Telit wireless solutions

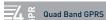## Short Range to GSM | GPRS
Gateways

Terminal

GG863-SR Gateway

QUALITY
INVESTMENT PROTECTION
BUSINESS SCALABLE
EASE OF INTEGRATION

ARM9	ARM9 220 MIPS Embedded
4 GPR	Quad Band GPRS
((·))	GPRS Class 10
	RoHS Compliant
	Linux
	Embedded FTP and SMTP Client
	Extended Temperature Range
	Extended RF Sensitivity
ISM band	SR to GSM/GPRS Gateways
	Embedded TCP/IP Stack

TELIT INFINITA SERVICES

FOTA	Premium FOTA Management

Telit GG863-SR is an all-in-one gateway solution with a completely innovative approach focusing on data transmission in smart metering systems, home and industrial automation, security, healthcare, urban and landscape markets.

The GG863-SR brings together the GSM/GPRS and short-range technology, hosting programmable GE863-PRO[3] and any of the short-range modules from Telit's wide product offer in a unique cost-saving, fully customized solution. Thanks to the possibility of choosing among different ISM bands (433MHz, 868MHz, 915MHz and 2,4GHz), protocol stacks (ZigBee, M-bus or proprietary), network topologies (Star, Mesh, 802.15.4/ZigBee) and coverage (from 70m to 4km), time to market and total cost of the final application are significantly reduced.

Full user application supporting all gateway functionalities runs on the ARM9 integrated in the GG863-SR and manages data sending and receiving, set up and other operations related to GSM/GPRS or short-range network and web interface through a dedicated API developed by Telit. The behavior of the gateway can be customized through the embedded Linux complete development environment and dedicated libraries for GSM and short range, thus simplifying integration in a final application.

Gateway application allows direct data exchange between a remote IP Host and each node of the short-range domain, completely transparent to an external IP host, including all short-range functionalities inside the gateway. This approach allows data acquisition and control of each node, through an IP-based host application with minimal knowledge about the network. Network management and other functionalities are also available on a dedicated web interface.

The GG863-SR also includes programmable GPIOs that can be used for monitoring and controlling other external devices and standard mini USB 2.0 port.

All Telit modules support Over-the-Air firmware update by means of Telit Premium FOTA Management Services. Telit is able to update its products by transmitting a single delta file, representing the difference between one firmware version and another.

As a part of Telit's corporate policy of environmental protection, all products comply with the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

Product features
- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- Output power
  - Class 4 (2W) @ 850 / 900 MHz
  - Class 1 (1W) @ 1800 / 1900 MHz
- Internal GSM control via AT commands according to GSM 07.05, 07.07 and Telit enhancements
- Supply voltage range: 5-36 V DC
- ARM9™ core 64MB SDRAM plus 128MB NAND flash (fully dedicated for applications running on ARM9)
- Supported Frequencies:
  - 433 MHz
  - 868 MHz
  - 915 MHz
  - 2.4 GHz
- Coverage range: from 70m to 4km

- Network topology/standard:
  - Proprietary low power Star
  - Proprietary low power Mesh
  - Wireless M-Bus
  - ZigBee/802.15.4
- Embedded Stack Options:
  - S-ONE
  - M-ONE
  - Z-ONE (ZigBee technology)
  - M-BUS (dedicated for metering)
- Serial port multiplexer GSM 7.10
- Dimensions: 83 x 64 x 33 mm
- Weight: 150 grams
- Temperature range
  -20°C to +70°C (Operational)

Making machines talk.®

GG863-SR
Gateway

Interfaces
- 2 general purpose I/O on RJ11
- Mini USB 2.0
- 2 SMA female, 50 Ohm RF connectors
- UART debug for ARM9 on RJ11
- Power connector with 4 pin
- Input power = 5 - 36 VDC @ 1.2 A min
- On board SIM card holder,
  1,8 / 3V with real-time detection

Software
- Linux OS
  - Real-time functionalities
  - multitasking/interrupt
  - SSL
  - cross compilation on PC
- Telit proprietary protocol between IP host and RF node
- Dedicated APIs
  - data management
  - network set up/management (both GSM/GPRS and SR)
  - SR functionalities
  - GSM/GPRS functionalities
- Easy User Interface (web server)
- Complete development environment based on Eclipse IDE

Approvals
- Fully type approved conforming with R&TTE directive
- CE

SMS
- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS supported
- SMS cell broadcast
- Text and PDU mode

Circuit switched data transmission
- Asynchronous transparent circuit switched data (CSD) up to 14.4 Kbps
- Asynchronous non-transparent CSD up to 9.6 Kbps
- V.110

GPRS data
- GPRS class 10
- Mobile station class B
- Coding scheme 1 to 4
- PBCCH support

Fax
- Group 3, class 1

Additional features
- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Battery management
- 4 Status LED (2 GSM/GPRS and 2 SR)
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP and FTP protocols
- TFMS (Telit Firmware Management Services) Over-the-Air update

Telit's EASY features
- EASY SCAN ® automatic scan over GSM frequencies (with or without SIM card)

Order-No.
- Please contact your Telit representative for order codes and all further information

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