

## **BIOS Settings** GigaByte Z390 M Gaming:

>> **Load Optimized Defaults** then make the following settings – important settings in bold:

- **M.I.T.**

- Advanced Frequency Settings: Extreme Memory Profile (X.M.P.) >> **Profile 1**
- CPU Internal AC/DC load line - Power Saving
- CPU Score Load Calibration - Low

- **BIOS**

- Fast Boot: Disabled
- Windows 8/10 Features >> Other OS also Windows
- CSM Support >> **Disabled**

**Secure Boot** >> disabled by default, but good to check

- **Peripherals**

- Initial Display Output: PCIe Slot 1 (**sofern da die Grafikkarte drin ist**)
- Intel Platform Trust Technology (PTT) >> Disabled

**Super IO Configuration**

Serial Port: Disabled

**USB Configuration**

- Legacy USB Support >> Enabled
- XHCI Hand-off >> **Enabled**

**Network Stack Configuration**

- Network Stack >> Disabled

**Thunderbolt(TM) Configuration**

- TBT V-td Base Security >> **Disabled**
- Thunderbolt Boot Support >> **Disabled**
- Security Level >> **No Security**

Discrete Thunderbolt™ Configuration:

Thunderbolt USB Support: Enabled

GPIO Force Pwr: Enabled

**Zur Sicherheit checken: PCIE x4 Switch: PCH Side**

- **Chipset**

- Vt-d **Disabled**
- Internal Graphics >> Enabled
- DVMT Pre-Alloc >> 64M
- DVMT Total Gfx Mem >> 256M
- Audio Controller >> Enabled
- Above 4G Decoding >> Disabled
- PCH LAN Controller: Enabled
- IOAPIC 24-119 Entries: Enabled

- **Power**

- ErP >> Disabled
- RC6 (Render Standby) >> Enabled

- **Trusted Computing:**

- Security Device Support: Disable

- **SATA And RST Configuration:**

**Zur Sicherheit checken: SATA Mode Selection: AHCI**

- **Smart Fan:**

Die Lüftersteuerung (Smart Fan) müsst ihr nach euren Bedürfnissen einrichten. Ich habe bei mir den CPU-Lüfter auf "Silent", den Rest auf "Manual" und meine eigenen Lüfterkurven eingestellt, die alle noch deutlich leiser sind als die "Silent"-Einstellung. Außer beim CPU-Lüfter habe ich bei allen Lüftern "VRM MOS" als Sensor ausgewählt (also nicht "System 1", "System 2" etc.).



## **Thunderbolt™ Configuration:**

(bei Frage: „Save configuration and exit“ hier „No“ auswählen.)

**Save and Exit, The system will restart**



M.I.T. System BIOS Peripherals Chipset Power Save & Exit

CPU Internal AC/DC Load line	Power Saving
CPU Vcore Loadline Calibration	Low
VAXG Loadline Calibration	Normal
CPU Vcore/VAXG Protection	Normal
CPU Vcore Current Protection	Normal
VAXG Current Protection	Normal
CPU Vcore PWM Switch Rate	Normal
VAXG PWM Switch Rate	400.0KHz
PWM Phase Control	Balanced
VAXG Phase Control	High Perf

M.I.T. System BIOS Peripherals Chipset Power Save &

CPU Vcore	Normal	1.200V
Dynamic Vcore(DVID)	+0.000V	+0.000V
BCLK Adaptive Voltage	Enabled	
SVID offset	Disabled	
CPU Graphics Voltage (VAXG)	Auto	1.200V
CPU VCCIO	Auto	0.950V
CPU System Agent Voltage	Auto	1.050V
VCC Substained	Auto	1.020V
VCCPLL	Auto	1.020V
VCCPLL OC	Auto	1.250V
VCCVTT	Auto	1.020V
VCCDMI_PEG	Auto	1.000V
CPU Core PLL Overvoltage (+mV)	Auto	-
RING PLL Overvoltage (+mV)	Auto	-
GT PLL Overvoltage (+mV)	Auto	-
SA PLL Overvoltage (+mV)	Auto	-
MC PLL Overvoltage (+mV)	Auto	-

Adjust the voltage.  
Auto = BIOS configures Vcore voltage entered manually.





