Biossettings in LG Gram 17

1. Main
   1. NumLock: On
   2. Timeout: 0
   3. CSM Support: No
   4. Quick Boot: Enabled
   5. Diagnostic Splash Screen: Disabled
   6. Diagnostic Summary Screen: Disabled
   7. BIOS Level USB: Enabled
   8. USB Legacy: Enabled
   9. Console Redirection: Disabled
   10. Allow Hotkey in S4 resume: Enabled
   11. UEFI Boot: Enabled
   12. Legacy Boot: Disabled
   13. Imitation Usb On Demand: Disabled
2. Advanced
   1. Select Language: English
   2. RTC WakeUp from S4: Enabled
   3. USB Charger Support: Disabled
   4. Debug UART: Disabled
   5. Battery Charge Stop Percentage: 100%
   6. FN Key Setup: 5 Sec
   7. FN Key & Ctrl Key Exchange: Disabled
   8. Fan Mode Control: On
   9. Platform Manager: Enabled
   10. Intel (VMX) Virtualization Technology: Enabled
   11. Platform Information Menu
       1. …
   12. Intel Advanced Menu
       1. Platform Variable Revision: 19
       2. ME Setup Variable Revision: 2
       3. CPU Setup Variable Revision:8
       4. SA Setup Variable Revision: 6
       5. PCH Setup Variable Revision: 12
       6. SI Setup Variable Revision: 1
       7. Firmware Configuration: Test
       8. Debugg Settings
       9. PCI Subsystem Settings
          1. PCI Bus Driver Version: V 10.00.00
          2. PCI ROM Priority: EFI Compatible ROM
          3. External DMA Allowed On Boot: No
          4. Install Ext OpRom Before BIOS Setup: Disabled
          5. PCI Latency Timer: 32 PCI Bus Clocks
       10. ACPI Settings
           1. ACPI Version: 6.1
           2. Enable ACPI Auto Configuration: (ist leer, man kann ein X eingeben)
           3. Enable Hibernation: X
           4. PTID Support: X
           5. PECI Access Method: Direct I/O
           6. ACPI S3 Support: Enabled
           7. Native ASPM: Auto
           8. BDAT ACPI Table Support: Disabled
           9. Wake System from S5 via RTC: Disabled
           10. Low Power S0 Idle Compatibility: Disabled
           11. SSDT table from file: Disabled
           12. PCI Delay Optimization: Disabled
           13. MSI enabled: Enabled
       11. CPU Configuration
           1. Type: Intel ® Core ™ i5.1035G7 @ 1.20GHz
           2. ID: 0x706E5
           3. Speed: 1500 MHz
           4. L1 Data Cache: 48 KB x 4
           5. C6DRAM: Enabled
           6. Software Guard Extensions (SGX): Disabled
           7. CPU Flex Ratio Override: Disabled
           8. CPU Flex Ratio Settings: 15
           9. Hardware Prefetcher: Enabled
           10. Adjacent Cache Line Prefecht: Enabled
           11. Intel (VMX) Virtualization Technology: Enabled
           12. PECI: Enabled
           13. Active Processor Cores: All
           14. Hyper-Threading: Enabled
           15. BIST: Disabled
           16. AP Threads Idle Manner: MWAIT Loop
           17. AES: Enabled
           18. MachineCheck: Enabled
           19. MonitorMWait: Enabled
           20. BIOS Guard
               1. BIOS Guard: Enabled
               2. Enable Tools Interface: Disabled
               3. Flas Wear Out Protection: Enabled
           21. Voltage Optimazition: Auto
       12. Connectivity Configuration
           1. CNVi present: Yes
           2. CNVI Configuration
              1. CNVI Mode: Auto Detection
              2. BT Core: Enabled
              3. BT Audio Offlaod: Disabled
           3. CoExistence Manager: Disabled
           4. WiFi Kill Enabled: Enabled
           5. Preboot BLE: Disabled
           6. Discrete Bluetooth Module: Disabled
           7. Advanced Settings: Disabled
           8. WWAN Configuration
              1. …
       13. Power & Performance
           1. CPU – Power Management Control
              1. Boot performance mode: Turbo Performance
              2. Intel (R) SpeedStep (tm): Enabled
              3. Race To Halt (RTH): Enabled
              4. Intel (R) Speed Shift Technology: Enabled
              5. Per Core P State OS control mode: Enabled
              6. HwP Autonomous Per Core P State: Enabled
              7. HwP Autonomous EPP Grouping: Enabled
              8. EPB override over PECI: Disabled
              9. HwP Fast MSR Support: Enabled
              10. HDC Control: Enabled
              11. Turbo Mode: Enabled

View/Configure Turbo Options

Current Turbo Settings

Max Turbo Power Limit: 4095.875

Min Turbo Power Limit: 0.0

Package TDP Limit 15.0

Power Limit 1: 15.0

Power Limit 2: 15.0

1-core Turbo Ratio: 37

2-core Turbo Ratio: 36

3-core Turbo Ratio: 33

4-core Turbo Ratio: 33

Energy Efficient P-state: Enabled

Package Power Limit MSR Lock: Disabled

1-Core Ratio Limit Override: 37

2-Core Ratio Limit Override: 36

3-Core Ratio Limit Override: 33

4-Core Ratio Limit Override: 33

Energy Efficient Turbo

Config TPD Configurations

…

CPU VR Settings

…

* + - * 1. Platform PL1 Enable: Disabled
        2. Platform PL2 Enable: Disabled
        3. Power Limit 4 Override
        4. C states: Enabled
        5. Enhanced C-states: Enabled
        6. C-State Auto Demotion: C1
        7. C-State Un-demotion: C1
        8. Package C-State Demotion: Enabled
        9. Package C-State Un-demotion: Enabled
        10. CState Pre-Wake: Enabled
        11. IO MWAIT Redirection: Disabled
        12. Package C State Limit: Auto
        13. C6/C7 IRTL Control (MSR 0x60B)  
            Time Unit: 1024 ns
        14. IRTL: 0
        15. C6/C7 IRTL Control (MSR 0x60C)  
            Time Unit: 1024 ns
        16. IRTL: 0
        17. C8 IRTL Control (MSR 0x633)  
            Time Unit: 1024 ns
        18. IRTL: 0
        19. C9 IRTL Control (MSR 0x634)  
            Time Unit: 1024 ns
        20. IRTL: 0
        21. C10 IRTL Control (MSR 0x635)  
            Time Unit: 1024 ns
        22. IRTL: 0
        23. Thermal Monitor: Enabled
        24. Interrupt Redirection Mode Selection: Fixed Priority
        25. Time MWAIT: Disabled
        26. Custom P-state Table

…

* + - * 1. EC Turbo Control Mode: Disabled
        2. Energy Performance Gain
        3. EPG DIMM Idd3N: 26
        4. EPG DIMM Idd3P: 11
        5. Power Limit 3 Settings

Power Limit 3 Override: Disabled

* + - * 1. CPU Lock Configuration

CFG Lock: Disabled

Overclocking Lock: Enabled

* + - 1. GT – Power Management Control
         1. RC6 (Render Standby): Enabled
         2. Maximum GT frequency: Default Max Frequency
         3. Disable Turbo GT frequency: Disabled
    1. OverClocking Performance Menu
       1. Ring Voltage: N/A
       2. SA Voltage: N/A
       3. Overclocking Feature: Disabled
       4. WDT Enable: Enabled
    2. Memory Configuration
       1. Memory Thermal Configuration
          1. Memory Power and Thermal Throttling

DDR PowerDown and idle counter: BIOS

For LPDDR Only: DDR PowerDown and idle counter: BIOS

REFRESH\_2X\_MODE: Disabled

LPDDR Thermal Sensor: Enabled

SelfRefresh Enable: Enabled

SelfRefresh IdleTimer: 512

Throttler CKEMin Defeature: Disabled

Throttler CKEMin Timer: 48

For LPDDR Only: Throttler CKEMin Defeature: Enabled

For LPDDR Only: Throttler CKEMin Timer: 64

Drom Power Meter

…

Memory Thermal Reporting

…

Memory RAPL

…

* + - * 1. Memory Thermal Management: Disabled
      1. Memory Training Algorithms
         1. …
      2. Memory Configuration
      3. Memory RC Version: 0.0.4.86
      4. Memory Frequency: 3200 MHz
      5. Channel 0 Slot 0: Populated & Ensabled
         1. Size: 16384 MB (UnKnown)
         2. Number of Ranks: 2
         3. Manufacturer: Samsung
      6. Channel 0 Slot 1: Not Populated / Disabled
      7. Channel 1 Slot 0: Populated & Ensabled
         1. Size: 8192 MB (UnKnown)
         2. Number of Ranks: 1
         3. Manufacturer: SK Hynix
      8. Channel 1 Slot 1: Not Populated / Disabled
      9. Memory ratio/reference clock options moved to Oerclock->Memory->Custom Profile menu
      10. MRC ULT Safe Config: Disabled
      11. Safe Mode Support: Disabled
      12. Maximum Memory Frequency: Auto
      13. HOB Buffer Size: Auto
      14. Max TOLUD: Dynamic
      15. SA GV: Fixed Mid
      16. DDR Speed Control: Auto
      17. Retrain on Fast Fail: Enabled
      18. DDR4\_1DPC: Enabled
      19. Enable RH Prevention: Disabled
      20. Exit On Failure (MRC) Enabled
      21. Enable/Disable IED (Intel Enhanced Debug): Disabled
      22. Ch Hash Support: Enabled
      23. Ch Hash Mask: 12492
      24. Ch Hash Interleaved Bit: BIT8
      25. Extended Bank Hashing: Enabled
      26. Per Bank Refresh: Enabled
      27. Memory Scrambler: Enabled
      28. Force ColdReset: Disabled
      29. Channel A DIMM Control: Enable both DIMMs
      30. Channel B DIMM Control: Enable both DIMMs
      31. Force Singel Rank: Disabled
      32. Memory Remap: Enabled
      33. Time Mesure: Disabled
      34. Fast Boot: Disabled
      35. Train On Warm boot: Disabled
      36. Rank Margin Tool Per Task: Disabled
      37. Training Tracing: Disabled
      38. Lpddr Mem WL Set: Set B
      39. BDAT Memory Test Type: Rank Margin Tool Rank
      40. Rank Margin Tool Loop Count: 0
      41. Low Supply for LPDDR4 Data: Disabled
      42. Low Supply for LPDDR4 Clock/Command/Control: Disabled
      43. Memory Test on Warm Boot: Enabled
    1. System Agent (SA) Configuration
       1. SA PCIe Code Version: 8.0.85.16
       2. VT-d: Supported
       3. Graphics Configuration:
          1. Graphics Turbo IMON Current: 31
          2. Skip Scanning of External Gfx Card: Disabled
          3. Primary Disply: Auto
          4. Internal Graphics: Auto
          5. GTT Size: 8MB
          6. Aperture Size: 256MB
          7. PSMI SUPPORT: Disabled
          8. DVMT Pre-Allocated: 64MB
          9. DVMT Total Gfx Mem: 256M
          10. Intel Graphics Pei Display Peim: Enabled
          11. VDD Enabel: Enabled
          12. PM Support: Enabled
          13. PAVP Enable: Enabled
          14. Cdymax Clamping Enable: Disabled
          15. Cd Clock Frequency: Max CdClock feq based on Reference Clk
          16. Skip Full CD Clock Init: Disabled
          17. IUER Button Enable: Disabled
          18. Inter ® Ultrabook Event Support

IUER Slate Enable: Disabled

IUER Dock Enable: Disalbed

* + - 1. DMI/OPI Configuration
         1. DMI/OPI Configuration
      2. TCSS setup menu
         1. IOM FW version 04011000
         2. TBT FW IRM Status: C0001DB1
         3. TBT FW version: 7601
         4. TCSS xHC! Support: Enabled
         5. Enable the iTBT PCIe on Textra Segment: Disabled
         6. TCSS USB Configuration

USB3 Compliance Mode: Disabled

XHCI Loopback Mode Port0: Disabled

XHCI Loopback Mode Port1: Disabled

XHCI Loopback Mode Port2: Disabled

XHCI Loopback Mode Port3: Disabled

USB CONNECT OVERRIDE: Disabled

TCSS xDCI Support: Disabled

* + - * 1. ITBT PCIE0 Root Port: Enabled
        2. ITBT DMA0: Enabled
        3. ITBT DMA1: Disabled
        4. VCCST status of IOM: Enabled
        5. D3 Cold Enable/Disable: Enabled
        6. D3 Hot Enable/Disable: Enabled
        7. Load MG uC FW Enable/Disable: Disabled
        8. PCI Express Root Port 0

PTM: Disabled

SA PCIe LTR Configuration

LTR: Enabled

Snoop Latency Override: Enabled

Snoop Latency Value: 200

Snoop Latency Multiplier: 1024 ns

Non Snoop Latency Override: Enabled

Non Snoop Latency Value: 200

Non Snoop Latency Multiplier: 1024 ns

LTR Lock: Disabled

* + - 1. Display setup menu
         1. Display Configuration
      2. Stop Grant Configuration: Auto
      3. VT-d: Disabled
      4. X2APIC Opt Out: Enabled
      5. DMA Control Guarantee: Enabled
      6. iTBT PCIe VTd: Disalbed
      7. Thermal Device (B0:D4:F0): Disabled
      8. GNA Device (B0:D8:F0): Disabled
      9. CRID Support: Disabled
      10. Above 4GB MMIO BIOS assignment: Enabled
      11. IPU Device (B0:D5:F0): Disabled
      12. MIPI Camera Configuration
          1. Control Logic 1: Disabled
          2. Control Logic 2: Disabled
          3. Control Logic 3: Disabled
          4. Control Logic 4: Disabled
          5. Camera1: Disabled
          6. Camera2: Disabled
          7. Camera3: Disabled
          8. Camera4: Disabled
    1. PCH-IO Configuration
       1. PCI Express Configuration
          1. DMI Link ASPM Control: Auto
          2. PCIE Port assigned to LAN: Disabled
          3. Port8xh Decode: Disabled
          4. Peer Memory Write Enable: Disabled
          5. Compliance Test Mode: Disabled
          6. PCIe function swap
          7. Number of Coefficients to be used for equalization: 3
          8. PCI Express Gen3 Eq Lanes

PCIE1 Cm – CPIE24 Cp: Wert 2 oder 6

Override SW EQ settings: Disabled

* + - * 1. IMR Configuration

PCIe IMR: Disabled

* + - * 1. PCI Express Root Port 1: Lane configured as USB/SATA/UFS
        2. PCI Express Root Port 2: Lane configured as USB/SATA/UFS
        3. PCI Express Root Port 3: Lane configured as USB/SATA/UFS
        4. PCI Express Root Port 4: Lane configured as USB/SATA/UFS
        5. PCI Express Root Port 5: Lane configured as USB/SATA/UFS
        6. PCI Express Root Port 6: Lane configured as USB/SATA/UFS
        7. PCI Express Root Port 7

PCI Express Root Port 7: Enabled

…

* + - * 1. PCI Express Root Port 8

PCI Express Root Port 7: Enabled

…

* + - * 1. PCI Express Root Port 9

PCI Express Root Port 7: Enabled

…

* + - * 1. PCI Express Root Port 10
        2. PCI Express Root Port 11
        3. PCI Express Root Port 12
        4. PCI Express Root Port 13

PCI Express Root Port 7: Enabled

…

* + - * 1. PCI Express Root Port 14
        2. PCI Express Root Port 15
        3. PCI Express Root Port 16
        4. PCIE clocks

…

* + - 1. SATA And RST Configuration
         1. SATA Controller(s): Enabled
         2. SATA Mode Selection: AHCI
         3. SATA Test Mode: Disabled
         4. Software Feature Mask Configuration

HDD Unlock: Enabled

LED Locate: Enabled

* + - * 1. Aggressive LPM Support: Enalbed
        2. …
      1. USB Configuration
         1. XHCI Compliance Mode: Disabled
         2. xDCI Support: Disabled
         3. USB2 PHY Sus Well Power Gating: Enabled
         4. USB Overcurrent: Disabled
         5. USB Overcurrent Lock: Disabled
         6. USB Port Disable Override: Disable
      2. Security Configuration
         1. RTC Memory Lock: Enabled
         2. Force unlock on allGPIO pads: Disabled
      3. HD Audio Configuration
         1. …
      4. SerialIo Configuration
         1. …
      5. SCS Configuration
         1. eMMC 5.0 Controller: Disabled
         2. SDCard 3.0 Controller: Disabled
      6. ISH Configuration
         1. ISH Controller: Disabled
      7. Pch Thermal Throttling Control
         1. Thermal Throttling Level: Suggested Setting
         2. DMI Thermal Setting: Suggested Setting
         3. SATA Thermal Setting: Suggested Setting
      8. FIVR Configuration
         1. …
      9. EFI Network: Disabled
      10. PCH LAN Controller: No GbE Region
      11. Sensor Hub Type: None
      12. DeepSx Power Policies: Disabled
      13. Wake on WLAN and BT Enable: Disabled
      14. Disable DSX ACPRESENT PullDown: Disabled
      15. PXE ROM: Disabled
      16. State After G3: S5 State
      17. Port 80h Redirection: LPC BUS
      18. Enhance Port 80h LPC Decoding: Enabled
      19. Compatible Revision ID: Disabled
      20. PCH Cross Throttling: Enabled
      21. PCH Energy Reporting: Enabled
      22. Energy Reporting Debug Mode: Enabled
      23. S0i3 Support: Enabled
      24. Enable TCO Timer: Disabled
      25. Pcie Pll SSC: Auto
      26. IOAPIC 24-119 Entries: Enabled
      27. Enable 8254 Clock Gate: Enabled
      28. Lock PCH Sideband Access: Enabled
      29. Flash Protection Range Registers (FPRR): Enabled
      30. SPD Write Disable: TRUE
      31. LGMR: Disabled
      32. HOST\_C10 Reporting Slave: Disabled
      33. OS IDLE Mode: Enabled
      34. PCH PM Test Configuration: Disabled
      35. Hybrid Storage Detection and Configuration Mode: Disabled
      36. RST Driver Select: Auto
    1. PCH-FW Configuration
       1. ME State: Enabled
       2. ME Unconfig on RTC Clear: Disabled
       3. JHI Support: Disabled
       4. Core Bios Done Message: Enabled
       5. Firmware Update Configuration
          1. Me FW Image Re-Flash: Disabled
          2. FW Update: Enabled
       6. PTT Configuration
          1. PTT Compatibility / State 1 / 0
       7. FIPS Mode
          1. FIPS Mode Select Disabled
          2. …
       8. ME Debug Configuration
          1. HECI Timeout: X
          2. Force ME DID Init Status: Disabled
          3. CPU Replaced Polling Disable: Disabled
          4. ME DID Message: Enaled
          5. HECI Message check Disable: Disabled
          6. MBP HOB Skip: Disabled
          7. HECI2 Interface Communication:
          8. KT Device: X
          9. End Of Post Message: Send in DXE
          10. D0I3 Setting for HECI Disable: Disabled
          11. MCTP Broadcast Cycle: Disabled
       9. Anti-Rollback SVN Configuration
          1. Minimal Allowed Anti-Rollback SVN: 1
          2. Executing Anti-Rollback SVN: 4
          3. Automatici HW-Enforced Anti-Rollback SVN: Disabled
          4. Set HW-Enforced Anti-Rollback for current SVN: Disabled
    2. Thermal Configuration
       1. …
    3. Platform Settings
       1. Charging Method: Normal Charging
       2. Device Password Support: X
       3. PS2 Keyboard and Mouse: Enabled
       4. Pmic Vcc IO Level: Disabled
       5. Pmic Vddq Level: Disabled
       6. Power Sharing Manager: Disabled
       7. Enable FFU Support: Disabled
       8. HID Event Filter Driver: Enabled
       9. Alternate Mode Synch Delay: 0
       10. System Time and Alarm Source: ACPI Time and Alarm Device
       11. Control Iommu Pre-boot Behavior: Enable IOMMU during boot
       12. System Firmware Update Config
           1. Restore Setup Default: Disabled
           2. Skip Power Check: Disabled
       13. VTIO
           1. Enable VTIO Support: Disabled
       14. TCSS Platform Setting
           1. USBC connector manager selection: Disabled
           2. BIOS-TCSS handshake: Enabled
           3. Timeout for EC USB enumeration message: 500
           4. Type C retimer TX Compliance Mode: Disabled
           5. Thunderbold(TM) Configuration

Discrete Thunderbold(TM) Support: Enabled

Integrated Thunderbold(TM) Support: Disabled

Skip PCI OptionRom: Enabled

Security Level: No Security

Native OS Security for TBT: Disabled

Discrete Thunderbold(TM) Configuration

Thunderbold Usb Support: Disabled

Thunderbold Boot Support: Disabled

Titan Ridge Workaround for OSUP: Disabled

Tbt Dynamic AC/DC L1: Disabled

ACPI Removal Object Support: Disabled

GPIO3 Force Pwr:

Wait time in ms after applying Force Pwr: 200

GPIO filter: Enabled

Enable CLK REQ: Disabled

Enable ASPM: Disabled

Enable LTR: Disabled

Enable PTM: Disabled

Enable TBT ASPM: Disabled

Thunderbold(TM) OS select

Windows 10 Thunderbold support: Enabled

* + 1. ACPI D3Cold settings
       1. ACPI D3Cold Support: Disabled
    2. Intel ICC
       1. ICC/OC Watchdog Timer: Disabled
       2. ICC Profile: 0
       3. ICC PLL Shutdown: Enabled
       4. …
    3. Rework Configuration
       1. Board Rework Compliance: Enabled
       2. …

1. Security
   1. Secure Boot Configuration
      1. UEFI Secure Boot: Disabled
      2. Protected Signatures: Enabled (User Mode)
      3. Secure Boot: Disabled
      4. Install Default Secure Boot Keys: Enter
      5. Delete All Signatures: Enter
         1. Notice: Are you sure to delete all the secure boot signatures? Warning! The platform will be changed to setup mode. Secure boot will also be disabled automatically. (YES) (No)
   2. Supervisor Password is: Cleared
   3. User Password is: Cleared
   4. Set Supervisor Password: Enter
   5. Set User Password: Enter
   6. NVME1 Password State: Cleared
   7. Set NVME1 Password: Enter
   8. Trusted Platform Module (TPM)
   9. Current Selected TPM Device: Disabled
2. Boot
3. Exit