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MYD-YT113X
EVK Hardware User`s Guide

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MYIR Electronics Limited

History

Version	Author	Participants	Date	Description
V1.0	MYIR		20230529	Official release

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1. Overview

MYD-YT113X is an evaluation board development kit based on Allwinner T113S3 / T113S4 processor designed by Shenzhen MYIR Electronics Co., LTD. It includes Ethernet, USB2.0, LVDS TX, Audio out and other functional interfaces. The evaluation board is composed of the module MYC-YT113X and the carrier board MYB-YT113X. The M.2 slot and the standard 40PIN Raspberry PI interface are reserved for the expansion function. This manual is convenient for users to understand the interface definition and functional application of the evaluation board, and also has certain guiding significance for the project development with our company's module MYC-YT113X.

1.1. EVK Introduction

The MYC-YT113X module is designed with a high density and high speed circuit board, and integrates the processor, EMMC / QSPI Flash, EEPROM, DCDCs circuits on the 37mm*39mm board.

The carried board adopts double-sided device layout, which supports Gigabit Ethernet, USB2.0 HOST, USB2.0 OTG, single link LVDS TX, dual link LVDS TX , audio out, ADCs, USB WIFI module, M.2 connector, 2x20 Pin Header connector support to mount Raspberry PI interface.

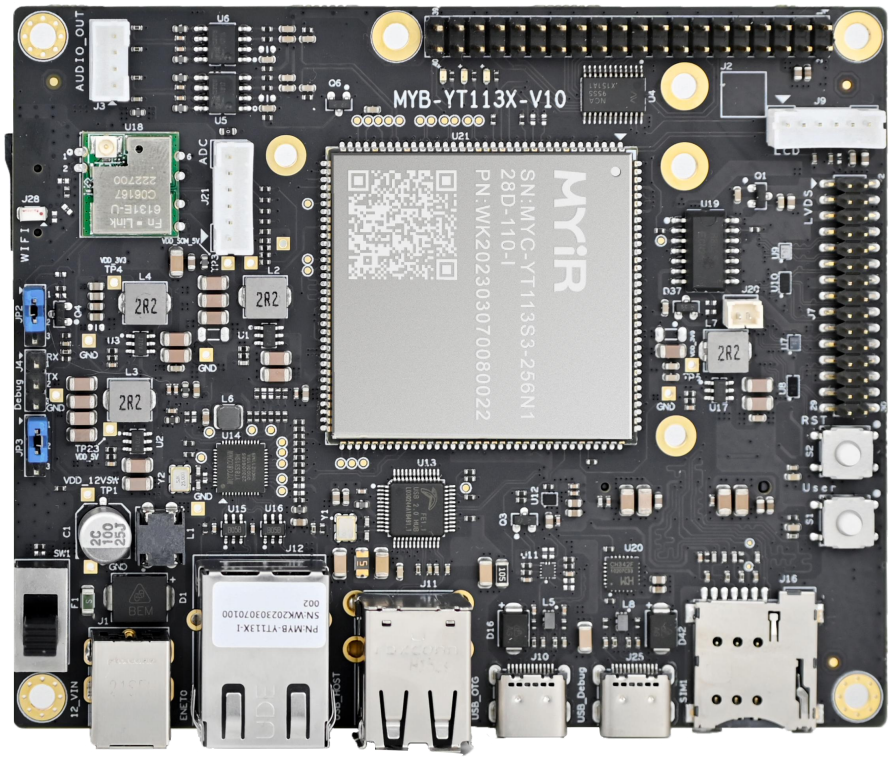

Figure 1- 1 MYD-YT113X Kit

1.2. Block Diagram

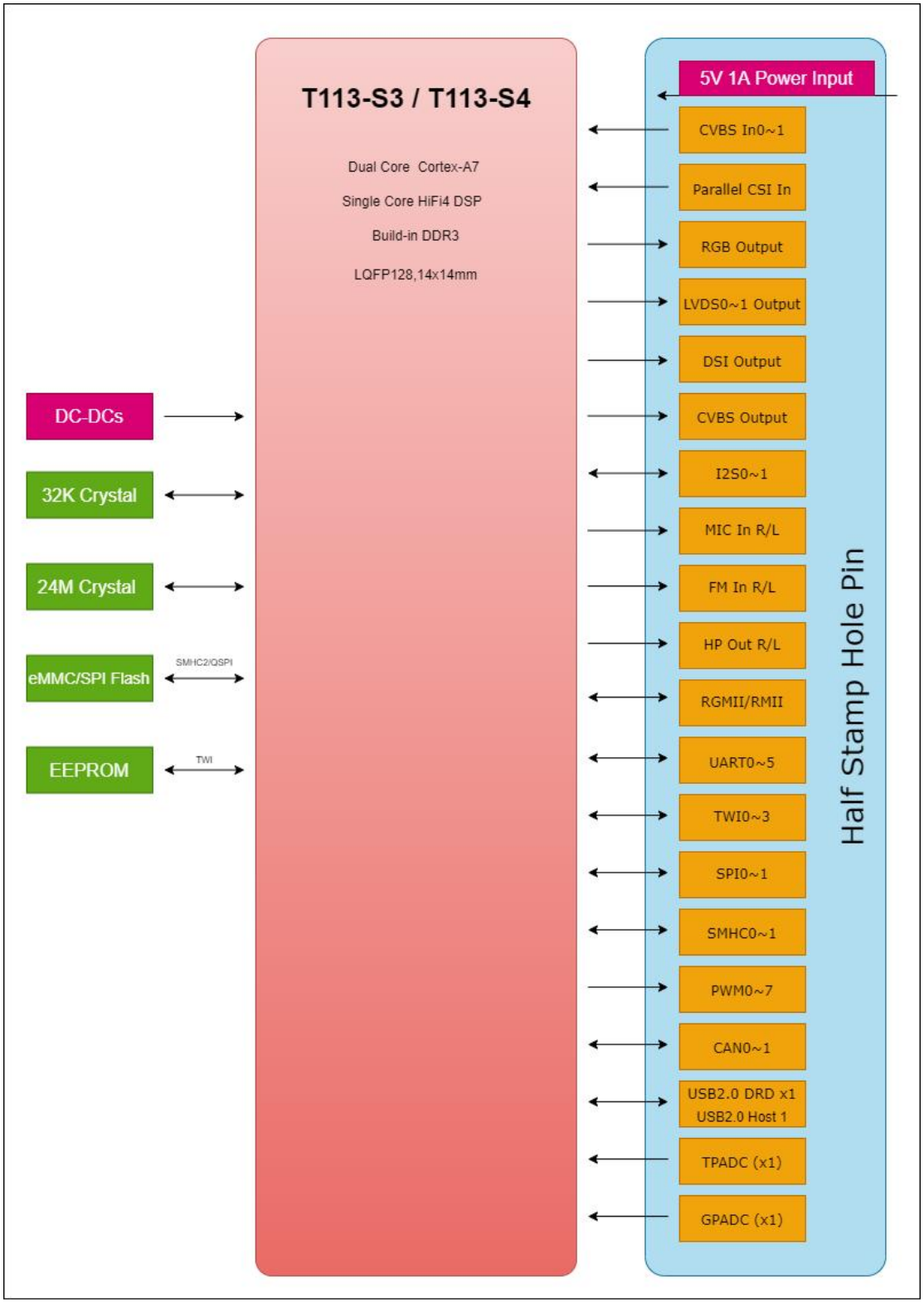

Figure 1- 2 Module Diagram

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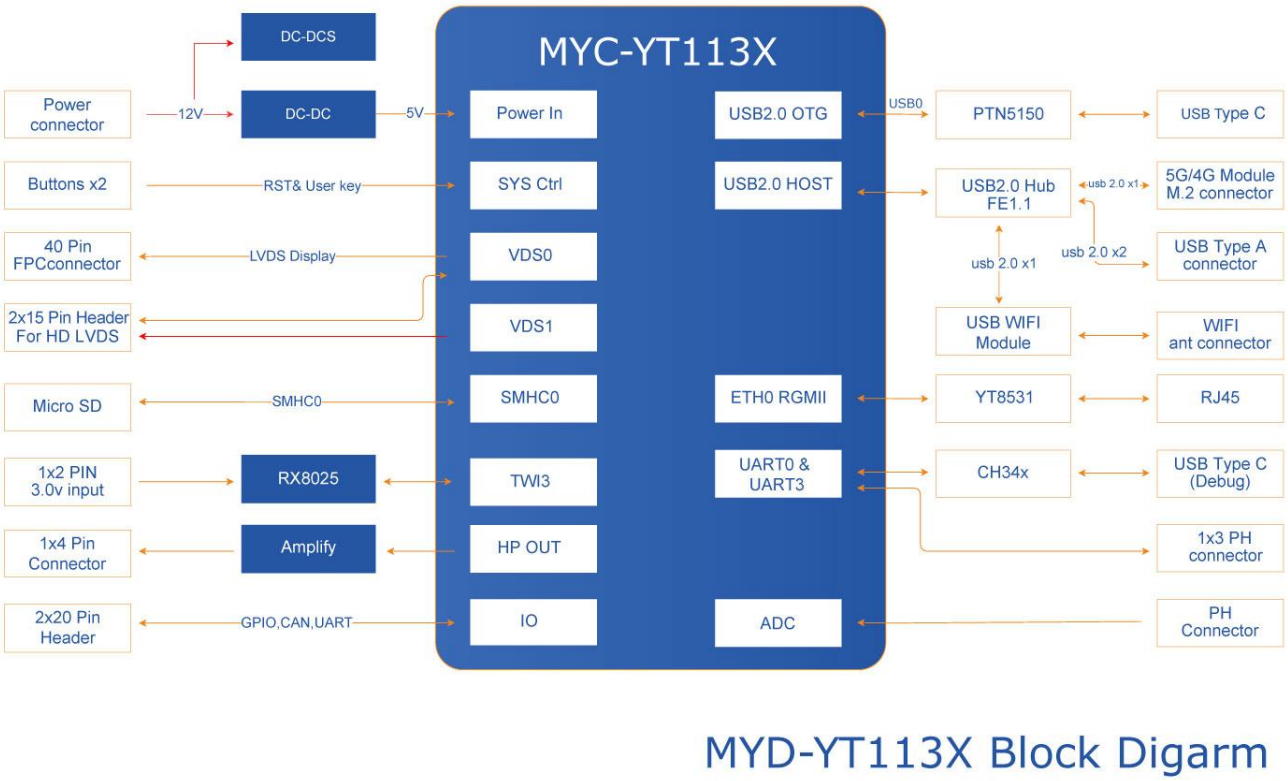

Figure 1- 3 Carrier Board Diagram

1.3. EVK Physical Image

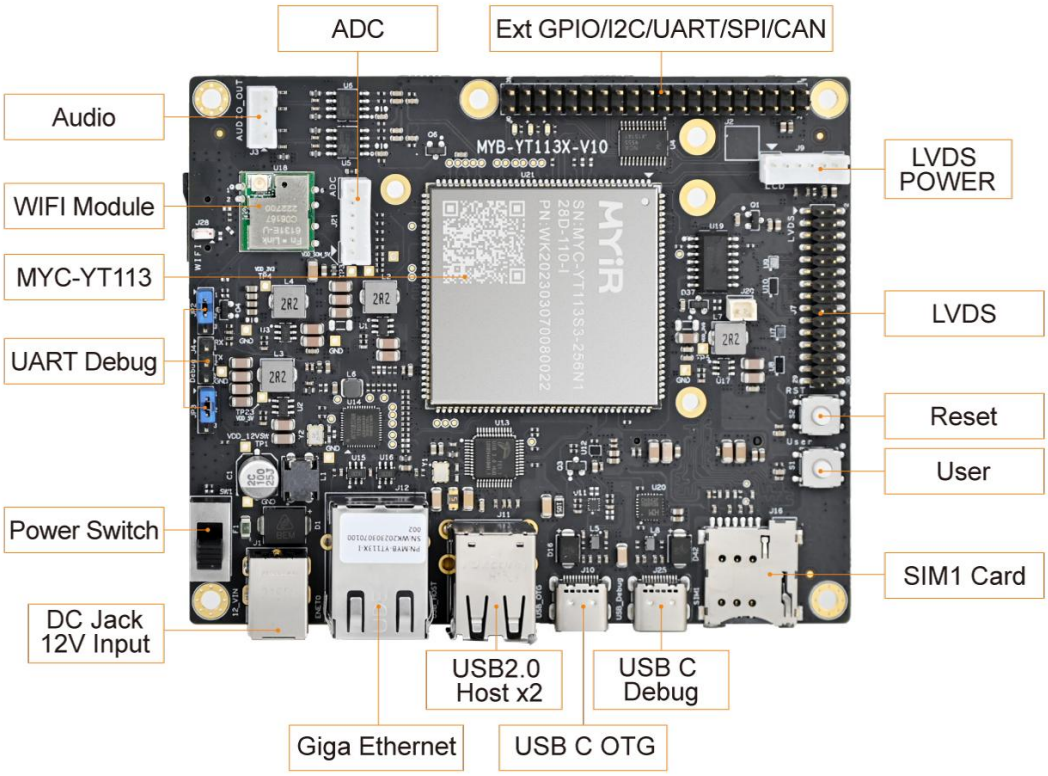

Figure 1- 4 MYD-YT113X Top View of EVK

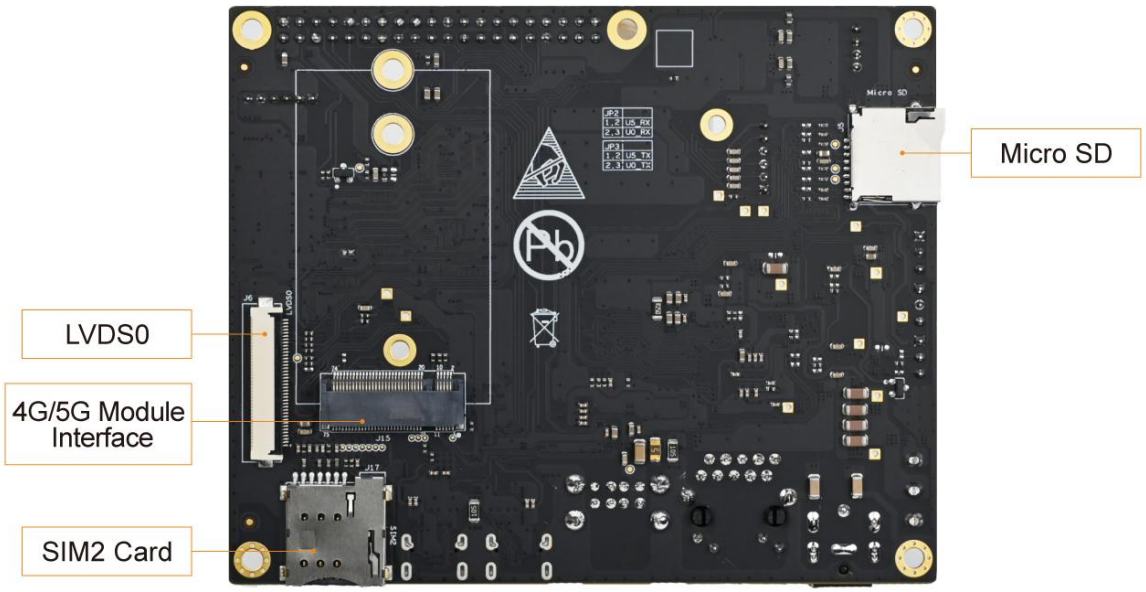

Figure 1- 4 MYD-YT113X Bottom View of EVK

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1.4. Key interface parameter

Interface	Description
DC Power Supply	DC 12V
Ethernet	x1 RJ45 with 1000Mbps Ethernet,support 10M/100Mbps
USB	x1 USB 2.0 OTG Type C x2 USB 2.0 HOST Type A
Debug interface	x1 3.3V IO Level UART x1 Type C Debug port
M.2 Key B	x1，to mount 4G/5G module
Micro SIM	x2 Micro SIM card slot
Audio Out	x1 4 Pin XH connector,support 4W Speaker.
Display	x1 single link LVDS output, x1 dual link LVDS output & 6 pin XH connector for power backlight
Key	Reset,User
Expansion connector	2x20pin double row pin header
USB WIFI	2.4G WIFI
Micro SD	x1 Micro SD,boot from Micro SD

Table 1-1 MYD-YT113X Key Interface Parameter

1.5. Reference Resource

MYIR Electronics provides supporting software and hardware documents, including but not limited to product manuals, hardware design guides, device manuals, software development guides, system images, etc. Please go to http://d.myirtech.com/MYD-YT113X/ to download.

2. Power Parameters

2.1. Power Tree

The input voltage is 12V. The power supply path is 12V to 5V, 12V to 3.9V, and 5V to 3.3/1.8V.

Both the carrier board and module need 5V power supply. Do not tie them together, make sure that the power for module should be prior to carrier board.

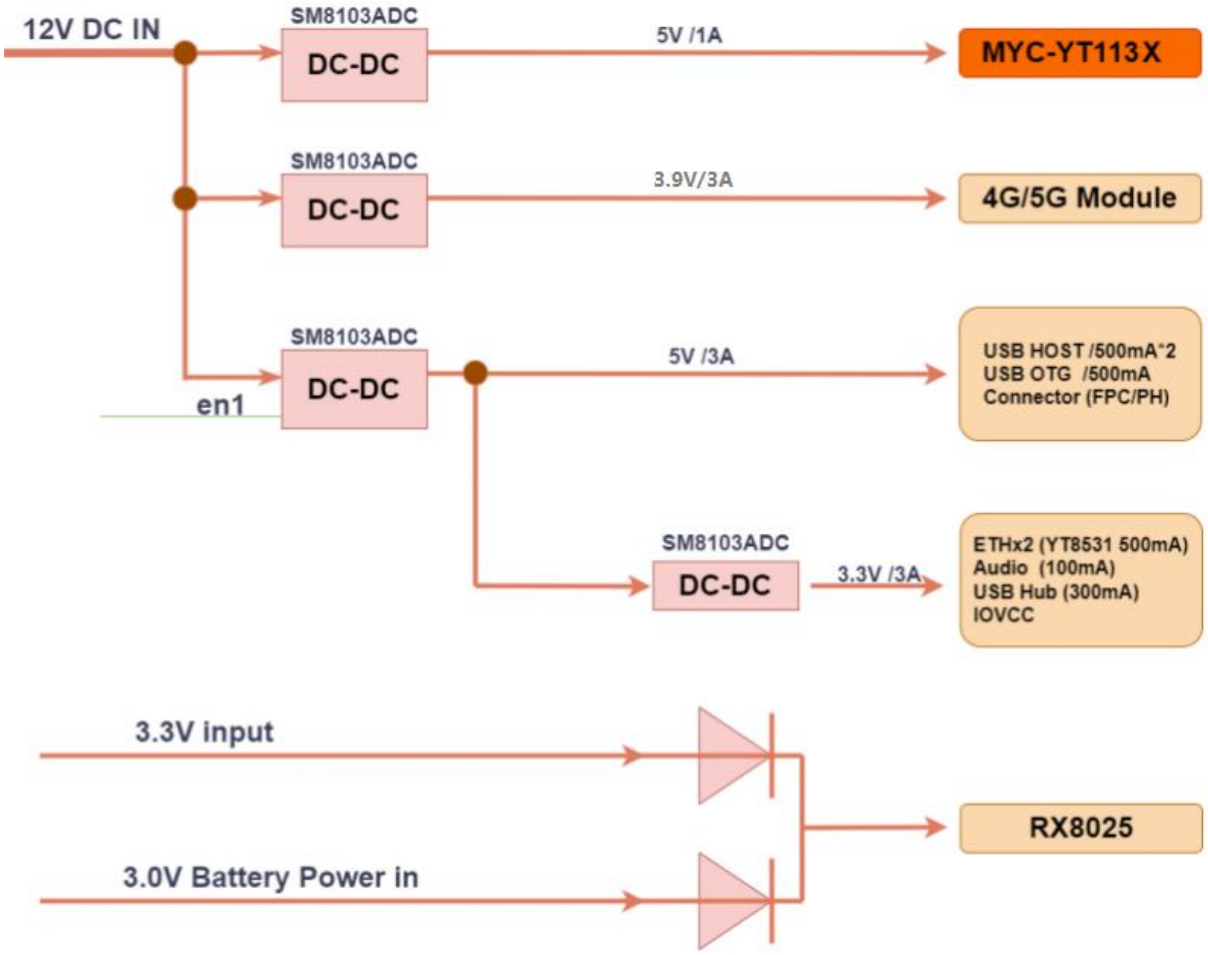

Figure 2 - 1 EVK Power Tree

2.2. Power Consumption

Condition	Voltage	Current	Power Consumption
MEM command：echo mem > /sys/power/state	12.0V	0.04A	0.48W
FREEZE command：echo freeze> /sys/power/state	12.0V	0.08A	0.96W
No-load condition	12.0V	0.2A	2.4W
USB Hostx2,LAN+OTG+SD Card+Aging program，CPU Full load	12.0V	0.04A	0.48W

Table 2 - 1 EVK Power Consumption

2.3. Requirement of Power Supply

The recommend supply voltage of MYD-YT113X carried board is 12V. Please be noted that add a DC jack converter before connect the power adapter with EVK board.otherwise the EVK board may not work due to unmatched DC jack..

3. BOOT configure

No need to care about configuration of boot mode.if insert a micro SD card which already built-in right system image to EVK, system will boot form micro SD.After remove micro sd repower the board, the sysem can boot from eMMC or Nand Flash.

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4. Interface Layout

The overall interface layout of the evaluation board is shown as follows: The diagram of the local interface circuit later in this section corresponds exactly to this layout.

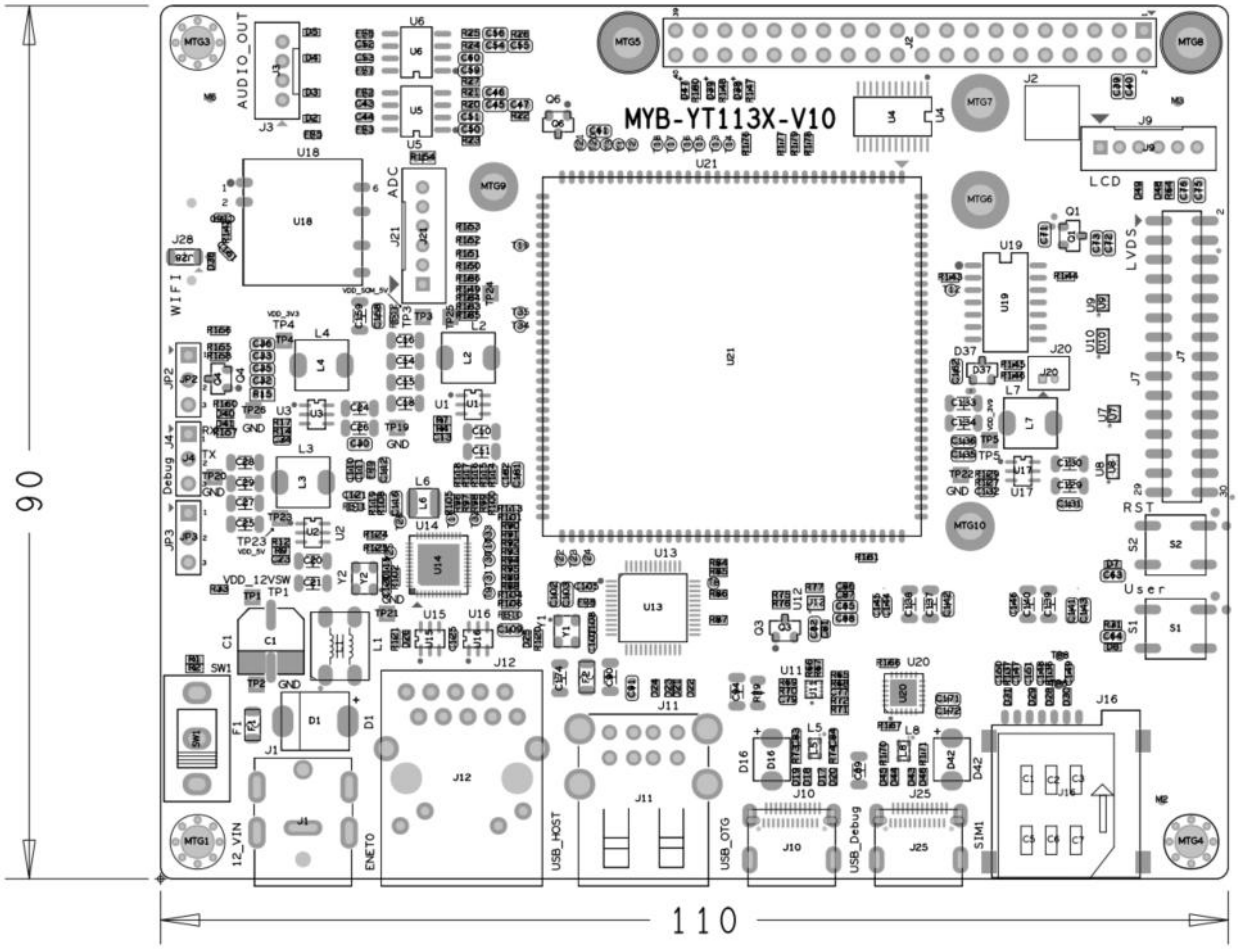

Figure 3 - 1 MYD-YT113X Interface Layout Top View

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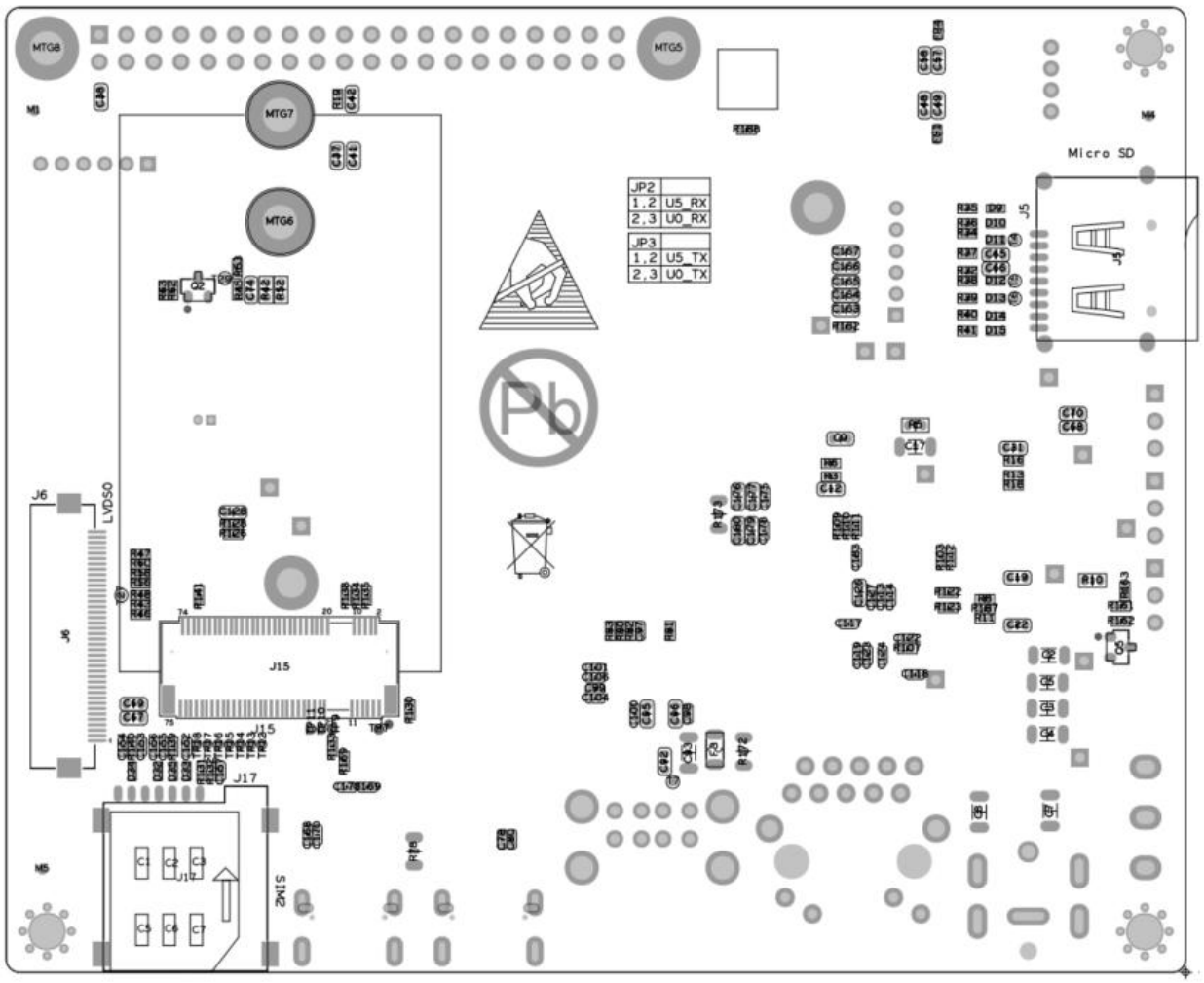

Figure 3 - 2 MYD-YT113X Interface Layout Bottom View

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4.1. Power Interface

You are advised to use a 12V DC adapter as the power input. A matching adapter and adapter are available.

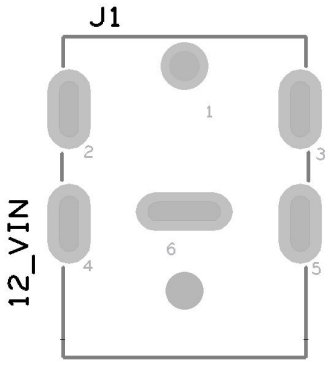

Figure 3 - 3 Connector of Power Input

4.1.1. Pin Description

Ref	Pin	Function	signal	Comments
J1	1	12V Power IN	12V	DC Socket: specifies the DC male header Outer diameter 5.5mm, inner diameter 1.7mm
	2	GND	GND	
	3	NC	NC	
	4	NC	NC	
	5	NC	NC	
	6	GND	GND	

Table 3 - 1 Power Interface Pin Description

4.2. Debug

MYD-YT113X has provide two interfaces for debug,UART debug and USB Type C debug.

MYIR recommend to use UART Debug other than USB C debug. If user really wants to use USB Type C ,should populate R166 and R167 with 0ohm on carrier board.

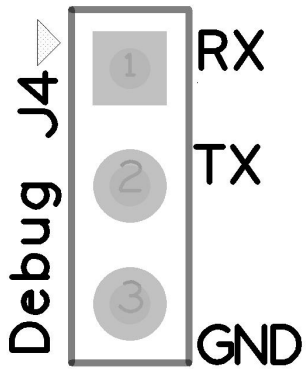

Figure 3 - 4 UART Debug Interface

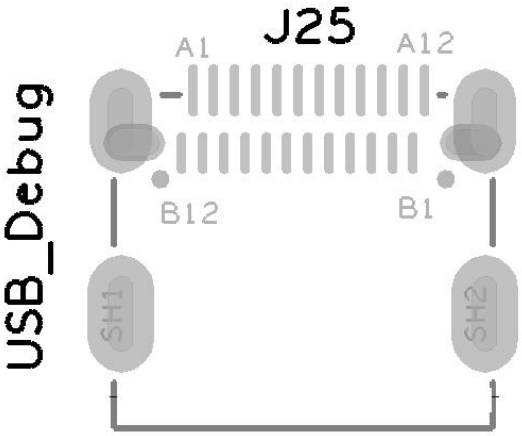

Figure 3 - 5 USB Type C Debug Interface

4.2.1. Pin Description

Ref	Pin	Function	signal	Comments
J4	1	UART5 Data receive	UART5_RX	
	2	UART5 Data transmit	UART5_TX	
	3	GND	GND	

Table 3 - 2 UART Debug Pin Description

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Ref	Pin	Function	signal	Comments
J25	A4	USB 5V Power	USB_TC_VBUS	
	A9	USB 5V Power	USB_TC_VBUS	
	B4	USB 5V Power	USB_TC_VBUS	
	B9	USB 5V Power	USB_TC_VBUS	
	A6	USB Data+	DEBUG_USB_DP	
	A7	USB0 Data-	DEBUG_USB_DN	
	B6	USB0 Data+	DEBUG_USB_DP	
	B7	USB0 Data-	DEBUG_USB_DN	
	A2	NC	NC	
	A3	NC	NC	
	B11	NC	NC	
	B10	NC	NC	
	B2	NC	NC	
	B3	NC	NC	
	A11	NC	NC	
	A10	NC	NC	
	A5	To detect connection	USB2CC1	
	B5	To detect connection	USB2CC1	
	A8	NC	NC	
	B8	NC	NC	
	A1	GND	GND	
	A12	GND	GND	
	B12	GND	GND	
	B1	GND	GND	

Table 3 - 3 USB Type C Pin Description

4.3. Key

The evaluation board is designed with two buttons, reset button and user-defined button.

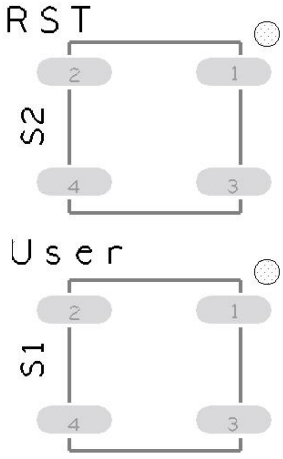

Figure 3 - 6 Key Interface

4.3.1. Pin Description

Ref	Pin	Function	signal	Comments
S2	/	reset	RST	Used to reset the module. The low level is active.
S1	/	User defined IO	PE1	Key press generates the corresponding event/interrupt

Table 3 - 4 Key Pin Description

4.4. LED

The evaluation board has designed with one power LED and two programmable LEDs.

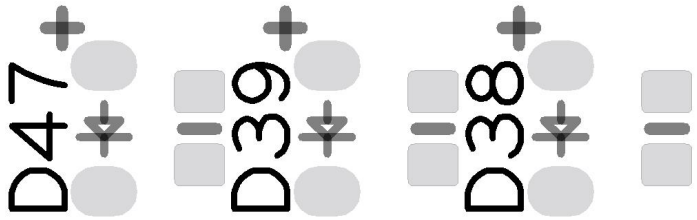

Table 3 - 7 LED Interface

4.4.1. Pin Description

Ref	Pin	Function	signal	Comments
D47	/	Green LED	P06	
D39	/	Blue LED	PE2	
D38	/	Red LED	VDD_3V3	On: The device is powered on Off: The device is powered off

Table 3 - 5 LED Pin Description

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4.5. Micro SD Slot

One Micro SD card circuit is designed for the evaluation board. It supports both booting from Micro SD and storage operations.

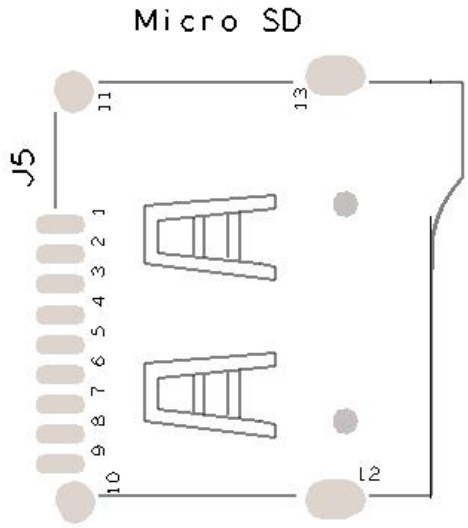

Figure 3 - 8 Micro SD

4.5.1. Pin Description

Ref	Pin	Function	signal	Comments
J5	1	SD0 data 2	SDC0_D2	
	2	SD0 data 3	SDC0_D3	
	3	SD0 command signal	SDC0_CMD	
	4	Power supply for micro SD	VDD_SD_3V3	
	5	SD0 clock	SDC0_CLK	
	6	GND	GND	
	7	SD0 data 0	SDC0_D0	
	8	SD0 data 1	SDC0_D1	
	9	SD0 card detect	SDC0-DET	
	10	GND	GND	
	11	GND	GND	
	12	GND	GND	
	13	GND	GND	

Table 3 - 6 Micro SD Pin Description

4.6. Expansion Connector

A double row 2x20 pin header designed on the EVK board of which designator is J2,can provides a rich of peripheral interface GPIO/I2C/UART//CAN.

MY-WIREDCOM module is a Raspberry PI peripheral interface launched by Mill Electronics, supporting RS232 interface, isolation RS485 interface, isolation CAN interface.

If user wants to evaluate RS232,RS485,CAN function,maybe choose a MY-WIREDCOM module is a good idea.

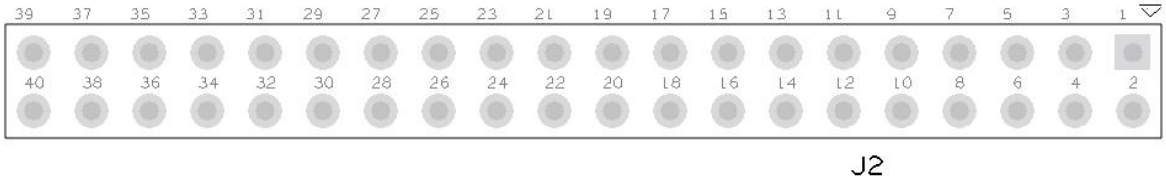

Figure 3 - 9 Expansion Connector Interface

4.6.1. Pin Description

Ref	Pin	Function	signal	Comments
J2	1	3.3V power	VDD_3V3	
	2	5V power	VDD_5V	
	3	I2C1 data	TWI1_SDA	
	4	5V power	VDD_5V	
	5	I2C1 clock	TWI1_SCK	
	6	GND	GND	
	7	IO	P00	
	8	IO	UART4_TX	
	9	GND	GND	
	10	IO	UART4_RX	
	11	IO	P01	
	12	IO	P17	
	13	IO	P02	
	14	GND	GND	
	15	IO	P03	
	16	IO	CAN0-RX	
	17	3.3V power	VDD_3V3	
	18	IO	CAN0-TX	
	19	IO	P04	

Ref	Pin	Function	signal	Comments
J2	20	GND	GND	
	21	IO	PWM5	
	22	IO	P16	
	23	IO	PG13	
	24	IO	P15	
	25	IO	GND	
	26	IO	P14	
	27	I2C3 data	TWI3_SDA	
	28	I2C3 clock	TWI3_SCK	
	29	IO	P07	
	30	IO	GND	
	31	IO	P10	
	32	IO	P13	
	33	IO	P12	
	34	IO	GND	
	35	IO	P11	
	36	IO	PD20	
	37	IO	NC	
	38	IO	PD21	
	39	IO	GND	
	40	IO	NC	

Table 3- 7 Expansion Connector Pin Description

4.7. USB

T113S3 / T113S4 has built-in two usb2.0 PHY, USB0 and USB1. USB0 supports DRP mode wired to USB Type-C . USB1 supports only HOST mode wired to USB2.0 HUB chip to expand four USB Host ports.

Two of the four extended ports are directly lead out through the double-layer USB Type A connector,the third route is used to connect to 5G module,and the fourth circuit is used to connect the USB WIFI module. Please refer to the module description in Section 5 for details.

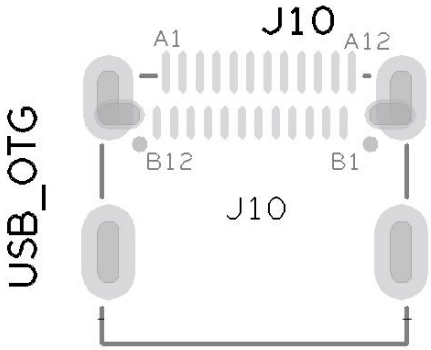

Figure 3 - 10 USB Type C Interface

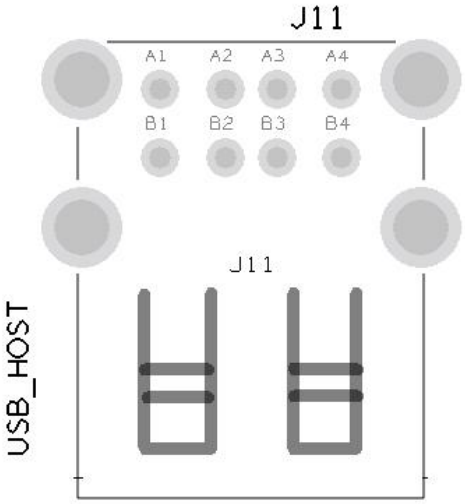

Figure 3 - 11 USB Type A Interface

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4.7.1. Pin Description

Ref	Pin	Function	signal	Comments
J10	A4	USB 5V Power	USB_TC_VBUS	
	A9	USB 5V Power	USB_TC_VBUS	
	B4	USB 5V Power	USB_TC_VBUS	
	B9	USB 5V Power	USB_TC_VBUS	
	A6	USB0 Data+	USB0_P	
	A7	USB0 Data-	USB0_N	
	B6	USB0 Data+	USB0_P	
	B7	USB0 Data-	USB0_N	
	A2	NC	NC	
	A3	NC	NC	
	B11	NC	NC	
	B10	NC	NC	
	B2	NC	NC	
	B3	NC	NC	
	A11	NC	NC	
	A10	NC	NC	
	A5	To detect connection	USB2CC1	
	B5	To detect connection	USB2CC1	
	A8	NC	NC	
	B8	NC	NC	
	A1	GND	GND	
	A12	GND	GND	
	B12	GND	GND	
	B1	GND	GND	

Table 3 - 8 USB OTG Pin Description

位号	标识	功能	信号	说明
J11	A1	USB 5V Power	VDD_5V	
	A2	USB HOST Data-	HOST1_USB_N	
	A3	USB HOST Data+	HOST1_USB_P	
	A4	GND	GND	
	B1	USB 5V Power	VDD_5V	
	B2	USB HOST Data-	HOST2_USB_N	
	B3	USB HOST Data+	HOST2_USB_P	
	B4	GND	GND	
	1	Metal ground	GND_EARTH	
	2	Metal ground	GND_EARTH	
	3	Metal ground	GND_EARTH	
	4	Metal ground	GND_EARTH	

Table 3 - 9 USB HOST Pin Description

4.8. Ethernet

T113S3 /T113S4 has built-in one EMAC interface for connecting external Ethernet PHY.

RGMIl and RMII interfaces are supported by T113S3/T113S4.

The EVK board useYT8531 which supports RGMII interface to implement gigabit network.

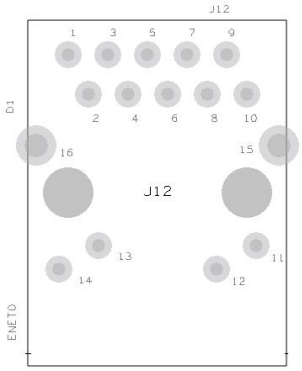

Figure 3 - 12 Ethernet Interface

4.8.1. Pin Description

Ref	Pin	Function	signal	Comments
J12	1	ET0 Differential signal 0+	ET0_TRP0	
	2	ET0 Differential signal 0-	ET0_TRN0	
	3	ET0 Differential signal 1+	ET0_TRP1	
	4	ET0 Differential signal 1-	ET0_TRN1	
	5	GND	GND	
	6	GND	GND	
	7	ET0 Differential signal 2+	ET0_TRP2	
	8	ET0 Differential signal 2-	ET0_TRN2	
	9	ET0 Differential signal 3+	ET0_TRP3	
	10	ET0 Differential signal 3-	ET0_TRN3	
	11	ET0 LED LINK	ET0_LED1	
	12	GND	GND	
	13	ET0 Activity LED	ET0_LED2	
	14	GND	GND	
	15	Metal ground	GND_EARTH	
	16	Metal ground	GND_EARTH	

Table 3 - 10 Ethernet Interface Pin Description

4.9. ADC

T113S3 /T113S4 supports one channel general purpose ADC and 4 wire touch panel ADC. The touch panel adc also can be multiplexed as general purpose ADC.

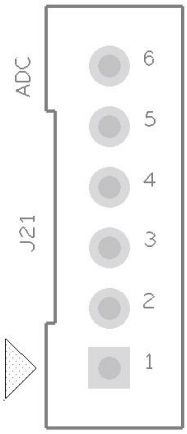

Figure 3 - 13 ADC Interface

4.9.1. Pin Description

Ref	Pin	Function	signal	Comments
J21	1	GPADC	GPADC0	
	2	GPADC	TP-X1	
	3	GPADC	TP-X2	
	4	GPADC	TP-Y1	
	5	GPADC	TP-Y2	
	6	GND	GND	

Table 3 - 11 ADC Pin Description

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4.10. AUDIO Out

The EVK board provides a 4Pin XH connector with which can be connected with speaker.

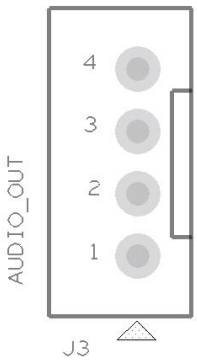

Figure 3 - 14 Audio Out Interface

4.10.1. Pin Description

Ref	Pin	Function	signal	Comments
J3	1	Speak +	L+	
	2	Speak -	L-	
	3	Speak +	R+	
	4	Speak -	R-	

Table 3 - 12 Audio Out Pin Description

4.11. LCD

Evaluation board support two kinds of LVDS interface connector. One is FPC connector and the other is double row pin header connector.

User can choose a 7 inch MY-LVDS070C display module to connect to j6 FPC connector. For HD LVDS display requirements please choose a suitable display module and connect to J7 pin header connector.

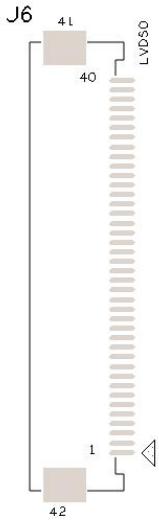

Figure 3 - 15 Signal Link LVDS Interface

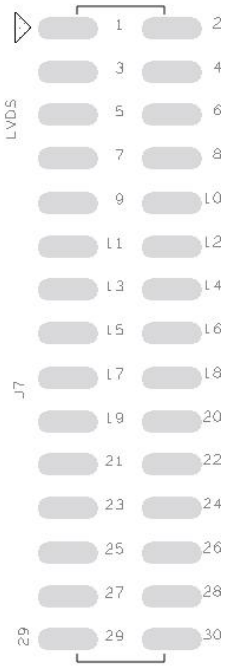

Figure 3 - 16 Dual Link LVDS Interface

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4.11.1. Pin Description

Ref	Pin	Function	signal	Comments
J6	1	NC	NC	
	2	Power 5V	VDD_5V	
	3	Power 5V	VDD_5V	
	4	NC	NC	
	5	NC	NC	
	6	NC	NC	
	7	GND	GND	
	8	LVDS0 Data lane0 -	LVDS0-D0N-R	
	9	LVDS0 Data lane0 +	LVDS0-D0P-R	
	10	GND	GND	
	11	LVDS0 Data lane1 -	LVDS0-D1N-R	
	12	LVDS0 Data lane1 +	LVDS0-D1P-R	
	13	GND	GND	
	14	LVDS0 Data lane2 -	LVDS0-D2N-R	
	15	LVDS0 Data lane2 +	LVDS0-D2P-R	
	16	GND	GND	
	17	LVDS0 Clock -	LVDS0-CLKN-R	
	18	LVDS0 Clock +	LVDS0-CLKP-R	
	19	GND	GND	
	20	LVDS0 Data lane3 -	LVDS0-D3N-R	
	21	LVDS0 Data lane3 +	LVDS0-D3P-R	
	22	GND	GND	
	23	NC	NC	
	24	NC	NC	
	25	GND	GND	
	26	GND	NC	
	27	IO	PMW2	
	28	NC	NC	
	29	NC	NC	
	30	GND	GND	

Ref	Pin	Function	signal	Comments
J6	31	NC	NC	
	32	NC	NC	
	33	TWI1 Data	TWI1_SDA	
	34	TWI1 Clock	TWI1_SCK	
	35	NC	NC	
	36	IO	PE10	
	37	NC	NC	
	38	NC	NC	
	39	NC	NC	
	40	NC	NC	

Table 3 - 13 Signal Link LVDS Pin Description

Ref	Pin	Function	signal	Comments
J6	1	Power 5V by default	VDD_Panel	
	2	Power 5V by default	VDD_Panel	
	3	Power 5V by default	VDD_Panel	
	4	GND	GND	
	5	GND	GND	
	6	GND	GND	
	7	LVDS1 Data lane0 -	LVDS1-D0N-R	
	8	LVDS1 Data lane0 +	LVDS1-D0P-R	
	9	LVDS1 Data lane1 -	LVDS1-D1N-R	
	10	LVDS1 Data lane1 +	LVDS1-D1P-R	
	11	LVDS1 Data lane2 -	LVDS1-D2N-R	
	12	LVDS1 Data lane2 +	LVDS1-D2P-R	
	13	GND	GND	
	14	GND	GND	
	15	LVDS0 Clock -	LVDS1-CLKN-R	
	16	LVDS0 Clock +	LVDS1-CLKP-R	
	17	LVDS1 Data lane3 -	LVDS1-D3N-R	
	18	LVDS1 Data lane3 +	LVDS1-D3P-R	
	19	LVDS0 Data lane0 -	LVDS0-D0N-R	
	20	LVDS0 Data lane0 +	LVDS0-D0P-R	
	21	LVDS0 Data lane1 -	LVDS0-D1N-R	
	22	LVDS0 Data lane1 +	LVDS0-D1P-R	
	23	LVDS0 Data lane2 -	LVDS0-D2N-R	
	24	LVDS0 Data lane2 +	LVDS0-D2P-R	
	25	GND	GND	
	26	GND	GND	
	27	LVDS0 Clock -	LVDS0-CLKN-R	
	28	LVDS0 Clock +	LVDS0-CLKP-R	
	29	LVDS0 Data lane3 -	LVDS0-D3N-R	
	30	LVDS0 Data lane3 +	LVDS0-D3P-R	

Table 3 - 14 Dual Link LVDS Pin Description

Ref	Pin	Function	signal	Comments
J9	1	Power 5V by default	VDD_Panel	
	2	Power 5V by default	VDD_Panel	
	3	Power 5V by default	VDD_Panel	
	4	GND	GND	
	5	GND	GND	
	6	GND	GND	

Table 3 - 15 Power and Backlight Pin Description

4.12. RTC

The evaluation board designed the RTC standby interface circuit, using the real-time clock module RX-8025 with I2C bus, the J20 needs to be connected to the external voltage of 3.0V in use. It can be used to maintain the operation of the RTC circuit in case of a power failure.

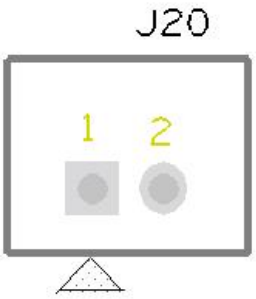

Figure 3 - 17 RTC battery Interface

4.12.1. Pin Description

Ref	Pin	Function	signal	Comments
J20	1	Power 3V	VDD_BAT	
	2	GND	GND	

Table 3 - 16 RTC Pin Description

5. Module description

5.1. 4G / 5G Module

The evaluation board reserves one M.2 Key-B circuit, which can be connected to 4G / 5G module. The evaluation board supports the EM05 and RM500Q 4G / 5G modules, and provides Linux drivers and code samples.

The M.2 connector is an APCI0105-P001A connector from Lotes. The default power supply voltage of the module is 3.9V. The control signal is the USB signal extended by the USB HUB chip.

The carried board also provides two SIM card slots, which can be used together with 5G modules.

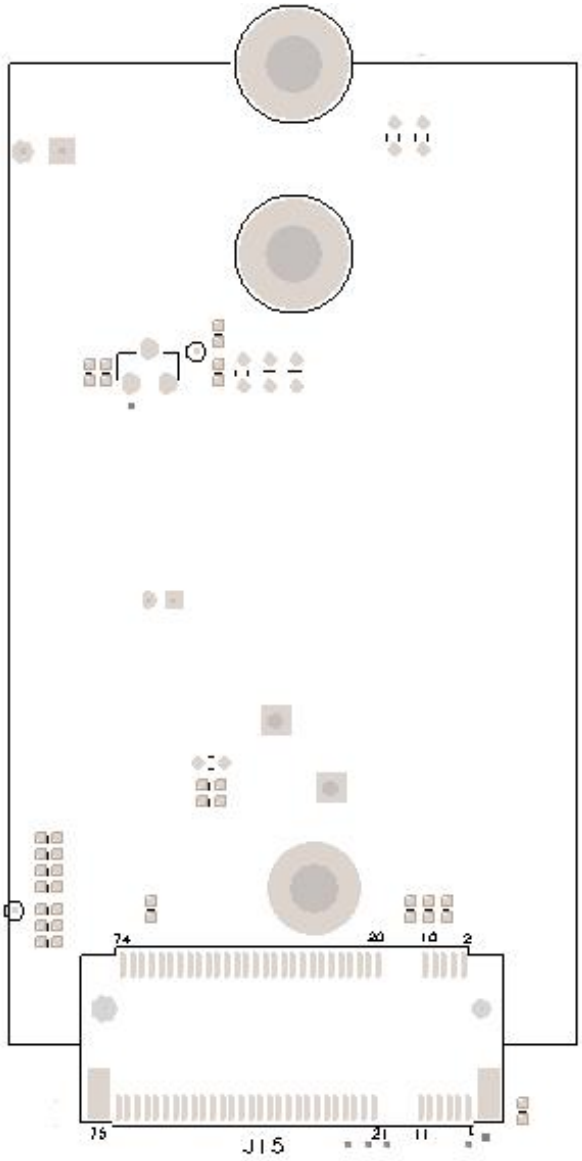

Figure 4 - 1 M.2 interface

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5.1.1. Pin Description

Ref	Pin	Function	signal	Comments
J15	1	NC	config3	
	2	Power 3.9V	VDD_3V9	
	3	GND	GND	
	4	Power 3.9V	VDD_3V9	
	5	GND	GND	
	6	PULL_CARD_POWR_OFF	PULL_CARD_POWR_OFF	L:Module power off H:Module power on
	7	USB 2.0 Differential data +	5G_USB_DP	
	8	Power 3.9V	VDD_3V9	
	9	USB 2.0 Differential data -	5G_USB_DN	
	10	NC	NC	
	11	GND	GND	
	20	NC	NC	
	21	NC	config0	
	22	NC	NC	
	23	NC	WAKE_ON_WWAN	
	24	NC	NC	
	25	NC	DRP	
	26	NC	NC	
	27	GND	GND	
	28	NC	NC	
	29	NC	NC	
	30	SIM1 Reset	USIM1_RST	
	31	NC	NC	
	32	SIM1 Clock	USIM1_CLK	
	33	GND	GND	
	34	SIM1 data	USIM1_DATA	
	35	NC	NC	
	36	SIM1 Power	USIM1_VCC	
	37	NC	NC	
	38	I2C CLK	I2C_SCL_GPIO19	
	39	GND	GND	
	40	SIM2 detection	USIM2_DET	
	41	NC	NC	

Ref	Pin	Function	signal	Comments
	42	SIM2 data	USIM2_DATA	
	43	NC	NC	
	44	SIM2 Clock	USIM2_CLK	
	45	GND	GND	
	46	SIM2 Reset	USIM2_RST	
	47	NC	NC	
	48	SIM2 Power	USIM2_VCC	
	49	NC	NC	
	50	NC	NC	
	51	GND	GND	
	52	NC	NC	
	53	NC	NC	
	54	NC	NC	
	55	NC	NC	
	56	NC	NC	
	57	GND	GND	
	58	NC	NC	
	59	NC	NC	
	60	NC	NC	
	61	NC	RF	
	62	NC	NC	
	63	NC	NC	
	64	NC	NC	
	65	NC	NC	
	66	SIM1 detection	USIM1_DET	
	67	Reset signal	Module_RESET_N	
	68	I2C bus data	I2C_SDA_GPIO18	
	69	NC	config1	
	70	Power 3.9V	VDD_3V9	
	71	GND	GND	
	72	Power 3.9V	VDD_3V9	
	73	GND	GND	
	74	Power 3.9V	VDD_3V9	
	75	NC	Config2	

Table 4 -1 M.2 Pin Description

5.2. WIFI

One USB2.0 interface is reserved on the evaluation board to support the USB WIFI module, which adopts the form of patch package.

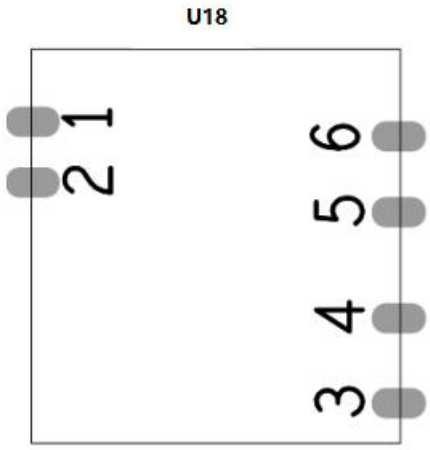

Figure 4 -2 WIFI module interface

5.2.1. Pin Description

Ref	Pin	Function	signal	Comments
U18	1	GND	GND	
	2	Antenna interface	RFIO	
	3	Power 3.3V	VDD_3V3	
	4	USB data -	WIFI_USB_DM	
	5	USB data +	WIFI_USB_DP	
	6	GND	GND	

Table 4 - 2 WIFI Pin Description

6. Mechanical Size

module: size 37mm*39mm, using 6 layers of high density PCB design, gold plating process, no lead.

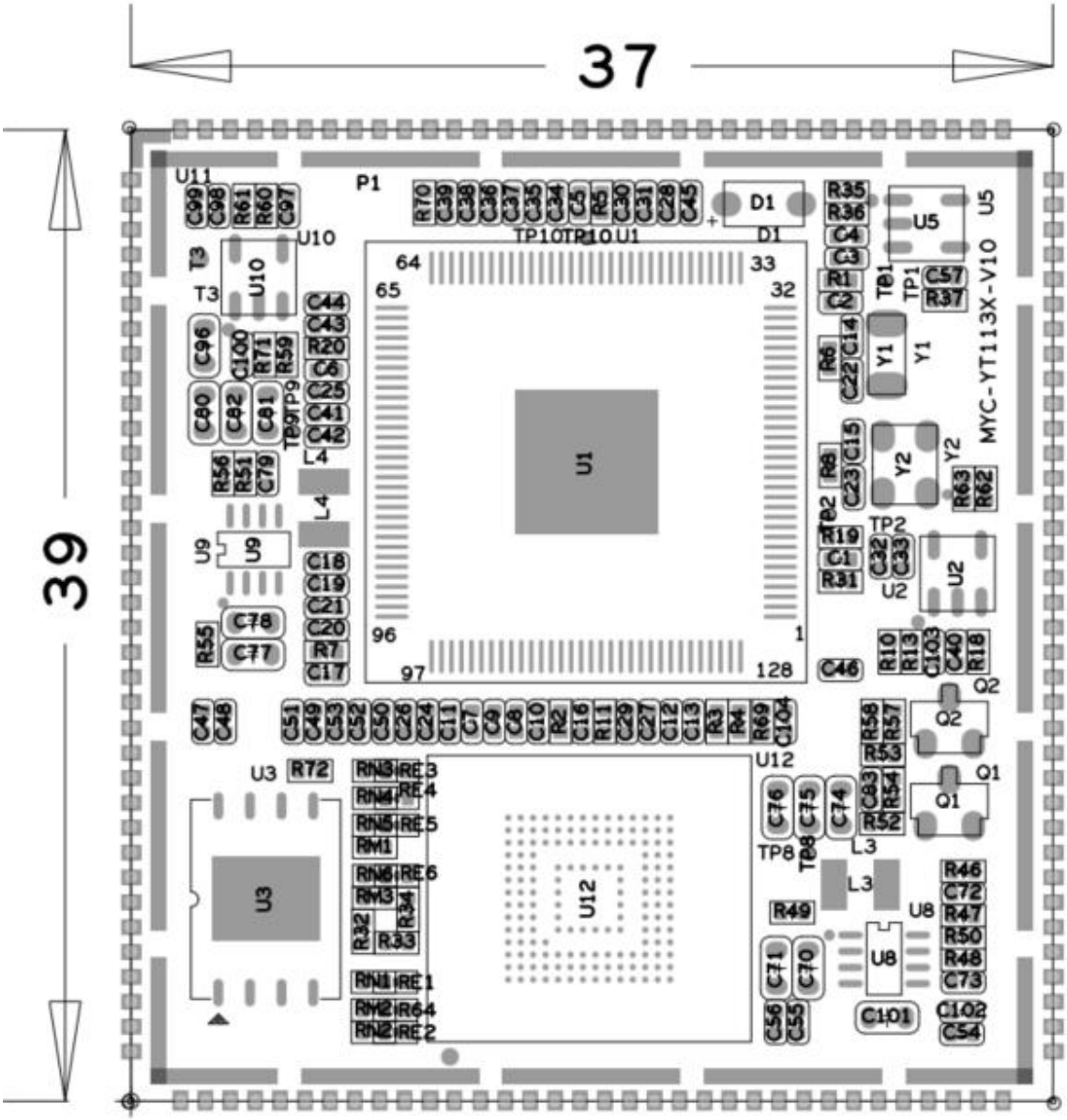

Figure 5 -1 Module Size

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Evaluation board base board: Size 90 mm x 110 mm, 4 layer, gold sinking process, lead free.

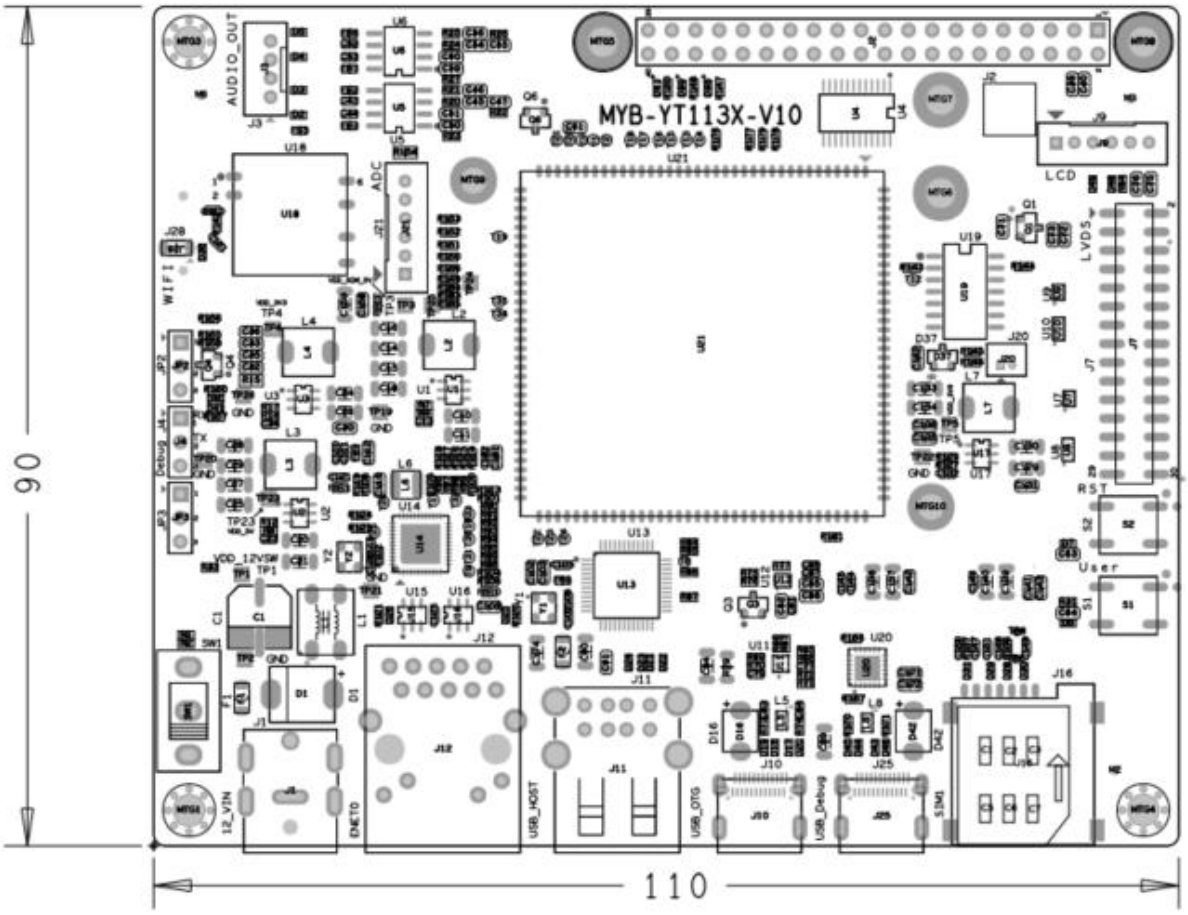

Figure 5 -2 Evaluation Board Size

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7. EVK Ordering Information

7.1. EVK Part Number

Item	MYD-YT113S3-256N128D-110-I
CPU	T113-S3
Operate Temperature	-40℃ ~ +85℃ (exclude WIFI module)
DDR	128MB DDR3
EMMC	256MB QSPI Nand Flash
WIFI	IEEE802.11a/b/g/n, -20~70℃,

Table 7 - 1 Ordering Information 1

Item	MYD-YT113S3-4E128D-110-I
CPU	T113-S3
Operate Temperature	-40℃ ~ +85℃ (exclude WIFI module)
DDR	128MB DDR3
EMMC	4GB EMMC
WIFI	IEEE802.11a/b/g/n, -20~70℃,

Table 7 - 2 Ordering Information 2

7.2. Package List

Item	Description
Board	x1 EVK board
QSG	x1 quick start guide
Cables & Accessories	x1 Debug (USB To TTL UART) x1 12V power adapter x1 1.7mm to 2.1mm DC Jack converter

Table 7 - 3 Packing List

7.3. Modules supported by EVK

Part Number	Description	Link
MY-LVDS070C	7 "LVDS LCD screen	https://www.myirtech.com/list.asp?id=634
MY-WIREDCOM	Raspberry PI interface integrate RS232/RS485/CAN Transceiver	https://www.myirtech.com/list.asp?id=665

Table 7 - 4 Supported Modules

8. Part Number of Connectors on EVK

Part Number	Manufacturer	Part Number	Description
JPD441-N5215-7H	Foxconn	J1	DC Jack
12251220CNG1S115001	GDZ	J2	2x20 Pin Header
B4B-PH-K-S	JST	J3	4Pin XH
(NS)1125-1103G0S116C001	WCON	J4	1x3 Pin Header
WQ21801-B2180-7F	Foxconn	J5	Micro SD
FPC05040-17205	ATOM	J6	FPC Connector
13201215CNG4M80T01	GDZ	J7	2x13 Pin Header
B6B-PH-K-S	JST	J9	6Pin XH
B6B-PH-K-S	JST	J21	6Pin XH
UT12111-B1609-7F	FOXCONN	J10,J25	USB Type C
UB11121-8FDE-4F	Foxconn	J11	USB Type A Host
S11-ZZ-0319	UDE	J12	RJ45
APCI0105-P001A	LOTES	J15	M.2 Key B
SI62C-01200	ATOM	J16,J17	Micro SIM
AN3216	Rain Sun	J28	Antenna
A1251-2A	GDZ	J20	RTC Battery connector

Table 8 - 1 Part Number of Connectors on EVK

Appendix A

Warranty & Technical Support Services

MYIR Electronics Limited is a global provider of ARM hardware and software tools, design solutions for embedded applications. We support our customers in a wide range of services to accelerate your time to market.

MYIR is an ARM Connected Community Member and work closely with ARM and many semiconductor vendors. We sell products ranging from board level products such as development boards, single board computers and CPU modules to help with your evaluation, prototype, and system integration or creating your own applications. Our products are used widely in industrial control, medical devices, consumer electronic, telecommunication systems, Human Machine Interface (HMI) and more other embedded applications. MYIR has an experienced team and provides custom design services based on ARM processors to help customers make your idea a reality.

The contents below introduce to customers the warranty and technical support services provided by MYIR as well as the matters needing attention in using MYIR's products.

Service Guarantee

MYIR regards the product quality as the life of an enterprise. We strictly check and control the module design, the procurement of components, production control, product testing, packaging, shipping and other aspects and strive to provide products with best quality to customers. We believe that only quality products and excellent services can ensure the long-term cooperation and mutual benefit.

Price

MYIR insists on providing customers with the most valuable products. We do not pursue excess profits which we think only for short-time cooperation. Instead, we hope to establish long-term cooperation and win-win business with customers. So we will offer reasonable prices in the hope of making the business greater with the customers together hand in hand.

Delivery Time

MYIR will always keep a certain stock for its regular products. If your order quantity is less than the amount of inventory, the delivery time would be within three days; if your order quantity is greater than the number of inventory, the delivery time would be always four to six weeks. If for any urgent delivery, we can negotiate with customer and try to supply the goods in advance.

Technical Support

MYIR has a professional technical support team. Customer can contact us by email (support@myirtech.com), we will try to reply you within 48 hours. For mass production and customized products, we will specify person to follow the case and ensure the smooth production.

After-sale Service

MYIR offers one year free technical support and after-sales maintenance service from the purchase date. The service covers:

Technical support service

MYIR offers technical support for the hardware and software materials which have provided to customers;

- To help customers compile and run the source code we offer;
- To help customers solve problems occurred during operations if users follow the user manual documents;
- To judge whether the failure exists;

- To provide free software upgrading service.
- However, the following situations are not included in the scope of our free technical support service:
- Hardware or software problems occurred during customers' own development;
- Problems occurred when customers compile or run the OS which is tailored by themselves;
- Problems occurred during customers' own applications development;
- Problems occurred during the modification of MYIR's software source code.

After-sales maintenance service

The products except LCD, which are not used properly, will take the twelve months free maintenance service since the purchase date. But following situations are not included in the scope of our free maintenance service:

- The warranty period is expired;
- The customer cannot provide proof-of-purchase or the product has no serial number;
- The customer has not followed the instruction of the manual which has caused the damage the product;
- Due to the natural disasters (unexpected matters), or natural attrition of the components, or unexpected matters leads the defects of appearance/function;
- Due to the power supply, bump, leaking of the roof, pets, moist, impurities into the boards, all those reasons which have caused the damage of the products or defects of appearance;
- Due to unauthorized weld or dismantle parts or repair the products which has caused the damage of the products or defects of appearance;
- Due to unauthorized installation of the software, system or incorrect configuration or computer virus which has caused the damage of products.

Warm tips:

- MYIR does not supply maintenance service to LCD. We suggest the customer first check the LCD when receiving the goods. In case the LCD cannot run or no display, customer should contact MYIR within 7 business days from the moment get the goods.
- Please do not use finger nails or hard sharp object to touch the surface of the LCD.
- MYIR suggests user purchasing a piece of special wiper to wipe the LCD after long time use, please avoid clean the surface with fingers or hands to leave fingerprint.
- Do not clean the surface of the screen with chemicals.
- Please read through the product user manual before you using MYIR's products.
- For any maintenance service, customers should communicate with MYIR to confirm the issue first. MYIR's support team will judge the failure to see if the goods need to be returned for repair service, we will issue you RMA number for return maintenance service after confirmation.

Maintenance period and charges

MYIR will test the products within three days after receipt of the returned goods and inform customer the testing result. Then we will arrange shipment within one week for the repaired goods to the customer. For any special failure, we will negotiate with customers to confirm the maintenance period.

For products within warranty period and caused by quality problem, MYIR offers free maintenance service; for products within warranty period but out of free maintenance service scope, MYIR provides maintenance service but shall charge some basic material cost; for products out of warranty period, MYIR provides maintenance service but shall charge some basic material cost and handling fee.

Shipping cost

During the warranty period, the shipping cost which delivered to MYIR should be responsible by user; MYIR will pay for the return shipping cost to users when the product is repaired. If the warranty period is expired, all the shipping cost will be responsible by users.

Products Life Cycle

MYIR will always select mainstream chips for our design, thus to ensure at least ten years continuous supply; if meeting some main chip stopping production, we will inform customers in time and assist customers with products updating and upgrading.

Value-added Services

- MYIR provides services of driver development base on MYIR's products, like serial port, USB, Ethernet, LCD, etc.
- MYIR provides the services of OS porting, BSP drivers' development, API software development, etc.
- MYIR provides other products supporting services like power adapter, LCD panel, etc.
- ODM/OEM services.

MYIR Electronics Limited

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