Rampage 3 extreme overclocking guide

15-01-2011, 4:20 p.m. #1 Hey guys! I'm brand new to OC and I read on it, but every guide I followed the results in me turning on the computer and it says: Oveclocking failed. So now I've come for help here. I just built my new installation and can't seem OC it. on my first running processor- I he tells me that my main speed is 1600.1 MHz multiplier: x12 Bus speed: 133.3 MHz SPI Link: 2400.2 MHz Core Voltage.. 946 V My installation: Intel i7 950 Bloomfield 3.06 Rampage 3 Extreme Motherboard Corsair Dominator 3x2 6GB 1600 Cooler: Noctua NH-D14 Thank you in advance! 15-01-2011, 16:24 #2 Ok, with bat, disable C1E and Speedstep. This will stop your clock speed and core voltage from oscillating. They will be in the BIOS in the acceleration section or in the CPU configuration area. 15-01-2011, 16:25 #3 Publish all the specs on your profile please. 15-01-2011, 16:27 #4 Welcome Tamaziuk to PureOC!! One of the experts, I'm sure, will be together to help you with your OC. In the meantime, place the specification system in your profile. Go to the CP user in the top left corner of this site, under your profile you will see the spec system, fill it out and then be sure to tick the box in the top right corner to show everyone your system specifications. The Latter, edited by Steve; 15-01-2011 at 4:34 p.m. 15-01-2011, 16:29 #5 I posted my specs in Custom CP, sorry for that, I started filling it out after I created this theme. 15-01-2011, 16:34 #6 The first thing you should aim to achieve is the maximum acceleration in the voltage stock to feel for your chip. As Logan pointed out, disable all energy saving features, bypass and turbo if you have. Set all the voltages on the car. Set a few to 23 X. Adjust the FSB to slowly lift the lock and run LinX to 25,000 problems on 20 passes. Adjust the RAM divider to keep it in stock or close. When you pass LinX, lift the FSB to get another 500 MHz and give LinX another run. Once it's stable, start lifting the vcore and run LinX. 15-01-2011, 16:39 #7 Originally published by Drdeath The first thing you should aim to achieve is the maximum acceleration in the voltage stock to feel for your chip. As Logan pointed out, disable all energy saving features, bypass and turbo if you have. Set all the voltages on the car. Set a few to 23 X. Adjust the FSB to slowly lift the lock and run LinX to 25,000 problems on 20 passes. Adjust the RAM divider to keep it in stock or close. When you pass LinX, lift the FSB to get another 500 MHz and give LinX another run. Once it's not stable, start lifting the vcore and start Thank you very much! I turned off the side and turbo and my main speed is now 3070 MHz with a multiplier of 23. The thing is, I'm new. I just increased my FSB to 150 from 133 and see how it goes. The latter, edited by Tamazyuk; 15-01-2011 at 5:18 p.m. 15-01-2011, 17:20 #8 LinX is a stress test. Google is it download it. Read on the acceleration. It will take too long to explain this as there are many great guides on the internet. Also, download the main tempo. Keep your load temperature below 80 during stress testing 15-01-2011, 17:25 #9 think you need to get your eytem to show up in your profile. He's not showing. 15-01-2011, 17:25 #10 Originally published by Drdeath LinX is a stress test. Google it and download it. Read on the acceleration. It will take too long to explain this as there are many great guides on the internet. Also, download the main tempo. Keep your load rate under 80 while stress testing Yes I downloaded LinX and I run an ATM test with FSB at 150. I also have programs that are needed to monitor temperature, etc. at 150 MHz my main speed is 3461.4 MHz. The main voltage is 1,230 TH. The connection with the ZI is at 3612.0 MHz My temperatures when running LinX tests range from 66-60, but usually around 42. My question is: How will I know that it has become unstable? Also, you told me to set up RAM dividers to keep them in stock or near it. How exactly can I do that? EDIT: yes, sorry for that, it was disabled. Now you should be able to see it. The latter, edited by Tamazyuk; 15-01-2011 at 5:37 p.m. 15-01-2011, 18:52 #11 Originally published by Tamaziuk Yes I downloaded LinX and I run the ATiM test with the FSB at 150. I also have programs that are needed to monitor temperature, etc. at 150 MHz my main speed is 3461.4 MHz. The main voltage is 1,230 TH. The connection with the ZI is at 3612.0 MHz My temperatures when running LinX tests range from 66-60, but usually around 42. My question is: How will I know that it has become unstable? Also, you told me to set up RAM dividers to keep them in stock or near it. How exactly can I do that? EDIT: yes, sorry for that, it was disabled. Now you should be able to see it. Believe me, you'll know when it's unusable. It will be a difficult accident or you will get a BSOD (blue screen of death). I'm not familiar with your BIOS. There should be an adjustment in the memory settings to remove it automatically and manually select the divider. So far your doing great. The temperature looks amazing. FYI, 4.2 GHz will take about 1.375v. I'm not sure you're cooling will handle that voltage. 4 GHz should be 1.3-1.35v. The Latter, edited by Drdeath; 15-01-2011 at 7:27 p.m. 15-01-2011, 22:33 #12 Ok, thx drdeath! So far from tweaking it, I've got: Main speed: 3918.9 MHz multiplier: x23 Bus speed: 170 MHz SPI Link: 3066 MHz Main Voltage: 1,310 V During the LinX test Temperature is at 79-77. Do you have any suggestions on how I can reduce the pace while still maximizing and increasing speed? Thank you again! 16-01-2011, 01:15 #13 Another semi satisfied customer..... 05-08-2010 09:22 #1 Click on the photo to see the larger image of ASUS Rampage III Extreme is a dream of dispersal. This board asks to ask how well you can disperse. In B of rampage III Gene is a set of X58 chips capable of SLI quad, and quadfire X 1366 socket board capable trippe Channel DDR3 and up to 24GB of default memory (22.22c Ambient Air Temperature) Main voltage: 1.144 TemperatureV: 27c Main speed: 3.33 GHz Uncore Speed: 2670 MHz Basic Clock Speed: 133 MHz Fast Way Interconnect Speed: 3200 MHz System Memory: 3x Corsair Dominator GTX 4 2533 MHz 2GB Tension 2GB : 1.5 W Temperature 25c Speed: 1333 MHz Divider Factor: 2:10 Timeline: CL9-9-9-24 74 1T 4GHz Processor: Intel Core i7-980X Main Voltage: 1.360V Temperature: 75c Core Speed: 4.012 8 GHz Uncore Speed: 2889.2 MHz Basic clock speed: 160.5 MHz Fast Path Interconnect Speed: 2889.3 MHz Memory System: 3x Corsair Dominator GTX 4 2533 MHz 2GB Voltage: 1.66V Speed: 963 MHz Divider : 2:12 Timeline: CL9-9-9-28 98 2T Extreme Tweaker BIOS Settings Enter the BIOS System by pre-installing The BioS Splash Removal screen. Install Customization Mode for Exteme OC Set AI Overclock Tuner Manual Increase Processor Multiplier to 30X Include CPU Load-Line Calibration Increase Processor Voltage to 1.35V Set DRAM Bus Voltage to 1.65 Disable The Spread Spectrum Processor Unplugged Processor Advanced Processor Advanced Processor Offensive To Turn Off Intel SpeedStep Intel C-State Tech Press Click F8 and download your memtestX86 drive to wait atleast 1 full pass bug check to complete before contunuing to download the box, If no memory errors found download to the windows and run Prime 95 Torture test select In place of the large FFTs Install Core Temp we do not want the maximum CPU temperature exceeds 80 C I recommend the unmistakable pass Prime 95 to 24hr to ensure the stability of the system Random Memory Acceleration System Now we go to memory acceleration Set DRAM Control timeline for automatic change of frequency of the DRAM clock in the rating of you in this case 213 MHz Also change the DRAM voltage to match your memory rating of 1.65V click F10 to save and exit. Load into the windows and open the CPU ID to check the synchronization speed of memory. Run a stress testing program like Prime 95 or a quick test like Wprime For Stability I propose to create a Memtest X86 CD to check for memory errors. Rampage III Extreme Code BioS: Target Processor Frequency 4000 MHz Target Frequency DRAM 1926 MHz LN2 Mode: Unplugged Load Calibration: Synchronization Mode enabled 0 CPU Turbo Power Limit (off) CPU Configuration---------- CPU Coefficient Setting (30.0) C1E Support (included) Prefetcher Equipment (included) Neighboring Cash Line Prefetcher (Included) MPS and ACPI MADT (Modern) Intel (R) Virtualization Technology (Included) CPUTM Feature (Disabled) Disable Bit Included HT Intel Technology (R) Included Active Processor Core (All) A20M (Disabled) Intel (R) (R) Technological (included) Performance/Watt Select Power Intel (R) C-STATE Tech (Included) C State package limit, installing Auto C1 Auto Demotion (included) C3 Auto Demotion (included) ---------- BCLK Frequency 133 PCIE frequency (100) FREQUENCY DRAM (1926) UCLK Data Speed (6400) Memory Configuration Protects Disabled DRAM Time Control---------- CAS 6 (6) RAS in CAS Delay 7 (7) RAS PRE Time 6 (6) RAS ACT Time 18 (18) RAS in RAS Delay 4 TIME Cycle REF 72 (72) WRITE Recovery Time 10 (10) READ TO PRE Time 6 (6) Four ACT WIN Time 24 (Auto) Back-To-BackCAS Delay 0 (Auto) Time Mode 1N (1N) Delay in round on CHA 59 (59) Delay in Round B 61 (60) Delay in round travel on CHC 62 (61) WRITE Read Delay (DD) 8 Auto WRITE Reading Delay (DR) 8 Auto WRITE Reading Delay (SR) 18 Auto READ Delay (DD) 7 Auto READ FOR WRITE Delay (DR) 7 Auto READ FOR WRITE Delay (SR) 7 Auto READ DELAY (DD) 7 Auto READ DELAY (DR) 6 Auto READ DELAY (SR) 4 Auto WRITE Delay (DD) 7 Auto WRITE FOR WRITE Delay (DR) 7 Auto WRITE For WRITE Delay (SR) 4 Auto ---------- differential amplitude of the processor Auto Clock Skew (Auto) IOH Watch skew (Auto) ---------- Extreme Engine Digi ---------- Digi mode PWR T-Balanced PWR Volt. Auto Control Load-Line Calibration Full Voltege OCP Processor (included) CPU PWM Frequency Auto Extreme OV Includes Extreme OC (Auto) Processor Tension 1.343 (1.35) CPU PLL Tension 1.349 (1.35150) PPI/DRAM Core Voltage 1.1.429 .43750 DRAM Bus Voltage 1.654 (1.65) zGT;DRAM REF Voltages---------- DRAM DATA REF Voltage ON CHA (Auto) DRAM CT REF Voltage ON CHA (Auto) DRAM DATA REF ON CHB (Auto) DRRL REF Voltage on CHB (Auto) CTRL Ref Voltage on CHB (Auto) DRAM REF Tension on CHCRL REF Tension on CHC (Auto) ---------- IOH Tension 1.111 (Auto) IOH PCIE Tension 1.508 (Auto) Tension ICH 1.111 (Auto) ICH PCIE Tension (Auto) PI Tension OCP Included (IOH Voltage OCP) Frequency Auto (DRAM PWM Frequency) ---------- Spectrum Distribution Control ---------- Spectrum Distribution Processor (Disabled) DRAM Spread Spectrum (Disabled) on board jumper dependent ROG Connect Software Overclocking These settings are not guaranteed to work on your configuration 11-10-2010 07:33 PM #2 What is CPU Tension OCP OCP , A20M, Prefetcher Equipment, Neighboring Cash Line Prefetch, CPUTM Feature, Run disable bits and A20M? 12-02-2010 10:49 AM #3 Hi, my processor is i7-950 and 6gb 1866 RAM, I used this setup and my system got unstable. Also, my version of BIOS 1009 that shoud I use on my config? Thank you! 12-02-2010 07:31 #4 how much you try to disperse? 12-03-2010 07:11 #5 not so much, much, started with 25x 145 and 3625. I made a bench with wPrime and my account was like 2x worse than a stock clock. All the tensions I started with the minimum shown in the manual, do you think I need to go higher with the tension? 12-07-2010 12:31 am #6 12-09-2010 04:43 AM #7 originally published by NeonGenesis not so much, I started with 25x 145 and 3625. I made a bench with wPrime and my account was like 2x worse than a stock clock. All the tensions I started with the minimum shown in the manual, do you think I need to go higher with the tension? As part of the processor management you need to enable Intel's Hyper Threading HT Technologies that disables half the processor flow and gives you experienced performance losses. 12-09-2010 05:07 AM #8 Originally published zeeshan_mcse What is CPU Tension OCP, A20M, Prefetcher Equipment, Neighboring Cash Line Prefetch, CPUTM Function, Run Bit and A20M? CPU Voltage OCP Over Voltage Protection this limits the maximum value that can be set for the voltage processor A20M also known as the A20 Gate refers to a memory solution above 1MB- Inclusion will increase the speed of access to memory, disabling can reduce performance, but increase stability Equipment Prefetcher When enabled increases performance, Pulling the data will probably be required in the near future from the memory system (RAM) to the CPU cache to its required to reduce memory time Neighboring Cash Line Prefetch When enabled increases performance, pulling two 64bit cache lines when one requested by the processor it reduces access time as an additional 64bit cache line is immediately available if needed This feature uses more bus bandwidth to ensure the performance can't be seen in all applications. ProcessorTM's Processor Thermal Control function throttles down the speed of the CPU clock that is primarily used for very hot chips to help keep them cool, but reduces the processor's performance to disable perform bits also known as the XD processor, prevents the processor from performing in memory areas Only for data, it's a protection feature to help prevent the Attack of buffer overflow on the processor 07-14-2011 02:32 AM #9 so if I start the multiplier at 29x, bclk at 145mhz and the cpu voltage at 1.4v and it drops, I just kick the bclk and try again? then if it still drops the blow of tension increments and try again? Stepping up to the stable? 10-10-2011 01:16 #10 #10