

# How to Overclock ODROID-C1

- Ubuntu : The version should be 3.10.104-177 or higher version.
- Android : The version should be Android v3.4 (Nov 28,2016) or higher version.

## The available list of cpu frequency set

frequency	notation on boot.ini	clock spec.
1.824 GHz	"1824"	overclock
1.728 GHz	"1728"	overclock
1.632 GHz	"1632"	overclock
1.536 GHz	"1536"	spec in
1.488 GHz	"1488"	spec in
...	...	...

You can check the available frequency set with the following node.

```
# cat /sys/devices/system/cpu/cpu0/cpufreq/scaling_available_frequency
96000 192000 312000 408000 504000 600000 696000 816000 912000 1008000
1104000 1200000 1296000 1416000
1488000 1536000 1632000 1728000 1824000
```

In case of **Android**, we don't recommend **1.824GHz** cpu frequency on Android system so far because system booting and heavy load test with 1.824GHz is unstable currently.

## Adjust CPU Max Frequency using boot.ini

### How to Set boot.ini

Please modify **max\_freq** based on the aforementioned frequency table. The unit of max\_freq in boot.ini in MHz.

```
### boot.ini

# CPU Max Frequency
# Possible Values: 96 192 312 408 504 600 720 816
# 1008 1200 1320 1488 1536 1632 1728 and 1824
# setenv max_freq "1488"
# setenv max_freq "1536"
```

```
# setenv max_freq "1632"
# setenv max_freq "1728"
# setenv max_freq "1824"
setenv max_freq "1536"

# Boot Arguments
setenv bootargs "root=UUID=e139ce78-9841-40fe-8823-96a304a09859 rootwait ro
${condev} no_console_suspend vdacfg=0xa000
logo=osd1,loaded,0x7900000,720p,full dmfc=3
cvbsmode=576cvbs hdmimode=${m} m_bpp=${m_bpp} vout=${vout_mode}
${disableuhs} ${hdmi_hpd} ${hdmi_cec} ${enabledac}
monitor_onoff=${monitor_onoff} max_freq=${max_freq}"
```

### How to Check new max cpu frequency

You can check if the current max cpu frequency via the below node.

```
# cat /sys/devices/system/cpu/cpu0/cpufreq/scaling_max_freq
1824000
```

The node **cpufreq\_info** shows the cpu frequency that is currently working. Please note governor policy should be **performance** if you want to check the max cpu frequency and run max cpu frequency unconditionally.

```
# echo performance > /sys/devices/system/cpu/cpu0/cpufreq/scaling_governor
# cat /sys/devices/system/cpu/cpu0/cpufreq/scaling_governor
performance
# cat /sys/devices/system/cpu/cpu0/cpufreq/cpufreq_info
1824000
```

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