BRODERSEN

GSM Modem
UCM-93/2

DESCRIPTION

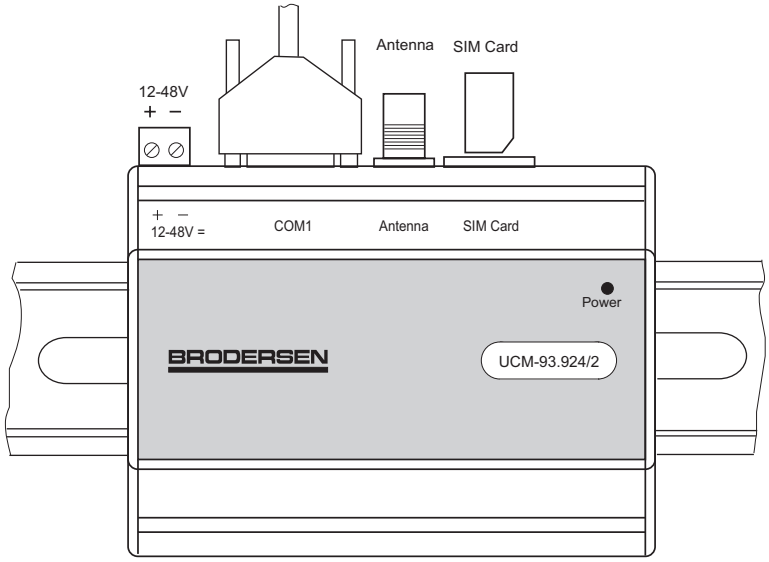
The UCM-93/2 industrial dualband GSM modem is a terminal for data transmission, fax and short message service (SMS) over the GSM Network. The modem is designed for industrial telemetry applications. UCM-93/2 radio engine is fully type approved according to several international specifications and are therefor applicable to use all over the world.

Serial RS232 interface with remote control by AT commands for dedicated applications.

The GSM modem is designed in an aluminium housing for DIN rail mounting. Supply voltage is 12-48VDC. A LED on the front indicates the operating mode.

The SIM card slot and FME antenna connector is placed on the top of the module.

UCM-93.924



VERSIONS/ORDERING CODE

UCM- 93.924 /2

Type
Modem — UCM

Type no
GSM data modem — 93

Power supply
12-48VDC — 924

Wavecom embedded engine — /2

Note: Antenna has to be ordered seperately.

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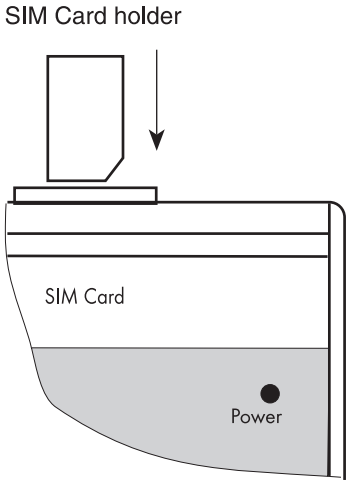
Connecting and wiring the UCM-93/2

Place your GSM -enabled SIM card in the SIM card slot. See the figure of direction of the SIM card below. Press gently the SIM card down till you feel a small “click” and the SIM card is fixed. (The SIM card is removed again by pressing it down till it is released). Finally fit the antenna and connect the power.



TECHNICAL DATA

Standards:

GSM 900:	900MHz, Class 4 (2W), GSM phase 2.
GSM 1800:	1800MHz, Class 1 (1W), GSM phase 2+.

Serial Interface:

Signals:	RS232 V.24/V.28, Auto-bauding function between 300 to 38400bits/s. Max. speed: 115kbps. AT command set based on V.25ter and GSM 07.05 & 07.07. No auto-framing available.
Character framing:	Adjustable, default Data bits: 8 Parity: none Stop bits: 1
Connector:	9 pole, sub-D, female, standard modem connection.
Hardware handshake:	DCD, DTR, DSR, CTS, RES, RI

SMS:	Mobile Originated (MO) and Mobile Terminated (MT). Mode Text & PDU point to point. Cell broadcast. In accordance with GSM 07.05
Data mode (GSM):	Asynchronous 2400, 4800, 9600 bits/s. Transparent and Non Transparent mode. In Non Transparent Mode: 300, 1200,1200/75 baud. Mode 3.1 KHz (PSTN) and V110 (ISDN)
Fax (GSM):	2400/4800/7200/9600 bits/s, GSM tele service 62 in Transparent Mode. Automatic facimile group 3, Class I (dual band also Class 2).
Antenna:	External antenna via FME connector.

SIM Card: [2)]

SIM card holder:	Slot with a simple click release function placed on the top of the module.
Voltages:	Only 3V supported.

Indicator: Red LED on front.

Functions:		
	LED off	Power off.
	LED on	Power on - connecting to network.
	LED flashing slowly	Power on - idle mode.
	LED flashing rapidly	Power on - transmission mode.

Power supply:

Supply voltage:	12-48V DC (10,5-60VDC). **IMPORTANT NOTE 3)** The modem is protected against voltages above 60VDC.
Consumptions (12V):	Input max. peak current: 1A Input average current in com. mode: 0,25A Input average current in idle mode: 20mA
Connector:	Removable screw terminal.

Environmental conditions:

Ambient temperature:	Operating conditions:	-10 - +55°C
	Storage conditions:	-25 - +70°C
Dry heat:	IEC 68-2.2, Bb test.	
Cold:	IEC 68-2.1, Ab test.	
Change of temp.:	IEC 68-2.14, Na/Nb test.	
Damp heat cyclic:	IEC 68-2.30, Db test.	
Damp test:	IEC 68-2.56, Cb test.	
Sinusoidal vibration:	IEC 68-2.6, Fc test.	
random vibration:	IEC 68-3.36, Fdb test.	

Approvals: CTR19 and CTR20

Protection: IP20

Mounting: 35mm DIN-rail, EN50022.

Housing: Anodized aluminium with plastic ends. According to DIN 43880.

Dimensions: HxWxD: 80 (+connectors)x108x62mm.

CONTROLLING THE MODEM / AT COMMANDS

The UCM-93/2 are controlled via an AT command set. Please consult the Getting Started document supplied with the modem. AT Command Manual is available on our homepage.

NOTES

1) Audio signal will not be available in UCM-93/2.

2) If the UCM-93/2 has to be used with RTU-modules the PIN code must be disabled before use. Can be done with a normal mobile GSM cellular phone or with a PC with a terminal program and the AT command AT+CPIN=XXXX. Note also that the account must be ordered specially for supporting data at your provider.

3) **IMPORTANT NOTE:** The power supply MUST be capable of deliver the peak current required by the GSM modem, otherwise you might have problems during power up or the communication will fail occasionally.