Plug-in card module CM-MBF
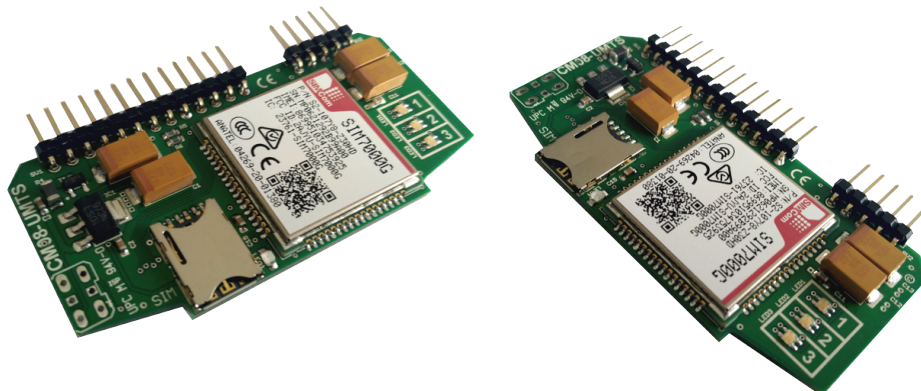
SCHNEID Plug.in card module CM-MBF
for SCHNEID-Communication base modules

Order number:	130.18154
Order code:	**Steckkartenmodul CM-MBF**

Overview:

The SCHNEID plug-in card module CM-MBF is only suitable for the SCHNEID communication base modules of the module control series. With this plug-in module card, the controller can transmit data in GSM networks.

Installation:

The program is loaded using the micro SD card.
The following files must be on the SD card.
- – MBF.BIN .. program file
- – CONFIG.INI .. configuration file

MBF.BIN
Program file that is loaded onto the module after a restart.

CONFIG.INI
Is a text file for setting the parameters required for the Internet connection. The data is read when the module is booted and stored in the processor. The entry must end with a semicolon ';' be completed. After the start, the settings are read and saved on the module. After that, the SD card does not necessarily have to remain in the module.

APN=a1.net;
Destination-IP=xxx.xxx.xxx.xxx;
Destination-Port=xxxxx;
PIN1=5632;
USER=m2m;
PWD=schneidM2M;
Server-Mode=0;
Server-Port=xxxxx;

Plug-in card module CM-MBF

Explanations:

<u>APN</u>.. Is the AccessPointName required by the Internet provider.
Examples:
A1 ..   a1.net
T-Mobile ..   gprsinternet
DREI .. drei.at

Destination IP and port. Is the destination address of the server, to which the data is sent. Must always be adjusted individually.

<u>PIN1</u>
The correct PIN code must be set correctly to unlock the card. Theoretically, this setting can be cleared after the first boot up or after the first valid connection, because the PIN code is stored in the processor after a successful read.

<u>USER</u>
<u>PWD</u> (login data for VPN connections)
If the SIM card has to register, a USER and a PWD must be entered.

<u>SERVER-Mode</u>
<u>Server-Port</u>
0..Client Mode. The connection is established to a server.
1..Server Mode. The module listens for incoming connections on the set port number (server port).
The SIM card needs a fixed IP address for the server mode to work.

Settings on the controller:

The card is plugged into the ComA slot and communicates with the controller at 38400 baud.
38400 is to be set for "Baudrate ComA" on the controller.
In special cases, this can also be on ComC if the ComA is already being used elsewhere.
Then the baud rate of 38400 must be set for ComC.

Frequency ranges and bands Mobile radio module CM08-MBF

GPRS	GSM850 MHz	EGSM900 MHz	DCS1800 MHz	PCS1900 MHz					
LTE-FDD	LTE-FDD B1	LTE-FDD B2	LTE-FDD B3	LTE-FDD B4	LTE-FDD B5	LTE-FDD B8			
HD-FDD	LTE-FDD B12	LTE-FDD B13	LTE-FDD B18	LTE-FDD B19	LTE-FDD B20	LTE-FDD B25	LTE-FDD B26	LTE-FDD B28	LTE-FDD B39
Category	LTE-M1	LTE-NB1							

Plug-in card module CM-MBF

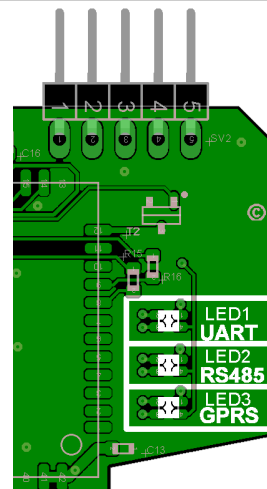## WinMIOCS Communication (standard application)

LED 1 UART = Interface to controller via base

 flashes **blue**, when data is sent from the controller.

 flashes **green**, when data arrives from the server (via GPRS).
(also flashes if there is no internet connection yet, since the status is being transmitted to the controller)

LED 2 RS485 (receipt LED) = field strength display

The middle LED2 uses the color to show how strong the reception is at the moment. The field strength is given on a scale between 0 and 31. 31 is the maximum field strength.

Reception strength and colors:

RS485	OFF	No Signal	Feldstärke 0
RS485	BLUE	Medium strength - sufficient for data transmission	08 - 19
	GREEN	Good signal strength	20 - 31

LED 3 MBF = internet connection

 lights up all the time **blue**, when connected to server, but mediocre reception
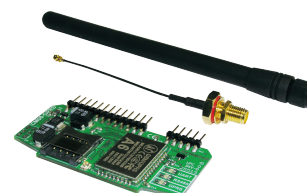
 lights up all the time **green**, when connected to server, with good reception

Scope of delivery:
SCHNEID plug-in card module CM-MBF, antenna and 250mm adapter cable.
A mobile data card *(SIM card)* **is not included** *in the scope of delivery.*

SCHNEID Plug-in card module CM-MBF
Order number: 130.14272
Order code: Steckkartenmodul CM-MBF

SCHNEID Antenna for plug-in card module with screw base
Order number: 020.14266
Order code: Antenne für Steckkartenmodul CM08-RFx

SCHNEID antenna adapter cable 500mm

Order number: 250mm: 020.14255 500mm: 020.16196	Order code: Antennen-Adapterkabel 250 für GSM Antennen-Adapterkabel 500 für GSM

Plug-in card module CM-MBF

Technical specifications:

Intrastat Number:	8537.10.91.90
Country of origin	kein Präferenzursprung
Height, width, depth (in mm)	36x65x17 (Plug-in card module) 80x1x10 (adapter cable) 130x10x10 (screw antenna)
Weight in (in kg)	0,013 0,017 (with adapter) 0,030 (with adapter and screw antenna)
Degree of protection	IP-00
Ambient temperature	0°C....+40°C
Operating voltage	5VDC
Power consumption	225 mA
Max baud rate	115200 Bit/s
Connection type	Pin headers for base module
Mounting type	Plug-in card module
Operating time	Continuous operation
Degree of pollution	2

Antenne:

Intrastat Number:	8537.10.91.90
Country of origin	kein Präferenzursprung
Height, width, depth (in mm)	130x10x10
Weight in (in kg)	0,0116
Degree of protection	IP-20
Ambient temperature	-10°C~+75°C
Storage temperature	-30°C~+75°C
Antenna coverage	TPU
Antenna base	PC
Terminal coating	black Nickel
Interconnects	RP-SMA
Frequency range	824 - 960 / 1710 - 1990 - 2200 / 2400 MHz
Impedanz	
VSWR	
Return loss	