 1080p@60fps (1920x1088)
	H.263 : 576p@60fps(720x576)
	VC-1 up to AP level 3 : 1080p@30fps (1920x1088)

	VP8 : 1080p@60fps (1920x1088)				
	AVS : 1080p@60fps (1920x1088)				
	MVC : 1080p@60fps (1920x1088)				
	Support video encoder for H.264 (BP@level4.0, MP@level4.0, HP@level4.0),				
	MVC and VP8				
	Only support I and P slices, not B slices				
	Support error resilience based on constrained intra prediction and slices				
Video Encoder	Image size is from 96x96 to 1920x1088(Full HD)				
	Maximum frame rate is up to 30fps@1920x1080				
	Bit rate supported is from 10Kbps to 20Mbps				
	Image size is from 96x96 to 1920x1088(Full HD)				
	Maximum frame rate is up to 30fps@1920x1080				

Size	85*56mm	
Power Adapter	AC100 \sim	240V 50/60Hz

9. Trademark Notice



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in United States and other countries.