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gemalto
security to be free

AC75i / AC65i

GPRS / EDGE Class 12		Quad-Band	
RLS Monitoring		Multi SIM Interface	
eCall compliant		Advanced Temperature Management	
Antenna Diagnostics		Embedded Processing	
Industrial Interfaces			

AUTOMOTIVE

Cinterion® AC75i / AC65i Wireless Module

Highest Reliability and Quality for Automotive Applications
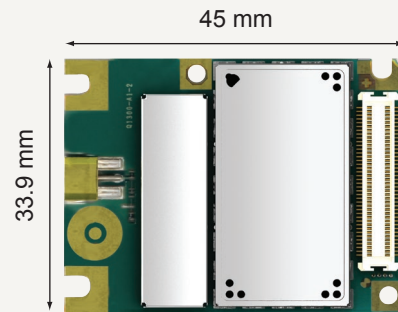
— NOT RECOMMENDED FOR NEW DESIGNS —

Cinterion® AC75i / AC65i Wireless Module
Highest Reliability and Quality for Automotive Applications

Gemalto M2M has a long history of successful products for automotive applications. Gemalto M2M automotive grade products are designed to meet the requirements of the automotive industry offering special automotive features as well as compliance with all relevant quality standards such as TS16949. Additionally Gemalto M2M offers a broad range of support packages and a full life cycle service concept.

The AC75i / AC65i represent the 6th generation of dedicated automotive modules offering advanced telematic features and are prepared to meet the requirements of the European eCall initiative. Both products are fully type approved including local network provider approvals creating a perfect basis for applications like toll collect, telematics, fleet management as well as emergency call, breakdown or roadside assistance.

Highest Reliability and Quality for Automotive Applications

45 mm
33.9 mm

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® AC75i / AC65i Features

GENERAL FEATURES

> Quad-Band GMS:
  850 / 900 / 1800 / 1900 MHz
> EDGE (E-GPRS) multi-slot class 12 (AC75i)
> GPRS multi-slot class 12
> GSM release 99
> Output power:
  > Class 4 (2W) for EGSM850
  > Class 4 (2W) for EGSM900
  > Class 1 (1W) for GSM1800
  > Class 1 (1W) for GSM1900
> Control via AT commands
  (Hayes 3GPP TS 27.007 and 27.005)

> SIM Application Toolkit (release 99)
> TCP/IP stack access via AT commands
> Internet Services: TCP, UDP, HTTP, FTP,
> SMTP, POP3
> Supply voltage range: 3.2 ... 4.5 V
> Charging control for Lithium batteries
> Temperature range -40 °C to +85 °C
  > Protection switch off
> Dimensions: 33.9 × 45 × 3.3 mm
> Weight: approx. 8.5 g

SPECIFICATION

> EDGE class 12 data rates (AC75i)
  DL: max. 236.8 kbps, UL: max. 236.8 kbps
  Mobile station class B
  Modulation and coding scheme MCS 1-9
> GPRS class 12
  DL: max. 86 kbps, UL: max. 86kbps
  Mobile station class B
  PBCCH support
  Coding schemes CS 1-4
> CSD Data Transmission up to 14.4 kbps, V.110,
  non-transparent
> USSD support
> Voice specification:
  Triple-rate codec for HR, FR, and EFR.
  Adaptive multi-rate AMR.
  Enhanced hands-free operation according to VDA
  Echo cancellation, noise suppression, DTMF

> Fax Group 3, Class 1
> Over-the-air Update
  Application SW: OTAP
  Firmware: FOTA
> SMS Specifications:
  Point-to-point MO and MT
  SMS cell broadcast
  SMS over GPRS or CSD
  SMS text and PDU mode

JAVA™ FEATURES (AC65i)

> CLDC HotSpot™ Implementation 1.1.2
> Java ME™ profile IMP-NG
> Secure data transmission with HTTPS and PKI

> Improved power-saving modes
> Multi-threading
> On-device-debugging

SPECIAL AUTOMOTIVE FEATURES

> Prepared for European eCall
> SIM Access Profile integrated
> RLS monitoring (e.g. for jamming detection)
> Advanced temperature management
> Measurement of module temperature
> Antenna diagnostic (up to 2 ext. antennas)
> Emergency call at high temperature
> IMDS listed & GASDL compliant
> TS16949 development and manufacturing
> RIL software for Microsoft® Windows
  Mobile™ based devices

INTERFACES

> Rosenberger SMP 50 Ω antenna connector
  for automotive environment
> Antenna pad for contact springs
> 80-pin board-to-board connector
  > Power supply
  > Audio: 2 × analog, 1 × digital (PCM)
  > 2 × serial interfaces (ITU-T V.24 protocol,
  > up to 921 kbps)
  > USB 2.0 full speed
  > SIM card interface 3 V, 1.8 V
  > I²C bus and SPI bus
  > ADC input
  > DAC output with PWM
  > Multiple dedicated GPIOs

DRIVERS

> Multiplexer driver for Microsoft® Windows

APPROVALS

> R&TTE, FCC, UL, IC, GCF, PTCRB,
  e-mark, CE
> Local approvals and network operator certifications

For more information, please visit
m2m.gemalto.com, www.facebook.com/gemalto, or Follow @gemaltom2m on twitter.

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