

erco & gener

L'esprit modem >>



Entirely dedicated to the geolocalisation and embedded information services, the GenLoc OEM modem combines GSM/GPRS and GPS functions on a compact SocketModem format card.

The GPS information may be transmitted by either SMS or GSM/GPRS data communication.

The same product manages the 16 channel GPS function. The high sensitivity GPS solution ensures the reception of GPS data in difficult environmental conditions.

The modem is Quad-Band (850/900/1800/1900 MHz) and GSM/GPRS Class 10.

The GenLoc OEM provides optional connectivity IP protocols (TCP, UDP, FTP, SMTP, POP3). Also, the Open-AT development tool allows supplementary onboard personalised applications.

The GenLoc OEM provides digital input/outputs allowing the development of onboard value-added telematic solutions.

GenLoc OEM

- GPS LOCALISATION
- GSM / GPRS COMMUNICATION
- SOCKETMODEM FORMAT

TECHNICAL CHARACTERISTICS

GenLoc OEM

GSM / GPRS FEATURES

- E-GSM Quad-band 850/900/1800/1900 MHz
- ETSI GSM Phase 2+
- Class 4 (2W @ 900 MHz)
- Class 1 (1W @ 1800 MHz)
- SIM Toolkit Release 99

VOICE FEATURES

- Voice (GSM mode)
- Telephony, Emergency Numbers 112
- Full Rate, Enhanced Full Rate, Half Rate (FR/EFR/HF)
- Echo cancellation and noise reduction
- Full Duplex Hands Free

DATA FEATURES

- GPRS Class 10 (Up to 4Rx / 2Tx)
- Supports PBCCH, coding schemes: CS1 to CS4
- Asynchronous data circuit, transparent and non-transparent up to 14400 bits/s
- SMS point to point MT/MO and SMS CB

GPS FEATURES

- 16 channel μ blox receiver
- Precision:
 - 2,5 meters CEP
 - DGPS 2m CEP
- A-GPS Compatible
- Acquisition time:
 - Hot start: < 3,5 sec
 - Cold start: 36 sec
- Re-acquisition time after loss of signal < 1 s
- High Sensitivity: -158 dBm when Tracking
- Protocols:
 - NMEA-0183 Input/output
 - UBX binary input/output
 - RTCM in
- Integrated supply for active 3V GPS antenna
- Antenna fault detection (absence or short-circuit)

INTERFACES

- GSM & GPS Antennas: RF pads supporting coaxial cable
- 64 pin DIL connector (pitch: 2mm)
- Power supply: 5 Vdc +/-10%
- Switchable GSM & GPS supplies
- AT Commands: GSM 07.05 and 07.07.
- Specific AT commands
- V24 logic level: 5V
- V24 GSM & GPS independently accessible
- SIM card reader internal (SIM 1.8V / 3V) or external
- 6 inputs/outputs accessible via SPI
- GSM & GPS activity indicators and outputs
- Bus SPI
- Buzzer output
- Watchdog

AVERAGE POWER CONSUMPTION

- GSM 850/900 MHz: 250 mA @ 5 V in communication
- GSM 1800/1900 MHz: 200 mA @ 5 V in communication
- Idle mode: 20 mA @ 5 V (GPS off)
- GPS: 38 mA @ 5 V (antenna not connected)

ENVIRONMENTAL & MECHANICAL

- Operating temperature: - 20°C to + 55°C
- Storage temperature: - 30°C to + 85°C
- Dimensions:
 - Socket Modem Format
 - 64,5 x 34 x 15,5 mm, without SIM card
 - 75 x 34 x 15,5 mm, with SIM card inserted

1	BUZZER	64	
2	GND	63	
3	AUXV0	62	
4	+5V	61	
5	TIMEPULSE	60	
6	~ON/OFF GSM	59	
7	WDI_GPI04	58	
8	SPI_ID	57	
9	SPI_CLK	56	
10	/RXD_GPS	55	
11	/TXD_GPS	54	
12	/BOOT	/RST_GPS	53
13	SEL_UART2	/RXD2	52
14	ON/OFF_GPS	/TXD2	51
15	GPI05_SPI	/CTS2	50
16	GPI04_SPI	VCC_2V8	49
17	GPI03_SPI	+VBAT	48
18	GPI02_SPI	CHG_IN	47
19	GPI01_SPI	BAT_TEMP	46
20	GPI00_SPI	VCC_RTC	45
21	SPI_AUX	/INTR	44
22	MIC2+	SPK2+	43
23	MIC2-	SPK2-	42
24	/RESET	GND	41
25	WDO	/D TR1	40
26	GND	/D CD1	39
27	SIM_PRES	/CTS1	38
28	SIM_VCC	/DSR1	37
29	FLASH_LED	/RI	36
30	SIM_DATA	/TXD1	35
31	SIM_RST	/RXD1	34
32	SIM_CLK	/RTS1	33

OPTIONS

- Antenna cables:
 - GSM: Cable SMA-F - RG178 (67mm) - stripped/tinned (ref: 4409012070)
 - GPS: Cable SMB-M - RG178 (62mm) - stripped /tinned (ref: 4409014070)
- Starter Kit with accessories (ref: 4408100011)

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