MYD-YF13X
EVK Hardware User`s Guide

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History

Version	Author	Participants	Date	Description
V1.0	Dana		20230529	Initial Version

Contents

1. Overview

MYD-YF13X is an evaluation board development kit based on STM32MP135 series processor design launched by MYIR Electronics Limited. It includes Ethernet, USB 2.0, DCMI, RGB, CAN, SAI, I2C, UART, and reserves Mini PCI-E slot to support 4G. The evaluation board consists of core board MYC-YF13X and bottom board MYB-YF13X. This manual facilitates users to understand the interface definition and functional application of the evaluation board, and also has certain guiding significance for project development using our core board MYC-YF13X.

1.1. EVK Introduction

The MYC-YF13X core board is designed with high-density high-speed circuit board, integrating processor, DDR 3L, E MMC / QSPI Flash, EEPROM, discrete power supply and other circuits on the board card of 37mm * 39mm.

The bottom board adopts double-sided device layout, which supports 2-channel gigabit Ethernet, 1-channel USB 2 HOST, 1-channel USB 2.0 OTG, 1-channel RGB, 1-channel DCMI, 1-channel CAN, 1-channel RS485,1-channel RS232,1-channel AUDIO, 1-channel SDMMC, 1-channel SWD, and supports 4G module.

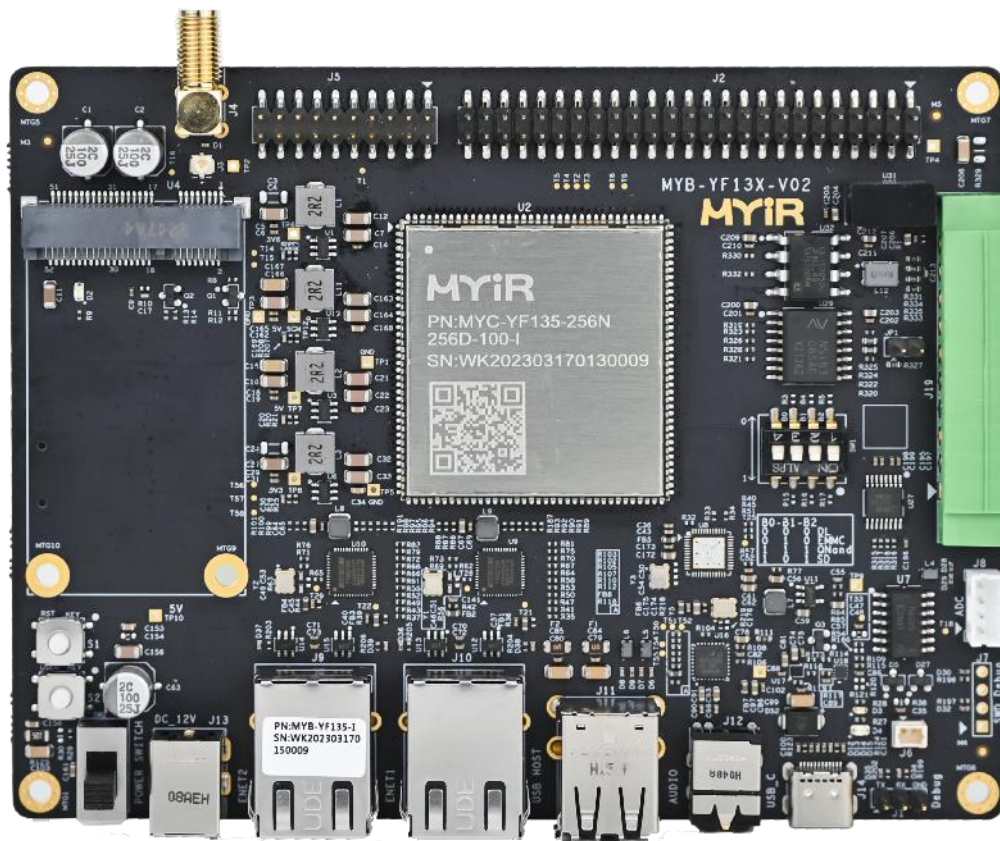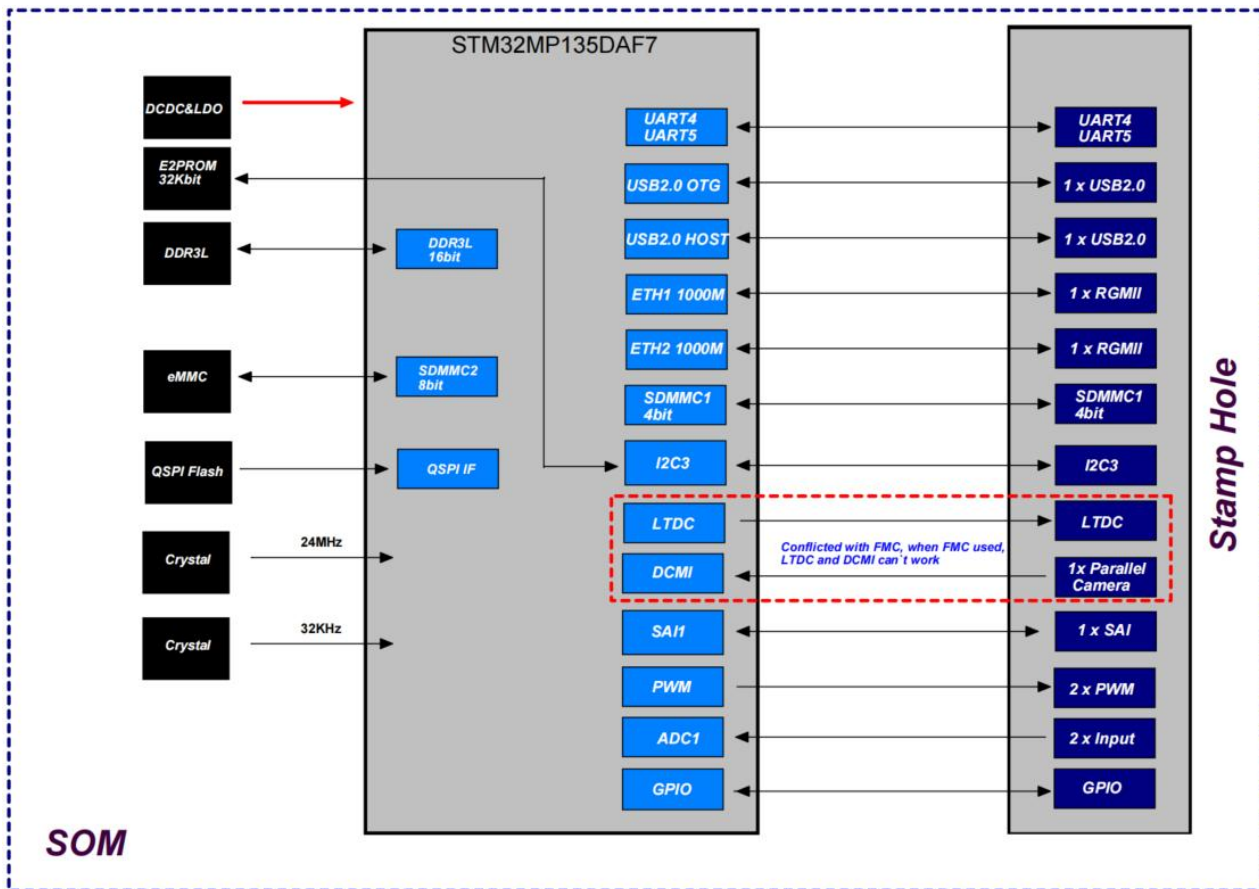
Figure 1- 1 MYD-YF13X Kit

1.2. Block Diagram

Figure 1-2 core board diagram
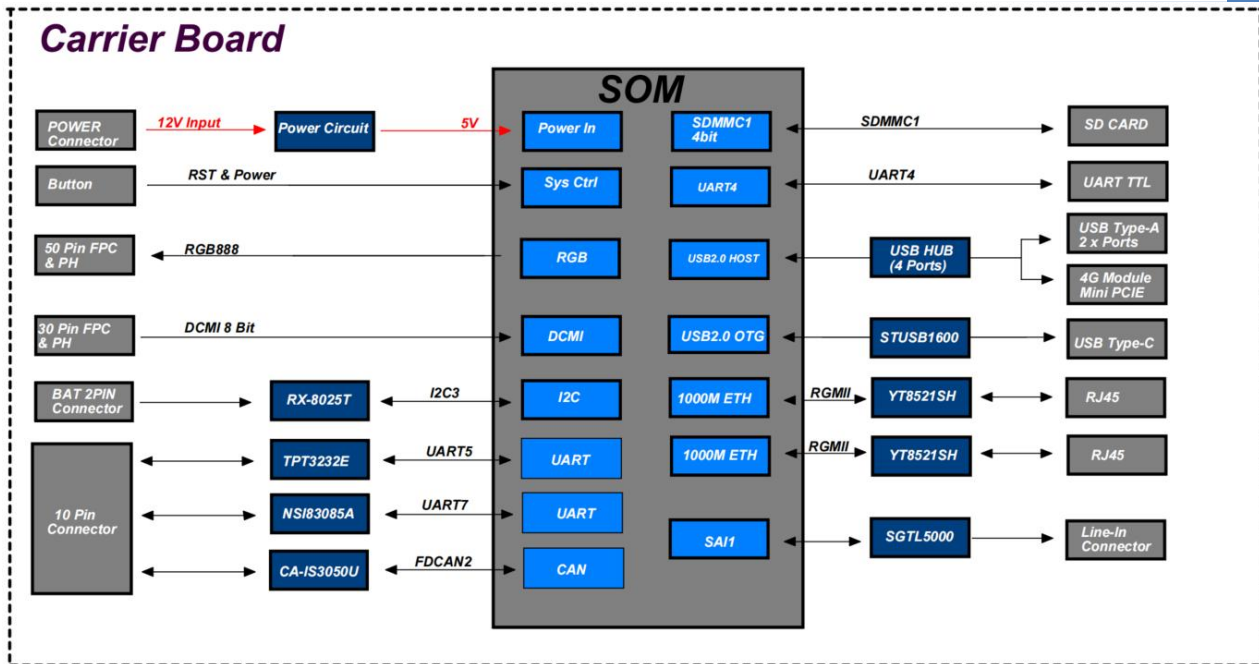
Figure 1-3 carrier board diagram

1.3. EVK Physical Image
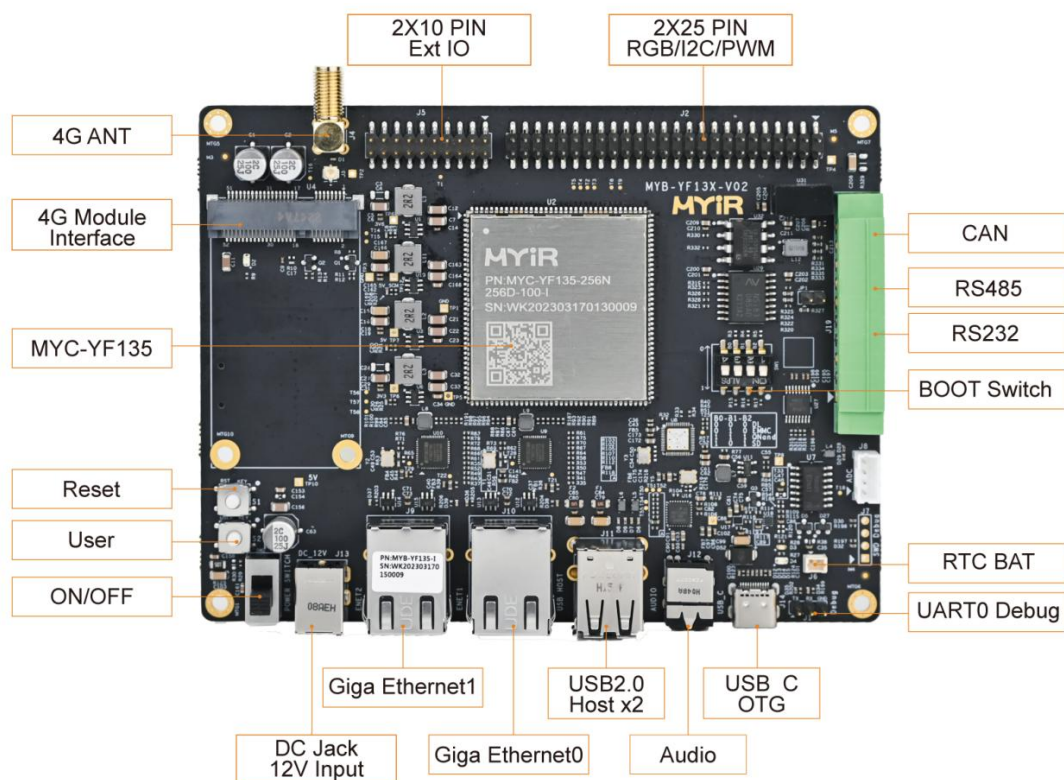
Figure 1-4 MYD-YF13X Top view of EVK
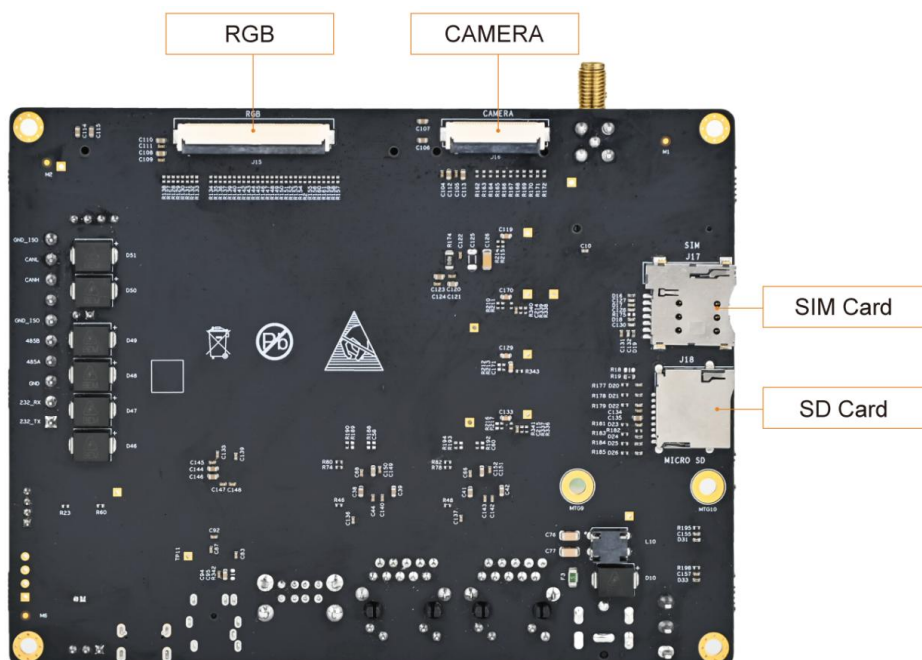
Figure1-5 MYD-YF13X Bottom view of EVK

1.4. Key interface parameter

Interface	Description
DC Power Supply	x1 Power adapter
Ethernet	x2 RJ45 with 1000Mbps Ethernet
USB	x1 USB 2.0 OTG Type C x1 USB 2.0 HOST Type A (2 ports)
Audio	x1 3.5mm Headphone / Mic
Display	x1 RGB
Camera	X1 DCMI
Pluggable Block	X1 RS485 X1 RS232 X1 CAN
SIM Card Slot	X1 SIM card slot
Extension interface	x1 2x 10 Pin header x1 2x 25 Pin header X1 Mini PCI-E，For 4G module
Micro SD	x1 micro SD slot used to boot from Micro sd card
Keys	x1 Reset key x1 user key
Debug	x1 3 Pin header ，For UART Debug

Table 1-1 MYD-YF13X Key interface parameter

1.5. reference material

If MYIR Electronics provides supporting software and hardware information, including but not limited to product manual, hardware design guide, device manual, software development guide, system image,Sourece code, firmware etc., please go to http://d.myirtech.com/MYD-YF13X/.

2. Power Parameters

2.1. Power Tree

System input voltage is 12V. The main power supply path is from 12V to 5V, 12V to 3.6V, and 12V to 3.3V.

The 5V voltage is mainly used to power the bottom and core boards, as well as RGB, DCMI, CAN, RS485, USB 2, etc. The 3.6V voltage is used to power the Mini PCIE 4G module..0 The 3.3V voltage is used to power the Ethernet, Audio, RS232, RTC, GPIO, etc.
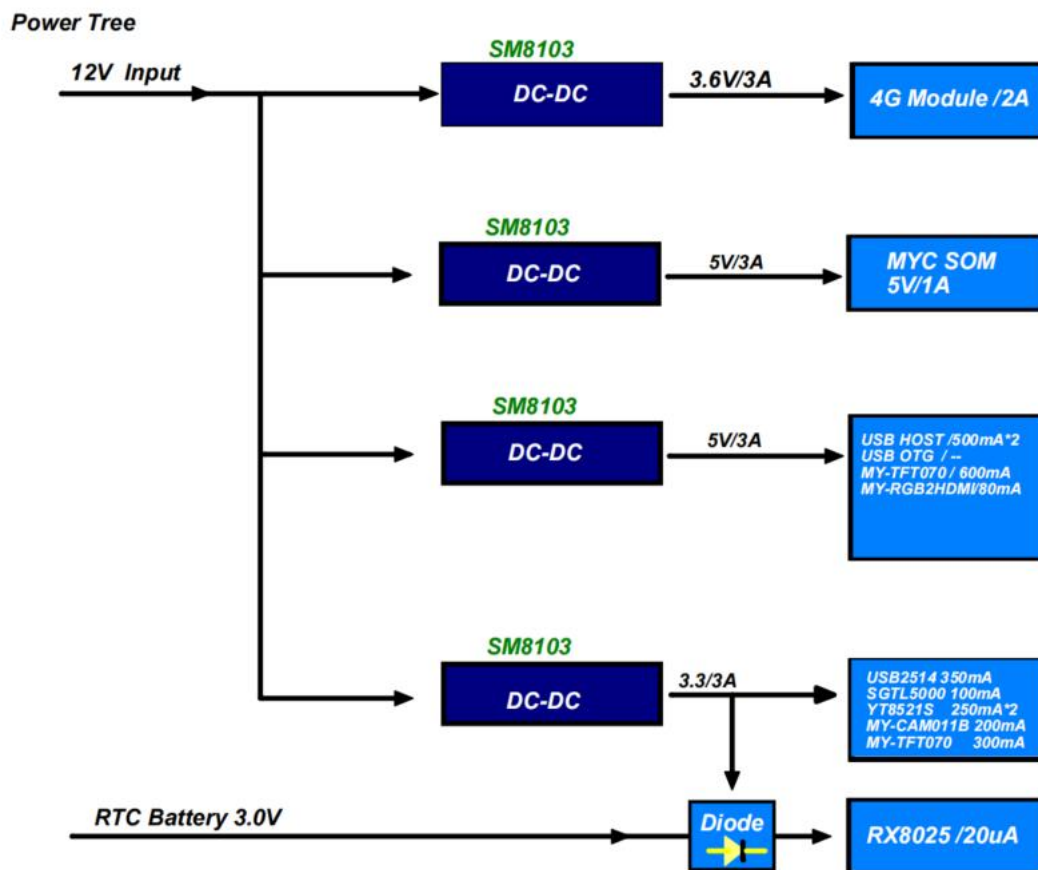
Figure 2-1 EVK power tree

2.2. Power Consumption

Condition	Voltage	Current	Power Consumption	Condition
The MEM dormancy mode Command: echo mem> / sys / power r/state	12.0V	0.01A	-	0.12W
In the linux environment light condition	12.0V	0.07A	-	0.84W
In the linux environment USB Hostx2, LANx 2 + OTG + SD Card + aging procedure, CPU full load	12.0V	0.22A	-	2.64W

Table 2-1 EVK Power Consumption

2.3. Requirement of Power Supply

The recommended supply voltage of the MYD-YF13X carrier board is 12V.

3. BOOT configure

The MYC-YF13X core board supports the following startup sources: UART and USB download, EMMC startup, NAND FLASH startup, and Micro SD startup. At startup, the boot source used by the internal BootROM are selected by BOOT Pin and OTP bytes.

The MYC-YF13X core board has pulled down BOOT0, BOOT1 and BOOT2 inside the CPU.

3.1. BOOT Mode selection

BOOT[2:1:0]	Boot Device	Remarks
000	UART and USB	Download image
010	eMMC	Boot from eMMC
011	Nand Flash	Boot from Nand Flash
101	SD Card	Boot from Micro SD
111	QSPI Nand Flash	BOOT from QSPI Nand Flash

Table 3-1 BOOT Mode selection

4. Interface Layout

The overall interface layout of the evaluation board is shown below. The schematic diagram of the subsequent local interface circuit in this section corresponds to this layout.
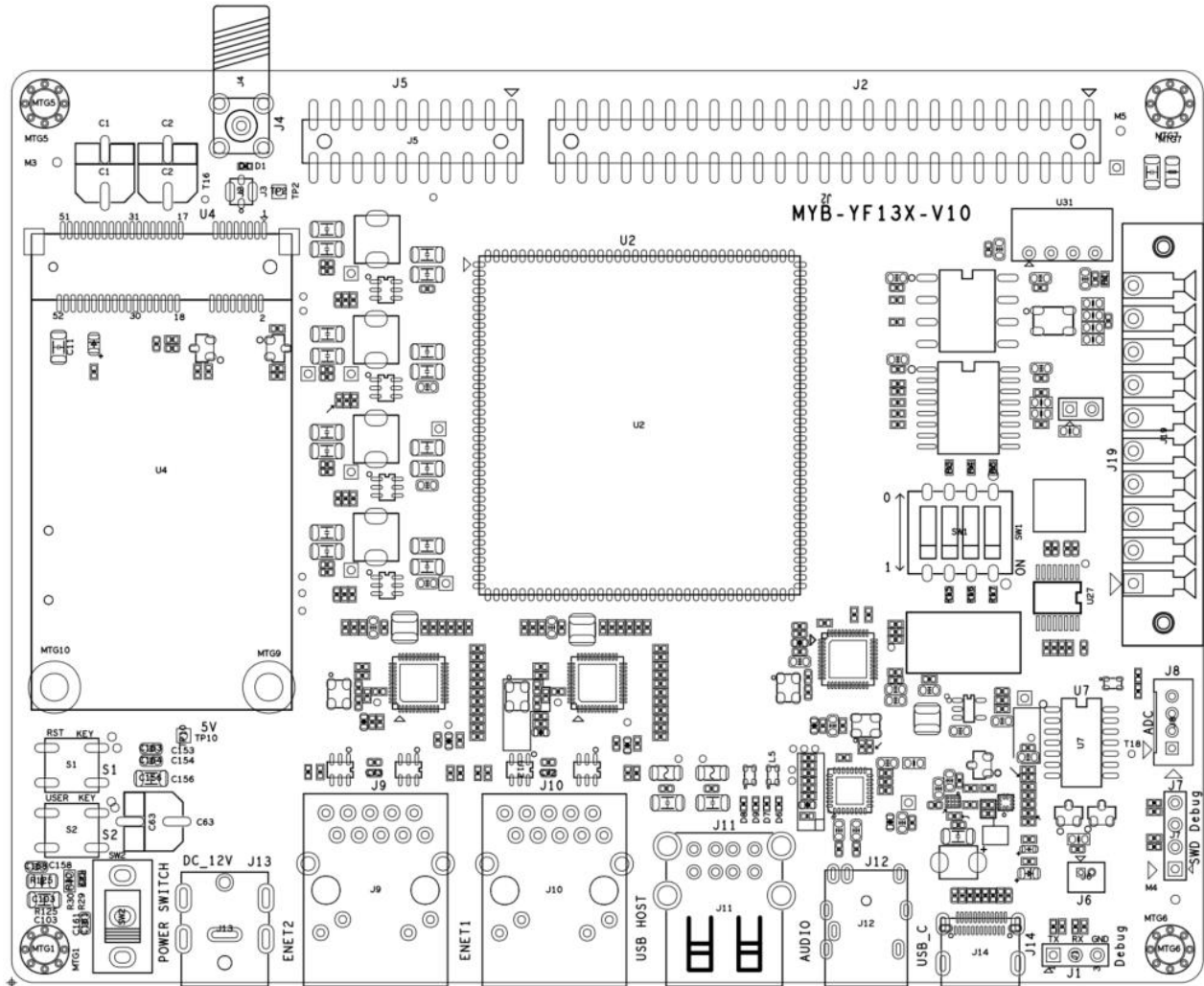
Figure 4-1 MYD-YF13X Interface Layout Top View
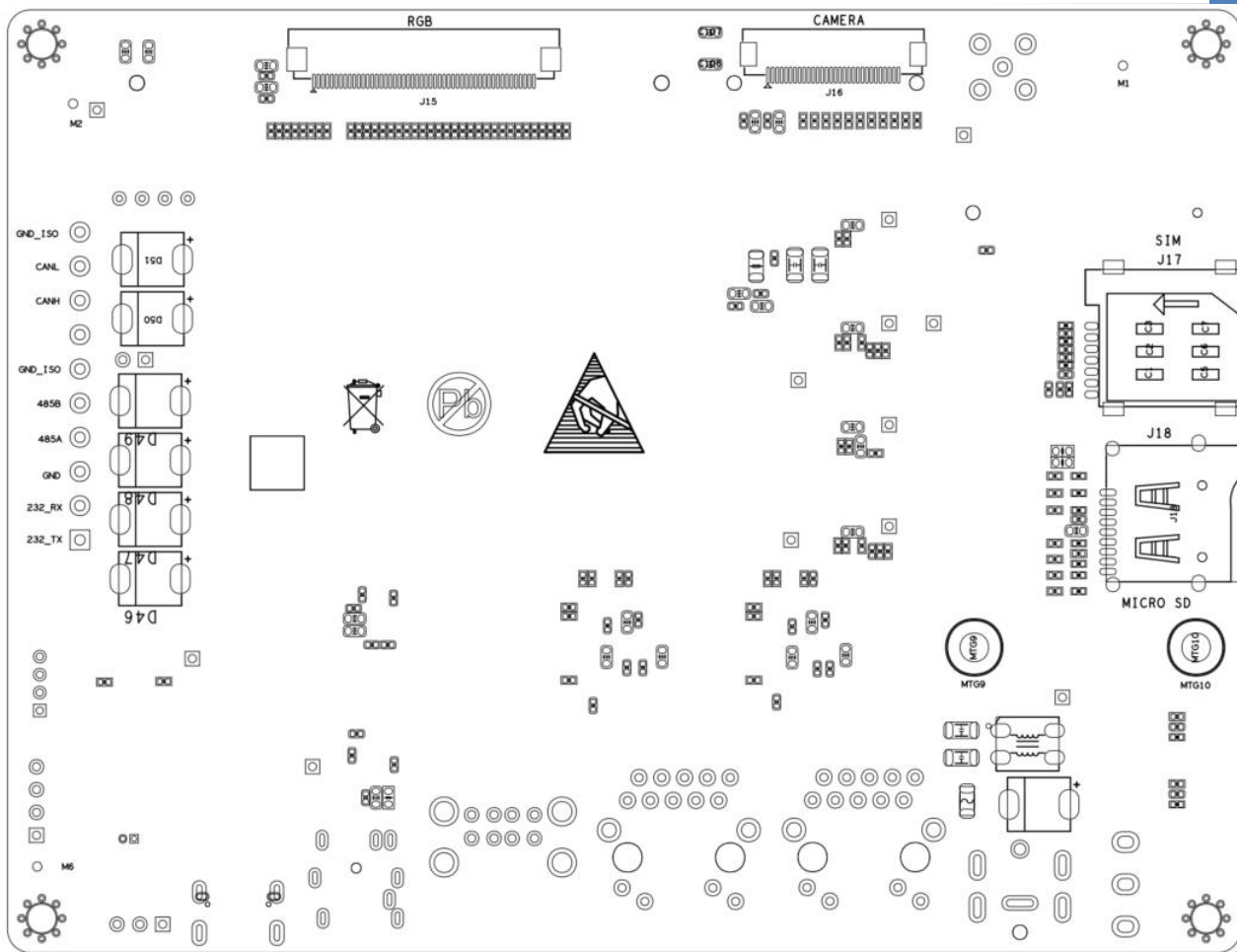
Figure 4-2 MYD-YF13X Interface Layout Bottom View

4.1. Power Interface

It is recommended to use the 12V / 2A DC power adapter as the power input, with a matching adapter and adapter.
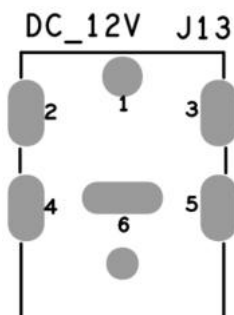
Figure 4-3 Connector of Power Input

4.1.1. Pin Description

Ref	Pin	Function	signal	Comments
J13	1	12V Power IN	12V	DC Socket, Corresponding DC header Outer diameter is 5.5mm and inner diameter is 1.7mm
	2	NC	NC	
	3	NC	NC	
	4	NC	NC	
	5	NC	NC	
	6	GND	GND	

Table 4-1 Power interface pin description

4.2. Debug

The debugging serial port of the MYD-YF13X development board uses UART4, and the interface is J1;

Evaluation board, also supports serial debugging SWD interface, SWD debugging interface signal to J7 interface, the default does not patch.
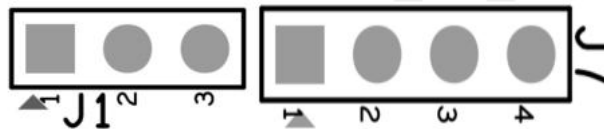
Fig. 4-4 Debug Interface

4.2.1. Pin Description

Ref	Pin	Function	signal	Comments
J1	1	UART 4 Data transmit	UART4_TX	
	2	UART 4 Data receive	UART4_R X	
	3	GND	GND	

Table 4-2 Debug serial Description

Ref	Pin	Function	signal	Comments
J7	1	Power 3.3V	VDD_3V3	
	2	Serial Clock	SWCLK	
	3	Serial Data	SWDIO	
	4	GND	GND	

Table 4-3 SWD Description

4.3. key

The evaluation board is designed with two keys, respectively, the reset keys, and the user defines the keys.
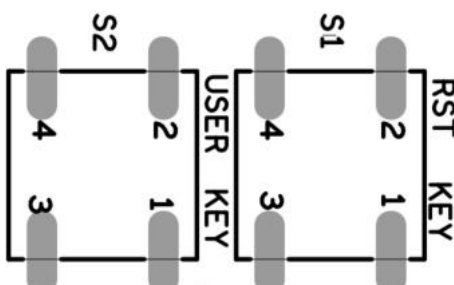
Figure 4-5 key Interface

4.3.1. Pin Description

Ref	Pin	Function	signal	Comments
S1	/	reset	NRST	To reset the core board. Low level is effective.
S2	/	User defined IO	PI1	Press press produces the corresponding event / interrupt

Table 4-4 key pin description

4.4. LED

The evaluation board is designed with one power light and one program light, namely, the 3.3V bottom board power indicator light and the system operation indicator light.
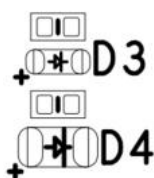
Figure 4-6 LED Interface

4.4.1. Pin Description

Ref	Pin	Function	signal	Comments
D3	/	System operation indicator light, blue	SPI5_MOSI	
D4	/	Base board power indicator light, red	VDD_3V3	Bright: The equipment is powered up normally Extract: power off of equipment

Table 4-5 LED pin description

4.5. SD

The evaluation board is designed with a 1-channel Micro SD card circuit that supports Micro SD storage and startup operations.
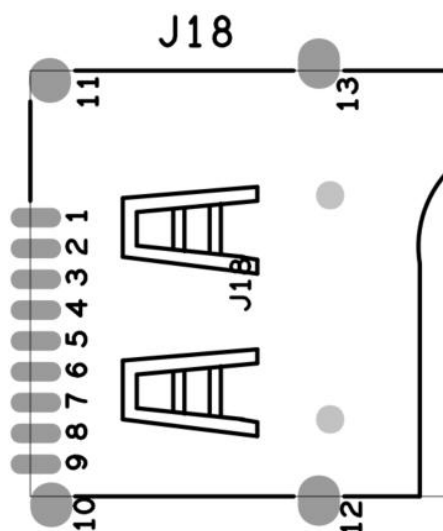
Figure 4-7 Micro SD

4.5.1. Pin Description

Ref	Pin	Function	signal	Comments
J18	1	SD1 data 2	SDMMC1_D2	
	2	SD1 data 3	SDMMC1_D 3	
	3	RZ_SD1_CMD	SDMMC1_CMD	
	4	Power 3.3V	VDD_SD _3V3	
	5	SD1 CLK	SDMMC1_CLK	
	6	GND	GND	
	7	SD1 data 0	SDMMC1_D 0	
	8	SD1 data 1	SDMMC1_D 1	
	9	SD1 card detect	PH4	
	10	GND	GND	
	11	GND	GND	
	12	GND	GND	
	13	GND	GND	

Table 4-6 Micro SD pin description

4.6. Extended interface

The evaluation board has reserved a 02 * 25 Pin double row needle with 2.54MM spacing, J2 interface, and some peripheral interfaces GPIO / I2C / RGB / PWM have been introduced to facilitate the interconnection of users and other devices.

A2 * 10 Pin double row needle with 2.54MM spacing, J5 interface, and some peripheral interfaces GPIO / I2C / UART have been reserved to facilitate the interconnection of users and other devices.
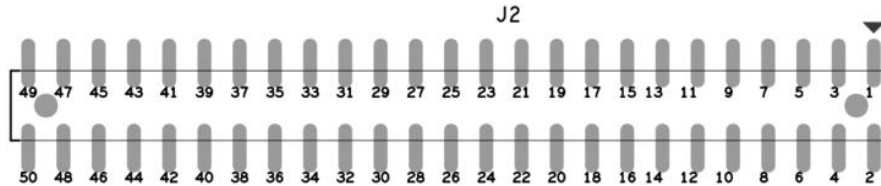
Figure 4-8 Schematic diagram of the GPIO / I2C / RGB / PWM extension interface
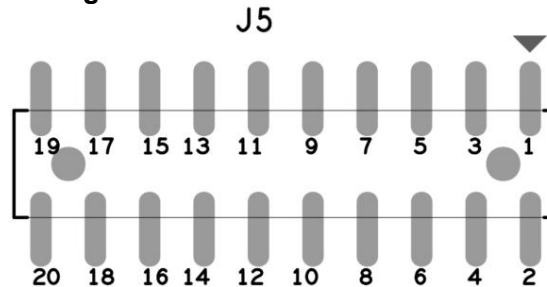
Figure 4-9 Schematic diagram of the GPIO / I2C / UART extension interface

4.6.1. Pin Description

Ref	Pin	Function	signal	Comments
J2	1	Power 5V	VDD_5V	
	2	GND	GND	
	3	Power 3.3V	VDD_3V3	
	4	GND	GND	
	5	GPIO	B0	
	6	GPIO	B1	
	7	GPIO	B2	
	8	GPIO	B3	
	9	GPIO	B4	
	10	GPIO	B5	
	11	GPIO	B6	
	12	GPIO	B7	
	13	GND	GND	
	14	GPIO	G1	
	15	GPIO	G0	

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Ref	Pin	Function	signal	Comments
J2	16	GND	GND	
	17	GPIO	G2	
	18	GPIO	G3	
	19	GPIO	G4	
	20	GPIO	G5	
	21	GPIO	G6	
	22	GPIO	G7	
	23	GND	GND	
	24	GPIO	R1	
	25	GPIO	R0	
	26	GND	GND	
	27	GPIO	R2	
	28	GPIO	R3	
	29	GPIO	R4	
	30	GPIO	R5	
	31	GPIO	R6	
	32	GPIO	R7	
	33	GND	GND	
	34	GND	GND	
	35	GPIO	LCD_PWM	
	36	GPIO	CTP_INT	
	37	GPIO	LCD_RST	
	38	GPIO	CTP_RST	
	39	I2C3 SCL	CTP_I2C_SCL	
	40	GPIO	DE	
	41	I2C3 data	CTP_I2C_SDA	
	42	GPIO	VSYNC	
	43	NC	NC	
	44	GPIO	HSYNC	
	45	NC	NC	
	46	GND	GND	
	47	NC	NC	
	48	GPIO	PCLK	
	49	NC	NC	
	50	GND	GND	

Table 4-7 Description of the GPIO / I2C / RGB / PWM extension interface

Ref	Pin	Function	signal	Comments
J16	1	Power 5V	VDD_5V	
	2	GND	GND	
	3	Power 3.3V	VDD_3V3	
	4	GPIO	PC13	
	5	I2C3 data	I2C3_SDA	
	6	GPIO	SPI5_MISO	
	7	I2C3 SCL	I2C3_SCL	
	8	GPIO	C_D7	
	9	GPIO	C_VC	
	10	GPIO	C_D6	
	11	GPIO	C_HC	
	12	GPIO	C_D5	
	13	GPIO	C_CLK	
	14	GND	GND	
	15	GND	GND	
	16	GPIO	C_D3	
	17	GPIO	C_D4	
	18	GPIO	C_D1	
	19	GPIO	C_D0	
	20	GPIO	C_D2	

Table 4-8 Description of the GPIO / I2C / UART extension interface

4.7. USB

The evaluation board has designed 1 USB OTG and 1 USB HOST interface. USB2 supports DRP mode, with Type-C interface J14; another 1 USB1 only supports HOST mode, using USB 2.0 HUB chip to expand 4 USB Host port.

The expanded 4-channel ports are 2-channel directly through the double-layer USB Type A connection seat, interface J11; the third route is used to connect the 4G module, interface U4, see the fifth module description; the fourth route leads to the connector seat, interface J8.
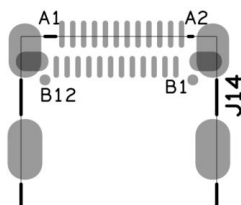
Figure 4-10 USB Type C Interface
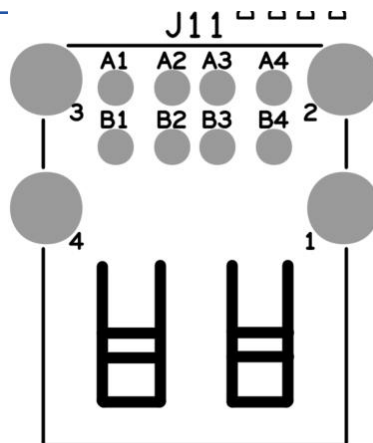
Figure 4-11 USB HOST interface
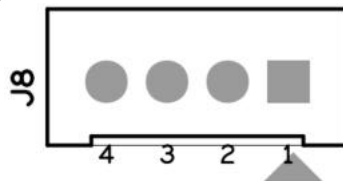
Figure 4-12 USB connector interface

4.7.1. Pin Description

Ref	Pin	Function	signal	Comments
J14	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+	USB_D2_P	
	A7	USB0 Data-	USB_D2_N	
	B6	USB0 Data+	USB_D2_P	
	B7	USB0 Data-	USB_D2_N	
	A2	NC	SSTXP1	
	A3	NC	SSTXN1	
	B11	NC	SSRXP1	
	B10	NC	SSRXN1	
	B2	NC	SSTXP2	
	B3	NC	SSTXN2	
	A11	NC	SSRXP2	
	A10	NC	SSRXN2	
	A5	USB2CC1	USB2CC1	
	B5	USB2CC1	USB2CC1	
	A8	NC	NC	
	B8	NC	NC	
	A1	GND	GND	

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Ref	Pin	Function	signal	Comments
J14	A12	GND	GND	
	B12	GND	GND	
	B1	GND	GND	

Table 4-9 USB OTG interface

Ref	Pin	Function	signal	Comments
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 4-10 USB HOST interface

Ref	Pin	Function	signal	Comments
J8	1	USB 5V Power	VDD_5V	
	2	USB HOST Data-	DM4	
	3	USB HOST Data+	DP4	
	4	GND	GND	

Table 4-11 USB HOST connector interface

4.8. Ethernet

The evaluation board has designed 2 Ethernet communication interface, RGMII communication interface passes through the YT8521 PHY chip, and leads to the integrated network transformer integrated RJ45 connector, providing gigabit network port J9 and J10.
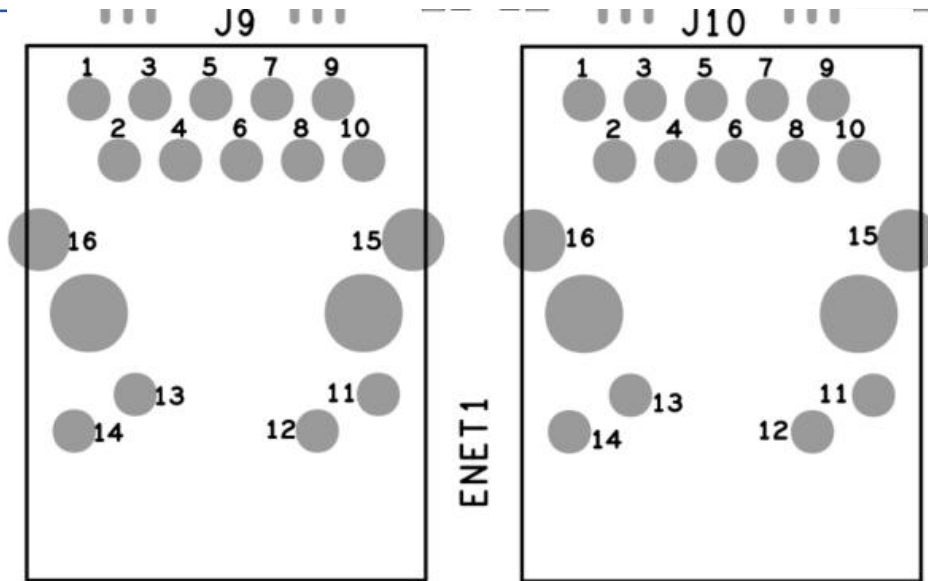
Figure 4-13 Ethernet Interface

4.8.1. Pin Description

Ref	Pin	Function	signal	Comments
J9	1	ET1 Differential signal 0+	MDI1_TRX_D0P	
	2	ET1 Differential signal 0-	MDI1_TRX_D0N	
	3	ET1 Differential signal 1+	MDI1_TRX_D1P	
	4	ET1 Differential signal 1-	MDI1_TRX_D1N	
	5	GND	GND	
	6	GND	GND	
	7	ET1 Differential signal 2+	MDI1_TRX_D2P	
	8	ET1 Differential signal 2-	MDI1_TRX_D2N	
	9	ET1 Differential signal 3+	MDI1_TRX_D3P	
	10	ET1 Differential signal 3-	MDI1_TRX_D3N	
	11	ET1 LED LINK	ETH1_LED1	
	12	GND	GND	
	13	ET1 Activity LED	ETH1_LED2	
	14	GND	GND	
	15	Metal ground	GND_EARTH	
	16	Metal ground	GND_EARTH	

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Ref	Pin	Function	signal	Comments
J10	1	ET2 Differential signal 0+	MDI2_TRX_D0P	
	2	ET2 Differential signal 0-	MDI2_TRX_D0N	
	3	ET2 Differential signal 1+	MDI2_TRX_D1P	
	4	ET2 Differential signal 1-	MDI2_TRX_D1N	
	5	GND	GND	
	6	GND	GND	
	7	ET2 Differential signal 2+	MDI2_TRX_D2P	
	8	ET2 Differential signal 2-	MDI2_TRX_D2N	
	9	ET2 Differential signal 3+	MDI2_TRX_D3P	
	10	ET2 Differential signal 3-	MDI2_TRX_D3N	
	11	ET2 LED LINK	ETH2_LED1	
	12	GND	GND	
	13	ET2 Activity LED	ETH2_LED2	
	14	GND	GND	
	15	Metal ground	GND_EARTH	
	16	Metal ground	GND_EARTH	

Table 4-12 Ethernet Interface pin description

4.9. DCMI

The evaluation board supports a 1-channel DVP DCMI interface camera. The camera interface uses 0.5mm FPC seat and J 16 interface. Users can choose the MY-CAM011B camera module introduced by Mismere Electronics. Please see the Section 7.3 accessory module for details of the module.
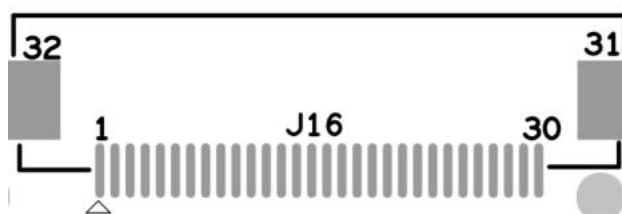
Figure 4-14 DCMI interface

4.9.1. Pin Description

Ref	Pin	Function	signal	Comments
J16	1	Power 5V	VDD_5V	
	2	Power 3.3V	VDD_3V3	
	3	Power 3.3V	VDD_3V3	
	4	GND	GND	
	5	DCMI I2C3 data transmit	I2C3_SDA	
	6	DCMI I2C3 Clk	I2C3_S CL	
	7	DCMI CAM RST	PC13	
	8	DCMI Power Enable	SPI5_MISO	
	9	GND	GND	
	10	DCMI VS	DCMIPP_VS	
	11	DCMI H S	DCMIPP_H S	
	12	DCMI data 7	DCMIPP_D7	
	13	GND	GND	
	14	NC	NC	
	15	GND	GND	
	16	DCMI data 6	DCMIPP_D 6	
	17	DCMI data 5	DCMIPP_D 5	
	18	GND	GND	
	19	DCMI Clk	DCMIPP_PIXCLK	
	20	GND	GND	
	21	DCMI data 4	DCMIPP_D4	
	22	DCMI data 0	DCMIPP_D 0	
	23	DCMI data 3	DCMIPP_D 3	
	24	DCMI data 1	DCMIPP_D 1	
	25	DCMI data 2	DCMIPP_D2	
	26	NC	NC	
	27	NC	NC	
	28	NC	NC	

Ref	Pin	Function	signal	Comments
J16	29	NC	NC	
	30	NC	NC	

Table 4-13 DCMI interface

4.10. AUDIO

The core board leads the I2S to communicate with the audio coding chip SGTL5000XNAA3 circuit of the evaluation board, which expands a 3.5mm audio interface J12.
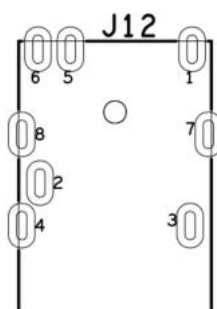

Figure 4-15 Audio interface

4.10.1. Pin Description

Ref	Pin	Function	signal	Comments
J12	1	Audio left channel data output	AUDIO1_LOUT_L	
	2	Audio right channel data output	AUDIO1_LOUT_R	
	3	AUDIO GND	AUDIO_GND	
	4	Audio data entry	AUD_MIC	
	5	NC	NC	
	6	NC	NC	
	7	NC	NC	
	8	NC	NC	

Table 4-14 Audio interface

4.11. LCD

The evaluation board has a 50 Pin FPC interface J15, support input data format RGB565 / RGB888 LCD screen, bottom board design data format is RGB888, support mill 7-inch capacitive touch LCD module; need additional touch chip to support four-wire resistance screen.

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Users can choose the 7-inch capacitive touch MY-TFT070CV2 LCD module from Mir Electronics. Please see Section 7.3 for details of the module.
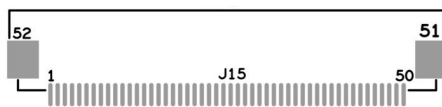

Figure 4-16 LCD interface

4.11.1. Pin Description

Ref	Pin	Function	signal	Comments
J15	1	Power 5V	VDD_5V	
	2	Power 5V	VDD_5V	
	3	Power 3.3V	VDD_3V3	
	4	Power 3.3V	VDD_3V3	
	5	GND	GND	
	6	GND	GND	
	7	Display data B0	LTDC_B0	
	8	Display data B1	LTDC_B1	
	9	Display data B2	LTDC_B2	
	10	Display data B3	LTDC_B3	
	11	Display data B4	LTDC_B4	
	12	Display data B5	LTDC_B5	
	13	Display data B6	LTDC_B6	
	14	Display data B7	LTDC_B7	
	15	Display data G0	LTDC_G0	
	16	Display data G1	LTDC_G 1	
	17	Display data G2	LTDC_G 2	
	18	Display data G3	LTDC_G 3	
	19	Display data G4	LTDC_G 4	
	20	Display data G5	LTDC_G 5	
	21	Display data G6	LTDC_G6	
	22	Display data G7	LTDC_G7	
	23	Display data R0	LTDC_R0	
	24	Display data R1	LTDC_R1	
	25	Display data R2	LTDC_R2	
	26	Display data R3	LTDC_R3	
	27	Display data R4	LTDC_R4	
	28	Display data R5	LTDC_R5	
	29	Display data R6	LTDC_R6	
	30	Display data R7	LTDC_R7	
	31	GND	GND	
	32	Display backlight power PWM control	PWM2	

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Ref	Pin	Function	signal	Comments
J15	33	Power Enable 1	PI0	
	34	Power Enable 2	PI0	
	35	Capacitive touch interrupt	PI7	
	36	Capacitive touch reset	PI2	
	37	I2C Clock	I2C3_SCL	
	38	I2C data	I2C3_SDA	
	39	GND	GND	
	40	Display data Enable	LTDC_DE	
	41	Display VSYNC	LTDC_VS	
	42	Display HSYNC	LTDC_HS	
	43	Display pixel clock signal	LTDC_CLK	
	44	GND	GND	
	45	NC	NC	
	46	NC	NC	
	47	NC	NC	
	48	NC	NC	
	49	NC	NC	
	50	GND	GND	

Table 4-15 RGB interface

4.12. RTC

The RTC evaluation board is designed as the backup interface circuit, using the I2C bus real-time clock module RX-8025T, which uses the J6 seat connected to 3.0V voltage. When the system loses power, it can be used to maintain the RTC circuit operation.
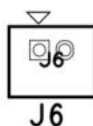

Figure 4-17 battery interface

4.12.1. Pin Description

Ref	Pin	Function	signal	Comments
J6	1	Power 3V	VDD_BAT	
	2	GND	GND	

Table 4-16 RTC interface

5. Module description

5.1. 4G Module

The evaluation board has an LTE module interface that can support Mini PCI-ELTE module. The 4G module uses the M5700 module of Longshang Technology, and the development board provides Linux driver support and code samples. Mini PCI-E connector is from LOTES company model for AAA-PCI-047 PCI-E connector, module and board using copper column fixed, good seismic ability. The default power supply voltage of the module is 3.6V, and the communication control signal is the USB2.0 signal, which is provided by the USB HUB chip.

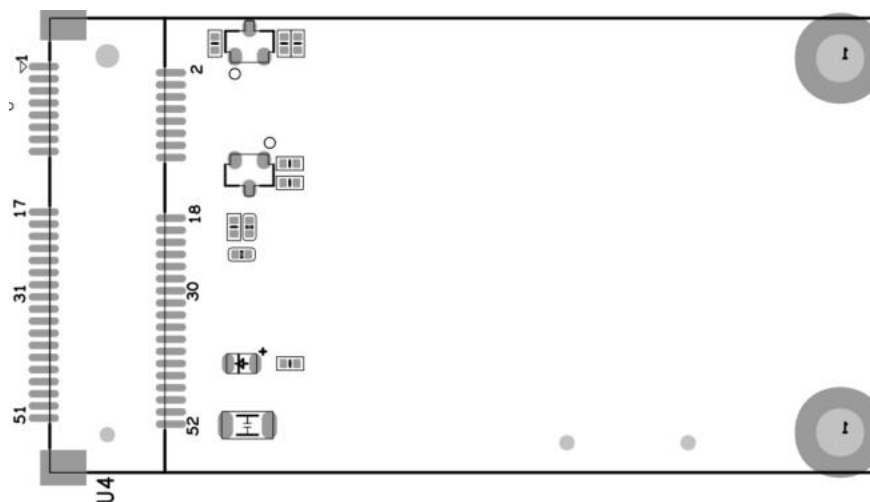The bottom board also provides a SIM card slot and is used with the 4G module.

Figure 5-1 Mini PCI-E, interface
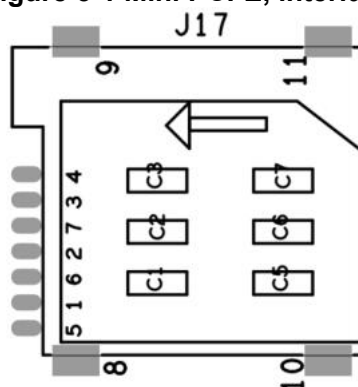
Figure 5-2 SIM card interface

5.1.1. Pin Description

Ref	Pin	Function	signal	Comments
U4	36	USB 2 HOST Data-	4G_USB_DM	
	38	USB 2 HOST Data-	4G_USB_DP	
	22	4G Module RST	4G_RST	
	1	NC 28	NC	

Ref	Pin	Function	signal	Comments
U4	51	NC	NC	
	49	NC	NC	
	47	NC	NC	
	45	NC	NC	
	42	LTE Module LED	LED	
	8	SIM Card power	USIM_VDD	
	10	SIM Card Data	USIM_DATA	
	14	SIM Card RST	USIM_RST	
	12	SIM Card CLK	USIM_CLK	
	3	NC	NC	
	5	NC	NC	
	7	NC	NC	
	11	NC	NC	
	13	NC	NC	
	17	NC	NC	
	19	WAKE IN	WAKE_IN	
	31	NC	NC	
	33	4G Module RST	4G_RSTIN	
	23	NC	NC	
	24	4G Module power 3.6V	VDD_LTE	
	2	4G Module power 3.6V	VDD_LTE	
	39	4G Module power 3.6V	VDD_LTE	
	41	4G Module power 3.6V	VDD_LTE	
	52	4G Module power 3.6V	VDD_LTE	
	4	Power to	GND	
	18	Power to	GND	
	26	Power to	GND	
	40	Power to	GND	
	34	Power to	GND	
	9	Power to	GND	
	15	Power to	GND	
	21	Power to	GND	
	27	Power to	GND	
	29	Power to	GND	
	35	Power to	GND	
	37	Power to	GND	
	43	Power to	GND	
	50	Power to	GND	
	25	NC	NC	
	6	NC	NC	
	20	NC	NC	

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Ref	Pin	Function	signal	Comments
U4	16	NC	NC	
	32	NC	NC	
	28	NC	NC	
	30	NC	NC	
	44	NC	NC	
	46	NC	NC	
	48	NC	NC	

Table 5-1 Mini PCI-E interface

Ref	Pin	Function	signal	Comments
J17	1	SIM Power	USIM_PWR	
	2	SIM Reset	USIM_RESET	
	3	SIM clk	USIM_CLK	
	4	NC	NC	
	5	GND	GND	
	6	NC	NC	
	7	SIM data	USIM_DATA	
	8	GND	GND	
	9	GND	GND	
	10	GND	GND	
	11	GND	GND	

Table 5-2 SIM card interface

6. Mechanical size

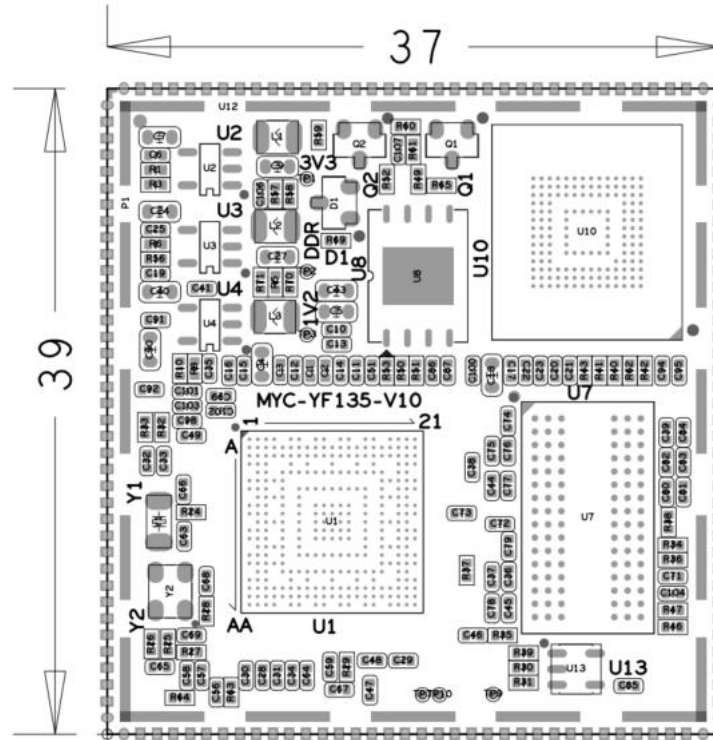Core board: size 37mm * 39mm, 10-layer high density PCB design, gold sinking process, lead free.

Figure 6-1 Core board size

Evaluation board: size 105 mm x 137.29 mm, 6 layer board, gold sinking process, lead free.
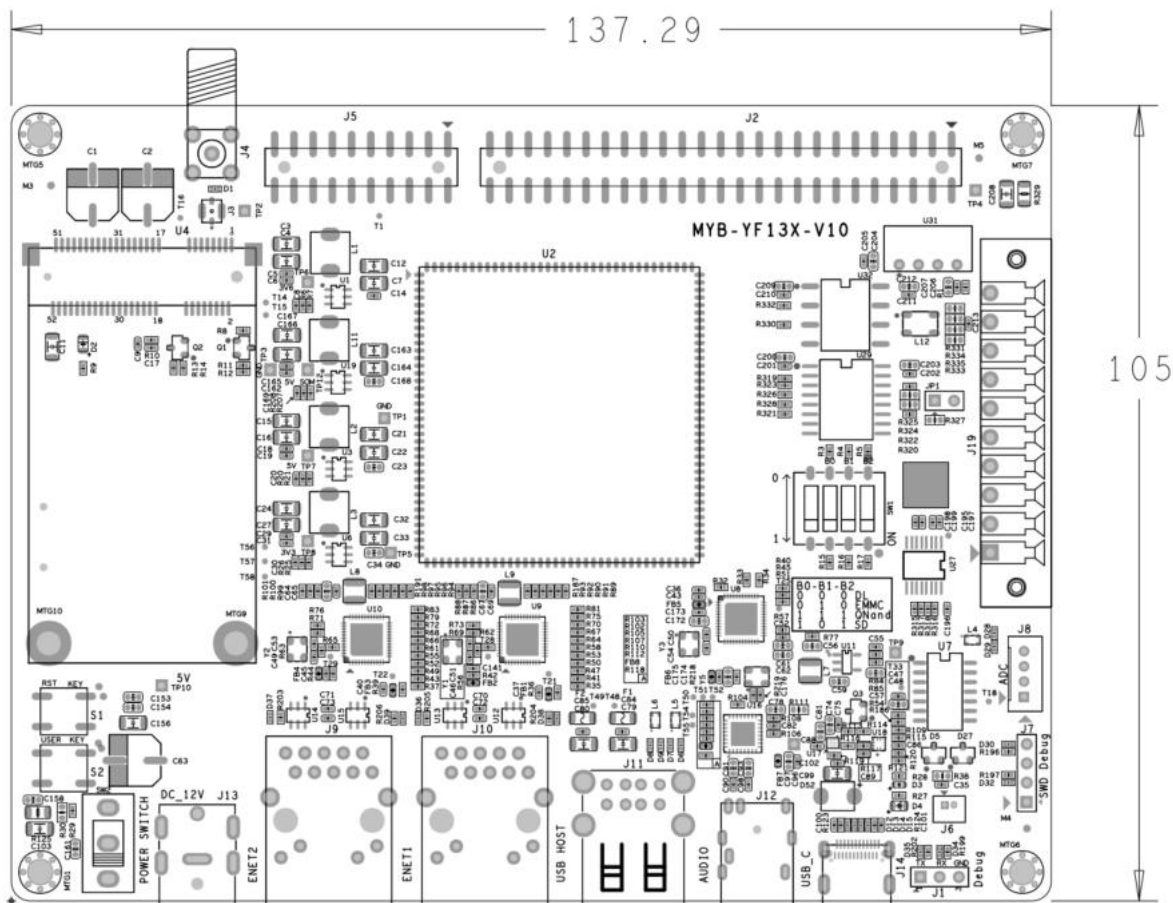

Figure 6-2 Evaluation board size

7. EVK Ordering Information

7.1. EVK Part Number

Item	MYD-YF135-256N256D-100-I
CPU	STM32MP135DAF7
Working temperature	-40℃ ~ +85℃
DDR	256MB DDR
EMMC	256MB NAND Flash

Table 7-1 Ordering Information 1

Item	MYD-YF135-4E512D-100-I
CPU	STM32MP135DAF7
Working temperature	-40℃ ~ +85℃
DDR	512MB DDR
EMMC	4GB EMMC

Table 7-2 Ordering Information 2

7.2. Package List

Item	Description
board	X1 EVK board
data	x1 quick start guide
Wire	x1 Debug (USB To TTL UART) x1 12V@2A Switching 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-CAM011B	Digital camera camera module	https://www.myirtech.com/list.asp?id=534
MY-TFT070CV2	7 "capacitive touch LCD screen	https://www.myirtech.com/list.asp?id=477
MY-RGB2HDMI	RGB LCD Display the module converting the output signal to the HDMI output	https://www.myirtech.com/list.asp?id=718

Table 7-4 Optional Parts Module

8. EVK List of Connector

Part Number	Part Name	Manufacture	Ref
power input	JPD441-N5215-7H	Foxconn	J13
mains switch	SS-12D10-L9-B	XKB	SW2
USB Type-C OTG	UT12111-B1609-7F	Foxconn	J14
USB Host	UB11121-8FDE-4F	Foxconn	J11
Micro SD Card slot	WQ21801-B2180-7F	Foxconn	J18
Headphone input	JA41131-34BCB-7H	Foxconn	J12
Debug interface	12251103CNG4S115001	GDZ	J1
The Ethernet RJ 45	S11-ZZ-0319	UDE	J9、J10
4G module interface	AAA-PCI-047	Lotes	U4
4G antenna interface	FC-SMA271	Shanghai flying core	J4
4G antenna interface	1566230-1	TE	J3
SIM card slot	SI62C-01200	ATOM	J17
Dial switch	SSGM640200	ALPS	SW1
Extended interface	1125-1225S1M110CR07	Wcon	J2
2 Pin RTC battery socket	530470210	Molex	J6
RGB interface	FPC05050-17203	At om	J15

Table 8-1 EVK connectors List

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 core board 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 board, etc.

➢   ODM/OEM services.

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