

OPERATING INSTRUCTIONS

XM1630S

Ethernet Terminal



P2: **RS-422 / RS-485 Interface**
 Type: 2-wire, half-duplex, ¼ unit load.
 Isolation: 3000 VDC (1 minute)
 Termination: 390R / 390R / 220R
 Pin designation:

| | |
|----|------------|
| 1 | A - wire |
| 2 | B - wire |
| 3 | GND Signal |
| 4 | GND Signal |
| J1 | 390R (A) |
| J2 | 220R (A-B) |
| J3 | 390R (B) |

Bus Termination:

Plugging in the jumpers J1,J2,J3 connects the bus with the resistors for bus termination. All three jumpers should be jointly plugged either in or out.

Sending AT commands with RS-485:

To allow sending of AT commands to a modem using the half-duplex RS-485 interface, the command line echo must be disabled in the modem using the ATE0 command. This task should be made, using the RS232 interface, prior to use the RS485 interface.

P4: **Power Supply**
 Input voltage: 9...32 V_{DC}
 Power input: 100mA @ 9V_{DC} (average)
 120mA @ 9V_{DC} (peak)

Pin designation:

| | | |
|---|---|----------------|
| 1 | + | DC INPUT |
| 2 | - | GND |
| 3 | S | Enable RS485 |
| 4 | R | External Reset |

External Reset:

Pin 4 provides an external Reset signal input. Leave open if not used. To activate the Reset input, simply connect it to ground (pin 2), using an external relay. After releasing the reset input, the modem starts up again.



Do not connect the modem to the mains power directly.

4. Operating conditions

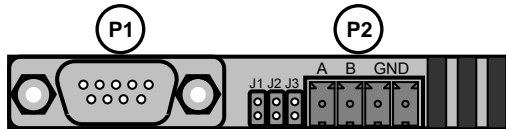
Environmental conditions:

Operating temp. -20°C to +70°C
 Storage temp. -40°C to +85°C
 Rel. humidity: ≤ 75% acc. EN60068-2-30
 Protection type: IP50 acc. IEC529
 Vibration: acc. EN60068-2-6
 Shock : acc. EN60068-2-27
 Dimensions: 120 x 101 x 23 mm
 Mounting: any direction

ESD Protection:

RS232 Interface: +/- 15kV HBM
 8kV IEC 61000-4-2
 All other ports: +/- 15kV
 IEC 61000-4-2, level 4

1. Connectors Top



P1: **RS-232 - Serial Interface**
 Type: Serial V.24 (EIA/TIA-232-E).
 Connector: D-SUB 9 female
 Pin designation:

| | |
|---|-----|
| 1 | DCD |
| 2 | RXD |
| 3 | TXD |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI |

2. Connectors Bottom



P3: **Ethernet Interface**
 Type: IEEE 802.3u
 Speed: 10 / 100Base-T
 Isolation: 1500 VDC
 Protection: Standard ESD

Pin designation:

| | |
|---|-----|
| 1 | TX+ |
| 2 | TX- |
| 3 | RX+ |
| 4 | RX- |

3. Front side

Led indicators:

| | |
|-----|------------------|
| ON | Power On |
| DCD | Modem Connected |
| TXD | Transmitted Data |
| RXD | Received Data |

5. Operation

The proper and safe operation of this device assumes that the operating instructions and the safety warnings given in this document are read carefully.

Make sure that all cables are not live when making the connections! Impending danger by high input voltage or high power supply voltage!

Electrical connections are observed. The device should only be handled by appropriately trained personnel who

Switch over between RS232 and RS485:

As default, the RS232 interface is enabled. The RS485 interface will be enabled by placing a jumper (wire) between terminal 3 of P4 and GND (P4-2).

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AT Commands, Software Documentation and Manuals:

The according Software and AT-Commands Manual should be downloaded from our homepage which will be updated frequently. Please look at:

<http://www.xmodus.ch/manuals.html>

For additional documentation look also at the corresponding socket modem manuals on our homepage. The XM1630S Ethernet Terminal is based on the AL6000S Socket Modem.



XM1630S-C00-101

EC-Declaration of Conformity

Manufacturer: **xmodus swiss GmbH**
Responsible person: **Andreas Bircher**
Address: **Dachslernstrasse 63**
CH-8048 Zürich
Switzerland
declares that the product:
Type: **LAN / Ethernet Terminal**
Model: **XM1630S**
Intended use: **Data communication equipments**

complies with the essential requirements of Article 3 of the R&TTE 1999/5/EC Directive, if used for its intended use and that the following standards has been applied:

1 Safety (Article 3.1.a of the R&TTE Directive)

applied standard(s) EN 60950-1:2005 Issue 2005
EN 50371:2002 Issue 2002


2 Electromagnetic compatibility (Article 3.1.b of the R&TTE Directive)

applied standard(s) EN 55022 +A1 +A2:2003 Class B Issue 2003
EN 55024 +A1 +A2:2003 Issue 2003

3 Interface specification (termination point of public telecom network)

applied standard(s) _____ Issue _____

Bürich, 21. Des. 2009
(Place and date of the declaration of conformity)


Andreas Bircher
Executive Director
(Name, title and signature)