

## Modem GSM/GPRS/EDGE FXT009

## M76100 / M76140 / M71100

**Order-No:**    **M76100 - GSM/GPRS Modem with omni-directional antenna**  
                   **M76140 - GSM/GPRS Modem with directional antenna**  
                   **M71100 - Modem**

- **Data transfer by mobile telecommunications**
- **Compatible with Ammonit measuring systems**
- **Selectable quad band 850/900/1800/1900**
- **Email despatch via GPRS**
- **USB interface**

When meteorological stations are in remote locations, there is usually no access to mains electricity and a telephone line. In order to transfer measurement data from the met mast to the host, remote communication systems are commonly used.



| Air Interface                     |  | GSM /GPRS                                   |
|-----------------------------------|--|---------------------------------------------|
| Frequency Bands                   |  | 850 / 900 / 1800 / 1900                     |
| Power                             |  |                                             |
| Standby and Idle                  |  | 2.5 mA                                      |
| GSM / GPRS max                    |  | 400 mA max<br>(GPRS class 10 33dBm)         |
| LED Status Indicator              |  | 1; red                                      |
| Interfaces                        |  |                                             |
| USB                               |  | 1 Mini USB Device Port                      |
| Device Dimensions                 |  |                                             |
| Normal operating cell temperature |  | 89 x 60 x 30 mm                             |
| Operational Temperature           |  |                                             |
|                                   |  | -30 °C ... +75°C                            |
| Power Supply                      |  |                                             |
| Supply Voltage                    |  | 4.75 ... 32 V                               |
| Supply Current                    |  | 600 mA @ 4.75 V (average)                   |
| Supply Cable with Fuse            |  | DC-IN/red; Ground/black; T2A (T = time lag) |
| Antenna                           |  |                                             |
| Antenna Interface                 |  | SMA                                         |
| Impedance                         |  | 50Ω                                         |

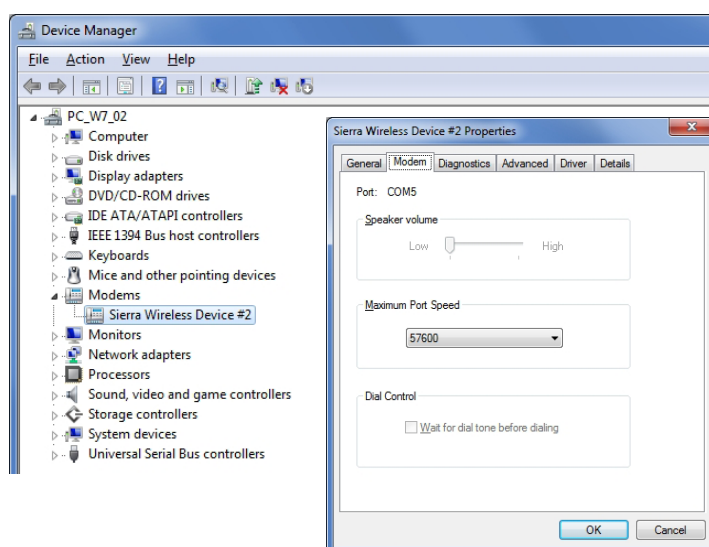
## Configuration of the frequency band

The FXT009 modem is a quad band programmable gateway which supports EU bands (EGSM900/DCS1800) and US bands (GSM850/PCS1900). Users may switch from one supported band to another by using AT commands.

- AT+WMBS=5 (to switch to 850/1900 MHz)
- AT+WMBS=4 (to switch to 900/1800 MHz)
- AT+WMBS=7 (to switch to 850/900/1800/1900 MHz)

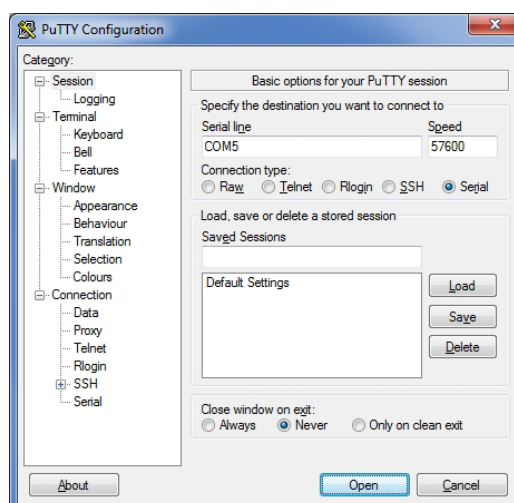
In order to customize the frequency bands of the modem, connect the modem directly to your computer via USB. If you are using a Windows™ PC and the modem is not displayed in the *Device Manager* under *Modems*, you require a driver file, which can be downloaded from the Sierra Wireless (<http://www.sierrawireless.com/>) website. On Linux™, in general no driver file needs to be installed.

1. After successfully connecting the modem to your PC, go to the *Device Manager* and open the properties of the modem by double-clicking on the *Sierra Wireless Device*. Go to the *Modem* tab to get the name of the *Port*, to which the modem is connected. Change the *Maximum Port Speed* to 57600 baudrate.



2. In order to change the frequency bands, a standard terminal program like *PuTTY* (<http://www.putty.org/>) can be used.

3. Open the program and enter the port name as *Serial line* and 57600 for the *Speed*. Open the PuTTY command window. In order to test the connection enter the command **at** and press Enter. If **OK** is shown in the command window, the connection is working correctly and you can change the frequency bands with the above mentioned AT commands.



4. Restart the modem after modification.

Last Modification: 16 November 2012