

[2022/11/15 11:11:12]
Ai Overclock Tuner [Auto]
Memory Frequency [DDR4-3933MHz]
FCLK Frequency [1966MHz]
Core Performance Boost [Auto]
CPU Core Ratio [Auto]
Core VID [Auto]
CCX0 Ratio [Auto]
Dynamic OC Switcher [Auto]
TPU [Keep Current Settings]
Performance Bias [None]
DRAM CAS# Latency [15]
Trcdrd [19]
Trcdwr [8]
DRAM RAS# PRE Time [17]
DRAM RAS# ACT Time [34]
Trc [54]
TrrdS [4]
TrrdL [4]
Tfaw [16]
TwtrS [4]
TwtrL [8]
Twr [12]
Trcpage [Auto]
TrdrdSc1 [2]
TwrwrSc1 [2]
Trfc [560]
Trfc2 [Auto]
Trfc4 [Auto]
Tcwl [12]
Trtp [6]
Trdwr [14]
Twrrd [1]
TwrwrSc [1]
TwrwrSd [1]
TwrwrDd [1]
TrdrdSc [1]
TrdrdSd [1]
TrdrdDd [1]
Tcke [1]
ProcODT [32 ohm]
Cmd2T [1T]
Gear Down Mode [Disabled]
Power Down Enable [Disabled]
RttNom [RZQ/7]
RttWr [Dynamic ODT Off]
RttPark [RZQ/5]
MemAddrCmdSetup [0]
MemCsOdtSetup [0]
MemCkeSetup [0]
MemCadBusClkDrvStren [24.0 Ohm]
MemCadBusAddrCmdDrvStren [20.0 Ohm]
MemCadBusCsOdtDrvStren [24.0 Ohm]
MemCadBusCkeDrvStren [24.0 Ohm]

Mem Over Clock Fail Count [3]
Voltage Monitor [Die Sense]
CPU Load-line Calibration [Level 1]
CPU Current Capability [110%]
CPU VRM Switching Frequency [Auto]
VRM Spread Spectrum [Auto]
CPU Power Duty Control [T.Probe]
CPU Power Phase Control [Auto]
CPU Power Thermal Control [120]
VDDSOC Load-line Calibration [Auto]
VDDSOC Switching Frequency [Auto]
VDDSOC Phase Control [Auto]
DRAM Current Capability [110%]
DRAM Power Phase Control [Extreme]
DRAM Switching Frequency [Auto]
CPU Core Current Telemetry [Auto]
CPU SOC Current Telemetry [Auto]
Force OC Mode Disable [Enabled]
SB Clock Spread Spectrum [Auto]
VTDDR Voltage [0.72500]
VPP_MEM Voltage [Auto]
DRAM CTRL REF Voltage on CHA [Auto]
DRAM CTRL REF Voltage on CHB [Auto]
VDDP Voltage [Auto]
1.8V Standby Voltage [Auto]
CPU 3.3v AUX [Auto]
1.2V SB Voltage [Auto]
DRAM R1 Tune [Auto]
DRAM R2 Tune [Auto]
DRAM R3 Tune [Auto]
DRAM R4 Tune [Auto]
PCIE Tune R1 [Auto]
PCIE Tune R2 [Auto]
PCIE Tune R3 [Auto]
PLL Tune R1 [Auto]
PLL reference voltage [Auto]
T Offset [Auto]
Sense MI Skew [Auto]
Sense MI Offset [Auto]
Promontory presence [Auto]
Clock Amplitude [Auto]
CPU Core Voltage [Auto]
CPU SOC Voltage [Manual]
- VDDSOC Voltage Override [1.14375]
DRAM Voltage [1.45000]
VDDG CCD Voltage Control [Auto]
VDDG IOD Voltage Control [Auto]
CLDO VDDP Voltage [Auto]
1.00V SB Voltage [Auto]
1.8V PLL Voltage [Auto]
Security Device Support [Enable]
SHA-1 PCR Bank [Disabled]
SHA256 PCR Bank [Enabled]
Pending operation [None]

Platform Hierarchy [Enabled]
Storage Hierarchy [Enabled]
Endorsement Hierarchy [Enabled]
TPM 2.0 UEFI Spec Version [TCG_2]
Physical Presence Spec Version [1.3]
Disable Block Sid [Disabled]
Selects TPM device [Enable Firmware TPM]
Erase fTPM NV for factory reset [Enabled]
PSS Support [Enabled]
PPC Adjustment [PState 0]
NX Mode [Enabled]
SVM Mode [Enabled]
SMT Mode [Auto]
Core Leveling Mode [Automatic mode]
SATA Port Enable [Enabled]
SATA Mode [AHCI]
NVMe RAID mode [Disabled]
SMART Self Test [Auto]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
Hot Plug [Disabled]
HD Audio Controller [Enabled]
PCIEX16_1 Bandwidth Bifurcation configuration [Auto Mode]
PCIEX16_2 Bandwidth Bifurcation configuration [Auto Mode]
When system is in working state [All On]
Q-Code LED Function [POST Code Only]
When system is in sleep, hibernate or soft off states [All On]
Realtek 2.5G LAN Controller [Auto]
Intel LAN Controller [Setup]
ASM1074 Controller [Enabled]
Wi-Fi 6 (802.11ax) Controller [Disabled]
Bluetooth Controller [Disabled]
USB power delivery in Soft Off state (S5) [Enabled]
PCIEX16_1 Mode [Auto]
PCIEX16_2 Mode [Auto]
PCIEX1 Mode [Auto]
PCIEX16_3 Mode [Auto]
M.2_1 Link Mode [Auto]
M.2_2 Link Mode [Auto]
SB Link Mode [Auto]
ErP Ready [Disabled]
Restore AC Power Loss [Power Off]
Power On By PCI-E [Disabled]
Power On By RTC [Disabled]
Above 4G Decoding [Enabled]
Resize BAR Support [Auto]
SR-IOV Support [Enabled]
Relaxed Ordering [Enabled]
Extended Tag [Disabled]

No Snoop [Enabled]
Maximum Payload [Auto]
Maximum Read Request [Auto]
ASPM Support [Disabled]
Extended Synch [Disabled]
Link Training Retry [5]
Link Training Timeout (uS) [1000]
Unpopulated Links [Keep Link ON]
Legacy USB Support [Enabled]
XHCI Hand-off [Enabled]
USB Device Enable [Enabled]
U32G2_2 [Enabled]
U32G2_3 [Enabled]
U32G2_4 [Enabled]
U32G1_10 [Enabled]
U32G1_11 [Enabled]
USB12 [Enabled]
USB13 [Enabled]
U32G2_7 [Enabled]
U32G2_C9 [Enabled]
Network Stack [Disabled]
Device [SATA6G_1: CT2000MX500SSD1]
CPU Temperature [Monitor]
CPU Package Temperature [Monitor]
MotherBoard Temperature [Monitor]
VRM Temperature [Monitor]
PCH Temperature [Monitor]
T_Sensor Temperature [Monitor]
Water In T Sensor Temperature [Monitor]
Water Out T Sensor Temperature [Monitor]
CPU Fan Speed [Monitor]
CPU Optional Fan Speed [Monitor]
Chassis Fan 1 Speed [Monitor]
Chassis Fan 2 Speed [Monitor]
Chassis Fan 3 Speed [Monitor]
High Amp Fan Speed [Monitor]
W_PUMP+ Speed [Monitor]
AIO PUMP Speed [Monitor]
Flow Rate [Monitor]
CPU Core Voltage [Monitor]
3.3V Voltage [Monitor]
5V Voltage [Monitor]
12V Voltage [Monitor]
CPU Fan Q-Fan Control [PWM Mode]
CPU Fan Step Up [3.6 sec]
CPU Fan Step Down [0 sec]
CPU Fan Speed Low Limit [200 RPM]
CPU Fan Profile [Manual]
CPU Fan Upper Temperature [55]
CPU Fan Max. Duty Cycle (%) [100]
CPU Fan Middle Temperature [45]
CPU Fan Middle Duty Cycle (%) [80]
CPU Fan Lower Temperature [40]
CPU Fan Min Duty Cycle (%) [60]

Chassis Fan 1 Q-Fan Control [PWM Mode]
Chassis Fan 1 Q-Fan Source [CPU]
Chassis Fan 1 Step Up [0 sec]
Chassis Fan 1 Step Down [0 sec]
Chassis Fan 1 Speed Low Limit [200 RPM]
Chassis Fan 1 Profile [Manual]
Chassis Fan 1 Upper Temperature [65]
Chassis Fan 1 Max. Duty Cycle (%) [100]
Chassis Fan 1 Middle Temperature [60]
Chassis Fan 1 Middle Duty Cycle (%) [66]
Chassis Fan 1 Lower Temperature [50]
Chassis Fan 1 Min Duty Cycle (%) [55]
Chassis Fan 2 Q-Fan Control [DC Mode]
Chassis Fan 2 Q-Fan Source [CPU]
Chassis Fan 2 Step Up [0 sec]
Chassis Fan 2 Step Down [0 sec]
Chassis Fan 2 Speed Low Limit [200 RPM]
Chassis Fan 2 Profile [Manual]
Chassis Fan 2 Upper Temperature [66]
Chassis Fan 2 Max. Duty Cycle (%) [88]
Chassis Fan 2 Middle Temperature [60]
Chassis Fan 2 Middle Duty Cycle (%) [77]
Chassis Fan 2 Lower Temperature [38]
Chassis Fan 2 Min Duty Cycle (%) [66]
Allow Fan Stop [Disabled]
Chassis Fan 3 Q-Fan Control [Auto]
Chassis Fan 3 Q-Fan Source [CPU]
Chassis Fan 3 Step Up [0 sec]
Chassis Fan 3 Step Down [0 sec]
Chassis Fan 3 Speed Low Limit [200 RPM]
Chassis Fan 3 Profile [Standard]
High Amp Fan Q-Fan Control [DC Mode]
High Amp Fan Q-Fan Source [CPU]
High Amp Fan Step Up [0 sec]
High Amp Fan Step Down [0 sec]
High Amp Fan Speed Low Limit [200 RPM]
High Amp Fan Profile [Manual]
High Amp Fan Upper Temperature [66]
High Amp Fan Max. Duty Cycle (%) [88]
High Amp Fan Middle Temperature [60]
High Amp Fan Middle Duty Cycle (%) [77]
High Amp Fan Lower Temperature [40]
High Amp Fan Min Duty Cycle (%) [36]
Allow Fan Stop [Disabled]
Water Pump+ Q-Fan Control [Disabled]
AIO Pump Q-Fan Control [Disabled]
Above 4GB MMIO Limit [39bit (512GB)]
Fast Boot [Enabled]
Next Boot after AC Power Loss [Normal Boot]
Boot Logo Display [Auto]
Bootup NumLock State [On]
POST Delay Time [1 sec]
Wait For 'F1' If Error [Enabled]
Option ROM Messages [Force BIOS]

Interrupt 19 Capture [Disabled]
Setup Mode [Advanced Mode]
Launch CSM [Disabled]
OS Type [Other OS]
SATA Support [All SATA Devices]
NVMe Support [Enabled]
VGA Support [EFI Driver]
USB Support [Full Initial]
Network Stack Driver Support [Disabled]
AMI Native NVMe Driver Support [Enabled]
Flexkey [Reset]
Setup Animator [Disabled]
Load from Profile [1]
Profile Name [4201 X3D test]
Save to Profile [3]
DIMM Slot Number [DIMM_A2]
Bus Interface [PCIEX16_1]
Download & Install ARMOURY CRATE app [Enabled]
Overclock [Auto]
Power Down Enable [Auto]
Cmd2T [Auto]
Gear Down Mode [Auto]
CAD Bus Timing User Controls [Auto]
CAD Bus Drive Strength User Controls [Auto]
Data Bus Configuration User Controls [Auto]
Infinity Fabric Frequency and Dividers [Auto]
Precision Boost Overdrive [Advanced]
PBO Limits [Manual]
PPT Limit [W] [142]
TDC Limit [A] [95]
EDC Limit [A] [140]
Precision Boost Overdrive Scalar [Auto]
Curve Optimizer [Per Core]
Core 0 Curve Optimizer Sign [Negative]
Core 0 Curve Optimizer Magnitude [27]
Core 1 Curve Optimizer Sign [Negative]
Core 1 Curve Optimizer Magnitude [29]
Core 2 Curve Optimizer Sign [Negative]
Core 2 Curve Optimizer Magnitude [29]
Core 3 Curve Optimizer Sign [Negative]
Core 3 Curve Optimizer Magnitude [26]
Core 4 Curve Optimizer Sign [Negative]
Core 4 Curve Optimizer Magnitude [29]
Core 5 Curve Optimizer Sign [Negative]
Core 5 Curve Optimizer Magnitude [29]
Core 6 Curve Optimizer Sign [Negative]
Core 6 Curve Optimizer Magnitude [27]
Core 7 Curve Optimizer Sign [Negative]
Core 7 Curve Optimizer Magnitude [29]
CPU Boost Clock Override [Disabled]
Platform Thermal Throttle Limit [Auto]
SoC/Uncore OC Mode [Disabled]
VDDP Voltage Control [Auto]
VDDG Voltage Control [Auto]

LCLK Frequency Control [Auto]
LCLK DPM [Auto]
LCLK DPM Enhanced PCIe Detection [Auto]
Custom Pstate0 [Auto]
L1 Stream HW Prefetcher [Disable]
L2 Stream HW Prefetcher [Disable]
Core Watchdog Timer Enable [Auto]
Core Performance Boost [Auto]
Global C-state Control [Enabled]
Power Supply Idle Control [Auto]
SEV ASID Count [Auto]
SEV-ES ASID Space Limit Control [Auto]
Streaming Stores Control [Auto]
Local APIC Mode [Auto]
ACPI _CST C1 Declaration [Auto]
MCA error thresh enable [Auto]
PPIN Opt-in [Auto]
Fast Short REP MOVSB [Enabled]
Enhanced REP MOVSB/STOSB [Enabled]
IBS hardware workaround [Auto]
DRAM scrub time [Auto]
Poison scrubber control [Auto]
Redirect scrubber control [Auto]
Redirect scrubber limit [Auto]
NUMA nodes per socket [Auto]
Memory interleaving [Auto]
Memory interleaving size [256 Bytes]
1TB remap [Auto]
DRAM map inversion [Auto]
ACPI SRAT L3 Cache As NUMA Domain [Auto]
ACPI SLIT Distance Control [Auto]
ACPI SLIT remote relative distance [Auto]
GMI encryption control [Auto]
xGMI encryption control [Auto]
CAKE CRC perf bounds Control [Auto]
4-link xGMI max speed [Auto]
3-link xGMI max speed [Auto]
xGMI TXEQ Mode [Auto]
PcsCG control [Auto]
Disable DF to external downstream IP SyncFloodPropagation [Auto]
Disable DF sync flood propagation [Auto]
CC6 memory region encryption [Auto]
Memory Clear [Disabled]
Overclock [Auto]
Power Down Enable [Auto]
Disable Burst/Postponed Refresh [Auto]
DRAM Maximum Activate Count [Auto]
Cmd2T [Auto]
Gear Down Mode [Auto]
CAD Bus Timing User Controls [Auto]
CAD Bus Drive Strength User Controls [Auto]
Data Bus Configuration User Controls [Auto]
Data Poisoning [Auto]
DRAM Post Package Repair [Default]

RCD Parity [Auto]
DRAM Address Command Parity Retry [Auto]
Write CRC Enable [Auto]
DRAM Write CRC Enable and Retry Limit [Auto]
Disable Memory Error Injection [True]
DRAM ECC Symbol Size [Auto]
DRAM ECC Enable [Auto]
DRAM UECC Retry [Auto]
TSME [Auto]
Data Scramble [Auto]
DFE Read Training [Auto]
FFE Write Training [Auto]
PMU Pattern Bits Control [Auto]
MR6VrefDQ Control [Auto]
CPU Vref Training Seed Control [Auto]
Chipselect Interleaving [Auto]
BankGroupSwap [Disabled]
BankGroupSwapAlt [Enabled]
Address Hash Bank 2 ColXor [3f8]
Address Hash Bank [Auto]
Address Hash CS [Auto]
Address Hash Rm [Auto]
SPD Read Optimization [Enabled]
MBIST Enable [Disabled]
Pattern Select [PRBS]
Pattern Length(VMR) [6]
Aggressor Channel [1 Aggressor Channel]
Aggressor Static Lane Control [Disabled]
Target Static Lane Control [Disabled]
Worst Case Margin Granularity [Per Chip Select]
Read Voltage Sweep Step Size [1]
Read Timing Sweep Step Size [1]
Write Voltage Sweep Step Size [1]
Write Timing Sweep Step Size [1]
IOMMU [Auto]
RTM Margining Support [Auto]
Precision Boost Overdrive [Auto]
Precision Boost Overdrive Scalar [Auto]
FCLK Frequency [Auto]
SOC OVERCLOCK VID [0]
UCLK DIV1 MODE [Auto]
VDDP Voltage Control [Auto]
VDDG Voltage Control [Auto]
SoC/Uncore OC Mode [Auto]
LN2 Mode [Auto]
ACS Enable [Auto]
PCIe ARI Support [Auto]
PCIe ARI Enumeration [Auto]
PCIe Ten Bit Tag Support [Enable]
cTDP Control [Auto]
EfficiencyModeEn [Auto]
Package Power Limit Control [Auto]
APBDIS [1]
DF Cstates [Enabled]

Fixed SOC Pstate [P0]
CPPC [Disabled]
CPPC Preferred Cores [Disabled]
NBIO DPM Control [Auto]
Early Link Speed [Auto]
Presence Detect Select mode [Auto]
Preferred IO [Manual]
Preferred IO Bus [0]
CV test [Auto]
Loopback Mode [Auto]
SRIS [Auto]
Data Link Feature Exchange [Disabled]