

Windows 8 BIOS Setting VIG646 (PMPMS646)

Vig646M system configured with Windows 8 will have following default BIOS settings. It is strongly recommended that these BIOS settings are not disabled for a Windows 8 64Bit Operating system. Below settings are only available with BIOS version E7677AV1.721 onwards.

Windows 8 Features[Enabled]MSI Fast BOOT[Enabled]Fast Boot[Enabled]Secure Boot[Enabled]

To enable downgrade to Windows 7 or XP operating system BIOS settings must be changed to boot into Legacy BIOS mode. Above BIOS settings should be changed to [Disabled]

Note

Please ensure the changes of the following settings are performed by personnel with some previous experience/knowledge of altering BIOS settings.

Accessing BIOS Setup

To access the BIOS when MSI Fast boot is enabled you will need to power down the system and wait 20 seconds before powering up the system; on power on Press the {DEL} key to access BIOS setup.

Enabling/Disabling Windows 8 Features

1. From the BIOS main menu select 'Advanced'

| Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc. Main Menu Advanced Overclocking M-Flash Security Boot Save & Exit | | | |
|--|--|---|--|
| System Date System Time SATA Port1 SATA Port2 SATA Port3 SATA Port4 | [Mon 12/24/2012] [14:50:44] WDC WD2500BEVS (250.0GB) TSSTcorp CDDVD ATAPI Not Present Not Present | Set the Date. Use Tab to switch between Data elements. | |
| System Information Intel(R) Core(TM) 15-2320 CPU @ 3. CPUID/MicroCode BIOS Version Build Date ME FW Version Physical Memory Cache Size L3 Cache Size | 00GHZ 206a7/28 E7677IV1 V7.282 12/19/2012 €.1.0.1248 4096 MB 1024 KB 6144 KB | <pre>++: Select Screen ti: Select Item Enter: Select +/-: Change Opt. F1: Genenal Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset</pre> | |
| Version 2.15.1227. Copyright (C) 2011 American Megatrends, Inc. | | | |

Viglen Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ

Tel: 01727 201 850 | Fax: 01727 201858 | Email: technical@viglen.co.uk| Web: www.viglen.co.uk



2. In the 'Advanced' tab scroll down the options to 'Windows 8 Configuration' and select this option



3. In the 'Windows 8 Configuration 'menu **select** 'Windows 8 feature' and **choose** 'Enable ' if the system is to be configured with Windows 8 64Bit Operating System. For Windows 7 and Windows XP operating systems it should be set to Disabled.

| Aptio Setup Utilit | y – Copyright (C) 2011 America | n Megatrends, Inc. |
|---|---|---|
| Windows 8 Feature | [Enabled] | Select witch OS to boot or install |
| MSI Fast Boot Fast Boot USB Support PS2 Devices Support SATA Devices Support Internal GOP Configuration Secure Boot | [Enabled] [Full Initial] [Enabled] [Enabled] | |
| | R | <pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset</pre> |
| Version 2.15.1227 | 7. Copyright (C) 2011 American | Megatrends, Inc. |

Viglen Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ



'MSI Fast Boot' - If Enabled, USB devices (keyboard and drives) will not be available until after OS boot, but BIOS will boot faster.

MSI Fast Boot [Disabled]

'Fast Boot' - It is recommended that this option is **'Enabled'** for Windows 8 operating systems to ensure the boot up sequence is performed at the fastest possible time.

| Windows 8 Feature | [Enabled] | If Disabled, all USB devices |
|----------------------------|-----------------|---|
| MSI Fast Boot | [Disabled] | after OS boot. If Partial |
| Fast Boot | [Enabled] | Initial, specific USB |
| USB Support | [Full Initial] | port/device will NOT be |
| PS2 Devices Support | [Enabled] | available before OS boot. If |
| Internal COP Configuration | [Eugored] | Enabled, all USB devices will be available in OS and Post |
| Secure Boot | | be available in 05 and 10st. |
| | Partial Initial | <pre>++: Select Screen f1: Select Item Enter: Select +/-: Change Opt. F1: General Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset</pre> |

'USB Support' this can be set to three options:

- Disabled This option will disable all USB devices until after OS boot
- Full Initial This option will enable all USB devices in POST and OS
- Partial Initial This option will enable the use of specific USB Port/Devices before boot



Enabling / Disabling Secure Boot

'Secure Boot' it is recommended this setting is set to **'Enabled'** to initialize the Windows 8 secure boot feature when the system boots up.

Note: Secure boot is supported under Windows 8 64Bit Operating system.

To Enable Secure Boot

- 1. Select Secure Boot from Windows 8 feature menu
- 2. Highlight Secure Boot and select Enabled

| The states | Aptio Setup Advanced | Utility – Copyright | (C) 2011 Amer | ican Megatrends, Inc. |
|----------------------------|-------------------------|-------------------------|----------------|--|
| System Mode Secure Boot | state state | User Enabled | | Secure Boot flow control. Secure Boot is possible only if System runs in User Mode |
| Secure Boot Secure Boot | Mode | [Enabled] [Standard] | | |
| | | | | |
| | | | R | →+: Select Screen fl: Select Item |
| | | | | Enter: Select +/-: Change Opt. F1: General Help F6: Optimized Defaults ESC/Right Click: Exit |
| | | | | F10: Save & Reset |
| | Version 2 | 15 1227 Conucidat ((|) 2011 Americ: | an Megatrends Inc |

3. Select 'Secure Boot Mode' and Select 'Custom'

| | Aptio Setup Utility Advanced | – Copyright (C) 2011 American | Megatrends, Inc. |
|----------------------------|---------------------------------|-------------------------------|---|
| System Mode Secure Boot | state state | User Enabled | Secure Boot mode selector. 'Standard' – fixed Secure boot policy. 'Custom' – chengeable |
| Secure Boot | | [Enabled] | Image Execution policy and |
| Secure Boot | | | Secure Boot Key databases |
| | [| Secure Boot Mode | ++: Select Screen |
| | | | Enter: Select |

Viglen Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ

Tel: 01727 201 850 | Fax: 01727 201858 | Email: technical@viglen.co.uk| Web: www.viglen.co.uk



4. Select the 'Default Key Provisioning' and select **Enabled**.

| Aptio Setup Utility Advanced | – Copyright (C) 2011 American | Megatrends, Inc. |
|---|-------------------------------|--|
| Default Key Provisioning Manage All Factory Keys (PK,KEK,DB Install default Secure Boot keys | [Enabled] ,DBX) | Force OEM default Secure Boot Keys if System is in Setup Mode |
| Platform Key (PK) > Set PK from File > Get PK to File > Delete the PK Key Exchange Key Database(KEK) > Set KEK from File | NOT INSTALLED | |
| Get KEK to File Delete the KEK Append an entry to KEK Authorized Signature Database(DB) Set DB from File Get DB to File | NOT INSTALLED | →+: Select Screen †↓: Select Item Enter: Select +/-: Change Opt. |
| Delete the DB Append an entry to DB Forbidden Signature Database(DBX) Set DBX from File Get DBX to File Delete the DBX Append an entry to DBX | NOT INSTALLED | F1: General Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset |
| Version 2.15.1227. | Copyright (C) 2011 American M | egatrends, Inc. |

- 5. Select 'Install Default Secure Boot keys' to load factory Default Secure variables.
- 6. A confirmation window will request if you would wish to install factory default secure variables select 'Yes' to confirm

| Aptio Setup Utility – Copyright (C) 2011 American Advanced | Megatrends, Inc. |
|---|--|
| Default Key Provisioning [Enabled] Manage All Factory Keys (PK,KEK,DB,DBX) Install default Secure Boot keys | Force System to User Mode – install default Secure Boot Variables(PK,KEK,db,dbx). Change takes effect after reboot |
| Platform Key (PK) NOT INSTALLED Set PK from File Get PK to File Delete the PK | |
| Key Exchange Load Default Secure Variables Set KEK from Do you really wish to Install Factory Default secure Delete the KE Append an ent Authorized Si Yes No | cure variables? |
| Get DB to File Delete the DB Append an entry to DB Forbidden Signature Database(DBX) NOT INSTALLED Set DBX from File Get DBX to File Delete the DBX Append an entry to DBX | F1: General Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset |
| Version 2.15.1227. Copyright (C) 2011 American Me | egatrends, Inc. |

Viglen Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ

Tel: 01727 201 850 | Fax: 01727 201858 | Email: technical@viglen.co.uk| Web: www.viglen.co.uk



Once the Default Secure Boot keys are installed it will state 'Installed' as shown in below

| Aptio Setup Utility - Advanced | - Copyright | (C) 2011 American | Megatrends, Inc. |
|---|--------------|--------------------|--|
| Default Key Provisioning | [Enabled] | | Force DEM default Secure Boot Keys if System is in Setup Mode |
| Manage All Factory Keys (PK,KEK,DB Install default Secure Boot keys | ,DBX) | | |
| Platform Key (PK) > Set PK from File > Get PK to File > Delta the PK | INSTALLED | | |
| <pre>key Exchange Key Database(KEK) Set KEK from File Get KEK to File </pre> | INSTALLED | | |
| Delete the KEK Append an entry to KEK Authorized Signature Database(DB) | INSTALLED | R | →+: Select Screen †↓: Select Item |
| Set DB from File Get DB to File Delete the DB | | | Enter: Select +∕–: Change Opt. F1: General Help |
| Append an entry to DB Forbidden Signature Database(DBX) Set DBX from File Get DBX to File Delete the DBX | INSTALLED | | F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset |
| ▶ Append an entry to DBX | | | |
| Version 2.15.1227. | Copyright (C |) 2011 American Me | egatrends, Inc. |

Disabling Secure Boot

- 1. Select 'Default Key Provisioning' and Change the Setting to [Disabled]
- 2. Select 'Clear Sure Boot Keys' and Select Yes.



Once the secure Boot keys are cleared it will state 'Not Installed' as shown in below

Viglen Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ



| Advanced Advanced | | |
|--|---------------|---|
| Default Key Provisioning | [Disabled] | Force OEM default Secure Bo Keys if System is in Setup |
| Manage All Factory Keys (PK,KEK,DB Install default Secure Boot keys | I,DBX) | |
| Platform Key (PK) ▶ Set PK from File | NOT INSTALLED | |
| Get PK to File ▶ Delete the PK | | |
| Key Exchange Key Database(KEK) ▶ Set KEK from File | NOT INSTALLED | |
| Get KEK to File Delete the KEK | 4 | |
| Append an entry to KEK Authorized Signature Database(DB) | NOT INSTALLED | ++: Select Screen ↑↓: Select Item |
| Set DB from File Get DB to File | | Enter: Select +/-: Change Opt. |
| Delete the DB Append an entry to DB | | F1: General Help F6: Optimized Defaults |
| Forbidden Signature Database(DBX) ▶ Set DBX from File | NOT INSTALLED | ESC/Right Click: Exit F10: Save & Reset |
| <pre>> Get DBX to File > Delete the DBX</pre> | | |
| Append an entry to DBX | | |

- 3. Press Esc to exit the Key provisioning Menu.
- 4. Select 'Secure Boot' and Change the setting to [Disabled]



Once all BIOS settings have been configured press F10 key to Save and Exit the BIOS Setup.

Vigler Limited, VHQ, 7 Handley Page Way, Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire AL2 2DQ



| System Mode state | User | Secure Boot flow control. |
|-------------------|--------------------------------------|---|
| Secure Boot state | Disabled | Secure Boot is possible only |
| Secure Boot | [Disabled] | if System runs in User Mode |
| | Save configuration and res Yes No | Set? +: Select Screen J: Select Item nter: Select /-: Change Opt. F1: General Help F6: Optimized Defaults ESC/Right Click: Exit F10: Save & Reset |

Additional information:

For BIOS, Drivers and Documentation enquiries please contact Viglen Technical Support Department on technical@viglen.co.uk.

Remember to include your PC serial number in all correspondence.