

MC55i-W



Quad-Band



Highly
Compact Size



GPRS
Class 10



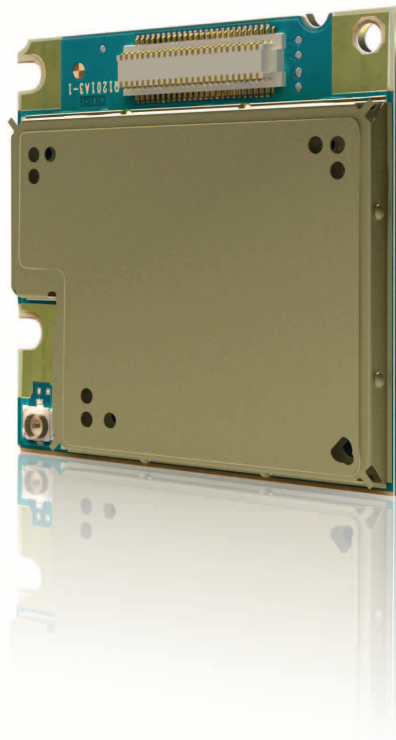
RIL Driver



TCP/IP
Connectivity



FAX Functionality



Cinterion MC55i-W Quad-Band Miniaturized

Following up the successful MC55i wireless module, the new MC55i-W offers improved functionality while remaining compatible with its predecessor and enable an extended life cycle for customers application.

Alongside highest reliability and quality the module is based on the latest generation of 2G products offering Quad-Band, full voice capabilities and high speed GPRS class 10 data transmission and is your all-rounder of choice for board-to-board designs in machine-to-machine communication including metering, security, vending, POS and many more applications.

MC55i-W offers improved features such as a significantly reduced power consumption, an extended temperature range and the new tunneling mode. This mode allows to simplify the direct link of Near Field Communication (NFC) devices, sensors or GPS receivers to the micro controller of the host application, helping to lower the total cost of ownership for implementers.

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

MC55i-W

General Features

- Quad-Band GSM
850/900/1800/1900 MHz
- 3GPP Release 99
- 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: 45 μ A
 - Sleep mode
(fully registered DRX = 9): 1.3 mA
 - Speech mode (850/900MHz): 180 mA
 - GPRS class 10 (850/900MHz): 230 mA
- Operating Temperature Range:
 - -40°C to +85°C
 - Protective shutdown
 - Storage: -40°C to +85°C
- Dimensions: 35 x 32.5 x 2.95 mm
(incl. B-to-B-Connector: 3.1 mm)
- Weight: 5.5 g

Specification for GPRS Data Transmission

- GPRS class 10: max. 86 kbps (DL)
- Mobile station class B
- PBCCH support
- Coding schemes CS 1-4

Specification for CSD Data Transmission

- Up to 14.4 kbps
- V.110
- Non-transparent mode
- USSD support

Specification for SMS

- Point-to-point MO and MT
- SMS cell broadcast
- Text and PDU mode

Specification for Voice

- Triple-rate codec for HR, FR, and EFR
- Adaptive multi-rate AMR
- Basic hands-free operation
- Echo cancellation
- Noise reduction

Specification for Fax

- Group 3, class 2 and class 1

Special Features

- RIL driver for Microsoft® Windows Mobile™ based devices
- Multiplex driver for Microsoft® Windows XP™, Windows 7 and Microsoft® Windows Vista™
- Customer IMEI as variant

Interfaces

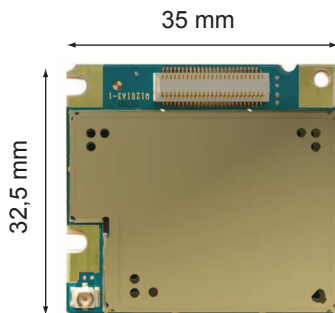
- U.FL-R-SMT 50 Ω antenna connector
- Antenna solder pad
- 50-pin board-to-board connector
 - Power supply
 - Audio: 1 x analog, 1 x digital
 - SIM card interface 1.8 V, 3 V
 - 2 x serial interface (ITU-T V.24 protocol)

Approvals

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

For detailed specification please see hardware interface description.

Quad-Band Miniaturized



Tunneling mode

A smart way that allows the microcontroller to control any device that has a serial interface like GPS receiver or NFC device through the module and enable transparent communication.

Software stack based on 3GPP Release 99

Update of GSM standard. Release '99 introduces higher speed data transmission using Enhanced Data Rates for GSM Evolution (EDGE) to improve network stability.



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

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