Adamya Technologies Inc.

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Bluetooth Printer Card

Product Data sheet

Adamya Bluetooth Printing Solution

Product Features

- Plug and Play solution on both Host and Printer side
- Entire printer card solution embedded into the flashable ROM provided in the 8051 microcontroller
- Based on the Bluetooth™ protocol stack and HCRP (Hard Copy Cable Replacement Profile) defined by Bluetooth SIG ver 1.1
- Solution application uses C-Blue™, the smallest Bluetooth protocol stack from Adamya
- Generic UART based interface for any BaseBand
- Fully compatible with SPP mode parallel port
- Works with legacy printers, like dot matrix printers, with Centronics interface
- Tested with latest printers available in the market from HP, EPSON, Fujitsu, OKI, NEC, Canon, etc
- Supports all printers that work in SPP mode
- Supports higher printing rate
- Draws power from the parallel port (if printer provides)

Product Description

The Bluetooth Printing Solution provides a low cost, short-range wireless solution for printing documents from any device that is / can be Bluetooth enabled.

The solution is purely a plug-and-play solution. You can connect the printer card to any legacy printer having a parallel port and send print requests to the printer from any Bluetooth enabled device.

The solution includes a single printer card with a 36-pin centronics parallel port connector and necessary software for the PC/laptop to send print requests.

The printer card is designed to draw power directly from the Centronics parallel port. This feature depends on the printer to support power draw from its parallel port. In cases where the printers do not provide the power, external power source has to be used. The printer card comes with an external power jack.

The Printer card provides HCRP based printing solutions and has been interoperated with other HCRP solutions in UPF 8.0 held in Sandiago, US, during May 27-31, 2002

Takes about 2 seconds to initialize after powering ON.

Bluetooth Printer Card

Technical Specifications

- Based on 8051 micro-controller from Cygnal
- Uses 3.3 V power with on-board regulator to guard against spurious supplies
- Interrupt controlled data transfer
- HCRP integrated with application
- 2 layer PCB card
- Works with any Centronix printer that supports SPP mode

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Bluetooth Printer Card

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Main Components

Sl. No	Component Description	Quantity
01	OKI Bluetooth Baseband Module	01
02	OKI Bluetooth Baseband Module Connector from Panasonic	01
03	36 pin centronics connector	01
04	8051 processor from Cygnal	01
05	24 Mhz crystal oscillator from Panasonic	01
06	3.3 V Voltage Regulator from Panasonic	01
07	LED's to indicate status	02
08	Diode for drawing power from parallel port	01
09	DC connector for drawing power from external source	01

Specification

Standard	Bluetooth 1.1 Specifications
Bluetooth Profile	Hard Copy Cable Replacement Profile
Operating frequency for Intel 8051	24 Mhz
RF-Wireless Frequency	2400 ~ 2483.5 MHz
Transmitter Power	Power class 2
Interface Type for Bluetooth	Serial
Power Supply	3.3v external power supply
Range	Up to 10 meters
Dimensions	70mm x 60mm

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Bluetooth Protocol Stack

- C-Blue™, the smallest Bluetooth Protocol Stack, conforming to Bluetooth specification 1.1
- C-Blue™ is ANSI 'C' Compatible
- C-Blue™ includes HCI, L2CAP, RFCOMM, SDP and TCS layers and GAP, SDAP and SPP profiles of Bluetooth™
- C-BlueProf™, Adamya Bluetooth Profiles, includes OBEX, OPP, FTP, HSP, HCRP, DUN and FAX bluetooth profiles
- Compact, high performance, Real Time Operating System provided as part of C-Blue™, depending on specific requirement
- KAL (Kernel Abstraction Layer) abstracts all platform / processor / BaseBand specific functions / interfaces
- Complete stack, RTOS and KAL available as static libraries
- C-Blue™ provides configurable protocol stack data memory
- C-Blue™ and profiles are available on Microsoft Windows, Linux, DSP BIOS (from TI) and Embedded Linux platforms
- C-Blue™ and profiles are available on TI C-54x, Intel 8051, ARM7TDMI and other processors
- Specific Bluetooth solutions are available on PIC17 and MSP-430
- Solutions written using C-Blue™ have been interoperated with BaseBands from Ericsson, CSR, Inventel, Infineon, TI, OKI, Nokia Connectivity Card, Silicon Wave, etc
- Protocol stack also interoperated with software BaseBand CBlueBase™ from Adamya

Adamya Technologies

- Founded in 2000, based in Milpitas, CA, USA
- Technology Center in Bangalore, India
- Focus is on providing *Wireless Solutions on Chip*
- Excels in providing small footprint, low power, least BOM and smart solutions for embedded wireless domain
- Strategic tie-ups with OKI, TI, RFMD, Tensilica, etc
- Unique protocol stack, profiles and software BaseBand IPs in Bluetooth technology
- Bluetooth reference designs built for Printer card, PCMCIA card, Headset, Serial port dongle and PCMCIA Card using Software BaseBand

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