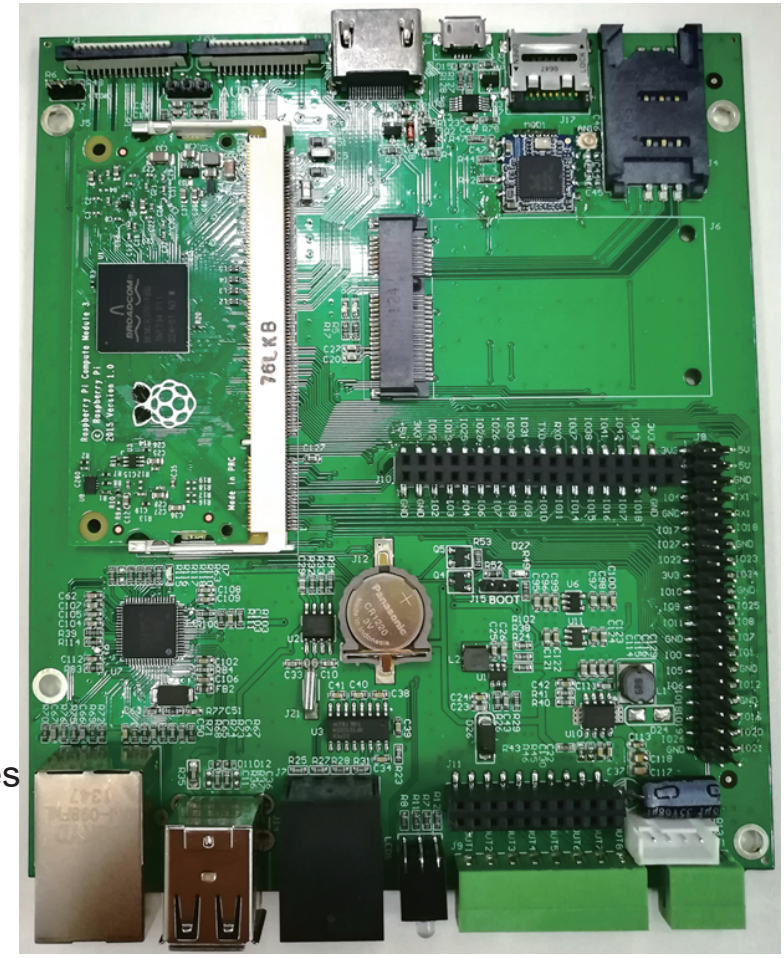
Rasperberry CM3/CM4 Control board

1,Summary:

This control board is based on the Raspberry Pi CM3/CM4 core board and has been extended with interfaces to be suitable for Raspberry Pi applications in different situations.



2, Features:

a, Supports Raspberry Pi CM3/CM4

b, Supports 10/100M Ethernet

c, 2*USB 2.0 Host

d, 1*MicroUSB Slave

e, supporting 4G/3G module with Mini PCIE interface+SIM card

f, 1*TF card interface for operating systems

g, Two high-resolution camera interfaces

h, Support expansion of IO port, CAN, RS485 and other functions

i, Integrated RTC clock

j, HDMI output

k, Supports RS232 serial port

l, 2 red and green status indicator lights

m, Integrated RT8723BU WIFI Bluetooth two in one module

3, Power input: DC (9-36V) input

4, Size: 125 * 142mm

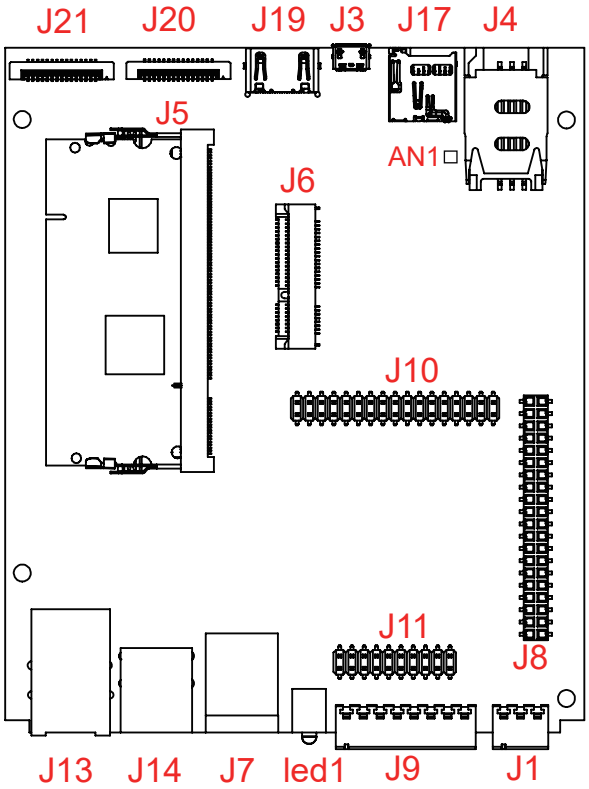
5, Extended features:

Interface boards with different functions can be optional or customized for applications such as IO port expansion, RS485, CAN, RF, etc.

6, Pinout

J20 CAM0

PIN1	Definition
1	GND
2	CAM0_DN0
3	CAM0_DP0
4	GND
5	CAM0_DN1
6	CAM0_DP1
7	GND
8	CAM0_CN
9	CAM0_CP
10	GND
11	GPIO22
12	GPIO4
13	I2C0_SCL_GPIO29
14	I2C0_SDA_GPIO28
15	3.3V



J21 Default camera

PIN1	Definition
1	GND
2	CAM1_DN0
3	CAM1_DP0
4	GND
5	CAM1_DN1
6	CAM1_DP1
7	GND
8	CAM1_CN
9	CAM1_CP
10	GND
11	GPIO21
12	GPIO5
13	I2C0_SCL_GPIO1
14	I2C0_SDA_GPIO0
15	3.3V

J10 34Way Female 2.54mm Connector

PIN1	Definition	PIN1	Definition
1	GND	2	+5V
3	GND	4	+3.3V
5	GPIO2(I2C1_SDA)	6	GPIO12(PWM0)
7	GPIO3(I2C1_SCL)	8	GPIO13(PWM1)
9	GPIO4(GPCLK0/CAM0)	10	GPIO25
11	GPIO6	12	GIO26
13	GPIO7(SPI0_CE1)	14	GPIO27
15	GPIO8(SPI0_CE0)	16	GPIO30(UART0_CTS)
17	GPIO9(SPI0_MISO)	18	GPIO31(UART0_RTS)
19	GPIO10(SPI0_MOSI)	20	GPIO32(UART0_TX)
21	GPIO11(SPI0_SCLK)	22	GPIO33(UART0_RX)
23	GPIO14(UART1_TX)	24	GPIO37
25	GPIO15(UART1_RX)	26	GPIO38
27	GPIO16	28	GPIO41
29	GPIO17	30	GPIO42
31	GPIO18	32	GPIO43
33	GND	34	+3V3

J11 20Way Female 2.54mm Connector

PIN1	Definition	PIN1	Definition
1	NC	2	NC
3	IO-OUT1	4	IO-OUT1
5	IO-OUT2	6	IO-OUT2
7	IO-OUT3	8	IO-OUT3
9	IO-OUT4	10	IO-OUT4
11	IO-OUT5	12	IO-OUT5
13	IO-OUT6	14	IO-OUT6
15	IO-OUT7	16	IO-OUT7
17	IO-OUT8	18	IO-OUT8
19	NC	20	NC

J8 40Way male 2.54mm Connector

PIN1	Definition	PIN1	Definition
1	+3.3V	2	+5V
3	GPIO2(I2C1_SDA)	4	+5V
5	GPIO3(I2C1_SCL)	6	GND
7	GPIO4(GPCLK0/CAM0)	8	GPIO14(UART1_TX)
9	GND	10	GPIO15(UART1_RX)
11	GPIO17	12	GPIO18
13	GPIO27	14	GND
15	GPIO22(CAM0)	16	GPIO23
17	+3.3V	18	GPIO24
19	GPIO10(SPI0_MOSI)	20	GND
21	GPIO9(SPI0_MISO)	22	GPIO25
23	GPIO11(SPI0_SCLK)	24	GPIO8(SPI0_CE0)
25	GND	26	GPIO7(SPI0_CE1)
27	GPIO0(I2C0_SDA)	28	GPIO1(I2C0_SCL)
29	GPIO5(GPCLK1/CAM1)	30	GND
31	GPIO6	32	GPIO12(PWM0)
33	GPIO13(PWM1)	34	GND
35	GPIO19	36	GPIO16
37	GPIO26	38	GPIO20
39	GND	40	GPIO21(CAM1)

J7 RS232 Connector

PIN1	Definition
1	RTS
2	DTR (not available)
3	TX
4	GND
5	GND
6	RX
7	DSR (not available)
8	CTS

J9 8Way IO 2-Part Screw Terminal Connector

PIN1	Definition
1	IO-OUT1
2	IO-OUT2
3	IO-OUT3
4	IO-OUT4
5	IO-OUT5
6	IO-OUT6
7	IO-OUT7
8	IO-OUT8

J1 3Way Power In 2-Part Screw Terminal Connector

PIN1	Definition
1	VIN(9-35V)
2	GPIO20 (not in use)
3	GND

J13 LAN Connector: Standard

J14 Dual USB2.0 Connector: Standard

J19 HDMI OUT: Standard, including CEC and I2C inputs

J3 Micro USB-B CM Flash Programming Port
Standard – Set J15 to 1-2 to use

J17 Micro SD Card Holder: Standard

J4 SIM Card Holder: Standard

J6 Mini PCI-E Holder: Standard

J5 SO-DIMM Connector For Raspberry Pi Compute Module

AN1 I-PEX Connector for antenna

LEDs

LED1 LED1 -GREEN GPIO36 – Low Level Activates LED
LED1 -RED GPIO35 – Low Level Activates LED
LED2 –GREEN/-RED
Driven directly by on board USB UART to show RX/TX indication