<table>
<thead>
<tr>
<th>Modem/Dataloggere</th>
<th>Funktioner</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tango</strong></td>
<td>Dual Band GSM/GPRS 900/1800 eller 850/1900 Data, SMS, tale og fax RS232 interface 10 – 30Vdc</td>
</tr>
<tr>
<td><strong>Samba kompakt</strong></td>
<td>Quad Band GSM / GPRS/ EDGE 900/1800 eller 850/1900 Data, SMS, MMS, fax Incl. GSM antenne</td>
</tr>
<tr>
<td><strong>Metis</strong></td>
<td>Stampede besked ved alarm</td>
</tr>
<tr>
<td><strong>GM Fax/sms Alarm</strong></td>
<td></td>
</tr>
<tr>
<td><strong>eWON 2001</strong></td>
<td>PSTN, ISDN, GSM/GPRS RS232, 485, 422 seriel porte eller MPI porte</td>
</tr>
<tr>
<td><strong>eWON 4001</strong></td>
<td>GSM / GPRS / PSTN modem RS232, RS485 Ethernet 10/100Mb</td>
</tr>
<tr>
<td><strong>eWON 2101</strong></td>
<td>GSM / GPRS / ISDN / PSTN modem RS232, 485, 422 porte eller MPI port Ethernet 10/100Mb port RJ45</td>
</tr>
<tr>
<td><strong>Stepp III</strong></td>
<td>Tri Band GSM/GPRS modem med 20 kanaler GPS modtager tale, SMS, data, TCP/IP</td>
</tr>
</tbody>
</table>
The low cost, high-efficient GSM/GPRS modem for industrial applications

- Integrated Dual Band GSM/GPRS core
- Data, SMS, Voice and Fax
- GPRS class B, class 2 or class 10
- CS 1 to 4 and PBCCH support
- Two RS232 interfaces
- Audio Interface
- Software reset functionality
- Car voltage range power supply
- Automotive compliant power connector
- Robust antenna cable with FME connector
- Mounting cradle
- Complete FTA/CE/e1 approval

The FALCOM TANGO

is a Plug & Play Dual Band GSM/GPRS device for direct and easy connection to any terminal equipment that is able to handle AT-commands for modem control. The TANGO concept offers two RS232 (V 24, ±12 V) interfaces, audio interface, car voltage range power supply. The complete and sophisticated GSM/GPRS protocol stack, the software reset functionality, the car voltage range power supply as well as the robust mechanical concept are making out of the FALCOM TANGO concept a perfect solution for a wide range of highly sophisticated telemetry, M2M, remote control and security applications.

The set of FTA/CE and e1 approval allows quick implementation of GSM/GPRS functionality into existing industry and automotive solutions, respectively the creation of completely new systems. System integrators are supported by test-and evaluation software package as well as by full range of all relevant accessories.
### Interface specifications

- Interface A: 4pin Micro-Fit™ 3.0 Molex  
  Part number: 43045-0406 (female)  
- Interface B: Standard RS232 serial interface  
- Interface C: Audio 8pin RJ45, RS232 (Rx, Tx) serial interface  
- Interface D: GSM antenna with SMB or FME antenna connector  
- Interface E: SIM card reader for small SIM cards (3 V)  
- Interface F: LED’s for status indication

### Technical specifications

#### Average Current Consumption (mA/12 V)

<table>
<thead>
<tr>
<th>TANGO GSM</th>
<th>TANGO GPRS Class 2</th>
<th>TANGO GPRS Class 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 31</td>
<td>31 31</td>
<td>900 1800</td>
</tr>
<tr>
<td>125 96</td>
<td>123 103</td>
<td>118 110</td>
</tr>
<tr>
<td>162 118</td>
<td>158 127</td>
<td>147 138</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interface</th>
<th>Power Supply</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC 10.8 - 31.2 V</td>
<td>52 x 24.4 x 111.5 mm</td>
<td>82.6 g with SMB connector</td>
<td>88.0 g with FME connector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification</th>
<th>Interfaces</th>
<th>Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete CE and e1 approval</td>
<td>D-Sub 9pin (female): RS232 (Master)</td>
<td>-20 to +55 °C operation:</td>
</tr>
</tbody>
</table>
Quad Band GSM/GPRS/EDGE Modem

Integrated Quad Band GSM/GPRS/EDGE engine
GSM 850/900/1800/1900 MHz
Data, Fax, SMS, MMS
Audio/Video streaming
Integrated SIM interface
GSM antenna included
Plug-n-Play
Integrated USB-Hub
Very lightweight
World-wide applicable

The FALCOM SAMBA 75

is a Plug-and-Play, compact, lightweight, wireless modem that provides EDGE, GPRS and GSM connectivity for portable, handheld computers and others. The major benefit over earlier SAMBA GSM/GPRS modem is that SAMBA75 supports EDGE and additionally offers a TCP/IP stack. SAMBA75 allows subscribers to send and receive data, including digital images, web pages and photographs, with a transfer rate three times higher than possible with GSM/GPRS services. It supports MMS, SMS & fax.

It can be easily controlled by using AT command for all kinds of operations. The SAMBA75 is designed for use on any GSM network in the world.
**Samba 75**

**Software driver**

Modem driver, RIL/NDIS driver - for Microsoft® Windows 2000/XP/Mobile

**Hardware requirements**

Pentium® 90 or higher with
- CD-ROM drive
- A valid SIM card
- Free compatible USB port
- Appr. 6 Mb of free hard disk space

**Technical specification**

<table>
<thead>
<tr>
<th>General</th>
<th>Basic features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quad-Band GSM/GPRS/EDGE modem</td>
<td>SMS (GSM and GPRS mode): text and PDU,</td>
</tr>
<tr>
<td>850 / 900 / 1800 / 1900 MHz</td>
<td>SMS, MMS</td>
</tr>
<tr>
<td>Class 4 [2W] for EGSM900</td>
<td>point to point MT and MO, SMS broadcast</td>
</tr>
<tr>
<td>Class 1 [1W] for DCS1800 / PCS1900</td>
<td>GSM circuit data features: transparent and</td>
</tr>
<tr>
<td>Small size and low power consumption</td>
<td>non transparent up to 9600 bps, group 3: class 1,</td>
</tr>
<tr>
<td>Fax / data transmission without extra hardware</td>
<td>class 2, alternate fax, MNP 2</td>
</tr>
<tr>
<td>Internal 3 V SIM interface</td>
<td></td>
</tr>
<tr>
<td>Easy remote control by AT commands for</td>
<td></td>
</tr>
<tr>
<td>dedicated applications</td>
<td></td>
</tr>
<tr>
<td>Fully type approved according to</td>
<td>GPRS packet data features:</td>
</tr>
<tr>
<td>GSM phase 2+ specification</td>
<td>data uplink transfer: max. 42.8 kbps;</td>
</tr>
<tr>
<td>Fully shielded and ready-to-use</td>
<td>data downlink transfer: max. 85.6 kbps;</td>
</tr>
<tr>
<td></td>
<td>coding schemes CS-1 to CS-4</td>
</tr>
</tbody>
</table>

**Electrical characteristics**

- WAP compliant and compliant with SMG 31
- Power supply: +5 V DC (trough USB port)

**Physical characteristics**

- Dimensions: (L x W x H) 88.7 mm x 37.6 mm x 12.6 mm
- Weight: 79 g
- Normal range temperature: -20°C to +55°C
- restricted operation: -30°C to -20°C and +55°C to +65°C

**Interfaces**

- Single antenna interface
- Internal SIM interface: 3 V only
- USB serial link

**Other features**

- SIM, network and service provider locks
- Real time clock
- UCS 2 character set management
**GM 1110005 GSMalarm**

**GM GSMAlarm** is a versatile alarm transmission device for GSM-networks. The device has connectors for four detectors, one by-pass switch, one temperature detector and two outputs, one for local alarm and one remotely controllable.

Reliable and easy-to-use **GM GSMAlarm** sends alarms and status information via SMS to guard-centers or straight to your mobile phone. The settings of **GM GSMAlarm** can be altered locally with cable, remotely with SMS or remotely with GSM-data connection. This way changing parameters after installation can be done easily.

**GM GSMAlarm** is presented in three different enclosure options and with a wide range of accessories to ensure the scalability to a customers needs.

### Specifications:

- 4 inputs
- 1 bypass-switch input
- 1 temperature detector input
- 1 alarm relay output
- 1 relay output for remote controlling via SMS
- Input voltage +12...+28V
- Temperature sensor Dallas DS1820
Sende SMS, E-mail, Fax fra din
S7- 300, 400

Ønsker du at:
- Overvåge din proces
- Sende SMS, E-mail, Fax ved alarmer.

Beskrivelse:
- **GM** har udviklet software til overførsel af alarmer fra S7 PLC, der giver mulighed for at overføre alarmer til Mobiltelefon, E-mail og Fax.
- **GM** leverer modem, antenne og softwarepakke klar til installation, med mulighed for at indlægge egne tekster (40 karakter).
- Der er funktions menu til indtastning af modtagnernumre og -beskeder.

<table>
<thead>
<tr>
<th>Address</th>
<th>Name</th>
<th>Type</th>
<th>Initial value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>STRUCT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+0.0</td>
<td>Str_1</td>
<td>STRING[40]</td>
<td>'Alarm - vandstand lav i bassin'</td>
<td>Tekst i max. 40 karakter</td>
</tr>
<tr>
<td>+42.0</td>
<td>Str_2</td>
<td>STRING[40]</td>
<td>'Alarm - generel maskinfælde'</td>
<td>Tekst 2 max. 40 karakter</td>
</tr>
<tr>
<td>+84.0</td>
<td>Str_3</td>
<td>STRING[40]</td>
<td>'Alarm - oliefilter'</td>
<td>Tekst 3 max. 40 karakter</td>
</tr>
<tr>
<td>+126.0</td>
<td>Str_4</td>
<td>STRING[40]</td>
<td>'Alarm - tekst streng 4'</td>
<td>Tekst 4 max. 40 karakter</td>
</tr>
<tr>
<td>+166.0</td>
<td>Str_5</td>
<td>STRING[40]</td>
<td>'Alarm - tekst streng 5'</td>
<td>Tekst 5 max. 40 karakter</td>
</tr>
<tr>
<td>=210.0</td>
<td></td>
<td>END_STRUCT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hvad indeholder GM Fax/sms Alarm:**
- **GM 1110001** Intelligent GSM-modem
- **GM 1110030** GSM skabs- el. rude antenne
- **Alarm Software** Software benyttes sammen med dit PLC program
- **TS adapter** Simatic TS adapter, V5.2 el. større
- **GM 1110020** RS232, kabel 1,8m

Uden for tilbud:
1. TDC’s data sim kort

**Bestilling og levering:**
- **Varenummer:** GM Fax/sms Alarm
- **Pris:** p.f.
- **Bestilling:** Telefon: 7020 4840, Fax: 7020 4847
- **Levering:** 2 uger.
Industrial IP Router

Typical Applications
- Industrial TCP/IP Router
- PLC Remote Maintenance (teleservice) by PSTN, ISDN, GSM/GPRS
- Alarms management and notification

PLC and Device Support
- Schneider TSX Premium & Micro with UNITELWAY and XIP
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS TCP and RTU
- Wago I/O modules with MODBUS TCP or RTU
- Siemens S7-200 with PPI, Siemens S7-300/400 with MPI and ISOTCP
- Allen Bradley SLC500 and Logix family with DF1 and EthernetIP
- Omron CJ and CS with FINS TCP/UDP and FINS Hostlink
- LEM QWave power quality analyzer and much more…

Highlights
- PLC Remote maintenance on the programming serial port with the original PLC Software
- PLC Remote maintenance on the Ethernet port with the original PLC Software
- Tagnames data acquisition by Modbus, DF1, FINS Hostlink, PPI, MPI, Unitelway serial protocol and ISOTCP, EIP, MODBUS TCP, FINS TCP Ethernet protocol
- Alarms management on user threshold and notification by email, FTP put and SNMP trap
- Configuration by Embebbed Web Page
**Industrial IP Router**

**Gateways Ethernet/serial**
- MODBUS TCP / MODBUS RTU
- XIP / UNITE
- Ethernet IP / DF1
- FINS TCP / FINS Hostlink
- ISO TCP / PPI-MPI
- VCOM / ASCII

**Programmable Gateways**
MPI, PPI, DF1, Unitelway, FINS Hostlink to MODBUS/TCP or SNMP
ASCII dedicated protocol to FTP, SNMP, MODBUS/TCP.

**Data Acquisition**
Data Acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, Unitelway, DF1, PPI, MPI, FINS Hostlink, FINS TCP, Ethernet IP, ISO TCP, ASCII Protocol.

**Alarms**
- Alarms notification by email, FTP put and/or traps SNMP.
- Threshold: low, low, high, high + deadband and activation delay.
- Alarms logs in http and via FTP
- Alarms cycle: ALM, RTN, ACQ et END.

**Script**
Dedicated application to be programmed with the Basic language.

**Synchronization**
Embedded real-time clock, manual setup via http or automatic NTP setup

**File Management**
FTP client and server for configuration, firmware update and data transfer.

**Web Site**
Security: DAA and session control. HTML standard supports all of the PDA browsers: eWON system and user Web site.

**MPI**
MPI embedded controller certified up to 1.5 Mbdps

**Maintenance**
SNMP V1 with MIB2 and/or via FTP files

**Materials**
ARM processor @75Mhz, 16Mb SDRAM, 8Mb Flash, Din Rail Mounting
Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts
1x SUBD9 serial port RS232, RS485 not isolated or MPI port isolated.
1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation
1x digital input: 0/24VDC; 3,5kV isolation
1x digital output: open collector 200mA@30VDC; 3,5 kV isolation

Embedded modem: PSTN 56kbds, ISDN or GSM/GPRS class10

Operating Temperature range: 0° to 50°C, 80% humidity (no condensation).
Dimensions: 120(Depth) x 105(Height) x 26(Width) mm; Weight: <300gr
CE, UL labelled

**Reference EW212xy**
- **x** = 0 with serial port RS232, 422 ou 485
- **x** = 6 with MPI port
- **y** = 4 PSTN 56kbds embedded modem
- **y** = 5 GSM/GPRS EU embedded modem
- **y** = 3 ISDN EU embedded modem
Internet Remote Management

PLC Remote Maintenance
- Schneider TSX Premium & Micro with UNITELWAY
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS
- Wago I/O modules with MODBUS
- Siemens S7-300/400 with MPI (via eLINK)
- Allen Bradley with DF1
- Any PLC/Equipment with Ethernet TCP/IP

Remote Service
- Data Acquisition with UNITE, MODBUS, DF1, MPI
- Data logging in internal database
- Alarms on limits to be configured
- Notification by email, SMS, FTP put and SNMP trap
- Report emission (maintenance, worked time…) preconfigured in Word, Excel, Html, CSV
- Remote MMI (Light Client) by browser, PDA…
- System and user defined Web pages

Remote Control
- Data retrieval in database via FTP
- Applications in ASP mode
- SCADA or supervision software

RAS modem, IPR
- PPP remote access with PAP, CHAP support
- Embedded firewall, NAT
- IP address filtering
- TCP/IP routing table
- Classical point to point callback
- Internet callback

Configuration
- By embedded system Web pages
- FTP files upload and download

Characteristics
- 1 x digital input
- 1 x digital output
- Ethernet port 10/100Mb
- Serial port RS232, RS422 or RS485
- Embedded modem in option: PSTN, GSM/GPRS
Internet Remote Management

Remote Maintenance
- PLC point to Point RAS or internet remote access:
  - Premium & Micro with PL7pro
  - Twido with Twidosoft
  - Momentum and Quantum with Concept
  - Wago I/O modules with Wago I/O Pro 32
  - S7-300 and S7-400 with Simatic Manager STEP7 (via eLINK)
  - Allen Bradley with RSLogix
  and any PLC / device / equipment with TCP/IP

Remote Service
- Data acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, UniTelWay, DF1, MPI (via eLINK) & serial ASCII Protocol. ‘Tagnames’ enable alarm management, basic programming, custom Web pages, reporting...

Data Logging
- Internal data base for data logging 21,000 points. Retrieval of the data base with files transferred by FTP put or email attachment.

Alarms
- Alarm Notification by email, SMS, FTP put and/or SNMP trap.
- Available standard limits to configure: Very Low, Low, High, Very High + Dead zone and activation delay.
- Alarm summary and historian available in HTTP and via FTP files transfer.
- Alarm cycle management: ALM, RTN, ACQ and END.

MMI
- HTTP: System and user defined Web site.
- SNMP: ‘TagName’ read/write
- FTP: whole set of parameters are available in files

CallBack
- Call back on user request or on amount of rings.
- Direct or Internet call back (supports dynamic DNS)

FireWall
- IP filtering

Script
- Dedicated application to be programmed with the Basic language.

Router
- IP forwarding, NAT, port forwarding and routing tables.

Internet
- RAS connection (PPP), PAP/CHAP security. Data compression, ISP connection (Internet Service Provider) primary et secondary, supports DNS.

Synchronization
- Embedded real-time clock, manual setup via http or automatic NTP setup

File Management
- FTP client and server for configuration and data transfer.

Web Site
- Security: DAA and session control. HTML standard supports all of the PDA browsers. eWON system and user Web site. SSI technology (Server Side Include) and BASIC scripted ASP (Active Server Pages).

Maintenance
- SNMP V1 with MIB2 and/or via FTP files
- Material
  - ARM processor @75Mhz, 8Mb SDRAM, 8Mb Flash, Din Rail Mounting
  - Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts
  - 1x SUBD9 serial port: RS232, RS422 or RS485, 1,5kV isolation
  - 1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation
  - 1x digital input: 0/24VDC; 3,5kV isolation
  - 1x digital output: open collector 200mA@30VDC; 3,5 kV isolation
- Option: embedded modem : PSTN or GSM/GPRS
- Operating Temperature range: 0° to 50°C, 80% humidity (no condensation).
- Dimensions: 120(Depth) x 105(Height) x 26(Width) mm; Weight: <300gr
- CE, UL labelled

Product Reference

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW41201</td>
<td>eWON 4001, Ethernet</td>
</tr>
<tr>
<td>EW41202</td>
<td>eWON 4001, PSTN33 modem</td>
</tr>
<tr>
<td>EW41205</td>
<td>eWON 4001, GSM/GPRS modem</td>
</tr>
</tbody>
</table>
You select...

We connect

Industrial VPN Router

eWON2101

Typical Applications
- GPRS for remote PLC Control & Maintenance
- Secure Dial-up Internet for Remote Control & maintenance
- Centralized Monitoring on GPRS network

PLC and Device Support
- Schneider TSX Premium & Micro with UNITELWAY and XIP
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS TCP and RTU
- Wago I/O modules with MODBUS TCP or RTU
- Siemens S7-200 with PPI, Siemens S7-300/400 with MPI and ISOTCP
- Allen Bradley SL500 and Logix family with DF1 and Ethernet/IP
- Omron CJ and CS with FINS TCP and FINS Hostlink
- LEM QWave power quality analyzer and much more...

Remote Service
- Data Acquisition on serial link with UNITE, MODBUS RTU, DF1, PPI, MPI and Hostlink and on Ethernet port with MODBUS TCP, EIP, FINS TCP, ISO TCP
- Alarms management and notification by email, SMS, FTP put and SNMP trap
- Remote Maintenance with the original PLC Software on Ethernet or serial PLC port
- Remote access and control by standard Internet browser, PDA...
- Configuration by Embebbed Web Page

Routing & VPN
- VPN tunnel with shared key or PKI cert
- Firewall, NAT and IP filtering
- Internet callback and GPRS always connected features
- Dynamic IP DNS support

• Ethernet 10/100Mb port RJ45
• RS232, 485, 422 serial port or MPI port
• One embedded modem:
  - PSTN
  - ISDN
  - GSM/GPRS
• 24 VDC Power supply, Rail DIN mounting
• 1 x digital Input (alarms) and 1 x Digital Output (fail Safe)
• SSL based VPN with static or certificate public key encryption
• Gateways serial protocol for Rockwell, Schneider, Omron and Siemens PLC
• Alarms Managements on PLC variables
• Configuration by Web Page
• Embedded firewall with NAT and IP filtering

www.greenmatic.dk

GreenMatic I Lundeager 24 I 2791 Dragør I Tel. 7020 4840 I Fax 7020 4847 I www.greenmatic.dk
Industrial VPN Router

Ethernet/serial Gateway
- MODBUS TCP / MODBUS RTU
- XIP / UNITE
- Ethernet IP / DF1
- FINS TCP / FINS Hostlink
- ISO TCP / PPI-MPI
- VCOM / ASCII

Remote Service
Data acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, Unitelway, DF1, PPI, MPI, Hostlink, FINS TCP, Ethernet IP, ISO TCP & serial ASCII Protocol.

Alarms
Alarm Notification by email, SMS, FTP put and/or SNMP trap.
Available standard limits to configure: Very Low, Low, High, Very High + Dead zone and activation delay.
Alarm summary and historian available in HTTP and via FTP files transfer.
Alarm cycle management: ALM, RTN, ACQ and END.

MMI
HTTP: System and user defined Web site.
SNMP: ‘TagName’ read/write
FTP: whole set of parameters are available in files

CallBack
Call back (direct or by Internet) on user request or on amount of rings.

Router, FireWall
NAT, IP filtering& forwarding, NAT, Dynamic DNS support.

Script
Dedicated application to be programmed with the Basic language.

VPN
Based on OpenVPN 2.0, a SSL VPN solution based on SSL/TLS industry standard protocol.

VPN security
The VPN security model is based on using SSL/TLS for session authentication and the IPSec ESP protocol for secure tunnel transport over UDP. It supports the X509 PKI (public key infrastructure) for session authentication, the TLS protocol for key exchange, the cipher-independent EVP (DES, 3DES, AES, BF) interface for encrypting tunnel data, and the HMAC-SHA1 algorithm for authenticating tunnel data.

Internet
RAS connection (PPP), PAP/CHAP security. Data compression, ISP connection (Internet Service Provider) primary et secondary, supports DNS.

Synchronization
Embedded real-time clock, manual setup via http or automatic NTP setup

File Management
FTP client and server for configuration, firmware update and data transfer.

Web Site
Security: DAA and session control. HTML standard supports all of the PDA browsers. eWON system and user Web site. SSI technology (Server Side Include) and BASIC scripted ASP (Active Server Pages).

Maintenance
SNMP V1 with MiB2 and/or via FTP files

Materials
ARM processor @75Mhz, 16Mb SDRAM, 8Mb Flash, Din Rail Mounting
Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts
1x SUBD9 serial port RS232, RS485 not isolated or MPI port isolated.
1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation
1x digital input: 0/24VDC; 3,5kV isolation
1x digital output: open collector 200mA@30VDC; 3,5 kV isolation
Option: embedded modem : PSTN 56kpbs, ISDN or GSM/GPRS
Operating Temperature range: 0° to 50°C, 80% humidity y (no condensation).
Dimensions : 120(Depth) x 105(Height) x 26(Width) mm; Weight : <300gr
CE, UL labelled

Product Reference

Reference
EW232xy
where
- x = 0 for RS232, 422 or 485 serial port
- x = 6 for MPI port (coming mid 2006)
- y = 3 for embedded ISDN EU modem
- y = 4 for embedded PSTN 56K modem
- y = 5 for embedded GSM/GPRS EU modem
- y = 6 for embedded GSM/GPRS US modem
STEPP III
Automotive Vehicle Location solution

Quad Band GSM/GPRS Engine
Voice, SMS, Data, TCP/IP
High sensitive 20 channel SiRFstarIII GPS
Li-Polymer (1100 mA) backup battery
Automotive temperature range
Configurable history function
Configurable geo-fencing
CAN interface (optional)
Fully specified (FTA, FCC, E1, CE)
3-Axis motion sensor
Online Tracking
Evalkit including evaluation and configuration tool

The FALCOM STEPP III is a Plug & Play GSM/GPRS/GPS terminal with an embedded configurable software application. The device concept is targeting for direct implementation as a mobile client in a wide range of high volume, low-cost, flexible system solutions like AVL, fleet management, vehicle security and recovery and other related areas.

The tracking functionality of the embedded mobile client application is combined with variety of alert messaging capabilities. The configurable alert messages contain current position and status report and use 2 digital and 4 analogue inputs and 4 digital outputs as hardware backbone. In addition to that two predefined inputs are detecting ignition line and main power (car battery) failure. Depending on the specific system solution scenario four digital outputs allow the remote control of external actuators. The integrated two audio channels allow voice communication too.

The STEPP III concept reduces the efforts for the creation of a turn key tracking and security solution to the definition of the server (dispatcher) application. In this way the time-to-market, the design-in risk and the total cost of solution are substantially reduced.

The STEPP III-Evalkit provides an easy and efficient way to evaluate and configure all system parameters of the mobile client. The configuration of the STEPP III can be done via local serial link or remotely via the GSM network.
Software features

- Configurable geo-fencing
- Configurable history with more than 300,000 records
- Configurable localisation and status report upon dispatcher request
- Configurable localisation and status report by timer
- Configurable two digital and four analogue inputs for alert messaging
- Four digital outputs for remote control of external actuators
- Configurable sleep mode
- Controlled by PFAL commands
- Voice, SMS, CSD, TCP, e-mail

Applications

- Fleet management
- Vehicle management
- Remote tracking and monitoring
- Safety and security
- Off-road applications
- Real-time Navigation and Positioning
- Pay-as-you-drive

trace4you

- Real-time tracking
- History data
- Geofence etc.

Technical specification

<table>
<thead>
<tr>
<th>GSM / GPRS core</th>
<th>Hot start (open sky): &lt; 1 sec., average</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEPP H Telit GE864-QUAD module</td>
<td>Cold start: &lt; 42 sec., average</td>
</tr>
<tr>
<td>850/900/1800/1900 MHz</td>
<td>Power supply</td>
</tr>
<tr>
<td>GSM services</td>
<td>DC 10.8 - 31.2 V</td>
</tr>
<tr>
<td>Phone, Data, SMS</td>
<td>Build-in Li-ion battery</td>
</tr>
<tr>
<td>GPRS services</td>
<td>Physical characteristics</td>
</tr>
<tr>
<td>GPRS class B, class 10</td>
<td>Dimensions (LxWxH): 55 x 88 x 22 mm</td>
</tr>
<tr>
<td>TCP/IP (accessible via PFAL commands)</td>
<td>Weight: approx. 120 g</td>
</tr>
<tr>
<td>Processor</td>
<td>Temperature range</td>
</tr>
<tr>
<td>ARM7/TDMI</td>
<td>Operation*: -30°C to +80°C</td>
</tr>
<tr>
<td>Charging: 0°C to +40°C</td>
<td></td>
</tr>
<tr>
<td>GPS core</td>
<td>Discharging: -20°C to +60°C</td>
</tr>
<tr>
<td>OEM single board 20 channel GPS receiver</td>
<td>Interfaces</td>
</tr>
<tr>
<td>C/A code: 1.023 MHz chip</td>
<td>16pin MOLEX 43045-1609;</td>
</tr>
<tr>
<td>SIRFstarII</td>
<td>2 digital inputs, 4 analogue inputs</td>
</tr>
<tr>
<td>TXCO</td>
<td>4 digital outputs, ignition, power input,</td>
</tr>
<tr>
<td>Casing: fully shielded</td>
<td></td>
</tr>
<tr>
<td>Memory: 2 MB / 512 kB</td>
<td>15pin AMP 5-588556-1:</td>
</tr>
<tr>
<td></td>
<td>RS232 (Rx, Tx),</td>
</tr>
<tr>
<td>GPS datum</td>
<td>Speaker, Microphone,</td>
</tr>
<tr>
<td>WGS-84</td>
<td>Power Output, Vbatt</td>
</tr>
<tr>
<td></td>
<td>SIM, card reader for small 3 V SIM cards</td>
</tr>
<tr>
<td>DGPS accuracy</td>
<td>GPS RF connector 50 Ohm FAKRA/Radial</td>
</tr>
<tr>
<td>Position: 1 to 5 m typical</td>
<td>GSM RF connector 50 Ohm FAKRA/Radial</td>
</tr>
<tr>
<td>Velocity 0.05 m/sec typical</td>
<td>3 LED’s (user programmable)</td>
</tr>
<tr>
<td>GPS acquisition rate</td>
<td>Motion sensor</td>
</tr>
<tr>
<td>Hot start: &lt; 18 sec., average</td>
<td>3 axis motion sensor</td>
</tr>
</tbody>
</table>

*These temperatures can affect the sensitivity and performance of the unit
Ved du, hvor din **Båd** er?


GM 1110008 giver dig:
- daglig rapport fra båden med position og batteri status.
- bevægelses sensor sender alarm, hvis båden fjernes eller bevæger sig uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man samtidig med positionen se, hvor lang levetid der er tilbage på batteriet.
Tekniske oplysninger:

- GM 1110008 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering.
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis båden bevæger sig. Muligvis kun hvis båden er på land
- 2 relæ-udgange, som kan aktiveres med SMS.

GM 1110008 vil sende en daglig position, sammen med positionen kommer der status af batteriet. Fra en PC med kortsoftware og et GSM modem modtages alarmer og daglige positioner. Man har hurtigt overblik, hvor alle de både der er tilsluttet systemet, befinder sig.

Når båden ikke er i brug (på land) aktiveres bevægelses-sensoren (evt. med SMS). Så længe båden ikke bevæger sig, vil den automatisk sende en daglig rapport. Hvis båden flyttes, bliver der inden for 30 sekunder sendt en SMS, der fortæller at liften nu bevæger sig.

Fra en PC sendes en SMS til GM 1110008 med spørgsmål om hvor den befinder sig. GM 1110008 sender derefter en position som kan ses på kortet.

GM 1110008 kan monteres flere steder på båden. GM 1110008 kan leveres med en stålramme, der beskytter mod slag og hærværk.

Kontakt GreenMatic for yderligere oplysninger og demonstration af GM 1110008 med kortsoftware.

Det er billigere end man tror.
Ved du, hvor din **Lift** er?

Med GM 1110009 har du altid overblik over hvor din lift befinder sig. GM 1110009 kombinerer GPS og GSM. Den har indbygget batteri med lang levetid, og så er den hurtig og nem at installere på en lift.

GM 1110009 giver dig:
- daglig rapport fra liften med position og batteri status.
- bevægelses sensor sender alarm, hvis liften fjernes eller bevæger sig uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man samtidig med positionen se, hvor lang levetid der er tilbage på batteriet.
Tekniske oplysninger:

- GM 1110009 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis liften bevæger sig.
- 2 relæ-udgange, som kan aktiveres med SMS.

Ved du, hvor din TRAiLER er?

Med GM 1110010 har du altid overblik over hvor din trailer befinder sig. GM 1110010 kombinerer GPS og GSM. Den har indbygget batteri med lang levetid, og så er den hurtig og nem at installere i en trailer.

GM 1110010 giver dig:
- daglig rapport fra traileren med position og batteri status.
- bevægelses sensor sender alarm, hvis traileren fjernes uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man se, hvor lang levetid der er tilbage på batteriet.

GreenMatic I Lundeager 24 I 2791 Dragør I Tel. 7020 4840 I Fax 7020 4847 I www.greenmatic.dk
Tekniske oplysninger:

- GM 1110010 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering.
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis traileren bevæger sig.
- 2 relæ-udgange, som kan aktiveres med SMS.

GM 1110010 vil sende en daglig position, sammen med positionen kommer der status af batteriet.
Fra en PC med kortsoftware og et GSM modem modtages alarmer og daglige positioner. Man har hurtigt overblik, hvor alle de trailere, der er tilsluttet systemet, befinder sig.
Fra en PC sendes en SMS til GM 1110010 med spørgsmål om hvor den befinder sig. GM 1110010 sender derefter en position som kan ses på kortet.
Kontakt GreenMatic for yderligere oplysninger og demonstration af GM 1110010 med kortsoftware.
Det er billigere end man tror.
GM 1110044 is high effective base/marine antenna for the 900/1800 MHz band. The antenna is the newest base antenna in the BA antenna family.

The metal parts are made of surface threaded brass. The glass fibre tube is covered with white UV-protecting paint, and can withstand all weather conditions.

Rugged design, which can stand all weather conditions.

**Specifications:**

**GM 1110044**

- Band: 900 MHz
- Antenna type: ½ wave broad banded dipole
- Gain: 0 dBi
- Frequency range: 890 - 960/1710-1880 MHz
- Polarisation: Vertical
- SWR 70 MHz BW: <= 1,5
- Max power: 50 W
- Connector: FME-female
- Total Length: App. 30 cm
- Weight: App. 380 g
- Cable: 20 m, RG 58
SPSMAP

Internet (Google) based mapping and Satellite software for Falcom STEPP, Mopas and SecuTrack
Introduction
SPSMAP is a program which gives the user the opportunity to retrieve a position from Falcom STEPP, MOPAS or SecuTrack (Track). Since all communication is based on SMS a GSM modem is required for communication. The GSM modem must have a character set which supports _, some of the Siemens based modems does not support this. Please contact SPS for modem.

Only STEPP, MOPAS or SecuTrack sold by SPS can be used with this program.

Mapping software
The position is shown on the Google map retrieved from the Internet. When a position has been reviewed as a SMS the position is shown on the Google map. SPS is not responsible for the quality of the maps for your area.
It is assumed the computer has access to the Internet.

Modes of operation

Installation
SPSMAP is delivered on a Floppy disk or download from the Internet. There is no sophisticated installation program for SPSMAP. To install SPSMAP perform the following simple STEPP.
• Create a directory SPSMAP
• UNZIP SPSMAP to this directory, use the password received from SPS when SPSMAP was purchased.
• Create an ICON for SPSMAP
• SPSMAP is now ready to run.
Running SPSMAP
Make the GSM modem ready, this includes inserting a SIM card and remember the PIN code. Remember the COM port where the GSM modem is connected to the computer. Turn the GSM modem on.
First time GSMMAP is started the user most define the communication parameters, the following menu will appear.

Answer Ja/Yes
The following menu will now appear

Select the COM port where the GSM modem is connected, if there is a PIN code write the pin code and select OK.

Organisation of units in SPSMAP.
All units are organised in groups and within each group by name.
Example Group name is SPS and the units is named STEPP.
Only units in the selected group is shown on the map.
By switching to a new group all the units in that group is shown on the map.
Each unit has a historical database with 100 entries.
SPSMAP is now ready to run and the main window will appear. In the initial start, all the groups in the database are shown. Select a group and all the units in that group will be shown on the map.
The map is now shown with the position of the unit.

To get a new position.
Select a unit from the menu and ask for a position with
When the position is received the position will now be shown.

Changing between groups.
To show all group
With this the last positions from all the units in that group is shown on
the map.

Historical replay.
It is possible to show all the stored positions in the historical database. It is also possible to
show just one single position from the historical database.
First select a unit from menu click on
Now possible to show all the stored
positions or just a single position.

Showing the unit on a satellite picture.
Click on the Satellite Icon on the Google map and the map will be switched to
a satellite image. Please note that in some areas the satellite picture can be of
a poor quality.
Validity of the received GPS position (This only applies to STEPP)

<table>
<thead>
<tr>
<th>Perfect Position</th>
<th>This means the GPS in the unit has a perfect position within 3 to 5 meters.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stored Position</td>
<td>This means the unit is not able to get a valid position from the GPS. The position shown is the last good position. It could be the unit is inside a house and the position stored could be outside the house.</td>
</tr>
<tr>
<td>Marginal Position</td>
<td>This means the GPS did not have a perfect position and return a warning indicating the position can be several meters off.</td>
</tr>
</tbody>
</table>

The following is showing the position as it is received from the GPS, this includes the date and time received from the GPS. Please not the GPS time is always shown in GMT time.

**Alarm Information**

In this field the information regarding alarms is shown. For MOPAS and SecuTrack the percentage of the battery level is shown for all positions.

It is possible to change the initial scaling of the map when it is opened. Zooming on the map is done with the zoom functions provided by Google, shown on the left side of the map.

When this is marked, then the last unit will be shown in the centre of the map.

This show the current GSM signal, just like normally shown on a handy personal GSM.

In this filed the position is shown as it is received from the unit.

To get more information of the unit in the position click
Adding a new unit

This icon will open the following window to allow the user to add a new car to SPSMAP.

It is important the GSM number is written with +XX for the country code like +45 for Denmark. When this is marked then the unit will always be shown on the map when this group is selected.

Editing an existing unit

Select a car from the list of cars.

Changing the COM port and PIN code

[Image of Configuration window with options for COM and PIN selection]
Example of unit shown on the map followed by the same as satellite image.