



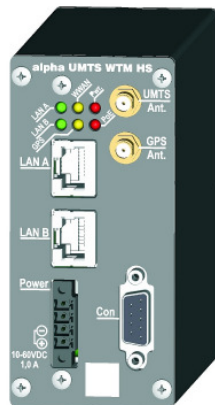
# UMTS Modem alpha<sup>®</sup> UMTS WTM 2

For stationary or mobile application under extreme temperature conditions (-25 °C...+70 °C)



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IP20-case

The **alpha<sup>®</sup> UMTS WTM 2** is a UMTS-Modem with GPS-functionality for outdoor use. The modem is available as PC/104-plus-assembly, as PCB, in a robust IP54-outdoor-case as well as a IP20-DIN rail case. The PC/104-Plus-construction can be easily integrated in appropriate PCB systems.

Together with the CISCO MAR 3200 (mobile access router) it is provided by FMN in **alpha<sup>®</sup> route** versions.

## Functionality

- implementation UMTS / HSDPA / GPRS / EDGE  
↔ Ethernet 10/100
- IP on both interfaces (UMTS, Ethernet)
- Router
- GPS
- Web interface for the adjustment of
  - UMTS- and access parameter
  - router parameters
- updatable
- VPN functionality
- basic firewall functions

## Applications

- mobile broadband access
- video transmission over UMTS

## Wireless interface

- UMTS-antenna
  - U.FL RF at **alpha<sup>®</sup> UMTS WTM 2 PC/LP**
  - SMA at **alpha<sup>®</sup> UMTS WTM 2 EG/HS**
- GPS-antenna
  - U.FL RF at **alpha<sup>®</sup> UMTS WTM 2 PC/LP**
  - MCX-connection at **alpha<sup>®</sup> UMTS WTM 2 EG**
  - SMA at **alpha<sup>®</sup> UMTS WTM 2 HS**

## Ethernet

- 2x 10/100 Mbps
  - plug AMP 104960-4 (alternative RJ45 over adapter) at **alpha<sup>®</sup> UMTS WTM 2 PC/LP**
  - RJ45 at **alpha<sup>®</sup> UMTS WTM 2 EG/HS**

## SIM

- On-board socket

## Status information

- status displays (LED)

## GPS

- NMEA 0183 over tcp (virtual serial port)

## VPN

- OpenVPN Client

## RF features

- Quad-band GSM/GPRS/EDGE 850, 900, 1800, 1900 MHz
- UMTS WCDMA FDD 850/1900/2100 MHz (Band Class I, II, V)

## Packet mode features

- UMTS data rates 384 kbps downlink, 384 kbps uplink
- HSDPA data rate 3,6 Mbps downlink, (7,2 Mbps via software update)
- GPRS/EDGE class B, multislots class 10

## Power supply

- $V_{cc} = 3,0 \dots 3,6 \text{ V}$ ,  $I_{max} = \text{ca. } 2,0 \text{ A}$
- at **alpha<sup>®</sup> UMTS WTM 2 EG** external IP64-power supply unit
- at **alpha<sup>®</sup> UMTS WTM 2 HS** 10 ... 60 VDC or power-over-Ethernet

## Versions

- **alpha<sup>®</sup> UMTS WTM 2 PC** – form factor according to PC/104-Plus specification version 2.0 Nov. 2003
- **alpha<sup>®</sup> UMTS WTM 2 LP** - as **alpha<sup>®</sup> UMTS WTM 2 PC** but without PC/104-plus-plug connector
- **alpha<sup>®</sup> UMTS WTM 2 EG** - IP54-case
- **alpha<sup>®</sup> UMTS WTM 2 HS** - IP20- DIN rail case
- operating temperature: -25 °C ... +70 °C (+55 °C with case versions)