



SmartModules

Offer the best competitive advantage
to your wireless products



Quick integration of Bluetooth® Wireless Technology

Adaptable to a large number of electronic devices

Baracoda SmartModules are:

- a hardware platform
- plus an embedded software
- plus a connection manager

together with the unique experience of
Baracoda in Bluetooth management



Unique, Innovative and reliable solution

AT Blue set of commands

Reduced R&D expenses



Technical Specifications



Class 1 (100 meters range)

This platform is based on a RISC 16-bits microprocessor.

Protocol

- o Protocol: Bluetooth® 1.2
- o Output power: 17dBm max. (Class1)
- o Antenna gain: +2.14 dBi (max)
- o Carrier Frequency: 2.4GHz – 2.4835GHz (ISM)
- o Modulation: GFSK, 1Mbps, 0.5BT Gaussian
- o Receive sensitivity -80dBm typ.

Processing power

- o Processor: RISC 16-bits
- o Flash: 8Mbit
- o RAM: 32kb

Power consumption

- o Peak current: 200mA max.
- o Deep sleep mode: 30µA
- o Voltage operation: VDD 3.3V (3.2V to 3.4V)

Environment

- o Operating Temperature: -40° C to +85° C (233.15°K to 358.15°K)
- o Storage Temperature: -40° C to +85° C (233.15°K to 358.15°K)
- o Dimensions with antenna: 24.8*13.2*2.05 mm

Regulatory

- o Bluetooth® pre-qualified

Class 2 (15 meters range)

This platform is based on a RISC 16-bits microprocessor.

Protocol

- o Protocol: Bluetooth® 1.2
- o Output power: 4dBm typ. (Class2)
- o Antenna gain: +2.14dBi (max)
- o Carrier Frequency: 2.4GHz – 2.4835GHz (ISM)
- o Modulation: GFSK, 1Mbps, 0.5BT Gaussian
- o Receive sensitivity -80dBm typ.

Processing power

- o Processor: RISC 16-bits
- o Flash: 8Mbits
- o RAM: 32kb

Power consumption

- o Peak current: 80mA
- o Deep sleep mode: 30µA
- o Current @ 1kbit/s: 0.8mA (typical)
- o Current @ 10kbit/s: 4mA (typical)
- o Current @ 100kbit/s: 18mA (typical)
- o Current @ 720kbit/s: 67mA (typical)
- o Voltage operation: VDD1 1.8V+/-0.1V
VDD2 : 2.8~3.4V
VDD3 : 1.7~3.4V

Environment

- o Operating Temperature: -40° C to +70° C (233.15°K to 343.15°K)
- o Storage Temperature: -40° C to +85° C (233.15°K to 358.15°K)

Regulatory

- o Bluetooth® pre-qualified.

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