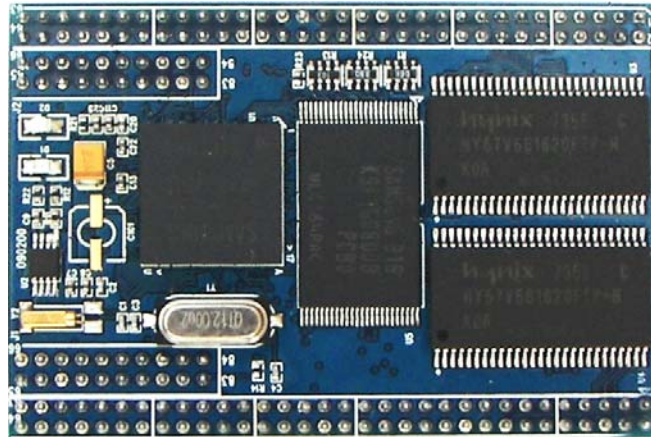


## **Embest Mini2440-I Processor Card**



### **Features**

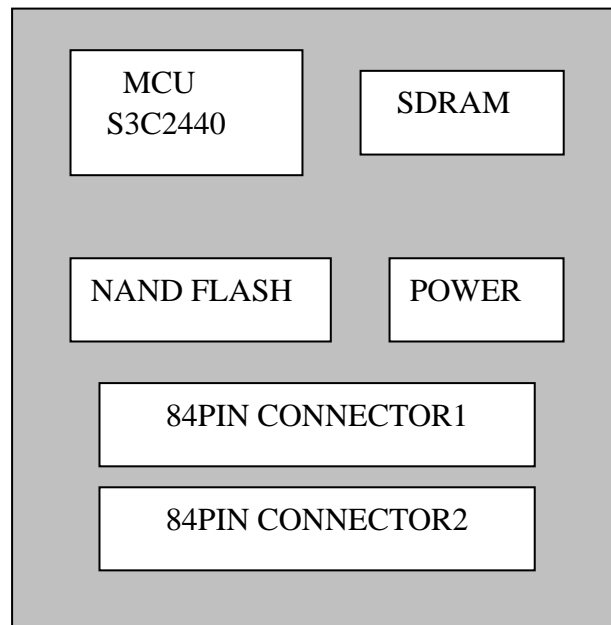
- Dimensions: 65mm x 45mm
- Temperature: 0~+70°C
- Samsung's S3C2440A microcontroller based on a 1.33V Static ARM920T CPU core with MMU
- 64Mbyte SDRAM (32MB/128MB compatible)
- 128Mbyte Nand flash (support 256Mbyte for option)
- On-chip PLL generates the 12MHz OSC up to operate MCU at up to 200MHz
- 32768Hz RTC
- I/O CPU lines are extended via two 2.0mm pitch 2\*42-pin dip connectors
- Single 3.3V power supply

### **General Description**

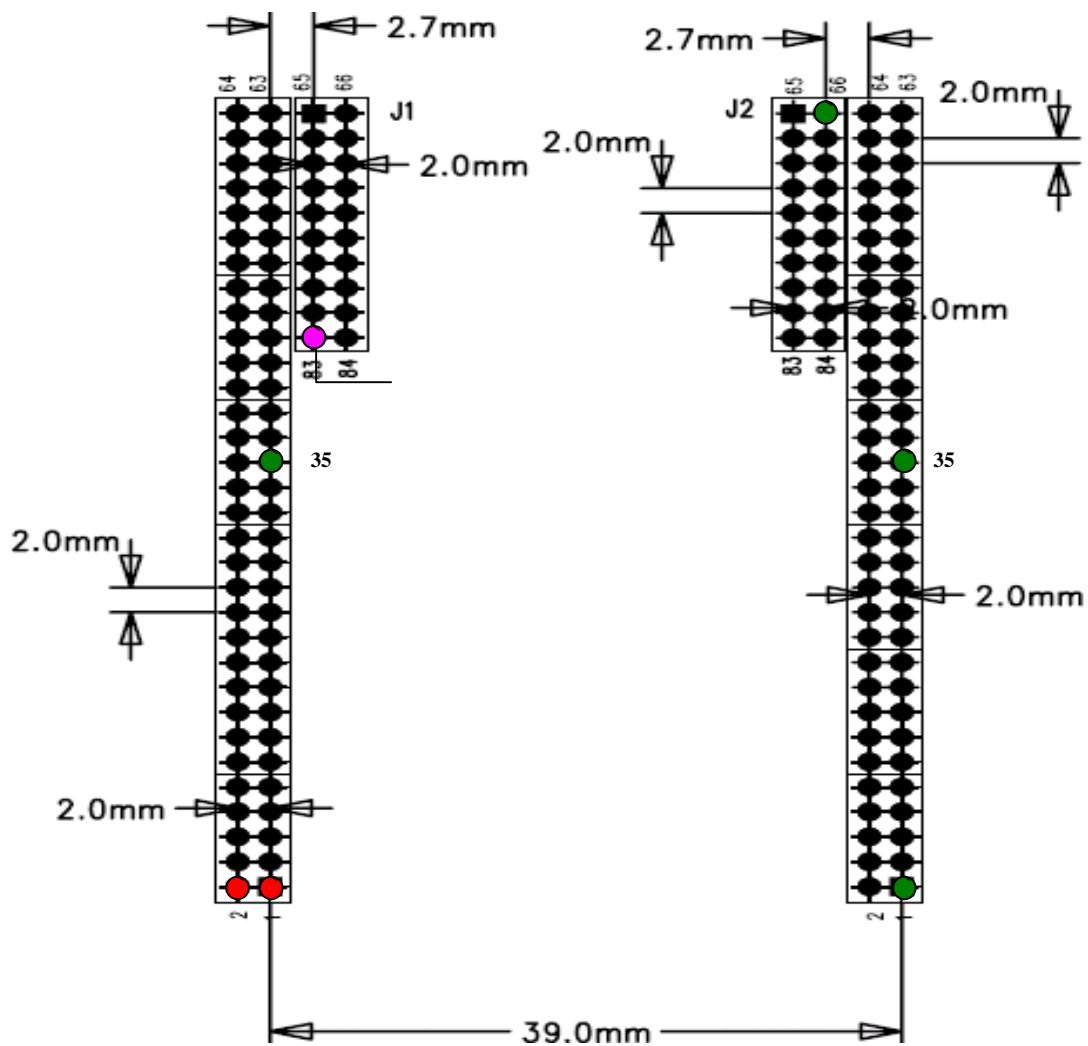
Measuring only 65mm by 45mm, Embest Mini2440-I processor card is a super tiny embedded controller based on Samsung's S3C2440A ARM920T microprocessor which can work up to 533MHz. The board has 64MByte SDRAM and 128MByte Nand Flash on board and extends I/O CPU lines via two 2.0mm pitch 2\*42-pin dip connectors to expose the hardware features of S3C2440 CPU to the most extent.

The tiny card would be an ideal core processing component to be the heart of your embedded design. Embest has also designed two expansion boards to enhance the functionality of the Mini2440-I. Please refer to [SBC2440-III board](#) and [SBC2440-IV board](#) which using the Mini2440-I as the embedded design and capable of supporting both Linux and WinCE OS.

### Function Diagram



### Dimension of Mini2440-I



## Signals routed to J1 and J2

Embest Mini2440-I processor card is connected to mainboard via two 2.0mm pitch 2\*42-pin dip connectors. User can use the processor card conveniently for different applications. Embest also design a mainboard to using with the Mini2440-I processor card together, you can get more information about [SBC2440-III](#) on Embest website, which implements many functions of S3C2440A.

### J1 (84-pin Connector 1)

No.	NAME	No.	NAME
1	VDD_3V3	33	nRESET
2	VDD_3V3	34	nXBREQ
3	LADDR1	35	GND
4	LADDR0	36	nTRST
5	LADDR3	37	TDI
6	LADDR2	38	TCK
7	LADDR5	39	TDO
8	LADDR4	40	TMS
9	LADDR7	41	RXD2
10	LADDR6	42	TXD2
11	LADDR9	43	RXD1
12	LADDR8	44	TXD1
13	LADDR11	45	RXD0
14	LADDR10	46	TXD0
15	LADDR13	47	nRTS0
16	LADDR12	48	nCTS0
17	LADDR15	49	DP0
18	LADDR14	50	DN0
19	LADDR17	51	DP1
20	LADDR16	52	DN1
21	LADDR19	53	SPIMISO1
22	LADDR18	54	SPICLK1
23	nOE	55	nSS1
24	LADDR24	56	SPIMOSI1
25	nWAIT	57	IRQ_LAN
26	nWBE1	58	nIrDATXDEN
27	nXDREQ0	59	nCD_SD
28	nWE	60	EINT0
29	nXDREQ1	61	TSXM
30	nXDACK0	62	TSYM
31	nXBACK	63	TSXP
32	nXDACK1	64	TXYP

No.	NAME	No.	NAME
65	GND	75	EINT5
66	VDD_RTC	76	EINT6
67	AIN0	77	EINT7
68	AIN1	78	EINT8
69	AIN2	79	EINT17
70	AIN3	80	EINT18
71	EINT1	81	EINT19
72	EINT2	82	EINT20
73	EINT3	83	VDD_1.33V
74	EINT4	84	GPB0

J2 (84-pin Connector 2)

No.	NAME	No.	NAME
1	GND	33	CAMDATA6
2	LDATA0	34	CAMDATA5
3	LDATA1	35	GND
4	LDATA2	36	CAMDATA7
5	LDATA3	37	VCLK
6	LDATA4	38	LEND
7	LDATA5	39	HSYNC
8	LDATA6	40	VSYNC
9	LDATA7	41	LCD_PWREN
10	LDATA8	42	VLEN
11	LDATA9	43	VD1
12	LDATA10	44	VD0
13	LDATA11	45	VD3
14	LDATA12	46	VD2
15	LDATA13	47	VD5
16	LDATA14	48	VD4
17	LDATA15	49	VD7
18	nGCS1	50	VD6
19	nGCS2	51	VD11
20	nGCS3	52	VD10
21	nGCS4	53	VD13
22	nGCS5	54	VD12
23	CAMPCLK	55	VD15
24	CAMHREF	56	VD14
25	CAMCLKOUT	57	VD19
26	CAM_VSYNC	58	VD18
27	CAMDATA0	59	VD21
28	CAMRST	60	VD20
29	CAMDATA2	61	VD22

30	CAMDATA1	62	VD23
31	CAMDATA4	63	IICSDA
32	CAMDATA3	64	IICSCSCL

No.	NAME	No.	NAME
65	nSS0	75	SDCLK
66	GND	76	SDCMD
67	SPIMISO0	77	CDCLK
68	SPICLK0	78	I2SSCLK
69	WP_SD	79	I2SSDO
70	SPIMOSI0	80	I2SSDI
71	SDDATA0	81	I2SLRCK
72	SDDATA1	82	L3DATA
73	SDDATA2	83	L3CLK
74	SDDATA3	84	L3MODE

## Order Information

Order No.	MH10
Item	Embest Mini2440-I Processor Card
Option hardware	✓ SBC2440-III board (choose Embest expansion board for Mini2440-I)
Contact	E-mail: <a href="mailto:market@embedinfo.com">market@embedinfo.com</a> Tel: +86-755-25635656 Fax: +86-755-25616057



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