

INTRODUCTION

The UCM-97 GPRS Communicator is a single component, complete and compact modem device that allows you to add "Internet ready" wireless communication to your application. Housed in a robust aluminium enclosure the UCM-97 is designed for use in industrial environments.

By using the GPRS Communicator any serial device can be directly connected to the IP world via the GPRS network. An internal Internet gateway converts your serial data into IP frames offering an easy configurable communication channel without requirements of special knowledge of General Packet Radio Services (GPRS) or PPP protocol handling.

Two communication ports, one serial RS232 or RS485 and one Ethernet, are provided with the GPRS Communicator. These can be used to collect data from the equipment being monitored or simply as a transparent gateway.

The UCM-97 GPRS Communicator includes a complete Web-Server for configuration, maintenance and customised purposes. From a standard Web Browser such as MS Internet Explorer you configure the different communication parameters, uploads new facilities or even browses your own dynamic Web-pages stored in the module. The full networking functionality makes it possible to have as much as 10 clients concurrently browsing the same module.

Features

The UCM-97 GPRS Communicator in the basic version offers:

- GPRS class 2 and GSM Dual band 900/1800 MHz communication facilities
- Built-in Web-Server used for configuration, maintenance and open for customisation of your own web pages
- Multi-networking protocol support; UDP, PPP, TCP, HTTP, FTP, SMTP, Telnet, MIME
- Interfaces: Ethernet 10BASE-T and RS232 V24 or RS485
- 12-24VDC power supply input
- Industrial mounting on 35 mm DIN rail

Additional factory fit options are available for other applications:

- Built-in AVR 8-bit application controller with serial RS232 interface to handle application specific control parameters or communication driver implementation.
- Email and SMS support
- WAP support
- I/O expansion bus for connecting I/O modules directly to the GPRS Modem / Communicator

Applications

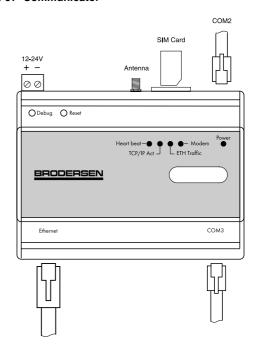
The UCM-97 Communicator is highly versatile, and as such can be used in many modern communication applications for:

- · Wireless networking of industrial HW using Internet technology
- Wireless communication to remote sites using VPN
- Wireless communication to a remote Ethernet network (Router facilities)
- Various Wireless Client-Server networking solutions

Key applications includes:

- · Replacement of Leased Line technology
- · Remote monitoring
- Advanced metering applications
- Traffic light control
- Rail crossing Monitoring
- Dynamic signs and information displays

UCM-97 Communicator



TECHNICAL DESCRIPTION

The UCM-97 GPRS Communicator is ready to integrate with existing applications. The UCM-97 has a standard serial RS232 port that can be configured as a tunnel, enabling transparent serial communication via GPRS, PPP and TCP/IP at a maximum speed according to GPRS class 2. Alternatively the serial RS232 port can be used by an application programme to gain access to equipment, if a driver is written for the specific communication protocol.

Optionally the UCM-97 GPRS Communicator can be delivered with an 8-Bit AVR application controller. The purpose of this additional controller is to give users a very flexible application platform programmed by you or by us. Using a Browser as interface you are free to programme the AVR controller. Also users will have direct Telnet access to the application controller enabling easy debugging or data manipulation using Java applets.

Brodersen Controls A/S * Betonvej 10 * DK-4000 Roskilde * Denmark * Tel (+45) 4674 0000 * Fax (+45) 4675 7336

40150 100 / 25.03

1



GPRS Communicator

UCM-97

TECHNICAL DATA

GPRS

GPRS Class II

Coding schemes: CS1 to CS4 Compliant with SMG31bis

INTERFACES

Network Interface:

Ethernet: RJ45 10BASE-T

Serial interface COM2:

Signal level: RS232C/v.24 or RS485.

Connector: RJ11 6 pole.
Speed: max. 115kbps
Protocol: User defined

WEB SERVER

Memory:

1 Mb EDO RAM 2 Mb Flash

Real time clock:

Real Time Clock with battery backup

Protocols:

Protocols supported: ARP/RARP, PPP, UDP, TCP, DHCP,

HTTP, FTP, SMTP, Telnet, DNS,

MIME, SMP

Software:

OnBoard script language for data acquisition and creation of

dynamic web-pages.

Optional separate Controller for applications:

Atmel AVR controller (Atmega 163)

Serial interface COM3 (optional):

Signal level: RS232C/v.24.
Connector: RJ11 6 pole.
Speed: max. 115kbps
Protocol: User defined

POWER SUPPLY

Supply Voltage:

Nominal 12-48VDC (10-60VDC)

Power consumption:

Max. 3W

Isolation

Power supply to

electronics: 500V

Indicators:

Power: Red LED indicating power ON

Others: Green and yellow

GENERAL

Ambient temperature: 0 - +55°C.

EMC: EN 50081-1/EN50082-1.

Protection: IP20.

Mounting: 35 mm DIN-rail, EN50022.

Power supply terminals: Max. 1.5 mm² wire.

Housing: Anodized aluminium with plastic ends.

According to DIN 43880.

Dimensions: HxWxD: 80(+connectors)x108x62 mm.

Additional services

Plug 'n' play solution

We would be pleased to develop application specific GPRS Module solutions. We can develop the necessary software to meet specific needs, e.g. homepage design. Hardware modification or enhancement is also possible if required.

Brodersen Controls A/S * Betonvej 10 * DK-4000 Roskilde * Denmark * Tel (+45) 4674 0000 * Fax (+45) 4675 7336



INTRODUCTION

The UCM-97 GPRS Communicator is a single component, complete and compact modem device that allows you to add "Internet ready" wireless communication to your application. Housed in a robust aluminium enclosure the UCM-97 is designed for use in industrial environments.

By using the GPRS Communicator any serial device can be directly connected to the IP world via the GPRS network. An internal Internet gateway converts your serial data into IP frames offering an easy configurable communication channel without requirements of special knowledge of General Packet Radio Services (GPRS) or PPP protocol handling.

Two communication ports, one serial RS232 or RS485 and one Ethernet, are provided with the GPRS Communicator. These can be used to collect data from the equipment being monitored or simply as a transparent gateway.

The UCM-97 GPRS Communicator includes a complete Web-Server for configuration, maintenance and customised purposes. From a standard Web Browser such as MS Internet Explorer you configure the different communication parameters, uploads new facilities or even browses your own dynamic Web-pages stored in the module. The full networking functionality makes it possible to have as much as 10 clients concurrently browsing the same module.

Features

The UCM-97 GPRS Communicator in the basic version offers:

- GPRS class 2 and GSM Dual band 900/1800 MHz communication facilities
- Built-in Web-Server used for configuration, maintenance and open for customisation of your own web pages
- Multi-networking protocol support; UDP, PPP, TCP, HTTP, FTP, SMTP, Telnet, MIME
- Interfaces: Ethernet 10BASE-T and RS232 V24 or RS485
- 12-24VDC power supply input
- Industrial mounting on 35 mm DIN rail

Additional factory fit options are available for other applications:

- Built-in AVR 8-bit application controller with serial RS232 interface to handle application specific control parameters or communication driver implementation.
- Email and SMS support
- WAP support
- I/O expansion bus for connecting I/O modules directly to the GPRS Modem / Communicator

Applications

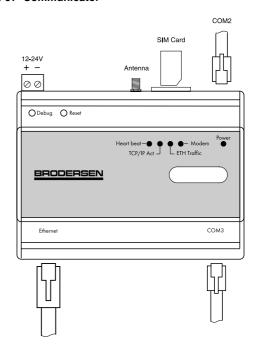
The UCM-97 Communicator is highly versatile, and as such can be used in many modern communication applications for:

- · Wireless networking of industrial HW using Internet technology
- Wireless communication to remote sites using VPN
- Wireless communication to a remote Ethernet network (Router facilities)
- Various Wireless Client-Server networking solutions

Key applications includes:

- · Replacement of Leased Line technology
- · Remote monitoring
- Advanced metering applications
- Traffic light control
- Rail crossing Monitoring
- Dynamic signs and information displays

UCM-97 Communicator



TECHNICAL DESCRIPTION

The UCM-97 GPRS Communicator is ready to integrate with existing applications. The UCM-97 has a standard serial RS232 port that can be configured as a tunnel, enabling transparent serial communication via GPRS, PPP and TCP/IP at a maximum speed according to GPRS class 2. Alternatively the serial RS232 port can be used by an application programme to gain access to equipment, if a driver is written for the specific communication protocol.

Optionally the UCM-97 GPRS Communicator can be delivered with an 8-Bit AVR application controller. The purpose of this additional controller is to give users a very flexible application platform programmed by you or by us. Using a Browser as interface you are free to programme the AVR controller. Also users will have direct Telnet access to the application controller enabling easy debugging or data manipulation using Java applets.

Brodersen Controls A/S * Betonvej 10 * DK-4000 Roskilde * Denmark * Tel (+45) 4674 0000 * Fax (+45) 4675 7336

40150 100 / 25.03

1



GPRS Communicator

UCM-97

TECHNICAL DATA

GPRS

GPRS Class II

Coding schemes: CS1 to CS4 Compliant with SMG31bis

INTERFACES

Network Interface:

Ethernet: RJ45 10BASE-T

Serial interface COM2:

Signal level: RS232C/v.24 or RS485.

Connector: RJ11 6 pole.
Speed: max. 115kbps
Protocol: User defined

WEB SERVER

Memory:

1 Mb EDO RAM 2 Mb Flash

Real time clock:

Real Time Clock with battery backup

Protocols:

Protocols supported: ARP/RARP, PPP, UDP, TCP, DHCP,

HTTP, FTP, SMTP, Telnet, DNS,

MIME, SMP

Software:

OnBoard script language for data acquisition and creation of

dynamic web-pages.

Optional separate Controller for applications:

Atmel AVR controller (Atmega 163)

Serial interface COM3 (optional):

Signal level: RS232C/v.24.
Connector: RJ11 6 pole.
Speed: max. 115kbps
Protocol: User defined

POWER SUPPLY

Supply Voltage:

Nominal 12-48VDC (10-60VDC)

Power consumption:

Max. 3W

Isolation

Power supply to

electronics: 500V

Indicators:

Power: Red LED indicating power ON

Others: Green and yellow

GENERAL

Ambient temperature: 0 - +55°C.

EMC: EN 50081-1/EN50082-1.

Protection: IP20.

Mounting: 35 mm DIN-rail, EN50022.

Power supply terminals: Max. 1.5 mm² wire.

Housing: Anodized aluminium with plastic ends.

According to DIN 43880.

Dimensions: HxWxD: 80(+connectors)x108x62 mm.

Additional services

Plug 'n' play solution

We would be pleased to develop application specific GPRS Module solutions. We can develop the necessary software to meet specific needs, e.g. homepage design. Hardware modification or enhancement is also possible if required.

Brodersen Controls A/S * Betonvej 10 * DK-4000 Roskilde * Denmark * Tel (+45) 4674 0000 * Fax (+45) 4675 7336