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*Team*PoS® *3000* XL²
Windows® 7 Controller Device Installation Primer

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1. **Overview**

*Team***PoS***3000* XL² introduces a new motherboard option to the *Team***PoS***3000* point-of-sale terminal family. The features of *Team***PoS***3000* XL² are summarized below. Windows® 7 includes the required device drivers for *Team***PoS***3000* XL². However, there are updated drivers or additional software that can be installed. This document addresses the installation of the additional drivers.

	*Team***PoS***3000* XL²
CPU	Intel® Core 2 Duo
Chipset	Intel® GME965 & ICH8-M
FSB	800mhz
Max. Memory/ Type	Up to 4GB* DDR2 Non-ECC memory
Video	Intel® integrated
Video Memory	256MB Shared
Video Driver	Intel® Graphics Media Accelerator
RAID	Intel® ICH8-M Matrix Storage RAID 0/1
Hard Drive Type	SATA
BIOS	Phoenix TrustedCore™
Trusted Platform Module	Infineon v1.2 TPM
LAN	10/100/1000Mbit

* Note:

Windows 7 may report significantly less memory than the configured 4GB RAM actually installed. This is due to the way the operating system handles system resources that require addressing which overlaps physical memory below 4 GB, such as:

– System BIOS
– Motherboard Resources (I/O APIC)
– Memory Mapped I/O
– PCI Express Configuration Space*
– Additional PCI Device Memory
– VGA Memory (Video aperture)
– Other chipset and system devices

These requirements may reduce the addressable memory space available to and reported by Windows. These memory ranges, while unavailable to the OS, are still being utilized by subsystems such as I/O, PCI, and Integrated Graphics.

This document addresses the steps necessary to setup the *Team***PoS***3000* XL² controller slice system devices using a fresh installation of Microsoft Windows 7.

2. *Team*PoS*3000* XL² Hard Disk Subsystem

The *Team***PoS***3000* XL² hard disk subsystem utilizes Serial ATA (SATA) hard drives via the integrated Intel® SATA Host Controller. The *Team***PoS***3000* XL² also incorporates Intel® Matrix Storage Technology providing both Advanced Host Controller Interface (AHCI) and software RAID 0/1 capability for improved storage speed and data redundancy. Windows 7 incorporates drivers for the hard disk subsystem, so no additional driver install is required.

AHCI and RAID functionality are *"Enabled"* by BIOS setting. By default, *Team***PoS***3000* XL² will have RAID *"Enabled"*, facilitating, but not requiring, RAID 0 or RAID1 array configurations. Also, IOAPIC is *"Enabled"* by default as well, and is the recommended setting for Windows 7. The screens below depict these BIOS settings.

If AHCI and RAID functionality are to be *"Disabled"* in the BIOS, the screens below depict these BIOS settings.

Note: the AHCI BIOS selection option is hidden if SATA RAID is "Enabled". See image below.

Microsoft Windows 7 release media includes required driver support for *Team***PoS***3000* XL² mass storage devices.

3. **Initial *Team*PoS3000 XL² Setup**

Install Windows 7 from release media.

Once Windows 7 is installed and loads to the desktop, a look at the Device Manager will show all devices recognized, enumerated, and setup.

The following procedure describes installing of *Team***PoS3000 XL²** video drivers and associated utilities.

4. *Team*PoS3000 XL² Video

The *Team***PoS3000 XL²** utilizes the Intel® GME965 chipset, which includes on-motherboard dual-head video support for analog and DVI output, and Intel Graphics Media Accelerator Driver.

a. Video Driver Installation

To install the Intel Video Drivers for the *Team***PoS3000 XL²**, you will need to run Windows Update and select the Optional Update "**Display – Mobile Intel® 965 Express Chipset Family**". Windows Update will install the Intel® Drivers.

b. Video Display Configuration

Use the Intel Graphics Media Accelerator Driver video setup utility to manage video settings. The utility can be launched from the task tray icon *Intel Graphics Media Accelerator Driver for Mobile*; select "Graphics properties", or launch from *Display Control Panel/Settings/Advanced/Intel Media Accelerator Driver for Mobile/Graphics Properties*

Graphics modes, such as single, extended, etc., can be manipulated from this screen. Display properties, such as resolution, can be found by clicking the *Display Settings* tab on the left navigation pane.

Note the entries under the *Single Display* area in the picture below. Three displays are itemized, *Monitor*, *Digital Display*, and *Notebook*.

Monitor refers to the display connected via the analog (VGA) connection.

Digital Display refers to the display connected via the DVI connection.

*Team***PoS3000**XL²

*Team*PoS3000 XL² utilizes Intel's GME965 chipset, which supports multiple video channel output. This chipset is typically targeted at the notebook computer market. It is used in *Team*PoS3000 XL² because of its dual-monitor capability. Either analog or DVI monitors can be utilized in single or dual configurations on *Team*PoS3000 XL².

This section discusses video management under Microsoft Windows® operating systems.

Intel's Graphics Media Accelerator Driver is used for video display. Display can be configured for:

- single display, either analog or DVI,
- dual display, one analog and one DVI monitor, in "Clone" mode where the same display is presented on both monitors
- dual display, one analog and one DVI monitor, in "Extended" windows mode

At system start-up, the Graphics Media Accelerator Driver determines the physical display devices, analog and/or DVI, attached to the *Team*PoS3000 XL².

5. *Team*PoS3000 XL² Network Adapter

The *Team***PoS3000 XL²** on-motherboard supplied network adapter is an Intel 82566DC chip, and enumerates as *Intel 82566DC Gigabit Network Connection* named device. No additional driver installation required.

6. *Team*PoS3000 XL² Audio

The *Team***PoS3000 XL²** on-motherboard supplied audio is a Realtek High Definition audio device. Windows 7 provides the Audio drivers, so no additional driver install is required. However a Realtek audio package is provided and can be installed using the instructions below.

Navigate to the folder containing *Team***PoS3000 XL²** Audio drivers and launch Vista_Win7_R246_x86.exe. In this example, the install program is located in:

C:\TeamPoS3000XL2_Software_Support\Control Unit\Base TeamPos3000 Drivers\Audio\Win7

Run the installation to completion, and restart the system when requested. A Found New Hardware pop-up may be displayed for a short time. It will be closed when the installation completes.

« Control Unit ▸ Base TeamPos3000 Drivers ▸ Audio ▸ Win7
Search Win7
File Edit View Tools Help
Organize Open Burn New folder
TeamPoS3000XL2_Software_Supp
CashDrawer and POSPower
CiscoAirPI21AG-A-K9
Control Unit
Base TeamPos3000 Drivers
Audio
Vista 32_64
Win XP
Win7
BIOS
Chipset
Graphics
LAN
ICH8ME_RAID
IntelMatrixStorage
IntelRAIDStorageDriveFloppy
TPM
JavaPOS
Keyboards
LCD Display Touch
OPOS
Printers
Name
Date modified
Type
Size
Vista_Win7_R246_x86.exe
4/6/2010 3:14 PM
Application
28,789 K
Vista_Win7_R246_x86.exe Date modified: 4/6/2010 3:14 PM Date created: 4/7/2010 7:35 AM
Application Size: 28.1 MB

Realtek High Definition Audio Driver Setup (2.97) R2.46
Realtek High Definition Audio Driver R2.46
Setup Status
Realtek High Definition Audio Driver is configuring your new software installation.
Installing
InstallShield Wizard is installing ...
InstallShield
Cancel
Win7
Taskbar and Start ...
Realtek High Defi...
2:00 PM
4/12/2010

7. *Team*PoS3000 XL² Trusted Platform Module

The *Team***PoS3000 XL²** incorporates the Infineon Trusted Platform Module (TPM) Solution. Windows 7 installs TPM 1.2 driver.

To install the TMP Professional Software Package, navigate to the folder below and run Setup.exe.

C:\TeamPoS3000XL2_Software_Support\Control Unit\TPM\IFX_TPM_Professional_Package_SW_3[1].0.SP1

Also, a tray icon is added.

When starting Windows, a balloon pop-up message is displayed, indicating the TPM module is not initialized. As desired, initialize the TPM for use with the Infineon Security Platform Solution application – *Start\Programs\Infineon Security Platform Solution\Manage Security Platform.* On-line help is available.

If TPM support is not desired, the feature can be totally disabled in BIOS. Navigate to the *Security Tab* and set *TPM Support* to "*Disabled*".