

BGS2



LGA
Mounting



Extended
Temperature
Range



GPRS
Class 10



Quad-Band 2G



Full Voice
Support



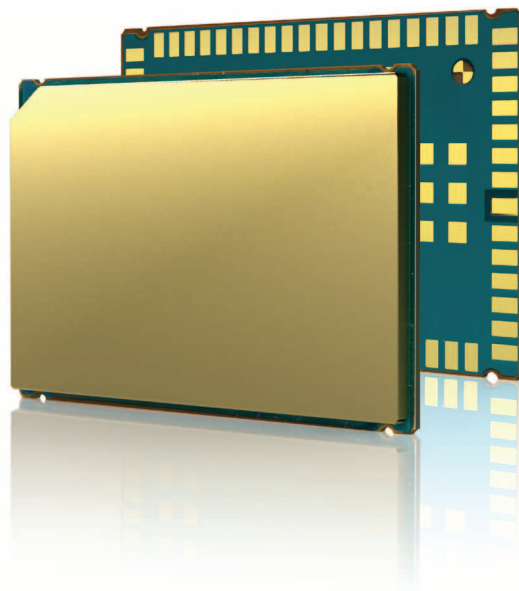
10 GPIOs



TCP/IP



Highly Compact
Size



Cinterion BGS2

Perfect M2M at Minimal Footprint

The Cinterion BGS2 is the smallest LGA wireless module based on the latest generation of 2G products offering full voice capabilities and high speed GPRS data transmission and is your all-rounder of choice for machine-to-machine communication including metering, security, vending, POS and many more applications.

The ultra compact design with a minimal footprint is perfect to suit the needs of M2M manufacturers of small host devices in high-volume production with the focus on reliable and efficient processes. This module features a Quad-Band GSM/GPRS baseband, TCP/IP connectivity based on GPRS class 10 data transmission

and industrial interfaces such as two serial interfaces, 10 GPIO's as well as I²C. Alongside highest reliability and quality the BGS2 offers new features such as tunneling mode which allows the direct communication via serial interface between the application microcontroller and e.g. a GPS receiver or NFC interface. BGS2 comes along in two flavors as Quad-Band with GPRS class 10 (BGS2-W) and Dual-Band version with GPRS class 8 (BGS2-E). Like all Cinterion modules the BGS2 includes full type approval (FTA) enabling use across the globe. It has even been certified by the largest carriers worldwide, including US operators.

General Features

- Quad-Band: GSM 850 / 900 / 1800 / 1900 MHz (BGS2-W)
- Dual-Band: GSM 900 / 1800 MHz (BGS2-E)
- 3GPP release 99
- GPRS multi-slot Class 10/8
- Compliant to GSM phase 2/2+
- Output power:
 - Class 4 (2W) for GSM850
 - Class 4 (2W) for EGSM900
 - Class 1 (1W) for GSM1800
 - Class 1 (1W) for GSM1900
- SIM Application Toolkit release 99
- Control via AT commands (Hayes, 3GPP TS 27.007 and 27.005)
- TCP/IP stack access via AT commands
- Internet Services FTP, ICMP, DNS, TCP server & client, UDP client
- HTTP, SMTP, POP3, Transparent Mode
- Supply voltage range: 3.3 V – 4.5 V
- Dimension: 18.8 x 27.6 x 2.7 mm (mounted)
- Operating temperature range: -40°C to +85°C
- Weight: 2.7 g
- RoHS and EuP compliant

Specifications

- GPRS Class 10/8
 - DL: max. 85.6 kbps,
 - UL: max. 42.8 kbps (BGS2-W)
 - UL: max. 21.4 kbps (BGS2-E)
- Mobile Station Class B
- CSD data transmission up to 14.4 kbps
- USSD support
- SMS text and PDU mode, cell broadcast
- Fax Group 3, Class 1 & 2
- High quality voice support
- High quality handsfree operation
- FR, HR, EFR and AMR speech codec support
- Integrated TTY modem

Interfaces (LGA Pads)

- Antenna 50 Ω
- 2 Serial interfaces
- Automatic baud rate detection
- Audio analog interface (Microphone & Speaker)
- UICC/SIM card interface 1.8 V and 3.0 V
- 8 GPIO pins 1.8 V (special option for PWM or Buzzer and status indication functionality)
- 2 GPIO pins 2.8 V (optional usable as I²C)
- ADC/DAC (PWM) interface

Special Features

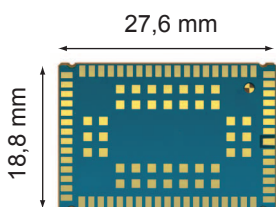
- Modem driver for Microsoft® Windows XP™, Windows Vista™ and Windows 7™
- Firmware update via serial interface
- Real time clock with alarm functionality
- Multiplex driver for Microsoft® Windows XP™, Windows Vista™ und Windows 7™
- RIL driver for Microsoft® Windows Mobile based devices
- Tunneling mode
- Customer IMEI on request

Approvals

- CE, R&TTE, GCF, FCC, PTCRB, IC
- Local approvals and network operator certifications (including AT&T approval)

For detailed specification please see hardware interface description.

Perfect M2M at Minimal Footprint



LGA technology

Land grid array, or LGA, is a surface-mount technology for fully automated manufacturing allowing to benefit from efficiency and process consistency. Cinterion's unique type of LGA technology is designed with focus on highest reliability and flexibility and to meet the demanding requirements of M2M application manufacturers.

GPIO

The most flexible interface for customer applications and their input and output lines providing easy set up and usage via AT commands.

Miniaturization

The world's slimmest module with a unique size-performance-ratio suits perfectly to size critical designs.



Cinterion Global Support

Local engineers, a competent helpdesk, a dedicated team of R&D specialists and an advanced development center are the hallmarks of our leading support offer.

The Cinterion support includes:

- Personal design-in consulting for hardware and software
- Extensive RF test capabilities
- GCF/PTCRB conform pretests to validate approval readiness
- Guidelines for local approvals and acceptances
- Regular training workshops

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Further information about our products and services is also accessible via www.cinterion.com

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