

# 3G

## M2M Advanced



**CINTERION**  
WIRELESS MODULES

### Wireless Module EU3

Invest today in tomorrow's wireless connectivity



Dual-Band/  
Tri-Band  
3G



High-Speed  
Serial



Dual-Band 2G



High-Speed  
USB



EDGE  
Class 10



80 pin B2B  
Connector



GPRS  
Class 10



10 GPIOs



Full Voice  
Support



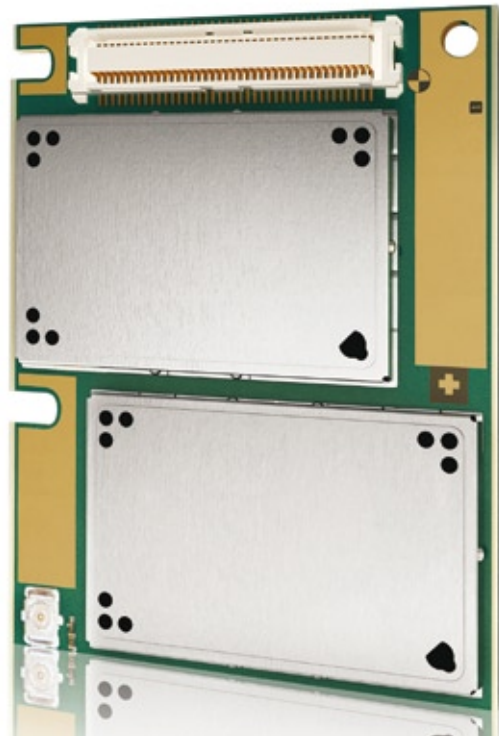
Extended  
Temperature  
Range



TCP/IP



Video Call  
Support



The Cinterion EU3 UMTS & HSDPA wireless module provides a smart investment today for the wireless connectivity of the future. By enabling a full range of M2M functions and features, EU3 protects your current technology investment while allowing room for growth to the 3G cellular networks of the future.

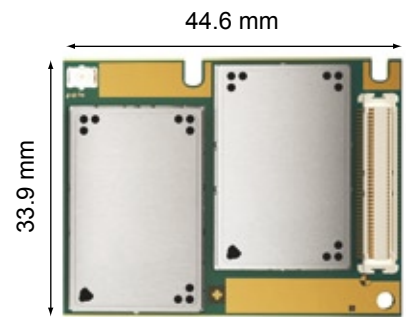
EU3 offers the perfect solution for the challenging long term requirements of industrial applications such as automatic meter reading (AMR) solutions. Dual band frequencies including newly added UMTS900 means EU3 can support applications designed for use on evolving GSM networks for

many years to come. By enabling UMTS functionality on the 900 MHz band, EU3 offers increased coverage area for high speed communications even in very remote locations. EU3 offers GPRS/EDGE functionality to support portable, mobile and fixed applications where 3G coverage is not available.

Specifically designed for M2M applications, Cinterion's EU3 offers extremely fast data speeds on serial and USB interfaces for quick and easy data transfer. The 10 GPIO (general purpose input/output) pins guarantee the highest possible flexibility to connect customer application sensors.

# Wireless Module EU3

## Invest today in tomorrow's wireless connectivity



### General features

- Dual-Band UMTS: 900 / 2100 MHz (EU3-E)
- Tri-Band UMTS: 850 / 900 / 2100 MHz (EU3-P)
- Dual-Band GSM: 900 / 1800 MHz
- UMTS 3GPP release 5
- GSM release 99 / release 4
- EDGE (E-GPRS) multi-slot class 10
- GPRS multi-slot class 10
- Output power:
  - Class 4 (2 W) for GSM900
  - Class 1 (1 W) for GSM1800
  - Class E2 (0.5 W) for EDGE900
  - Class E2 (0.4 W) for EDGE1800
  - Class 3 (0.25 W) for UMTS
- SIM Application Toolkit, release 99
- Control via AT commands (Hayes, 3GPP TS 27.007 and 27.005)
- TCP/IP stack access via AT commands
- Supply voltage range 3.3 - 4.2 V
- Power consumption:
  - Sleep @ GSM Mode: typical < 2.2 mA
  - Sleep @ UMTS Mode: typical < 2.0 mA
- Dimensions 33.9 x 44.6 x 5.0 mm
- Operational temperature range: -40°C to +85°C
- RoHS compliant
- Weight approx. 11g

### Specifications

- HSDPA data rates:
  - DL: max. 3.6 Mbps, UL: max. 384 kbps
- UMTS data rates:
  - DL: max. 384 kbps, UL: max. 384 kbps
- EDGE class 10:
  - DL: max. 237 kbps, UL: max. 118 kbps
- GPRS class 10:
  - DL: max. 85.6 kbps, UL: max. 42.8 kbps
- Full PBCCH support
- CSD data transmission 14.4 kbps, V.110
- USSD support
- SMS text and PDU mode
- Fax Group 3, class 1
- Support of video calls
- Voice support:
  - speech codec HR, FR, EFR and AMR
- Handset, Headset and Handsfree modes

### Special features

- Multiplex driver according 3GPP 27.010 for Microsoft® Windows XP™, Windows Vista™ and Windows 7™
- Customer IMEI on request
- Prepared for Component SIM

### Interfaces

- U.FL-R-SMT 50 Ω antenna connector
- 80-pin board-to-board connector
  - Power supply
  - Audio: analog
  - High speed serial interface (up to 460 kbps)
  - USB 2.0 high speed interface (up to 480 Mbps)
  - UICC/SIM card interface 3V, 1.8V
  - 10 GPIO pins
  - ADC port

### Approvals

- R&TTE, GCF, CE
- Local approvals and network operator certifications

**For detailed specification please see Hardware Interface Description.**

### UMTS900

The 3G connectivity with high-speed data rates at 900 MHz band for future proof applications in refarmed networks.

### USB & Serial High Speed

The highest data speed — up to 480 Mbps (USB) and up to 460 kbps (serial) — for M2M applications requiring quick data transmissions. For easy handling and efficient usage, USB and Serial interface can be operated simultaneously.

### GPIO

The most flexible interface for customer applications and their input and output lines providing easy set up and usage via AT commands.



### Cinterion Global Support

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.

The Cinterion support includes:

- Personal design-in consulting for hardware and software
- Extensive RF test capabilities
- GCF/PTCRB conform pretests to validate approval readiness
- Guidelines for local approvals and acceptances
- Regular training workshops

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**Further information about our products and services is also accessible via [www.cinterion.com](http://www.cinterion.com)**

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