

MY-ZB010C-E

Evaluation Board

Quick Start V1.0

Version History

Version	Description	Time
V1.0	Initial Version	2014.10

Directory

Chapter 1 Introduction	2
1.1 Overview.....	2
1.2 Product Overview	2
Chapter 2 Hardware Interface.....	3
Chapter 3 Use Steps.....	4
3.1 Install Configuration Software.....	4
3.2 Configure Serial Port.....	6
3.3 Test Preparation	7
3.4 Read Configuration Information.....	8
3.5 Functions Test.....	9
3.5.1 Communication Port Test.....	9
3.5.2 Add Router Node	10
3.5.3 Scanning	10
3.5.4 IO Input/Output.....	11
3.5.5 AD Setting.....	11
3.5.6 PWM Control	12
3.5.7 Import/Export Configuration.....	13
Appendix 1 Warranty & Technical Support Services	15

Chapter 1 Introduction

1.1 Overview

MY-ZB010C-E is an evaluation board for the MY-ZB010C-S/P module function evaluation. The evaluation board has rich extended interfaces, including power, communications, peripherals ect, combined with the board LED, adjustable resister, buzzer, and can be used for the MY-ZB010C-S/P module initial debugging, communication test, functional evaluation ect.

ZBAssistX is a ZigBee module configuration software developed by MYiR, which can be used to setting, query configured parameters of MY-ZB010C-S/P module, and with network scanning, configuration import/export functions.

1.2 Product Overview

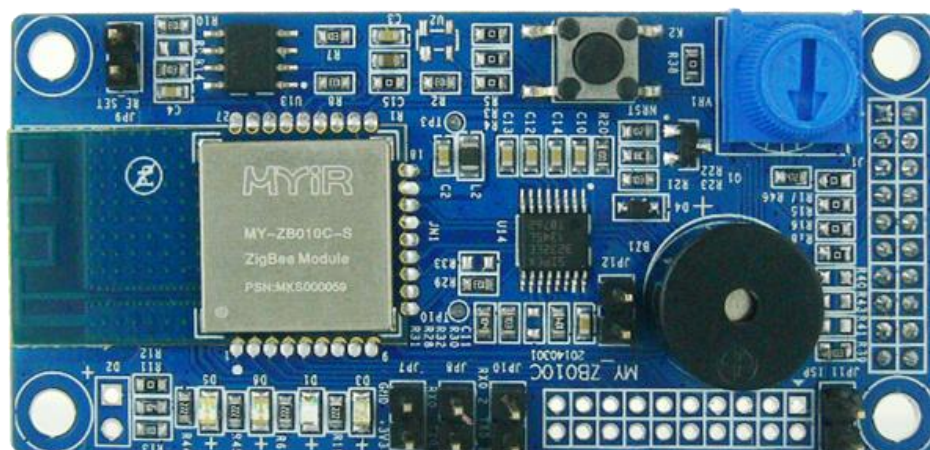


Figure 1-1

Tips: Standard power module and high power module pin compatible.

Chapter 2 Hardware Interface

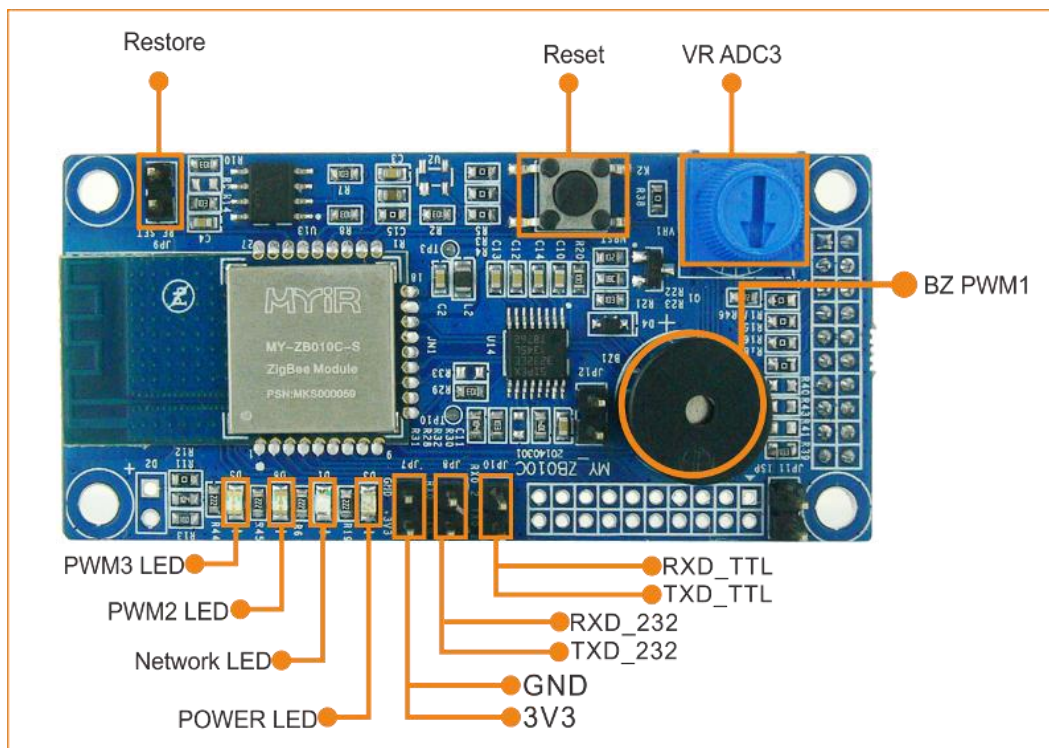


图 2-1

Tips: Standard power module and high power module pin compatible.

Chapter 3 Use Steps

3.1 Install Configuration Software

Download ZBAssistX_Setup.exe from MYIR website (www.myr-tech.com), double click to start the installation, as shown in Figure 3-1:

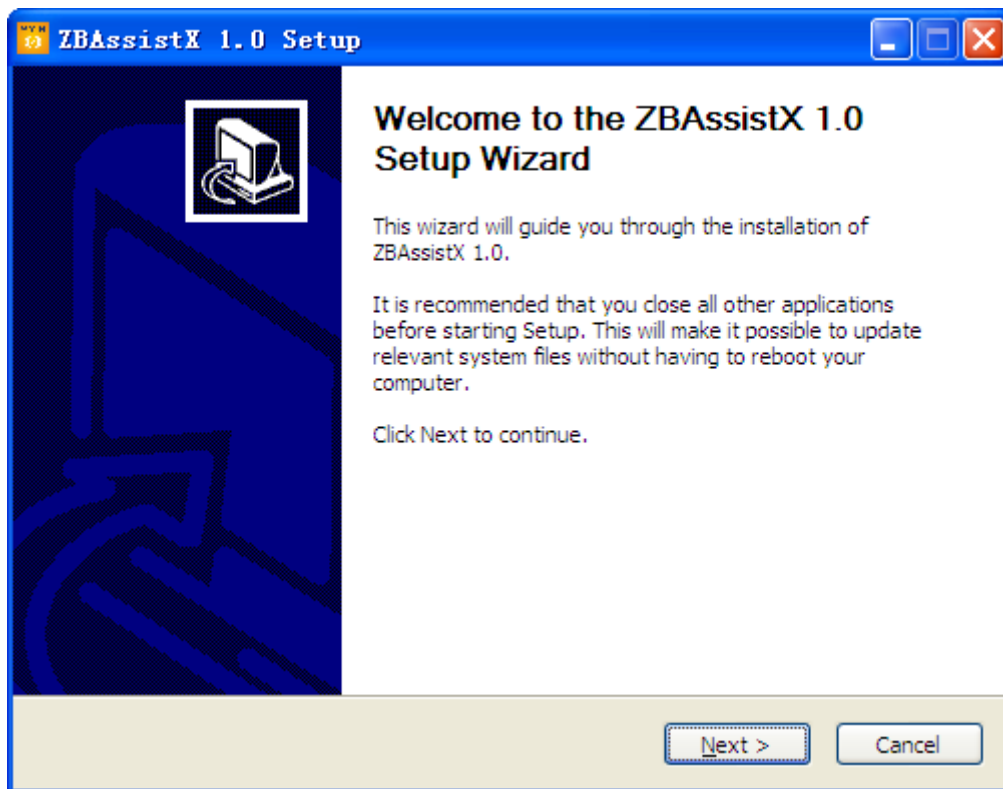


Figure 3-1

Click "Next":

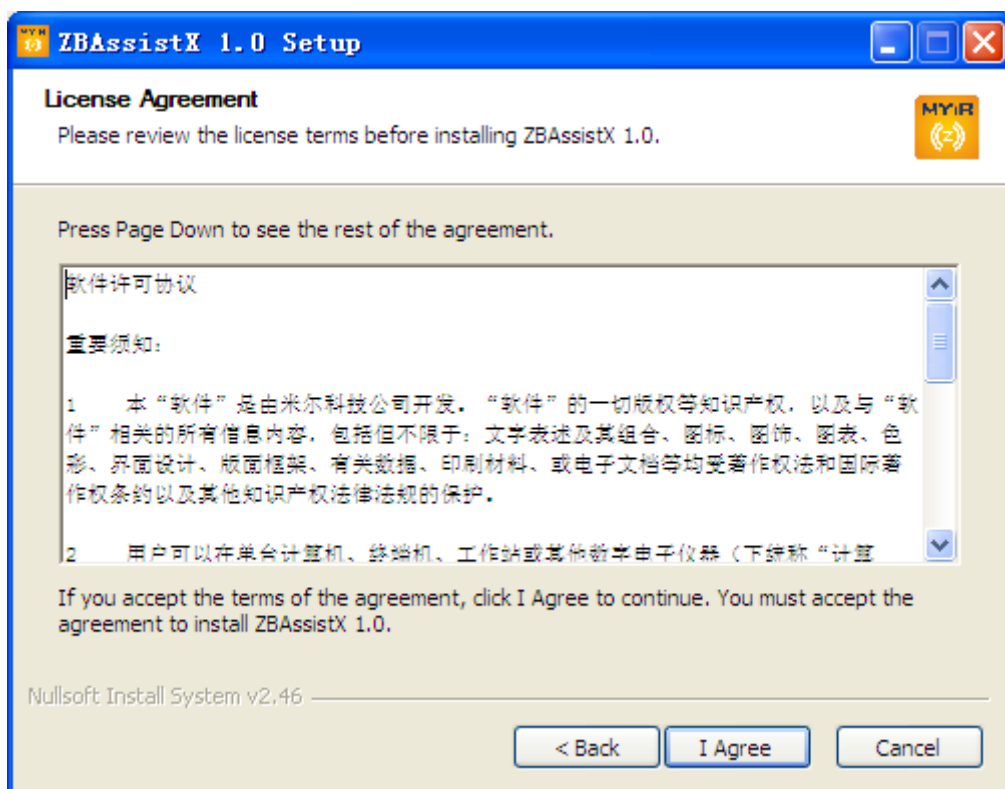


Figure 3-2

Click "I Agree":

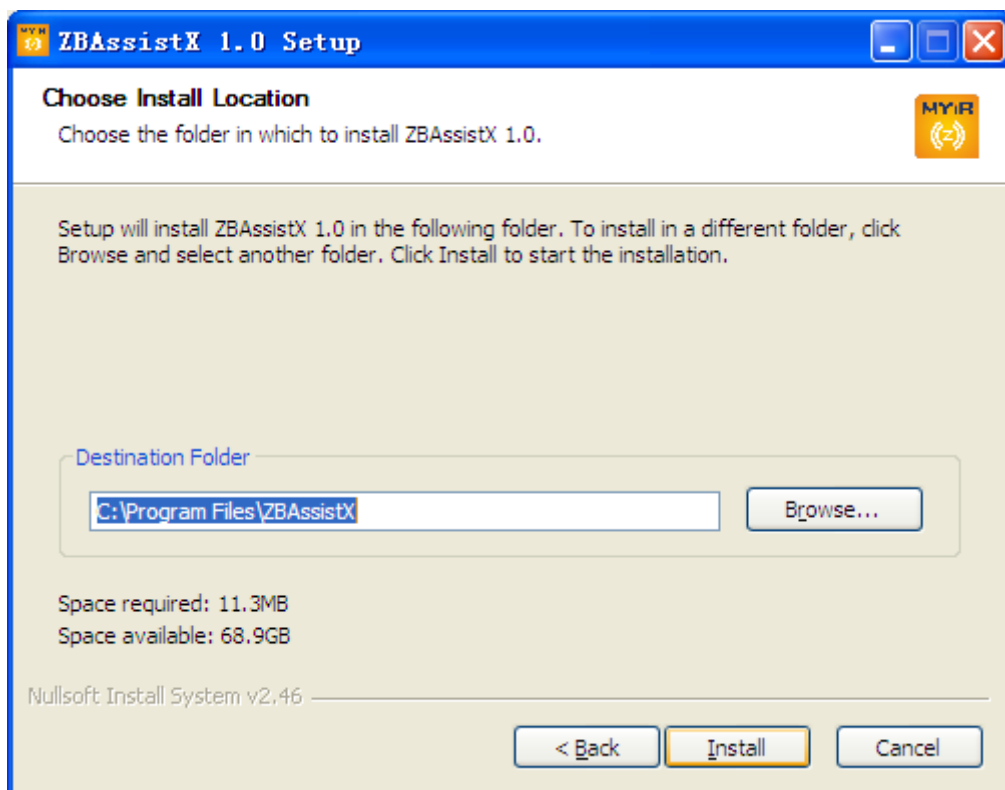


Figure 3-3

Click "Install", as shown in Figure 3-3:

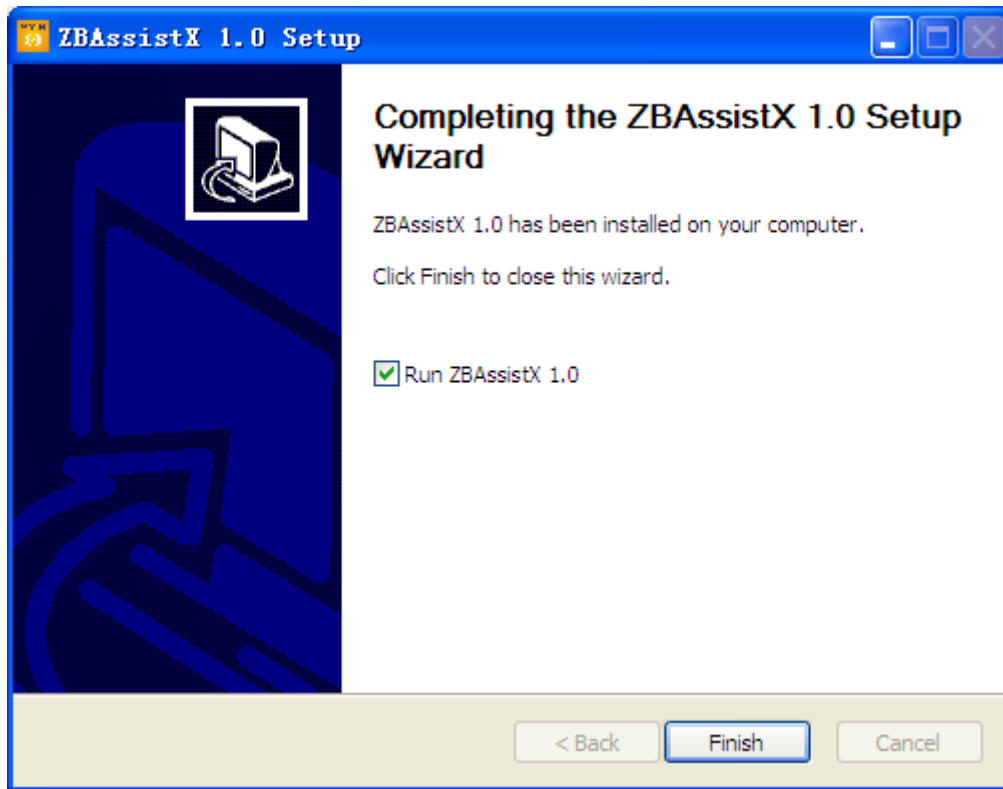


Figure 4-4

Click “Finish” to run ZBAssistX 1.0 configuration software:

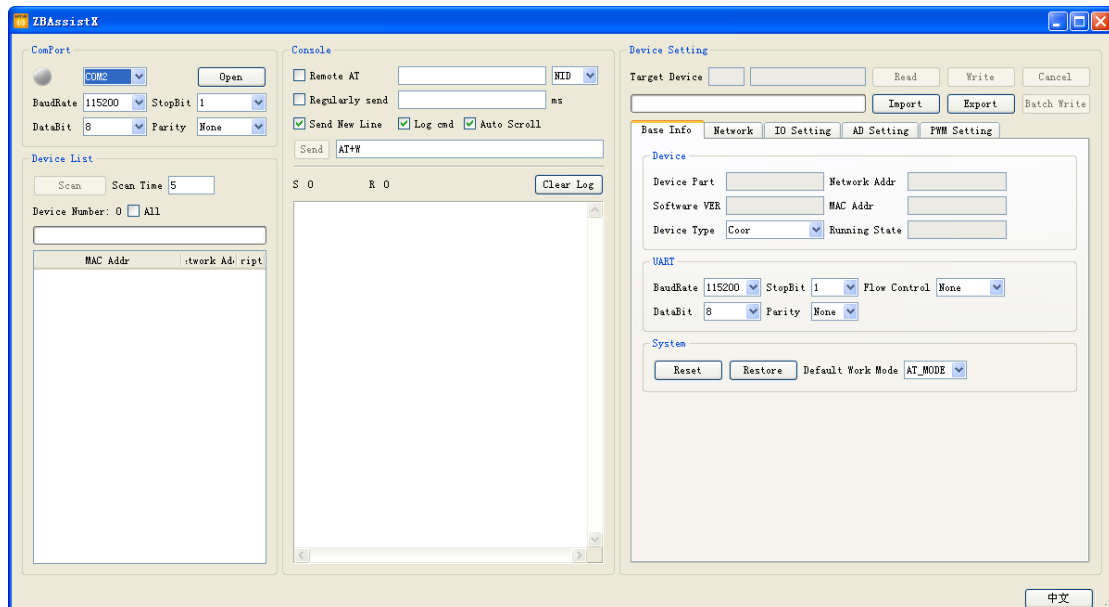


Figure 4-5

3.2 Configure Serial Port

As default, baud rate is 115200, data bits is 8, parity bit is None, stop bit is 1, the settings is shown in Figure 3-6:

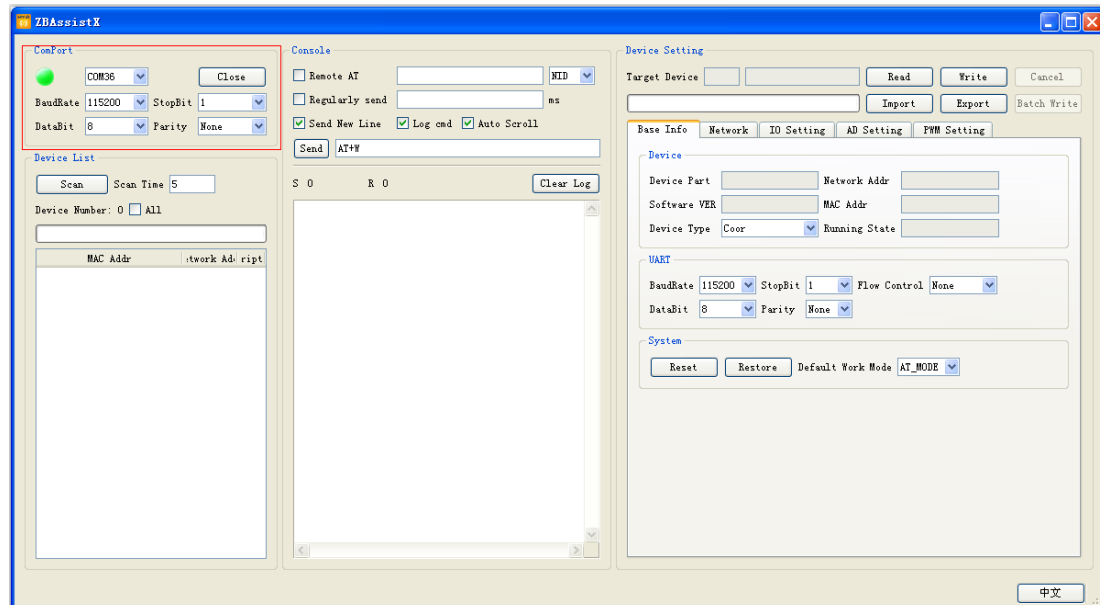


Figure 3-6

3.3 Test Preparation

1. Connect the serial port. If using RS232 level, plug the jumper to JP12;
2. Open the configuration software, set the serial port parameters to 115200-8-N-1;
3. Connect 3.3V power, attention the positive and negative of power;
4. After power on, the red power led bright constantly, blue network signal led flash slow, and configuration software receives "+AT_MODE:\r\n" as shown in Figure 3-7:

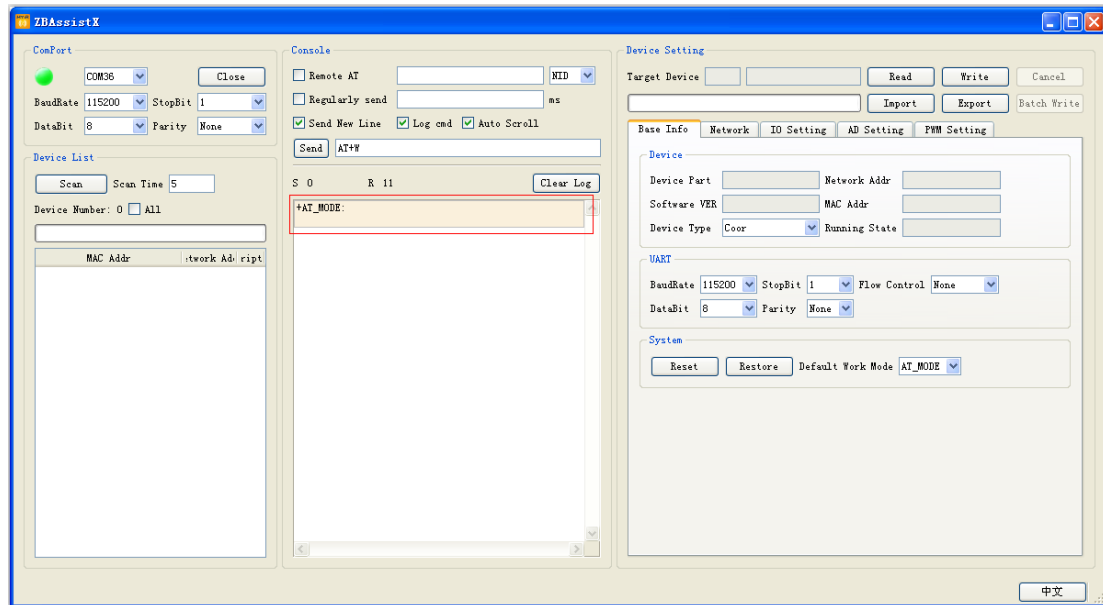


Figure 3-7

3.4 Read Configuration Information

Click "Read", get the device configuration information, as shown in Figure 3-8:

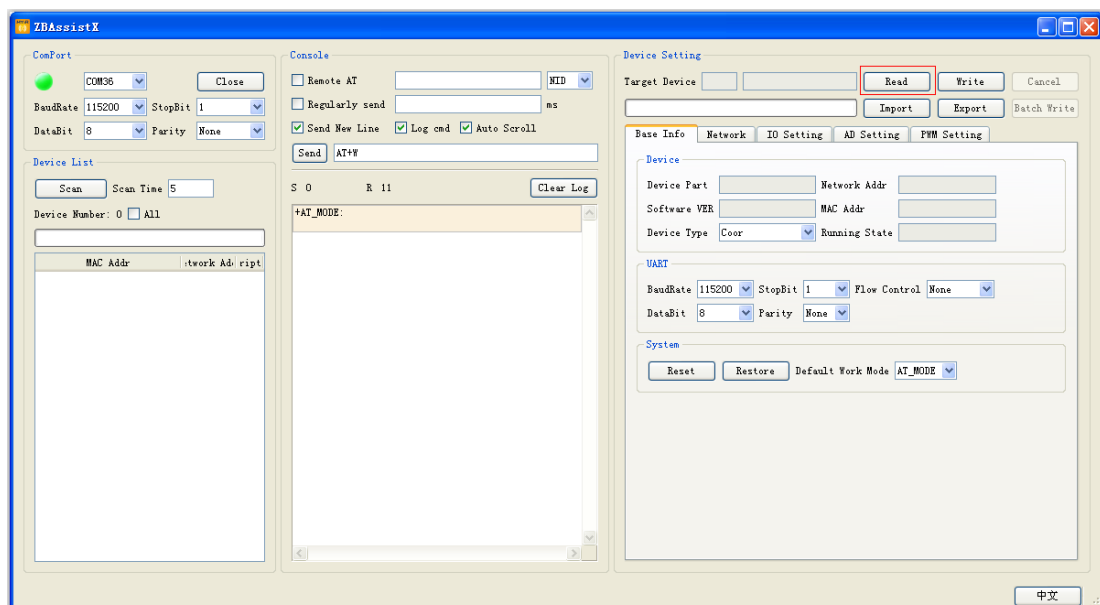


Figure 3-8

According to the result, we can see this node is a router node, if all nodes are router, user need to configure one as the coordinator node, select Coor from the device type, and then click "Write", write current configuration to module, as shown in Figure 3-9:

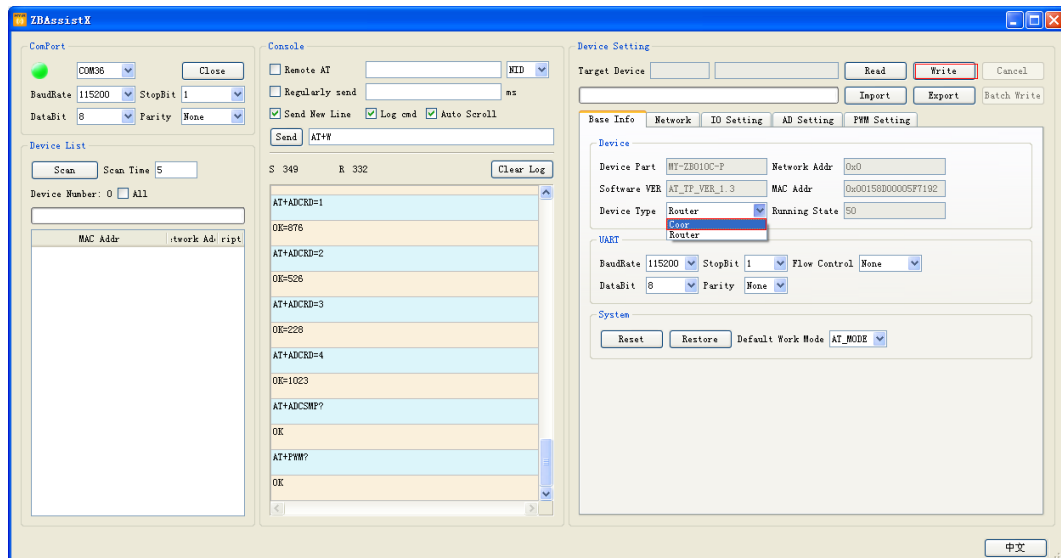


Figure 3-9

Change the “Device Type” configuration, it needs to restart module to take effect. Click "Reset" or repower to reset module, coordinator begins to build the network. After building the network successfully, the blue network led flashes fast.

3.5 Functions Test

3.5.1 Communication Port Test

Send "AT\r\n" command to ZigBee module by the serial port, if return "OK\r\n", it indicates communication is correct, as shown in Figure 3-10:

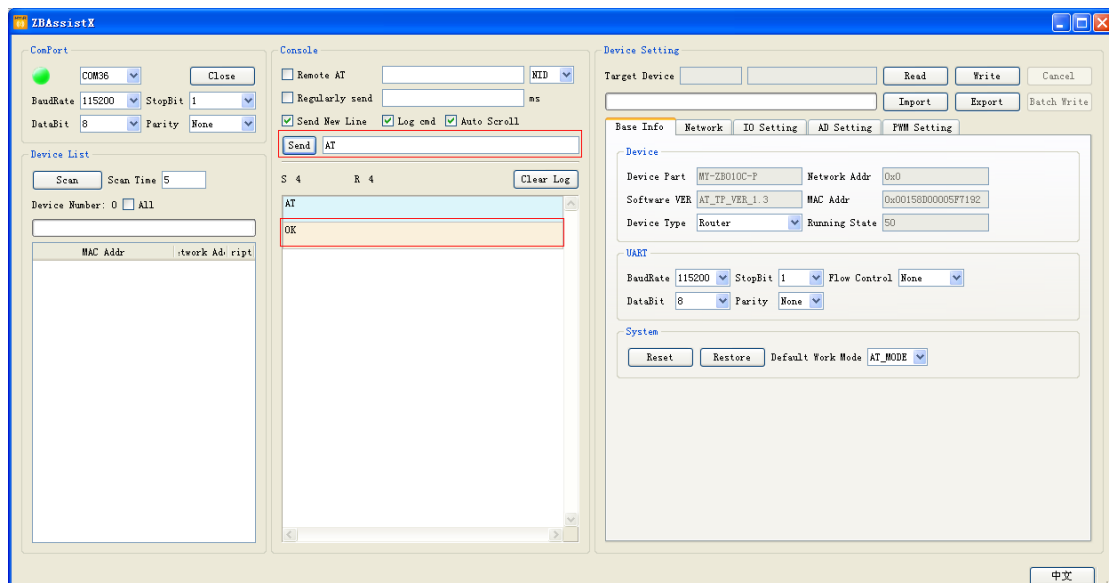


Figure 3-10

3.5.2 Add Router Node

When power on other router node, it will automatically join the network, and sends router node information to coordinator. Then, coordinator will output the router node information:

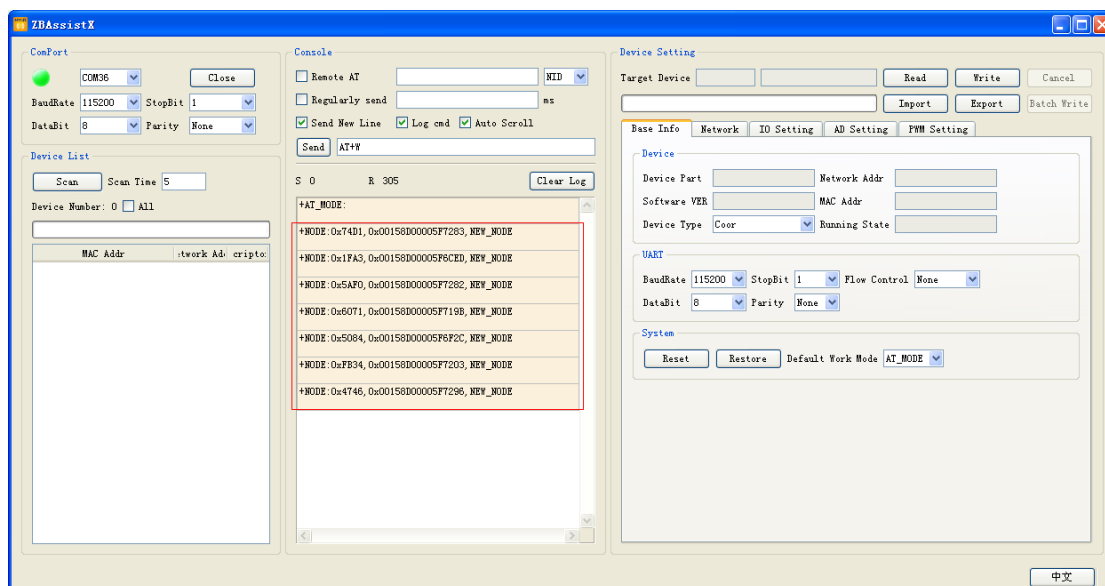


Figure 3-11

3.5.3 Scanning

It can scan all nodes in the network by scanning function and lists the node's MAC address, network address, and descriptor 1. Input scan time, click "Scan", as shown in Figure 3-12:

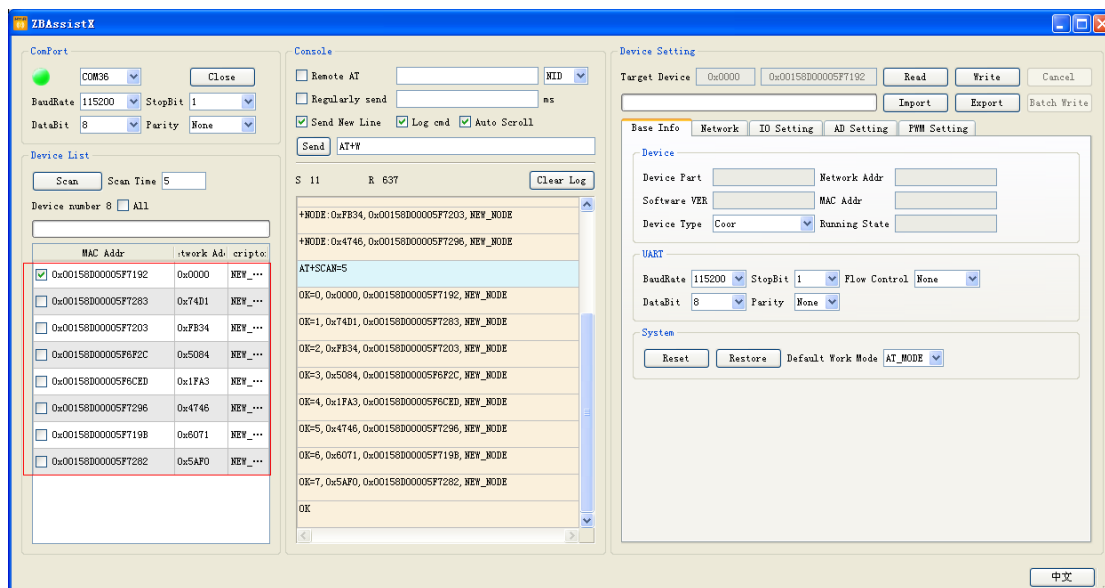


Figure 3-12

3.5.4 IO Input/Output

Switch to the "IO setting" tab, user can set the IO as input or output. When a IO has been selected as input, it will shown current level, When a IO has been selected as output, it will output the level as user's setting:

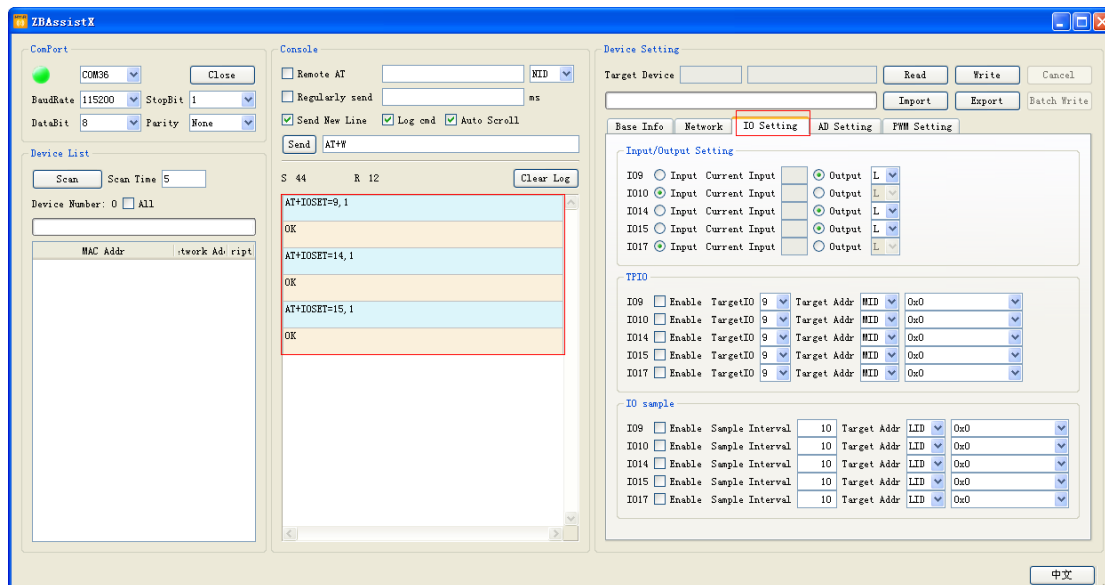


Figure 3-13

3.5.5 AD Setting

Switch to the "AD setting" tab, enable AD1 collection function by clicking, select the target address mode as LID, and then the collected results will output by the local UART port. AD1 channel is connected with the photosensitive diode bleeder circuit, AD3 channel is connected with adjustable resistor, twist the VR1 adjustable resistor, changing the partial value of resistance, AD3 values will change. As shown in Figure 3-14:

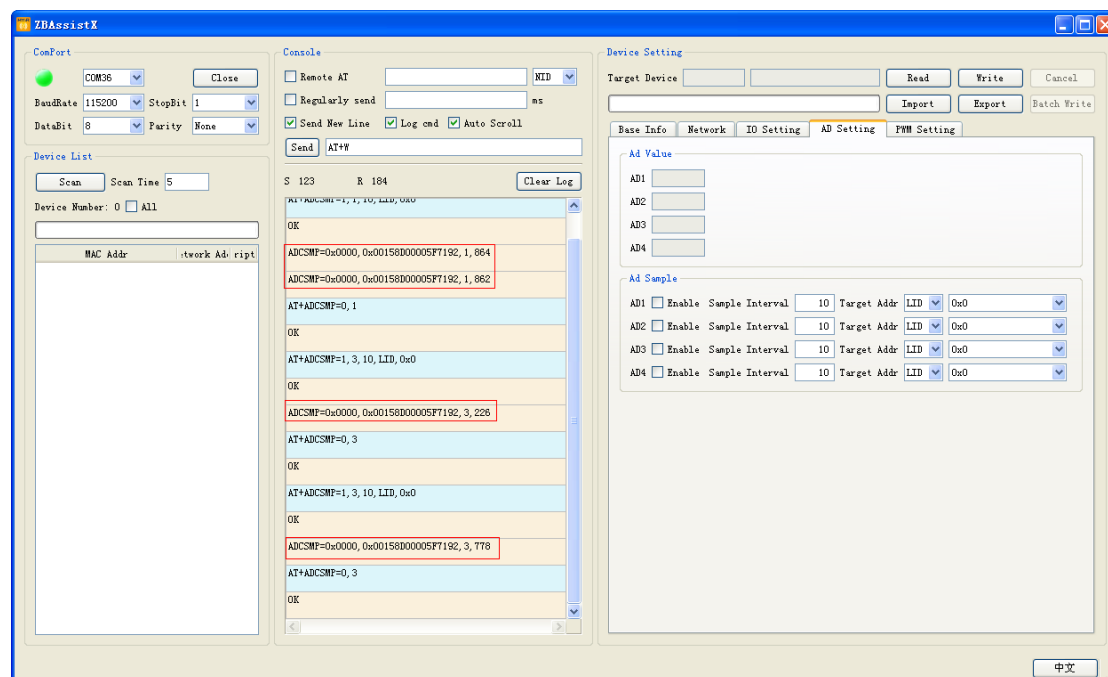


Figure 0-14

3.5.6 PWM Control

Switch to the "PWM setting" tab, enable the PWM function, user can change the PWM frequency and duty ratio. The PWM1 is connected to the control circuit of buzzer, changing the PWM1 duty cycle and frequency, the buzzer will change also. As shown in Figure 3-15:

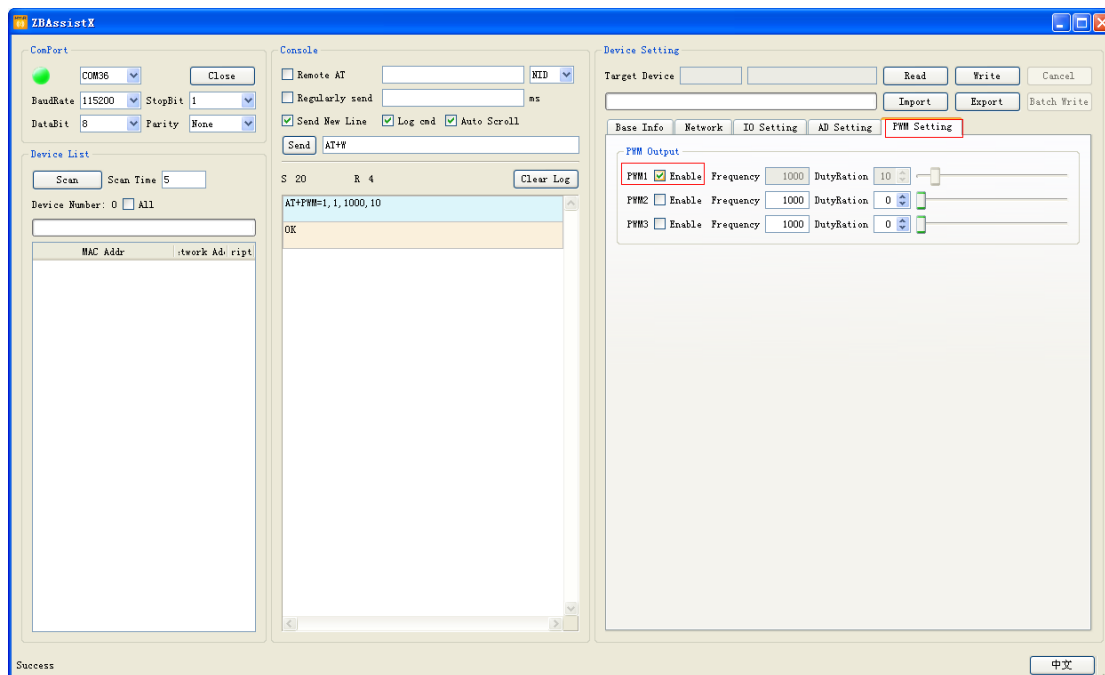


Figure 3-15

3.5.7 Import/Export Configuration

When user finish the setting of configuration for coordinator or router node, the current configuration can be exported to a file and can also import configured file into the coordinator or router node.

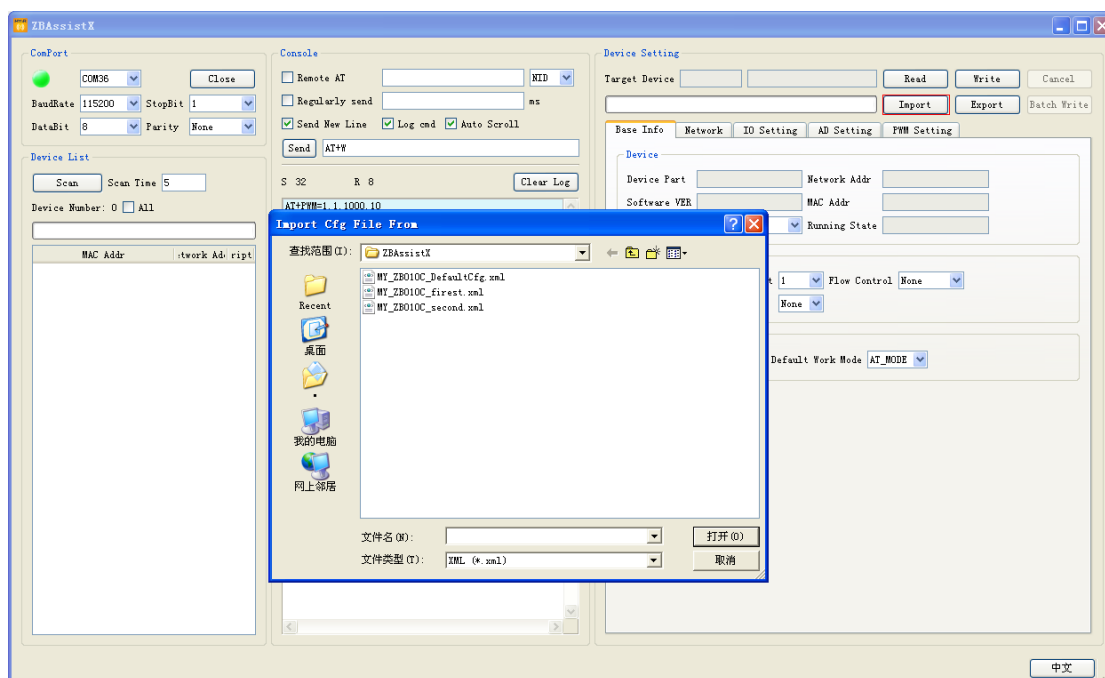


Figure 3-16

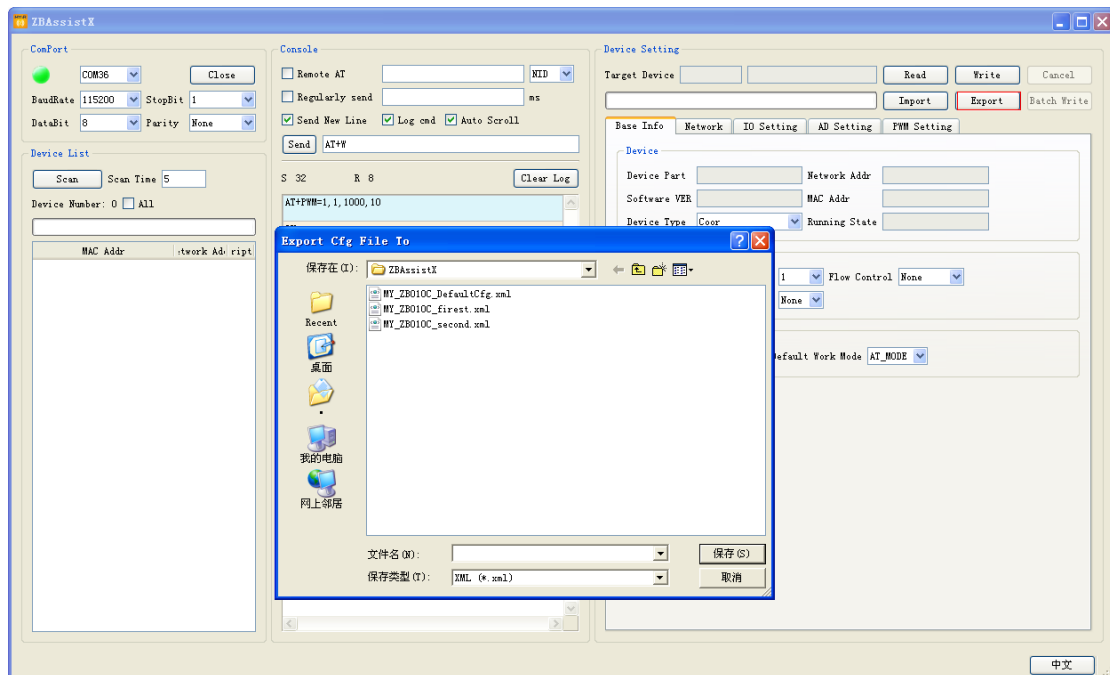


Figure 3-17

Appendix 1 Warranty & Technical Support Services

MYIR Tech Limited is a global provider of ARM hardware and software tools, design solutions for embedded applications. We support our customers in a wide range of services to accelerate your time to market.

MYIR is an ARM Connected Community Member and work closely with ARM and many semiconductor vendors. We sell products ranging from board level products such as development boards, single board computers and CPU modules to help with your evaluation, prototype, and system integration or creating your own applications. Our products are used widely in industrial control, medical devices, consumer electronic, telecommunication systems, Human Machine Interface (HMI) and more other embedded applications. MYIR has an experienced team and provides custom design services based on ARM processors to help customers make your idea a reality.

The contents below introduce to customers the warranty and technical support services provided by MYIR as well as the matters needing attention in using MYIR's products.

Service Guarantee

MYIR regards the product quality as the life of an enterprise. We strictly check and control the core board design, the procurement of components, production control, product testing, packaging, shipping and other aspects and strive to provide products with best quality to customers. We believe that only quality products and excellent services can ensure the long-term cooperation and mutual benefit.

Price

MYIR insists on providing customers with the most valuable products. We do not pursue excess profits which we think only for short-time cooperation. Instead, we hope to establish long-term cooperation and win-win business with customers. So we will offer reasonable prices in the hope of making the business greater with the customers together hand in hand.

Delivery Time

MYIR will always keep a certain stock for its regular products. If your order quantity is less than the amount of inventory, the delivery time would be within three days; if your order quantity is greater than the number of inventory, the delivery time would be always four to six weeks. If for any urgent delivery, we can negotiate with customer and try to supply the goods in advance.

Technical Support

MYIR has a professional technical support team. Customer can contact us by email (support@myirtech.com), we will try to reply you within 48 hours. For mass production and customized products, we will specify person to follow the case and ensure the smooth production.

After-sale Service

MYIR offers one year free technical support and after-sales maintenance service from the purchase date. The service covers:

1. Technical support service

- a) MYIR offers technical support for the hardware and software materials which have provided to customers;
- b) To help customers compile and run the source code we offer;
- c) To help customers solve problems occurred during operations if users follow the user manual documents;
- d) To judge whether the failure exists;
- e) To provide free software upgrading service.

However, the following situations are not included in the scope of our free technical support service:

- a) Hardware or software problems occurred during customers' own development;
- b) Problems occurred when customers compile or run the OS which is tailored by themselves;
- c) Problems occurred during customers' own applications development;
- d) Problems occurred during the modification of MYIR's software source code.

2. After-sales maintenance service

The products except LCD, which are not used properly, will take the twelve months free maintenance service since the purchase date. But following situations are not included in the scope of our free maintenance service:

- a) The warranty period is expired;
- b) The customer cannot provide proof-of-purchase or the product has no serial number;
- c) The customer has not followed the instruction of the manual which has caused the damage the product;
- d) Due to the natural disasters (unexpected matters), or natural attrition of the components, or unexpected matters leads the defects of appearance/function;
- e) Due to the power supply, bump, leaking of the roof, pets, moist, impurities into the boards, all those reasons which have caused the damage of the products or defects of appearance;
- f) Due to unauthorized weld or dismantle parts or repair the products which has caused the damage of the products or defects of appearance;
- g) Due to unauthorized installation of the software, system or incorrect configuration or computer virus which has caused the damage of products.

Warm tips:

1) MYIR does not supply maintenance service to LCD. We suggest the customer first check the LCD when receiving the goods. In case the LCD cannot run or no display, customer should contact MYIR within 7 business days from the moment get the goods.

- 2) Please do not use finger nails or hard sharp object to touch the surface of the LCD.
- 3) MYIR suggests user purchasing a piece of special wiper to wipe the LCD after long time use, please avoid clean the surface with fingers or hands to leave fingerprint.
- 4) Do not clean the surface of the screen with chemicals.
- 5) Please read through the product user manual before you using MYIR's products.
- 6) For any maintenance service, customers should communicate with MYIR to confirm the issue first. MYIR's support team will judge the failure to see if the goods need to be returned for repair service, we will issue you RMA number for return maintenance service after confirmation.

3. Maintenance period and charges

- a) MYIR will test the products within three days after receipt of the returned goods and inform customer the testing result. Then we will arrange shipment within one week for the repaired goods to the customer. For any special failure, we will negotiate with customers to confirm the maintenance period.
- b) For products within warranty period and caused by quality problem, MYIR offers free maintenance service; for products within warranty period but out of free maintenance service scope, MYIR provides maintenance service but shall charge some basic material cost; for products out of warranty period, MYIR provides maintenance service but shall charge some basic material cost and handling fee.

4. Shipping cost

During the warranty period, the shipping cost which delivered to MYIR should be responsible by user; MYIR will pay for the return shipping cost to users when the product is repaired. If the warranty period is expired, all the shipping cost will be responsible by users.

5. Products Life Cycle

MYIR will always select mainstream chips for our design, thus to ensure at least ten years continuous supply; if meeting some main chip stopping production, we will inform customers in time and assist customers with products updating and upgrading.

Value-added Services

1. MYIR provides services of driver development base on MYIR's products, like serial port, USB, Ethernet, LCD, etc.
2. MYIR provides the services of OS porting, BSP drivers' development, API software development, etc.
3. MYIR provides other products supporting services like power adapter, LCD panel, etc.
4. ODM/OEM services.

MYIR Tech Limited

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