Interactive BIOS simulator

HP Z2 Mini G5 Workstation

Welcome to the interactive BIOS simulator for the
HP Z2 Mini G5 Workstation

Here's how to use it...

BIOS Utility Menus: (Click the link to navigate to the individual menus)
On this page you will find thumbnail images of each of the product's BIOS utility menus. To view a specific menu in greater detail, simply click that thumbnail. Just as in the live BIOS, on each menu, you can select the tab of each of the other utility menus to navigate directly to that menu.

Menu options:
While the menu options cannot be toggled, many of them offer item specific information about that option. To view this information, use the cursor to rollover the option and the information will present in a pane on the right of the BIOS screen.

That's it!

On every page there is a link that brings you back to either this Welcome page or the BIOS Utility Menus page enabling you to navigate to whatever BIOS option you wish to review.

BIOS Utility Menus

Main   Security   Advanced   UEFI Drivers

HP Computer Setup

Item Specific Help

Suppress POST Errors

BASIC SYSTEM INFORMATION

Item Specific Help

Product Name	HP Z2 Mini G5 Workstation
Processor 1	Intel(R) Core(TM) i7-10700 CPU @ 2.90GHz
Memory Size	16384 MB DDR4 @ 3200 MHz
System BIOS	S50 Ver. 00.30.00 04/09/2020

SERVICE --

Serial Number	0000190007
SKU Number	9JD38AV
Universally Unique Identifier (UUID)	2BD98683D802CC1C04A58ECD00BBE79F
Asset Tracking Number	0000190007

Help

Item Specific Help

Product Name	HP Z2 Mini G5 Workstation
Memory Size	16384 MB DDR4 @ 3200 MHz
Storage Devices	ST500LM034-2GH17 A (500 GB)
	SK hynix PC601 HFS256GD9TNG-L2A0A-CN01Q548110201F6L (256 GB)

PROCESSOR 1 --

ProcessorType	Intel(R) Core(TM) i7-10700 CPU @ 2.90GHz
Cache Size (L1/L2/L3)	512 KB / 2 MB / 16 MB
Processor Speed	2900 MHz
Processor Cores	8
MicroCode Revision	C6
Processor Stepping	P-1
Memory Speed	3200 MHz
DIMM1	16 GB Micron
DIMM3	Empty

Help

Main

Item Specific Help

FIRMWARE --

System BIOS   S50 Ver. 00.30.00 04/09/2020
ME Firmware Version   14.0.33.1125
ME Firmware Mode   AMT Disabled
Audio Controller   Realtek ALC3205
Video BIOS Version   nVidia GPU Board(90.17.35.00.47)
Reference Code Revision   9.0.31.50
Super I/O Firmware Version   9.6.1
USB Type-C Controller(s) Firmware Version:

                                                Onboard PD Left : 5.0.0
                                                Onboard PD Rear : 5.0.0

SERVICE --

Serial Number   0000190007
SKU Number   9JD38AV

Help

HP Computer Setup

Item Specific Help

Universally Unique Identifier (UUID)   2BD98683D802CC1C04A58ECD00BBE79F
Asset Tracking Number   0000190007
Feature Byte   3X476J6S6b727N7Q7T7U7W8HaUaXapaqaubNbhdUdpdqedfJfjhKhZjhk8.Eh
Build ID   20WWLUAT6aj#SABA#DABA
Product Family   103C_53335X HP Workstation
System Board ID   8754
System Board CT Number   PCI0E7C6753904

COMMUNICATION --

Inttegrated MAC Address 1   10-E7-C6-75-39-04

Help

HP PC Hardware Diagnostics UEFI

Please select a Language.

English

Cestina

Dansk

Deutsch

Nederlands

Espanol

eesti keel

Suomi

Francais

Hrvatski

Magyar

Main

BIOS Event Log

Clear BIOS Event Log on Next Boot

Item Specific Help

Help

View BIOS Event Log

Date   Time   Description

No event have been logged

Item Specific Help

Help

Export to USB Key

The file cannot be accessed. Please insert a USB storage device and try again.

HP Computer Setup

Update System BIOS

Current System BIOS Version: S50 Ver. 00.30.00
Current BIOS Release Date: 04/09/2020
Installation Date of Current BIOS: 05/09/2020
Most Recent Update Check: Never Checked

1

Lock BIOS Version **2**

Native OS Firmware Update Service

BIOS Rollback Policy **3**

Allow BIOS Updates Using a Network **4**

5

6

Item Specific Help

1. Check HP.com for BIOS Updates
Checks for the latest BIOS release revision on the network, and lets the user decide whether to download the BIOS image and update System.

2. Lock BIOS Version
If not selected, then BIOS updates are allowed, if selected then updates to BIOS are not allowed.

3. *Click on the field to see the options.*

4. Allow BIOS Updates Using a Network
Enable/Disable automatic BIOS updates through the network in a scheduled basis.

5. BIOS Update Preferences
Sets the configurations to perform BIOS updates through the network.

6. Network Configuration Settings
Configure network settings to be used for download and upload.

Help

Network BIOS Update

MS Windows Bitlocker Drive Encryption (BDE) may be enabled on your system.
HP requires that BDE be suspended temporarily before the BIOS is flashed and
that you obtain your BDE recovery password or recovery PIN before suspending BDE.
After the BIOS is updated, BDE can be resumed.

Main

BIOS Update Preferences

    Check for Update on Next Reboot **1**

BIOS Source **2**

Automatic BIOS Update Setting

                                    3

BIOS Update Frequency **4**

Help

Item Specific Help

1. Check for Update on Next Reboot
   Enable/Disable an automatic BIOS check on next reboot.

2. BIOS Source
   Choose one of the available options.
   Click on the field to see the options.

Automatic BIOS Update Setting
   Choose one of the available options.
   Click on the field to see the options.

3. BIOS Update Frequency
   Choose one of the available options.

HP Computer Setup

Network Configuration Settings

     Proxy Server **1**

2

IPv4 Configuration **3**

DNS Configuration **4**

Data transfer timeout   100 **5**
    Force HTTP no-cache **6**

Help

Item Specific Help

1. Proxy Server
   Enable/Disable the use of a proxy server.

2. Edit Proxy Server
   Specify the Proxy Server Address and the Port Number through the common-use <server>:<port> notation.

3. Test Network Connection
   Check the network connection using current BIOS update configuration.
   Click on the field to see the options.

4. IPv4 Configuration
   Setup for static IPv4 address.
   Click on the field to see the options.

5. DNS Configuration
   Configure a list of DNS addresses.

6. Force HTTP no-cache
   Disable HTTP caching.

Item Specific Help

Change Date And Time

Set Date (MM/DD/YYYY)   09 / 24 / 2019
Set Time (HH:MM):   02 : 56

Help

Item Specific Help

System IDs

Help

Asset Tracking Number

Current Setting: 0000190007

Press the space key followed by the enter key to clear current setting

Ownership Tag

Current Setting:

Press the space key followed by the enter key to clear current setting

Replicated Setup

Item Specific Help

Help

Administrator Tools

1

Fingerprint Reset on Reboot

Security Configuration

Physical Presence Interface **2**

Intel Software Guard Extension (SGX)   **3**

Utilities

Absolute® Persistence Module Current State

Activation Status : Inactive

Absolute® Persistence Module Permanent Disable : No

System Management Command

Item Specific Help

1. Create BIOS Administrator Password
   The Administrator password controls access
   to the following features:
   - Setup Menu (F10)
   - 3rd Party Option ROM Management (F3)
   - Update System ROM
   - WMI Commands that change system
     settings
   - BIOS Configuration Utility (BCU)
   - Alternative Power-On Password

2. Physical Presence Interface
   When this feature is set to "Enable", then
   the user is notified on system power up
   when changes are made to system security
   policy, and the user must manually agree
   to those changes before the change is con-
   firmed

3. Intel Software Guard Extensions (SGX)
   Enable/Disable Software Guard Extensions
   (SGX)

BIOS Administrator Password

Enter BIOS Administrator Password

POST Power-On Password

Enter POST Power-On Password

TPM Embedded Security

TPM Specification Version   2.0

TPM Device   **1**

    TPM State   **2**

Clear TPM

TPM Activation Policy

Item Specific Help

1. TPM Device
  Exposes the integrated Trusted Platform
  Module (TPM) for use.
  Click on the field to see the options.

TPM State
  Enables the integrated Trusted Platform
  Module (TPM).

BIOS Sure Start

    Verify Boot Block on every boot

BIOS Data Recovery Policy

    Prompt on Network Controller Configuration Change

    Dynamic Runtime Scanning of Boot Block

    Sure Start BIOS Settings Protection **（1）**

    Sure Start Secure Boot Keys Protection

    Enhanced HP Firmware Runtime Intrusion Prevention and Detection **（2）**

Sure Start Security Even Policy   **（3）**

Sure Start Security Event Boot Notification

Item Specific Help

1. Sure Start BIOS Settings Protection
When enabled, HP Sure Start will lock all critical BIOS settings and provide enhanced protection for these settings via the HP Sure Start non-volatile (flash) memory

- The BIOS administrator credentials must be set to enable this setting
- See HP Sure Start documentation for
details on which BIOS settings are
protected

2. Enhanced HP Firmware Runtime Intrusion Prevention and Detection
Enables monitoring of HP system firmware executing out of main memory while the user Operating System is
running.
Any anomalies detected in HP System firmware that is active while the user operating system is running will result in a Sure Start Security Event being generated. *Click on the field to see the options.*

3. Sure Start Security Event Policy
This setting controls HP Sure Start behavior upon identifying a critical security event (any modification to HP firmware) during OS runtime.
- Log event only - HP Sure Start will log all critical security events m the HP Sure Start Audit log within the HP Sure Start non-volatile (flash) memory
- Log Event and notify user: In addition to logging all critical security events. HP Sure Start will notify the user within thr operating system that a critical event has occurred
- Log Event and power off system: In addition to logging all critical events. HP Sure Start will power off the system upon detecting a HP Sure Start Security Event. Due to the potential for data loss, use of this setting is only recommended in situations where security integrity of the system is a higher priority than the risk of potential data loss

Secure Boot Configuration

    Secure Boot

Secure Boot Key Management

    Import Custom Secure Boot Keys

    Clear Secure Boot keys

    Reset Secure Boot keys to factory defaults

    Enable MS UEFI CA key

    Access to the above settings requires Sure Start Secure Boot Keys Protection to be disabled

Ready BIOS for Device Guard Use

Requires BIOS Administrator credentials to be configured and Secure Boot to be enabled.

Item Specific Help

Smart Cover

Cover Removal Sensor

Item Specific Help

Secure Platform Management (SPM)

NOTE: Some actions may not be selectable due to a pending password change.

SPM

SPM Current State: Not provisioned

HP Sure run

HP Sure Run Current State: Inactive

Enhanced BIOS Authentication Mode (EBAM)

EBAM Current State: Disabled

Local Access Key: Not Present

Item Specific Help

1. Create BIOS Administrator Password
The Administrator password controls access to the following features:
- Setup Menu (F10)
- 3rd Party Option ROM Management (F3)
- Update System ROM
- WMI Commands that change system settings
- BIOS Configuration Utility (BCU)
- Alternative Power-On Password

2. Physical Presence Interface
When this feature is set to "Enable", then the user is notified on system power up when changes are made to system security policy, and the user must manually agree to those changes before the change is confirmed

3. Intel Software Guard Extensions (SGX)
Enable/Disable Software Guard Extensions (SGX)

Hard Drive Utilities

Save/Restore GPT of System Hard Drive **1**

Boot Sector (MBR/GPT) Recovery Policy

1

Allow OPAL Hard Drive SID Authentication

Item Specific Help

1. Save/Restore GPT of System Hard Drive
Enabling this feature will save the GUID Partition table (GPT) of the system Hard Drive. If the GPT is subsequently changed the user will he prompted to choose whether to restore GPT.

2. Drive Wipe
Drive Wipe allows for the erasure of attached storage including verification meeting NIST SP800-88 specification for clearing or purging a device. Operations include:
Secure Erase = Clear: Appropriate for re-purposing a device within an organization.
Sanitize Block Erase (SSD) / Overwrite (HDD) = Purge: Appropriate for recycling or when a device leaves the control of an organization.

Help

Select a Drive

Item Specific Help

Help

Select a Drive

Help

Select a Drive

1

2

Item Specific Help

1. SATA 2: ST500LM034-2GH17A
   Set HDD Password

2. M.2 SSD1: SK hynix PC601 HES256GD9T-
   NG-L2A0A-CN01Q548110201F6L
   Set HDD Password

Help

Set DriveLock Password

Please exercise caution when using DriveLock.
Losing the passwords will render a drive premanently unusable.

Please be aware these settings take place immediately: save not necessary.

Enter DriveLock Master Password.

BIOS Administrator Password

Enter BIOS Administrator Password

HP

①

②

Remote HP PC Hardware Diagnostics

③

Item Specific Help

1. Port Options
  Enable/Disable Port Settings

2. Slot Settings
  Provide slot settings control on a per slot
  basis

3. Settings
  Set the configuration for Remote HP PC
  Hardware Diagnostics, including the URLs
  used for download and upload, the
  scheduled execution frequency, etc.

Display Language

Select Language

Select Keyboard Layout

Item Specific Help

Scheduled Power-On

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Hour   0
Minute   0

Boot Options

Startup Delay (sec.)

    Fast Boot
    USB Storage Boot
    Network (PXE) Boot

After Power Loss   **①**

After Boot Device Not Found   **②**

    Prompt on Memory Size Change
    Prompt on Fixed Storage Change
    Audio Alerts During Boot
    NumLock on at boot
UEFI Boot Order

        M.2 SSD 1: M.2 SSD1: SK hynix PC601 HES256GD9TNG-L2A0A-CN01Q548110201F6L
        USB:
        SATA2: ST500LM034-2GH17A
        NETWORK BOOT: IPV4 Network - Intel(R) Ethernet Connection (11) I219-LM
        NETWORK BOOT: IPV6 Network - Intel(R) Ethernet Connection (11) I219-LM

Item Specific Help

1. **After Power Loss**
   Determine the system's state after power is lost to the unit.

2. **After Boot Device Not Found**
   Allows you to set the system behavior after boot device not found.

HP Sure Recover

    HP Sure Recover **1**
    Recover from Network **2**
    Recover after Boot Failure **3**
    Prompt before Boot Failure Recovery **4**

Recover Agent
URL: ftp://ftp.hp.com/pub/pcbios/CPR
Username:
Provisioning Version: 0

Recovery Image
URL:
Username:
Provisioning Version: 0
OS Recovery Image Version:
OS Recovery Driver Version:

Item Specific Help

1. HP Sure Recover
If this setting is enabled, the system firmware will honor local and remote requests to reinstall the OS. If it is disabled, all requests to reinstall the OS will be ignored.

2. Recover from Network
If this setting is enabled, the system firmware will obtain the recovery agent from the network. Otherwise, the system firmware will obtain the recovery agent from a local drive.

3. Recover after Boot Failure
If this setting is enabled and no bootable UEFI OS is found, the system firmware will launch HP Sure Recover.

4. Prompt before Boot Failure Recovery
If this setting is enabled and a no bootable UEFI OS is found, the user is notified of the boot failure and asked to choose whether to start or cancel HP Sure Recover.

System Options

Configure Storage Controller for RAID
Accelerate USB Enumeration
HP Memory Goal
Speed Selection on Mixed DIMM Per Channel **1**
RST Remapping
Turbo-Boost
Hyperthreading **2**
Virtualization Technology (VTx)
Virtualization Technology for Directed I/O (VTd)
DMA Protection
USB Type-C Connector System Software Interface (UCSI) **3**

HP Application Driver

Intel Dynamic Tuning **4**

Power Button Override
Reset Factory Defaults on Battery Loss **5**

Item Specific Help

1. Speed Selection on Mixed DIMM Per Channel
To improve compatibility when mixing non-supported memory modules with supported memory modules when installed on the same DRAM channel.

2. Hyperthreading
Permits the user to control the processor capability

3. USB Type-C Connector System Software Interface (UCSI)
The UCSI option should be disabled if booting a Microsoft Windows 10 version before 1709 to avoid system stability issues.

4. Intel Dynamic Tuning
Previously called "Dynamic Platform and Thermal Framework (DPTF)"

5. Reset Factory Defaults on Battery Loss
Allows you to set the system behavior after battery loss.

HP Computer Setup

Built-In Device Options

    Embedded LAN Controller

Wake On LAN

    Integrated Video

    Enable Intel Graphics on DisplayPort Port #1

    Enable Intel Graphics on HP Flex IO Port

Video memory size

    Audio Device

Microphone

    Internal Speakers

Increase Idle Fan Speed(%)   0

    M.2 USB / Bluetooth

    LAN/WLAN Auto Switching

    Wake on WLAN

Item Specific Help

Port Options

    Serial Port A

I/O Address A

Interrupt A

    Rear USB Ports **(1)**

    Rear USB Port 1

    Rear USB Port 2

    Rear USB Port 3

    Left USB Ports

    Left USB Port 1

    Left USB Port 2

    Left USB Port 3

    USB Legacy Port Charging **(2)**

    Rear USB Type-C Downstream Charging

    Left USB Type-C Downstream Charging

    SATA 2 **(3)**

Restrict USB Devices

Item Specific Help

1. Front USB Ports
Hides the front USB ports from the OS

2. Rear USB Ports
Hides the rear USB ports from the OS

3. USB Legacy Port Charging
Enable USB Charging port for charging
capability when system Hibernate/Shutdown

4. SATA 2
Hides the SATA port from the OS

Slot Settings

Item Specific Help

    M.2 SSD 1

Current PCIe Speed   Gen3 (8Gbps)

Option ROM Download

Limit PCIe Speed

    M.2 SSD 2

Option ROM Download

Limit PCIe Speed

    M.2 WLAN/BT

Option ROM Download

Limit PCIe Speed

    PCI Express x16 Slot 1

Option ROM Download

Limit PCIe Speed

    PCI Express x4 Slot 1

Option ROM Download

Limit PCIe Speed

Power Management Options

Runtime Power Management   **1**

Extended Idle Power States   **2**

S4/S5 Maximum Power Savings   **3**

SATA Power Management

PCI Express Power Management   **4**

Power On from Keyboard Ports   **5**

Unique Sleep State Blink Rates

Item Specific Help

1. Runtime Power Management
Enables Runtime Power Management.

2. Extended Idle Power States
Increases the OS's Idle Power Savings.

3. S4/S5 Maximum Power Savings
Enabling this feature reduces the power of this system as much as possible in the S4/S5 state. Power is removed from the wake up circuitry, the expansion slots and any management features while in SB.

4. PCI Express Power Management
Enabling this option permits the PCI Express links to use Active State Power Management (ASPM) to enter low power states while not in use.

5. Power On from Keyboard Ports
To wake up system from Hibernate/Shutdown via keyboard

Remote Management Options

     Intel Management Engine (ME) **1**

     Intel Active Management Technology (AMT) **2**

     USB Key Provisioning Support

     USB Redirection Support

Unconfigure AMT on next boot **3**

SOL Terminal Emulation Mode

     Show unconfigure ME Confirmation Prompt

     Verbose Boot Messages

     Watchdog Timer **4**

     OS Watchdog Timer (min.)

     BIOS Watchdog Timer (min.)

CIRA Timeout (min.) **5**

Item Specific Help

1. Intel Management Engine (ME)
Enabled by default. [Help Icon] = "This option allows for a user to disable the Intel Management Engine, which disables Intel Active Management Technology and all underlying Intel ME technologies. This option also disables ME functions that allow for ME firmware updates. It is suggested to periodically enable this option to update ME firmware, as the ME firmware may contains platform stability fixes.

2. Intel Active Management Technology (AMT)
This option allows for a user to enable Intel Active Management Technology, which is tied to all ME-regulated remote management functions. Disabling AMT will still allow for ME firmware updates, which are recommended for receiving platform stability fixes.

3. Unconfigure AMT on next boot
Perform AMT/ME unconfigure without password operation.

4. Watchdog Timer
Enable/Disable WatchDog Timer.

5. CIRA Timeout (min.)
Set CIRA Timeout (Minutes).

Remote HP PC Hardware Diagnostics

Diagnostics Download URL ①

➡ Custom Download Address

Diagnostics Logs Upload URL

②

③

④

Scheduled Execution

Frequency ⑤

Execute On Next Boot ⑥

Item Specific Help

1. Diagnostics Download URL
   Select between HP server URL and a custom server URL.

2. Custom Upload Address
   Configure a URL for diagnostics logs upload.

3. Username
   Configure the username for uploading diagnostics logs to the server, if authentication is required.

4. Password
   Configure the password for uploading diagnostics logs to the server, if authentication is required.

5. Frequency
   Select the frequency for scheduled execution of Remote HP PC Hardware Diagnostics.

6. Execute On Next Boot
   Enable/disable the execution on next boot. The flag will be disabled after the diagnostics have run.

Custom Upload URL

There is no Custom Upload URL configured.
Type a new Custom Upload URL and press ENTER to save.
Press ESC to CANCEL

Custom Server Username

There is no Username configured.
Type a new Username and press ENTER to save.
Press ESC to CANCEL

Custom Server Password

There is no Upload Server Password configured.
Type a new Upload Server Password and press ENTER to save.
Press ESC to CANCEL

This will restart the system into the 3rd Party Option ROM Management application. You can get to this application directly by pressing F3 during startup.

Item Specific Help