DG1250-SBC ver2.0 Product Brief

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DG1250-SBC is a Ready-to-Use Single-Board-Computer (SBC) designed to enable developers to quickly create the next generation of small, embedded, multi-functional products, such as IPTV-STB, network video player, home media gateway, POS terminals, KIOSK, automotive, navigation devices, industry panel PC and acquisition terminals. The board incorporates a high performance RMI Alchemy AU1250 processor, DDR2 SDRAM and an extensive set of interface controllers, provides high-performance computing power and unique multimedia support (MPEG1, MPEG2, MPEG4, WMV9, DIVX, H.264, RM, RMVB decoding at full D1 30fps) at low power consumption.

DG1250-SBC package includes：

1. DG1250-SBC Single-Board-Computer
2. WindowsCE5.0 bootloader / BSP and CE image building guide
3. DG1250-SBC Single-Board-Computer User Guide
4. Optional Accessories：
   - ✓ DG1250-SBC-DEBUG-A　　Serial debug adapter for DG1250-SBC
   - ✓ DC12V2A　　12V2A AC/DC Power adapter
   - ✓ REMOTE　　IR remote with 18keys (custom OEM service also provided)
   - ✓ LCD-KIT-A　　LCD panel with touch screen
     - 10.4” TFT LCD, 800x600 resolution
     - LCD Backlight Inverter
     - 10.4” 4-wire resistance touch screen

DG1250-SBC specification：

CPU		CPU	Au1250@400MHz / 500 / 700MHz
		NOR Flash	512KB with bootloader pre-installed
		DDR SDRAM	DDR-2, 128MB
		RTC	CPU Built-in Real Time Clock, Battery backed
Peripherals	Audio	Microphone In	Mono
		Line Out / Headphone	3.5mm Jack, Stereo output
		Amplifier	On-board 2W x 2ch, stereo output to 2 speakers
	Video out	LCD	TTL Interface for 18bit TFT LCD panels
			Single & Dual channel LVDS Interface for 18/36bit or 24/48bit TFT LCD panels.
		VGA	DB-15 VGA port
		Backlight Control	On-board backlight control interface, with ON/OFF and Brightness control
		Resolution & Frame rate	Supports 4.3” to 20”plus LCD panels, from 320x240 to 1280x1024 resolution, resolution & frame rate configurable through 6bit jumpers, All resolutions support full screen video playback
	USB	Host	4 ports. USB2.0 High speed (480Mbps). compatible with USB 1.1
	Storage	SD Card	1 x microSD card slot, used like one IDE disk on PC, support SDHC up to 32GB
		USB-disk	USB expansion
	Network	10/100Mbps	1 x RJ45 port, with Link/Act LED indication
		802.11bg WiFi (optional)	USB Wifi dongle
		GPRS / CDMA1x (optional)	UART TTL expansion
		GPS (optional)	UART TTL expansion
		Blue-tooth (optional)	USB expansion
		HSDPA (optional)	USB expansion
	Serial Ports	UART with HW flow control	1 x DB9 Jack, standard RS232, or 1 x 6-pin Header TTL signal level, can be used for GPRS/CDMA1X modems, GPS modules etc
		I2C	I2C header for Sensors or GPIO expansion
	Human Input	Touch Screen	On-board 4-wire / 5-wire(optional) resistance touch screen controller
		Keypad	On-board 8 x 8 Keypad controller
		Remote controls	Universal infrared remote control receivers, up to 128 buttons, POWER_ON/OFF button supported. For custom keymap, please contact us.
		Keyboard / Mouse	USB expansion
	LEDs	Indication LEDs	1 x Dual color (Red/Green) Power/Boot status ~~indication LED, can be control by user application~~; 1 x Ethernet activity indication LED

			1 x Card activity indication LED
	Expansion	Daughter Card (optional)	On-board 4 fixing holes for user customized add-in card
		Sensors (optional)	On-board Sensor header for user Sensor add-in module, such as IR detection.
	Debug & Maintenance	Debug Port	3-wire RS232 Debug Port
		Ethernet	10/100Mbps connection, KITL supported
		Boot Mode	Booting from the following 3 sources, selectable by jumpers 1. CLI 2. MicroSD card(default) 3. Ethernet
		Reset button	1 x Reset button
		LED	On-board indication LEDs
	Power	12V DC-Input	5W max for spare board.
	Mechanical	Size	Standard 3-inches industry computer, 146mm(L) x102mm(W) x 25mm(H)

DG1250-SBC Advantages：

- ✓ DG1250-SBC has industry standard 3.5 inch small form factor, can be easily used in *space conservative* environments.
- ✓ 400-700MHZ CPU, DDR2 SDRAM, high performance experience
- ✓ Innovative ***Micro-Drive technologies***, using the microSD card like a hard disk on PCs. Users only put the boot logo(logo.bmp) and WinCE OS image(NK.bin) in the microSD card to make the board a windowsCE powered computer, this also make field and remote maintenances very convenient.
- ✓ On-line NK.bin and boot logo upgrading supported
- ✓ Both of single and dual channel LVDS output supported. Dual channel LVDS is dedicated for 17”plus LCD panel
- ✓ 320x240 to 1280x1024 resolution, resolution & frame rate configurable through jumpers
- ✓ built-in 8x8 keypad and IR receiver；
- ✓ 802.11bg WiFi total solutions；
- ✓ Hive based registry is ready.

DG1250-SBC Ordering information：

DG1250-SBC-400-18 LVDS	DG1250-SBC Single Board Computer, 400MHZ, with 18/36bit
DG1250-SBC-400-24 LVDS	DG1250-SBC Single Board Computer, 400MHZ, with 24/48bit
DG1250-SBC-500-18 LVDS	DG1250-SBC Single Board Computer, 500MHZ, with 18/36bit
DG1250-SBC-500-24 LVDS	DG1250-SBC Single Board Computer, 500MHZ, with 24/48bit
DG1250-SBC-700-18 LVDS	DG1250-SBC Single Board Computer, 700MHZ, with 18/36bit
DG1250-SBC-700-24 LVDS	DG1250-SBC Single Board Computer, 700MHZ, with 24/48bit