BG2

- Quad-Band 2G
- Component SIM Prepared
- Screwless Mountable
- 60 pin B2B Connector
- GPRS Class 10
- 10 GPIOs
- Full Voice Support
- Extended Temperature Range
- TCP/IP
- Highly Compact Size

Cinterion BG2
The M2M Essentials Re-Invented

The Cinterion BG2 wireless module is 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 including metering, security, vending, POS, and many more applications.

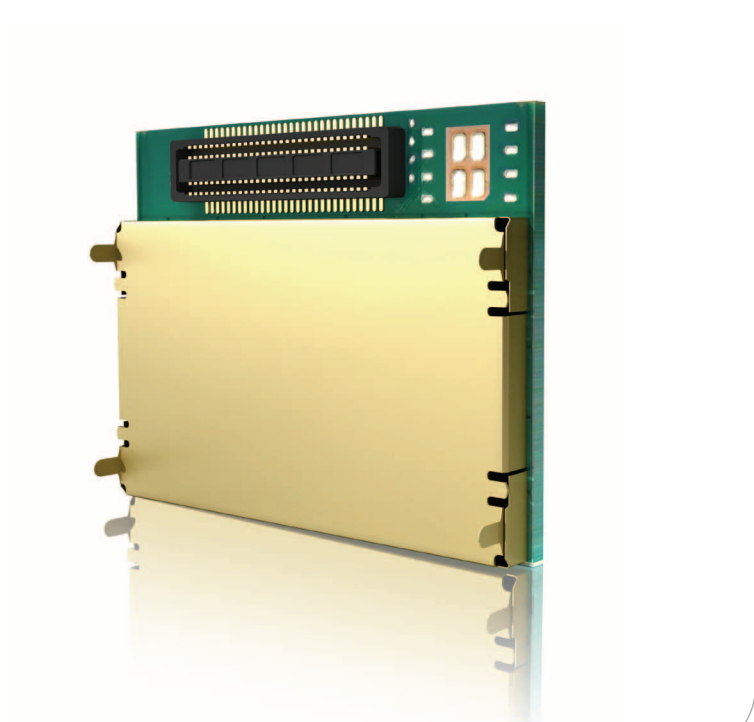The innovative and integrated antenna connection together with a highly flexible mounting concept allowing screwless mounting reduces significantly the total cost of ownership (TCO) at customers application. This module packs a Quad-Band GSM/GPRS baseband and TCP/IP connectivity based on GPRS Class

10 data transmission into a compact form factor. BG2 supports industrial interfaces such as two serial interfaces, 10 GPIO's, as well as I²C and is already prepared for Component SIM. Alongside highest reliability and quality the BG2 offers an easy start for M2M market entrants and comes along in two flavors as Quad-Band with GPRS Class 10 (BG2-W) and Dual-Band version with GPRS Class 8 (BG2-E). Like all Cinterion modules, the BG2 comes with full type approval (FTA) enabling use across the globe. It has even been certified by the largest carriers worldwide, including US operators.

CINTERION
a Gemalto company

BG2

General Features

- Quad-Band: GSM 850 / 900 / 1800 / 1900 MHz (BG2-W)
- Dual-Band: GSM 900 / 1800 MHz (BG2-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 GSM900
  - 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
- Supply voltage range: 3.3 – 4.5 V
- Dimension: 26.7 x 31.0 x 3.0 mm
- Operating temperature range: -40°C to +85°C
- Weight: 5.0 g
- RoHS and EuP compliant
- Screwless mountable
- Mounting clip (optional)

Specifications

- GPRS Class 10/8
  DL: max. 85.6 kbps,
  UL: max. 42.8 kbps (BG2-W)
  UL: max. 21.4 kbps (BG2-E)
  Mobile Station Class B
- CSD data transmission
- USSD support
- SMS text and PDU mode, cell broadcast
- Fax Group 3, class 1
- High quality voice support
- High quality handsfree operation
- FR, HR, EFR and AMR speech codec support
- Integrated TTY modem

Interfaces

- 60-pin board-to-board connector
- Integrated antenna connection
- 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
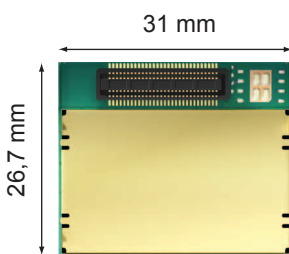
Special Features

- Modem driver for Microsoft® Windows 7™, Windows XP™ and Windows Vista™
- Firmware update via serial interface
- Real time clock with alarm functionality
- Customer IMEI on request
- Prepared for Component SIM

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.

The M2M Essentials Re-Invented

31 mm
26,7 mm

Screwless Mountable
Soldering pins allow a quick and reliable mounting without the use of additional screws and spacers.

Innovative B2B Concept
The 60-pin board-to-board connector includes a high quality antenna connection and reduces the total cost of ownership omitting a separate antenna connector.

Component SIM
A new generation of SIM cards soldered on the pcb with an extended life cycle and high reliability — also in harsh environmental conditions — are available and can be customized for M2M applications. BG2 with Component SIM is offered as variant upon request.

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

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