gemalto
security to be free

BGS8

	Quad Band 2G GPRS Class 10		Advanced Temperature Management
	Full Voice Support		GPS, GLONASS
	TCP/IP		RLS Monitoring (jamming detection)
	Generic Flash Access		SSL Encryption
	Voice Prompts		

CINTERION
Model: BGS8
S30960-S1111-A222-3

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intel
Intelligent Systems Alliance

2G

Cinterion® BGS8 Wireless Module
Perfect M2M with integrated GNSS

Cinterion® BGS8 Wireless Module
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Part of the Cinterion® Industrial family, the BGS8 wireless module offers full voice capabilities, high speed GPRS data transmission and minimal power consumption. It is an exceptional choice for machine-to-machine (M2M) applications that require focused 2G connectivity with embedded high performance and global satellite (GNSS) service. The unique cost savings and performance inherent in BGS8 make it an ideal solution for Intelligent Transportation System (ITS) applications including onboard vehicle telematics and fleet management as well as point of sale (POS) and alarm devices.

BGS8 targets high volume, cost sensitive applications that utilize low bandwidth GSM/GPRS connectivity. Its rugged and ultra-compact Land Grid Array (LGA) footprint guarantees long product availability along with optimized Total Cost of Ownership. Offering compatibility with Gemalto M2M's most compact and cost optimized 3G solutions, the BGS8 shares the same footprint and enables unparalleled migration opportunities.
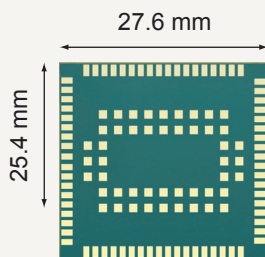
Based on the powerful Intel® 2G chipset, the module's unique Cinterion LGA technology enables optimized heat dissipation that prevents warping. This gives demanding industrial customers the freedom to select the most beneficial soldering paste for each individual application.

Equipped with high performance GPS/GLONASS, the BGS8 module is prepared to meet the comprehensive requirements of track and trace applications in the mobility aftermarket. It also features voice prompts, generic flash access, reliable jamming detection as well as an extensive set of secure Internet services including:
- TCP
- UDP
- HTTP
- FTP

Like all Cinterion modules, the BGS8 includes full type approval (FTA) for global roaming and certification for use with the largest carriers worldwide.

Perfect M2M with integrated GNSS

27.6 mm

25.4 mm

Multi Design Capability
BGS8 is ideal for integration in the slimmest and most size constrained trace and track applications. The successful 2G chipset ensures long product availability and together with the future proven LGA footprint and seamless migration to 3G modules with and without GPS functionality.

Generic Flash Access
The BGS8 module enables generic access to the internal memory of the module by the application processor, allowing it to store voice prompts or download application software for upgrades.

RLS Monitoring
Radio link stability (RLS) monitoring enables the application to detect jamming attacks, triggering preventive actions to secure the device.

Gemalto M2M Support includes:
> Personal design-in consulting for hardware and software
> Extensive RF test capabilities
> GCF/PTCRB conform pretests to validate approval readiness
> Regular training workshops

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.

— PRELIMINARY VERSION —

Cinterion® BGS8 Features

GENERAL FEATURES

> Quad-Band: 850 / 900 / 1800 / 1900 MHz
> 3GPP release 99
> GPRS multi-slot Class 10
> (U)SIM Application Toolkit
> Control via AT commands
  (Hayes, 3GPP TS 27.007 and 27.005)
> Internet Services TCP server/client, UDP, HTTP, FTP,
  SMTP, POP3

> Secure Connection with TLS
> DTMF detector
> Supply voltage range 3.3 to 4.5 V
> LGA soldering mount, MSL4
> Dimensions: 27.6 × 25.4 × 2.3 mm
> Operating temperature: -40 °C to +90 °C
  (Protection switch-off)

SPECIFICATIONS

> GPRS Class 10
  DL: max. 85.6 kbps,
  UL: max. 42.8 kbps
  Mobile Station Class B
> CSD data transmission up to 14.4 kbps,
  V.110, non-transparent

> USSD support
> SMS text and PDU mode, cell broadcast
> Fax Group 3, Class 1 and Class 2
> High quality voice support for handset, headset
  and hands free (double talk) operation
> FR, HR, EFR and AMR speech codec support

SPECIAL FEATURES

> Customer Flash Storage
> Voice prompt replay
> Firmware update via serial interface

> Real time clock with alarm functionality
> RLS Monitoring (Jamming detection)
> Multiplexer according 3GPP TS 27.010

INTERFACES (LGA) PADS

> Power supply
> Audio analog & digital interface
> 1x Serial interface 1.8 V with baud rate detection
> ICC/UICC card interface 1.8 V and 3.0 V
  supporting SIM/USIM
> GPIO pins 1.8 V (GPIO interface with 6 GPIO lines. GPIO
  interface is shared with a PWM functionality as well
  as a fast shutdown signal, a status line and a jamming
  indicator)
> I²C interface 1.8 V
> 1x ADC interface
> 1PPS output (GNSS)

GPS / GLONASS FEATURES

> Integrated 32 CHannel GNSS receiver
> Bands: GPS L1, GLONASS L1
> NMEA-183
> Position Accuracy (CEP50): 1.5m
> EGNOS, WAAS
> TTFF (-130dBm): 1s Hot Start, < 35s Cold Start
> Sensitivity (active antenna):
  > Acquisition -145dBm,
  > Navigation -156dBm,
  > Tracking -162dBm
> Local ephemeris prediction
> Jammer rejection
> Active antenna feeding and control

DRIVERS

> RIL driver for Android™ based devices
> RIL driver for Windows Mobile™ based applications

APPROVALS

> CE, R&TTE, GCF
> FCC, PTRCB, UL, IC
> Local approvals and provider certifications
> RoHS, REACH and EuP compliant

For more information, please visit
m2m.gemalto.com, developer.gemalto.com, www.facebook.com/gemalto,
or follow @gemaltom2m on twitter.

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