

MTCM2-L6G1 Windows / Linux setup and troubleshooting guide

Windows 7, 8 and 10 driver setup and hardware installation

- 1) Install windows driver using EXE file "sqn_setup_LR4.2.2.0-xxxxx.exe"
- 2) (optional) Install Windows Terminal software when custom AT command setting is require
<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>
<https://ttssh2.osdn.jp/index.html.en>
- 3) Setup and install hardware using MTCM2-xxxx setup guide "82104400L_MTCM2-L4G1.pdf"

After windows driver and hardware are installed, Windows should have one com port and two ethernet ports show up in Windows Device Manager.

COM port will be under Device manager - Ports (COM & LPT)

- Sequans CDC/ACM USB COM Port

Ethernet ports will be under Device manager - Network adapters

- SqnUsbV Device x

- SqnUsbV Device x

- 4) (optional) use these AT command guides in case custom AT commands and APN settings are require

Cassiopeia-UseCases-ATCommands_Rev1.pdf

- 5) After modem is registered and connected to private LTE cellular network, Windows virtual ethernet port in step 3 above will assign with cellular IP address and Windows should have full internet access over private LTE cellular network

Linux OS setup guide

Linux driver should be part of the most linux kernel / OS systems

For some Linux system, you may have to disable connection manager using command below in order for this USB modem to function properly

```
systemctl disable ModemManager
```

After modem hardware is installed, Linux system should show these ports

- One com port = CDC_ACM (/dev/ttyACM0)

- Two ethernet ports = CDC_ether (eth1 and eth2)

Use Linux commands below to start cellular connection after modem is setup, configured and registered

```
ifconfig eth1 up (cellular IP)
```

```
ifconfig eth2 up (debug interface)
```

```
udhcpc -i eth1
```

```
udhcpc -i eth2  
ifconfig eth1 (check if cellular IP address is assigned successfully to this ethernet interface)
```

User will need to setup and configure routing, DNS and default gateway in order for the system to have access over the private LTE network via the ethernet cellular IP address interface

Use above Windows troubleshooting guide if Linux ethernet interface above cannot obtain cellular IP address and there are connectivity issues

Apple Mac OS setup guide

Download and install Mac OS serial terminal software

<https://freeware.the-meiers.org/>

Plug in the USB modem, open terminal software and issue AT commands to USB Modem virtual com port

```
at+sqnbypass=0
```

```
at+sqnusbenum="ecm+acm"
```

```
at^reset
```

USB modem should reboot with new settings

Modem LEDs should be on and LS LED should be blinking

With the above setup, USB modem will be assigned with private IP 192.168.15.x to the Apple Mac OS virtual Ethernet interface. The limitation is that it can only support outbound traffics and it will NOT able to support mobile terminate application / use case where remote need to access directly to the device with the cellular IP address

Note: Mac OS sleep mode is not supported. USB modem will require reset (AT^RESET or unplug and plug back the USB modem) after Mac wakes up from sleep mode

Troubleshooting guide when there are cellular connectivity issues

- check SIM card and make sure it is activated and allow to connect to private LTE network
- Does SIM card require specific APN setting, set APN accordingly using AT command
- check LED SIM to insure SIM card is detected
- check LED signal strength to insure network signal is available
- check LED LS to insure network registered
- use terminal software and AT command to query modem information and status

AT command guide

Check modem version

AT+CGMM

AT+CGMR

ATI

Check SIM status

AT+CIMI

AT+CPIN?

Setup and check APN using command

AT+CGDCONT=1,"IP","apn name"

AT+CGDCONT?

AT+CGCONTRDP

Check signal strength

AT+CESQ

Check network registration

AT+CEREG?

AT+COPS?

Check modem setting for auto network connection

AT+SQNAUTOCONNECT?

AT^AUTOATT?

Check CA (carrier aggregation) status during an active cellular connection

[AT!=showcellstat](#)