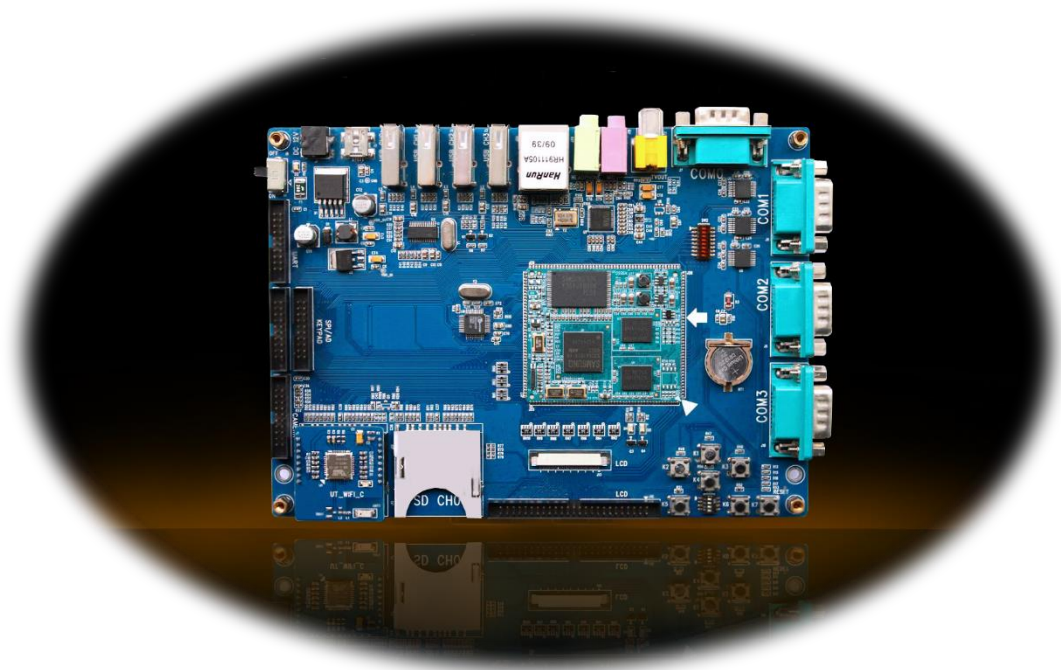


KIT3000 Reference User Manual

V2.0



Boardcon Embedded Design

www.boardcon.com

1. Introduction

1.1. About this Manual

This manual is intended to provide the user with an overview of the board and benefits, complete features specifications, and set up procedures. It contains important safety information as well.

1.2. Feedback and Update to this Manual

To help our customers make the most of our products, we are continually making additional and updated resources available on the Boardcon website (www.boardcon.com , www.armdesigner.com). These include manuals, application notes, programming examples, and updated software and hardware. Check in periodically to see what's new!

When we are prioritizing work on these updated resources, feedback from customers is the number one influence, If you have questions, comments, or concerns about your product or project, please no hesitate to contact us at support@armdesigner.com.

1.3. Limited Warranty

Boardcon warrants this product to be free of defects in material and workmanship for a period of one year from date of buy. During this warranty period Boardcon will repair or replace the defective unit in accordance with the following process:

A copy of the original invoice must be included when returning the defective unit to Boardcon. This limited warranty does not cover damages resulting from lightning or other power surges, misuse, abuse, abnormal conditions of operation, or attempts to alter or modify the function of the product.

This warranty is limited to the repair or replacement of the defective unit. In no event shall Boardcon be liable or responsible for any loss or damages, including but not limited to any lost profits, incidental or consequential damages, loss of business, or anticipatory profits arising from the use or inability to use this product.

Repairs make after the expiration of the warranty period are subject to a repair charge and the cost of return shipping. Please contact Boardcon to arrange for any repair service and to obtain repair charge information.



Content

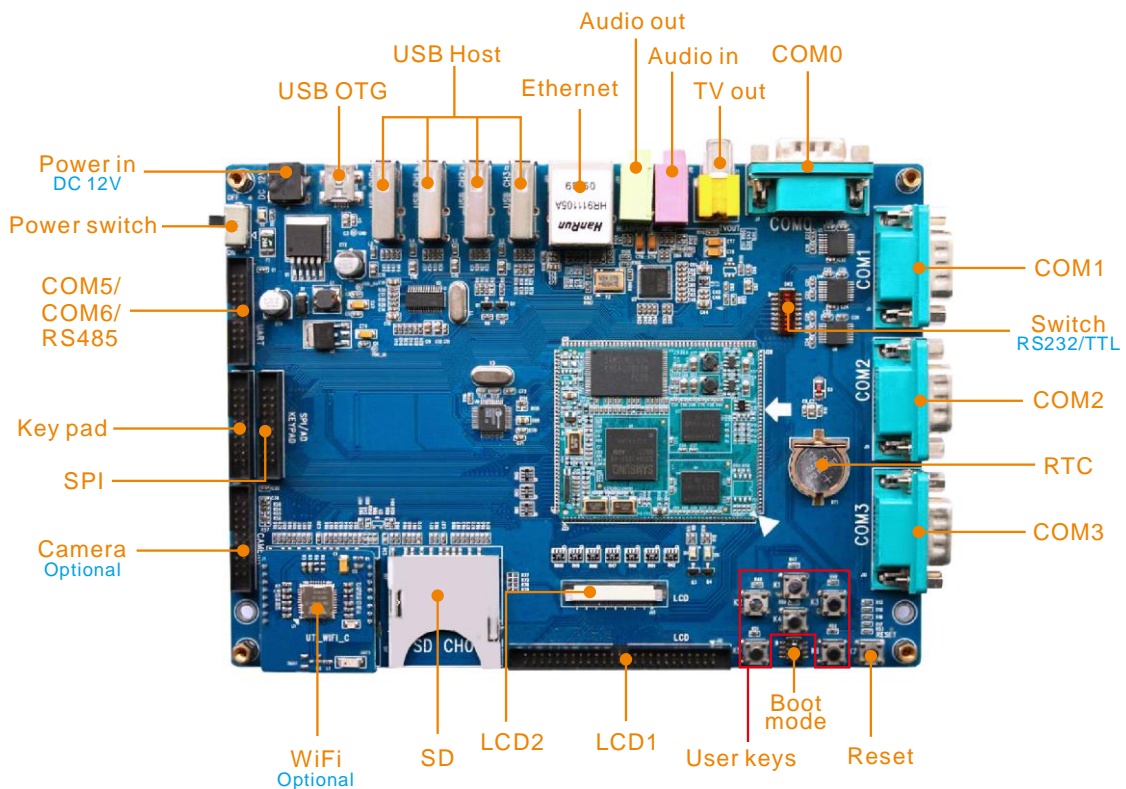
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1 KIT3000 Introduction

1.1 Summary

The KIT3000 is a development board designed for the customer who wants to dedicate their carrier board and application development. The board supports two versions of CPU Module which separately based on ARM11 Samsung S3C6410 and ARM9 S3C2416. The customer spends lowest cost but can estimate three CPU and its kit relative software package, then finally select exactly a CPU and CPU Module that totally meet their specification. The KIT not only reduces the customer's development cost but also accelerate time to market.

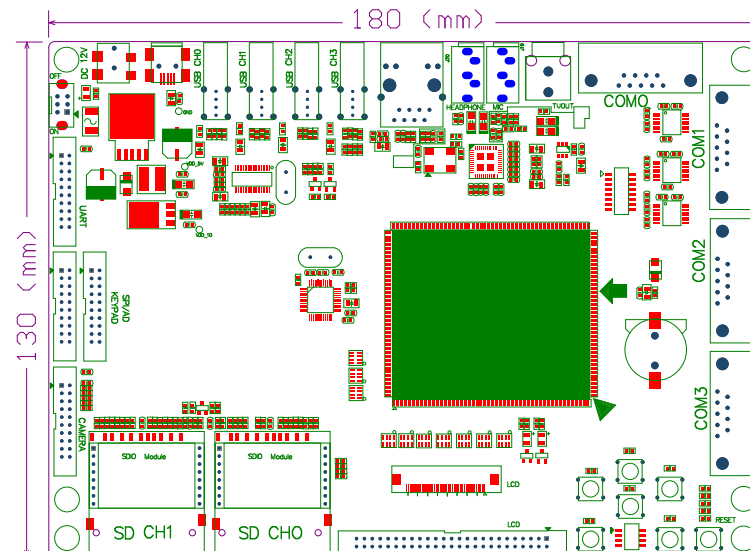
1.2 Specifications



Feature	Specifications
CPU	Samsung S3C6410, ARM1176JZF-S @ 667MHz. Or Samsung ARM9 S3C2416X @ 400MHz
Memory	64MB/128MB/256MB optional (64MB only for s3c2416)
Nand Flash	256MB/512MB/1GB optional
LCD	4.3-, 7-inch resistive LCD. LCD1 is 50pin header, LCD2 is 40pin FPC connector
USB	4x USB Host1.1; 1x USB OTG2.0

Serial port	4x 5-wire RS-232 DB9 interface; 2x 3-wire TTL serial port
Audio	3.5mm jack for audio output/input. WM9713G audio codec
Ethernet	10/100Mbps Ethernet, RJ45 interface. DM9000AEP controller
RTC	Real Time Clock, powered by external lithium battery
SD card	SD/MMC interface (supports 3.3V and 1.8V logic voltage)
TV out	1x TV OUT
Buttons	1x Reset, 6x User defined
Camera	1x camera interface, support ITU BT 601/656 8BIT mode
Optional modules	GPS, WIFI, Camera, 3G, Bluetooth and AV Module
Power input	DC +12V@2A
Carrier board Dimension	Baseboard - 180mm x 130mm; CPU board - 52mm x 45mm

1.3 PCB Dimension



1.4 CPU Introduction

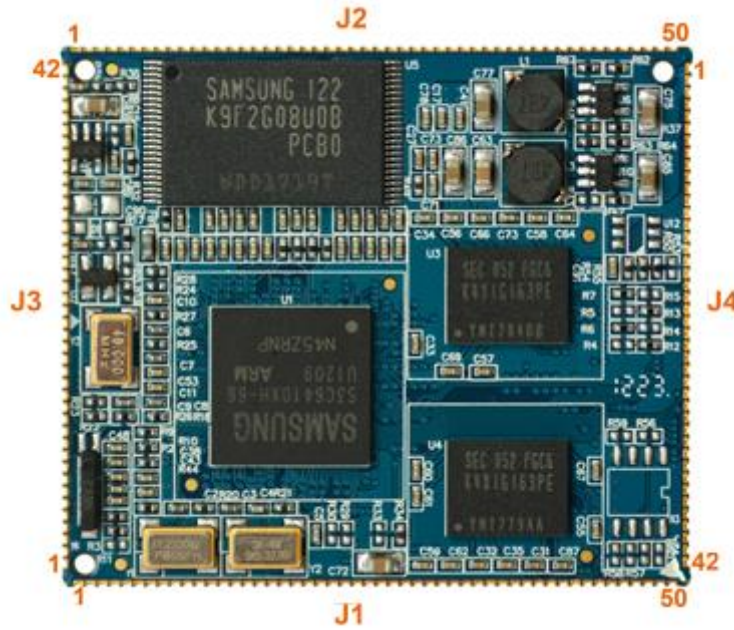
MINI6410/MINI2416-II Specifications

Pin number – (J1+J2) x 50 + (J3+J4) x 42, total 184 pins

Dimension – 52.0mm x 45.0mm

Power supply – 5V, 3.3V

Pin to Pin space – 1.0mm

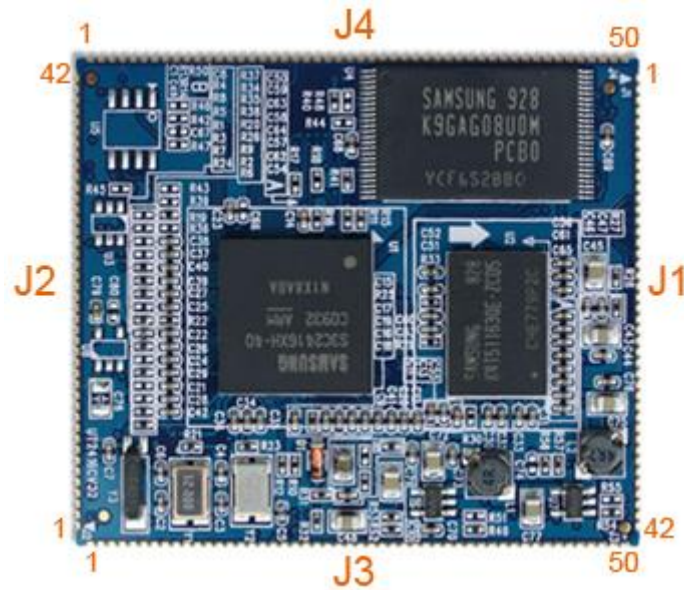


MINI6410 Pin Definition

pin	Signal(J1)	Function	Signal(J2)	Function	Signal(J3)	Function	Signal(J4)	Function
1	HSYNC	LCD	KP_COL0	KEYPAD	CAMRSTN	CAMERA	VDD5V	POWER
2	VCYNC		KP_COL1		CAMHREF		VDD5V	
3	VCLK		KP_COL2		CAMCLK		VDD5V	
4	VDEN		KP_COL3		CAMSYNC		VDD_MDDR	
5	VD0		KP_COL4		CAMPCLK		VDD_MDDR	
6	VD1		KP_COL5		CAMYD0		VDD_33V	
7	VD2		KP_ROW0		CAMYD1		VDD_33V	
8	VD3		KP_ROW1		CAMYD2		VDD_ARM	
9	VD4		KP_ROW2		CAMYD3		VDD_ARM	
10	VD5		KP_ROW3		CAMYD4		VDD_ARM	
11	VD6		KP_ROW4		CAMYD5		VDD_ARM	
12	VD7		KP_ROW5		CAMYD6		VDD_RTC	
13	VD8	EINT4	CAMYD7	GND	I2C	GND		
14	VD9	EINT9	I2CSDA0	GND				
15	VD10	EINT12	I2CSCL0	GND				
16	VD11	EINT1	EXT INT	DATA0	BUS	GND	BOOT SETTING	
17	VD12	EINT3		DATA1		GND		
18	VD13	EINT5		DATA2		GND		
19	VD14	EINT6		DATA3		OM1		
20	VD15	EINT8	DATA4	OM3	BOOT SETTING			
21	VD16	ADCIN0	ADC	DATA5		OM2		
22	VD17	ADCIN1		DATA6		OM4		



23	VD18		NBATF	NBATF	DATA7		TXD0	UART
24	VD19		OTGDP		DATA 8		RTSN0	
25	VD20		OTGDM	USBOTG	DATA9		TXD1	
26	VD21		VBUS		DATA10		RTSN1	
27	VD22		USBDP	USB	DATA11		TXD2	
28	VD23		USBDN	HOST	DATA12		TXD3	
29	PWM_TOUT1		OTGID	USBOTG	DATA13		RXD0	
30	EINT11	EXT INT	AC97RSIN	AC97/I2S	DATA14		CTS0	
31	DAC_OUT0	DAC	AC97SDI		DATA15		RXD1	
32	GPH9	GPIO	AC97BCLK		WEN		CTS1	
33	EINT0	EXT INT	AC97SD0		OEN		RXD2	
34	EINT2	EXT INT	AC97SYNC		CSN1		RXD3	
35	CLK_OUT0	CLKOUT	SD1_D0	SD CH1	IRQ_LAN		GPH6	
36	GPQ0	GPIO	SD1_D1		ADDR1		GPH7	
37	OTG_VBUS	USB OTG	SD1_D2		ADDR2		GPH8	
38	GP03	GPIO	SD1_D3		ADDR3		GPE0	
39	SPICS0	SPI	SD1_CMD	NRESET		GPE1		
40	SPIMIS00		SD1_CLK	KEY_RST	KEY_RST		GPE2	
41	SPICLK0	SPI	SD1_CDN	SD CH1	PWRRGTON	PWR-EN	GPE3	GPIO
42	SPIMOSIO		SD1_WPN	GPO2	GPIO		GPE4	
43	GPC7	GPIO	SD0_D0	SD CH0				
44	NLED1	GPIO	SD0_D1					
45	NLED2	GPIO	SD0_D2					
46	GPC6	GPIO	SD0_D3					
47	TSYP	TOUCH	SD0_CMD					
48	TSXP		SD0_CLK					
49	TSYM		SD0_CDN					
50	TSXM		SD0_WPN					



MINI2416-II Pin Definition

Pin (J1)	Signal	Pin (J3)	Signal	Pin (J2)	Signal	Pin (J4)	Signal
1	NC	1	KEYINT1	1	VDD_BATT	1	HSYNC
2	NC	2	KEYINT2	2	VDD_BATT	2	VSYNC
3	NC	3	KEYINT3	3	VDD_BATT	3	VCLK
4	NC	4	KEYINT4	4	VDD_DDR	4	VDEN
5	NC	5	KEYINT5	5	VDD_DDR	5	VD0
6	NC	6	KEYINT6	6	VDD_IO	6	VD1
7	NC	7	EINT0	7	VDD_IO	7	VD2
8	NC	8	NC	8	VDD_ARM	8	VD3
9	NC	9	EINT11	9	VDD_ARM	9	VD4
10	NC	10	EINT12	10	VDD_ARM	10	VD5
11	NC	11	EINT13	11	VDD_ARM	11	VD6
12	CSn0	12	EINT14	12	VDD_RTC	12	VD7
13	CSn2	13	EINT15	13	GND	13	VD8
14	I2CSDA	14	NC	14	GND	14	VD9
15	I2CSCL	15	NC	15	GND	15	VD10
16	DATA0	16	NC	16	GND	16	VD11
17	DATA1	17	NC	17	GND	17	VD12
18	DATA2	18	NC	18	GND	18	VD13
19	DATA3	19	NC	19	OM1	19	VD14
20	DATA4	20	NC	20	OM3	20	VD15
21	DATA5	21	ADCIN0	21	OM2	21	VD16
22	DATA6	22	ADCIN1	22	OM4	22	VD17



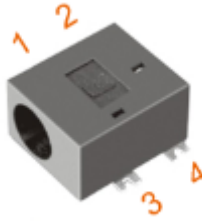
23	DATA7	23	nBATF	23	TXD0	23	VD18
24	DATA8	24	DP_UDEV	24	RTSn0	24	VD19
25	DATA9	25	DM_UDEV	25	TXD1	25	VD20
26	DATA10	26	VBUS	26	RTSn1	26	VD21
27	DATA11	27	USBDP	27	TXD2	27	VD22
28	DATA12	28	USBDN	28	TXD3	28	VD23
29	DATA13	29	NC	29	RXD0	29	LCD_PWM
30	DATA14	30	I2S0_LRCK	30	CTSn0	30	GPM0
31	DATA15	31	I2S0_SDI	31	RXD1	31	GPB5
32	WEn	32	I2S0_CDCLK	32	CTSn1	32	GPB6
33	OEn	33	I2S0_SDO	33	RXD2	33	GPB9
34	CSn1	34	I2S0_SCLK	34	RXD3	34	GPB10
35	IRQ_LAN	35	SD0_DAT0	35	TOUT1	35	CLKOUT1
36	ADDR1	36	SD0_DAT1	36	TOUT2	36	NC
37	ADDR0	37	SD0_DAT2	37	TOUT3	37	GPA23
38	ADDR2	38	SD0_DAT3	38	NC	38	NC
39	Nreset	39	SD0_CMD	39	GPC0	39	SPICS0
40	KEY_RST	40	SD0_CLK	40	RSD2	40	SPIMISO0
41	PWR_EN	41	SD0_CDn	41	NC	41	SPICLK0
42	GPA24	42	SD0_WPn	42	NC	42	SPIMOSI0
		43	SD1_DAT0			43	NC
		44	SD1_DAT1			44	NC
		45	SD1_DAT2			45	NC
		46	SD1_DAT3			46	NC
		47	SD1_CMD			47	TSYP
		48	SD1_CLK			48	TSXP
		49	SD1_CDn			49	TSYM
		50	SD1_WPn			50	TSXM

2 Peripherals Introduction

2.1 Power (J1)

Power supply: **DC 12V/2A**

J1 is a SMT mini power socket.



Pin	Signal	Description	Pin	Signal	Description
1	DC12V	Main power. DC12V power in	2	DC12V	Main power. DC12V power in
3	GND	Ground	4	GND	Ground

2.2 Power Switch (S1)

S1 is a 2P2T slide switch used to control power ON or OFF.



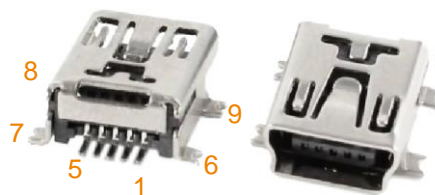
Pin	Signal	Description	Pin	Signal	Description
1	DC12V	Connect to fuse	2	NC	Not Connect
3	DC12V	DC12V power in. Connect to pin2 of power socket	4	NC	Not Connect
5	NC	Not Connect	6	NC	Not Connect
7	GND	Ground	8	GND	Ground

2.3 USB OTG (J2)

USB2.0 OTG is used to download image to the target board. Device mode by default

Features

- Complies with the On-The-Go Supplement to the USB 2.0 Specification
- Supports high speed (480Mbps), full speed (12Mbps, Device only), low speed (1.5Mbps, Host only)
- Configures as USB 1.1 full/low speed DRD (Dual-Role Device), Host-only or Device only controller



Pin	Signal	Description	Pin	Signal	Description
1	VBUS	5V power supply	2	OTGDM	USB OTG data -
3	OTGDP	USB OTG data +	4	OTGID	USB OTG ID signal
5	GND	Ground	6	GND	Ground
7	GND	Ground	8	GND	Ground
9	GND	Ground			

2.4 USB HOST (J3/4/5/6)

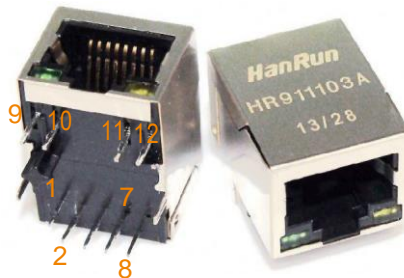
KIT3000 adopts FE1.1s USB2.0 Hub, provides 4x USB1.1 HOST. Compatible with OHCI V1.0, USB V1.1, can be used to connect the devices such as U disk, USB mobile hard disk, USB mouse, USB keyboard, 3G, etc.



Pin	Signal	Description	Pin	Signal	Description
1	VDD_5V	5V power supply	2	USBDNA	USB data -
3	USB DPA	USB data +	4	GND	Ground
5	GND	Ground	6	GND	Ground
7	GND	Ground	8	GND	Ground

2.5 Ethernet (J24)

The platform adopts DM9000AEP as the Ethernet chip, it can adaptively 10/100M network. The RJ45 connector contains a coupling coil, without additional network transformer.



Pin	Signal	Description	Pin	Signal	Description
1	DM9000_TX+	Transmit Data +	2	DM9000_TX-	Transmit Data -
3	DM9000_RX+	Receive Data +	4	NET_AVDD25	2.5V power
5	NET_AVDD25	2.5V power	6	DM9000_RX-	Receive Data -

7	NC	Not connect	8	GND	Ground
9	VDD_IO	3.3V power	10	DM9000_LINKLED	Link up LED
11	DM9000_LANLED	Activity LED	12	VDD_IO	3.3V power

2.6 Audio I/O (J19/20)

The platform adopts WM9714 chip, 3.5mm audio jack, integrated audio output and MIC input function.



Headphone					
Pin	Signal	Description	Pin	Signal	Description
1	HPL	Left Channel Headphone Output	2	HPL	Left Channel Headphone Output
3	HPR	Right Channel Headphone Output	4	HPR	Right Channel Headphone Output
5	GND_AC97	Ground			
MIC					
Pin	Signal	Description	Pin	Signal	Description
1	MIC/MICBIAS	Microphone input	2	MIC/MICBIAS	Microphone input
3	MIC/MICBIAS	Microphone input	4	MIC/MICBIAS	Microphone input
5	GND_AC97	Ground			

2.7 TV OUT (J21)

RCA connector, standard composite video signal output, can be directly connected to video playback devices.



Pin	Signal	Description	Pin	Signal	Description
1	Vout/VSAG	TV out	2	GND	Ground

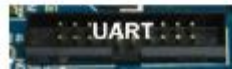
2.8 COM (J7/8/9/10/11)

KIT3000 supports 6-ch serial ports.

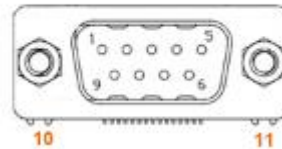
COM0 and COM1 are 5-wire DB9 connectors; COM2 and COM3 are 3-wire DB9 connectors. The platform adopts 3pcs SP3232 to convert the 4-ch serial signals into RS232 level and output via DB9.

COM0 is debugging serial port by default. COM1~COM3 are Application serial ports.

The serial signals can be converted to RS232 (output via DB9) or TTL (output via header connector J11) by setting SW2.

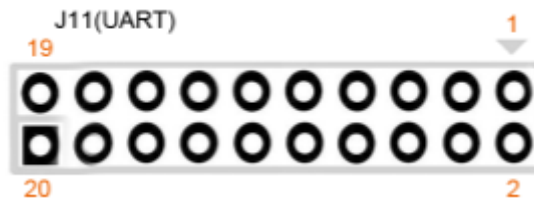


COM0/1/2/3



COM0					
Pin	Signal	Description	Pin	Signal	Description
1	NC	Not connect	2	RXD0N	UART 0 receive data
3	TXD0N	UART 0 transmit data	4	NC	Not connect
5	GND	Ground	6	NC	Not connect
7	CTSn0N	UART 0 clear to send	8	RTSn0N	UART 0 ready to send
9	NC	Not connect	10	GND	Ground
11	GND	Ground			
COM1					
Pin	Signal	Description	Pin	Signal	Description
1	NC	Not connect	2	RXD1N	UART 1 receive data
3	TXD1N	UART 1 transmit data	4	NC	Not connect
5	GND	Ground	6	NC	Not connect
7	CTSn1N	UART 1 clear to send	8	RTSn1N	UART 1 ready to send
9	NC	Not connect	10	GND	Ground
11	GND	Ground			
COM2					
Pin	Signal	Description	Pin	Signal	Description
1	NC	Not connect	2	RXD2N	UART 2 receive data

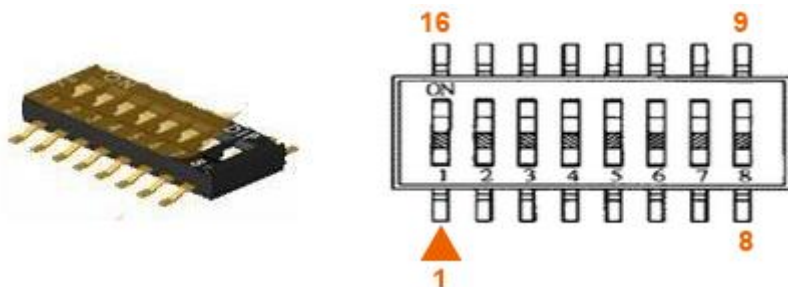
3	TXD2N	UART 2 transmit data	4	NC	Not connect
5	GND	Ground	6	NC	Not connect
7	NC	Not connect	8	NC	Not connect
9	NC	Not connect	10	GND	Ground
11	GND	Ground			
COM3					
Pin	Signal	Description	Pin	Signal	Description
1	NC	Not connect	2	RXD3N	UART 3 receive data
3	TXD3N	UART 3 transmit data	4	NC	Not connect
5	GND	Ground	6	NC	Not connect
7	NC	Not connect	8	NC	Not connect
9	NC	Not connect	10	GND	Ground
11	GND	Ground			



J11 (UART)					
Pin	Signal	Description	Pin	Signal	Description
1	VDD_5V	DC 5V	2	VDD_IO	DC 3.3V
3	GPH6	GPIO	4	GPH7	GPIO
5	GPH8	GPIO	6	GPH9	GPIO
7	TXD1	Transmit data	8	RXD1	Receive data
9	RTSn1	Ready to send	10	CTSn1	Clear to send
11	TXD2	Transmit data	12	RXD2	Receive data
13	TXD3	Transmit data	14	RXD3	Receive data
15	GPO2	GPIO	16	GPE0	GPIO
17	NC	Not connect	18	NC	Not connect
19	GND	Ground	20	GND	Ground

2.9 COM Switch (SW2)

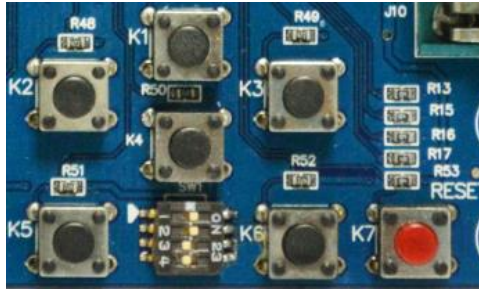
SW2 is used to switch RS-232/TTL. "ON" = RS232, "OFF" = TTL.



Pin	Signal	Description	Pin	Signal	Description
1	TXD1	Transmit data	2	RXD1	Receive data
3	RTSn1	Ready to send	4	CTSn1	Clear to send
5	TXD2	Transmit data	6	RXD2	Receive data
7	TXD3	Transmit data	8	RXD3	Receive data

2.10 Keys (K1/2/3/4/5/6/7)

On-board 6 user keys. K7 is Reset button. The reset chip is MAX811T.

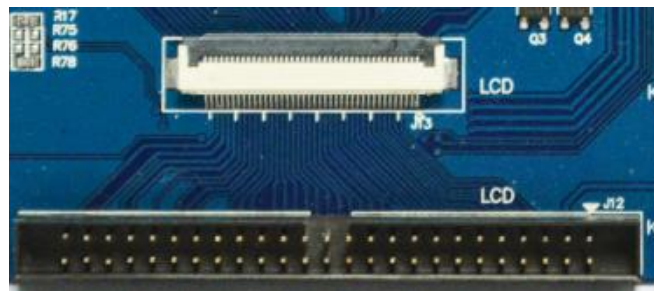


Key	K1	K2	K3	K4	K5	K6	K7
Function	Up	Left	Right	Down	Return	OK	Reset

2.11 LCD (J12/J13)

KIT3000 supports two kinds of LCD connectors: 40Pin FPC and 50Pin header connector.

The LCD port integrated 4-wire resistor touch screen port, supports PWM control the LCD backlight. The board comes with driver for 4.3- and 7- inch TFT LCD.



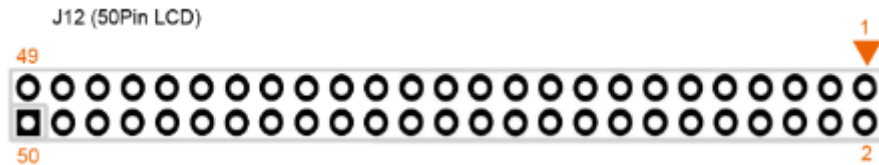
J13 (40Pin LCD)



J13 (40Pin LCD)

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VDD_5V	11	LVD7	21	LVD17	31	LVSYNC
2	VDD_5V	12	LVD8	22	LVD18	32	LHSYNC

3	VDD_IO	13	LVD9	23	LVD19	33	LVCLK
4	LVD0	14	LVD10	24	LVD20	34	EINT12
5	LVD1	15	LVD11	25	LVD21	35	TSXM
6	LVD2	16	LVD12	26	LVD22	36	TSXP
7	LVD3	17	LVD13	27	LVD23	37	TSYM
8	LVD4	18	LVD14	28	EINT11	38	TSYP
9	LVD5	19	LVD15	29	PWM_TOUT1	39	GND
10	LVD6	20	LVD16	30	LVDEN	40	GND

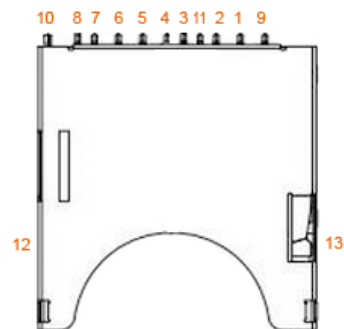


J12 (50Pin LCD)

Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	VDD_5V	14	LVD8	27	LVD20	40	NC
2	VDD_5V	15	LVD9	28	LVD21	41	EINT12
3	VDD_IO	16	LVD10	29	LVD22	42	GND
4	GND	17	LVD11	30	LVD23	43	TSXM
5	NC	18	GND	31	GND	44	TSXP
6	LVD0	19	LVD12	32	EINT11	45	NC
7	LVD1	20	LVD13	33	PWM_TOUT1	46	GND
8	LVD2	21	LVD14	34	NC	47	TSYM
9	LVD3	22	LVD15	35	NC	48	TSYP
10	LVD4	23	LVD16	36	LVDEN	49	NC
11	LVD5	24	LVD17	37	LVSYNC	50	GND
12	LVD6	25	LVD18	38	LHSYNC		
13	LVD7	26	LVD19	39	LVCLK		

2.12 SD Card (SD CH0)

KIT3000 is compatible with SD/MMC/SDIO, supports up to 32G storage. The board supports 2-CH SD Card, one SD is used to boot/ upgrade system; another can be soldered WiFi connector or SD Card slot.



SD1 (SD CH0)

Pin	Signal	Description	Pin	Signal	Description
1	SD CH0_DATA3	Data signal	2	SD CH0_CMD	Command signal
3	GND	Ground	4	SD0_VDD	DC 3.3V
5	SD CH0_CLK	Clock signal	6	GND	Ground
7	SD CH0_DATA0	Data signal	8	SD CH0_DATA1	Data signal
9	SD CH0_DATA2	Data signal	10	SD CH0_WPn	SD Write Protect
11	SD CH0_CDn	SD Card detect	12	GND	Ground
13	GND	Ground			

SD2 (SD CH1, optional)

Pin	Signal	Description	Pin	Signal	Description
1	SD CH1_DATA3	Data signal	2	SD CH1_CMD	Command signal
3	GND	Ground	4	SD0_VDD	DC 3.3V
5	SD CH1_CLK	Clock signal	6	GND	Ground
7	SD CH1_DATA0	Data signal	8	SD CH1_DATA1	Data signal
9	SD CH1_DATA2	Data signal	10	SD CH1_WPn	SD Write Protect
11	SD CH1_CDn	SD Card detect	12	GND	Ground
13	GND	Ground			

2.13 SDIO WiFi (SD CH1, optional)

Support SDIO WIFI Wireless Module.

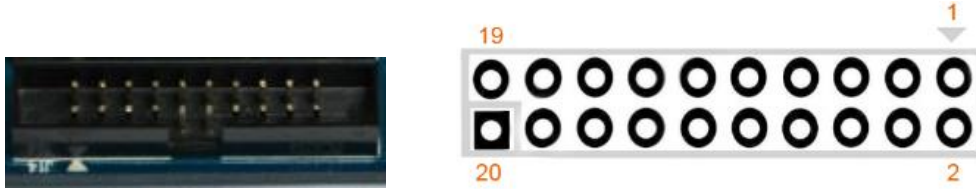


Pin	Signal	Description	Pin	Signal	Description
1	SDCH1_WPn	SD Write Protect	2	SD1_VDD	Power supply
P	SDCH1_DATA1	Data line	4	SD1_VDD	Power supply
5	SDCH1_DATA0	Data line	6	SD1_WIFI_RSTn	Reset (Active Low)
7	SDCH1_CLK	Clock	8	SD1_WIFI_PDn	Pull up by 100kohm, Full Power Down (Active Low)
9	SDCH1_CDn	Card Detect	10	GND	Ground
11	SDCH1_CMD	Command/Response	12	GND	Ground
13	SDCH1_DATA3	Data line	14	GND	Ground
15	SDCH1_DATA3	Data line	16	GND	Ground

2.14 Camera (J14)

J14 is a 2.0mm pitch 20pin camera connector, supports ITU BT 601/656 8BIT mode.

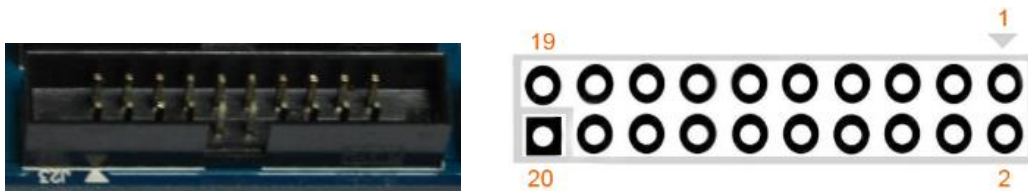
In addition to camera signals, the connector also increased the IIC and a GPIO (CAM_PD/GPP14) signal.



Pin	Signal	Description	Pin	Signal	Description
1	VDD_5V	DC 5V	2	VDD_IO	DC 3.3V
3	GND(R58)	Pull down by 10KΩ	4	CAMRSTn	Camera reset
5	LCAMPCLK	Camera Pixel clock	6	CAM_SCL	Camera serial clock
7	CAM_SDA	Camera serial data	8	LCAMVSYNC	Camera Vertical sync
9	LCAMHREF	Camera Horizontal sync	10	LCAMCLK	Camera clock
11	LCAMDATA0	Camera data	12	LCAMDATA1	Camera data
13	LCAMDATA2	Camera data	14	LCAMDATA3	Camera data
15	LCAMDATA4	Camera data	16	LCAMDATA5	Camera data
17	LCAMDATA6	Camera data	18	LCAMDATA7	Camera data
19	GND	Ground	20	GND	Ground

2.15 Keypad (J23)

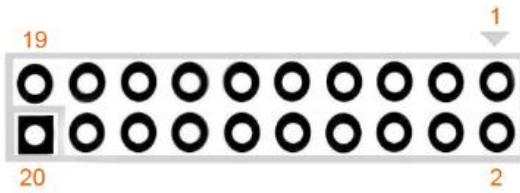
J23 is a 2.0mm pitch 20pin 6x6 Matrix keyboard connector.



Pin	Signal	Description	Pin	Signal	Description
1	VDD_5V	DC 5V	2	VDD_IO	DC 3.3V
3	KP_ROW0	Keypad row 0	4	KP_ROW1	Keypad row 1
5	KP_ROW2	Keypad row 2	6	KP_ROW3	Keypad row 3
7	KP_ROW4	Keypad row 4	8	KP_ROW5	Keypad row 5
9	NC	Not connect	10	NC	Not connect
11	KP_COL0	Keypad column 0	12	KP_COL1	Keypad column 1
13	KP_COL2	Keypad column 2	14	KP_COL3	Keypad column 3
15	KP_COL4	Keypad column 4	16	KP_COL5	Keypad column 5
17	NC	Not connect	18	NC	Not connect
19	GND	Ground	20	GND	Ground

2.16 SPI/AD (J22)

2-ch high-speed SPI and 2-ch AD input.



Pin	Signal	Description	Pin	Signal	Description
1	VDD_5V	DC 5V	2	VDD_IO	DC 3.3V
3	SPICS0	Chip Select	4	SPIMISO0	Master input, Slave output
5	SPICLK0	SPI Serial clock	6	SPIMOSI0	Master output, Slave input
7	SPICS1	Chip Select	8	SPIMISO1	Master input, Slave output
9	SPICLK1	SPI Serial clock	10	SPIMOSI1	Master output, Slave input
11	EINT6	Interrupt	12	EINT9	Interrupt
13	CLKOUT	Clock out	14	NC	Not connect
15	ADCIN0	ADC in	16	ADCIN1	ADC in
17	GND	Ground	18	GND	Ground
19	GND	Ground	20	GND	Ground



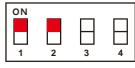
2.17 RTC (BT1)



The backup battery (3V) is used to ensure the RTC (frequency 32.768KHz) is still able to work after power off. Lithium cell model is CR1220.

2.18 Boot Switch (SW1)

The Boot Mode is selected by setting **OM** signals via 4-bit DIP switch. KIT3000 supports booting from SD or NAND Flash.

Switch	1	2	3	4	 = ON
SD	ON	ON	ON	ON	
NAND	ON	ON	OFF	OFF	

3 Product Configurations

3.1 Standard Contents

NO.	Item	Qty. (PCS)	Description
1	KIT3000 board	1	Standard Content
2	CD-ROM	1	Android/WinCE/Linux BSP, Documents, tools, Schematic Drawing, datasheets
3	Ethernet cable	1	
4	Serial Cable	1	Cross serial cable (DB9)
5	USB Cable	1	Mini USB
6	Power adaptor	1	12V/2A DC

3.2 Optional Parts

NO.	Item	Description
1	TFT LCD	4.3" / 7" Resistive LCD
2	GPS	SiRF GSC3e/LP Chipset
3	Camera	1.3 Megapixel, OV9650
4	WiFi	SDIO WiFi, WM-G-MR-09 Module
5	Bluetooth	USB Bluetooth