

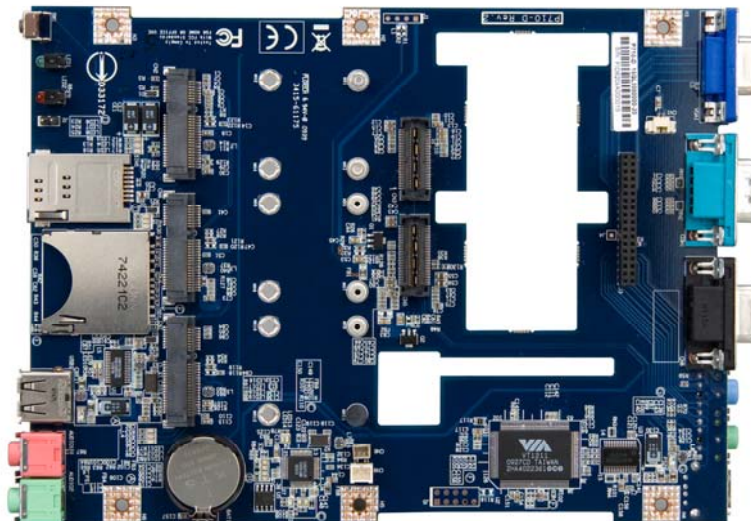


Daughter Board

P710-D

Revision 1.0

Operating Guide



Version 1.2

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Operating Guide of P710-D

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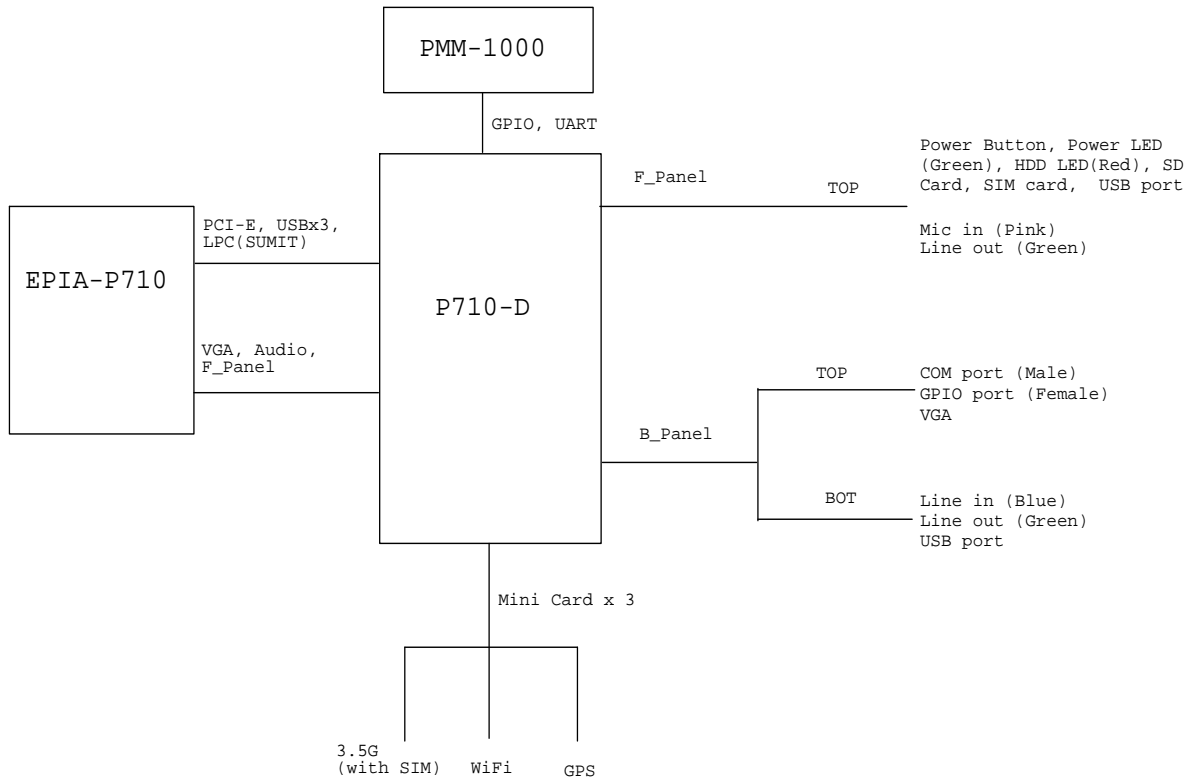
1. Introduction

The P710-D Daughter Board is an extend I/O board which dedicate for in-vehicle computer use. The board combine with EPIA-P710 (Pico-iTxe) main board through SUMIT (QFS) board to board connector for USB, PCI-E and through female connector for VGA/CRT, Audio and Power on signal etc.,

2. Specification

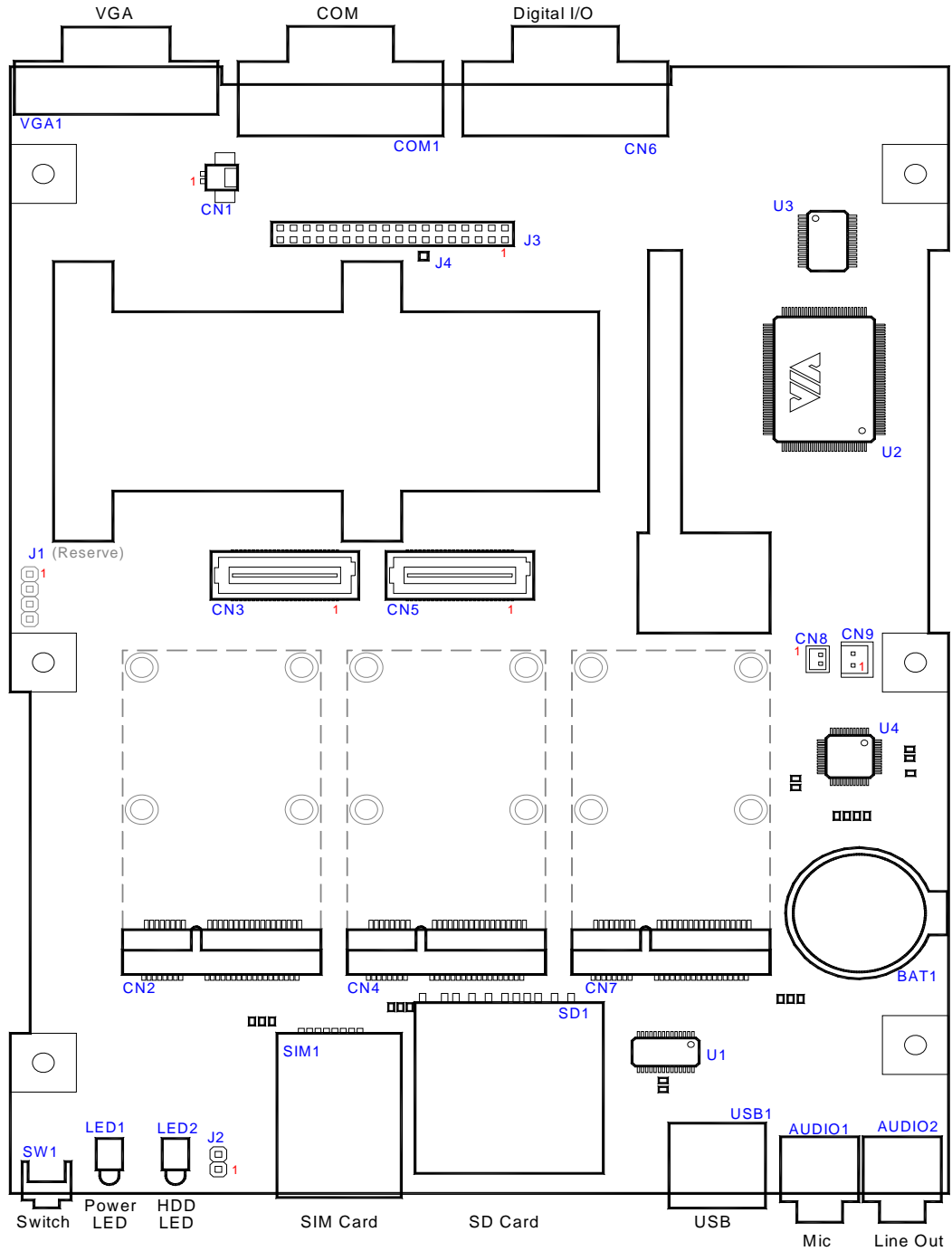
Items	Description
PCB size	- 142mm x 191.4mm, 6layer
Super I/O controller	- VIA VT1211 chip - RS232 signal - GPIO signal - Parallel port signal - Floop disk signal - LPC signal - SMBus signal
Card Reader controllor	- Genesys GL827S chip - USB 2.0 Single slot - Support SD Specification v1.0 / v1.1 / v2.0 (SDHC) - Support MMC Specification v3.x / v4.0 / v4.1 / v4.2 - Memory Stick - xD-Picture
Mini PCI-E module	- AzureWave - AW-NE762 for WiFi - AW-NU706 for WiFi - GPS-M11 for GPS - BandRich - BandLuxe M250 for 3.5G / GPRS
Indicator	- Power LED (Green) - HDD LED (Red)
Switch	- Power On / Off switch
Battery	- CR2023
I/O Ports	Front side - SIM Card slot - SD Card slot - 1 x USB connector - Line Out, Mic In jack Rear side - VGA D-sub 15pin connector - COM port connector - Digital I/O connector (D-sub 9pin female) - Line In, Line Out jack - 1 x USB connector

3. Block Diagram :

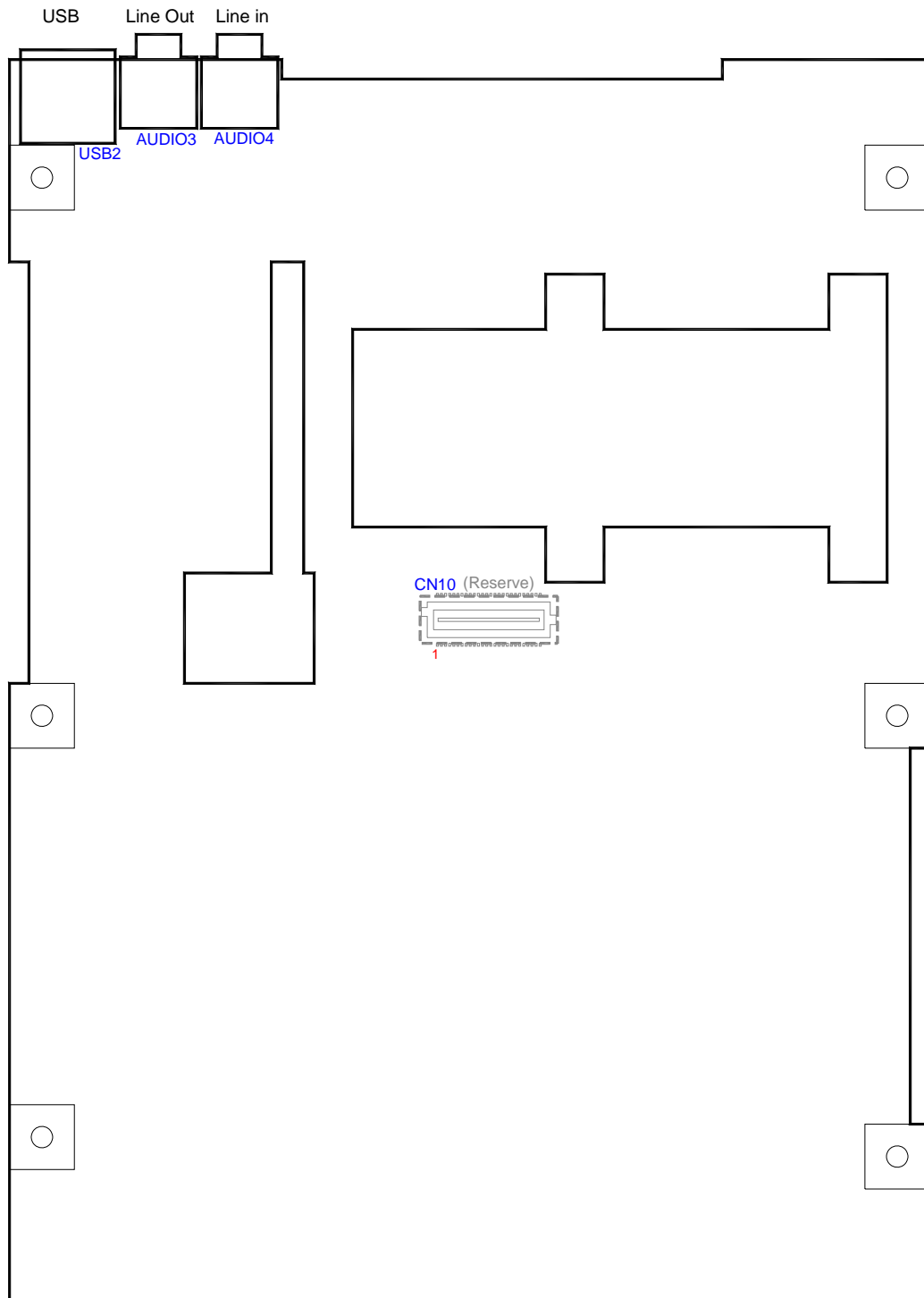


4. Placement View

4.1 Placement View (Top side):



4.2 Placement View (Bottom side):



5. Pin Header & Connector List

Item	Function
VGA1	VGA / CRT(D-Sub 15pin) connector
COM1	COM Port connector
CN6	Digital I/O (GPIO) connector
USB2	USB Port connector (Rear side)
Audio3	Line-Out jack (Rear side)
Audio4	Line-In jack (Rear side)
J3	Female connector (Audio, VGA and Power on signal)
CN3,CN5	QFS board to board connector – BANK B,A
CN8	GPIO connector
CN9	UART connector
CN2,CN4,CN7	Mini PCI-E module slot
SW1	Power On/Off switch
LED1	Power LED
LED2	HDD LED
J2	Reset jumper pin
SIM1	SIM card slot
SD1	SD card slot
USB1	USB Port connector (Front side)
Audio1	Mic-In jack (Front side)
Audio2	Line-Out jack (Front side)

6. Pin Header & Connector Pin Assignment

6.1 VGA1 : VGA / CRT (D-Sub 15pin) connector

VGA1			
Pin No.	Signal	Pin No.	Signal
1	RED	9	VCC (+5V)
2	GREEN	10	GND
3	BLUE	11	NC
4	NC	12	DDCDATA
5	GND	13	HS
6	GND	14	VS
7	GND	15	DCCCLK
8	GND		

6.2 COM1 : COM Port connector

COM1	
Pin No.	Signal
1	-DCDA1
2	RXDA1
3	TXDA1
4	-DTRA1
5	GND
6	-DSRA1
7	-RTSA1
8	-CTSA1
9	-RIA1

6.3 CN6 : Digital I/O (GPIO) connector

CN6	
Pin No.	Signal
1	GPI_1
2	GPI_2
3	GND
4	GPI_3
5	GPI_4
6	GPO_1
7	GPO_2
8	GPO_3
9	GPO_4

6.4 USB2 : USB Port connector (Rear side)

USB2	
Pin No.	Signal
1	USBVCC
2	USBVD0-
3	USBVD0+
4	GND

6.5 Audio3 : Line-Out jack (Rear side)

Audio3	
Pin No.	Signal
1	GND
2	LINEOUTR
3	LINEOUT_SENSE
4	GND
5	LINEOUTL

6.6 Audio4 : Line-In jack (Rear side)

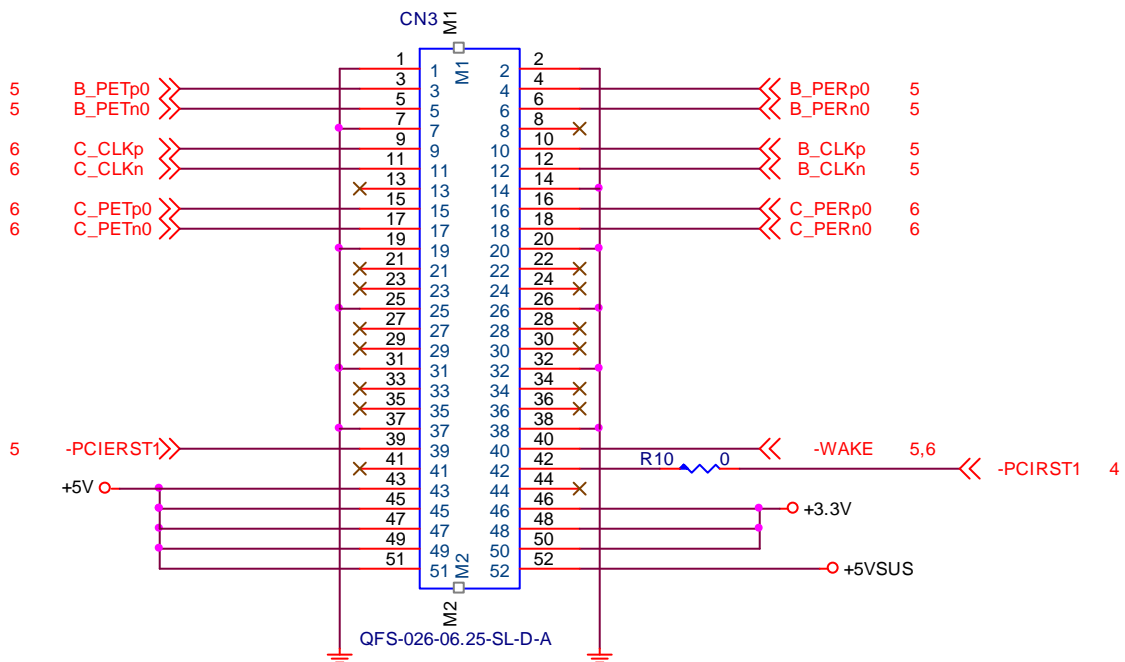
Audio4	
Pin No.	Signal
1	GND
2	LINER
3	SENSE_A
4	GND
5	LINEL

6.7 J3 : Female connector (Audio, VGA and Power on signal)

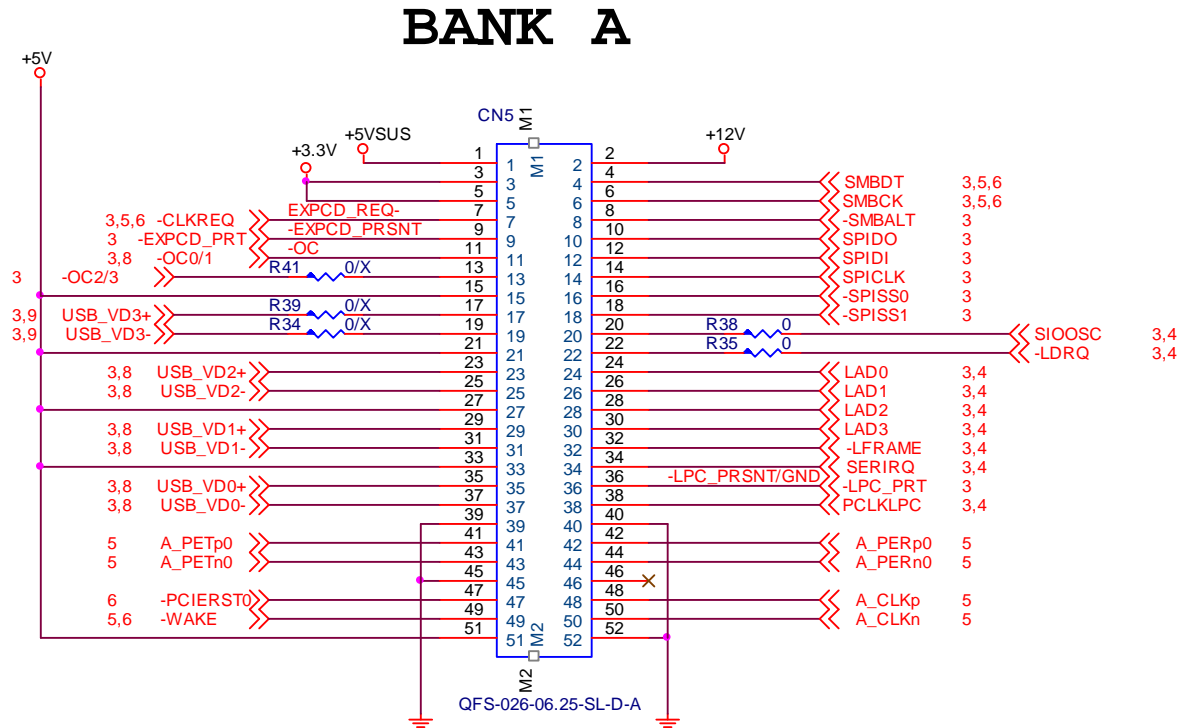
J3			
Pin No.	Signal	Pin No.	Signal
1	LINER	2	GND
3	LINEL	4	MICIN
5	LINEOUTR	6	AD_5V
7	LINEOUTL	8	SENSE_A
9	NC	10	NC
11	PW_LED	12	+5V(w/resistor)
13	PW_LED	14	HD_LED
15	GND	16	PW_BN-
17	SPEAK_BZ	18	GND
19	GND	20	RST_SW
21	NC	22	GND
23	NC	24	NC
25	REDN	26	+5VCRT
27	GREENN	28	GND
29	BLUEN	30	DDCDATAN
31	GND	32	DDCCLKN
33	NC	34	VS
35	HS	36	GND

6.8 CN3 : QFS board to board connector – BANK B

BANK B



6.9 CN5 : QFS board to board connector – BANK A



6.10 CN8 : GPIO connector

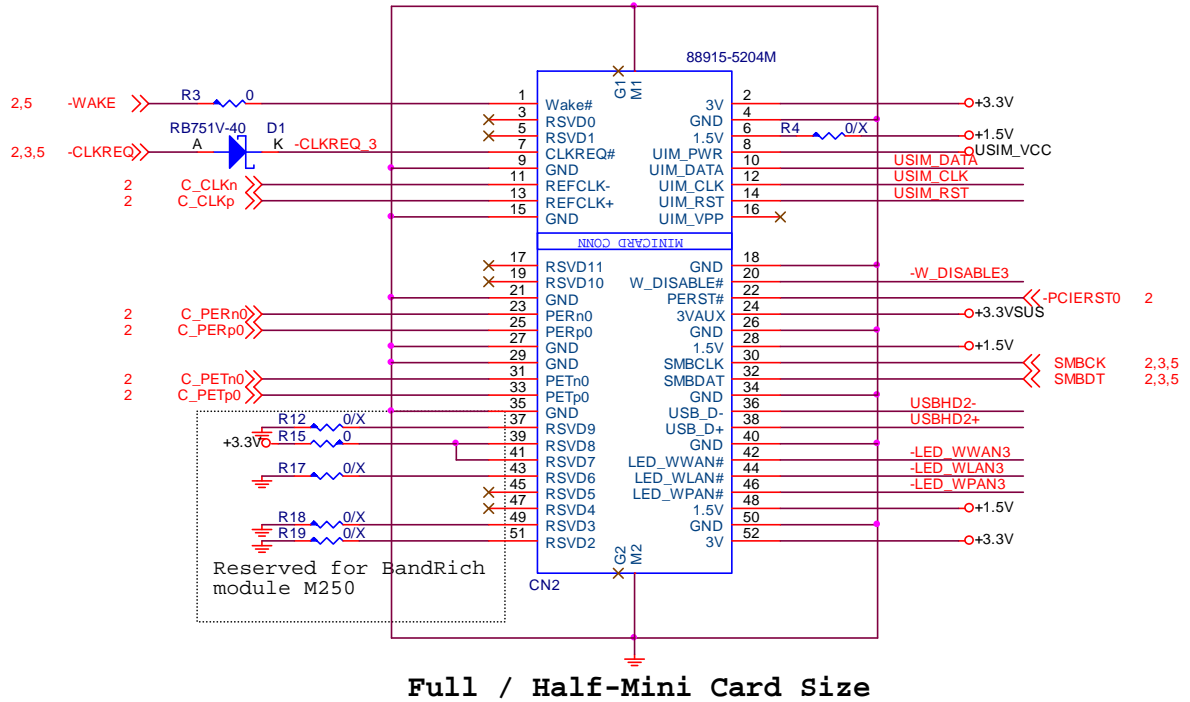
CN8	
Pin No.	Signal
1	GP37(SYSTEM_PWR)
2	GND

6.11 CN9 : UART connector

CN9	
Pin No.	Signal
1	TXD2
2	RXD2

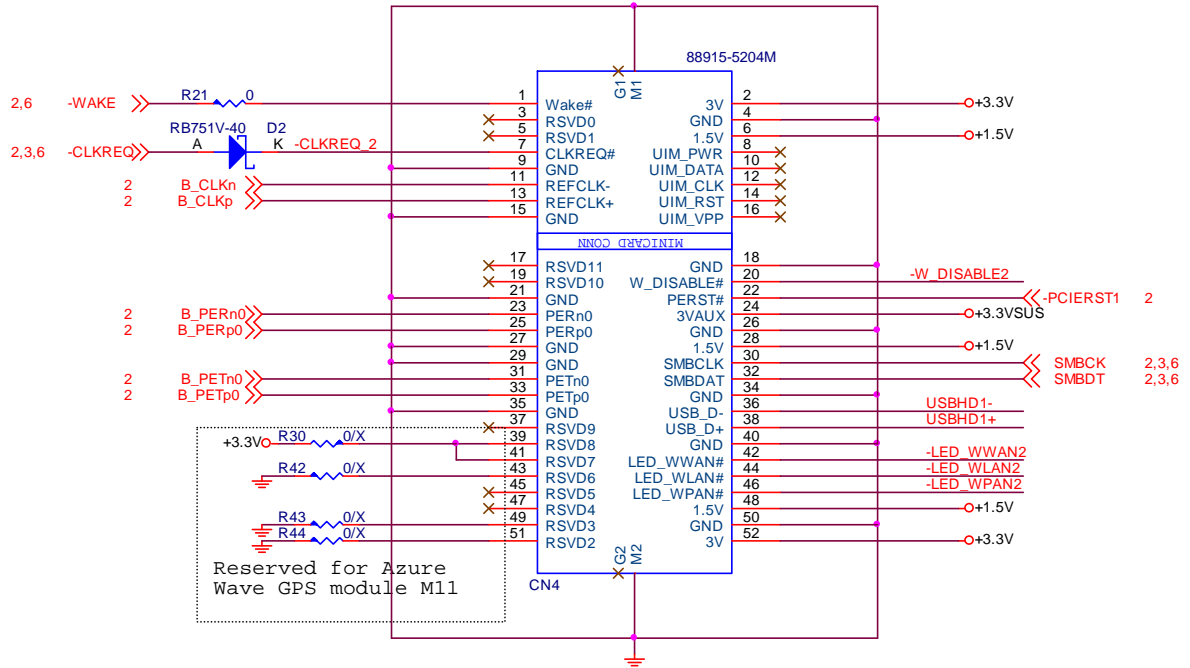
6.12 CN2 : Mini PCI-E module slot

Mini Card H=5.2mm



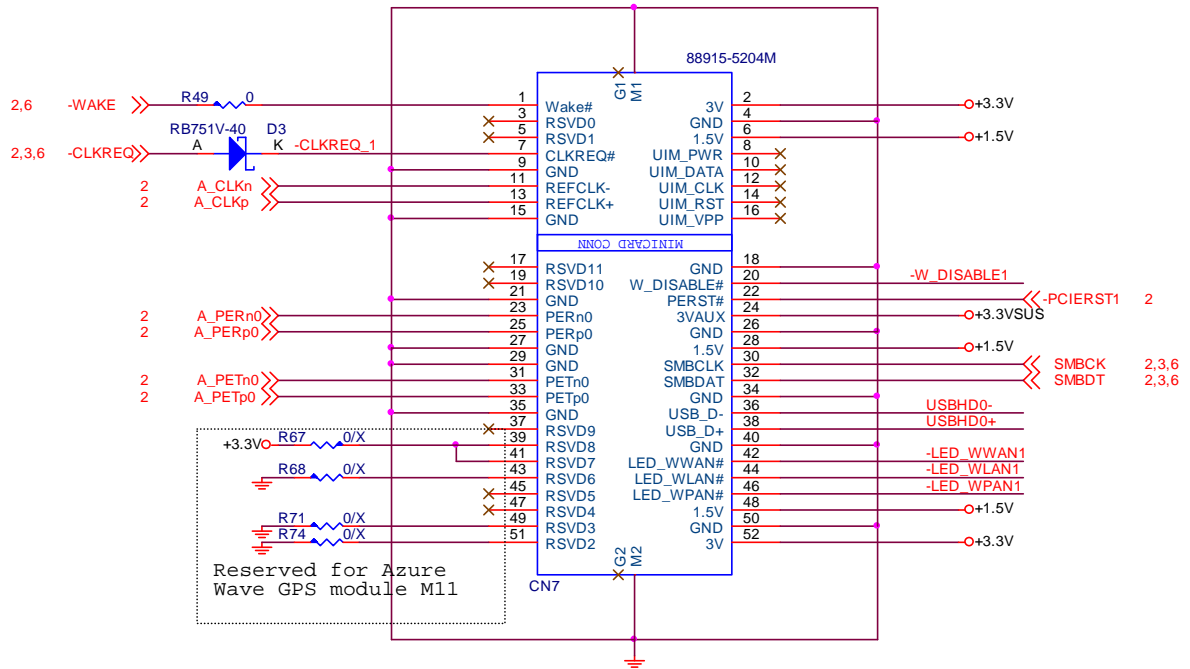
6.13 CN4 : Mini PCI-E module slot

Mini Card H=6.8mm



6.14 CN7 : Mini PCI-E module slot

Mini Card H=6.8mm



6.15 SW1 : Power ON / OFF switch

SW1	
Pin No.	Signal
1	PW_BN-
2	GND
3	GND
4	GND

6.16 LED1 : Power LED

LED1	
Pin No.	Signal
1	PW_LED
2	GND

6.17 LED2 : HDD LED

LED2	
Pin No.	Signal
1	+5V
2	HD_LED

6.18 J2 : Reset jumper pin

J2	
Pin No.	Signal
1	RST_SW
2	GND

6.19 SIM1 : SIM Card slot

SIM1	
Pin No.	Signal
CD2	NC
CD1	NC
C7	USIM_DATA
C3	USIM_CLK
C6	USIM_VCC
C2	USIM_RST
C5	GND
C1	USIM_VCC

6.20 SD1 : SD Card slot

SD1	
Pin No.	Signal
1	SD_D2
2	SD_D3
3	SD_CMD
4	SD_CD-
5	GND
6	PMOSO
7	SD_CLK
8	GND
9	SD_D0
10	SD_D1
11	SD_WPD-

6.21 USB1 : USB Port connector (Front side)

USB1	
Pin No.	Signal
1	USBVCC
2	USBVD1-
3	USBVD1+
4	GND

6.22 Audio1 : Mic-In jack (Front side)

Audio1	
Pin No.	Signal
1	GND
2	MICIN
3	SENSE_A
4	GND
5	AD_5V

6.23 Audio2 : Line-Out jack (Front side)

Audio2	
Pin No.	Signal
1	GND
2	LINEOUTR
3	LINEOUT_SENSE
4	GND
5	LINEOUTL