

## GENERAL DESCRIPTION

>> F2M03GLA is a Low power embedded Bluetooth™ v2.0+EDR module with built-in high output antenna. The module is a fully Bluetooth™ compliant device for data and voice communication. With a transmit power of up to +8dBm and receiver sensibility of down to -83dBm combined with low power consumption the F2M03GLA is suitable for the most demanding applications. Developers can easily implement a wireless solution into their product even with limited knowledge in Bluetooth™ and RF. The module is fully Bluetooth™ v2.0+EDR qualified and it is certified according to CE and FCC, which give fast and easy Plug-and-Go implementation and short time to market.

>> The F2M03GLA comes with an on board highly efficient omni-directional antenna that simplifies the integration for a developers Bluetooth™ solution. The high output power combined with the low power consumption makes this module ideal for handheld applications and other battery powered devices.

>> F2M03GLA can be delivered with the exceedingly reliable and powerful easy-to-use Wireless UART firmware implementing the Bluetooth™ Serial Port Profile (SPP). All information sent to the serial interface is transmitted transparently via Bluetooth™ to the connected remote device. F2M03GLA is also available with a HCI firmware. Customized solutions with the additional profiles; HSP, HFP, DUN, OPP or HID can be delivered.

## APPLICATIONS

- >> Industrial and domestic appliances
- >> Cable replacement
- >> Medical systems
- >> Automotive applications
- >> Stand-alone sensors
- >> Embedded systems
- >> Cordless headsets
- >> Computer peripherals (Mice, Keyboard, USB dongles, etc.)
- >> Handheld, laptop and desktop computers
- >> Mobile phones



## KEY FEATURES

- >> Fully qualified end product with Bluetooth™ v2.0+EDR, CE and FCC
- >> Low power consumption
- >> Integrated high output antenna
- >> Transmit power up to +8dBm
- >> Range up to 250m (line of sight)
- >> Piconet and Scatternet capability, support for up to 7 slaves
- >> Require only few external components
- >> Industrial temperature range -40°C to +85°C
- >> Enhanced Data Rate (EDR) compliant with v2.0.E.2 of specification for both 2Mbps and 3Mbps modulation modes
- >> USB v2.0 compliant
- >> Serial interface up to 4Mbps
- >> Extensive digital and analog I/O interface
- >> PCM interface for up to 3 simultaneous voice channels
- >> Large external memory for custom applications
- >> Support many Bluetooth™ profiles
- >> Support for 802.11b/g Co-Existence
- >> RoHS compliant

## TECHNICAL DETAILS

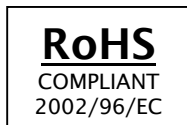
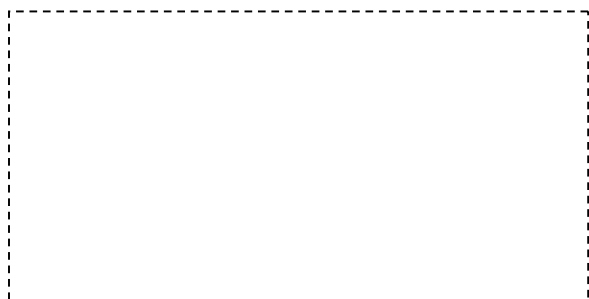
### HARDWARE

- >> Bluetooth™ Class 1 radio
  - > Nominal transmit power: +8dBm
  - > Nominal sensitivity: -83dBm
  - > Frequency: 2.4GHz ISM band
  - > Chipset: CSR BC4-EXT
- >> Integrated high output antenna
- >> External 8Mbit Flash for complete system solution
- >> 10 digital and two 8bit analog I/O
- >> UART or USB host processor interface
- >> Optional I<sup>2</sup>C compatible interface
- >> Full speed USB v1.1 interface supports OHCI and UHCI host interfaces. Compliant with USB v2.0
- >> Serial interface of up to 4Mbps
- >> 13-bit PCM interface for Audio applications
- >> Operating temperature: -40°C to +85°C
- >> Physical size (LxWxH) [mm]: 28.5x15.2x2.0
- >> Weight: 1.2g
- >> Supply voltage: regulated 3.1-3.6 VDC

### CONTACT INFORMATION

- >> Please find your local distributor below or visit [www.free2move.net](http://www.free2move.net) to find a distributor in your country for further information about our products.

Your distributor:



### FIRMWARE

- >> Standard: Wireless UART compliant with the Serial Port Profile (SPP) with an easy to use command interface or HCI with USB-interface
- >> Customized: HSP, HFP, DUN, OPP or HID

### CLASSIFICATIONS

- >> Bluetooth™ v2.0+EDR
- >> RoHS compliant
- >> CE and FCC

### ORDER INFORMATION

- >> Standard modules:
  - > F2M03GLA-S01 (Wireless UART; SPP)
  - > F2M03GLA-S04 (HCI with USB-interface)
- >> Evaluation kit:
  - > F2M03GLA-KIT-YY (Wireless UART; SPP)
  - YY- Product code (01-Single Kit, 02-Dual Kit)
- >> Related products:
  - > F2M03GX Extended range module with U.FL-connector
  - > F2M03GXA Extended range module with antenna
  - > F2M03MLA Multimedia low power module with antenna

### PRODUCT CODES

