

The scalable platform that fits all your needs



MC75i, TC65i, and TC63i Wireless Modules

EDGE, GPRS, GSM, Java™, optimized size and performance (with an ARM9 processor), RLS Monitor (Jamming Detection) – these are just a few of the features offered by the MC75i, TC65i, and TC63i. Apart from the difference in lengths, the new platform's modules are compatible with the MC75, TC65, and TC63 modules. The three new modules share the same technology platform offering Quad-Band GSM, TCP/IP functionality, and M2M interfaces such as a serial or I²C bus. They also share the same size, mounting arrangement,

and command set, ensuring full compatibility. Designed to satisfy the needs of different M2M applications such as metering, security, and remote maintenance and control, each module's focus varies in terms of data transmission speed and the Java™ open platform. The feature rich platform affords you great flexibility, enabling you to respond to changing

demands simply by switching to another of the platform's modules. The hallmarks of this new platform include optimized performance, miniaturized dimensions, and enriched features. And with all this, it offers three topdrawer modules today that are ready to satisfy tomorrow's demands.



Quad-Band



TCP/IP



EDGE Class 12



Industrial Interfaces



GPRS Class 12



USB



JAVA™



RIL Driver



Powerful Processor
Large Memory



SIM Access
Profile



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MC75i Wireless Module – EDGE up your business

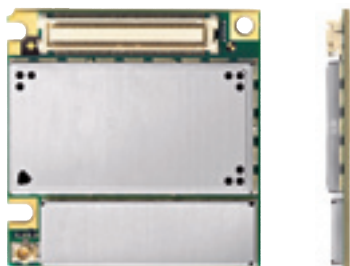
EDGE, short for Enhanced Data rates for GSM Evolution, is the fastest transmission standard in GSM networks. The MC75i lets you apply this technology wherever you wish to transmit certain data. Alongside this core technology, the MC75i comes with a TCP/IP stack, serial and USB ports, and a RIL driver for Microsoft® Windows Mobile™- based devices.

TC65i Wireless Module – The M2M application platform

At the heart of the TC65i is the Java™ Virtual Machine, making it a high-performance, open-platform module. The powerful Java™ platform runs on the embedded hardware, like the ARM9 processor and the memory which is tuned and aligned to it. The TC65i leverages this platform-and-processor combination alongside GPRS technology, a TCP-IP stack, and an array of industrial interfaces such as SPI, I²C bus, AD/DA converter, and GPIOs to speed up time to market and cut development costs.

TC63i Wireless Module – Top-of-the-scale M2M connectivity

The TC63i features GPRS class-12 functionality, an integrated TCP/IP stack, and comes without the onboard software developer platform. This makes it the perfect choice for M2M applications where a microcontroller is already available and only a high-performance wireless communications connection is needed. Rounding out the product platform, the TC63i embodies the grow-as-you-go benefits of this triple-module package: You can use it to satisfy basic GPRS needs, and as demand for EDGE technology grows, switch to the MC75i without investing money to redevelop the application.



Like all Cinterion modules, the MC75i, TC65i, and TC63i come with full type approval (FTA). They have also been approved by major network carriers around the world, including US operators.

*Global thinking,
local understanding.*



U.K. ← Football → USA

Here, there and everywhere

Global but local – Cinterion lives up to this motto! Not only are we present locally but we are also able to open up amazing global business perspectives for you! Find the details of your local Cinterion contact partner here: www.cinterion.com

Technical Support

Our application engineers support you from the design-in phase over the integration of the module into the application to the certification process.

We protect your business

Profit from our strong Intellectual Property Rights position (IPR) – guarded by our legal professionalism you secure the fruits of your business effort.

	MC75i	TC65i	TC63i
General features			
Quad-Band GSM 850/900/1800/1900 MHz	•	•	•
EDGE (E-GPRS) multi-slot class 12	•		
GPRS multi-slot class 12	•	•	•
GSM release 99	•	•	•
Output power			
- Class 4 (2W) 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 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			
- Normal Operation: -30°C to +65°C	•	•	•
- Restricted Operation: -40°C to +75°C	•	•	•
- Switch off: +80°C	•	•	•
- Storage: -40°C to +85°C	•	•	•
Dimensions: 33,9 x 35 x 3,3 mm	•	•	•
Weight: 7.5 g	•	•	•
Specification for EDGE data transmission			
EDGE class 12: max. 236.8 kbps (DL and UL)	•		
Mobile station class B	•		
Modulation and coding schemes MCS 1-9	•		
Specification for GPRS data transmission			
GPRS class 12: max. 86 kbps (DL and UL)	•	•	•
Mobile station class B	•	•	•
PBCCCH 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 fax			
Group 3, class 1	•	•	•
Specification for voice			
Triple-rate codec for HR, FR, and EFR	•	•	•
Adaptive multi-rate AMR	•	•	•
Basic hands-free operation	•	•	•
Echo cancellation	•	•	•
Noise reduction	•	•	•

	MC75i	TC65i	TC63i
Java™ features			
CLDC 1.1 HI		•	
Java™ profile IMP-NG		•	
Secure data transmission with HTTPS, SSL, and PKI		•	
Open application resources			
ARM9® Core, Blackfin® DSP		•	
Memory: 400 KB (RAM) and 1.7 MB (Flash)		•	
Improved power-saving modes		•	
Over-the-air update			
Application SW: OTAP		•	
Firmware: FOTA		•	
Special features			
RIL driver for Microsoft® Windows Mobile™ based devices	•		
Multiplex driver for Microsoft® Windows Mobile™	•		
Multiplex driver for Microsoft® Windows XP™ and Vista™	•	•	•
Character framing 7E1 and 8E1 at serial interface	•	•	•
Programmable module reset	•	•	•
SIM Access Profile integrated	•	•	•
RLS Monitor (Jamming Detection)	•	•	•
Interfaces			
Hirose U.FL-R-SMT 50 Ω antenna connector	•	•	•
Antenna solder pad	•	•	•
Molex 80-pin board-to-board connector	•	•	•
- Power supply	•	•	•
- Audio: 2 x analog, 1 x digital	•	•	•
- 2 x serial interfaces (ITU-T V.24 protocol)	•	•	•
- USB 2.0 full speed	•	•	•
- SIM card interface 3 V, 1.8 V	•	•	•
- I²C bus	•	•	•
- SPI bus	•	•	•
- 2 x analog in (ADC)		•	
- 1 x analog out (PWM)		•	
- Multiple GPIOs		•	
Approvals			
R&TTE, FCC, UL, IC, GCF, PTCRB, CE	•	•	•
Local approvals and network operator certifications	•	•	•

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Further information about our
products and services is also accessible
via www.cinterion.com

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