

phyCORE-i.MX6 / phyCORE-i.MX6 gigabyte ethernet problem

- [flowcontrol](#)

machine			16.1.0
phyboard-mira-imx6-4	i.MX6 Solo, 256MB RAM, NAND	imx6dl-phytec-mira-rdk-nand.dtb	
phyboard-mira-imx6-6	i.MX6 Solo, 1GiB RAM, 1GiB NAND	imx6dl-phytec-mira-rdk-nand.dtb	
phyboard-mira-imx6-7	i.MX6 DualLite, 1GiB RAM, 4GB eMMC	imx6dl-phytec-mira-rdk-emmc.dtb	zImage-imx6dl-phytec-mira-rdk-emmc.dtb

dtb

```
&ethphy {
    max-speed = <100>;
};
```

flowcontrol

imx6iperf400Mbit/sdmesgflow control

```
[ ] fec 2188000.ethernet eth0: Link is Up - 1Gbps/Full - flow control rx/tx
```

iperf

```
[ 5] local 192.168.3.11 port 5001 connected with 192.168.3.10 port 49892
[ 5] 0.0-10.0 sec 528 MBytes 443 Mbits/sec
```

flow control off

```
[ ] fec 2188000.ethernet eth0: Link is Up - 1Gbps/Full - flow control off
```

SOCbuffer overrun

```
root@phyboard-mira-imx6-3:~# iperf -s
-----
Server listening on TCP port 5001
TCP window size: 85.3 KByte (default)
-----
[ 4] local 192.168.3.11 port 5001 connected with 192.168.3.10 port 53423
[ ID] Interval Transfer Bandwidth
[ 4] 0.0-10.8 sec 5.13 MBytes 3.97 Mbits/sec
```

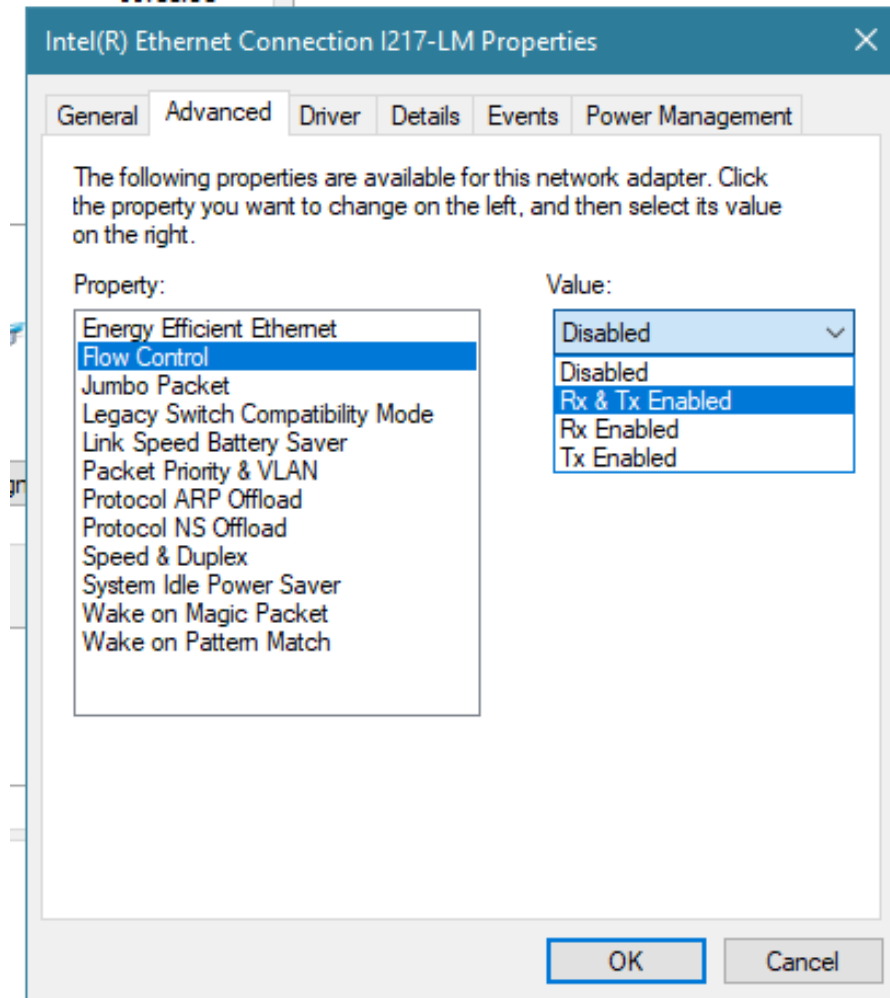
ifconfig

```

eth0      Link encap:Ethernet  HWaddr 50:2D:F4:0C:CB:91
          inet addr:192.168.3.11  Bcast:192.168.3.255  Mask:255.255.255.0
          inet6 addr: fe80::522d:f4ff:fe0c:cb91/64  Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:774836 errors:524 dropped:0 overruns:524 frame:524 <---
          TX packets:79830 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1168487250 (1.0 GiB)  TX bytes:4456324 (4.2 MiB)

```

windowsflow control



<https://boundarydevices.com/i-mx6-ethernet/>

PDF: [i-mx6-ethernet.pdf](#)

<http://lists.infradead.org/pipermail/linux-arm-kernel/2013-January/140114.html>

PDF: [\[PATCH 1_1 net-next\] net_fec_enable pause frame to improve rx prefomance for 1G network.pdf](#)