

Interactive BIOS simulator

HP Z2 G8 Small Form Factor Workstation PC

Welcome to the interactive BIOS simulator for the
HP Z2 G8 Small Form Factor Workstation PC

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



Item Specific Help

Suppress POST Errors



BASIC SYSTEM INFORMATION

Product Name	HP Z2 SFF G8 Workstation
Processor 1	11th Gen Intel(R) Core(TM) i5-11500 @ 2.70GHz
Memory Size	16384 MB DDR4 @ 3200 MHz
System BIOS	T50 Ver. 00.16.01 11/25/2020

SERVICE -----

Serial Number	H1AW301003
SKU Number	271P7AV
Universally Unique Identifier (UUID)	3D82C248B5E2AF49808E87D94E895A39
UUID (standard format)	48C2823D-E2B5-49AF-808E-87D94E895A39
Asset Tracking Number	

Item Specific Help

Help



Product Name HP Z2 SFF G8 Workstation
Memory Size 16384 MB DDR4 @ 3200 MHz
Storage Devices SAMSUNG MZVL21T0HCLR-00BH1-S641NEON900686 (1 TB)

PROCESSOR 1 -----

ProcessorType 11th Gen Intel(R) Core(TM) i5-11500 @ 2.70GHz
Cache Size (L1/L2/L3) 480 KB / 3 MB / 12 MB
Processor Speed 4200 MHz
Processor Cores 6
MicroCode Revision 14
Processor Stepping B-0
Memory Speed 3200 MHz
DIMM1 16 GB Samsung
DIMM2 Empty
DIMM3 Empty
DIMM4 Empty

Help

Item Specific Help



Item Specific Help

FIRMWARE -----

System BIOS	T50 Ver. 00.16.01 11/25/2020
ME Firmware Version	15.0.20.1440
ME Firmware Mode	AMT Disabled
Audio Controller	Realtek ALC3205
Video BIOS Version	Intel(R) GOP Driver [17.0.1042]
Reference Code Revision	B.1.24.50
Super I/O Firmware Version	10.1.1
USB Type-C Controller(s) Firmware Version:	
	Onboard PD Front: 2.2.0

SERVICE -----

Serial Number	H1AW301003
SKU Number	271P7AV
Universally Unique Identifier (UUID)	3D82C248B5E2AF49808E87D94E895A39

Help



Asset Tracking Number

Feature Byte

3X476J6S6b7N7Q7T7U7W8HaUaXapaqaubhdUdpdqdfJh
KhZjkh8n7.fe

Build ID

21WWRKAT6ah#SABA#DABA

Product Family

103C_53335X HP Workstation

System Board ID

88BF

System Board CT Number

PKKLLX3CYEI01H

COMMUNICATION-----

Integrated MAC Address 1

6C-02-E0-78-C4-E7

Item Specific Help

Help



HP PC Hardware Diagnostics UEFI

Please select a Language.

English

Cestina

Dansk

Deutsch

Nederlands

Espanol

eesti keel

Suomi

Francais

Hrvatski

Magyar





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.



Update System BIOS

Current System BIOS Version:	T50 Ver. 00.16.01
Current BIOS Release Date:	11/25/2020
Installation Date of Current BIOS:	11/25/2020
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

Help

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.



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.



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.



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.



Change Date And Time

Set Date (MM/DD/YYYY)

09 / 24 / 2019

Set Time (HH:MM):

02 : 56

Item Specific Help

Help

Main



HP Computer Setup

System IDs

Item Specific Help

Help



Asset Tracking Number

Current Setting:

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

Main



HP Computer Setup

Replicated Setup

Item Specific Help

Help



Administrator Tools

1

Fingerprint Reset on Reboot

Security Configuration

Physical Presence Interface **2**
Trusted Execution Technology (TXT)

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 confirmed



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

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

Sure Start Security Event Boot Notification **3**

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 in 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 the 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



Security

HP Computer Setup

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



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

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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)



Security

HP Computer Setup

Hard Drive Utilities

Save/Restore GPT of System Hard Drive

Boot Sector (MBR/GPT) Recovery Policy

Allow OPAL Hard Drive SID Authentication

Disable DriveLock on NVMe drives before using applications for hardware-based encryption.

Item Specific Help

Help



Select a Drive

1

Help

Item Specific Help

1. M.2 SSD 1: SAMSUNG MZ-VL21TOHCLR-00BH1-S641NEON900686
Set HDD Password



Security

HP Computer Setup

DriveLock Security Options

The hard drive's security state cannot be changed.
Cycle power to manage DriveLock on this drive.

Item Specific Help

Help



Security

HP Computer Setup

Select a Drive

Item Specific Help

Help



BIOS Administrator Password

Enter BIOS Administrator Password



Remote HP PC Hardware Diagnostics

1

2

3

4

Item Specific Help

1. Port Options

Enable/Disable Port Settings

2. Settings

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

3. Execute Remote HP PC Hardware Diagnostics



Advanced

HP Computer Setup

Display Language

Select Language

Select Keyboard Layout

Item Specific Help



Advanced

HP Computer Setup

Scheduled Power-On

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Hour 0

Minute 0

Item Specific Help



Advanced

Boot Options

Startup Delay (sec.)

- Fast Boot
- CD-ROM Boot
- USB Storage Boot
- Network (PXE) Boot

After Power Loss

- Prompt on Memory Size Change
- Prompt on Fixed Storage Change

After Boot Device Not Found

- Audio Alerts During Boot
- NumLock on at boot

1

2

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.

USB:

SATA CD:

M.2 SSD 1: Windows Boot Manager

NETWORK BOOT: IPV4 Network - Intel(R) Ethernet Connection (14) I219-LM

NETWORK BOOT: IPV6 Network - Intel(R) Ethernet Connection (14) I219-LM

NETWORK BOOT: Wi-Fi IPV4 Network

NETWORK BOOT: Wi-Fi IPV6 Network



Advanced

HP Sure Recover

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

Recovery Agent

URL: <http://ftp.hp.com/pub/pcbios/CPR>
Username:
Provisioning Version: 0

Recovery Image

URL:
Username:
Provisioning Version: 0

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

RST Remapping

Turbo-boost

Hyperthreading

Virtualization Technology (VTx)

Virtualization Technology for Directed I/O (VTd)

DMA Protection

Pre-boot DMA protection

Early PCIe Delay **2**

Accelerate USB Enumeration

NVMe Write Endurance Masking **3**

Reset Factory Defaults on Battery Loss

Power Button Override

USB Type-C Connector System Software Interface (UCSI) **4**

HP Application Driver

Performance Control

1

Item Specific Help

1. Pre-boot DMA protection

Selecting The Device Scope For Prer-Boot DMA Protection

2. Early PCIe Delay

Configurable delay to allow add-in PCIe cards to finish training prior to system firmware disabling root ports which don't appear to have any devices connected to them.

3. NVMe Write Endurance Masking

When enabled, system will no longer pause to report a critical error during boot when NVMe write endurance is exceeded. All other errors will continue to be reported as usual.

4. 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.



Advanced

HP Computer Setup

Built-In Device Options

Embedded LAN Controller

Wake On LAN

Dust Filter

Dust Filter Reminder (Days)

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

Front USB Ports **1**

Front USB Port 1

Front USB Port 2

Front USB Port 3

Front USB Port 4

Front USB Port 5

Rear USB Ports **2**

Rear USB Port 1

Rear USB Port 2

Rear USB Port 3

Rear USB Port 4

Rear USB Port 5

Rear USB Port 6

USB Legacy Port Charging **2**

Front USB Type-C Downstream Charging

Media Card Reader/SD_RDR USB

SATA 0

SATA 1

SATA 2

SATA 3

Restrict USB Devices

Item Specific Help

1. Front USB Ports

Hides the rear 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



Power Management Options

- Runtime Power Management **1**
- Extended Idle Power States **2**
- S5 Maximum Power Savings **3**
- 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. S5 Maximum Power Savings**
Enabling this feature reduces the power of this system as much as possible in the 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



Advanced

Remote Management Options

Intel Management Engine (ME)

Intel Active Management Technology (AMT)

USB Key Provisioning Support

USB Redirection Support

Unconfigure AMT on next boot

SOL Terminal Emulation Mode

Show Unconfigure ME Confirmation Prompt

Verbose Boot Messages

Watchdog Timer

OS Watchdog Timer (min.)

BIOS Watchdog Timer (min.)

CIRA Timeout (min.)

Item Specific Help



Advanced

Slot Settings

PCI Express x16 Slot 1

Option ROM Download

Limit PCIe Speed

PCI Express x1 Slot 2

Option ROM Download

Limit PCIe Speed

PCI Express x4 Slot 3

Option ROM Download

Limit PCIe Speed

PCI Express x16(4) Slot 4

Option ROM Download

Limit PCIe Speed

M.2 WLAN/BT

Option ROM Download

Limit PCIe Speed

M.2 SSD 1

Current PCIe Speed

Gen 4 (16Gbps)

Option ROM Download

Limit PCIe Speed

M.2 SSD 2

Option ROM Download

Limit PCIe Speed

Item Specific Help



Advanced

Remote HP PC Hardware Diagnostics

Diagnostics Download URL

➔ [Custom Download Address](#)

Diagnostics Logs Upload URL

3

4

2

Scheduled Execution

Frequency

Execute On Next Boot

1

5

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



UEFI Drivers

HP Computer Setup

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