

## News Highlights – Issue 18 (September 2007):

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### Telit Releases GE863-PRO<sup>3</sup> GSM/GPRS module with built-in ARM9 MCU and Flash & RAM memories

Telit, available through [GLYN High-Tech Distribution](#), is announcing the release of the GE863-PRO<sup>3</sup>, Telit's latest product generation derived from the reliable BGA GE863 product family. The GE863-PRO<sup>3</sup> includes a quad-band GSM/GPRS class 10 engine as well as a dedicated ARM9 application processor (the ATMEL standard microcontroller AT91SAM9260) and FLASH & RAM memories.



The proven unique Telit Ball-Grid-Array (BGA) package concept enables a very low profile and a small product size to design extremely compact applications. Since all connectors are eliminated, the solution cost is significantly reduced compared to conventional mounting concepts. Furthermore thanks to the successful cooperation with ATMEL, the dimensions of the ARM package have been considerably decreased so that customers can reduce the dimensions of the entire system that integrates GPRS, the additional processor and the memories, giving a competitive advantage in comparison to a non integrated architecture and maintaining at the same time the flexibility of a standard ATMEL ARM9

product (AT91SAM9260).

With its low profile design and extended programming capabilities in C++ and/or Python, fast ROM and RAM plus power management, 4MB serial flash (expandable) and 8MB SDRAM (standard) expandable up to 64MB for custom designs, the Telit GE863-PRO<sup>3</sup> is the perfect and complete hardware platform for all compact customer solutions. Interfaces such as SPI, IIC, SD/MMC and USB give connectivity to external peripherals (camera, keyboard, display), complementary short range wireless technologies (Wi-Fi, Bluetooth, ZigBee) and position location technology (GPS) for which Telit can offer complete reference designs.

The ARM core also includes real-time OS (LINUX), multitasking and fully available 200MIPS, fundamental for complex and demanding real-time applications. However Telit can also provide products without operating system giving with these an unlimited possibility for clients who want to use their own system environment on these modules.

Other than the above mentioned features, the Telit dual-core GE863-PRO<sup>3</sup> maintains the following functionalities:

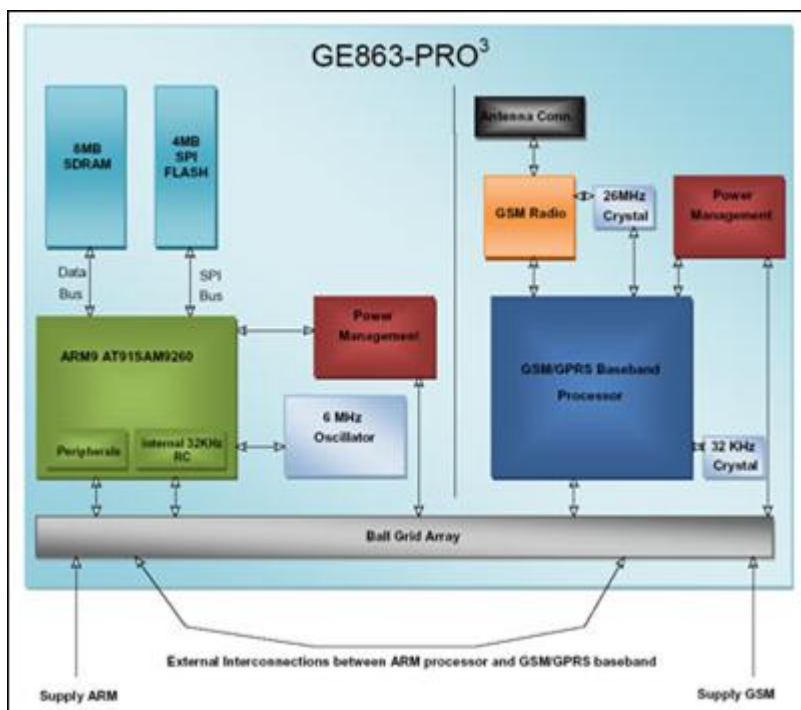
- EASY GPRS (AT driven embedded TCP/IP protocol stack, including FTP client)
- EASY SCAN (full GSM frequency scanning)
- JAMMING DETECT & REPORT (detect the presence of disturbing devices)
- CMUX
- SAP (SIM Access Profile)
- Multisocket

From the interface point of view, the GE863-PRO<sup>3</sup> provides the following:

- 1 Full GSM engine RS232 UART, CMOS level (ASCO) interface for AT commands:
  - Auto-bauding from 2.4 up to 57.6 Kbps
  - Fixed baud rate up to 115.2 Kbps
- 1 FULL ARM9 RS232 USART, CMOS level (UART0) interface for AT command drive
- 3 Four wires ARM9 RS232 USART, CMOS level
- 2 Two wires ARM9 RS232 UART, CMOS level
- 2 ARM9 SPI interfaces for up to 18 slaves
- 1 ARM9 Image Sensor Interface ITU-B 601/656
- 1 ARM9 IIC bus
- 1 ARM9 ISO7816 T0/T1 SAM/Smartcard interface
- 1 ARM9 SD/MMC Multimedia Card Interface
- 1 ARM9 Synchronous Serial Controller (I2S) interface for digital audio
- 1 ARM9 Ethernet controller
- 4 ARM9 ADC with ADC trigger input
- 6 ARM9 DAC (PWM)
- 1 ARM9 USB Device port
- 2 ARM9 USB Host port
- 2 ARM9 clock output pins
- 1 ARM9 Debug Trace Serial port
- 1 ARM9 JTAG debug port
- 2 analog GSM audio path
- SIM card interface, 3 volts and 1.8 volts
- 90 ARM9 + 9 GSM GPIO ports (max)
- 1 GSM buzzer output
- 1 GSM alarm output
- 1 GSM led status output indicator

Customers can use standard Atmel development tools while Telit will also be releasing a GE863-PRO<sup>3</sup> Evaluation Kit to facilitate customer evaluation and development. GE863-PRO<sup>3</sup> samples are available now.

For more details about the GE863-PRO<sup>3</sup>, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)





## Univision Develops Osram-equivalent 2.7" Monochrome OLED

With the recent announcement of Osram to pull out of the passive matrix OLED business, Univision is releasing an equivalent part to Osram's Pictiva 2.7" monochrome OLED with 128 x 64 pixels resolution (Osram Part Number: OS128064PK27MxxA00) to help customers easily migrate their current designs to a Univision OLED display with minimal modifications.



The Univision monochrome OLED (Part Number: UG-2864ASYDT01) will be available in yellow and will have a Solomon Systech controller/driver IC SSD1325. The SSD1325 displays data directly from its internal 128x80x4 bits Graphic Display Data RAM (GDDRAM). Data/Command are sent from an external MCU through the hardware selectable 8-bit 6800-/8080-series compatible parallel interface or 4-wire SPI interface

UG-2864ASYDT01 OLED samples for evaluation are due by end of October

at A\$35 each from [GLYN High-Tech Distribution](http://GLYN High-Tech Distribution). For volume pricing or for more information, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



## Bluegiga Launches Cutting Edge WT32 Bluetooth Audio Module

*The latest addition to Bluegiga's embedded Bluetooth product range, WT32 Bluetooth module offers a very simple and rapid way to integrate wireless high quality audio into any device.*

Bluegiga Technologies, Inc., a leading provider of Bluetooth platforms for system integrators and OEMs and available through [GLYN High-Tech Distribution](http://GLYN High-Tech Distribution), announces the availability of its *WT32 Bluetooth Audio Module*, the latest addition to its leading range of Bluetooth modules. Incorporating CSR's BlueCore-5 multimedia chipset and supporting the latest Bluetooth 2.1 with Enhanced Data Rate (EDR) wireless technology, *WT32* offers its users a pleasant Hi-Fi audio experience.



*WT32* is designed to require a minimum amount of external components - it's equipped with Bluetooth radio, integrated antenna/connector, 16-bit stereo codec, embedded DSP and battery end product certification as well as the CE, FCC and Industry Canada approvals, minimizing the amount of additional RF testing demands and securing a fast and easy path to develop products to be fully Bluetooth compliant.

The 16-bit dual ADC and DAC stereo codec is able to sample audio with rates up to 48kHz and have integrated amplifiers for driving speakers. The low power DSP core and can be loaded with additional DSP algorithms that provide audio enhancement, noise cancellation and for example speech to text capabilities.

WT32 comes with Bluegiga's iWRAP™ firmware, which makes the use of *Bluetooth* wireless technology easier. For audio applications iWRAP firmware implements Advanced Audio Distribution Profile (A2DP), Audio Video Remote Control Profile (AVCRCP) and Hands-free (HFP) *Bluetooth* profiles. iWRAP™ can also be configured to function completely autonomously and no external processors are needed for controlling it.

*"With our new WT32 Bluetooth audio module we keep leading the way for the industry providing our customers again the maximum integration level, unmatched usability and quality. Combined with the strong expertise in our customer service and Bluetooth end-product certification, we ensure that our customers enter the market with superior products on time and within budget",* accordingly to Bluegiga.

WT32 is designed to be embedded into products that need short range audio capabilities such as - high quality stereo and mono headsets/headphones, hands-free car kits, wireless speakers and microphones, handheld devices, MP3 players, mobile phone accessories - targeted to a variety of markets; automotive, medical and telemedicine, high-quality consumer electronics and industrial applications. In addition, it can also be used to transfer analog sensor information.

For more details about the WT32, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



## New 433MHz Radio Modules for Simplified Wireless Networking

TRL-Funksysteme GmbH, available through [GLYN High-Tech Distribution](#), introduces its 433MHz IRIS radio modules for simplified wireless networking. A typical IRIS system consists of a group of IRIS units arranged in a tree structure connected to each other by radio. The top unit is the concentrator in the system and the connection to end-user via, e.g. a serial interface, a web-module or a GSM-module. The other units in the system are connected to various electronic equipments via I/O and serial interface or acts as repeaters to enable communication over longer distances. IRIS units can, besides being a part of a radio network, work in pairs and work as standalone units.

The new IRIS BASE modules (as shown in the image on the left) are especially small and can be installed in virtually all devices, machines and systems without problem for the bidirectional radio transmission of data. The radio data modules are designed to permit high ranges of up to 1000 m in open space at 10mW transmission power and represent a

cost-effective solution for many applications.



The IRIS radio data modules are equipped with a serial RS 232 or RS 485 interface, so that the link to already existing devices or bus systems can be quickly implemented. In the standard version, six digital inputs and outputs, as well as six analogue inputs, are available for communication. The signals are automatically coded and decoded according to the IRIS protocol, greatly simplifying the application of radio technology for the user.

The compact modules (42 x 51 x 11 mm) find use in such applications as remote counter read-out, M2M interfaces, in vending machines and game machines, in telecontrol and telemetry systems, in measured data transfer, traffic telematics, teleguidance of hoisting gear, or in warehouse logistics. Radio data modules are used wherever running cables is too costly or too unfavourable, for both the acquisition of decentralised data, e.g. with remote counter read-out, or the remote acquisition of the current fill level of vending machines.

The modules are available in all common frequencies and can therefore be used anywhere in the world. They operate with up to 69 channels (433 MHz) within the permitted bandwidth, resulting in a particularly high transmission reliability. The bidirectional functional principle enables sending and receiving data with a single module.

A radio solution with IRIS radio data modules is less expensive than GSM solutions both in purchase price and in operating costs. Moreover, the Bluetooth technology used in this solution is clearly superior in terms of range.

**IRIS Base Module Technical Data:**

<i>Radio</i>	<i>Serial communication</i>	<i>I/O</i>
Frequency: 433.050 – 434.775 MHz Power: 10 mW Sensitivity: -112dBm Modulation type: FSK Bit rate: 4800 Bits/s Range: > 1 km (in line of sight)	Level: CMOS level Speed: 300-115200 Baud Databits: 7, 8 Stopbits: 1, 2 Parity: None, even or odd	Digital / analogue inputs: 6 Digital outputs: 4 Max output current: 20 mA (resistive)

For more details about the IRIS radio modules and system, please send us an email at [sales@glyn.com.au](mailto:sales@glyn.com.au)



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