Blue Topaz Adapter Board

Bluetooth Blue Topaz Adapter Board

SMART Modular Technologies' 70147 "Blue Topaz" adapter board is designed to help OEM/ODM integrators to evaluate, develop and test product based on SMART's Bluetooth® enabled ¨Mini-Module (90147) at the Radio & HCI level. Targeted to address applications in the computing, medical, and industrial markets, the Blue Topaz adapter board has been designed to allow developers to focus on their core expertise rather than designing Bluetooth modules. The adapter board is provided as a part of a Bluetooth enabled developer kit created and offered by SMART.

The "Blue Topaz" Bluetooth adapter is a class II device compliant with Bluetooth specification 1.1. It features 8Mb of flash memory for firmware upgrade via UART, USB, or SPI interfaces. The Blue Topaz adapter board has dimensions of 53.5mm x 55.88mm x 13mm and is offered in three versions: USB, UART up to the HCI level, and UART with SPP profile pre-loaded. With a typical output power of +3dBm (typical) using an external antenna, the Blue Topaz offers receiver sensitivity about –82dBm, and the RF performance of the board is within +/-1 dB under the temperature range of –20°C to +95°C.

The board has three different connectors: DB-9 female connectors for RS232 access, DB-25 Male connector for development mode access, and USB connector for USB connectivity. The board can be powered using a USB cable, or by supplying any DC power in the range of 4-12 volts with a required current of about 80mA. This development platform provides OEM/ODM customers the opportunity to optimize their Bluetooth design application, enhance performance and interoperability.

SMART Modular Technologies, Inc. is a wholly owned operating company within Solectron Corporation's (NYSE: SLR) Technology Solutions Business Unit. SMART, a leading independent manufacturer of memory and communication sub-systems offers more than 500 products to premier OEMs in the computer, networking and telecommunications industries. Through its relationship to Solectron, SMART offers customers competitive outsourcing advantages, such as access to advanced manufacturing technologies, shortened product time-to-market, reduced total cost of ownership and more effective asset utilization.

SMART Modular Technologies Communications Products Division (CPD) has extensive experience & focus upon leading-edge, client-side personal communication sub-systems for wireless and wired Personal Area, Local Area and Wide-Area Networks.

FEATURES

- Class II device
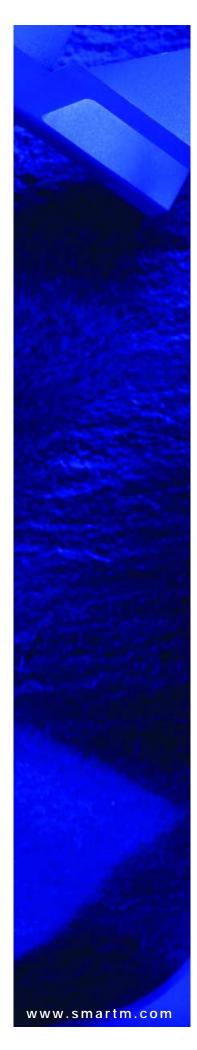
- Fully compliant with Bluetooth specification v1.1

- Full speed HCI UART

- USB v1.1 compliant and USB2.0 compatible

- Size : 53.5mm*55.88mm*13mm

- Serial Peripheral Interface (SPI)

- Full speed Bluetooth™ operation

- Full speed USB interface supports OHCI and UHCI host interface

- Full piconet support

- 8Mbit external Flash

- Firmware upgradeable via UART, USB or SPI interface

- Temperature range: -20°C to +85°C

- 4-12Volt DC

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Specifications

General
- Bluetooth Specification 1.1 compliant
- Power Requirement
    - 4-12V DC (±5%) regulated voltage (or)
    - 80mA

Radio
- Frequency Range: 2.402 - 2.480Ghz
- Transmit Power (T_x): +3dBm (typical)
- Receiver Sensitivity (R_x): Better than -82dBm @ 0.1% BER.
- Range: up to 30 meters

Antenna
- Onboard SMA connector for 50Ω RF Antenna connection

Temperature
- Operating temperature: -20°C to +95°C
- Storage temperature: -40°C to +150°C

Interfaces
- Full speed HCI UART
- USB v1.1 compliant, USB2.0 compatible
- Serial Peripheral Interface (SPI)

SMART Kit Part Number
- STBTIOBJWWPASSM:
  USB with HCI stack only
- STBTIOBKWWPASSM:
  UART with HCI stack only
- STBTIOBLWWPASSM:
  UART with SPP profile

Kit Contents
- Antenna
- Bluetooth Adapter Board
- SMART Modular USB Bluetooth Adaptor Dongle
- Power Supply
- CD (Documentation, SW tools (UART) and Drivers (USB))
- 6 feet cable (USB cable for USB kit, or DB9 cable for UART kit)

Block Diagram-Bluetooth Mini Module

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04-19-03/Mini-Module90147-x/Rev.2