MC55i

Quad-Band

Highly Compact Size

GPRS Class 10

RIL Driver

TCP/IP Connectivity

FAX Functionality

2G

Cinterion® MC55i Wireless Module
Quad-Band Miniaturized

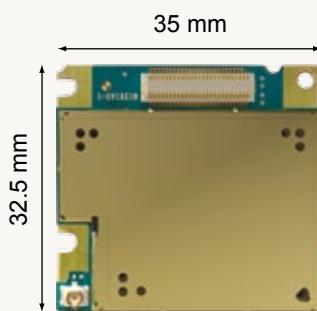# Cinterion® MC55i Wireless Module
Quad-Band Miniaturized

Following up the successful MC55/56 wireless modules, the MC55i offers improved functionality while remaining compatible with its predecessor. Alongside highest reliability and quality the new MC55i comes with an optimized feature set.

This module packs a Quad-Band GSM/GPRS baseband and TCP/IP connectivity based on GPRS Class 10 data transmission into a very small form factor. Featuring an even more stable but still compatible mount, full shielding, and small size, it brings the benefits of utmost flexibility and robustness to your development efforts.

On top of all this, the MC55i offers a RIL driver for Microsoft® Windows Mobile™ 6-based devices. Equipped with this driver, powerful communication features and interfaces, and an ingenious mounting concept, the MC55i is your all-rounder of choice for machine-to-machine and mobile computing, including metering, security, vending, POS, PCMCIA cards, laptops, and many more applications.

Like all Cinterion modules, the MC55i comes with full type approval (FTA) enabling use across the globe. It has even been certified by the largest carriers worldwide, including US operators.

Quad-Band Miniaturized

35 mm

32.5 mm

RIL driver
A Radio Interface Layer (RIL) is a layer in an operating system which provides an interface to the hardware's radio and modem on e.g. a mobile phone. Cinterion wireless module RIL source code is available for both Android and Windows Mobile.

Quad band
In telecommunications, the terms multi-band, dual-band, tri-band, quad-band and penta-band refer to a device (especially a mobile phone) supporting multiple frequencies used for communication. In the mobile case, the purpose of doing so is to support roaming between different countries/regions whose infrastructure cannot support mobile services in the same frequency range.

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® MC55i Features

GENERAL FEATURES

- Quad-Band GSM
  850 / 900 / 1800 / 1900 MHz
- GPRS multi-slot class 10
- Compliant to GSM phase 2/2+
- Output power:
  - Class 4 (2 W) for EGSM850
  - Class 4 (2 W) for EGSM900
  - Class 1 (1 W) for GSM1800
  - Class 1 (1 W) for GSM1900
- Control via AT commands
  (Hayes 3GPP TS 27.007, TS 27.005)
- SIM Application Toolkit
- TCP/IP stack access via AT commands
- Internet Services: TCP Server/Client, UDP,
  HTTP, FTP, SMTP, POP3

- Supply voltage range: 3.3 ... 4.8 V
  - Power consumption typically:
  - Power down: 50 µA
  - Sleep mode
  (fully registered DRX = 9): 2.5 mA
  - Speech mode (850/900MHz): 260 mA
  - GPRS class 10 (850/900MHz): 450 mA
- Operating Temperature Range:
  - -40 °C to +70 °C
  - Protective shutdown
  - Storage: -40 °C to +85 °C
- Dimensions: 35 × 32.5 × 2.95 mm
  (incl. B-to-B-Connector: 3.1 mm)
- Weight: 5.5 g

SPECIFICATIONS

- GPRS class 10: max. 86 kbps (DL)
- Mobile station class B
- PBCCH support
- Coding schemes CS 1-4
- CSD Data Transmission Up to 14.4 kbps, V.110,
  Non-transparent mode
- USSD support
- Fax Group 3, class 2 and class 1

- SMS text and PDU mode, cell broadcast
- Voice
  - Triple-rate codec for HR, FR, and EFR
  - Adaptive multi-rate AMR
  - Basic hands-free operation
  - Echo cancellation
  - Noise reduction

SPECIAL FEATURES

- Customer IMEI as variant

INTERFACES

- 50-pin board-to-board connector
  - Power supply
  - Audio: 1 x analog, 1 x digital
  - SIM card interface 1.8 V, 3 V
  - 2 × serial interface (ITU-T V.24 protocol)

- U.FL-R-SMT 50 Ω antenna connector
- Antenna solder pad

DRIVERS

- RIL driver for Microsoft® Windows
  Mobile™ based devices
- Multiplex driver for Microsoft® Windows XP™,
  and Microsoft® Windows Vista™

APPROVALS

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

For more information, please visit
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