1.0.0.0 Ai Tweaker

```
################################################################################
Ai Overclock Tuner (Ai-Übertaktungstuner)...................................[Manuell]
BCLK Frequency (BCLK-Frequenz)..............................................[100.2480]
ASUS Multicore Enhancement (ASUS Multicore-Erweiterung)..................[Enabled – Remove All limits]
SVID Behavior...............................................................[Best-Case Scenario]
CPU-Bus-Geschwindigkeit: DRAM-Geschwindigkeits-Ratio-Modus.................[100:133]
Memory Controller : DRAM Frequency Ratio..................................[1:1]
Speicherfrequenz............................................................[DDR4-4141MHz]
Performance Core Ratio......................................................[By Core Usage]
1-Core Ratio Limit..........................................................[54]
2-Core Ratio Limit..........................................................[54]
3-Core Ratio Limit..........................................................[53]
4-Core Ratio Limit..........................................................[53]
5-Core Ratio Limit..........................................................[52]
6-Core Ratio Limit..........................................................[52]
7-Core Ratio Limit..........................................................[52]
8-Core Ratio Limit..........................................................[52]
> Specific Performence Core.................................................[ > ]
  Efficient Core Ratio......................................................[Sync All Cores]
  ALL-Core Ratio Limit......................................................[41]
> Specific Efficient Core...................................................[ > ]
  CPU SVID Support (CPU-SVID-Unterstützung).................................[Aktiviert]
> AVX Related Controls......................................................[ > ]
> DRAM-Timing-Steuerung.....................................................[ > ]
> DIGI+ VRM.................................................................[ > ]
> Auto Coltage Caps.........................................................[ > ]
> Internal CPU Power Management (Interne CPU-Energieverealtung).............[ > ]
> Thermal Velocity Boost....................................................[ > ]
> V/F Point Offset..........................................................[ > ]
> Tweaker's Paradise........................................................[ > ]
> AI Features...............................................................[ > ]
  Ring Down Bin.............................................................[Auto]
  Min CPU Cache Ratio (Minimales CPU-Cache-Verhältnis)......................[Auto]
  Max. CPU Cache Ratio......................................................[44]
  BCLK Aware Adaptive Voltage...............................................[Enabled]
  CPU Core/Cache Voltage....................................................[Manual Mode]
  - CPU-Kernspannungsübergehung.............................................[1.35000]
  CPU L2 Voltage............................................................[Auto]
  CPU System Agent-Spannung.................................................[Manual Mode]
  - CPU System Agent Voltage Override.......................................[1.35000]
  CPU Input Voltage.........................................................[1.90000]
  DRAM Voltage..............................................................[1.50000]
  IVR Transmitter VDDQ Voltage..............................................[1.50000]
  > DRAM REF Voltage Control................................................[ > ]
```

1.1.0.0 Specific Performance Core

```
###################################################################
Performance Core0 Specific Ratio Limit....................................[53]
Performance Core0 specific Adaptive Voltage..............................[Auto]
Performance Core1 Specific Ratio Limit....................................[53]
Performance Core1 specific Adaptive Voltage..............................[Auto]
Performance Core2 Specific Ratio Limit....................................[53]
Performance Core2 specific Adaptive Voltage..............................[Auto]
Performance Core3 Specific Ratio Limit....................................[53]
Performance Core3 specific Adaptive Voltage..............................[Auto]
*Performance Core4 Specific Ratio Limit...................................[55]
Performance Core4 specific Adaptive Voltage..............................[Auto]
*Performance Core5 Specific Ratio Limit...................................[55]
Performance Core5 specific Adaptive Voltage..............................[Auto]
Performance Core6 Specific Ratio Limit....................................[53]
Performance Core6 specific Adaptive Voltage..............................[Auto]
Performance Core7 Specific Ratio Limit....................................[53]
Performance Core7 specific Adaptive Voltage..............................[Auto]
```

1.2.0.0 Specific Efficient Core

```
###################################################################
Efficient Core Group0 Specific Ratio Limit...............................[Auto]
Efficient Core Group0 specific Adaptive Voltage..........................[Auto]
Efficient Core Group1 Specific Ratio Limit...............................[Auto]
Efficient Core Group1 specific Adaptive Voltage..........................[Auto]
```

1.3.0.0 AVX Related Controls

```
###################################################################
AVX2.....................................................................[Auto]
AVX512...................................................................[Auto]
AVX2 Ratio Offset to per-core Ratio Limit................................[Auto]
AVX2 Voltage Guardband Scale Factor......................................[Auto]
```

1.4.0.0 DRAM-Timing-Steuerung

```
###################################################################
DRAM CAS#-Verzögerungszeit.................................................[16]
DRAM RAS# zu CAS#-Verzögerung..............................................[16]
DRAM RAS# PRE-Zeit.........................................................[16]
DRAM RAS# ACT-Zeit.........................................................[28]
DRAM Command Rate..........................................................[2N]
DRAM RAS# to RAS# Delay L...................................................[6]
DRAM RAS# to RAS# Delay S...................................................[4]
DRAM REF-Umlaufzeit.......................................................[280]
DRAM REF Cycle Time 2....................................................[Auto]
DRAM REF Cycle Time 4....................................................[Auto]
DRAM Refresh Interval...................................................[65535]
DRAM-SCHREIB-Aktualisierungszeit...........................................[14]
DRAM READ zu PRE-Zeit.......................................................[6]
DRAM FOUR ACT WIN-Zeit.....................................................[16]
DRAM SCHREIBEN- zu LESEN-Verzögerung.....................................[Auto]
DRAM WRITE to READ Delay L...............................................[Auto]
DRAM WRITE to READ Delay S...............................................[Auto]
DRAM CAS to CAS Delay L..................................................[Auto]
```

```
   DRAM CKE Minimum Pulse Width.............................................[6]
   DRAM Write Latency.......................................................[16]
 > Skew Control.............................................................[ > ]
 > RTL IOL Control..........................................................[ > ]
 > Memory Training Algorithms...............................................[ > ]
   tRDRD_sg_Training........................................................[7]
   tRDRD_sg_Runtime.........................................................[7]
   tRDRD_dg_Training........................................................[4]
   tRDRD_dg_Runtime.........................................................[4]
   tRDWR_sg.................................................................[11]
   tRDWR_dg.................................................................[11]
   tWRWR_sg.................................................................[7]
   tWRWR_dg.................................................................[4]
   tWRRD_sg.................................................................[29]
   tWRRD_dg.................................................................[24]
   tRDRD_dr.................................................................[7]
   tRDRD_dd.................................................................[7]
   tRDWR_dr.................................................................[11]
   tRDWR_dd.................................................................[11]
   tWRWR_dr.................................................................[7]
   tWRWR_dd.................................................................[7]
   tWRRD_dr.................................................................[6]
   tWRRD_dd.................................................................[6]
   tWRPRE...................................................................[32]
   tPRPDEN..................................................................[Auto]
   tRDPDEN..................................................................[Auto]
   tWRPDEN..................................................................[Auto]
   tCPDED...................................................................[Auto]
   tREFIX9..................................................................[Auto]
   Ref Interval.............................................................[Auto]
   tXPDLL...................................................................[Auto]
   tXP......................................................................[Auto]
   tPPD.....................................................................[Auto]
   tCCD_L_tDLLK.............................................................[Auto]
   MRC-Systemschnellstart...................................................[Disabled]
   MCH Full Check...........................................................[Auto]
   Mem Over Clock Fail Count................................................[Auto]
   Training Profile.........................................................[Auto]
   RxDfe....................................................................[Auto]
   Mrc Training Loop Count..................................................[Auto]
   DRAM CLK Period..........................................................[Auto]
   Controller 0, Channel 0 Control..........................................[Enabled]
   Controller 0, Channel 1 Control..........................................[Enabled]
   Controller 1, Channel 0 Control..........................................[Enabled]
   Controller 1, Channel 1 Control..........................................[Enabled]
   MC_Vref0.................................................................[Auto]
   MC_Vref1.................................................................[Auto]
   MC_Vref2.................................................................[Auto]
 > Configure Memory Dynamic Frequency Switching.............................[ > ]
```

1.4.1.0 Skew Control
```
###############################################################################
```
> DDRCRCOMPCTL0/1/2...[>]
  ODT RTT WR (CHA)..[Auto]
  ODT RTT PARK (CHA)..[Auto]
  ODT RTT NOM (CHA)...[Auto]
  ODT RTT WR (CHB)..[Auto]
  ODT RTT PARK (CHB)..[Auto]
  ODT RTT NOM (CHB)...[Auto]
  ODT_READ_DURATION...[Auto]
  ODT_READ_DELAY..[Auto]
  ODT_WRITE_DURATION..[Auto]
  ODT_WRITE_DELAY...[Auto]

1.4.1.1 DDRCRCOMPCTL0/1/2
```
###############################################################################
```
Ctl0 dqvrefup..[Auto]
Ctl0 dqvrefdn..[Auto]
Ctl0 dqodtvrefup...[Auto]
Ctl0 dqodtvrefdn...[Auto]
Ctl1 cmdvrefup...[Auto]
Ctl1 ctlvrefup...[Auto]
Ctl1 clkvrefup...[Auto]
Ctl1 ckecsvrefup...[Auto]
Ctl2 cmdvrefdn...[Auto]
Ctl2 ctlvrefdn...[Auto]
Ctl2 clkvrefdn...[Auto]

1.4.2.0 RTL IOL Control
```
###############################################################################
```
Round Trip Latency Init Value MC0 CHA..[Auto]
Round Trip Latency Max Value MC0 CHA...[Auto]
Round Trip Latency Offset Value Mode Sign MC0 CHA................................[-]
Round Trip Latency Offset Value MC0 CHA..[Auto]
Round Trip Latency Init Value MC1 CHA..[Auto]
Round Trip Latency Max Value MC1 CHA...[Auto]
Round Trip Latency Offset Value Mode Sign MC1 CHA................................[-]
Round Trip Latency Offset Value MC1 CHA..[Auto]
Round Trip Latency MC0 CHA R0..[73]
Round Trip Latency MC0 CHA R1..[25]
Round Trip Latency MC0 CHA R2..[73]
Round Trip Latency MC0 CHA R3..[73]
Round Trip Latency MC0 CHA R4..[25]
Round Trip Latency MC0 CHA R5..[25]
Round Trip Latency MC0 CHA R6..[25]
Round Trip Latency MC0 CHA R7..[25]
Round Trip Latency MC1 CHA R0..[75]
Round Trip Latency MC1 CHA R1..[25]
Round Trip Latency MC1 CHA R2..[75]
Round Trip Latency MC1 CHA R3..[75]
Round Trip Latency MC1 CHA R4..[25]
Round Trip Latency MC1 CHA R5..[25]
Round Trip Latency MC1 CHA R6..[25]
Round Trip Latency MC1 CHA R7..[25]

1.4.3.0 Memory Training Algorithms

```
##############################################################################
Early Command Training...............................................[Auto]
SenseAmp Offset Training.............................................[Auto]
Early ReadMPR Timing Centering 2D....................................[Auto]
Read MPR Training....................................................[Auto]
Receive Enable Training..............................................[Auto]
Jedec Write Leveling.................................................[Auto]
Early Write Time Centering 2D........................................[Auto]
Early Read Time Centering 2D.........................................[Auto]
Write Timing Centering 1D............................................[Auto]
Write Voltage Centering 1D...........................................[Auto]
Read Timing Centering 1D.............................................[Auto]
Dimm ODT Training*...................................................[Auto]
Max RTT_WR........................................................[ODT Off]
DIMM RON Training*...................................................[Auto]
Write Drive Strength/Equalization 2D*................................[Auto]
Write Slew Rate Training*............................................[Auto]
Read ODT Training*...................................................[Auto]
Comp Optimization Training...........................................[Auto]
Read Equalization Training*..........................................[Auto]
Read Amplifier Training*.............................................[Auto]
Write Timing Centering 2D............................................[Auto]
Read Timing Centering 2D.............................................[Auto]
Command Voltage Centering............................................[Auto]
Early Command Voltage Centering......................................[Auto]
Write Voltage Centering 2D...........................................[Auto]
Read Voltage Centering 2D............................................[Auto]
Late Command Training................................................[Auto]
Round Trip Latency................................................[Enabled]
Turn Around Timing Training..........................................[Auto]
CMD CTL CLK Slew Rate................................................[Auto]
CMD/CTL DS & E 2D....................................................[Auto]
Read Voltage Centering 1D............................................[Auto]
TxDqTCO Comp Training*...............................................[Auto]
ClkTCO Comp Training*................................................[Auto]
TxDqsTCO Comp Training*..............................................[Auto]
VccDLL Bypass Training...............................................[Auto]
CMD/CTL Drive Strength Up/Dn 2D......................................[Auto]
DIMM CA ODT Training.................................................[Auto]
PanicVttDnLp Training*...............................................[Auto]
Read Vref Decap Training*............................................[Auto]
Vddq Training........................................................[Auto]
Duty Cycle Correction Training.......................................[Auto]
Rank Margin Tool Per Bit.............................................[Auto]
DIMM DFE Training....................................................[Auto]
Tx Dqs Dcc Training..................................................[Auto]
Rank Margin Tool.....................................................[Auto]
Memory Test..........................................................[Auto]
DIMM SPD Alias Test..................................................[Auto]
Receive Enable Centering 1D..........................................[Auto]
Retrain Margin Check.................................................[Auto]
Write Drive Strength Up/Dn independently.............................[Auto]
Margin Check Limit...............................................[Disabled]
```

1.4.4.0 Configure Memory Dynamic Frequency Switching
```
###########################################################################
Dynamic Memory Boost.....................................................[Disabled]
Realtime Memory Frequency................................................[Disabled]
SA GV....................................................................[Disabled]
```

1.5.0.0 DIGI+ VRM
```
###########################################################################
VRM Initialization Check (VRM-Initialisierungsprüfung)...................[Deaktiviert]
CPU Input Voltage Load-line Calibration..................................[Auto]
CPU Load-Line Calibration (CPU-Belastungslinie-Kalibrierung).............[Level 5]
Synch ACDC Loadline with VRM Loadline....................................[Deaktiviert]
CPU Current Capability (CPU-Stromfähigkeit)..............................[170%]
CPU VRM Switching Frequency (CPU-VRM-Schaltfrequenz).....................[Auto]
VRM Spread Spectrum (VRM-Streuspektrum)..................................[Auto]
CPU Power Duty Control (CPU-Leistungszyklusregelung).....................[Extreme]
CPU Power Phase Control (CPU-Leistungsphasensteuerung)...................[Extrem]
CPU Core/Cache Boot Voltage..............................................[Auto]
CPU Input Boot Voltage...................................................[Auto]
PLL Termination Boot Voltage.............................................[Auto]
CPU Standby Boot Voltage.................................................[Auto]
Memory Controller Boot Voltage...........................................[Auto]
```

1.6.0.0 Auto Coltage Caps
```
###########################################################################
CPU Core Auto Voltage Cap................................................[Auto]
CPU Input Auto Voltage Cap...............................................[Auto]
```

1.7.0.0 Internal CPU Power Management (Interne CPU-Energieverealtung)
```
###########################################################################
Maximum CPU Core Temperature.............................................[Auto]
Package Temperature Threshold............................................[Auto]
Regulate Frequency by above Threshold....................................[Auto]
IVR Transmitter VDDQ ICCMAX..............................................[Auto]
Unlimited ICCMAX.........................................................[Auto]
CPU Core/Cache Current Limit Max. (CPU-Kern-/Cache-Stromgrenze max.)......[511.75]
Long Duration Package Power Limit (Langzeit-Paket-Leistungslimit)........[4095]
Package Power Time Window (Paket-Leistungszeitfenster)...................[Auto]
Short Duration Package Power Limit (Kurzzeit-Paket-Leistungslimit).......[4095]
IA AC Load Line..........................................................[0.01]
IA DC Load Line..........................................................[0.01]
IA CEP Enable............................................................[Auto]
SA CEP Enable............................................................[Auto]
IA SoC Iccmax Reactive Protector.........................................[Auto]
Inverse Temperature Dependency Throttle..................................[Auto]
IA VR Voltage Limit......................................................[Auto]
```

1.8.0.0 Thermal Velocity Boost
```
###########################################################################
TVB Voltage Optimizations................................................[Auto]
V-Max Stress.............................................................[Auto]
Overclocking TVB.........................................................[+1Boost Profile]
```

1.9.0.0 V/F Point Offset

```
################################################################################
Offset Mode Sign 1.........................................................[+]
V/F Point 1 Offset......................................................[Auto]
Offset Mode Sign 2.........................................................[+]
V/F Point 2 Offset......................................................[Auto]
Offset Mode Sign 3.........................................................[+]
V/F Point 3 Offset......................................................[Auto]
Offset Mode Sign 4.........................................................[+]
V/F Point 4 Offset......................................................[Auto]
Offset Mode Sign 5.........................................................[+]
V/F Point 5 Offset......................................................[Auto]
Offset Mode Sign 6.........................................................[+]
V/F Point 6 Offset......................................................[Auto]
Offset Mode Sign 7.........................................................[+]
V/F Point 7 Offset......................................................[Auto]
Offset Mode Sign 8.........................................................[+]
V/F Point 8 Offset......................................................[Auto]
Offset Mode Sign 9.........................................................[+]
V/F Point 9 Offset......................................................[Auto]
Offset Mode Sign 10........................................................[+]
V/F Point 10 Offset.....................................................[Auto]
Offset Mode Sign 11........................................................[+]
V/F Point 11 Offset.....................................................[Auto]
```

1.10.0.0 Tweaker's Paradise

```
################################################################################
Realtime Memory Timing..............................................[Disabled]
SPD Write Disable.......................................................[TRUE]
PVD Ratio Threshold.....................................................[Auto]
Banding Ratio...........................................................[Auto]
SA PLL Frequency Override...............................................[Auto]
BCLK TSC HW Fixup....................................................[Enabled]
Core Ratio Extension Mode...........................................[Disabled]
FLL OC mode.............................................................[Auto]
Core PLL Voltage........................................................[Auto]
GT PLL Voltage..........................................................[Auto]
Ring PLL Voltage........................................................[Auto]
System Agent PLL Voltage................................................[Auto]
Memory Controller PLL Voltage...........................................[Auto]
CPU 1.8V Small Rail.....................................................[Auto]
PLL Termination Voltage.................................................[Auto]
CPU Standby-Spannung....................................................[Auto]
PCH 1.05V Voltage.......................................................[Auto]
PCH 0.82V Voltage.......................................................[Auto]
CPU Input Voltage Reset Voltage.........................................[Auto]
```

1.11.0.0 AI Features

```
################################################################################
Package Temperature Threshold...........................................[Auto]
Regulate Frequency by above Threshold...................................[Auto]
Cooler Efficiency Customize....................................[Keep Training]
Cooler Re-evaluation Algorithm........................................[Normal]
Optimism Scale...........................................................[100]
```

```
1.12.0.0 DRAM REF Voltage Control
##############################################################################
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL0...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL1...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL2...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL3...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL4...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL5...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL6...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank0 BL7...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL0...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL1...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL2...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL3...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL4...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL5...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL6...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM0 Rank1 BL7...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL0...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL1...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL2...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL3...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL4...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL5...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL6...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank0 BL7...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL0...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL1...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL2...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL3...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL4...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL5...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL6...............................[Auto]
DRAM DATA REF Voltage on CHA DIMM1 Rank1 BL7...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL0...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL1...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL2...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL3...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL4...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL5...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL6...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank0 BL7...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL0...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL1...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL2...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL3...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL4...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL5...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL6...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM0 Rank1 BL7...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL0...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL1...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL2...............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL3...............................[Auto]
```

```
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL4..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL5..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL6..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank0 BL7..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL0..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL1..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL2..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL3..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL4..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL5..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL6..............................[Auto]
DRAM DATA REF Voltage on CHB DIMM1 Rank1 BL7..............................[Auto]
```