

Sony Ericsson



GM41/GM42



Create One Application and Take On the World

- Dual Band EGSM 900/1800 MHz (GM41) or GSM 850/1900 MHz (GM42)
- API & Mount Compatible with Sony Ericsson CDMA and GSM units
- GPRS Class B (4+1) – P Channels
- HSCSD (2+1)
- MO/MT SMS
- Analog and PCM Digital Audio
- Automotive Environment
- -40°C to +85°C Operation
- QS 9000 Manufacturing

The GM41/GM42 is just one more feather in the hat of Sony Ericsson's great family of industrial grade cellular modules. Designed to a common mechanical, electrical, and now software interface, integrators can literally develop one application for virtually any market in the world, be it GSM, TDMA or CDMA.

As networks migrate from first generation analog or digital cellular to more modern technologies, M2M applications must migrate as well or risk being left behind. Consequently, developers need a product strategy that allows them to transition from one technology to another in terms of functionality and system interface. The GM41/GM42 is just one of Sony Ericsson's M2M products that fits this requirement.

With two variants of dual band GSM/GPRS 900/1800 & 850/1900, the GM41/GM42 covers any GSM market with excellent performance, ruggedness, and cost. The GM41/GM42 fits the bill from the most basic data applications using SMS or CSD, to the more bandwidth intensive projects that require HSCSD or GPRS, all the way to highend automotive telematics solutions requiring high quality voice.

The same levels of excellence that have been trademarks of Sony and Ericsson worldwide go into every radio device design. Sony Ericsson applies the same R&D and manufacturing expertise in these products as it does in its world-class mobile phones.

M2M Com Product Unit of Sony Ericsson Mobile Communications is ISO-9001 Certified.

GM41/GM42

Product features

- Dual band GSM radio device (EGSM 900/1800 MHz [GM41] or GSM 850/1900 MHz [GM42])
- Compliant with 3GPP GSM Phase 2+ (GCF-CC v3.6.0 [GM41]/NAPRD.03 [GM42] standard) (Small MS)
- Class 5 (0.8W @ 850 MHz)
- Class 4 (2W @ 900 MHz)
- Class 1 (1W @ 1800/1900 MHz)
- Carrier Service Support
 - Call Forwarding, Hold, Waiting and Multiparty
 - Caller ID
 - Call Barring and Transfer
- ME + SIM phone book management
 - Read/write/find
 - Call screening
 - Groups
 - Personal profiles
- SIM Application Toolkit Class 2
- Dual SIM support
- RTC with Alarm Management
- Common Mechanical, Electrical, Software Interface with TDMA and CDMA Products

Voice features*

- Telephony
- Emergency calls (EOTD compliant – 850/1900 [GM42])
- Full Rate, Enhanced Full Rate and Half Rate (FR/EFR/HR)
- Adaptive Multi-Rate (AMR – 850/1900 [GM42])
- Enhanced Echo Cancellation and Noise Reduction
- Dual Tone Multi Frequency Function (DTMF)

Data features

- Data circuit asynchronous, non-transparent up to 9.6 kbps
- HSCSD (2+1), up to 19.2 kbps
- GPRS Class B (4+1), 85.6 kbps – P Channels
- Coding Schemes CS1-CS4

Short Message Service (SMS) features

- Text and PDU
- Point to point (MO/MT)
- Cell Broadcast
- Concatenation – up to 6 SMS

Power

- Power supply
 - 5.0 V \pm 10%
 - 250mA avg. Voice Call
 - 350mA avg. GPRS Call
 - < 5mA avg. Standby

Developer's Kit

- CD-ROM
 - Extensive Integration Manual
 - Software Developer's Kit
- Developer's Platform
- Antenna
- Power Supply
- Cables

Software development environment, AiD

- Common API library with TDMA and CDMA
- ANSI C Source Code Libraries
- API Documentation
- Demo applications
- Debug utilities
- Windows development environment

Connections

- Standard 40-pin DIP connector for board-to-board or Ribbon
- Standard vertical MMCX RF Connector
- Compatible with multiple types of RF connectors, including Optional FAKRA automotive connectors

Physical characteristics

- 103 x 49.5 x 7.5mm (excluding connectors)
- 45 grams

Environmental

- -40°C to +85°C Operating Temperature Range
- Shock Resistant: 20G Half Sine, 11ms
- Vibration Tolerance
 - 0.04 (G²/Hz); 10 Hz
 - 0.10 (G²/Hz); 20 Hz & 100 Hz
 - 0.002 (G²/Hz); 800 Hz & 1 KHz

Quality

- M2M Com Product Unit of Sony Ericsson
- Mobile Communications is ISO-9001 Certified
- QS9000 Manufacturing

* US Carriers may require compliance with AMR or EOTD standards.



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Sony Ericsson Mobile Communications USA

7001 Development Drive, PO Box 13969, Research Triangle Park, NC 27709 USA

Email: modules.supportusa@SonyEricssonMobile.com

www.SonyEricsson.com/M2M