APPENDIX A.

A.1. Extension Connector Pin Description

A.1.1. Extension Connector for LCD/CRT/Touch Screen: CN7

- 2mm pitch, 44 pin, Dip Type

Pin No.	Symbol	Description	Notes
1	R4	Red Data 4	
2	R5	Red Data 5	
3	R2	Red Data 2	
4	R3	Red Data 3	
5	R0	Red Data 0	
6	R1	Red Data 1	
7	VD1	LCD Power Enable	
8	DGND	Ground	
9	G4	Green Data 4	
10	G5	Green Data 5	
11	G2	Green Data 2	
12	G3	Green Data 3	
13	G0	Green Data 0	
14	G1	Green Data 1	
15	VD0	End Signal for TFT LCD	
16	DGND	Ground	
17	B4	Blue Data 4	
18	B5	Blue Data 5	
19	B2	Blue Data 2	
20	B3	Blue Data 3	
21	B0	Blue Data 0	
22	B1	Blue Data 1	
23	N/C	–	
24	DGND	Ground	
25	HSYNC	Horizontal Sync Signal	

26	VSYNC	Vertical Sync Signal	
27	DGND	Ground	
28	DCLK	Data Input Clock	
29	N/C	-	
30	DE	Data Enable Signal	
31	VCC3.3	Power (3.3V)	
32	VCC3.3		
33	VO_B/CVBS		
34	G_GND	Ground	
35	G_GND		
36	VO_VS		
37	VO_HS		
38	CVBS_IN		
39	G_GND	Ground	
40	DGND	Ground	
41	T_TOP	For 4-wired Resistive Touch Screen	
42	T_BOT		
43	T_RIGHT		
44	T_LEFT		

Table 1 CN7 Pin Description

A.1.2. Extension Connector for PC104/ISA Bus: CN2

- 2.54mm pitch, 50 pin, Dip Type

Pin No.	Symbol	Description	Notes
1	VCC5.0	Power (5V)	
2	VCC3.3	Power (3.3V)	
3	A0	Address Bus Signal	
4	D0	Data Bus Signal	
5	A1	Address Bus Signal	
6	D1	Data Bus Signal	
7	A2	Address Bus Signal	
8	D2	Data Bus Signal	
9	A3	Address Bus Signal	

10	D3	Data Bus Signal	
11	A4	Address Bus Signal	
12	D4	Data Bus Signal	
13	A5	Address Bus Signal	
14	D5	Data Bus Signal	
15	A6	Address Bus Signal	
16	D6	Data Bus Signal	
17	A7	Address Bus Signal	
18	D7	Data Bus Signal	
19	A8	Address Bus Signal	
20	D8	Data Bus Signal	
21	A9	Address Bus Signal	
22	D9	Data Bus Signal	
23	A10	Address Bus Signal	
24	D10	Data Bus Signal	
25	A11	Address Bus Signal	
26	D11	Data Bus Signal	
27	A12	Address Bus Signal	
28	D12	Data Bus Signal	
29	A13	Address Bus Signal	
30	D13	Data Bus Signal	
31	A14	Address Bus Signal	
32	D14	Data Bus Signal	
33	A15	Address Bus Signal	
34	D15	Data Bus Signal	
35	A16	Address Bus Signal	
36	nCGS3	Chip Select Pin 3 : 0x18000000-0x200000	Active Low
37	A17	Address Bus Signal	
38	nCGS4	Chip Select Pin 4 : 0x20000000-0x280000	Active Low
39	A18	Address Bus Signal	
40	nCGS5	Chip Select Pin 5 : 0x28000000-0x300000	Active Low
41	A19	Address Bus Signal	
42	nOE	Memory, I/O Read Signal	Active Low
43	A20	Address Bus Signal	
44	nWE	Memory, I/O Write Signal	Active Low

45	A21	Address Bus Signal	
46	CFHDD_IOR	HDD, CF Read Signal	Active High
47	nWAIT	Memory, I/O Wait Signal	3-State
48	CFHDD_IOW	HDD, CF Write Signal	Active High
49	DGND	Ground	
50	DGND		

Table 2 CN2 Pin Description

A.1.3. Extension Connector for Peripheral: CN3

- 2.54mm pitch, 50 pin, Dip Type

Pin No.	Symbol	Description	Notes
1	VCC5.0	Power (5V)	
2	VCC3.3	Power (3.3V)	
3	AIN0	Analog Input (0V-3.3V)	
4	AIN1		
5	AIN2		
6	AIN3		
7	T_BOT		
8	T_TOP		
9	T_LEFT		
10	T_RIGHT		
11	AOUT_L	Audio Codec Analog Left Output	
12	AOUT_R	Audio Codec Analog Right Output	
13	VCCRTC	Power for Real Time Clock (1.8V)	
14	VCC12.0	Power (12V)	Reserved
15	IICSCL	IIC Shift Clock Output	
16	IICSDA	IIC Shift Data	
17	nSS0	SPI Chip Select Signal	
18	nSS1		
19	SPICLK0	SPI Clock Signal	
20	SPICLK1		
21	SPIMISO0	SPI Master Input Slave Output	
22	SPIMISO1		

23	SPIMOSI0	SPI Master Output Slave Input	
24	SPIMOSI1		
25	UCLK	External Clock Input for UART	
26	nRST	Reset Signal for ARM	
27	UART_TXD0	UART0 Transmit Signal	
28	UART_RXD0	UART0 Receive Signal	
29	TXD1	UART1 Transmit Signal	
30	RXD1	UART1 Receive Signal	
31	UART_TXD2	UART2 Transmit Signal	
32	UART_RXD2	UART2 Receive Signal	
33	DI0	Digital Input Signal : Supports internal pull-up register &interrupt	
34	DO0	Digital Output Signal	
35	DI1	Digital Input Signal : Supports internal pull-up register &interrupt	
36	DO1	Digital Output Signal	
37	DI2	Digital Input Signal : Supports internal pull-up register &interrupt	
38	DO2	Digital Output Signal	
39	DI3	Digital Input Signal : Supports internal pull-up register &interrupt	
40	DO3	Digital Output Signal	
41	DI4	Digital Input Signal : Supports internal pull-up register &interrupt	
42	DO4	Digital Output Signal	
43	DI5	Digital Input Signal : Supports internal pull-up register &interrupt	
44	DO5	Digital Output Signal	
45	DI6	Digital Input Signal : Supports internal pull-up register &interrupt	
46	DO6	Digital Output Signal	
47	DI7	Digital Input Signal : Supports internal pull-up register &interrupt	
48	DO7	Digital Output Signal	
49	DGND	Ground	

50	DGND		

Table 3 CN3 Pin Description

A.1.4. IDE Connector for HDD/CDROM: CN15

◆ 2mm pitch, 44 pin, Dip Type

Pin No.	Symbol	Description	Notes
1	HDD_nRESET	Reset Signal for HDD	
2	DGND	Ground	
3	HD7	Data Bus Signal	
4	HD8		
5	HD6		
6	HD9		
7	HD5		
8	HD10		
9	HD4		
10	HD11		
11	HD3		
12	HD12		
13	HD2		
14	HD13		
15	HD1		
16	HD14		
17	HD0		
18	HD15		
19	DGND	Ground	
20	N/C	–	
21	_HDD_DMARQ	DMA Request Signal	
22	DGND	Ground	
23	CFHDD_LOW	HDD, I/O Write Signal	
24	DGND	Ground	
25	CFHDD_IOR	HDD, I/O Read Signal	
26	DGND	Ground	
27	HDD_nWAIT	HDD, Wait Signal	

28	N/C	-	
29	_HDD_DMAACK	DMA Acknowledge Signal	
30	DGND	Ground	
31	IRQ_HDD	HDD, Interrupt Request Signal	
32	N/C	-	
33	HA1	HDD, Address Bus Signal 1	
34	N/C	-	
35	HA0	HDD, Address Bus Signal 0	
36	HA2	HDD, Address Bus Signal 2	
37	HDD_nCS0	HDD, Chip Select Signal	
38	HDD_nCS1		
39	N/C	-	
40	DGND	Ground	
41	VCC5.0	Power (5V)	
42	VCC5.0		
43	DGND	Ground	
44	N/C	-	

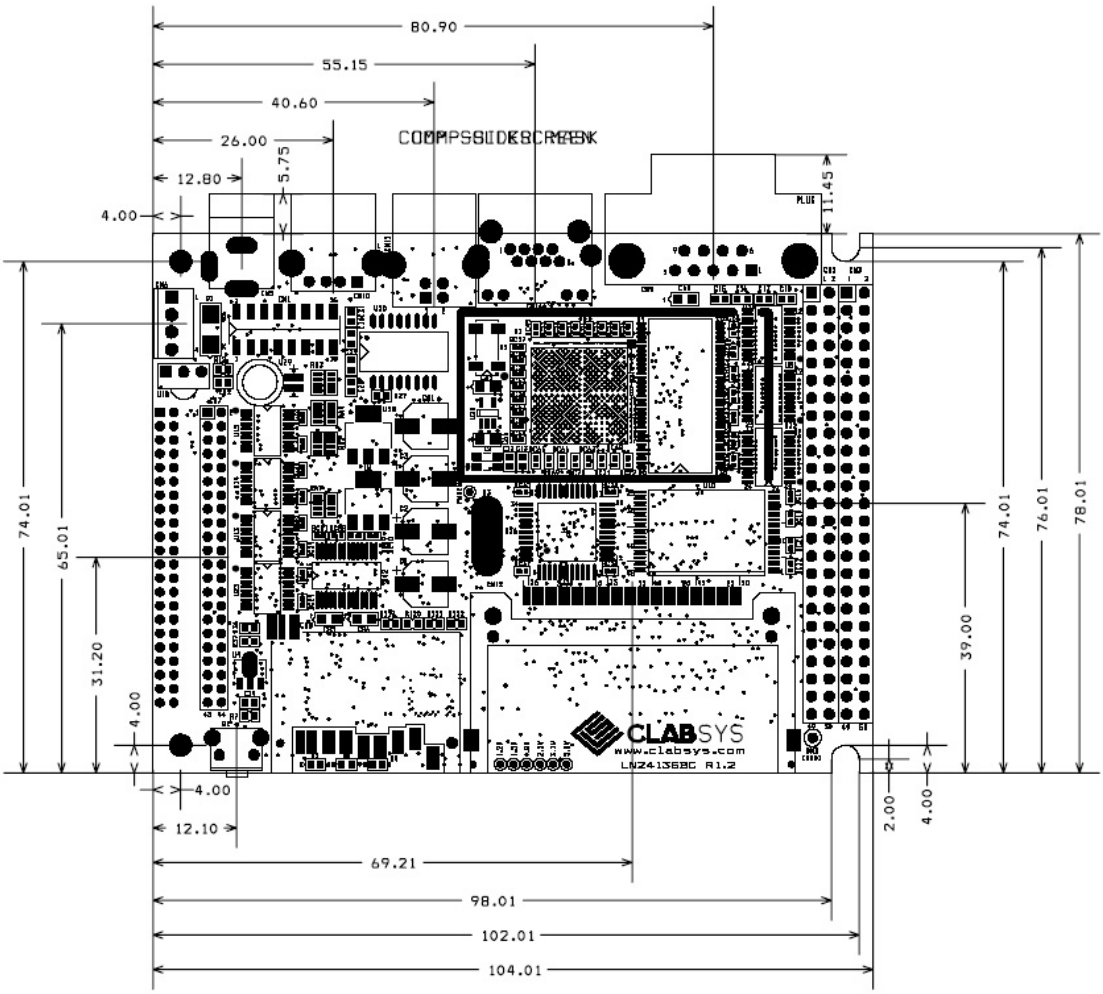
Table 4 CN15 Pin Description

A.1.5. Extension Connector for JTAG Interface: CN1

- 2mm pitch, 16pin, SMD Type
- You need JTAG Adapter with 14 pin or 20 pin for JTAG Tools, contact us!

Pin No.	Symbol	Description	Notes
1	UART_RXD0		
2	VCC3.3	Power (3.3V)	
3	UART_TXD0		
4	TDI	TAP Controller Data Input for ARM	
5	CPLD_TDI	TAP Controller Data Input for CPLD	
6	TCK	TAP Controller Clock for ARM	
7	CPLD_TCK	TAP Controller Clock for CPLD	
8	TMS	TAP Controller Mode Select for ARM	
9	CPLD_TMS	TAP Controller Mode Select for CPLD	
10	TDO	TAP Controller Data Output for ARM	
11	CPLD_TDO	TAP Controller Data Output for CPLD	

12	nTRST	TAP Controller Reset for ARM	
13	DGND	Ground	
14	nRST	Reset Output Signal	
15	DGND	Ground	
16	RTCK	Return Clock	

Table 5 CN1 Pin Description

A.2. LayOut