PCS3

- Triple-Band CDMA
- Full Voice Support
- USB 2.0
- TCP/IP
- Extended Temperature Range
- Low Power Consumption

CDMA

Cinterion® PCS3 Wireless Module
The first M2M Grade Module with CDMA 1X Advanced and Revision F
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The first M2M Grade Module with CDMA 1X Advanced and Revision F module in the market

Gemalto’s Cinterion PCS3 is the ideal connectivity solution for cost sensitive M2M applications that require CDMA2000 capabilities along with M2M grade quality levels and support. PCS3 utilizes the Cinterion ultra-rugged and field proven LGA SMT footprint for line fit mass market applications. With a footprint common to Cinterion 2G GSM, EV-DO, HSPA+, multimode and LTE modules, it enables a single design for multiple network technologies providing maximum investment protection.

PCS3 is based on latest CDMA 1X Advanced and Revision F (Rev. F) standards, offering two significant improvements for M2M stakeholders. Rev. F significantly reduces power consumption to enable longer battery life or allow developers to integrate a smaller, more cost effective battery. In addition, both 1X Advanced and Rev. F improve network capacity and efficiency, allowing a higher density of M2M devices on the network and greater longevity for mobile networks and M2M applications.

The Cinterion PCS3 also supports the latest bands, or network operating frequency ranges, used by US mobile operators to ensure the best CDMA coverage of any M2M module.

Gemalto’s unique Cinterion LGA technology enables optimized heat dissipation that prevents warping. It gives customers the freedom to select the most beneficial soldering paste for each individual application. Like all Cinterion products, the PCS3 comes with full type approval (FTA) and is certified by the largest CDMA carriers.

Offering CDMA 1X Advanced Connectivity with LGA Surface Mounting

Reduced Power Consumption
New features standard with the latest 1X Rev. F standard enable significantly less power consumption to preserve battery power necessary for remote M2M devices and heat reduction.

Full Voice Support
PCS3 is available in two variants: PCS3-D, which is cost optimized for data only; and PCS3 including best-in-class digital and analog audio processing for quick & easy audio implementation.

Future Proof Design
At just 2 mm in height, PCS3 is ideal for integration in the slimmest and most size constrained M2M solutions. Featuring the latest long-life chipset and sharing the same footprint as 2G GSM, EV-DO, HSPA+, Multimode and LTE modules and support for the newest CDMA Bands BC0, BC1 and BC10, provides longevity and a reliable path to the future.

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® PCS3 Features

#### GENERAL FEATURES
- **Triple Band CDMA2000**  
  Bands: BC0 (800 MHz), BC1 (1900 MHz) & BC10  
- **1x Advanced and QLIC support**  
- **Revision F support**  
- **Data and Voice support**  
- **Control via standardized, extended and CDMA2000 operator specific AT commands (Hayes, TS 27.007, TS 27.005, a.o.)**  
- **TCP/IP stack access via AT command for transparent and non-transparent services: TCP client, UDP client**  
- **Supply voltage range 3.3 – 4.2 V, highly optimized for minimal power consumption**  
- **Dimension: 29.0 × 33.0 × 2.0 mm**  
- **Operational Temperature Range: -40 °C to +85 °C (with protection switch-off)**  
- **MSL4 Packaging, Tape & Reel Shipping**  
- **RoHS, China RoHS and California Leadfree compliant**

#### SPECIFICATIONS
- **1x Advanced data rates**  
  FL: max. 153.6 kbps, RL: max. 153.6 kbps  
- **SMS support**  
- **Phonebook support**  
- **EVRC-B voice support**  
- **Firmware update via USB, serial interface and FOTA**  
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- **Multi carrier switching**  
- **Multiplexer according 3GPP TS 27.010**  
- **Real time clock with alarm functionality**

#### SPECIAL FEATURES
- **Firmware update via USB, serial interface and FOTA**  
- **Multi carrier switching**  
- **Phonebook support**  
- **EVRC-B voice support**

#### INTERFACES (SMT-LGA, 156 PADS)
- **Pad for CDMA2000 Antenna**  
- **Pads for power supply, RTC backup power, VEXT and ground**  
- **Analog audio interface (balanced)**  
- **Digital audio interfaces (PCM)**  
- **USB 2.0 HS interface up to 480 Mbps**  
- **High speed serial interface up to 920 kbps**  
- **Pads for Emergency-Off, Ignition, Network Status Indication and Power Indication**  
- **10 GPIO’s**

#### DRIVERS
- **USB/MUX driver for Microsoft® Windows XP™, 7™ and 8™**  
- **CDC-ACM compliant mode for Linux**

#### APPROVALS
- **FCC, UL, IC, CCF (CDG1/2)**  
- **Verizon Wireless and Sprint mobile network operator (MNO) certifications**
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gemalto.com/m2m, developer.gemalto.com, www.facebook.com/gemalto,
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