

## PXS8



Dual-Band  
CDMA



Quad-Band  
2G



Five-Band  
3G



GPS



HSPA+



Extended  
Temperature  
Range



GPRS / EDGE  
Class 12



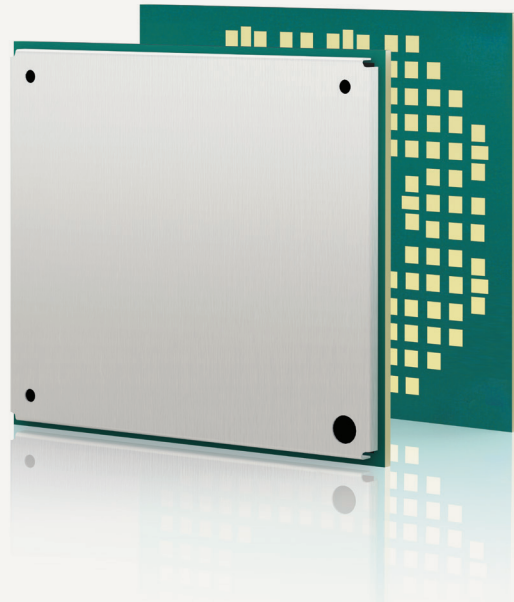
USB 2.0



Full Voice  
Support



RIL Driver



## CDMA / HSPA+

Cinterion® PXS8 Wireless Module

First M2M Multi Mode Module for CDMA and HSPA+

# Cinterion® PXS8 Wireless Module

## First M2M Multi Mode Module for CDMA and HSPA+

The new Cinterion PXS8 Multimode cellular machine-to-machine (M2M) module offers a smart solution for wireless connectivity today and in the future. PXS8 supports both CDMA and GSM/HSPA+ technology standards, eliminating the need for multiple designs and redundant hardware for worldwide M2M solutions.

Gemalto M2M provides the PHS8 (HSPA+ only) and the PVS8 (CDMA only) module as well allowing room for growth to 4G cellular technology in the exact same form factor, to support highest flexibility and a future proof design for our customers.

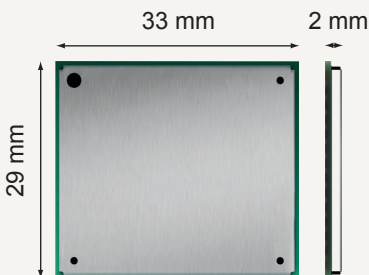
With the latest technology, PXS8 is optimized for high bandwidth and allows speeds up to 14.4 Mbps for downlink and 5.7 Mbps for uplink. By enabling a full range of M2M functions and features, the PXS8 offers an ideal communication solution for the challenging requirements of a variety of global

M2M applications, such as ruggedized mobile computing, security solutions or medical equipment. Two antenna pads enable diversity support allowing PXS8 to provide improved dataspeeds 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.

Like all Cinterion products, the PXS8 comes with full type approval (FTA) and is certified by the largest carriers worldwide.

### First M2M Multi Mode Module for CDMA and HSPA+



#### Multi Mode CDMA / HSPA+

The PXS8, the new flagship multi-mode module for M2M, combines 3GPP and 3GPP/2 technology for worldwide cross-network roaming between CDMA and HSPA+ networks with a single M2M module.

#### Future Proof Design

At just 2 mm in height, PXS8 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, PXS8 provides longevity and a reliable path to the future for any high-bandwidth M2M applications.

#### Full Voice Support

PXS8 includes best-in-class analog audio processing which allows quick & easy audio implementation.

#### 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® PXS8 Features

## GENERAL FEATURES

- > Five-Bands UMTS/HSPA+ (WCDMA/FDD) (800/850/900/1900/2100 MHz)  
UMTS / HSPA+, 3GPP release 6 / 7  
Rx-Diversity with Equalizer (Type 3i)  
Enhanced F-DPCH, DTX, DRX, SCH-IC
- > Quad-Band GSM (850/900/1800/1900 MHz)  
GSM / GPRS / EDGE, 3GPP release 99 / 4  
Improved SAIC
- > Triple Band CDMA2000, Bands: BC0/BC1 & BC10 subclass 2+3 (800/1900MHz), 3GPP2: 1xAdvanced, EV-DO Rev. A, QLIC, Rx-Diversity, Equalizer
- > SIM Application Toolkit, 3GPP release 99
- > Data, Voice and TTY support
- > Control via standardized and extended AT commands (Hayes, TS 27.007, TS 27.005)
- > Supply voltage range 3.3 - 4.2 V, highly optimized for minimal power consumption
- > Dimension: 29 × 33 × 2 mm
- > Operational Temperature Range: -40 °C to +85 °C
- > RoHS and WEEE compliant

## SPECIFICATIONS

- > HSDPA Cat.10 / HSUPA Cat.6 data rates  
DL: max. 14.4 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
- > EV-DO Rev.A data rates
- > FL: max. 3.1 Mbps, RL: max. 1.8 Mbps
- > 1 x Advanced data rates  
FL: max. 307.2 kbps, RL: max. 307.2 kbps
- > CSD data transmission up to 14.4 kbps, V.110
- > SMS text and PDU mode, Phonebook support
- > Voice support, optimized for high quality headset headset and hands-free telephony with dual microphone support for suppression of non-stationary background noise

## SPECIAL FEATURES

- > USB interface supports multiple composite modes and a Linux-/Mac- compliant mode
- > Multiplexer according 3GPP TS 27.010
- > Firmware update via USB and serial interface
- > TCP/IP stack access via AT commands
- > Customer IMEI/Netlock variants

## GPS/GLONASS FEATURES

- > Standalone GPS and GLONASS
- > GNSS 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

## INTERFACES

- > LGA mounting
- > 2 pads for WAN Diversity-Antennas
- > 1 pad for an active GPS Antenna
- > Analog audio interface (balanced)
- > Digital audio interfaces (PCM or I2S)
- > USB 2.0 HS interface up to 480 Mbps
- > High speed serial interface up to 920 kbps
- > UICC and U/SIM card interface 1.8 V and 3 V
- > Pads for Emergency-Off, Ignition, Network Status Indication, Low Current Indication

## DRIVERS

- > 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™
- > CDC-ACM compliant mode for Linux

## APPROVALS

- > R&TTE, GCF, CE, FCC, PTCRB, UL, IC, CCF
- > Verizon Wireless approval (CDG1/CDG2), Sprint
- > Vodafone global mode
- > AT&T and other local approvals and network operator certifications

**For more information, please visit**

[m2m.gemalto.com](http://m2m.gemalto.com), [www.facebook.com/gemalto](http://www.facebook.com/gemalto), or Follow @gemaltom2m on twitter.

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