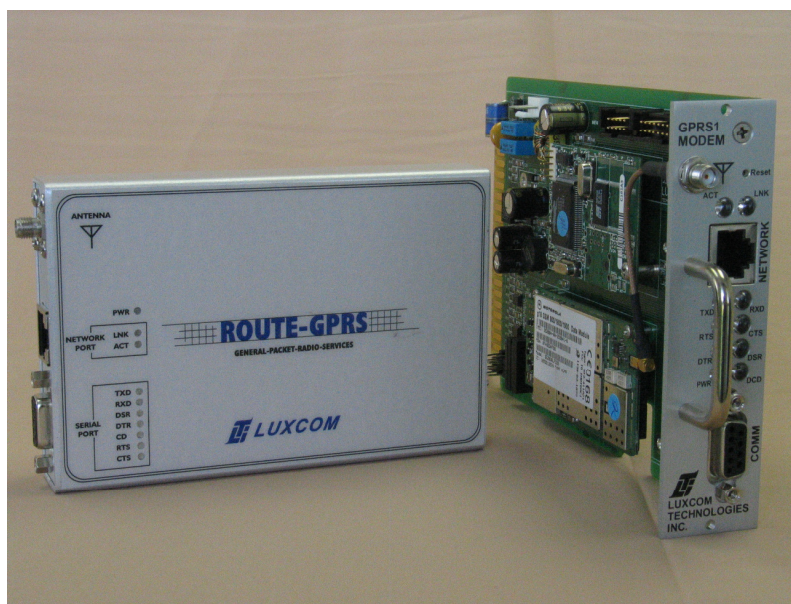LUXCOM
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GPRS

General Packet Radio Service

User Manual

ISSUE 1.0

ISSUE DATE: Oct 11 2013

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1 INTRODUCTION

The ROUTE-GPRS enables the communication of serial data over the GSM cellular telephone network, allowing you to monitor and control remote equipment without investing in a wired network. By establishing a PPP connection with the host system, the ROUTE-GPRS enables full duplex communication with the designated serial device. Communication can commence at the ROUTE-GPRS end or can be initiated remotely by sending a SMS (Short Message Service) to the ROUTE-GPRS via any cellular phone or web browser. If data security is a concern, encryption is optional.

2 SPECIFICATIONS

2.1 ELECTRICAL

2.1.1 Electrical Interface

Configuration RS-232, DB-9S
Data Port... RS-232, DB-9S
Data Rate... 57.6 Kbps Maximum
RF Port .... SMA female
Power source (stand-alone).................................... 9v to 12V power cube
Supply voltage range (stand-alone)....................... 9V to 12V DC
Power source (rack-mount).................................... Card edge input
Supply voltage range (rack-mount)....................... 12V to 36V DC
Power consumption (both versions)....................... < 2 watts

2.2 ENVIRONMENTAL

Operating Temperature Range .... 0^oC to $+50^oC$
Humidity (RH) .... 10% to 95%
MTBF.. > 50,000 hours
Storage Temperature Range.................................... -30^oC to $+60^oC$

2.3 MECHANICAL

Dimensions stand-alone version .... 8.9cm * 13.5cm * 2.4cm
Dimensions rack version.. 11.4cm * 2.9cm * 17.5cm

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3   GPRS MODEM INDICATORS

Indicator LEDs are:

PWR: Power

DTR: Data Terminal Ready

RTS: Request To Send

TXD: Transmit Data

RXD: Receive Data

CTS: Clear To Send

DSR: Data Set Ready

DCD: Data Carrier Detect

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4   SETUP AN OPERATION

To use the GPRS stand alone or rack mount you will require an authorized SIM card from a
Cellular Network Provider, GPRS antenna, power supply and a terminal program such as Hyper
terminal.

A breakout box that can break the DTR (pin 4) and RTS (pin 7) of the DB-9 connector will also
be needed to enter the console mode.

Set the terminal program to 57,600 baud, no-parity, 8 data bits, no flow control.

Set the break out box to interrupt DTR (pin 4) and RTS (pin 7) of the DB-9 this will instruct the
Route GPRS to start in the console mode.

Connect the antenna, power, terminal program via the DB-9 and insert the SIM card.

Power the unit and in a few seconds you will see "Booting" and then "Ready" .

Typing "show" and you will see the current system parameters as shown below.

 Version number U7F

BAUd Rate is 57600

Not in SNMP Mode (i.e. snmp= 0)

Client Mode (i.e. client=1)

fixed DEStination IP is 172.25.37.10

Destination PORt is 5999

UDP Mode (i.e. TCP=0)

GPRS mode is ON & Ethernet mode is OFF
        gprs USEr: traffic
        gprs PASSwd: not4u
        gprs DOMain: "stcs.com"

Sending PHOne number is ON

RAW mode is ON

ENCryption mode is OFF

DIRect mode is ON

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OK

The unit can be operated in UDP or TCP mode by setting the TCP parameter to 0 (UDP) or 1 (TCP) with the simple command "tcp=1" without the quotes.

All of the parameters can be changed using this simple method, the item to be changed is in Capital letters but the commands are issued in lower case eg "des=172.25.37.10"

The exact setup is system dependent and will vary with the user's requirements.

Once the parameters have been set the GPRS is ready to be used.

Power down the unit, reconnect the DTR (pin 4) and RTS (pin 7), connect the DB-9 to the serial equipment you need to monitor and control.

Power the unit and it will show "Booting" then "Ready" "OK" and after a short time 1 or 2 minutes it will login to the assigned sever.

The unit will obtain DSR and then DCD as shown by the led inductors.

The unit will then display the carrier baud rate speed, the phone number it's connected to and the software revision.

Normally at this time the controller at the Traffic Control Center will communicate with the serial devise.