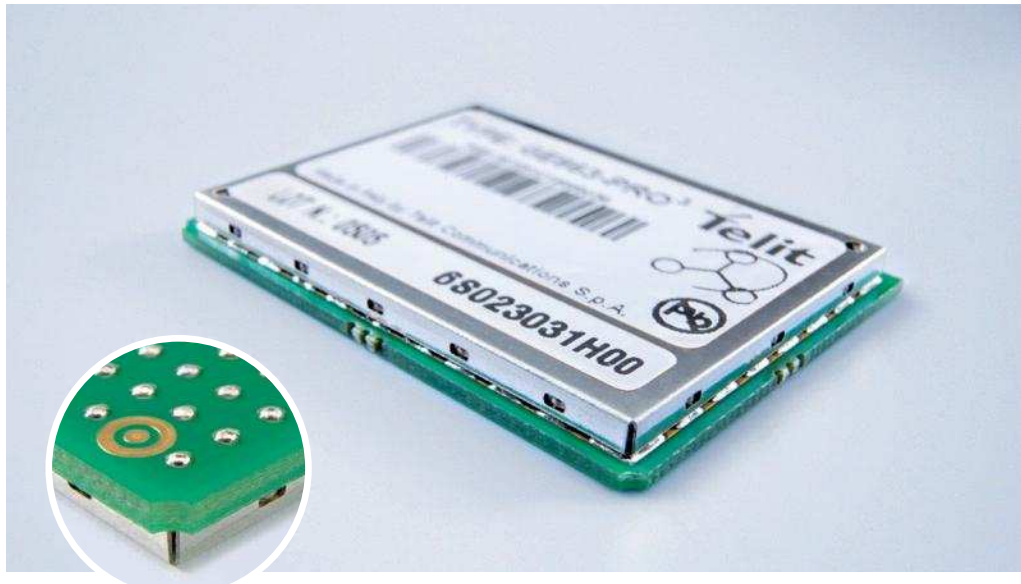


GSM | GPRS

GE863-PRO³

Embedded



	Telit Unified AT Command Set
	BGA Package
	Quad Band GPRS
	GPRS Class 10
	RoHS Compliant
	SIM Access Profile
	Programming in C++
	ARM9 220 MIPS Embedded
	Linux
	Embedded FTP and SMTP Client
	Extended Temperature Range
	Extended RF Sensitivity
	Serial Port Multiplexer (GSM 7.10)
	Embedded TCP/IP Stack



The GE863-PRO³ is an innovation to the quad-band, RoHS compliant GE863 product family which includes a powerful ARM9™ processor core exclusively dedicated to customer applications. The concept of colocating a powerful processor core with the GSM/GPRS engine allows developers to host their application directly. The PRO³ incorporates much of the necessary hardware for communicating microcontroller solutions, including the critical element of memory, significant simplification of the bill of material, vendor management, and logistics effort are achieved.

Additionally, this packaging of powerful components virtually eliminates the need for regulatory re-certifications typically required when key components such as memory are changed. The PRO³ is offered in a Ball-Grid-Array (BGA) package enabling very low profile and small product size required for the design of extremely compact applications. Since connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting concepts. With its low profile design, dedicated 8/64 MB SDRAM, 4 MB serial flash, and its extended programming capabilities in C++, the Telit GE863-PRO³ is the ideal hardware platform for complete and compact customer solutions.

The GE863-PRO³ was designed to simplify connectivity through the availability of interfaces such as SPI, IIC, SD/MMC and USB (Host/Device). Telit offers a vast collection of reference designs enabling use of the PRO³ with external peripherals such as camera, keyboard, display, Wi-Fi®, Bluetooth®, SmartCard, SD Card, Ethernet, ZigBee® and GPS. Application development is accomplished easily given Telit's continued commitment to open systems. With the use of LINUX (optional), developers have access to an extensive library of drivers for different peripherals and to complete development environments.

All Telit modules, support Over-the-Air firmware update by means Premium FOTA Management. By embedding RedBend's vCurrent® agent, a proven and battle-tested technology powering hundreds of millions of cellular handsets world-wide Telit is able to update its products by transmitting only a delta file, which represents 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).

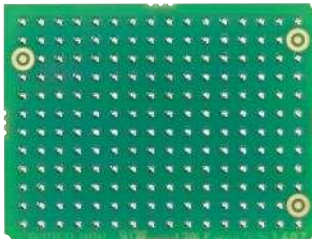
Product features

- Quad-band EGSM 850 / 900 / 1800 / 1900 MHz
- Output power
 - Class 4 (2W) @ 850 / 900 MHz
 - Class 1 (1W) @ 1800 / 1900 MHz
- Control via AT commands according to GSM 27.05, 27.07 plus Telit enhancements
- Wide supply voltage tolerant: 3.3 – 4.5 V DC
- Operating supply voltage: 3.22–4.5 V DC [3.8 V DC recommended]
- ARM9™ core 220 MIPS
- Serial port multiplexer GSM 27.010
- SIM access profile
- Sensitivity:
 - 107 dBm (typ.) @ 850 / 900 MHz
 - 106 dBm (typ.) @ 1800 / 1900 MHz
- Dimensions: 41.4 x 31.4 x 3.6 mm
- Weight: 9 grams
- Extended temperature range
 - 30°C to +80°C (operational)
 - 40°C to +90°C (storage temperature)
- RoHS compliant
- Embedded SSL encryption
- TCP/IP stack supporting UDP, FTP, SMTP, PPP via AT commands

Making machines talk.®

GE863-PRO³

Embedded



actual size



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Interfaces

- 88+9 GPIO
- 2 analog audio (balanced and unbalanced)
- 4 A/D with A/D trigger and 6 PWM D/A converters
- Buzzer output
- 1 USB device and 2 USB host
- 2 clock output pins
- 2 SPI buses each with up to 7 slave devices
- 1 IIC interface
- 1 SSC (I2S) digital audio interface
- 1 SD/MMC card and SAM/SmartCard ISO7816 interface
- 1 image sensor interface ITU-B 601/656
- 6 USARTs and 1 UART
- 1 debug trace serial ports (1ARM)
- ARM JTAG debug
- Serial flash
- Ethernet 10/100 MAC

Audio

- Telephony, emergency call, DTMF, handset & hands-free operations
- Half rate, full rate, enhanced full rate and adaptive multi rate voice codecs (HR, FR, EFR, AMR)
- Echo cancellation & noise reduction

SMS

- Point-to-point mobile originated and mobile terminated SMS
- Concatenated SMS support
- 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

GSM supplementary

- Call forwarding
- Call barring
- Call waiting & call hold
- Advice of charge
- Calling line identification presentation (CLIP)
- Calling line identification restriction (CLIR)
- Unstructured supplementary services mobile originated data (USSD)
- Closed user group

Additional features

- SIM phonebook
- Fixed dialing number (FDN)
- Real-time clock
- Alarm management
- Battery management
- Network LED support
- IRA character set
- Jamming detection & report
- Embedded TCP/IP stack, including TCP, IP, UDP, SMTP and FTP protocols
- TFMS (Telit Firmware Management Services) Over-the-Air update

ARM processor

- ARM9™ core 220 MIPS
- Independent form GSM engine custom processor
- 8/64 MB SDRAM plus 4 MB serial flash
- Linux operating system (optional)
 - Real-time OS
 - Multitasking/interrupt
 - SSL
 - Cross compilation on PC

Telit's EASY features

- EASY SCAN® automatic scan over GSM frequencies (without SIM card)

Order-No.

Please contact your Telit representative for order codes and all further information

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