

# XAI-BTM1910AT1

BT-M1910-AT1 Bluetooth module

## **XAI-BTM1910AT1 Bluetooth Module**

### **KEY FEATURES**

Support SPP, DUN, HID, HCRP, HSP, OPP, LAN, FAX, PAN, A2DP, AVRCP, BIP and Syn. Profile..

Bluetooth 2.1+EDR

Power Level Class 2 (<4dBm)

High sensitivity -85dBm

Printing Antenna

### **APPLICATIONS**

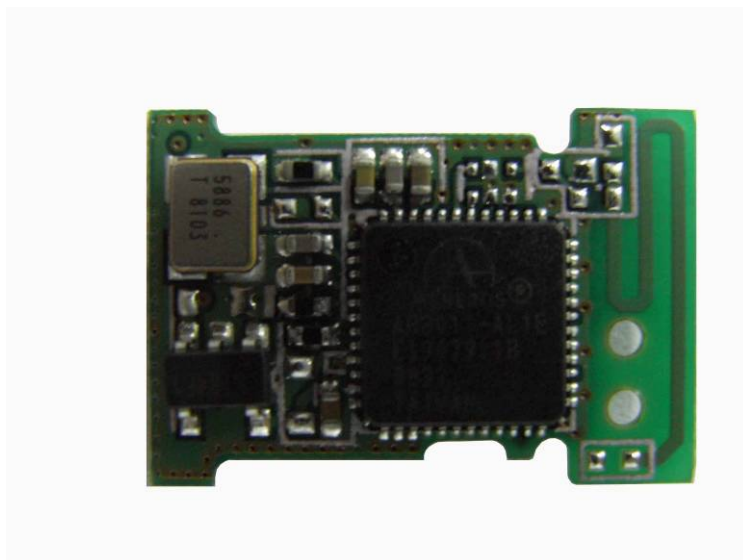
PDA and smart phone.

Digital frame with Bluetooth file transfer supporting.

GPS receiver.

Botebook PC and UMPC.

### **Picture**



TOP VIEW

PHYSICAL SIZE 16mm X 10.8mm X 2.6mm

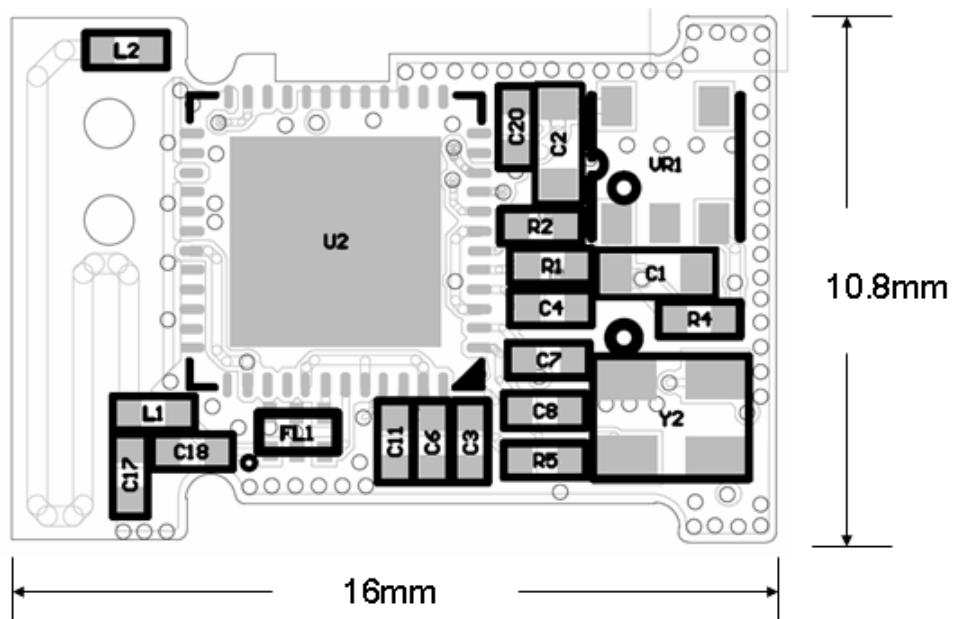
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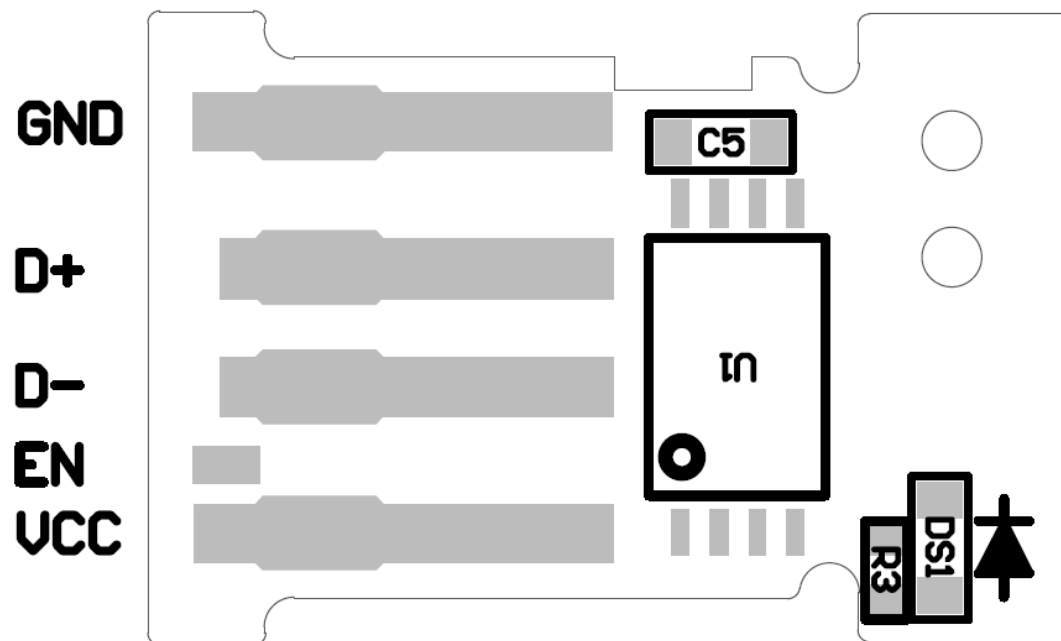
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# Hardware Pad Functions

## Dimension

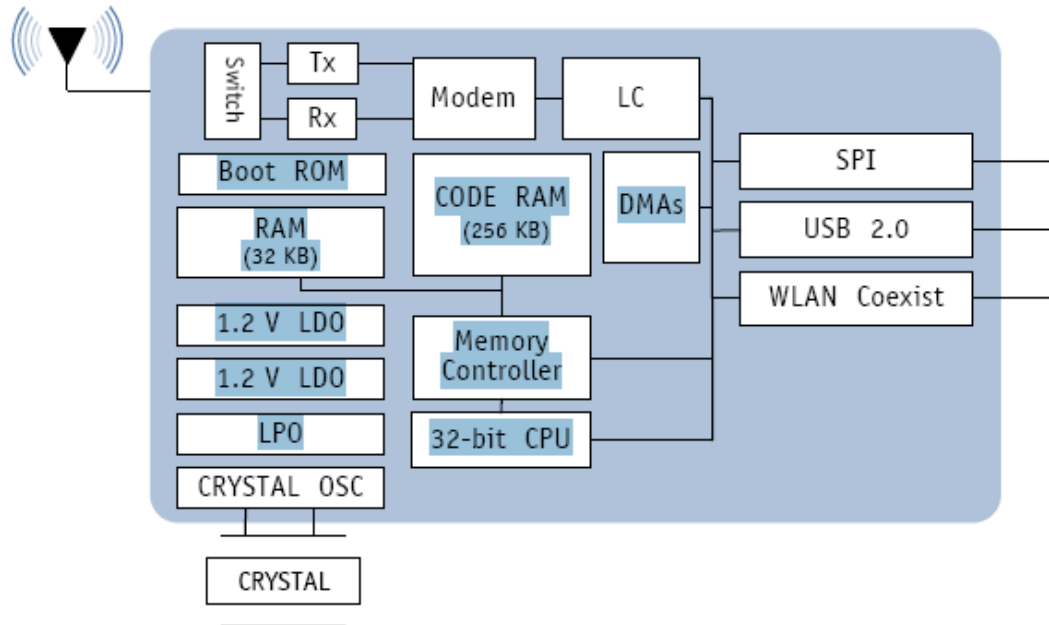


## PCB Footprint



Symbol	Function	Description
GND	Ground	Ground connections for digital and analogy
D+	USB+	USB2.0 full speed, USB+
D-	USB-	USB2.0 full speed, USB-
EN	Enable	High active
Vcc	Power input	DC input 3.3 – 5V

## Hardware Block Diagram



## Bundled Software

**Atheros Bluetooth Software**

**Support Microsoft Windows XP and Vista**

## Electrical Characteristics

Absolute Maximum Ratings		
Rating	Min	Max
Storage temperature	-40 °C	+85 °C
Supply Voltage	-0.4 V	4 V
Other terminal voltages	-0.4	3.7 V

Recommended Operating Conditions		
Operating Condition	Min	Max
Operating temperature range	-0 °C	+75 °C
Guaranteed RF performance range	-0 °C	+75 °C
Supply voltage	3.3V	5V

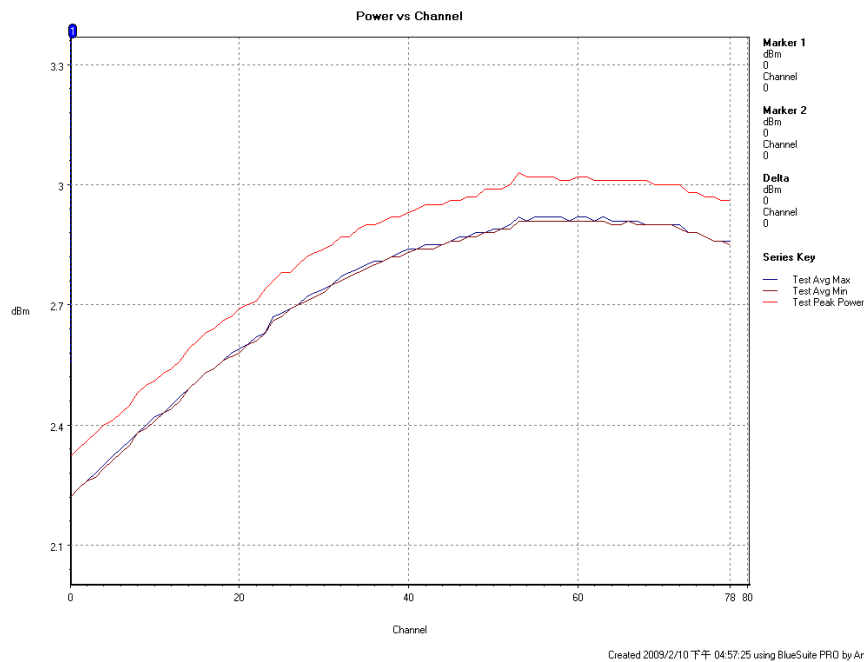
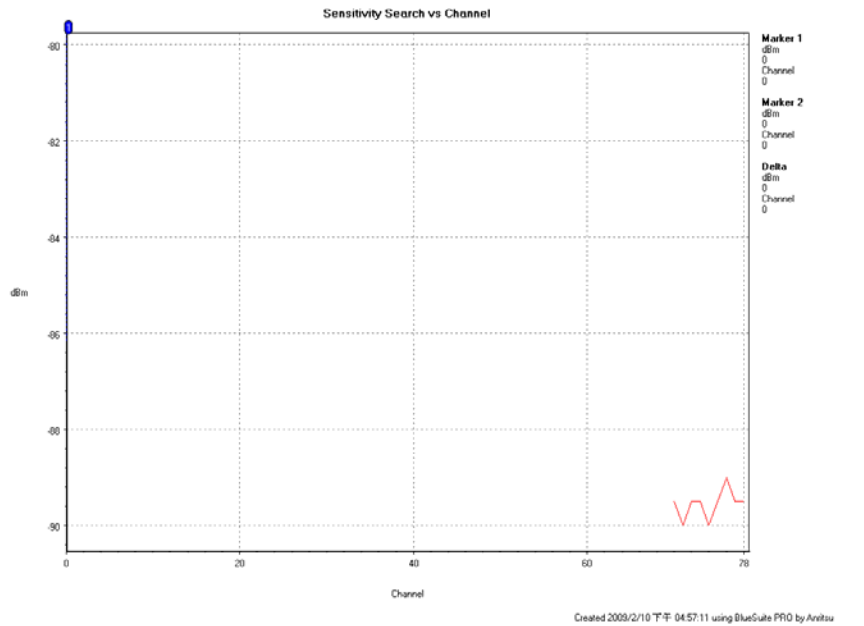
### RF Transmitter

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$F_{TX}$	Transmit output frequency range	1 MHz center frequency	2.402	—	2.480	GHz
$P_{out}$	Maximum GFSK output power	—	0	2	4	dBm
	EDR power relative to GFSK	—	-4	-2	1	dB

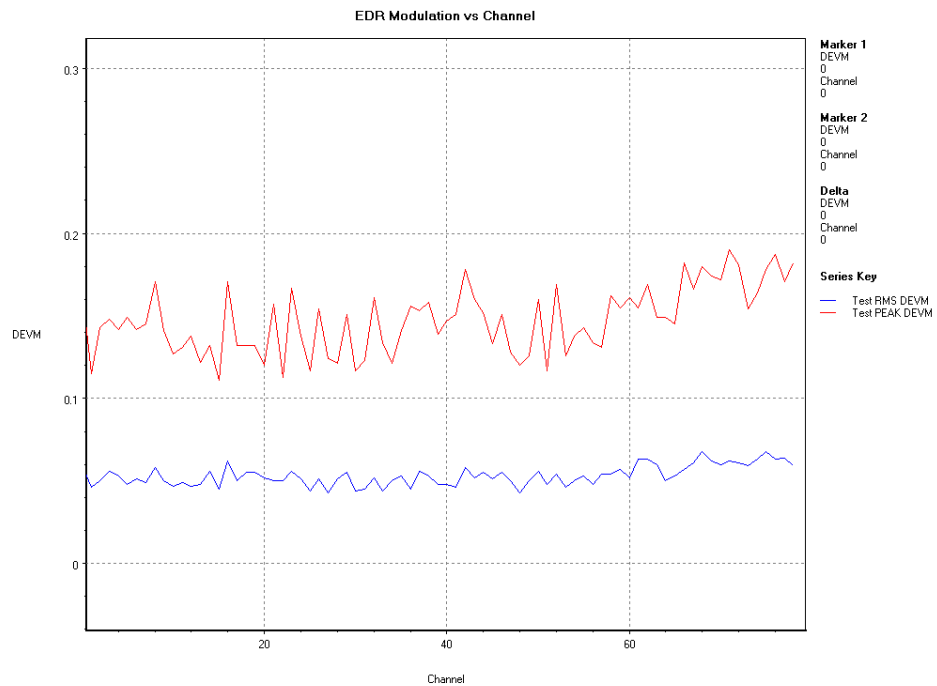
### RF Receiver

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$F_{RX}$	Receive input frequency range	1 MHz channel spacing	2.402	—	2.480	GHz
Sens	1 Mbps sensitivity	0.1% BER	—	-88	—	dBm
	2 Mbps sensitivity	0.01% BER	—	-88	—	dBm
	3 Mbps sensitivity	0.01% BER	—	-82	—	dBm
$P_{max}$	Maximum input	—	—	—	0	dBm

## Test report

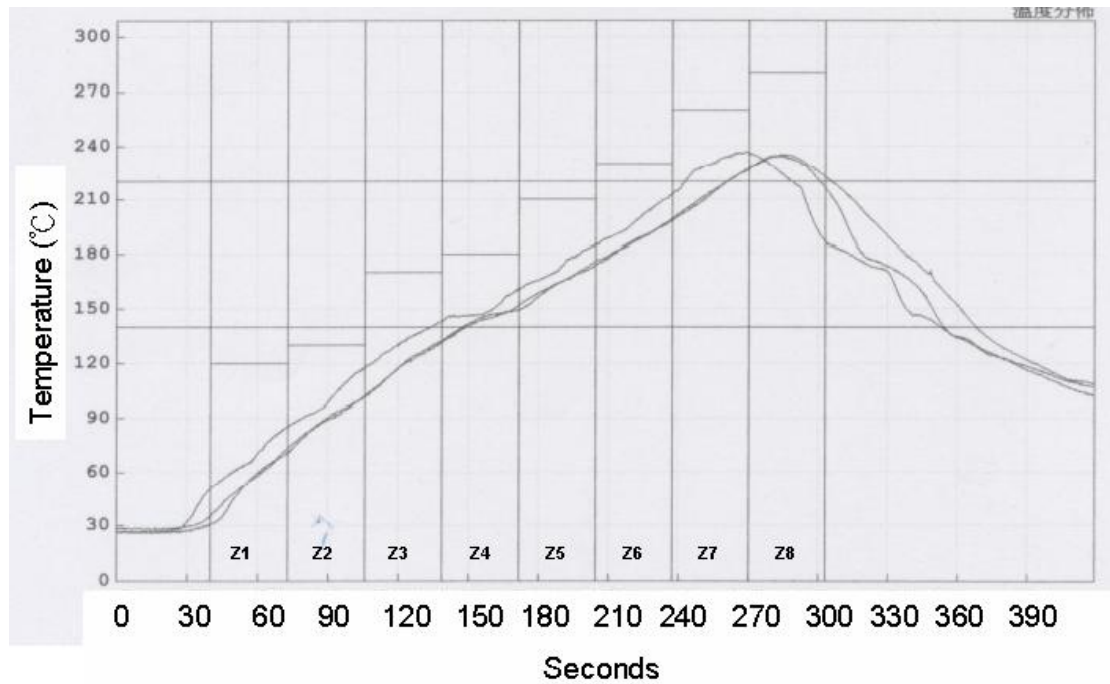






Created 2009/2/10 下午 05:51:38 using BlueSuite PRO by Anitsui

## Reflow profile



Setpoints (°C)

Zone	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8
Top	120	130	170	180	210	230	260	280
Bottom	120	130	170	180	210	230	260	280

Conveyer Speed (cm/min): 73

## Contact Information

立寶電子工業股份有限公司

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## Document History

Date	Revision	Reason of Change
2008,Dec,10	V1.0	Original publication
2009,Mar,13	V1.1	Add EN pin

## **Federal Communications Commission (FCC) Statement**

### **15.21**

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

### **15.105(b)**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received, including interference that may cause undesired operation of the device.

**FCC RF Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: The end product shall has the words

**“Contains Transmitter Module FCC ID: XAI-BTM1910AT1 “**

**"Contains transmitter module with certificate number 201xxyyyyyy"**

**『內含發射器模組：CCXXxxLPyyyZzW』**

根據交通部低功率電波輻射性電機管理辦法 規定：

**第十二條** 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

**第十四條** 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

## **Industry Canada (IC) Statement**

### **15.21**

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

### **15.105(b)**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the IC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- \* Reorient or relocate the receiving antenna.
- \* Increase the separation between the equipment and receiver.
- \* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- \* Consult the dealer or an experienced radio/TV technician for help.

### **Operation is subject to the following two conditions:**

- 1) this device may not cause interference and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device.

### **IC RF Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.