

i-modul GPRS/EDGE/UMTS basic 4.1

Transmission technology	Design			
	DIN rail	Embedded module	Desktop device	MoRoS
3G/UMTS		●	●	●
2G/EDGE	●	●		●
GPRS	●	●	●	●
GSM	●	●		●
ADSL		●		
Ethernet	●	●		●
WLAN	●	●		
Bluetooth		●		
Analogue	●	●	●	●
ISDN	●	●	●	●

Mobile Communication for Industrial Applications

Mobile and remote applications can be monitored and controlled wireless via GSM and UMTS networks – data can also be transferred without landline connection.

The internet dial-up via GPRS/EDGE and UMTS/HSDPA is usually charged according to data volume only, thus the connection can remain permanently. This allows the application to send actual data to a control centre continuously. The advanced network standards EDGE, UMTS and HSDPA provide even higher data rates and shorter latency periods with the same basic function.

Applications

- mobile data acquisition
- remote control and remote monitoring
- telecontrol
- vending machines, point of sales
- metering
- building technology
- video transmission



i-modul GPRS basic
 i-modul EDGE basic
 i-modul UMTS basic

Embedded mobile radio solution:

- data rate up to 3.6 Mbps
- for all mobile radio frequency worldwide
- serial interface: RS232/TTL or USB
- pin- and size compatible to i-modul-series (Modem, ISDN, GSM, Ethernet, WLAN, Bluetooth)
- standard size: 56 x 56 mm

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Technical Data

	i-modul GPRS basic 4.1 i-modul EDGE basic 4.1	i-modul UMTS basic 4.1
Mobile communications		
GSM-frequency	850/900/1800/1900 MHz	850/900/1800/1900 MHz
UMTS-frequency		850/1900/2100 MHz
Maximum data rate (up-/download)		
CSD	14.4 kbps	57.6 kbps
GPRS	85 kbps (Class 12)	42 / 85 kbps (Class 10)
EDGE	only version EDGE: 237 kbps (Class 12)	118 / 237 kbps (Class 10)
UMTS		384 kbps
HSDPA		384 kbps / 3.6 Mbps
Serial interface	RS232/TTL 0.3–460 kbps USB 2.0 12 Mbps	RS232/TTL 0.3–230 kbps (default) USB 2.0 12 Mbps
Features		
Configuration	AT commands via serial interface	
Connections	data connection, voice connection (HW option instead of USB), send/receive SMS, automatic call answer, HW/SW handshake, automatic login ³⁾ , periodical login/logout ³⁾	
Protocol	SMS: TS21/22/23 Voice: TS11/12 CSD: non-transparent mode (RLP), GSM: V.110, UMTS: V.120 GPRS/EDGE/UMTS/HSDPA: PPP	
Electrical Features		
Supply Voltage	5 VDC ±5% (3.3 VDC ¹⁾)	
Current consumption ²⁾ at 5 VDC:	Operation in GPRS/EDGE network:	Operation in UMTS network
Power down	0,2 mA	0,2 mA
Standby, logged in	30 mA	50 mA
Data transmission	500 mA	300 mA
Transmit Burst	2,8 A	0,4 A
Physical Features		
Mechanical interfaces	2 mm terminal strip (power supply, serial datas, status) Hirose U.FL (antenna)	
Size	56x56 mm	
Operating temperature	-30 ... +65 °C	
Humidity	0 ... 95 % (non condensing)	

¹⁾ HW option

²⁾ at average GSM field strength of 18

³⁾ only version GPRS/EDGE

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Product name

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