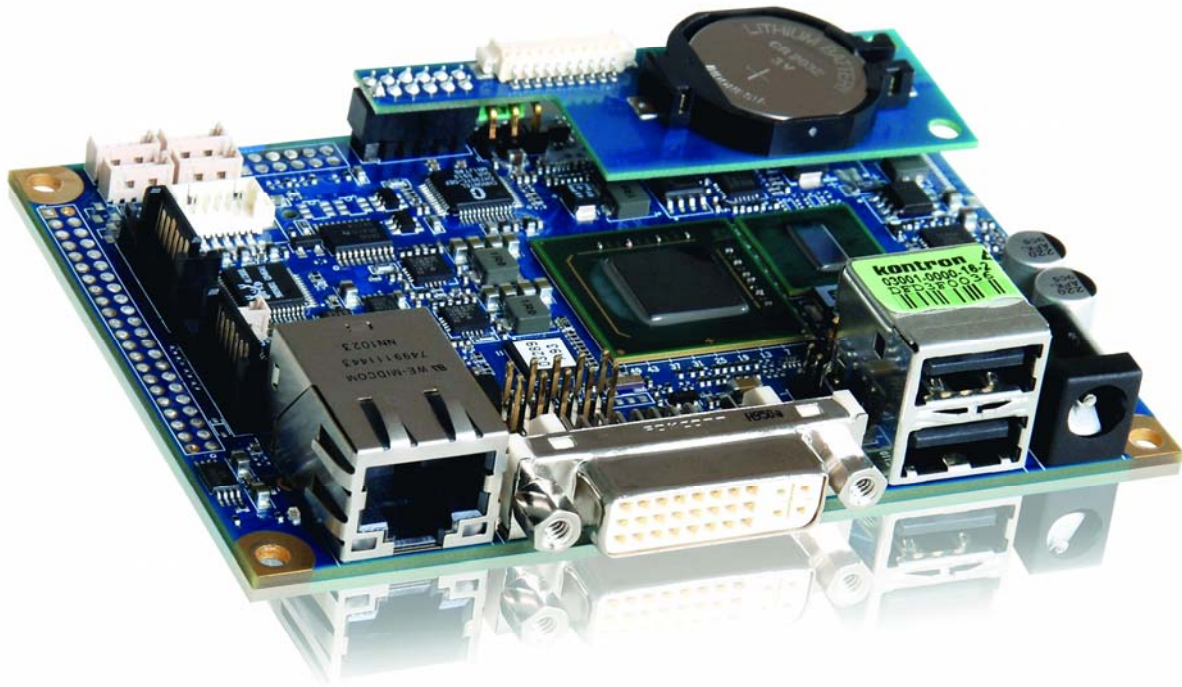


>> WES 7 Guide <<

Windows Embedded Standard 7



pITX-SP
KTD-S0012-0

 **Pico™**

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1 User Information

1.1 About This Document

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KONTRON Technology's products are not for use as critical components in life support devices or systems without express written approval of the general manager of KONTRON Technology A/S.

As used herein:

Life support devices or systems are devices or systems which

- a) are intended for surgical implant into body or
- b) support or sustain life and whose failure to perform, when properly used in accordance with instructions for use provided in the labelling, can be reasonably expected to result in significant injury to the user.

A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system or to affect its safety or effectiveness.

1.7 Technical Support

Please consult our web site at <http://www.kontron.com/support> for the latest product documentation, utilities, drivers and support contacts. In any case you can always contact your board supplier for technical support.

Before contacting support please be prepared to provide as much information as possible:

Board identification:

- ☐ Type
- ☐ Part number (find PN on label)
- ☐ Serial number (find SN on label)

Board configuration:

- ☐ DRAM type and size
- ☐ BIOS revision (find in the BIOS Setup)
- ☐ BIOS settings different than default settings (refer to the BIOS Setup section)

System environment:

- ☐ O/S type and version
- ☐ Driver origin and version
- ☐ Attached hardware (drives, USB devices, LCD panels ...)

2 Introduction

This document explains in detail how to install the Kontron **B**oard **S**upport **P**ackage (BSP) and how to create a bootable SD-Card for

Microsoft® Windows® Embedded Standard 7

The Kontron Board Support Package supports the following features:

- Graphic: DVI and LVDS interface (18/24 bit color depth)
- LAN: operation at 10/100/1000 Mbps
- USB: all six ports with USB 1.1 and USB 2.0 devices
- S-ATA: both ports with native and AHCI mode
- P-ATA: one port including CF card support
- Audio: analog interface with 24 bit / 192 kHz
- SDIO: microSD with SDHC feature (capacity > 2 GB) and standard SDIO

3 BSP Installation

To install the support files for *pITX-SP* start the supplied [pITX-WES7-Setup.msi](#). The Windows Embedded Standard 7 tools must be installed on the workstation.

At request choose the directory of your distribution share. All support files will copied to their appropriate places. Several templates will be installed for use as a starting point.

4 Creating a WES 7 bootable SD-Card

4.1 Build a WES 7 Image

Take the following steps:

- ❶ Click [Start -> All Programs -> Windows® Embedded Standard 7 -> Image Configuration Editor](#).
- ❷ In [Image Configuration Editor](#) click [File -> New Answer File](#).
- ❸ Add the [Template\Kontron\pITX-SP\pITX-Sample \(SD-BOOT\)](#) template from the [Distribution Share](#) pane on the left to the [Answer File](#) pane by right clicking the template and choosing [Add to Answer File](#).
- ❹ Click [Validate -> Add Required Packages](#).
- ❺ In [Image Configuration Editor](#) click [Tools -> Create Media -> Create IBW Image from Answer File](#). In the [Create IBW Disk](#) dialog browse to the drive letter of a formatted bootable USB flash disk.

4.2 Install the Operating System on Hard Disk

Take the following steps:

- ❶ Power on the hardware. If the USB flash disk is not the default boot device press F11 to get a boot selection menu.
- ❷ Proceed to install to the hard drive. Make sure the system is installed onto one single partition.
- ❸ After finishing the installation make any necessary changes to the installed system.
- ❹ Check if the system recognizes inserted SD-Cards by inserting any SD-card into the slot.
Caution: This step is mandatory as Windows® will add necessary registry entries at this time. Without this step the system won't boot from SD-Card.
- ❺ Optionally run [sysprep](#) from [c:\windows\system32\sysprep\sysprep.exe](#).
- ❻ Power off the hardware. Don't boot into the system on hard disk.

4.3 Creating a USB Disk for Capturing

Take the following steps:

- ❶ On the development workstation open an administrative command prompt by clicking [Start -> All Programs -> Windows Embedded Standard 7](#), right click [Windows PE Tools Command Prompt](#) and choose [Run as Administrator](#). Choose [Yes](#) to launch the program.
- ❷ Type [sdwinpe >drive:<](#), where [>drive<](#) is the letter of the USB key to use.
- ❸ A list of partitions will be shown. Select the partition corresponding to the USB drive. All data on this drive will be cleared.
- ❹ After formatting the drive all necessary files will be copied to the USB drive.

4.4 Using the USB Disk to Capture the Image

Take the following steps:

- ❶ Power on the OEM hardware. If the USB flash disk is not the default boot device press F11 to get a boot selection menu.
- ❷ Wait until the Windows® PE command prompt appears.
- ❸ From the Windows® PE command prompt type `d:\imagex.exe /capture c: d:\wes.wim "Windows Embedded Standard" /NORPFX` and press enter.
- ❹ Once `imagex.exe` is complete type `wpeutil shutdown` and press enter. The OEM hardware will shut down and power off.

4.5 Applying the Image to SD-Card

4.5.1 On the Target Hardware

Take the following steps:

- ❶ Power on the OEM hardware. If the USB flash disk is not the default boot device press F11 to get a boot selection menu.
- ❷ Wait until the Windows® PE command prompt appears.
- ❸ Insert the target SD-Card.
- ❹ From the Windows® PE command prompt type `c:\applyimage d: c:\wes.wim`.
Note: d: denotes the target drive, c: the USB drive. The order of drives may be different if a hard disk is connected.
- ❺ A list of partitions will be shown. Select the partition corresponding to the SD drive. All data on this drive will be cleared.
- ❻ After formatting the drive the image will be applied to the SD-Card.
- ❼ Once `imagex.exe` is complete type `wpeutil shutdown` and press enter. The OEM hardware will shut down and power off.
- ❽ Disconnect USB drive and boot into SD-Card.

4.5.2 On the Development Workstation

Take the following steps:

- ❶ On the development workstation open an administrative command prompt by clicking `Start -> All Programs -> Windows Embedded Standard 7`, right click `Windows PE Tools Command Prompt` and choose `Run as Administrator`. Choose `Yes` to launch the program.
- ❷ From the command prompt type `applyimage >drive:< >wimfile<`.
Note: >drive< denotes the target drive. >wimfile< is the previously captured image.
- ❸ A list of partitions will be shown. Select the partition corresponding to the SD drive. All data on this drive will be cleared.
- ❹ After formatting the drive the image will be applied to the SD-Card.

Appendix A: Reference Documents

KONTRON Technology A/S can't guarantee the availability of internet addresses.

Document	Internet Address
Learn Windows Embedded Standard 7	http://msdn.microsoft.com/en-us/windowseembedded/standard/ff625253.aspx

Appendix B: Document Revision History

Revision	Date	Author	Changes
S0012-0	07/01/10	A. Stauffenberg	Created preliminary manual

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