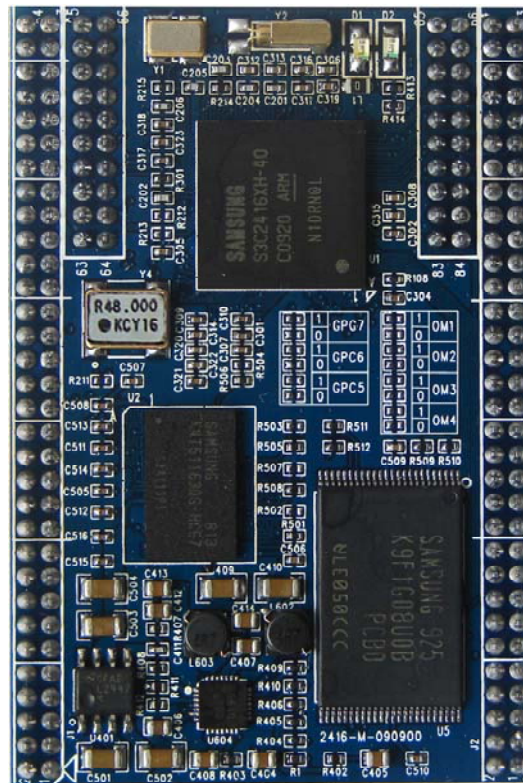


Embest Mini2416-I Processor Card



General Description

Measuring only 65mm by 45mm, the Mini2416-I is a powerful and cost-effective ARM9 based processor card. It is based on the Samsung 16/32bit microprocessor S3C2416X, which operates up to 400MHz, and is designed for projects requiring low power consumption and overall cost.

The S3C2416X's core ARM926EJ implements MMU, AMBA BUS, and Harvard cache architecture with separate 16KB instruction and 16KB data caches, each with an 8-word line length. It provides a complete set of common system peripherals, to minimize overall system costs and eliminate the need to configure additional components. With features of low power and high performance, S3C2416X is ideal choice for hand-held devices and general embedded applications.

The Mini2416-I has 128MB Nand Flash and 64MB DDR2 SDRAM on board, and extends I/O CPU signals via two 2.0mm pitch 2*42-pin pin header connectors to expose the hardware features of S3C2416X to the most extent.

User can design your next product based on Mini2416-I. Embest also has designed an

expansion board which is using Mini2416-I as the core board, the whole evaluation system is called Devkit2416 evaluation board. Embest offers WinCE5.0 BSP for this board. It would be a solid basis for your development.

Hardware Features

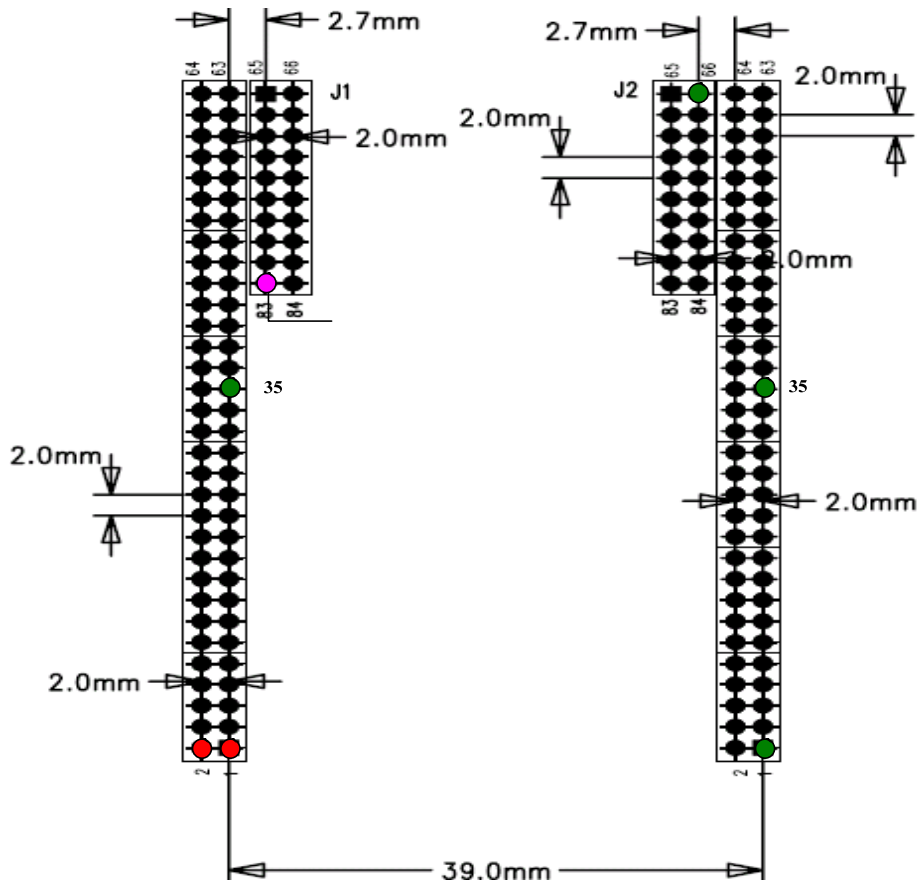
- Dimensions: 65mm x 45mm
- Work Temperature: 0~+70°C
- Samsung's S3C2416X microprocessor based on an ARM926EJ core with 16KB I/D-Cache/MMU
- 64Mbyte DDR2 SDRAM
- 128Mbyte Nand flash
- Two on-chip PLLs: one generates the 12MHz OSC up to operate MCU at maximum 400MHz, the other generates 48MHz OSC for USB clock
- 32768Hz RTC
- I/O CPU lines are extended via two 2.0mm pitch 2*42-pin dip connectors
- Single 3.3V power supply

Interface Introduction

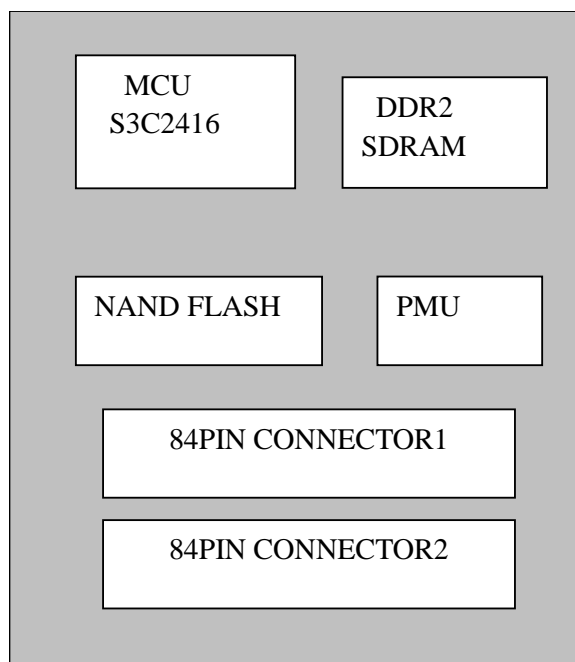
Interface Signal Functions Table:

Function	Signal	In/Out	Function	Signal	In/Out	
POWER	VDD_3V3	POWER	SPI	SPIMISO0	I/O	
	GND	Power		SPICLK0	I/O	
	VDD_RTC	power		SPIMOSI0	I/O	
		nSS0		O		
SMC	RADDR[19:0]	O	EINT	EINT[9:0]	I/O	
	RADDR24	O		EINT12	I/O	
	RDATA[15:0]	I/O	GPIO	EINT[11:10]	I/O	
	nGCS[5:1]	O		EINT[15:13]	I/O	
	nOE	O		GPL[3:0]	I/O	
	nWE	O		GPL[9:8]	I/O	
	nRESET	I		GPH[14:13]	I/O	
	nWAIT	I		SD	WP_SD/GPH12	O
nRBE[1:0]	O	SDDATA[3:0]	I/O			
JTAG	nTRST	I	SD	SDCLK	O	
	TDI	I		SDCMD	O	
	TCK	I		IIS	CDCLK	O
	TDO	O			I2SSCLK	O
	TMS	I	I2SSDO		O	
IIC	IICSDA	I/O	IIS		I2SSDI	I
	IICSCL	I/O			I2SLRCK	O
UART	RXD[2:0]	I		TOUT	L3DATA/TOUT3	I/O
	TXD[2:0]	O			L3CLK/TCLK	O
	nRTS0	I	L3MODE/TOUT2		O	
	nCTS0	O	nIrDATXDEN/TOUT1		I/O	
	nRTS[2:1]	I	GPB0/TOUT0		O	
	nCTS[2:1]	O	DMA		nXDREQ0/ I2SSDO_2	I
LCD	VCLK	O		nXDACK0/ I2SSDO_1	O	
	HSYNC	O		nXBACK	O	
	VSYNC	O		nXBREQ	I	
	VD[7:0]	O		Analog Input	AIN[3:0]	I
	VD[15:10]	O			TSP	AIN[9:6]
	VD[23:18]	O		USB	DP[1:0]	I/O
	VDEN	O			DN[1:0]	I/O
		LEND	O			

Dimensions



Function Block Diagram



Order Information

Order No.	T6012416
Item	Embest Mini2416-I Processor Card
Price	Please contact us.

**Embest Info&Tech Co., LTD.**

Room 509, Luohu Science&Technology Building,
#85 Taining Rd., Shenzhen, Guangdong, China 518020
Tel: +86-755-25635656/25635626
Fax: +86-755-25616057
Email: market@embedinfo.com
<http://www.embedinfo.com> <http://www.armkits.com>