

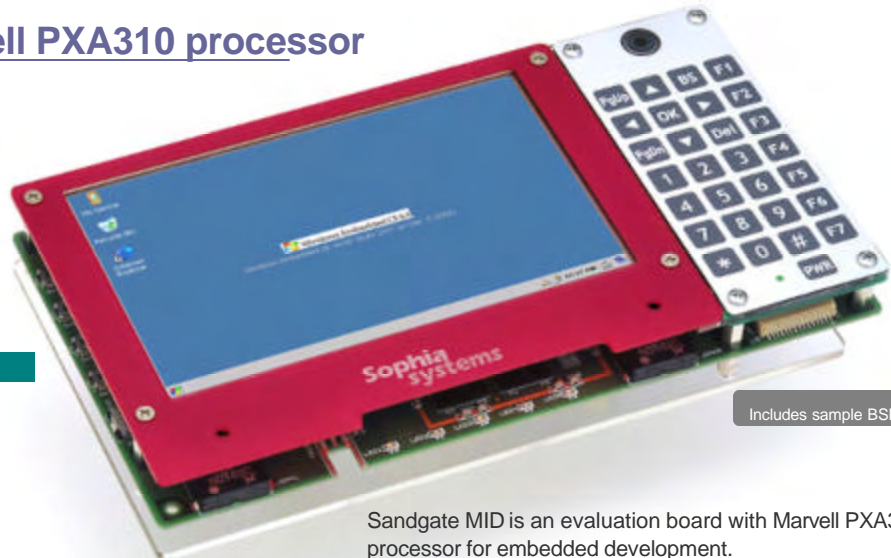
Sandgate Marvell PXA310 MID Reference Platform

Equipped with Marvell PXA310 processor
Evaluation board

RoHS

WinCE Linux

- 4.3 inch LCD
- Touch panel
- USB
- SD
- IrDA
- Wireless LAN
- GPS module
- 3 stem acceleration sensor
- Terrestrial magnetic sensor



Includes sample BSP

Sandgate MID is an evaluation board with Marvell PXA310 processor for embedded development. Shorten development time for PXA310 MID devices, and provide known good development platform. environment.

Advantages

1 Speedy development for customer applications
Development environment Solution Set includes hardware platform, BSP, JTAG emulator with WATCHPOINT debug to ensure maximum productivity. way. The Sandgate MID is also an excellent application and middleware demo platform for your project or proposal.



Debugger

2 Develop of hardware & software in parallel
Hardware and Software sales can pass along the Sandgate MID to sales and marketing for rock solid demonstrations while your hardware project is in completion.

Mrkt. Group

H/W Group

S/W Group

Parallel development

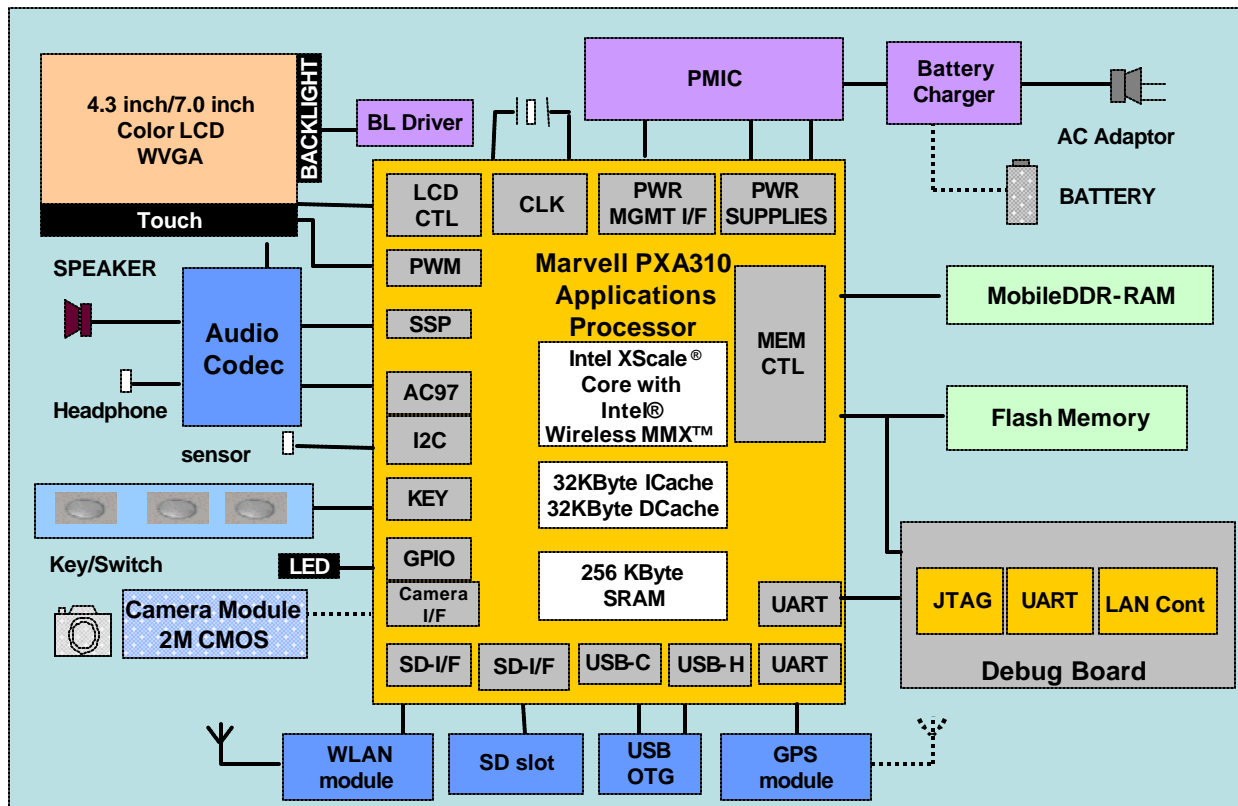
3 There are two evaluation boards. A fully functional unit with keyboard and LCD, and a board only with I/O connections for your hardware, display and keys.



4 Custom development can be based on this product.

Sophia Systems can develop and manufacture your project including custome boards, design circuitry, PCB, EMC, parts procurement, mount basis, test, chassis and control design, mass production, etc. Using the Sandgate MID as a base platform, it is possible to save time and money getting to market even faster.

Sandgate MID block diagram



SandgateMID specification RoHS compliant

Hardware	BDT034 LCD4.3 inch standard type	BDT034B Hardware LCD key budless simple type
CPU	Marvell PXA310	
Operating frequency	624MHz (Max)	
Memory RAM	128MB Mobile DDR	
Flash memory	256MB NAND Flash	
USB	AB type connector, support OTG*	
LCD	4.3 inch TFT color	
Display type	800 x 480 dot	
Display resolution	260,000 color (65,000 color)	
Color number	-	
Touch panel	LCD resistance type	
Key bud	loaded 28 key	
Capability	LED	
WLAN	IEEE802.11b/g	
Camera	2M pixel CMOS (option)	
GPS	Loaded module. External antenna (option)	
Sensor	3 stem acceleration sensor. Terrestrial magnetic sensor	
I/F	Ver1.3 SIR	
Card slot	SD card slot	
Connector for extension	120 pin	
Input/Output sound	Output speake (left-right 2) input mike (mini jacket)	
	Stereo head phone output mini jacket	
CODEC	WM9713L	
Power External power	DC5V(±5%)	
External size	157x85x23(mm)	157x85x13(mm)
Weight	210g (only hardware, include extension unit)	90g (only hardware, include extension unit)
	*HOST supports USB2.0 FullSpeed; CLIENT supports USB2.0HighSpeed	
Extension board		
LAN	100BASE-TX RJ-45 connector	
Serial	UART	
JTAG	20 pin Sophia for emulator	
Camera development kit (shipping option)		
Camera	2M pixel CMOS	
GPS development kit (option)		
GPS external antenna	cable length 2m	
BSP		
	BSP for Windows CE	BSP for Linux
Drivers	Supports WinCE6.0 R2 +boot load, +display driver, +touch panel driver, audio driver, Ethernet driver, serial driver, USB driver, Wireless LAN driver, SD driver, +Keyboard driver	Supports Linux kernel 2.6.xx + boot load, +display driver, +touch panel driver, audio driver, Ethernet driver, serial driver, USB driver, Wireless LAN driver, SD driver, +Keyboard driver
Driver with + mark is included with sample BSP.		

SandgateMID options

Camera development kit

Camera module, sample driver soft
VK0059






GPS development kit

GPS external antenna, sample driver soft
VK0058

*In addition to boot load, the User can select which drivers to install into the SandgateMID.







Hardware Models

Option Software & BSP Options

	BDT034 SandgateMID	BDT034L SandgateMID Linux	BDT034B SandgateMID Board	Windows CE BSP SGMID_WECE6 BSP	Linux BSP SGMID Linux BSP
					
	w/ Sample CE BSP * 1	w/ Sample Linux BSP * 1		Standard BSP Support OS: Windows CE6, SG	Standard BSP Support OS: Linux 2.6.x
Outline	4.3 inch touch panel LCD model		Board without LCD / keypad	U60413	U60414
Note	SandgateMID hardware	SandgateMID hardware	Basis for SandgateMID development (case, LCD, without key board)	BSP update service * 3 (Available via FTP download)	
Product structure	Debugger board	Debugger board	Debugger board	Circuit figure, kernel, boot loader	Circuit figure, kernel, boot loader
	AC adapter, serial cable, LAN cable, CD (with documentation and tutorial)				
	Boot loader is pre-installed into the board with initial purchase delivery * 2				
Price					

Options

Companion Products

	GPS Development kit SandgateMID GPS kit	Camera development kit SandgateMID CAMERA kit	JTAG emulator EJ-SCT/JTAG works on hard/soft debugger	Equipped PXA320 Sandgate3	Equipped PXA310 Mobile type platform Sandgate3-P.
					
			Move OS, develop boot loader, write to on board flash.		
	VK0058	VK0059	SCD-SCM9100	BDT025A	BDT028x
Structure	GPS external antenna, Sample driver soft	Camera module, sample driver soft	JTAG emulator hardware, AC adapter	Hardware, special flash writer, AC adapter, circuit figure, part list, CPLD data (source and binary)	
Other items:	n/a	n/a	WATCHPOINT debugger [SCM9100] Sophia support service for 1 year [SSS010] included with WinCE development Platform Builder-WATCHPOINT related soft [U43414] \$1,075.00 Linux development For Linux kernel / loadable module WP add in soft [U42499] \$1,075.00	Standard 5.7 inch touch panel LCD	Option 5.7 inch extension LCD kit 

* 1. simple BSP does not include updates. * 2. Purchase JTAG emulator for boot loader writing. User does need to write OS image after re-building OS.
* 3. Valid term for BSP updates is 1 year from the purchase date.

Solution Set – Purchase the complete Package at a discount!

Solution Set (line-items)

- SandgateMID hardware
- BSP (WinCE or Linux)
- EJ-SCT/JTAG Universal
- WATCHPOINT Debugger - PXA Series
- WATCHPOINT plug-in for WinCE or Linux OS Source code debugging
- Sophia Support Service

Contact Sophia Systems regarding WinCE R3 and Windows7 availability.

Inquire about support and pricing for WiMAX module XGP

Notices: All brands and product names are trademarks or register trademarks of their respective companies. All configurations are subject to change without notice. Yearly Sophia Support Service purchase provides expert technical support and software updates.

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