

PHS8



Five-Band
3G



Quad-Band
2G



HSPA+



GPS



GPRS / EDGE
Class 12



Extended
Temperature
Range



Full Voice
Support



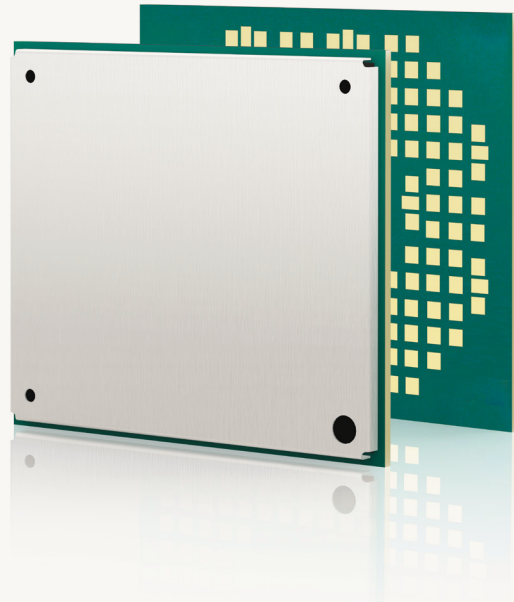
USB 2.0



TCP/IP



RIL Driver



HSPA+

Cinterion® PHS8 Wireless Module
The Thinnest 3G LGA Module in the Market

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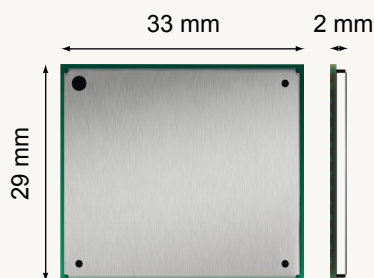
The new Cinterion PHS8 HSPA+ cellular machine-to-machine (M2M) module offers a smart solution for wireless connectivity today and in the future. With the latest HSPA+ technology, PHS8 is optimized for high bandwidth and allows speeds up to 14.4 Mbps for downlink and 5.7 Mbps for uplink. PHS8 is available in different versions, the PHS8-P, PHS8-J and PHS8-K with five bands UMTS for true global roaming and local dual band variants, the PHS8-US / PHS8-USA (United States) and PHS8-E (Europe), for improved TCO. PHS8 provides true worldwide coverage and reliability even while roaming across different wireless network technologies. By enabling a full range of M2M functions and features, PHS8 protects your technology investment by ensuring reliable communications today while allowing room for growth to 4G cellular technology on evolving GSM networks for many years to come.

PHS8 with its variants offers an ideal communication solution for the challenging requirements of a variety of M2M applications such as ruggedized mobile computing, security solutions, medical equipment, payment systems and gateway routers.

Two antenna pads enable diversity support allowing PHS8 to provide improved data speeds even under fluctuating 3G network conditions. The GPS antenna path is optimized for elimination of blanking on GPS for consistent performance.

The unique type of LGA technology enables optimized heat dissipation that prevents warpage. It gives our customers the freedom to select the most beneficial soldering paste for each individual application.

The Thinnest 3G LGA Module in the Market



Future Proof Design

At just 2 mm in height, PHS8 is ideal for integration in the slimmest and most size constraint M2M solutions. With the latest long-life chipset and a footprint prepared for forthcoming LTE modules, PHS8 provides longevity and a reliable path to the future for any high-bandwidth M2M applications.

Full Voice Support

PHS8 includes best-in-class analog audio processing which allows quick & easy audio implementation.

Improved Power Management

PHS8 improved power management features preserve the battery power necessary for remote M2M devices and reduce heat generation. Combined with its intelligent design for superior heat dissipation, PHS8 is the first choice for temperature critical M2M applications.

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® PHS8 Features

GENERAL FEATURES

- > True global coverage with 3G PHS8-P / PHS8-J / PHS8-K: Five Bands UMTS/HSPA+ (850/800, 900, 1900 and 2100 MHz), Quad-Band GSM
- > PHS8-US / PHS8-USA: Dual Band UMTS/HSPA+ (850, 1900 MHz), Dual-Band GSM (850/1900 MHz)
- > PHS8-E: Dual Band UMTS/HSPA+ (900/2100 MHz), Dual-Band GSM (900/1800 MHz)
- > UMTS / HSPA+, 3GPP release 6 / 7
- > GSM / GPRS / EDGE, 3GPP release 99 / 4
- > SIM Application Toolkit, release 99
- > SAIC / RX Diversity Type 3i
- > Control via AT commands (Hayes, 3GPP TS 27.007 and 27.005)
- > Supply voltage range 3.3 - 4.2 V
- > Dimension: 29 × 33 × 2 mm
- > Operational Temperature range: -40 °C to +85 °C

GPS FEATURES

- > Standalone GPS
- > GPS dedicated AT commands
- > A/GPS support: standalone, XTRA®, CP E911
- > Protocol: NMEA-0183 V2.3
- > Option for temporary NMEA stream buffering
- > Tracking Sensitivity: better than -158 dBm
- > Prepared for GLONASS

SPECIFICATIONS

- > HSDPA/HSUPA data rates:
DL: 7.2 / 14.4 Mbps, UL: 2.0 / 5.76 Mbps
Concurrent data rate:
DL: 7.2 Mbps, UL: 5.76 Mbps
- > UMTS data rates:
DL: max. 384 kbps, UL: max. 384 kbps
- > 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 14.4 kbps, V.110
- > SMS text and PDU mode
- > Voice features:
HR, FR, EFR and AMR supported for Handset, headset and hands-free telephony.
Dual microphone support for suppression of non-stationary background noise.
- > TTY supported

APPROVALS

- > R&TTE, FCC, GCF, PTCRB, UL, IC, CE
- > AT&T, Telstra and other local approvals and provider certifications (PHS8-P)
- > NTT DoCoMo and other local approvals (PHS8-J)
- > SK telecom and other local approvals (PHS8-K)

INTERFACES

- > LGA mounting
- > 2 × antenna pads for GSM/UMTS
- > 1 × antenna pad for GPS
- > Power supply
- > Audio: 1 × analog*, 1 × digital (PCM or I²S)
- > USB 2.0 high speed
- > UICC and U/SIM card interface 1.8 V / 3 V
- > Emergency-off
- > Network status
- > Serial interfaces up to 920 kbps

SPECIAL FEATURES

- > NDIS/USB/MUX driver for Microsoft® Windows XP™, Windows Vista™ and Windows 7™
- > RIL/NDIS/USB/MUX driver for devices based on Microsoft® Windows Embedded Handheld™
- > USB/MUX driver for Microsoft® Windows Embedded Compact™
- > RIL driver for devices based on Android OS™
- > Internet Services via TCP/IP Stack
- > Customer IMEI/Netlock as variant
- > Firmware update via USB and serial Interface
- > USB supports multiple composite modes and a Linux-/Mac- compliant mode

*) PHS8-P / -J / -K / -USA only

For more information, please visit

gemalto.com/m2m, www.facebook.com/gemalto, or Follow @gemaltom2m on twitter.

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