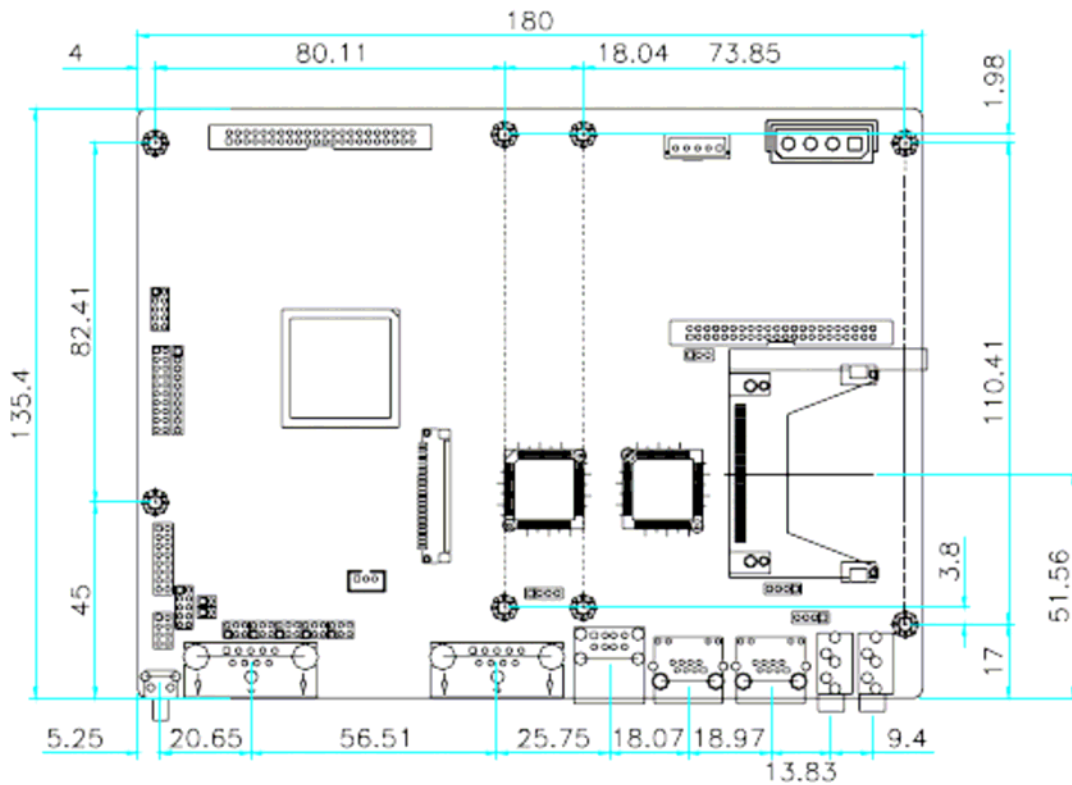
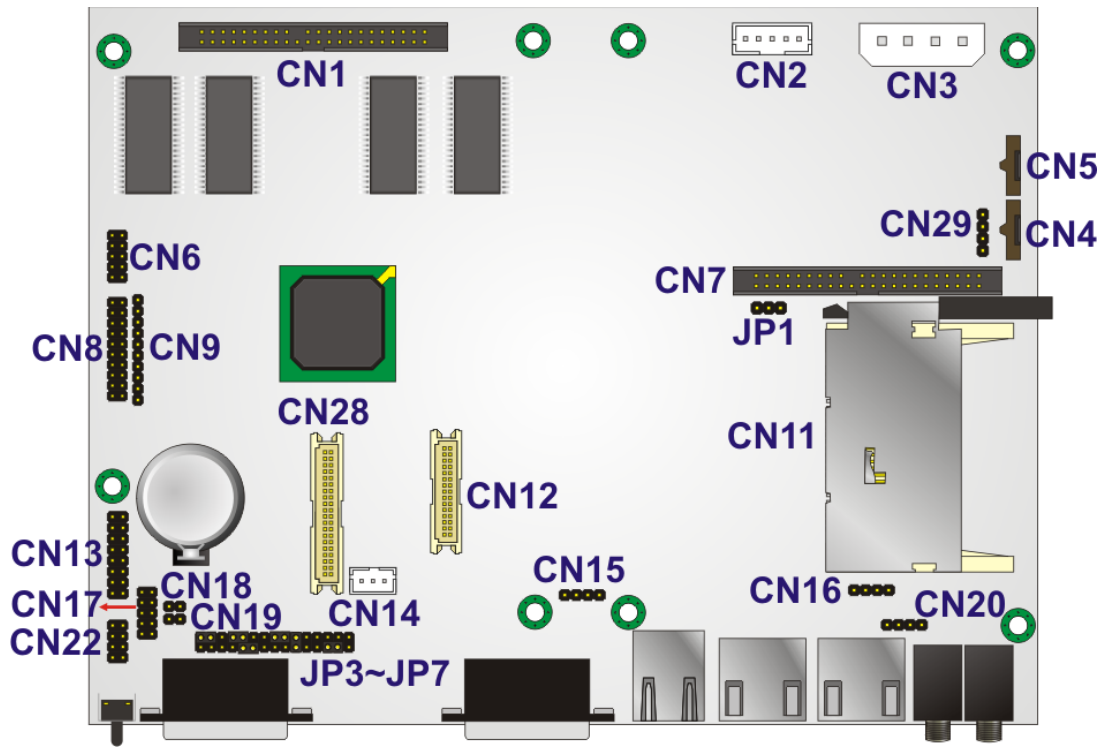


Board Layout: Jumper and Connector Locations



XScale® PXA270 Embedded SBC Board

KAMIO-2701-02

Version 1.2

Mar. 20, 2007

Package Contents

KAMIO-2701/2702 package includes the following items

1 x KAMIO-2701 single board computer

1 x CF Card preinstalled with Windows® CE NET 5.0 OS or 2.6.18 Linux kernel

1 x Utility CD (including utilities, SDK and user manuals)



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Specifications

- CPU: XScale® PXA270 520MHz processor
- System Memory: 128MB SDRAM
- Storage: 128MB CompactFlash® card
(38MB reserved for Windows® CE 5.0 or Linux, and 90MB for user data and programs)
- Battery-backup RTC
- Watchdog Timer
- Reset Button
- JTAG pin-header
- Display: 18-bit single channel LVDS and TTL LCD panel interface, resolution up to 800 x 600, 16 bit color graphics.
- Touch Input: 4-wired resistive touch interface
- I/O Interface:
 - 1 x RS-232, 1 x RS-232/422/485
 - 2 x USB Host 1.1
 - 2 x Ethernet 10/100 Mbps
 - 1 x MIC-in
 - 1 x Line-out
- Power Supply: +5V and +12V, Molex 15-24-4547 5.08mm disk driver power connector
- Power Consumption: [+5V@2.0A](#)
- Operating Temperature: 0°~60°C
- Humidity: 5%~95% (non-condensing)
- Dimension: 180.0mm x 135.4mm

CN13 Camera Capture Connector (Optional)					
PIN	SIGNAL	DESCRIPTION	PIN	SIGNAL	DESCRIPTION
1	VCC	3,3V	2	DATA0	Capture DATA 0
3	MCLK	Master Clock	4	DATA1	Capture DATA 1
5	GND	Ground	6	DATA2	Capture DATA 2
7	PCLK	Pixel Clock	8	DATA3	Capture DATA 3
9	GND	Ground	10	DATA4	Capture DATA 4
11	FV	V-Sync	12	DATA5	Capture DATA 5
13	LV	H-Sync	14	DATA6	Capture DATA 6
15	GND	Ground	16	DATA7	Capture DATA 7

CN18 and CN19 GPIO Reset Connector (Optional)	
PIN	DESCRIPTION
1	GPIO 1
2	GND

CN22 USB Connector (Optional)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	+5V	2	GND
3	D-	4	D+
5	D+	6	D-
7	GND	8	+5V

CN23 USB Combo Port			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC_USB1	2	DATA 1-
3	DATA 1+	4	GND
5	VCC_USB2	6	DATA 2-
7	DATA 2+	8	GND

CN16 and CN20 Audio Line-in Connect (Optional)	
PIN	DESCRIPTION
1	Stereo Input Right Channel
2	GND
3	Stereo Input Right Channel
4	GND

CN12 TFT LCD LVDS Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	GND
3	TX0+	4	TX0-
5	TX1+	6	TX0-
7	TX2+	8	TX2-
9	TXCLK+	10	TXCLK-
11	NC	12	NC
13	GND	14	GND
15	NC	16	NC
17	NC	18	NC
19	NC	20	NC
21	NC	22	NC
23	NC	24	NC
25	GND	26	GND
27	VCC	28	VCC
29	VCC	30	VCC

CN17 MMC/SD/SDIO Connector (Optional)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	Power (3.3V)	2	DATA 0
3	CLK (Bus Clock)	4	DATA 1
5	CMD (Command)	6	DATA 2
7	CD	8	DATA 3
9	GND	10	GND

Ordering Information

KAMIO-2701-R12

XScale® PXA270 RISC-base Embedded SBC with 128MB CompactFlash memory card and built-in Windows® CE 5.0 OS.

KAMIO-2702-R10

XScale® PXA270 RISC-base Embedded SBC with 128MB CompactFlash memory card and built-in 2.6.18 Linux kernel.

Jumpers setting and Connectors

JP1 Power Select for CF Card interface (CN7) (Optional)	
JP1	DESCRIPTION
1-2	5V
2-3	3.3V

JP3-JP7 COM2 Function Select Jumper			
Jumper	RS-232	RS-422	RS-485
JP3	Short 2-4	Short 1-3	Short 3-5
JP4	Short 2-4,3-5	Short 1-3	NC
JP5	Short 4-6	Short 1-3,2-4	Short 3-5
JP6	Short 1-2	Short 3-4	Short 5-6
JP7	Short 1-3	Short 2-4	Short 2-4

CN1 Extension Bus Connector (Optional)					
PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	3.3V	16	DATA6	31	ADDR25
2	3.3V	17	ADDR8	32	DATA14
3	ADDR1	18	DATA7	33	GND
4	DATA0	19	ADDR9	34	DATA15
5	ADDR2	20	DATA8	35	-CS5
6	DATA1	21	ADDR10	36	-RST
7	ADDR3	22	DATA9	37	RST
8	DATA2	23	ADDR11	38	-PWE
9	ADDR4	24	DATA10	39	RDY
10	DATA3	25	ADDR12	40	-WE
11	ADDR5	26	DATA11	41	IO_IRQ
12	DATA4	27	ADDR13	42	-OE
13	ADDR6	28	DATA12	43	GND
14	DATA5	29	ADDR24	44	GND
15	ADDR7	30	DATA13		

CN2 Backlight Inverter Connector	
PIN	DESCRIPTION
1	NC
2	GND
3	+12V
4	GND
5	BKL_ON

CN3 Power Connector	
PIN	DESCRIPTION
1	+5V
2	GND
3	GND
4	+12V

CN4,CN5 Touch Panel Connector			
CN4		CN5	
PIN	DESCRIPTION	PIN	DESCRIPTION
1	XR	1	XR
2	XL	2	YD
3	YD	3	YL
4	YU	4	YU

CN29 Touch Panel Connector (Pin Header)	
PIN	DESCRIPTION
1	XR
2	YD
3	XL
4	YU

CN6 LED Connector (Optional)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	3.3V	2	LED_D0
3	LED_D1	4	LED_D2
5	LED_D3	6	LED_D4
7	LED_D5	8	LED_D6
9	LED_D7	10	GND

CN14 Serial Port Connector	
PIN	DESCRIPTION
1	TX
2	RX
3	GND

CN15 USB Client Connector	
PIN	DESCRIPTION
1	USB VCC In
2	D-
3	D+
4	GND

CN7 CF Card Interface Connector (Optional)					
PIN	DESCRIPTION	PIN	DESCRIPTION	PIN	DESCRIPTION
1	CF1_VCC	16	DATA6	31	-IOCS16
2	CF1_VCC	17	ADDR7	32	DATA14
3	ADDR0	18	DATA7	33	-REG
4	DATA0	19	ADDR8	34	DATA15
5	ADDR1	20	DATA8	35	-WAIT
6	DATA1	21	ADDR9	36	-IOR
7	ADDR2	22	DATA9	37	-RST
8	DATA2	23	ADDR10	38	-IOW
9	ADDR3	24	DATA10	39	RDY
10	DATA3	25	-CD1	40	-CE1
11	ADDR4	26	DATA11	41	-OE
12	DATA4	27	-CD2	42	-CE2
13	ADDR5	28	DATA12	43	GND
14	DATA5	29	-WE	44	GND
15	ADDR6	30	DATA13		

CN8 Keypad Connector (Optional)					
PIN	SIGNAL	DESCRIPTION	PIN	SIGNAL	DESCRIPTION
1	VCC	3,3V	2	VCC	3.3V
3	MKI_0	Matrix Input 0	4	MKO_0	Matrix output 0
5	MKI_1	Matrix Input 1	6	MKO_1	Matrix output 1
7	MKI_2	Matrix Input 2	8	MKO_2	Matrix output 2
9	MKI_3	Matrix Input 3	10	MKO_3	Matrix output 3
11	MKI_4	Matrix Input 4	12	MKO_4	Matrix output 4
13	MKI_5	Matrix Input 5	14	MKO_5	Matrix output 5
15	MKI_6	Matrix Input 6	16	MKO_6	Matrix output 6
17	MKI_7	Matrix Input 7	18	MKO_7	Matrix output 7
19	GND	Signal Ground	20	GND	Signal Ground

CN9 CPU JTAG Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	+3.3V	2	JTAG_TRST
3	JTAG_TDI	4	GND
5	JTAG_TMS	6	GND
7	JTAG_TCK	8	GND
9	JTAG_TDO	10	System Reset