















**GSM | GPRS**

**G30**  
Embedded/Compact



-  Ultra Compact
-  LGA Package \*
-  70 Pin Connector \*
-  Quad Band GPRS
-  GPRS Class 10
-  RoHS Compliant
-  Embedded SIM
-  Telit AppZone
-  Programming in C
-  Enhanced Audio Performance
-  Extended Temperature Range
-  Extended RF Sensitivity
-  Serial Port Multiplexer (3GPP 27.010)
-  Embedded TCP/IP Stack

\* Available in LGA or Board 2 Board Connector



Telit presents an ultra reliable, compact, wireless module. The G30 GSM/GPRS Series is a Surface Mount Technology (SMT) family, allowing you to benefit from small dimensions and cost effective design due to its Land Grid Array (LGA) form factor. LGA allows efficient and scalable automated manufacturing, making the G30 an ideal choice for any M2M segment, demanding small host devices like AMR, telematics, security, and ePOS. With an extended temperature range, and robust design, the G30 is designed to stand up to the harsh industrial environments found in telematics and AMR deployments. The G30 features Telit's industry leading RF performance, ensuring reliable network connectivity for real-time communication – a critical requirement for M2M solutions. The G30 Series is offered in three tiers, providing you with the ideal feature set for your M2M needs. The G30basic is a true cost-effective M2M solution with a rich set of features like quad-band GSM/GPRS, an extended operating temperature, UART MUX, jamming detection, and embedded data protocols. The G30 advanced improves on the G30basic with enhanced audio and embedded SIM technology for increased reliability and security. The G30premium is our most efficient solution yet, featuring the Telit AppZone, an embedded application space enabling easy M2M development with industry standard C code. The Telit AppZone lets you eliminate the need for an external CPU further reducing size and cost. The G30 series was designed for Zero time, Zero effort integration, getting you to market faster than ever. The G30 features both an LGA form factor and an optional 70-pin Board 2 Board connector for various design possibilities. The optional connectorized platform maintains the same mounting design as the award-winning G24 module, so you can leverage the G30's rich feature set but remain with your connectorized design. The G30 Series also shares a unified software interface with the G24 family, including compatible AT commands and TCP/IP stacks.

**Product Features**

**Supported Bands**

- GSM Quad-band  
850/900/1800/1900MHz

**Physical**

- 24.4 x 40.0 x 3.5mm
- Weight < 6g
- Mounting: LGA device with 81 pins, Pitch 1.27mm
- Optional 70-pin Board 2 Board connector

**Environmental**

- Operating Temperature: -40°C to +85°C
- Storage Temperature: -40°C to +85°C

**Performance**

**Operating Voltage**

- 3.3 – 4.2 V

**Current Consumption**

- < 2.0mA (Idle Mode)
- < 350mA (GSM call)
- < 450mA (GPRS data call)
- < 90µa (Power Off Mode)

**TX Power**

- 850/900MHz class 4 (2 Watts)
- 1800/1900MHz class 1 (1 Watt)

**Typical RX Sensitivity**

- -108dBm

## G30

Embedded/Compact



**Telit**® wireless solutions

Telit Communications S.p.A.  
Via Stazione di Prosecco, 5/B  
I-34010 Sgonico (Trieste), Italy  
Tel +39 040 4192 200  
Fax +39 040 4192 289  
E-Mail: EMEA@telit.com

Telit Wireless Solutions Inc.  
3131 RDU Center Drive, Suite 135  
Morrisville, NC 27560, USA  
Tel +1 888 846 9773 or +1 919 439 7977  
Fax +1 888 846 9774 or +1 919 840 0337  
E-Mail: NORTHAMERICA@telit.com

Telit Wireless Solutions Inc.  
Rua Cunha Gago, 700 - cj 81, Pinheiros  
São Paulo - SP, 05421001, Brazil  
Tel +55 11 2679 4654  
Fax +55 11 2679 4654  
E-Mail: LATINAMERICA@telit.com

Telit Wireless Solutions Co., Ltd.  
12th FL., Shinyoung Securities Bld.  
34-12, Yeouido-dong, Yeongdeungpo-gu  
Seoul, 150-884, Korea  
Tel. +82 2 368 4600  
Fax +82 2 368 4606  
E-Mail: APAC@telit.com

www.telit.com

- www.telit.com/ebook
- www.telit.com/appzone
- www.telit.com/techforum
- www.telit.com/facebook
- www.telit.com/twitter
- www.telit.com/xing
- www.telit.com/linkedin

Distributed by:

## Interfaces

### Connectors

- Antenna 50Ω solder pad (via LGA only)
- Antenna RF U.FL Connector (Optional)
- Serial interface
- SIM card interface
- Multiple GPIOs
- 70-pin Board 2 Board connector "24" Family compatible (Optional)

### Connectivity

- UART: baud rate up to 230.4Kbps
- Auto baud rate
- Flash Mode baud rate: up to 920Kbps

### SIM Card

- 1.8 /3V
- SIM Toolkit R99

## Data Features

### General

- Internal TCP/IP & UDP/IP
- Embedded FTP

### GPRS

- Multislot Class 10
- DL up to 85.6 kbit/s
- UL up to 42.8 kbit/s
- Coding Scheme CS1 - CS 4

### CSD

- CS data calls (transparent / Non-transparent) up to 9.6kbps
- Modem type V.32, V.110

### SMS

- PDU / Text mode
- Cell broadcast

## Control / Status Indications

- 2 A/D converters
- 9 dedicated GPIOs (8 when using Board 2 Board connector)
- Wake up & Sleep mode mechanism
- RTC supply output
- Ext. Reset In
- Antenna Detection

## Voice Features

- Telephony
- Digital / Analog audio in & out
- Vocoders HR/FR/EFR/AMR
- DTMF support
- TTY (Telephone Typewriter)

## Audio Control

- Echo cancellation
- Noise reduction
- Side tone

## GSM Supplementary Service

- Call hold/resume; waiting; multiparty
- Call forwarding/diverting
- Explicit call transfer
- Call barring
- Call completion to busy subscriber
- AOC (Advance of Charge)
- Calling identification presentation/restriction
- Connected line identification presentation / restriction
- USSD
- Network identity and time zone

## Additional Features

- Proprietary AT commands
- Control via AT commands according to 3GPP TS 27.005, 3GPP TS 27.007 and customized AT commands
- MUX 27.010
- UART MUX
- Jamming Detection
- Optional EmbeddedSIM (eSIM)
- Full-duplex Audio
- Full gain control
- Up to 6 audio settings

## Regulatory and Approvals

- Fully type approved conforming with R&TTE directive
- CE, GCF, FCC, PTCRB, IC, AT&T

## AppZone application resources

- Programming language: C
- 1 MB File system space
- AppZone application size up to 512KByte
- 512KByte RAM available to AppZone application
- Supports: GPIOs, I<sup>2</sup>C, UART, A2D

Telit AppZone

Copyright © 2011, Telit - Subject to changes in technology, design and availability

\* Copyright © 1991-1995 by Stichting Mathematisch Centrum, Amsterdam, The Netherlands; All Rights Reserved.  
Copyright © 1995-2001 Corporation for National Research Initiatives; All Rights Reserved.  
Copyright © 2001-2010 Python Software Foundation; All Rights Reserved.  
All Rights Reserved are retained in Python.