



## GSM/GPRS/EDGE Data Module



TM3 is low power consumption, quad band, GSM/EDGE class 12 data module with speech capability.

Main TM3 Applications are Automotive (Telematics, and Car Security) and M2M (Automation, Real Time Data Transmission, Remote Metering and Control, Surveillance and Security).

### FEATURES:

- Supplementary functionality to meet the user's requirements:
  - Integrated TCP/IP Stack
  - GPIO controlling
- Supplementary GSM features:
  - CSD
  - SMS (text/data)

- Quad-Band GSM 850 / 900 / 1800 / 1900 MHz
- Output power:
  - class 4 (2 W) for EGSM 850/900
  - class 1 (1 W) for GSM 1800/1900
  - class ES2 (26 / 27 dBm) for 8-PSK modulation (EDGE)
- Weight: < 10 g
- Supply voltage range: 3.5 - 4.2 V (Typ: 3.8 ± 0.2 V)
- Operating temperature: -20 °C...+85 °C
- Dimensions:
  - 36.5 mm x 38.8 mm x 5.6 mm (with SIM holder)
  - 36.5 mm x 38.8 mm x 3.3 mm (without SIM holder)
- Power consumption:
  - Idle : < 3 mA
  - In call (GSM pwr. lev. 5): 300 mA
- Interfaces:
  - MMCX 50 ohm RF antenna connector
  - Cvilux 80-pin board-to-board connector
  - SIM card supporting 1.8 and 3V cards via B2B connector and onboard holder (optional)
  - 2 serial ports
  - I2C bus, SPI bus, 2 x analog in (ADC)\*
  - 30 GPIOs
  - USB 2.0 OTG
  - RoHS compliant
- Protocol stack Rel. 4
- Subset of GSM 07.05, GSM 07.07, GSM 07.10/MUX and proprietary AT commands
- Fax: Group 3, class 2.0
- EDGE multi slot class 12
  - MS class B
  - Coding scheme 1-9
  - Baud rate up to 200 Kbps
- Circuit Switched Data: Up to 9.6 kbit/s, Transparent/Non-transparent mode
- Supplementary Services
- SMS: Via GSM or GPRS, Point-to-point MO and MT, Text and PDU mode
- SMS cell broadcast
- Voice:
  - HR, FR, EFR and AMR
  - Basic hands-free
  - Echo cancellation
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\* Accessible via M2M on client's request

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