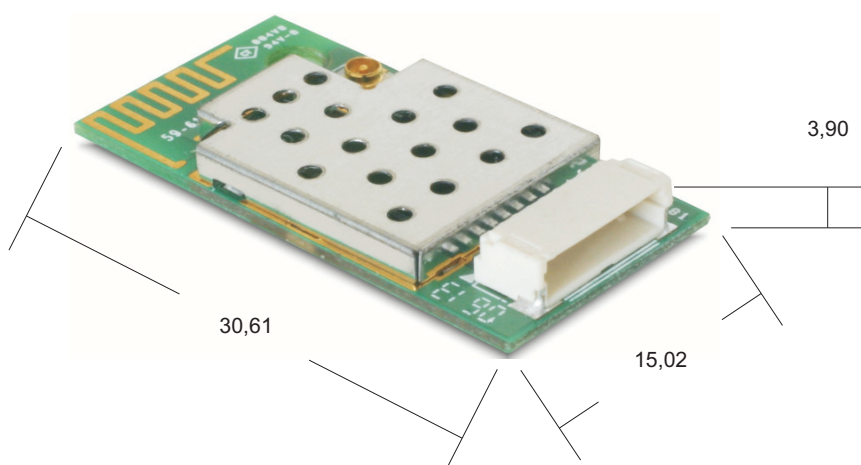


# Specification

## 95803

Delock industry Bluetooth 2.0 EDR USB 2.0 module



date: 24.02.2009

# Specification

## 95803

Delock industry Bluetooth 2.0 EDR USB 2.0 module

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# Specification

## 95803

Delock industry Bluetooth 2.0 EDR USB 2.0 module

### Device Overall Description

The 95803 is designed to provide Bluetooth2.0 + EDR function on a small form factor. The Bluetooth function is based on CSR BlueCore4-ROM Single Chip Bluetooth System, which implements the full speed class 2 Bluetooth operations with full 7 slave Piconet support. The interface of 95803 to host system is USB and full compliant with USB V1.1 and compatible with USB V2.0 Full Speed (12Mbps/s).

### Bluetooth Features

- CSR BlueCore4-ROM Single Chip Bluetooth System
- Bluetooth 2.0 + EDR support
- Full Speed Class 2 Bluetooth operation with full 7 slave Piconet support
- Full Speed USB interface compliant with USB V1.1 and compatible with USB V2.0
- Single onboard Antenna connector support
- Printed PCB antenna on board **(Optional)**

### Specification Compliance

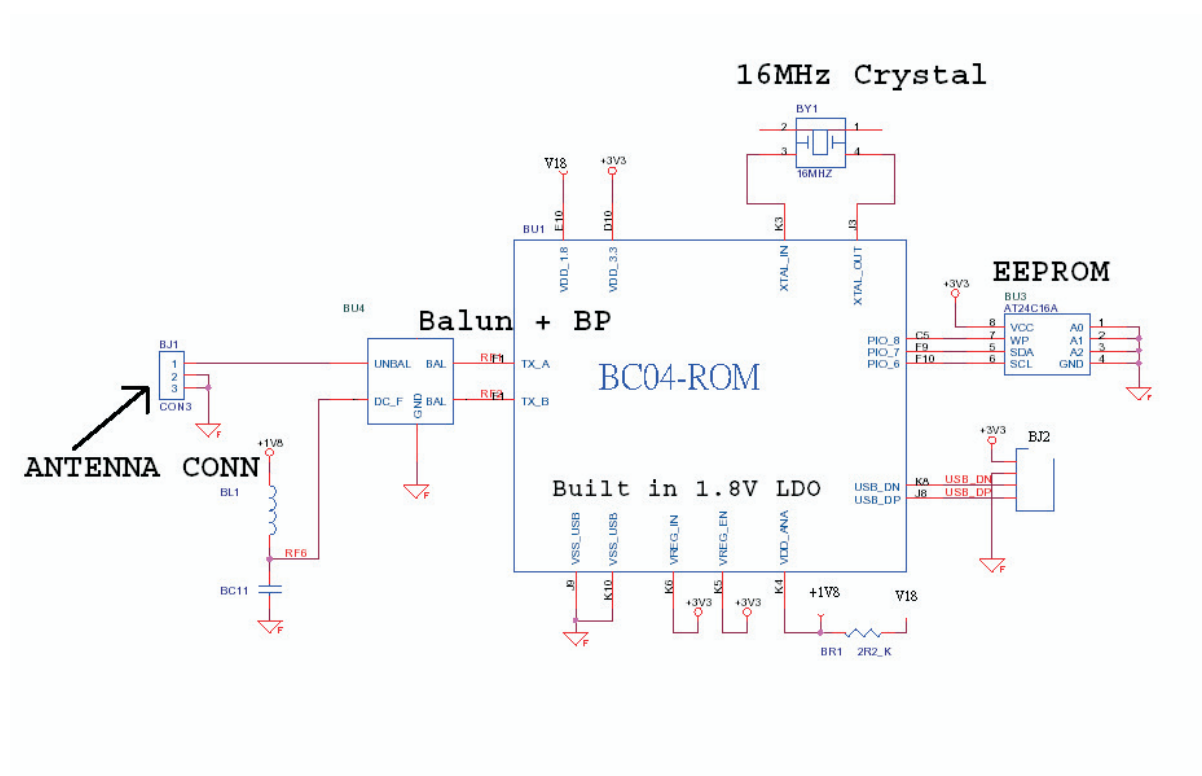
- Bluetooth Specification V1.1, V1.2, and V2.0 compliant.  
(Including Bluetooth Specification. Radio Specification. Core System Package Part A. Test Suite Structure (TSS) and Test Purposes (TP). System Specification 1.2/2.0/2.0 + EDR. Document Number RF. TS/2.0.E.2)
- USB Specification V1.1
- Compatible with USB V2.0 Full Speed (12Mbps/s)

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### Bluetooth block diagram



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### Modulation methods

FHSS ( frequency hopping spread spectrum ) defined in Bluetooth specification.

	data Rate	modulation scheme
basic data rate	1 Mbps	GFSK
enhanced data rate	2 Mbps	$\pi/4$ – DQPSK
	3 Mbps	8DPSK

### Channel assignment

country	freq. range	RF channel
Europe* & USA	2400~2483.5MHz	Freq. = 2402 + k MHz    k = 0~78
Japan	2400~2483.5MHz	Freq. = 2402 + k MHz    k = 0~78

### Bluetooth power consumption

electrical characteristics	minimum	typical	maximum	units
supply voltage	3	3,3	3,6	V
continuous RX supply current		64		mA
continuous TX supply current		43		mA
Idle mode		7		mA
Radio disable mode		7		mA

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### RF characteristics

RF characteristics	mini.	typ.	max.	SPEC requirement	units
antenna I/F impedance		50			ohms
ambient operating temperature rage	0		70		°C
storage temperature rage	-20		85		°C
supply voltage (3.3V only)	3	3	3,6		V
TX supply current (at 3.3V)		43			mA
RX supply current (at 3.3V)		64			mA
idle mode current		7			mA
basic rate RX sensitivity, 2402 Mhz		< -70		-70	dBm
basic rate RX sensitivity, 2441 MHz		< -70		-70	dBm
basic rate RX sensitivity, 2480 MHz		< -70		-70	dBm
EDR RX sensitivity, 2402 MHz		< -70		-70	dBm
EDR RX sensitivity, 2441 MHz		< -70		-70	dBm
EDR RX sensitivity, 2480 MHz		< -70		-70	dBm
TX Output power, 2402MHz		2		-6 ~ +4	dBm
TX Output power, 2441MHz		2		-6 ~ +4	dBm
TX Output power, 2480MHz		2		-6 ~ +4	dBm
initial carrier frequency tolerance	>-10		<10	-75	khz
carrier frequency drift, DH3 (01010101)	>-10		<10	40	khz
carrier frequency drift, DH5 (01010101)	>-10		<10	40	khz
carrier frequency drift rate, DH3 (01010101)	>-10		<10	20	khz
carrier frequency drift rate, DH5 (01010101)	>-10		<10	20	khz
modulation characteristics, Δf1 avg (DH1 ,00001111, kHz)		165		140~175	khz
modulation characteristics, Δf2 max (DH1 ,00001111, kHz)		180		>115	khz
modulation characteristics, Δf2 avg /Δf1 avg		1		>=0,8	khz
20 dB bandwidth			>900	1000	khz
TX output spectrum – frequency range (FL)	2401			2400	Mhz
TX output spectrum – frequency range (FH)				2483,5	Mhz
maximum input level		>-20		-20	dBm
EDR maximum input level		>-20		-20	dBm

# Specification

## 95803

Delock industry Bluetooth 2.0 EDR USB 2.0 module

### **Antenna connector**

- Antenna connector, one piece
- SMT ultra miniature coax connector, Hirose, CL331-0471-0-10 (U.FL-R-SMT) or compatible

### **Host interface connector**

- Connector: [ACES 87213-0800L](#)

### **Software & OS support**

- Linux (<http://www.bluez.org>)
- Windows XP SP2 native supported profiles - DUN, HCRP, HID, OPP, PAN-U and SPP
- 3rd party vendor support from IVT BlueSoleil (<http://www.bluesoleil.com/>),  
Included profiles – A2DP, AG, AV, BIP, DUN, FTP, HCRP, HID, LAP, OPP, PAN-GN, PAN-U, SPP, SYNC and HS.

**\*\* IVT Software supported Microsoft Vista and Microsoft Windows XP SP2.**

### **Regulation**

Depend on OEM customer requirement

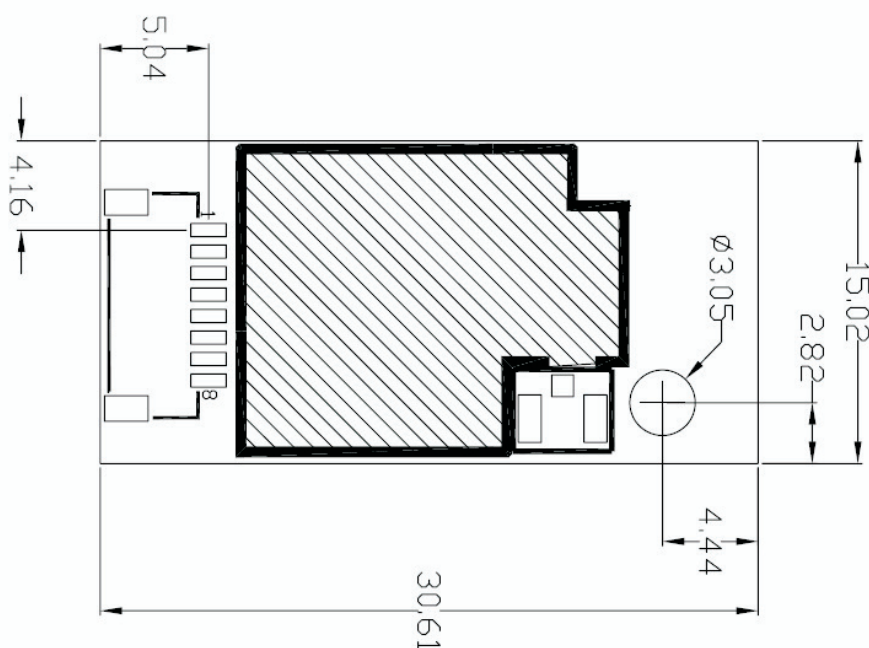
# Specification

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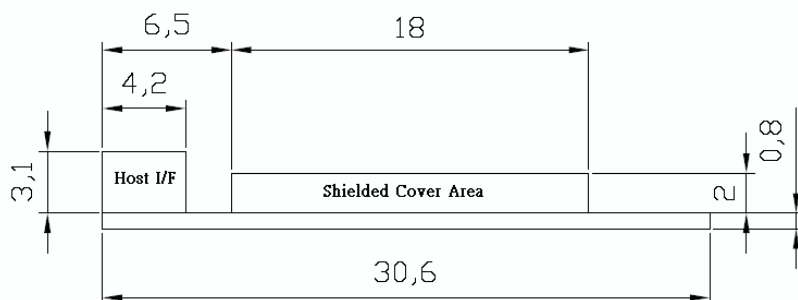
Delock industry Bluetooth 2.0 EDR USB 2.0 module

### Mechanical dimension

- 30.61mm x 15.02mm x 3.9mm (L x W x H) +- 0.15mm



- Component height (unit: mm)





# Specification

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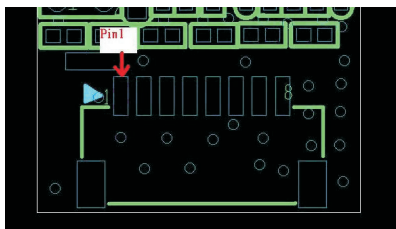
Delock industry Bluetooth 2.0 EDR USB 2.0 module

### Pinout and definition

Pin#	Signal name	Description
1	3,3V	Positive supply for whole module
2	GND	Ground pin
3	USB_D-	USB data minus
4	USB_D+	USB data plus
5	LED	BT activity LED indicator. active high to indicate the BT activity
6	Reserved	BT_Active
7	Reserved	WLAN_Active
8	BT_On#	Active low to enable BT radio function. High to disable radio function

**Pin1 position:**

**Connector:** [ACES 87213-0800L](#)



cable optional Delock A95844

