









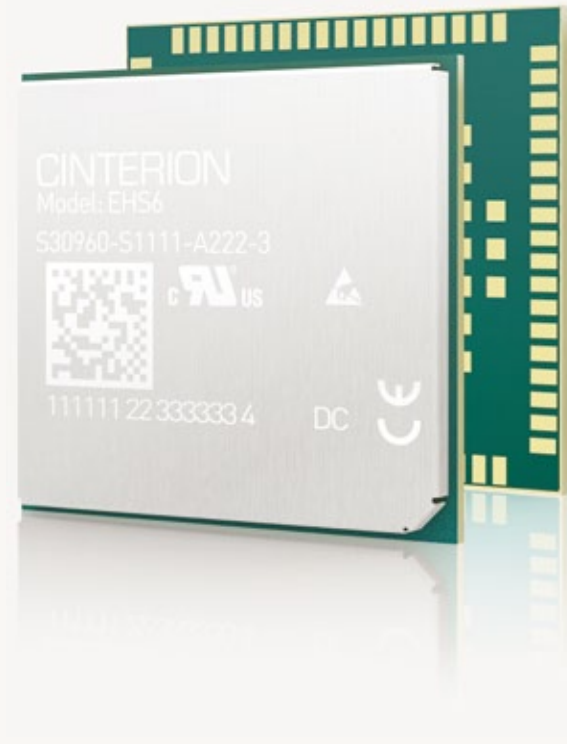


EHS6

 Five Band 3G	 Quad Band 2G
 HSPA	 FOTA
 GPRS / EDGE Class 12	 USB 2.0
 Voice Support	 RLS Monitoring (Jamming Detection)
 TCP/IP	 JAVA



3G

Cinterion® EHS6 Wireless Module
Global 3G with Java™ embedded

Cinterion® EHS6 Wireless Module

Global 3G with Java™ Embedded

The flagship Cinterion® EHS6 is the 5th generation of Gemalto's Java embedded machine-to-machine (M2M) modules, which have simplified highly efficient, end-to-end industrial communication for the last decade. Gemalto's Java strategy enables customers and partners to leverage the massive Java ecosystem by offering a powerful ARM11 architecture to reduce complexity and speed application integration for millions of Java developers worldwide. The tiny EHS6 module offers the latest Java ME 3.2 client runtime platform optimized for resource-constrained M2M applications. It significantly reduces total cost of ownership (TCO) and time to market by sharing internal resources such as memory, a large existing code base and proven software building blocks.

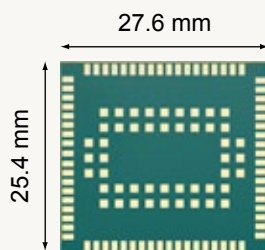
The improved Java concept uses Multi MIDlet Java execution to simultaneously host and run multiple applications and protocols. An extended security concept with the latest TLS/SSL engine provides secure and reliable TCP/IP connectivity while an enriched internal flash file system enables royalty free firmware updates over-the-air when required. A sophisticated sandbox model and layered architecture simplifies device management (DM) and separates mobile

network operator approvals from application code development allowing simultaneous progress of both phases for a shorter time to market.

Providing the capability for multiple designs from one solution, the newest addition to Gemalto's Evolution platform is an ideal module for M2M applications migrating from 2G to 3G that require cost efficiency along with global connectivity. EHS6 offers five band HSPA to support high bandwidth connectivity, enabling speeds up to 7.2 Mbps in downlink and 5.7 Mbps in uplink and rounds out the existing portfolio comprised of BGS2 and EHS5.

The EHS6 comes in Gemalto's unique Land Grid Array (LGA) package perfectly suited to the manufacturing needs of small, high-volume M2M devices with a focus on reliable and efficient processes. The ultra compact hardware design incorporates minimal power consumption, optimized heat dissipation even under harsh operating conditions and an extended product lifecycle to guarantee long product availability. EHS6 supports common industrial interfaces such as USB, serial interfaces, I²C and various GPIO's to be connected with the Java engine.

Global 3G with Java™ Embedded



Edge-to-Enterprise

The EHS6 enables Edge-to-Enterprise (E2E) connectivity for smart and flexible solutions that can be easily managed over long product lifecycles. The module serves as a hub between deployed devices and the backend systems of a variety of use cases including remote monitoring and control, home alarm systems, digital signage, smart energy, mHealth and security devices.

Full type approval

As is true with all Gemalto modules, the EHS6 includes full type approval (FTA) for global roaming as well as certification from the largest mobile operators worldwide.

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.

Cinterion® EHS6 Features

GENERAL FEATURES

- > 3GPP Rel.7 Compliant Protocol Stack
- > Five Bands UMTS (WCDMA/FDD)
Bands: 800, 850, 900, 1900 and 2100 MHz
- > Quad-Band GSM
Bands: 850, 900, 1800 and 1900 MHz
- > SIM Application Toolkit, letter class "b", "c", "e"
- > Control via standardized and extended ATcommands (Hayes, TS 27.007 and 27.005)
- > TCP/IP stack access via AT command and transparent TCP services
- > Secure Connection for client IP services
- > Internet Services TCP/UDP server/client, DNS, FTP client, HTTP client
- > Supply voltage range 3.3 - 4.5 V, highly optimized for minimal power consumption
- > Dimension: 27.6 x 25.4 x 2.3 mm
- > Operating Temperature: -40 °C to +90 °C
- > EuP, RoHS and REACH compliant

SPECIFICATIONS

- > HSDPA Cat.8 / HSUPA Cat.6 data rates
DL: max. 7.2 Mbps, UL: max. 5.76 Mbps
- > EDGE Class 12 data rates
DL: max. 237 kbps, UL: max. 237 kbps
- > GPRS Class 12 data rates
DL: max. 85.6 kbps, UL: max. 85.6 kbps
- > CSD data transmission up to 9.6 kbps
- > SMS text and PDU mode support
- > High quality voice support for handset, headset and hands-free operation
- > Integrated TTY modem

SPECIAL FEATURES

- > USB interface supports multiple composite modes and a Linux-/Mac- compliant mode
- > Firmware update via USB and serial interface
- > Multiplexer according 3GPP TS 27.010
- > Real time clock with alarm functionality
- > RLS Monitoring (Jamming detection)
- > Informal Network Scan
- > Integrated FOTA, configurable and royalty free

JAVA OPEN PLATFORM

- > Java™ profile IMP-NG & CLDC 1.1 HI
- > Secure data transmission with HTTPS/SSL
- > Multi-Threading programming and Multi-Application execution
- > 6 MB RAM and 8 MB Flash File System

INTERFACES (LGA PADS)

- > Pad for GSM/WCDMA Antenna
- > USB 2.0 HS interface up to 480 Mbps
- > HSIC HS interface up to 480 Mbps
- > High speed serial modem interface ASC0
- > 4-wire high speed serial interfaces ASC1
- > Digital audio interface
- > UICC and U/SIM card interface 1.8 V / 3 V
- > Lines for Module-On and Reset
- > 16 GPIO lines shared with DSR, DTR, DCD (all ASC0), ASC1 (RXD, TXD, RTS, CTS), SPI, Fast-Shutdown, Network-Status-Indication, PWM and Pulse-Counter lines
- > ADC and I²C interface

DRIVERS

- > USB, MUX driver for Microsoft® Windows XP™, Vista™ and 7™
- > RIL, USB driver for Microsoft® Windows Embedded Handheld™ >= 6.x
- > USB, MUX driver for Microsoft® Windows Embedded Compact™ >= 5.x

APPROVALS

- > R&TTE, GCF, CE, FCC, PTCRB, IC, UL
- > AT&T and other local approvals and provider certifications

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security to be free