

R8428 G13 BIOS 调优设置指导

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修订记录

|  |  |  |  |
| --- | --- | --- | --- |
| **日期** | **版本号** | **描述** | **更新人** |
| **2024-08-28** | V1.0 | 三快在线（美团）BIOS BMC设置指导 | 张天驰 |
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*文件的版本号由“V×.×”组成，其中：*

*a）小数点前面的×为主版本号，取值范围为“0～9”。文件进行重大修订时主版本号递增1；*

*b） 小数点后面的×为次版本号，取值为“0～9，a～z”。文件每修改一次时次版本号递增1；主版本号发生改变时，次版本号重新置0；*

*c） 未批准发布的文件版本号为V0.×版，批准发布时为V1.0版。当主版本号发生改变时，前面只有次版本号不同的修订记录可以删除。*

# BIOS功能和设置

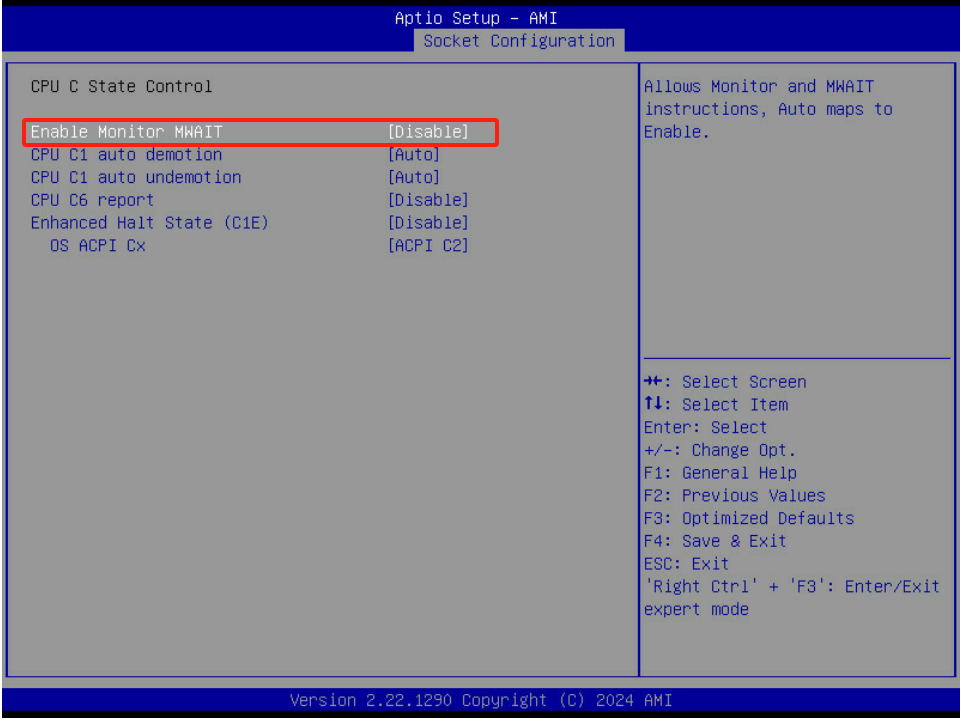
|  |  |
| --- | --- |
| **Configuration Item** | **Recommended Value** |
| Mwaite/Monitor | Disable |
| CPU C6 report | Disable |
| Enhanced Halt State (C1E) | Disable |
| Package C State | C0/C1 state |
| EIST（P-State） | Enabled |
| Hardware P-State | Native Mode |
| Turbo Mode | Enable |
| Power Performance Tuning | BIOS Control |
| EIST | Enable |
| Power Policy Select | Custom |
| OS ACPI Cx | ACPI C2 |
| HT | Enable |
| VMX | Enable |
| MLC Streamer prefetcher | Enable |
| MLC Spatial prefetcher | Enable |
| DCU Streamer Prefetcher | Enable |
| DCU IP Prefetcher | Enable |
| NUMA Node | Enable |
| PCIe SR- IOV | Enable |
| Intel® VT for Directed I/O (VT-d) | Enable |
| Console Redirection | Enable |
| Terminal typer | VT100 |
| Bits per second | 115200 |
| Data Bits | 8 |
| Parity | None |
| Stop Bits | 1 |
| Boot Type | Legacy |
| Quiet Boot | Enable |
| TME,TME-MT,TDX |  |

# BIOS具体设置步骤

## Mwaite/Monitor

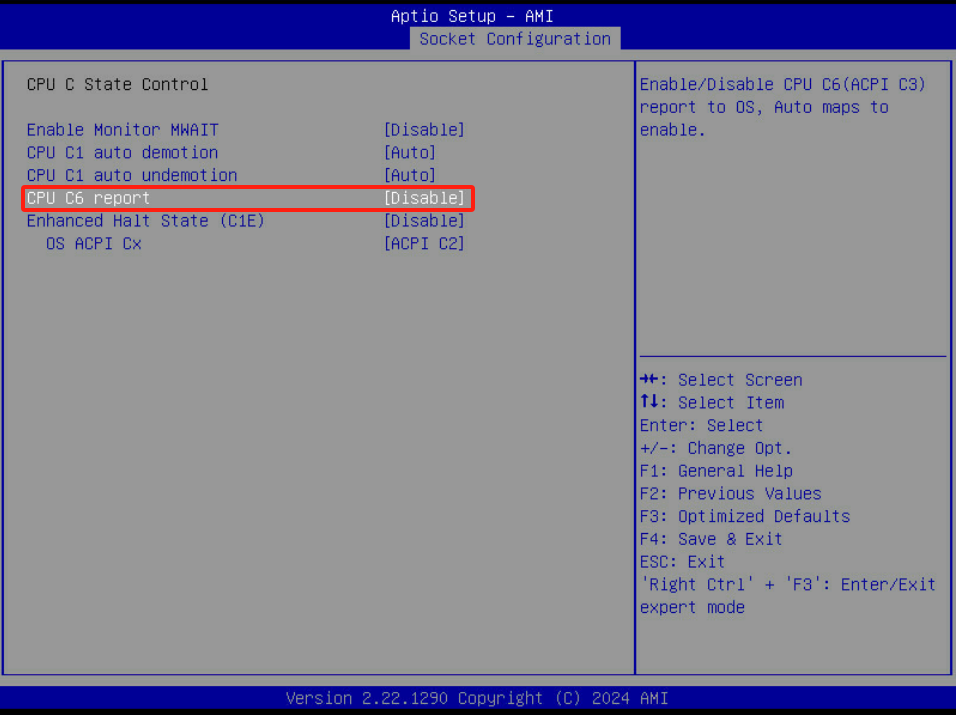
按自检界面按DEL进入BIOS 设置界面

Socket Configuration->Advanced Power Management Configuration->CPU C State Control->Enable Monitor MWAIT--[Disable]



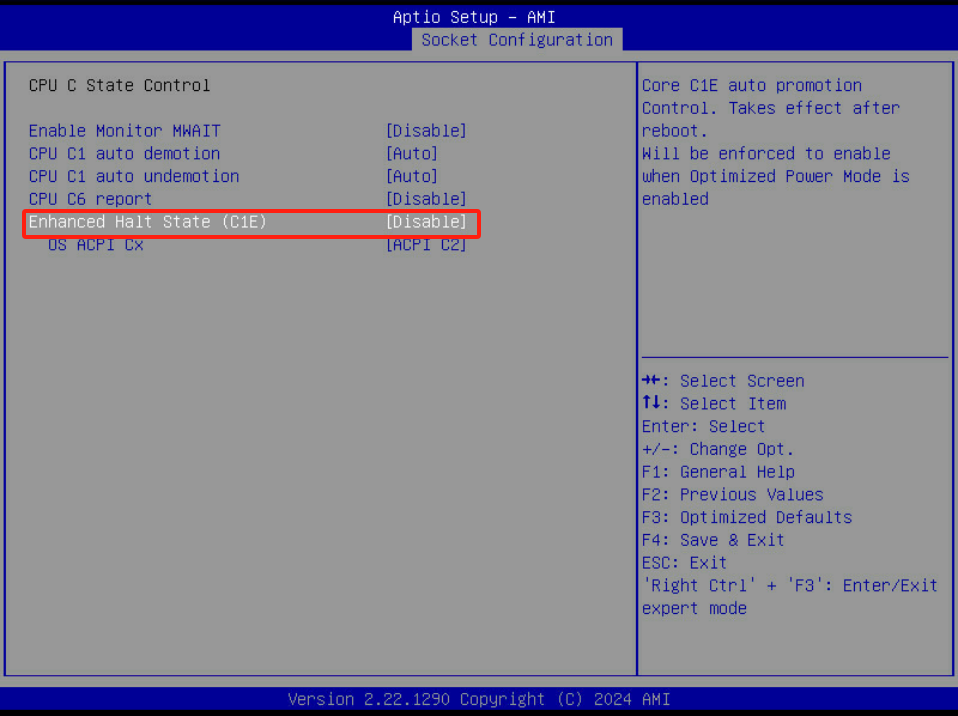
## CPU C6 report

Socket Configuration->Advanced Power Management Configuration->CPU C State Control->CPU C6 report--[Disable]



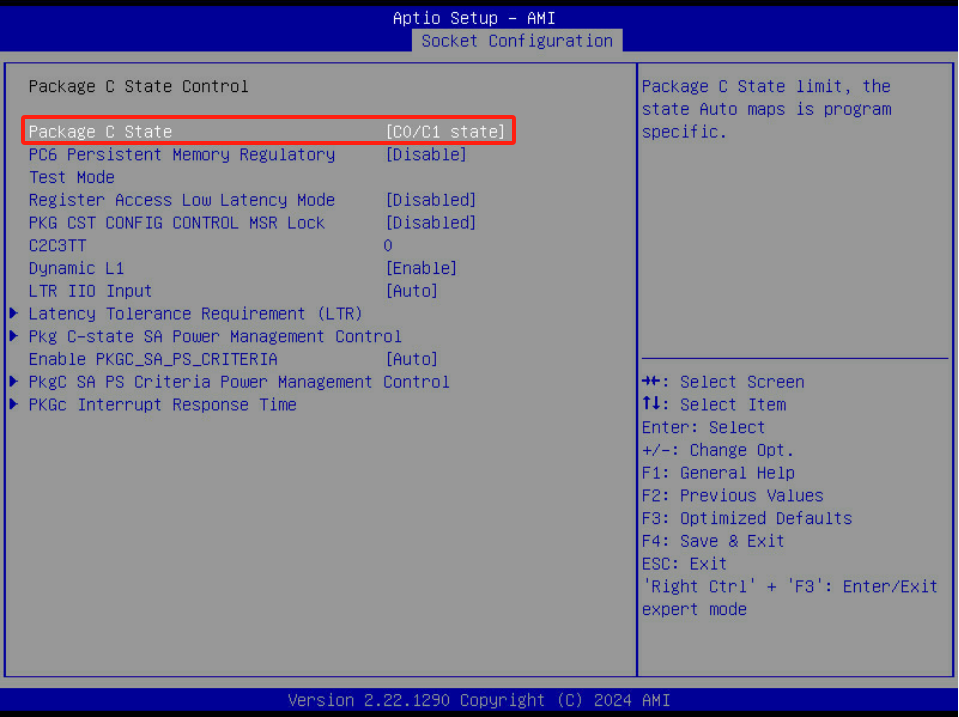
## Enhanced Halt State (C1E)

Socket Configuration->Advanced Power Management Configuration->CPU C State Control->Enhanced Halt State（C1E）--[Disable]



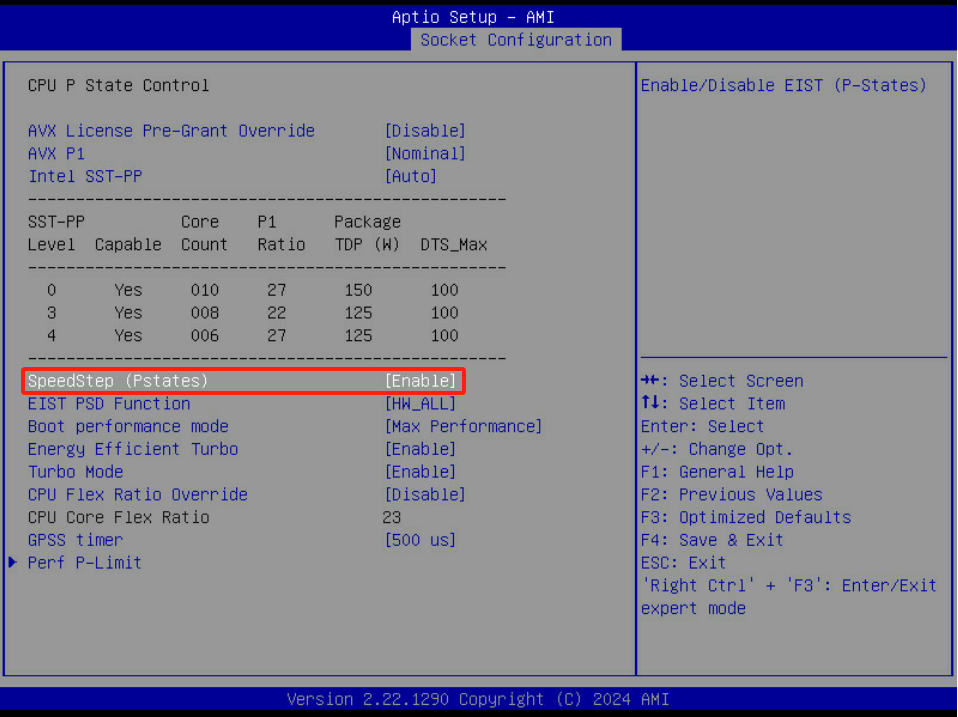
## Package C State

Socket Configuration->Advanced Power Management Configuration->Package C State Control--[C0/C1 state]



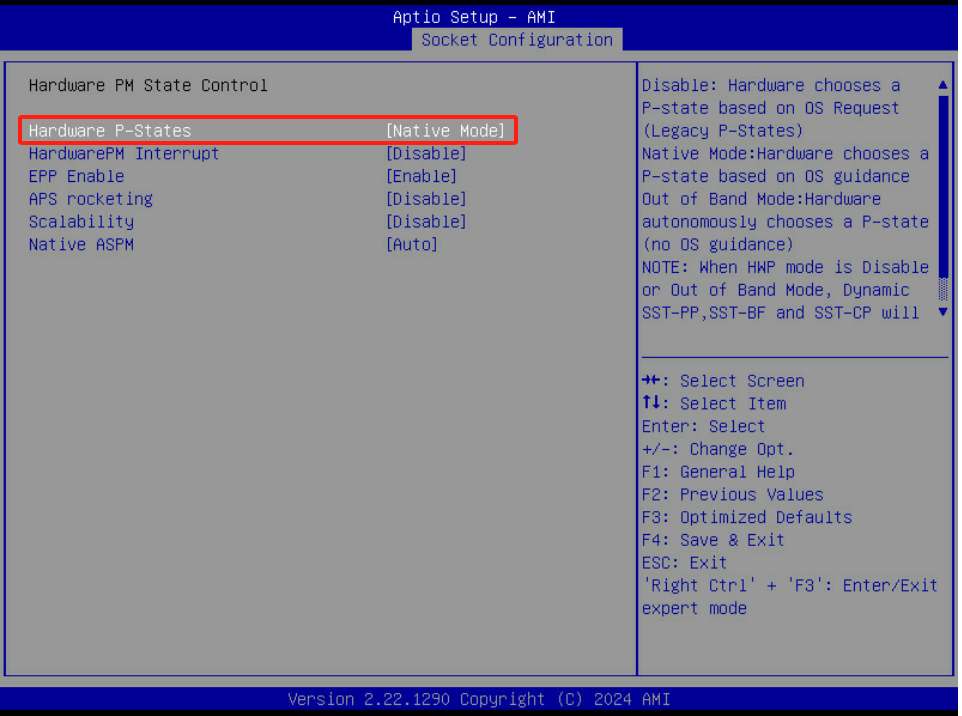
## EIST（P-State）

Socket Configuration->Advanced Power Management Configuration->CPU P State Control->SpeedStep（Pstates）--[Enable]



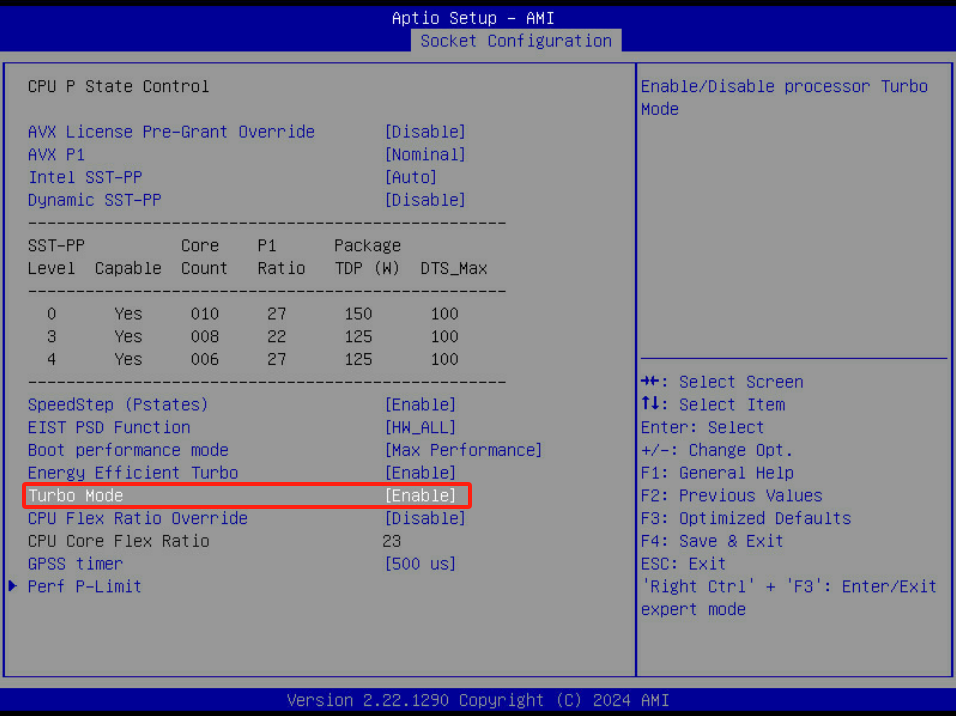
## Hardware P-State

Socket Configuration->Advanced Power Management Configuration->Hardware PM State Control->Hardware P-States--[Native Mode]



## Turbo Mode

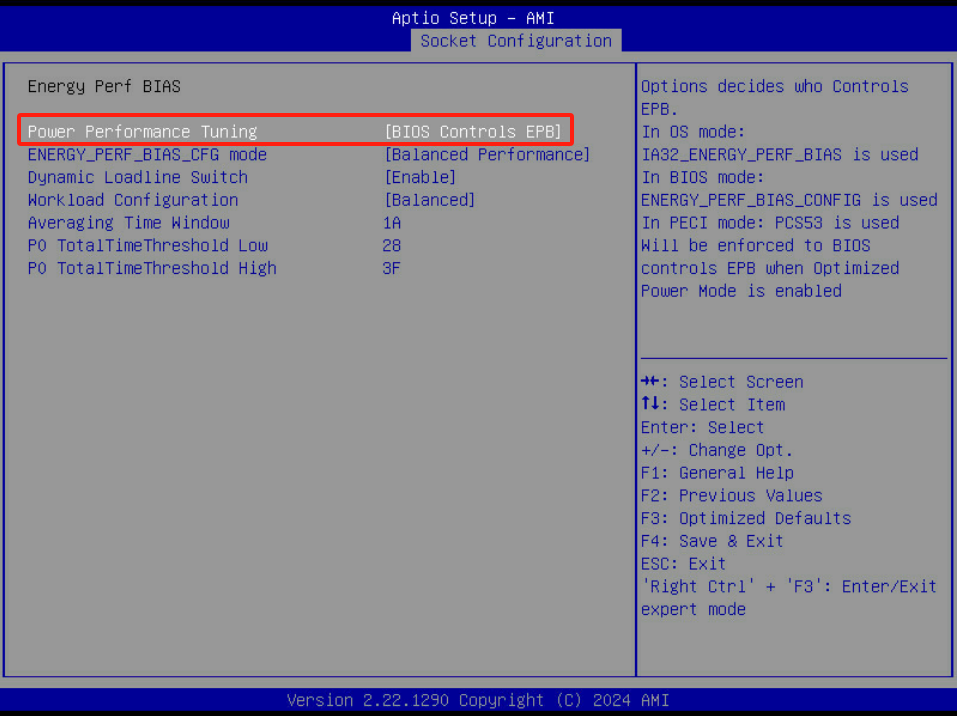
Socket Configuration->Advanced Power Management Configuration->CPU P State Control->Turbo Mode--[Enable]



## Power Performance Tuning

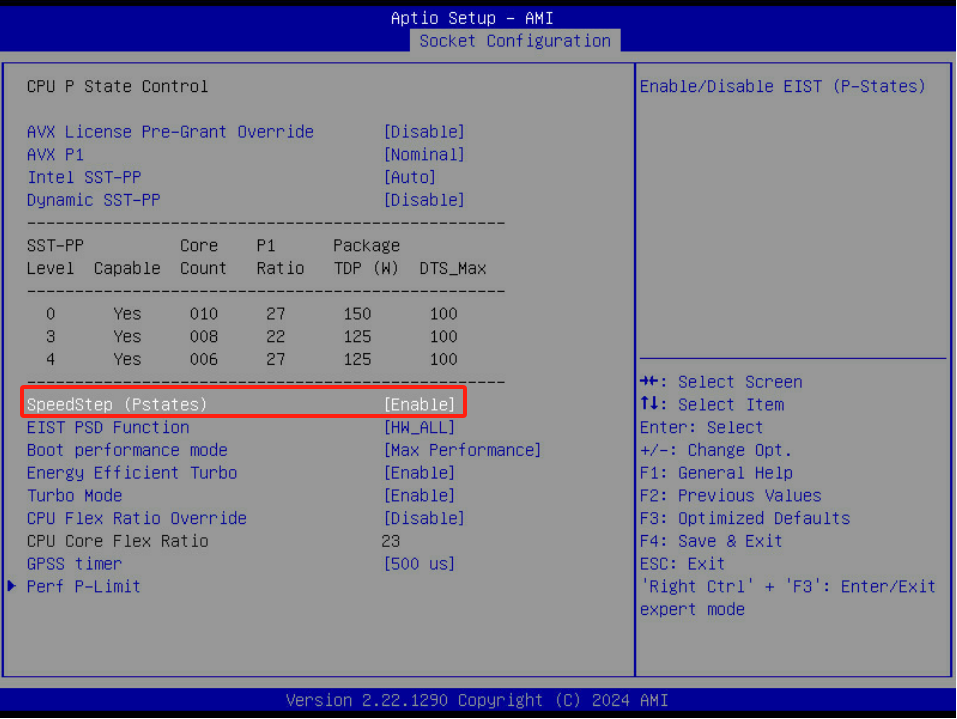
Socket Configuration->Advanced Power Management Configuration->CPU - Advanced PM Tuning->

Energy Perf BIAS->Power Performance Turning--[BIOS Controls EPB]



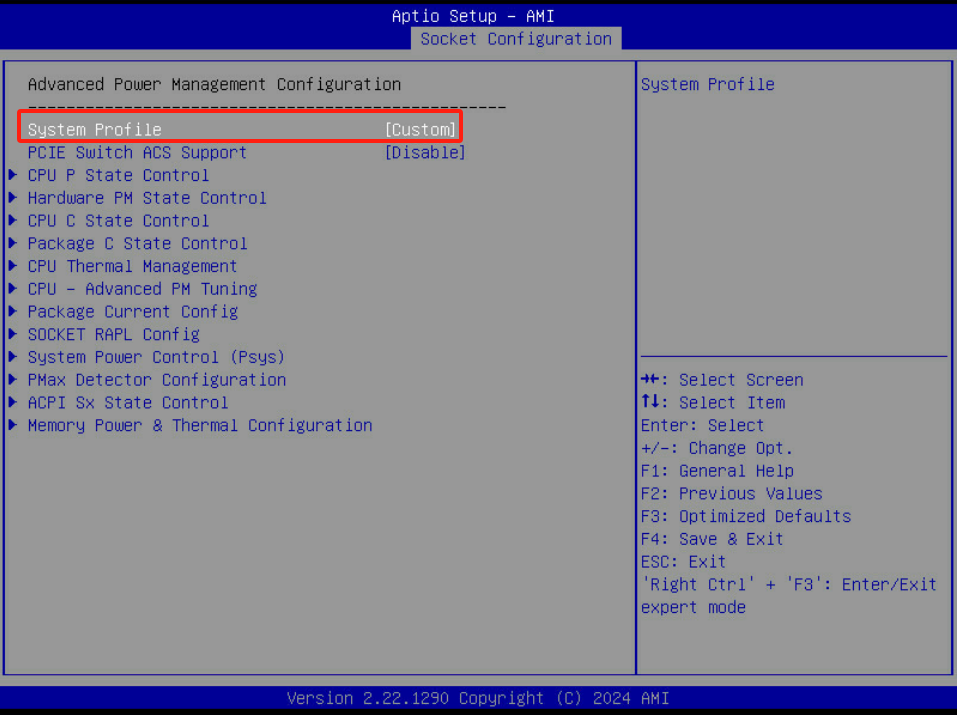
## EIST

Socket Configuration->Advanced Power Management Configuration->CPU P State Control->SpeedStep (Pstates)--[Enable]



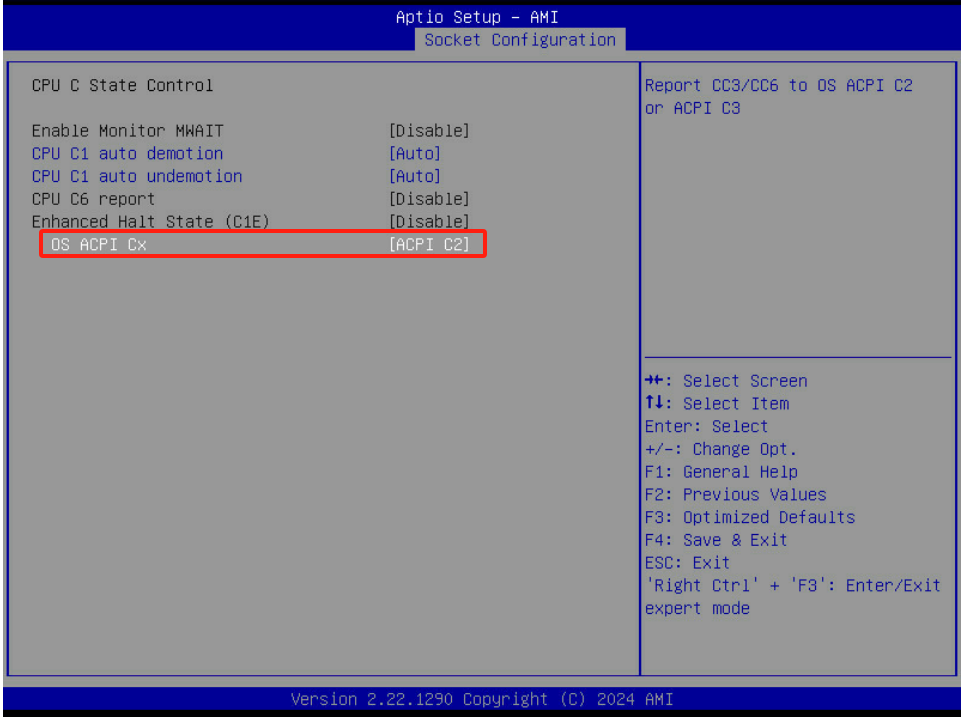
## Power Policy Select

Socket Configuration->Advanced Power Management Configuration->System Profile--[Custom]



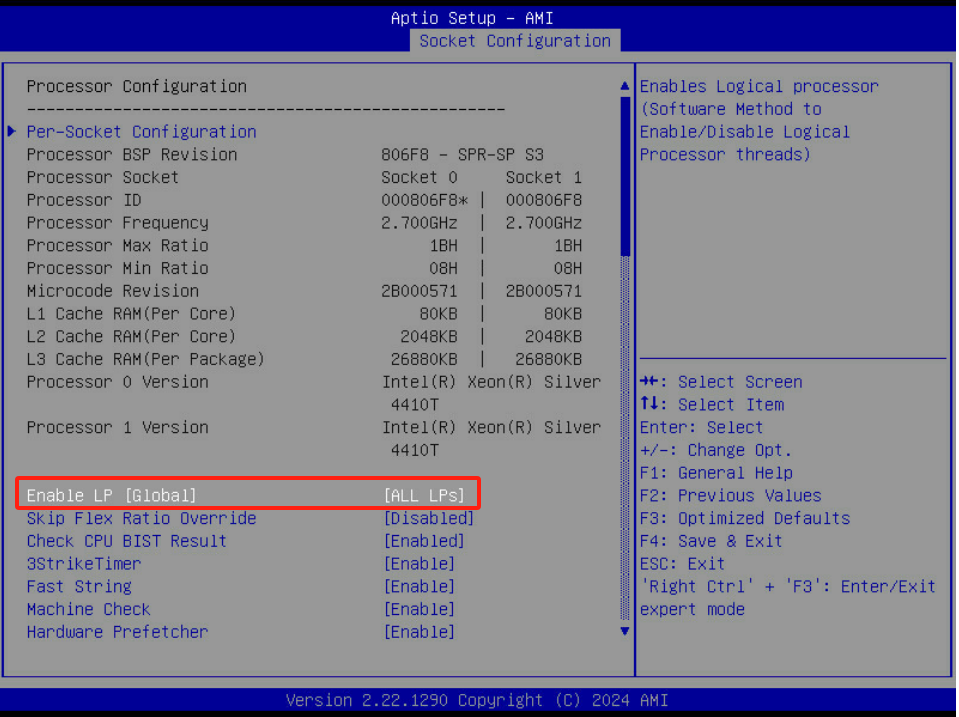
## OS ACPI Cx

Socket Configuration->Advanced Power Management Configuration->CPU C State Control->OS ACPI Cx--[ACPI C2]



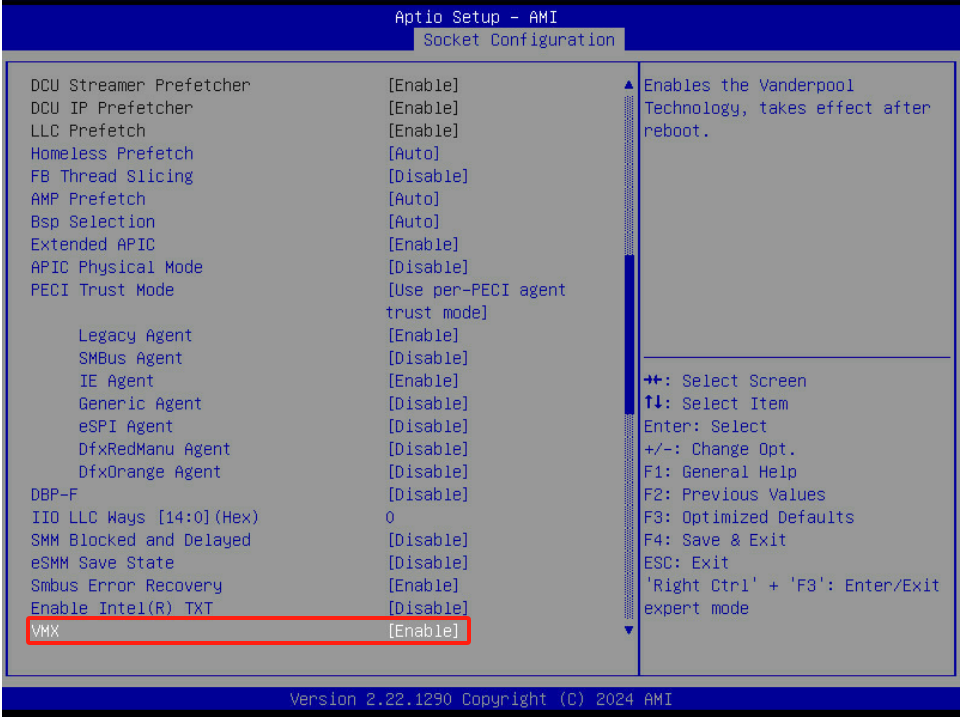
## HT

Socket Configuration->Processor Configuration->Enable LP[Global]--[ALL LPs]



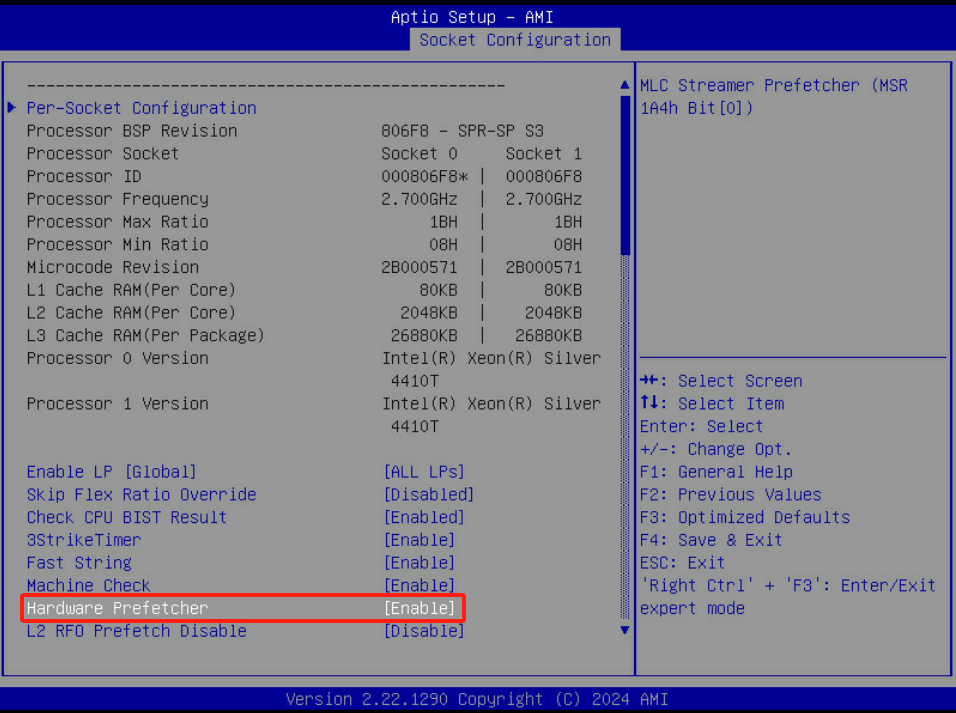
## VMX

Socket Configuration->Processor Configuration->VMX--[Enable]



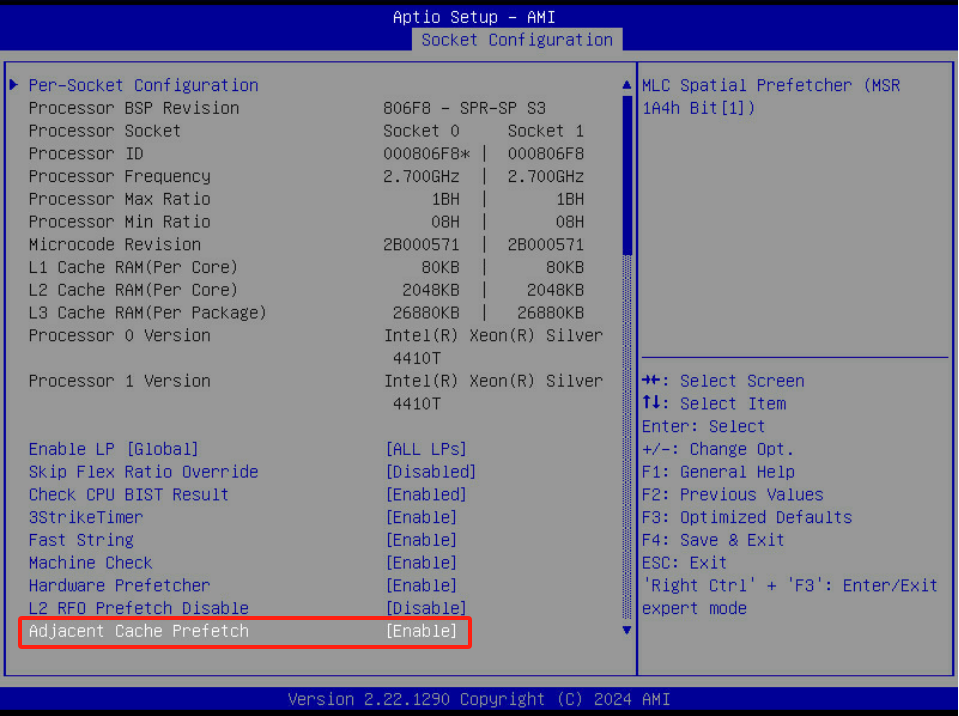
## MLC Streamer prefetcher

Socket Configuration->Processor Configuration->Hardware Prefetcher--[Enable]



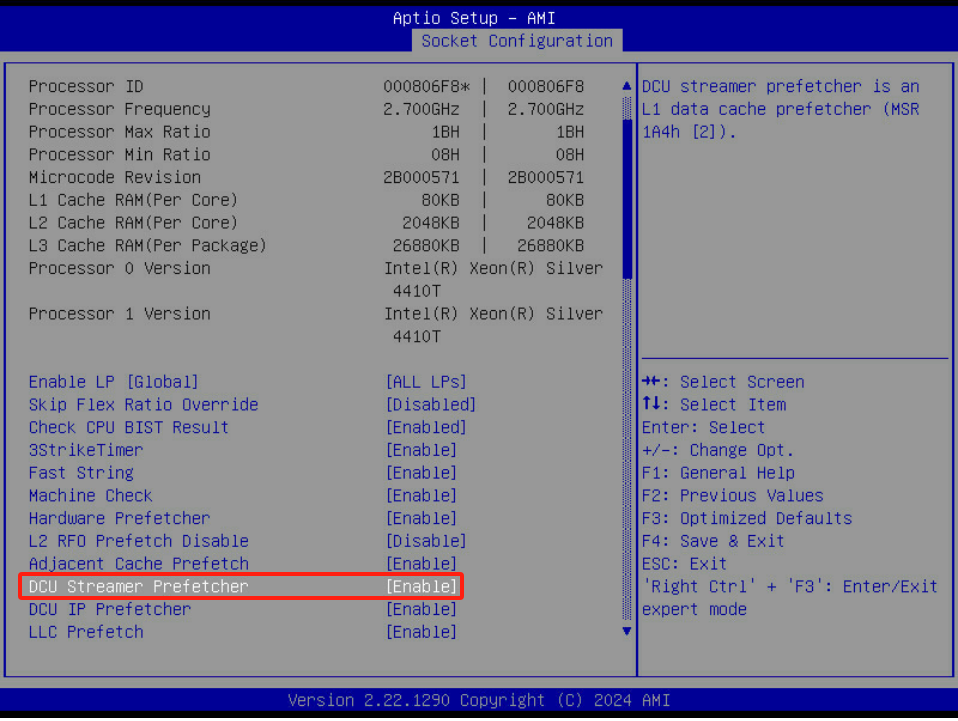
## MLC Spatial prefetcher

Socket Configuration->Processor Configuration->Adjacent Cache Prefetch--[Enable]



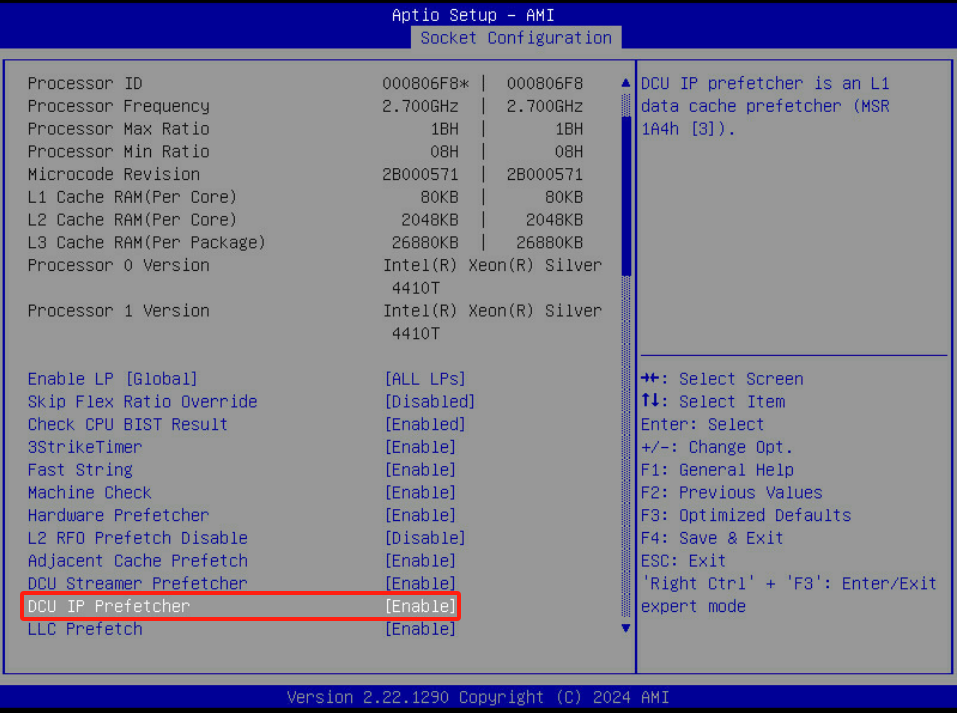
## DCU Streamer Prefetcher

Socket Configuration->Processor Configuration->DCU Streamer Prefetcher--[Enable]



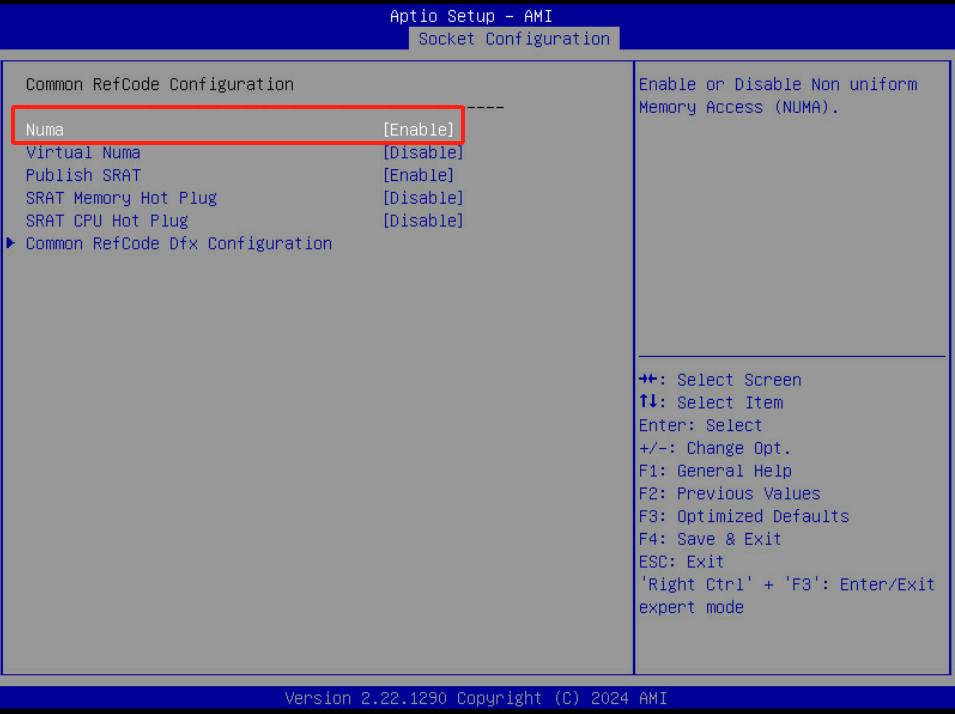
## DCU IP Prefetcher

Socket Configuration->Processor Configuration->DCU IP Prefetcher--[Enable]



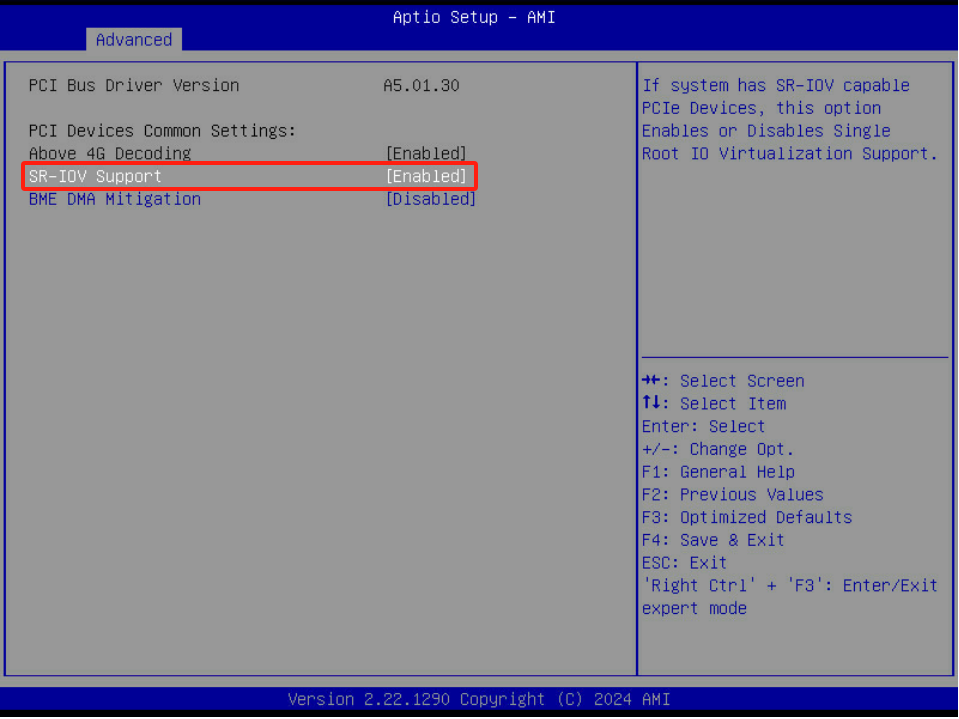
## NUMA Node

Socket Configuration->Common RefCode Configuration->Numa--[Enable]



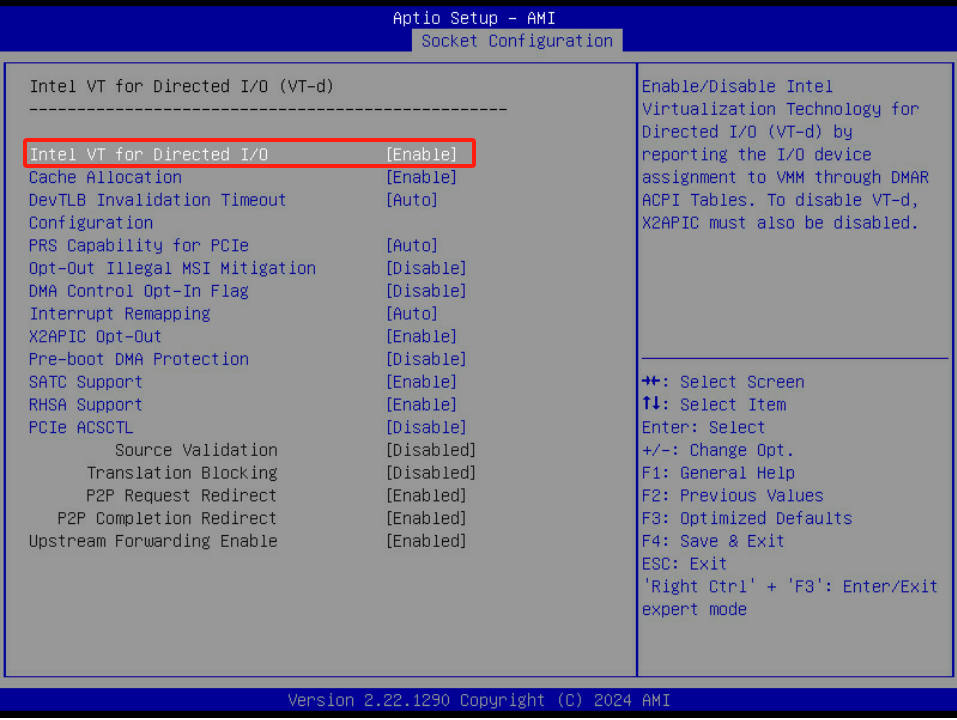
## PCIe SR-IOV

Advanced->PCI Subsystem Settings->SR-IOV Support--[Enable]



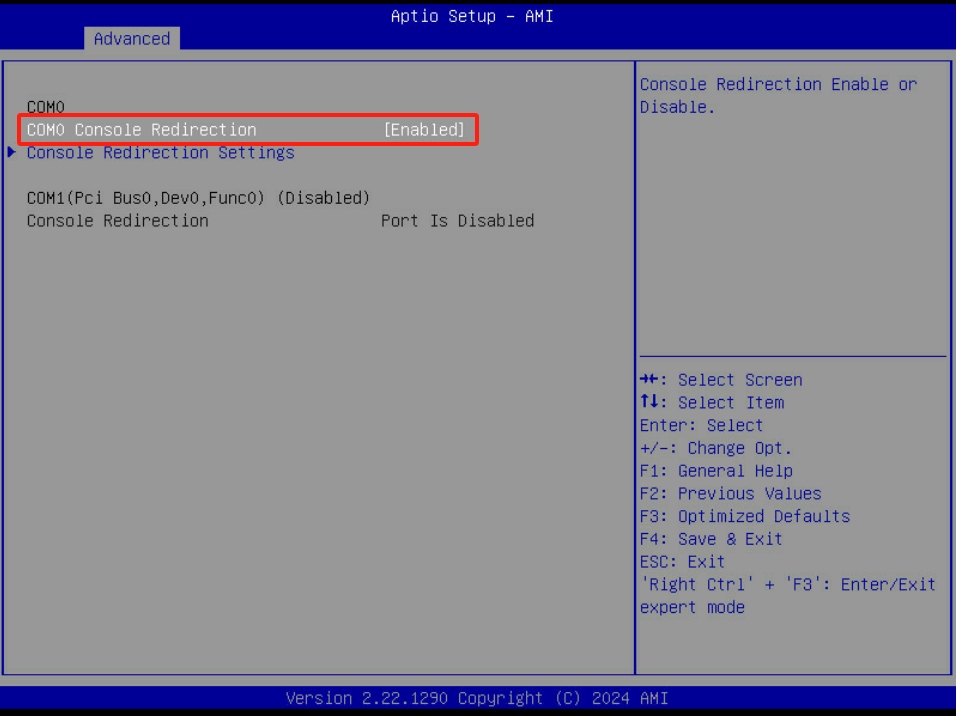
## Intel® VT for Directed I/O (VT-d)

Socket Configuration->IIO Configuration->Intel VT for Directed I/O（VT-d）->Intel VT for Directed I/O--[Enable]



## Console Redirection

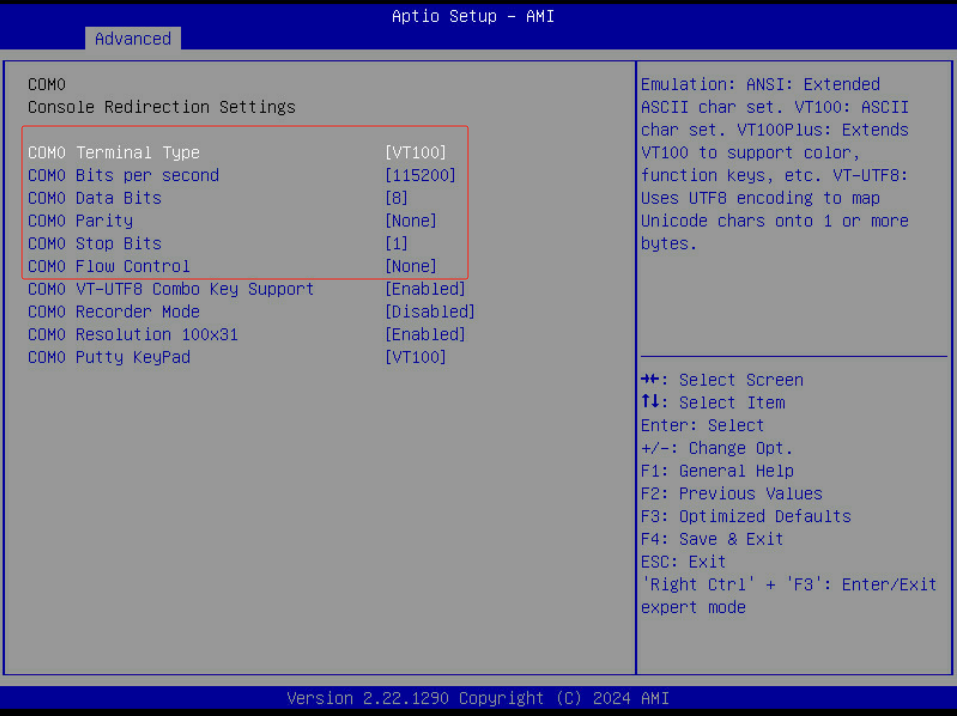
Advanced->Serial Port Console Redirection->COMO Console Redirection--[Enable]



## Console Redirection Settings

Advanced->Serial Port Console Redirection->COMO Console Redirection Settings

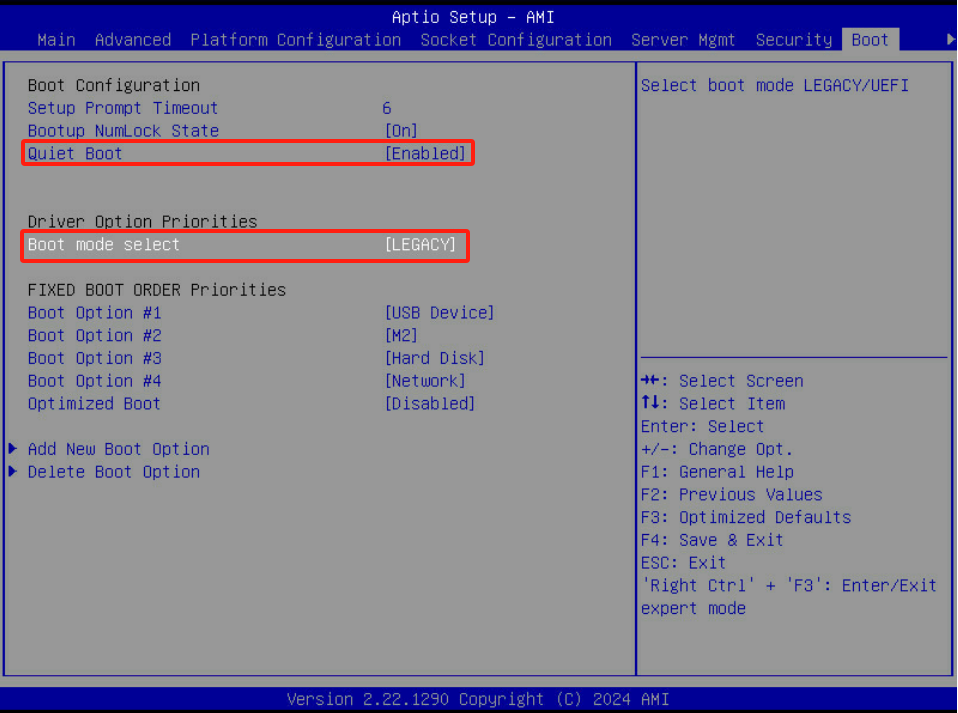
|  |  |
| --- | --- |
| Terminal typer | VT100 |
| Bits per second | 115200 |
| Data Bits | 8 |
| Parity | None |
| Stop Bits | 1 |



## Boot

Boot

|  |  |
| --- | --- |
| Boot Type | Legacy |
| Quiet Boot | Enabled |



## TME,TME-MT,TDX

Socket Configuration---->Processor Configuration---->TME,TME-MT,TDX

