

Windows CE mitePC-LCD

WCE50 Features

You can see what can be inserted in Windows CE Image for mitePC-LCD64 Computer. Similar Features are also ready for use in Windows CE Images created for other Types of mitePC-LCD.

Driver

Driver	Description	Notice
FFUART	FFUART supports the full RS232 specification with all 9 signals.	
BTUART	BTUART only supports RXD/TXD/CTS/RTS	
IRDA	Handles the PXA270's IrDA port	
Ethernet	10/100Mbit driver for Davicom DM9000	
USB Host	2 Ports supporting mass storage devices (USB-stick, hard disc, CD-ROM...) and other devices as keyboard, mouse, USB hub...	
USB Client	Can be used as ActiveSync connection, mass storage or RNDIS	
Audio	16Bit stereo output (up to 48kHz), mic input, line-in	
Touch Screen	All 4-wire resistive screens supported	
Display	All types of displays supported. Easy configuration in registry	
PS2 Mouse	Supports any standard PS/2 mouse	
PS2 Keyboard	Supports any standard PS/2 keyboard	
Compact Flash	Memory cards, Wireless LAN, modem, Bluetooth, serial card, GPS, GSM, ...	
SD/MMC	Memory cards, Wireless LAN, Bluetooth, GSM, GPS ...	
Wireless LAN	Support for Pretec's Compact WLAN (CF) and Socket's E300(SDIO) card	
Flash File System	Standard FAT as well as TFAT (transaction safe FAT) are supported	
Matrix Keypad	Fully customizable through registry (MK_IN, MK_OUT and scan code to virtual key)	*)
External UART	Support for external 16550-compatible UARTs that are attached to the system bus (up to 8 ports)	*)

Windows CE Services

Service	Description	Notice
FTP Server	Access using the FTP File Transfer Protocol	
HTTP Server	Allows to act as a web server	
Time Server / Client	Synchronize time with the network using the NTP protocol	
File Server	File sharing over the network using the SMB protocol	
OBEX Server	Protocol for IrDA File Transfer	
Telnet Server	Access using the Telnet protocol	
Mail Server	SMTP, POP3 and mail sender services	*)
Web Shop	Shopping cart, product selector, mail order form	*)

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Windows CE Special Features

Feature	Description	Notice
Bootloader	Configuration through RS232, clear flash registry, download image to RAM, download image to Flash, set/save config structures, define initial GPIO configuration. Debug Functionality: erases flash range, write/read 32bit value at address.	
Splash Screen	Display default start-up screen while Windows CE is booting.	
AutoStart	Automatically execute programs upon system boot or upon removable media insertion	
AutoCopy	Automatically copy files to the RAM file system upon system boot or upon removable media insertion. This, for example, can be used to add items to the Windows CE START menu button.	
GPIO Interrupts	Each GPIO can be configured to act as an interrupt source	
Update Tool	Save registry to flash, clear registry on flash, update Windows CE image, show BSP revision, warm reboot, cold reboot	
GPIOConfig	Configure input/output/alternate function of each GPIO at startup	
Tweak	Display and adjust system parameters as CPU clock, bus clock, core voltage, sleep modes, flash timings, SDRAM/DRAM timings, PCMCIA timings. Change serial number and flash layout. Configure display settings on the fly.	
AC97 Tweak	Audio input settings: source left/right, micboost, gain left/right, DC filter, High pass, mute. Audio output settings: gain left/right, bass, treble, de-emphasis, headphone driver, mute. Audio test features	
You can order next special features by MITE		
CibrCustomize	Automatically configure the registry for your own settings (Using .reg file).	*)
.Net Framework 2.0 Flash Installer	Install the .Net Compact Framework 2.0 to the flash memory	*)
Internet Explorer Flash Installer	Install the Microsoft Internet Explorer to the flash memory	*)
Multilanguage Support	Add additional languages to your system (can be switched at runtime)	*)
SplashScreen Customizer	Show your own screen while Windows CE is booting	*)
To interface between your desktop PC and the mitePC-LCD64 we provide the following Windows XP utilities		
Cibr Loader	Load bootloader over JTAG, load Images over JTAG , Ethernet, RS232	
Remote Display	Control module by a desktop PC (keyboard, mouse, display, file transfer) using a connection through ActiveSync (USB) or Ethernet.	
The following Windows XP utilities are also available and can be purchased		
Win CE Image Compressor	Reduce the size of the Windows CE Image to about 50%. This leaves more flash space for user applications or the flash file system	*)

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Source Code Examples

The following examples are provided as ready-to-use software projects for Embedded Visual C++.

Samples / Libraries	Description	Required Libraries	Notice
Hardware Register Access	Simple direct hardware register access (GPIO register access is shown as an example)	-	*)
Interrupts	Simple interrupt handling (GPIO interrupt is shown as an example)	-	*)
GPIOlib	Basic functions for accessing GPIO (Set/GetGPIOLevel, Set/GetGPIODir, Set/GetGPIOAltFn, and some more)	-	*)
PWM / DA – Converter	Use the PXA's integrated PWM unit. The PWM signal can be used for example as a simple digital-to-analog converter	GPIOlib	*)
AC97 / AD-Converter	Communicate with the audio codec and use the four analog-to-digital channels.	GPIOlib	*)
I2C	Transfer data through the the I2C unit	-	*)
Advanced Interrupt	Use an installable Interrupt Service Routine (ISR) and fast interrupt handling (FIQ)	-	*)
SPI	Configure the SSP unit to be used as a standard SPI interface	GPIOlib	*)
Advanced SPI	Configure the SSP unit to be used as a standard SPI interface. (Faster version featuring interrupt handling)	GPIOlib	*)
CAN	Transmit and receive CAN packets with the SJA1000 CAN controller as it is implemented on the Evaluation Board	-	*)
RTC synchronization	Automatically synchronize the system time to an external RTC	I2C	*)

All Items are not available for every Windows CE Image. Ask for Details by mail at support@mite.cz.

*) Ask for our offer.

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