

Run lsiutil with super user privileges.

In Linux, the normal path is /usr/bin/lsiutil, so that command is:

```
sudo /usr/bin/lsiutil
```

```
LSI Logic MPT Configuration Utility, Version 1.71, Sep 18, 2013

1 MPT Port found

      Port Name          Chip Vendor/Type/Rev    MPT Rev  Firmware Rev  IOC
1.  /proc/mpt/ioc0      LSI Logic SAS1064E B3    105      011a0000      0

Select a device:  [1-1 or 0 to quit] >
```

The utility should find your SAS controller as shown above.

Presumably, if you had more than one, they would be uniquely numbered.

Press '1' to select the device.

The main menu options will scroll by.

```
801. Scan for 1 LUN
810. Scan for 10 LUN's
10. Change IOC settings (interrupt coalescing)
13. Change SAS IO Unit settings
16. Display attached devices
20. Diagnostics
21. RAID actions
22. Reset bus
23. Reset target
42. Display operating system names for devices
45. Concatenate SAS firmware and NVDATA files
59. Dump PCI config space
60. Show non-default settings
61. Restore default settings
66. Show SAS discovery errors
69. Show board manufacturing information
97. Reset SAS link, HARD RESET
98. Reset SAS link
99. Reset port
  e Enable expert mode in menus
  p Enable paged mode
  w Enable logging

Main menu, select an option:  [1-99 or e/p/w or 0 to quit]
```

Select '13' and enter to configure link speed for each of the ports.

Press RETURN to select the defaults for the first three configurations. The 4<sup>th</sup> configuration sets the link speed.

Press '4' and RETURN to configure the port settings.

The first configuration Enables/Disables the link. Press RETURN to leave all four enabled.

The second configuration sets the MinRate. Unless previously changed, the default setting will be 1.5 Gbps. Select '1' to set the MinRate to 3.0 Gbps.

```
[Main menu, select an option: [1-99 or e/p/w or 0 to quit] 13
[SATA Maximum Queue Depth: [0 to 255, default is 32]
[Device Missing Report Delay: [0 to 2047, default is 0]
[Device Missing I/O Delay: [0 to 255, default is 0]

PhyNum  Link      MinRate  MaxRate  Initiator  Target  Port
  0     Enabled   3.0      3.0      Enabled    Disabled Auto
  1     Enabled   3.0      3.0      Enabled    Disabled Auto
  2     Enabled   3.0      3.0      Enabled    Disabled Auto
  3     Enabled   3.0      3.0      Enabled    Disabled Auto

[Select a Phy: [0-3, 4=AllPhys, RETURN to quit] 4
[Link: [0=Disabled, 1=Enabled, or RETURN to not change]
MinRate: [0=1.5 Gbps, 1=3.0 Gbps, or RETURN to not change] █
```

After setting the MinRate. Press RETURN to accept the default settings for each of the remaining configuration items. You will be returned to the Phy selection. Press RETURN to quit.

```
[Device Missing Report Delay: [0 to 2047, default is 0]
[Device Missing I/O Delay: [0 to 255, default is 0]

PhyNum  Link      MinRate  MaxRate  Initiator  Target  Port
  0     Enabled   3.0      3.0      Enabled    Disabled Auto
  1     Enabled   3.0      3.0      Enabled    Disabled Auto
  2     Enabled   3.0      3.0      Enabled    Disabled Auto
  3     Enabled   3.0      3.0      Enabled    Disabled Auto

[Select a Phy: [0-3, 4=AllPhys, RETURN to quit] 4
[Link: [0=Disabled, 1=Enabled, or RETURN to not change]
[MinRate: [0=1.5 Gbps, 1=3.0 Gbps, or RETURN to not change]
[MaxRate: [0=1.5 Gbps, 1=3.0 Gbps, or RETURN to not change]
[Initiator: [0=Disabled, 1=Enabled, or RETURN to not change]
[Target: [0=Disabled, 1=Enabled, or RETURN to not change]
[Port configuration: [1=Auto, 2=Narrow, 3=Wide, or RETURN to not change]

PhyNum  Link      MinRate  MaxRate  Initiator  Target  Port
  0     Enabled   3.0      3.0      Enabled    Disabled Auto
  1     Enabled   3.0      3.0      Enabled    Disabled Auto
  2     Enabled   3.0      3.0      Enabled    Disabled Auto
  3     Enabled   3.0      3.0      Enabled    Disabled Auto

[Select a Phy: [0-3, 4=AllPhys, RETURN to quit]
```

Press RETURN two more times to select the defaults for Persistence and Physical mapping. You will be back at the main menu.

```

Link: [0=Disabled, 1=Enabled, or RETURN to not change]
MinRate: [0=1.5 Gbps, 1=3.0 Gbps, or RETURN to not change]
MaxRate: [0=1.5 Gbps, 1=3.0 Gbps, or RETURN to not change]
Initiator: [0=Disabled, 1=Enabled, or RETURN to not change]
Target: [0=Disabled, 1=Enabled, or RETURN to not change]
Port configuration: [1=Auto, 2=Narrow, 3=Wide, or RETURN to not change]

PhyNum  Link      MinRate  MaxRate  Initiator  Target  Port
  0     Enabled    3.0      3.0      Enabled    Disabled Auto
  1     Enabled    3.0      3.0      Enabled    Disabled Auto
  2     Enabled    3.0      3.0      Enabled    Disabled Auto
  3     Enabled    3.0      3.0      Enabled    Disabled Auto

Select a Phy: [0-3, 4=AllPhys, RETURN to quit]

Persistence: [0=Disabled, 1=Enabled, default is 1]
Physical mapping: [0=None, 1=DirectAttach, 2=EnclosureSlot, default is 0]

Main menu, select an option: [1-99 or e/p/w or 0 to quit] 0

      Port Name          Chip Vendor/Type/Rev    MPT Rev  Firmware Rev  IOC
1.  /proc/mpt/ioc0      LSI Logic SAS1064E B3    105      011a0000      0

Select a device: [1-1 or 0 to quit]

```

At this point, press 0 to quit the utility. Reboot your system and the ports should now be operating at 3Gbps.