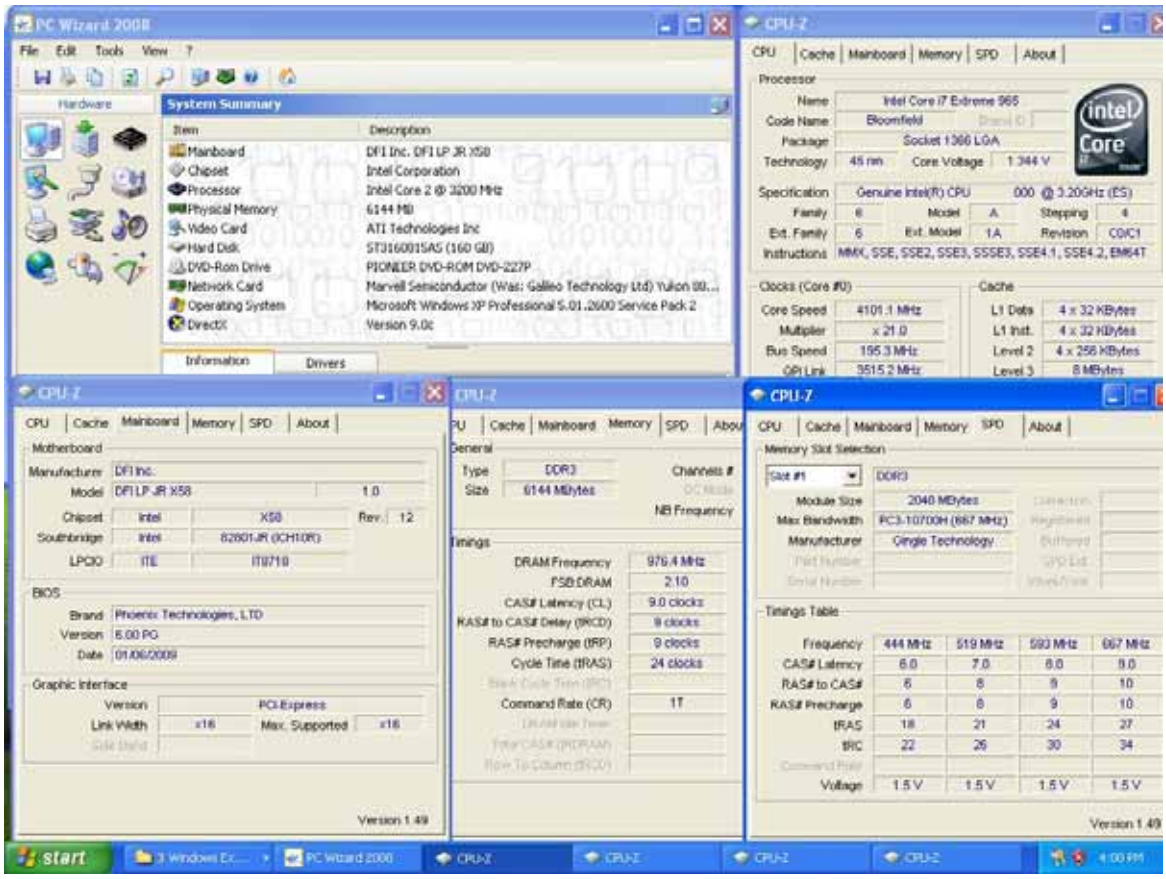
# *DFI JR X58-T3H6 OC Guideline* (BIOS version: 2009/1/6)

- Example of over-clock

  Device overview

System info:




➢ **Core i7 965@195MHz*21 DDR3 1954MHz BIOS Item highlights**：

**Genie BIOS:**

-CPU Non-Turbo Clock Ratio：**21 X**

- QPI Frequency：**4.800 GT /s**

- CPU Base Clock (BCLK)：**195 Mhz**

- DRAM Frequency：**1333 Mhz**

- UnCore Frequency：**2666 Mhz**

**Voltage Settings**

- CPU VID Control：**1.36250v**

- DRAM Bus Voltage：**1.725v**

- CPU VTT Voltage：**1.42v**

- IOH Analog Voltage：**1.10v**

**DRAM Timing:** ***all are at AUTO, change by Memset under OS

- DRAM Command Rate：**1N**

- CAS Latency Time (tCL)：**9**

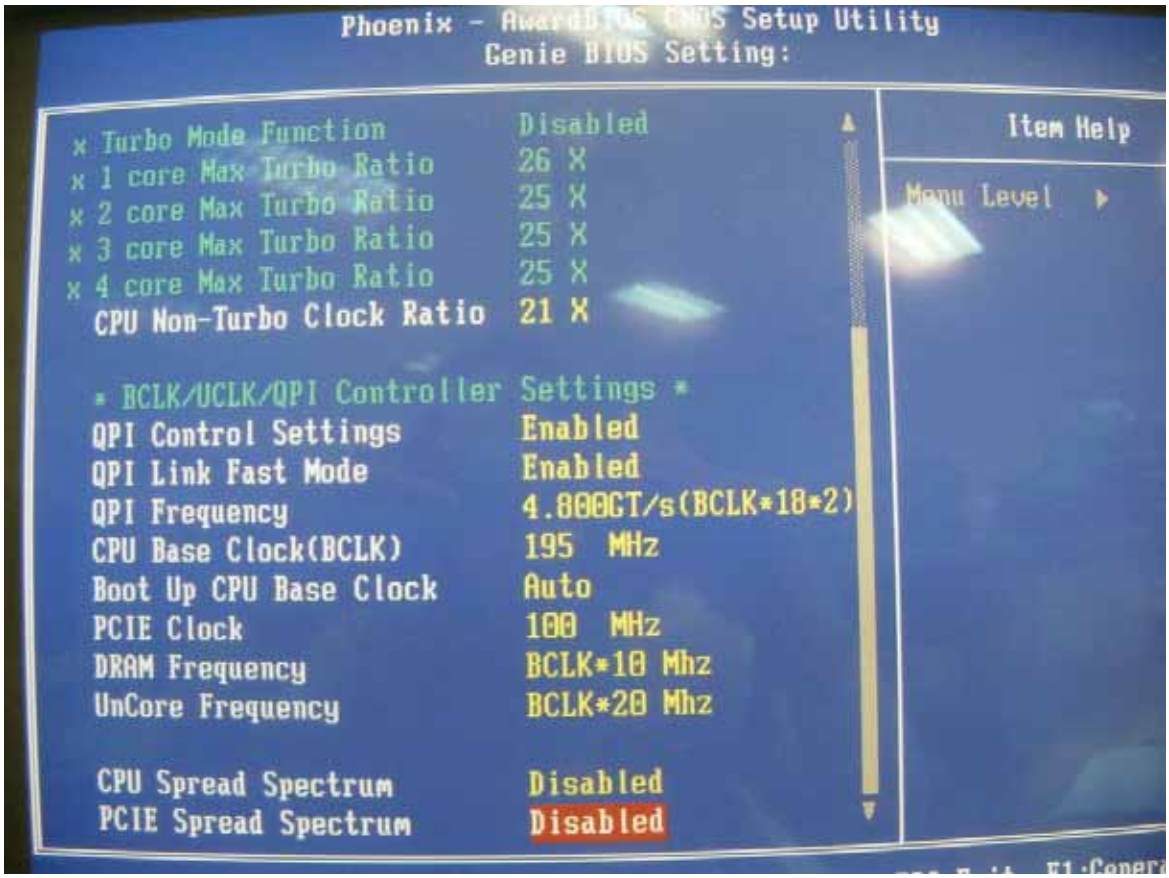
- RAS# to CAS# Delay (tRCD)：**9**

- RAS# Precharge (tRP)：**9**

- Precharge Delay (tRAS)：**24**

- REF to ACT Delay (tRFC)：**Auto**

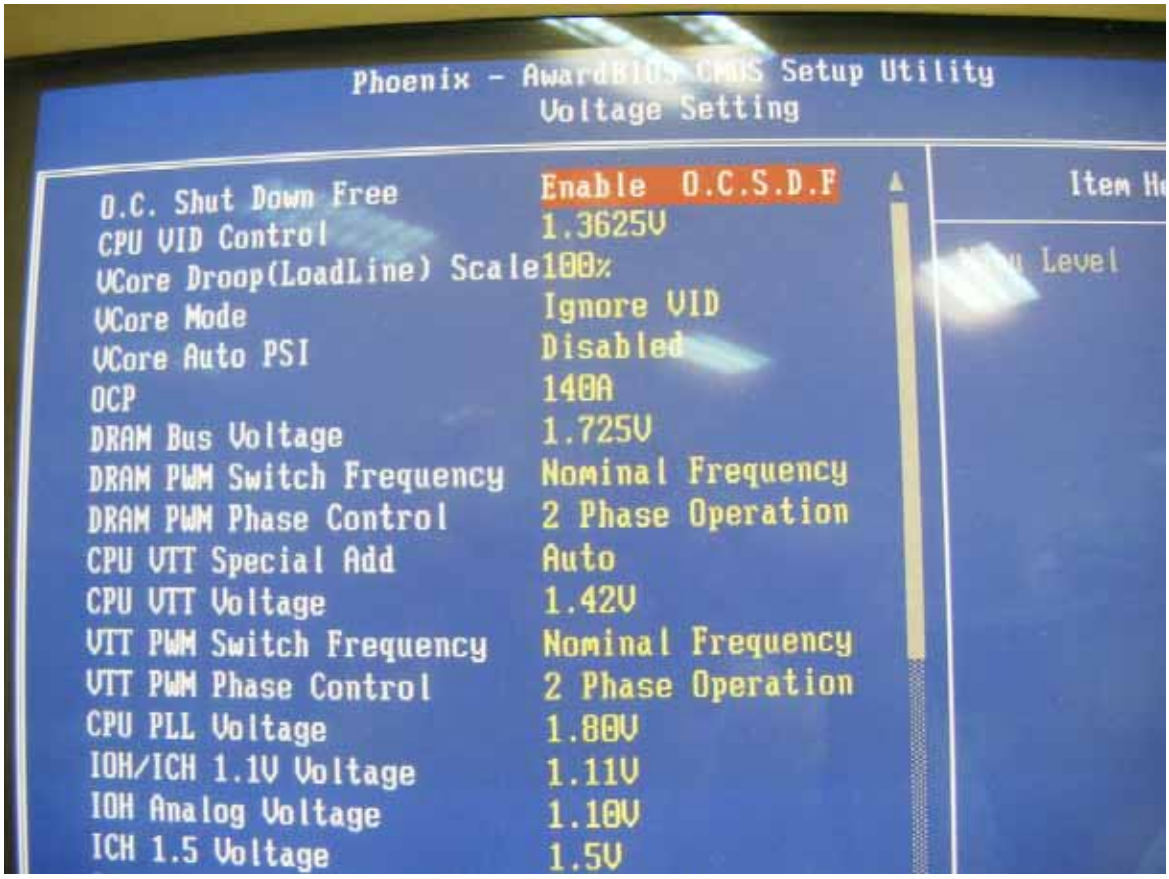

Phoenix - AwardBIOS CMOS Setup Utility
Genie BIOS Setting:
CPU Feature
DRAM Timing
Voltage Setting
Exit Setup Shut Down
O.C. Fail Retry Counter
O.C. Fail CMOS Reload
PPM Function
x Turbo Mode Function
x 1 core Max Turbo Ratio
x 2 core Max Turbo Ratio
x 3 core Max Turbo Ratio
x 4 core Max Turbo Ratio
CPU Non-Turbo Clock Ratio
* BCLK/UCLK/QPI Controller Settings *
QPI Control Settings
QPI Link Fast Mode
QPI Frequency
Press Enter
Press Enter
Press Enter
Mode 2
Enabled
Disabled
Disabled
Disabled
26 X
25 X
25 X
25 X
21 X
Enabled
Enabled
4.800GT/s(BCLK*18*2)
Item Help
Menu Level


Phoenix - AwardBIOS CMOS Setup Utility
Genie BIOS Setting:
x Turbo Mode Function
x 1 core Max Turbo Ratio
x 2 core Max Turbo Ratio
x 3 core Max Turbo Ratio
x 4 core Max Turbo Ratio
CPU Non-Turbo Clock Ratio
* BCLK/UCLK/QPI Controller Settings *
QPI Control Settings
QPI Link Fast Mode
QPI Frequency
CPU Base Clock(BCLK)
Boot Up CPU Base Clock
PCIE Clock
DRAM Frequency
UnCore Frequency
CPU Spread Spectrum
PCIE Spread Spectrum
Disabled
26 X
25 X
25 X
25 X
21 X
Enabled
Enabled
4.800GT/s(BCLK*18*2)
195 MHz
Auto
100 MHz
BCLK*10 Mhz
BCLK*20 Mhz
Disabled
Disabled
Item Help
Menu Level

CPU feature settings：Disable all feature except core Multi-Processing


DRAM timing：Leave to default values

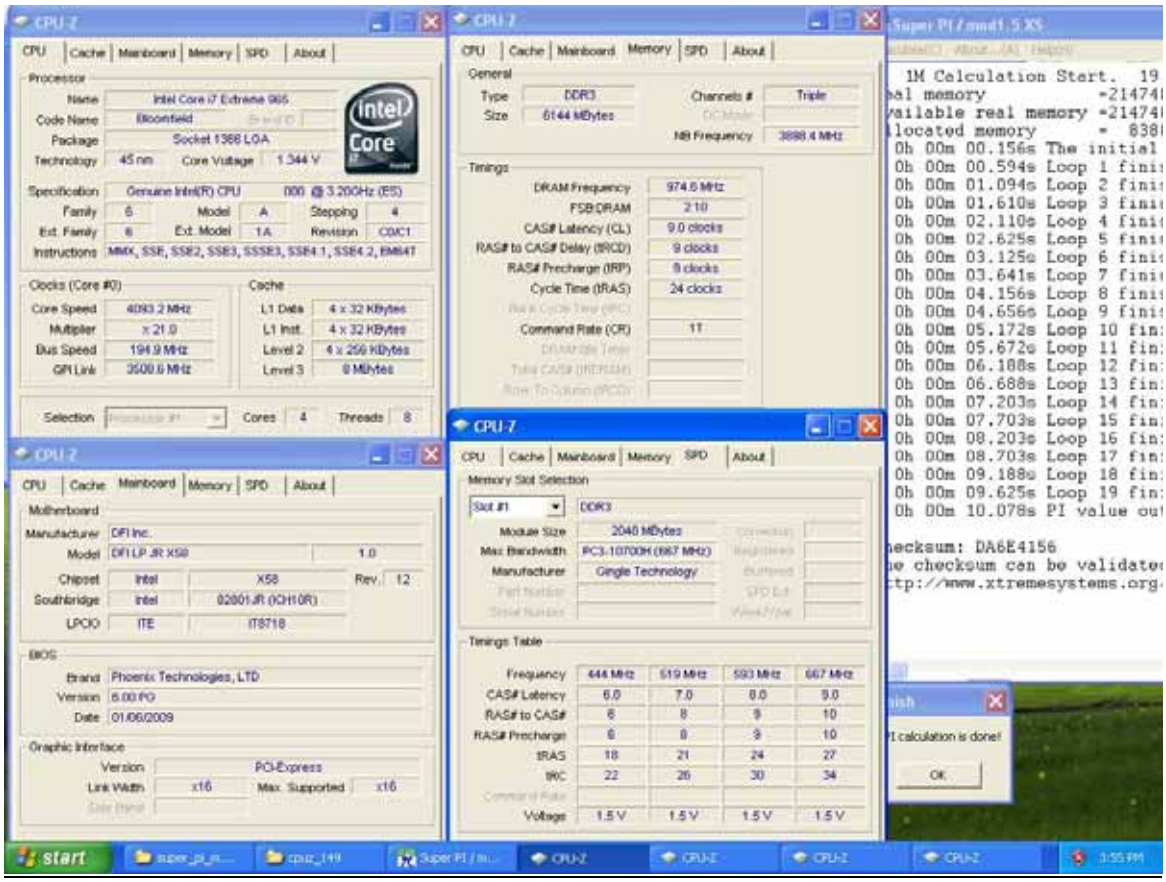
Voltage setting：Please be attention on CPU, DRAM, CPU PLL and VTT voltages.




Temperature of system：If CPU temperature around 45~55 will be better for over clocking.

➢ OC Result: **Intel Core i7 965 OC from 133MHz to 195MHz**

**JR X58-T3H6_Core i7 965_195MHz*21_PI 1M, DRAM timing @ 9-9-9-24= 10.078S**




➢ Modifying FSB in OS: **CPUID's Set FSB ver 2_1_89**


End