Intel® Rapid Storage Technology (Intel® RST) 20.0.0.1037.7 Production Version Release

13 December 2023

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Supported Operating Systems
Microsoft Windows 11 x64* 21H2 22H2
Microsoft Windows 10 x64*

Revision History

Date	Driver Revision	Build Number
17 January 2024	20.0.0.1037.7 with PreOS 20.1.0.5751 PV release	1037
13 December	20.0.0.1037.7 PV release	1037
04 December 2023	20.0.0.1035.5 PV release	1035
23 October 2023	20.0.0.1035 PV release	1035
21 September 2023	20.0.0.1035 PV release	1035
9 September 2023	20.0.0.1035 PC release	1035
16 August 2023	20.0.0.1026 release	1026
11 July 2023	20.0.0.1025 release	1025
30 June 2023	20.0.0.1024 release	1024
17 May 2023	20.0.0.1023 release	1023
3 May 2023	20.0.0.1022 release	1022
14 March 2023	20.0.0.1021 release	1021

24 February 2023	20.0.0.1020 release	1020
2 February 2023	20.0.0.1018 release	1018
22 December 2022	20.0.0.1017 release	1017
8 December 2022	20.0.0.1016 release	1016
24 October 2022	20.0.0.1015 release	1015
13 October 2022	20.0.0.1012 release	1012
3 October 2022	20.0.0.1009 release	1009
23 June 2022	20.0.0.1007 release	1007

Notes:

1. Known Issue is defined as a potential Intel® RST issue that has been replicated internally by the Intel® RST team but has not been root caused to be an Intel® RST defect.

2. The RAID OROM & UEFI version for this release is 20.1.0. 20.1.0.5751 to fix PreOS PSIRT, the driver and user interface version is 20.0.0.1037.7 and Intel® Optane™ Memory and Storage Management (HSA) driver version 20.0.1011.0. For Intel® RST Premium features (e.g. RAID, Intel® Optane™ memory, CPU Attached Storage), it is recommended that both the Intel® RST pre-OS and Intel® RST OS driver components are updated. Please contact your CE for further details.

Features Change

Features change In 20.0.0.1037.7 – Release			
ID	**Title**	**Operating System**	**Component**
18020998947	[TGL-H]Customer ask how they do issue a COMRESET command when AHCI controller is mapped to VMD.		PreOS
18019909671	[RCR][PreOS] Optimize SATA device detection to decrease boot timeout.		PreOS
18018415760	Change default timeout value to retrieve IO command for AHCI drives to 60 seconds.		PreOS

Resolved Issues In 20.0.0.1025 – Release			
ID	**Title**	**Operating System**	**Component**
18031028626	During RAID migration in Windows, do S4/restart/shutdown, system will show black screen and system LED is still on.	Windows*11	Driver

18029554773	A notification about "Create RAID Volume: Failed to create..." pops-up when manual create SATA RAID0 or RAID1 volume in IRST HSA.	Windows*11	HSA

Resolved Issues In 20.0.0.1024 – Release			
ID	Title	Operating System	Component
18029424389	PCIe Gen5 support - wrong MW <-> HSA interfaces version	Windows*11	MW
15012600648	Disable RTD3 feature under WinPE environment.	Windows*11	Driver
18026789402	[ADL-P][RPL-P][S3]RAID 1/0 Degrades while initializing during S3	Windows*11	Driver
18028666508	[HSA] PCIe Gen5 support	Windows*11	HSA

Resolved Issues In 20.0.0.1023– Release			
ID	Title	Operating System	Component
18029424389	PCIe Gen5 support - wrong MW <-> HSA interfaces version	Windows*11	MW
15012600648	Disable RTD3 feature under WinPE environment.	Windows*11	Driver
18026789402	[ADL-P][RPL-P][S3]RAID 1/0 Degrades while initializing during S3	Windows*11	Driver
18028666508	[HSA] PCIe Gen5 support	Windows*11	HSA

Resolved Issues In 20.0.0.1022– Release			
ID	Title	Operating System	Component
18027304990	Rstcli64.exe is not giving fail output on next tries to remap controller under vmd	Windows*11	CLI

Resolved Issues In 20.0.0.1021– Release			
ID	Title	Operating System	Component
18026607190	RSTCLI create RAID0 from one disk	Windows*11	CLI

13010038289	[MTL-P] rstcli64.exe shows that root ports are not VMD remap capable	Windows*11	CLI

Resolved Issues In 20.0.0.1020– Release			
ID	**Title**	**Operating System**	**Component**
13010364481	BlockIO must be uninstalled after unlock drive being part of RAID volume	Windows*11	PreOS
13010464260	RST driver/app installaion and UI translation issue.	Windows*11	Installer

Resolved Issues In 20.0.0.1018 – Release			
ID	**Title**	**Operating System**	**Component**
18024752458	Fixed incorrect CLI output after marking 4k disk as spare	Windows*11	CLI
18025743191	Extra symbol in Japanese in the installer	Windows*11	Installer
18025979552	Not to install BlockIo on locked drives which are NOT TCG	Windows*11	PreOS

Resolved Issues In 20.0.0.1016 – Release			
ID	**Title**	**Operating System**	**Component**
8023649924	Test Files reported as not supported by DirectStorage	Windows*11	Driver
18024944273	VMD Program LTR Max Latency values based on platform generation	Windows*11	Driver
15012004081	"report" parameter removed from installer to avoid deleting users privilege of specific folder.	Windows*11	Installer

Terminology

Common Terms and Acronyms	Definition
AEN	Asynchronous Event Notification
AHCI	Advanced Host Controller Interface
ATA	Advanced Technology Attachment
ATAPI	Advanced Technology Attachment Packet Interface
BIOS	Basic Input / Output System
BUS PROTOCOL GROUP	A bus protocol group represents a set of bus protocols with similar performance characteristics. Bus Protocol Groups are listed here in descending order of speed: 1- PCIe* 2- SATA
Chipset	A term used to define a collection of The PNHCI components required to make a PC function.
CSMI	OEM Common Storage Management Interface for reporting RAID configurations and SMP, SSP, STP pass through.
DEVSLP	Serial ATA Device Sleep
DMA	Direct Memory Access
DOS	Disk Operating System
DIPM	Device Initiated Power Management
Disk's Write Cache	A memory device within a hard drive, which is allocated for the temporary storage of data before that data is copied to its permanent storage location.
GB	Giga-byte = 1024^3 bytes
HDD	Hard Disk Drive
HIPM	Host Initiated Power Management
Hot Plug	A term used to describe the removal or insertion of a SATA disk while the system is powered on.
HSA	Hardware Supported App
ICH	Input / Output Controller Hub
InstantGo*	Microsoft Windows* 8.1 connected standby low-power state that features extremely low power consumption while maintaining Internet connectivity.
KB	Kilo-byte = 1024bytes
LPM	Link Power Management
M.2	Specification for internally mounted computer expansion cards and associated connectors. It replaces the mSATA standard. Formerly known as the Next Generation Form Factor (NGFF)
MB	Mega-bytes = 1024^2 bytes

Common Terms and Acronyms	Definition
MEMORY GROUP	A memory group represents a set of backend storage media types with similar performance characteristics. Memory Groups are listed here in ascending order of speed: 1- Spindle Device (HDD) 2- NAND Spindle Hybrid Device 3- PCH SATA NAND Device (SSD) 4- PCIe* NAND Device (SSD) 5- PCIe* NAND Device (SXP)
mSATA	Computer bus interface that connects host bus adapters to mass storage devices such as hard disk drives and optical drives. Uses PCI Express Mini Card-like connector that is electrically SATA.
NAI	Notification Area Icon
NTFS	NT File System
NVC	Non-Volatile Cache
NVMe*	Non-Volatile Memory Express: Non-Volatile Memory Host Controller Interface Specification (NVMHCI), is a specification for accessing solid-state drives (SSDs) attached through the PCI Express (PCIe*) bus
OEM	Original Equipment Manufacturer
ODD	Optical Disk Drive
OROM	Option ROM
OS	Operating System
PCH	Platform Controller Hub
PCIe*	PCI Express (Peripheral Component Interconnect Express): is a high-speed serial computer expansion bus standard
Port	The point at which a SATA drive physically connects to the SATA controller.
PRD	Product Requirements Document
PUIS	Power Up In Standby - Drive feature that allows a spindle device to be powered up in standby mode without spinning the disk up.
RAID	Redundant Array of Independent Disks Matrix RAID: A configuration supporting two RAID levels by having two volumes in a single RAID array that use Intel® RST
RTD3	Runtime D3
RS2	Redstone2
SATA	Serial ATA
SIPM	Software Initiated Power Management
S.M.A.R.T.	Self-Monitoring, Analysis and Reporting Technology: an open standard for developing hard drives and software systems that automatically monitors a hard drive's health and reports potential problems.
SED	Self-Encrypting Drive
SRT	Intel® Smart Response Technology. Intel® RST's premium feature to use caching technology that enables caching of a device or volume using a faster device
SSD	Solid State Drive – non volatile memory used as storage media
SSHD	Solid-State Hybrid Drive

Common Terms and Acronyms	Definition
TB	Tera-byte = 1024^4 bytes
UEFI	UEFI pre-OS driver
UI	User Interface
VC	Validation Candidate
ZPODD	Zero Power Optical Disk Drive