

## AGS3



Quad-Band



RLS  
Monitoring



Universal SIM  
Interface



TCP/IP



SIM Access  
Profile



Industrial  
Interfaces



GPRS  
Class 12



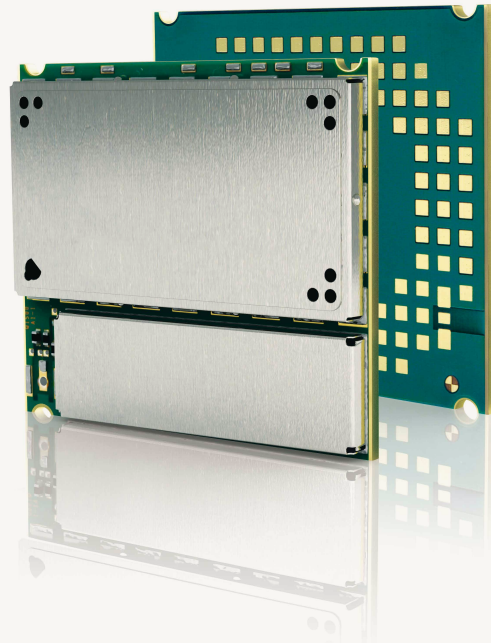
USB



Antenna  
Diagnostics



Advanced  
Temperature  
Management



# AUTOMOTIVE

Cinterion® AGS3 Wireless Module

Highest Reliability and Quality for Automotive Applications  
with Leading Edge LGA Technology

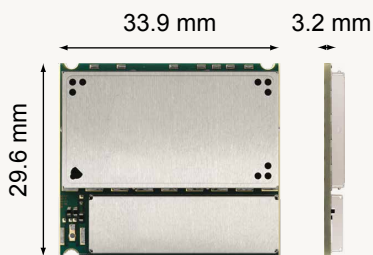
# Cinterion® AGS3 Wireless Module

## Highest Reliability and Quality for Automotive Applications with Leading Edge LGA Technology

Cinterion has a long history of successful products for automotive applications. The Cinterion 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, Cinterion offers a broad range of support packages and a full life cycle service concept.

The AGS3 represents the latest member of the 6<sup>th</sup> generation of dedicated automotive grade modules – now solderable with leading edge LGA technology. Offering advanced telematics features, the AGS3 is the perfect basis for automotive and ITS applications like toll collect, telematics, fleet management, as well as breakdown or roadside assistance.

### Highest Reliability and Quality for Automotive Applications with Leading Edge LGA Technology



#### LGA Benefits

Land grid array, or LGA, is a surface-mount technology for fully automated manufacturing allowing to benefit from efficiency and process consistency. Cinterion's unique type of LGA technology was designed with focus on highest reliability and flexibility and to meet the demanding requirements of automotive and M2M application manufacturers.

#### Cinterion's LGA Features Include

- > A unique layout for superior heat dissipation preventing warpage effects
- > Customizable soldering process providing highest flexibility in selecting the most beneficial soldering paste for each individual application
- > Optimized pad size and layout enables customer specific overprinting assuring high quality production

#### 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® AGS3 Features

### 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 & GADSL compliant
- > TS16949 development and manufacturing
- > e-marking

## GENERAL FEATURES

- > Quad-Band  
GSM 850/900/1800/1900 MHz
- > 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
- > USSD support
- > Supply voltage range: 3.2 – 4.5 V
- > Improved power-saving modes
- > Charging control for Lithium batteries
- > Operational temperature range: -40 °C to +85 °C
  - > Protection switch off
- > Dimensions: 33.9 × 29.6 × 3.2 mm
- > Weight: approx. 5.5 g
- > RoHS and EuP compliant

## SPECIFICATION

- > GPRS class 12  
DL: max. 86 kbps, UL: max 86kbps  
Mobile station class B  
PBCCCH support  
Coding schemes CS 1-4  
PPP-stack for GPRS data transfer
- > CSD Data Transmission up to 14.4 kbps, V.110,  
non-transparent
- > 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
- > SMS Specifications:
  - > Point-to-point MO and MT
  - > SMS cell broadcast
  - > SMS over GPRS or CSD
  - > SMS text and PDU mode
- > Fax Group 3, Class 1
- > ARM9™ processor

## SPECIAL FEATURES

- > Firmware update via serial interface
- > Real time clock with alarm functionality

## INTERFACES (LGA PADS)

- > Antenna 50 Ω solder pad
- > 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
- > I<sup>2</sup>C bus and SPI bus

## DRIVERS

- > Multiplex driver according 3GPP 27.010 for  
Microsoft® Windows XP™, Windows Vista™  
and Windows 7™

## APPROVALS

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

## DELIVERY UNIT

- > 2 reels per package
- > 300 modules per reel

**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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