Modem UMTS / GPS PHS8-P

M76400 / M71400

Order-No: **M76400 - UMTS/HSPA/GSM/GPRS/EDGE and GPS system with modem and omni-directional antenna**
M71400 - Modem

- **Five Band UMTS/HSPA: 850/800, 900, 1900 and 2100 MHz**
- **Quad-Band GSM/GPRS/EDGE: 850, 900, 1800, 1900 MHz**
- **GPS**
- **SMS**
- **USB 2.0 high speed interface**

The modem provides worldwide coverage and reliability even while roaming across different wireless network technologies. Two antenna pads enable diversity support allowing PHS8 to provide improved dataspeeds even under fluctuating 3G network conditions.

Air Interface	**UMTS/HSPA/GSM/GPRS/EDGE**
Frequency Bands	850 / 800, 900, 1900, 2100 MHz
GPRS	class 12
GPRS data rate	max. 85.6 kbps (DL & UL)
Power	
Supply Voltage	10 ... 60 V
Electrical connection	6-pole Western jack (use accessory cable)
Interfaces	
USB	USB 2.0 high speed, type B
Control	AT commands
Antennas	
UMTS/GSM/GPRS antenna interface GPS antenna interface	FME SMA
Impedance	50 Ω
General	
Operational temperature	-30 °C ... +75°C
Dimensions and weight	65 x 74 x 33 mm / approx. 110g
Accessories	
GPS antenna USB cable Supply cable	Article No. M72400 Article No. M01210 Article No. M71041

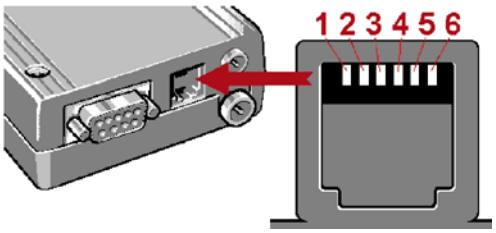
Ammonit
Measurement GmbH

Wrangelstrasse 100, D-10997 Berlin, Germany
T: +49 30 6003188-0, E: info@ammonit.com

measuring wind and solar power
www.ammonit.com

PIN assignment of power supply jack

Signal	Plug Pin No.	Ammonit Cable Wire Colour
Power Supply	1	white, green → +V
Ignition	4	
Supply Ground	6	blue
	2, 3, 5	Not connected



Please note: Ammonit offers directional and Yagi antennas as accessories.

LED status information

LED signal	Description
Permanent yellow light	Modem is powered. No USB connection available.
Permanent white light	Modem is powered. USB connection established between modem and PC / data logger (with or without SIM card / with or without PIN entry). White LED light indicates a successfully established a data connection. The LED is not an indicator of proper communication behaviour of the modem.

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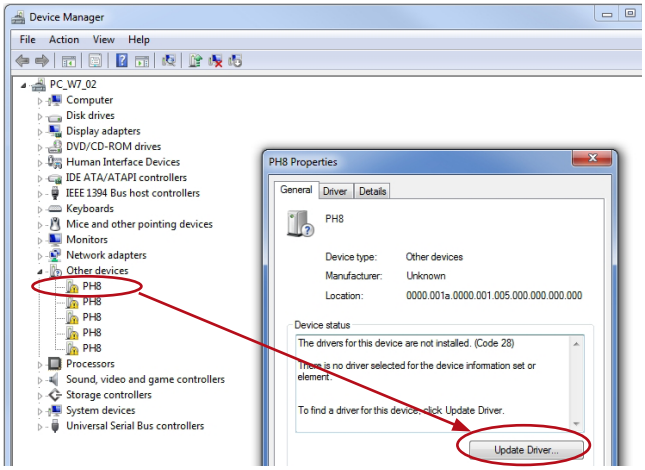
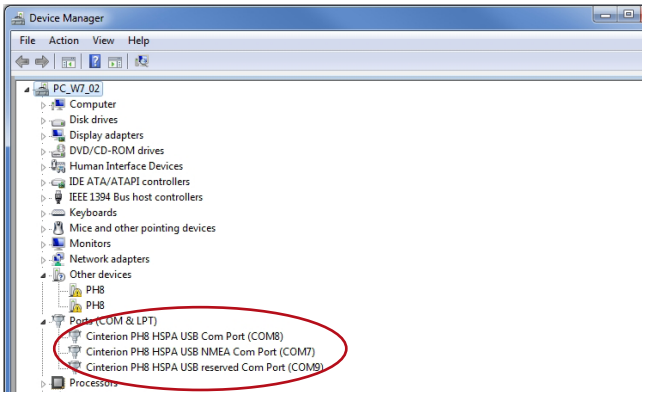
Configuration of frequency bands

The PHS8-P modem is a five band programmable gateway supporting 850 / 900 / 1800 / 1900 / 2100 MHz. If the modem has been purchased separately, it might be configured for working properly with Meteo-40.

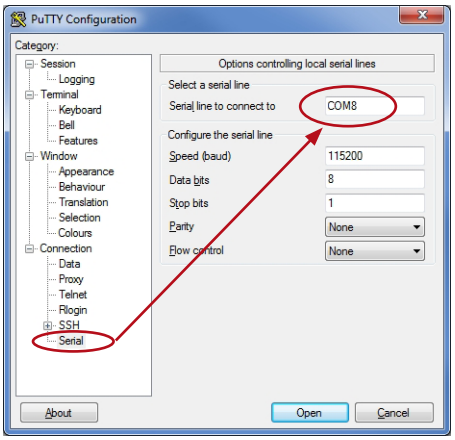
In order to check the configuration of the frequency bands, connect the modem directly to your computer via USB. If you are using a Windows™ PC and the modem is not displayed in the *Device Manager* under *Modems*, you require a driver file, which can be downloaded from our website (http://www.ammonit.com/)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



After installing the driver files, the *Cinterion USB Modem* should be displayed under *Ports (COM & LPT)* in the *Device Manager*. Disconnect the modem from your PC. After connecting the modem again, further *COM* ports are used by the modem.



Open a standard terminal program like *PuTTY* (http://www.putty.org/). Enter the COM port number from the *Cinterion PH8 HSPA USB Com Port* as *Serial line* and change *Parity* and *Flow control* to *None*. Open the PuTTY command window.



For listing the configuration enter: **at^sdport?**

Default setting of the modem should be: **at^sdport=6**

To work properly with Meteo-40, all interfaces have to be available, enter: **at^sdport=3**

Press *Enter* to finish the configuration. Restart the modem.

Testing GPS

Open a second PuTTY command window and connect the COM port number of the *Cinterion PH8 HSPA USB NMEA Com Port*. Go to the PuTTY command window of the *Cinterion PH8 HSPA USB Com Port* and enter: **at^sgpsc="Engine",1**

In the PuTTY command window of the *Cinterion PH8 HSPA USB Com Port* the GPS data is listed.

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