Features

Architecture: 16bit Module AT PC/104 compatible

GPS module: Trimble Lassen LP GPS receiver 8 GPS channels receiver (12 ch as option)

GSM module: Siemens TC35 Dual Band Embedded Module GSM 900/1800 MHz – DECT

GPRS module (optional): Siemens MC35 GPRS Module Dual Band EGSM 900/GSM1800 Mhz

DECT RF Engine (optional): Siemens DECT Engine MD 32

Connectors: GPS Antenna GSM/DECT Antenna GSM/DECT Audio input 2 TTL Serial ports Odometer input External clock 16 Digital I/O External battery

Serial interfaces: for GPS and GSM (DECT) 2 Serial ports 2 TTL Serial ports (user configurable)

The COM-1286 is an Integrated Positioning System solution in a PC/104 form factor that has a GPS receiver and a GSM 900/1800MHz module. A GPRS module or a DECT RF module are available as options. This product is specifically designed for vehicle navigation systems, Automatic Vehicle Location (AVL) Systems, Automatic Vehicle Management (AVM) Systems and any other application that requires navigation, tracking, data logging, timing and communication functions in a small and rugged form factor. The fast GPS signal acquisition and low power consumption makes the COM-1286 an ideal choice for mobile and battery-powered applications.

The GPS module integrates a powerful Low Power-draw 8-channel or optional 12-channel architecture that gives you a superior level of performance for embedded GPS applications. The GSM module allows you to access the GSM Services all over the world (900GSM / 1800GSM), such as: voice, data, SMS, fax. This high performance GSM module is easy to configure as a standard PC modem/fax and is fully DOS, Windows and Linux compatible. There are two optional modules that can be installed instead of the GSM. Option 1: A DECT RF engine that provides a radio connection for data transmission. Option 2: A GPRS module for wireless communications that is particularly well-suited for sending and receiving small bursts as well as large volumes of data.
# GSM module:

**GSM Engine:**
- Siemens TC35 Dual Band Module
- EGSM900/ GSM1800MHz

**GSM Services:**
- Voice, SMS, FAX and Data

**Operating System:**
- Fully DOS, Windows and Linux compatible

**Audio Interface:**
- Half rate (HR)
- Full rate (FR)
- Enhance full rate (EFR)
- Basic handsfree operation

**SMS:**
- Point-to-point MO and MT
- SMS cell broadcast
- Text and PDU mode

**FAX:**
- Group 3, Class 2/1

**DATA:**
- GCSD up to 14.4Kbps
- USSD
- Non transparent mode
- V.110

**Interfaces:**
- 40 pin connector (Power supply, SIM, RS232 bi-directional bus, Autobauding, Analog Audio)
- 50 Ohm antenna connector
- Multiplexer

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# GPS module:

**GPS receiver:**
- Trimble Lassen LP GPS Module

**GPS Specifications:**
- L1 frequency, C/A code (GPS)
- 8-channel continuous tracking receiver
- 32 correlators, DGPS ready

**Accuracy:**
- 25m CEP (50%) w/o SA (GPS); 2m CEP (50%) (DGPS)

**Interfaces:**
- One user configurable serial I/O port CMOS TTL level
- Single GPS antenna interface with MCX connector

**I/O Protocols:**
- TSIP (binary data)
- NMEA 0183 v.2.1 (ASCII data)
- TAIP (ASCII data)

**NMEA messages:**
- CGA, VTG, GLL, ZDA, GSV, GSA and RMC

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### Technical description

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Power supply: single +5V</th>
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<tbody>
<tr>
<td>Thickness:</td>
<td>Operate temp.: 0 ± 60 °C max. 95% humidity N.C.</td>
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</table>

**Order Code**

COM-1286-00: PC/104 module with GPS receiver and GSM 900/1800
COM-1286-01: PC/104 module with GPS receiver
COM-1286-02: PC/104 module with GSM 900/1800

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