Mobile router MR-36

Embedded Linux

www.mybwa.com/en

Secure data streaming via VPN	DL (max.*)	UL (max.*)	DiREX-Pro (CIF/PAL)
HSDPA (3GPP rel.5)	3.6 Mbps	**384 kbps**	11-18 fps
UMTS (W-CDMA)	384 kbps	**64 kbps**	2.5-9 fps
EDGE (Class 10)	237 kbps	**118 kbps**	4-17 fps
GPRS (Class 10)	85.6 kbps	**42.8 kbps**	1.5-6 fps

Smart mobile router for secure data streaming

The MR-36 router is a handy mobile extension for the DiREX-Pro series using MPEG4-based video compression. With the use of radio networking, users now can access and upload files from any place at any time. The compact and intelligent router ensures efficient and secure video transfer.

Included with the BWA video solution is the free NVB-Lite software that simultaneously monitors connection quality of several DVRs and adapt the video frame rate to current available bandwidth.

Main Features

- HSDPA/UMTS (up to 3.6 Mbit/s), EDGE/GPRS (Class 10)
- VPN client for encrypted IPsec connection to a head office
- Hassle-free web interface, DHCP, NAT, L2TP, DynDNS, NTP
- DiREX-Pro/router control and motion notification via SMS
- Double SIM-Cards, incl. data traffic/roaming management**
- External GSM antenna (FME, 50 Ohm); GPS option (USB-A)**
- RS-232 and power supply directly via DiREX-Pro D-Sub plug
- Power supply: 10 ... 30 VDC / 0.3 W (in standby mode)
- Power consumption: 3.5 W (GPRS), 5.5 W (UMTS/HSDPA)
- Status LEDs; operation temperature range: -20°C ... +55°C
- Dimentions: 30 x 90 x 120 mm; weight: 150 g

The mobile router is extremely versatile automatically choosing the fastest connection type available – whether GPRS, EDGE, 3G/UMTS or HSDPA. Providing 3.6 Mbit/s in download and up to 384 Kbit/s in uplink* with an LED indicating active connection type. Each device has an unique IP address and can be preconfigured via integrated web interface. The MR-36 supports DHCP and DynDNS services as well as L2TP. External FTP access is also forwarded to DiREX-Pro.

DiREX-Pro compressed video and audio streams, as well as e-mails are forwarded over integrated NAT (Network Address Translation) via Fast Ethernet to public IP networks. In combination with the RS-232 interface it is also possible to control video recordings via SMS or receive a motion detection alert on a cellular/mobile phone. Even when using older GSM networks or in the event of a lost connection the mobile duo (MR / DiREX-Pro) always keeps the user up-to-date.

An integrated USB-A port supports standard GPS mouse devices** so the USB port of DiREX-Pro is kept free for an extended memory capacity up to 2 TByte. The router is equipped with an FME plug for external antenna that provides a high reception level even at long distances.

* *depending on the local mobile network provider*

** *available in future firmware updates*

Supported Features

DHCP server	automatic IP addressing in LAN network
HTTP server	configuration (GUI) via web interface, password-protected
NAT	network address translation between inside/outside
SMS info	motion/alarm notification and activated SIM status
SMS control	control of video recording and VPN connection or standby status
IPsec client	secured connection to external VPN gateway
L2TP	protocol of tunneling interconnection
DynDNS	access to router with dynamic IP address
NTP	time synchronization with external server
FTP	passive incoming and active outgoing FTP connection
Twin SIM*	user-definable monthly traffic limit and roaming prevention
GSM status	information on signal level, BTS, back-up channels etc.
GPS log*	position, speed, driving direction and time adjustment
HSDPA	3GPP release 5 • max. 3.6 Mbps (DL), max. 384 kbps (UL) UE CAT [1-6], 11, 12 • compression mode 3GPP TS25.212
UMTS	WCDMA/FDD • max. 384 kbps (DL), max. 64 kbps (UL)
EDGE	multislot class 10: max. 236.8 kbps (DL), max. 118 kbps (UL) mobile station cl. B • modulation and coding scheme MCS 1-9
GPRS	multislot class 10: max. 85.6 kbps (DL), max. 42.8 kbps (UL) mobile station class B • full PBCCH support coding schemes CS 1-4

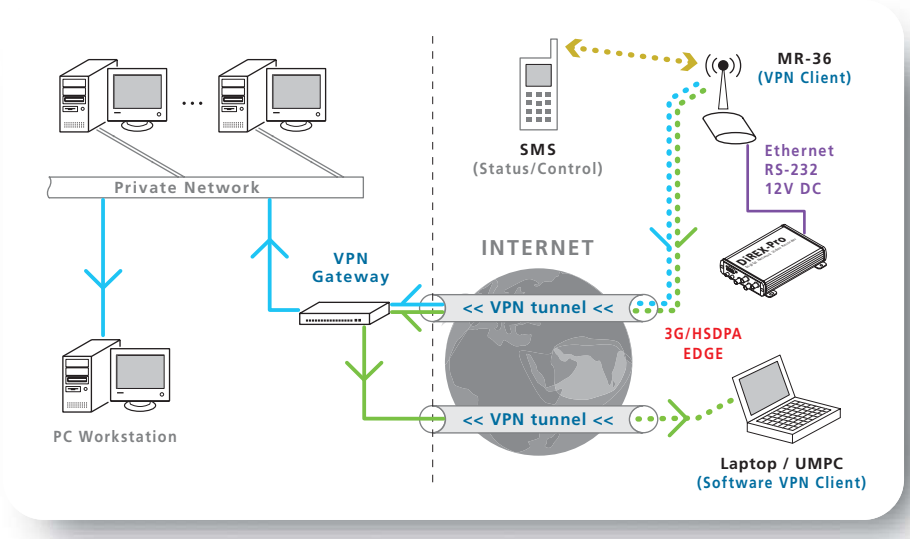
Technical Data

MR-36A (European model)	Single-Band UMTS/HSDPA Dual-Band GPRS/EDGE	3G 2100 MHz GSM 900/1800 MHz
MR-36B (for special projects only)	Tri-Band UMTS/HSDPA Quad-Band GPRS/EDGE	3G 850/1800/2100 MHz GSM 850/900/1800/1900 MHz
Power consumption	without transmission GPRS/EDGE UMTS/HSDPA power supply	300 mW 3.5 W 5.5 W 10 V ... 30 V DC
Housing	dimentions weight (w/o power plug, approx.)	30 × 90 × 102 mm 150 g
Operation temperature		-20°C ... +55°C
Interfaces	Ethernet GPS (NMEA-0183)* BWA protocol / power supply GSM antenna	10/100 Mbit/s, RJ45 USB 2.0, type A RS-232, RJ45 50 Ohm, FME
Comply standards (MR-36A only)	3GPP TS 51.010-1 • 3GPP TS 34.121 • 3GPP TS 34.123-1 • 3GPP TS 34.123-3 • ETSI EN 301511 V9.0.2 • ETSI EN 301489-1 V1.4.1 • ETSI EN 301489-7 V1.2.1 • EN 60950-1 (2001) • EN 301489-24 V1.2.1 • EN 301908-01 V2.2.1 • EN 301908-02 V2.2.1 • EN 61000-3-2 • EN 55022	

DiREX-Pro DVRs and MR-36

Smart and secure mobile video streaming for covert deployment and operator free use

Combined with the rugged DiREX-Pro.A40 DVR, this compact and lightweight router can be used in a temperature range of -20° to +55°C – ideal for permanent outdoor use. Power for the MR-36 is supplied from a D-Sub plug of the recorder. With this convenient one-cable solution there is no need for an external power supply. Furthermore, the extremely low standby power consumption of only 0.3 Watts and a wide range for the input voltage offer great flexibility of usage.



A special feature is a second SIM-Card* that can provide an alternate connection in case of difficulties with the primary provider or if the maximum download volume has been reached or timercontrolled. Additionally, a second card avoids expensive roaming rates in transnational traffic.

The MR-36 router can create its own IPSec encrypted VPN channel to an organization's head office** and makes it possible to use the device in conventional mobile networks with dynamic non-public IP addresses and external NAT. Once connected to the closed intranet all data is available, always ensuring a secure connection.

* *available in future firmware updates*

** *additional third party VPN gateway needed*

bwa
endless video coverage

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