

HM-TRLR-EVB Manual

HOPE MICROELECTRONICS CO., LTD

Address: :2/F Building 3, Pingshan Private Enterprise ST Park, Nanshan
District, Shenzhen, Guangdong, China

Post Code: 518052

components Tel: +86-755-82973805-810

RF Tel: +86-755-82973805-828

Fax: +86-755-82973550

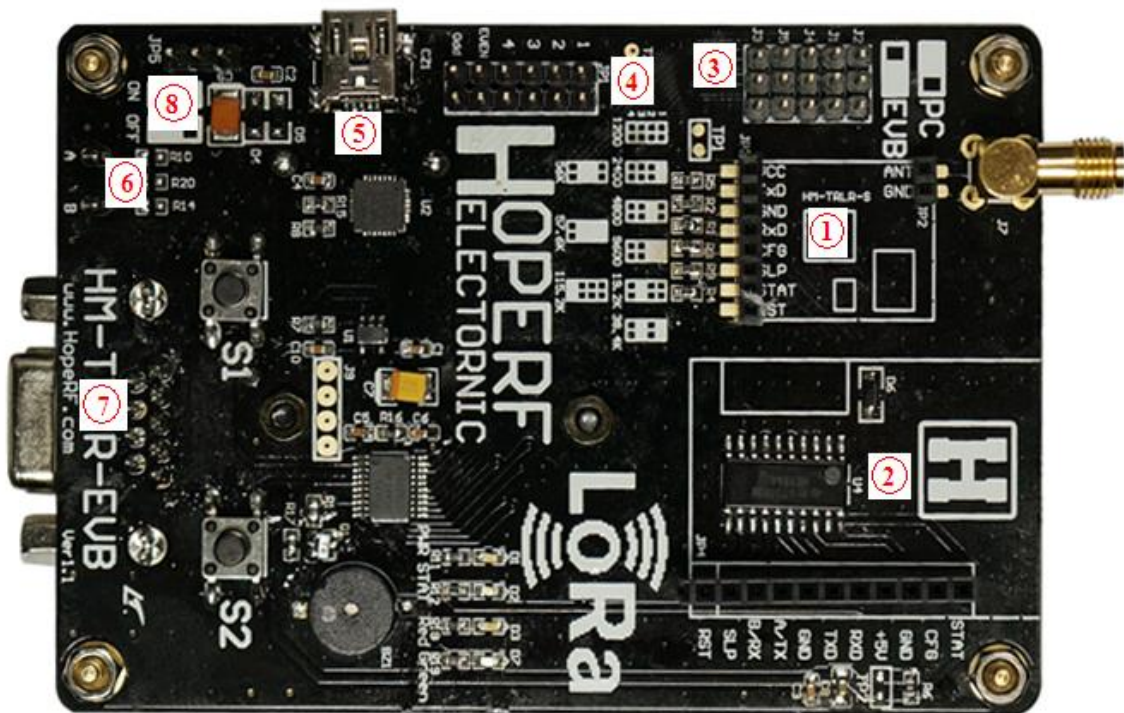
E-mail: sales@hoperf.com

website: <http://www.hoperf.com>

1.Instruction:

HM-TRLR-EVB is a demo board design for HM-TRLR RF module.It has two working mode.(online and offline).When turn into online mode,the demo board works with software TRLR-PCConfig.At this time the user can modify the parameter and test the AT order etc.When turn into offline mode.At this time the user can test communication and low power consumption of the HM-TRLR-EVB demo board.

2.Features:



External interface instruction:

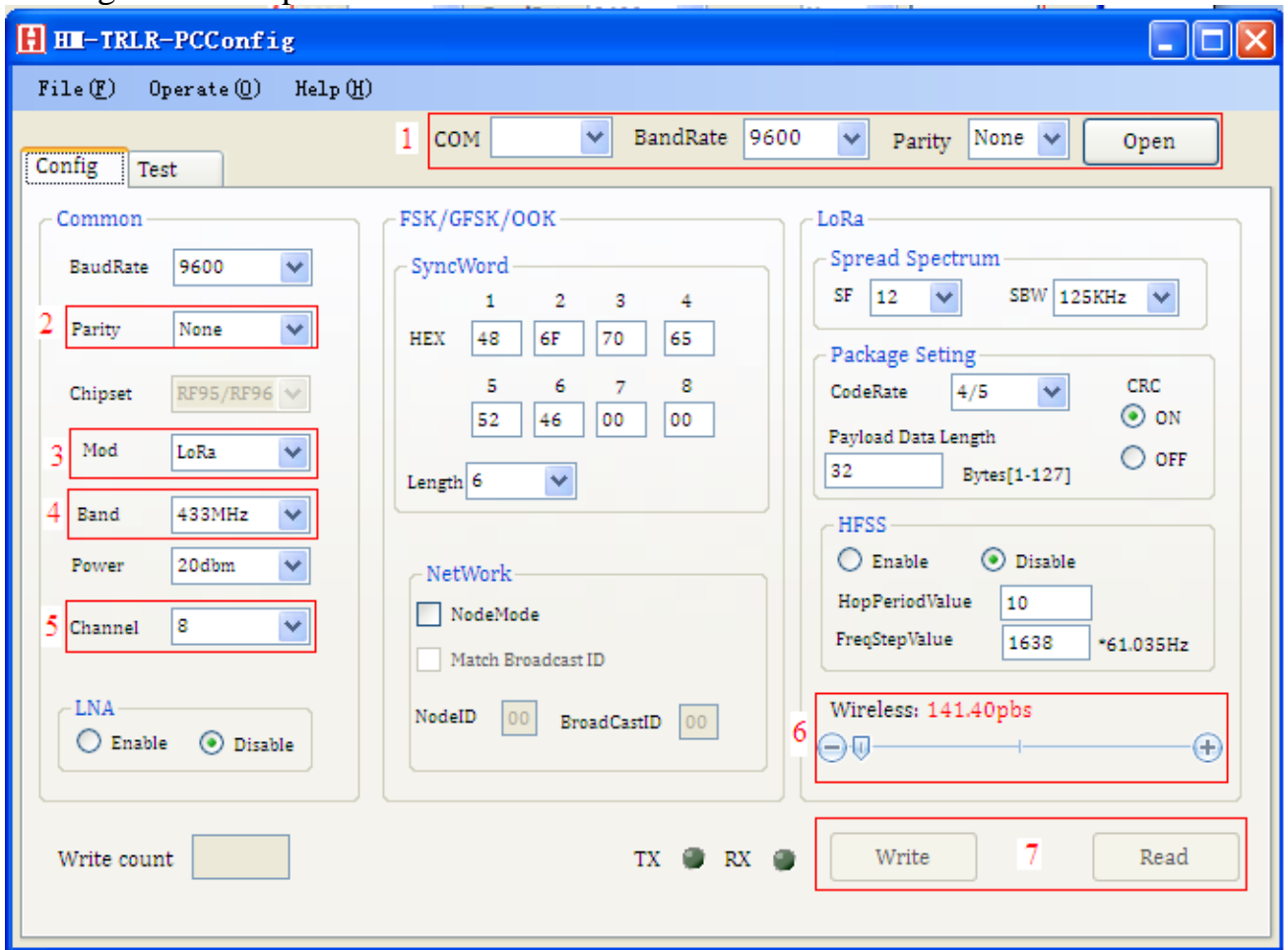
1	HM-TRLR-S module slot
2	HM-TRLR-D module slot
3	On-line and off-line jumper
4	Offline mode, Serial rate and parity jumper
5	mini-USB connecting seat
6	RS485 seat
7	RS232 connecting seat
8	Power switch jumper

3. Software HM-TRLR-PCConfig and drive installation

Please download and install HM-TRLR-PCConfig.exe and CP210x_VCP_Win2K.exe from our website.

4. Before on-line mode please confirm jumper J2/J2/J4/J5/J3 if connect to PC. Plug HM-TRLR RF module into demo board and through mini-USB connect to PC. At this time open software HM-TRLR-PCConfig, As figure.

Config interface operation:

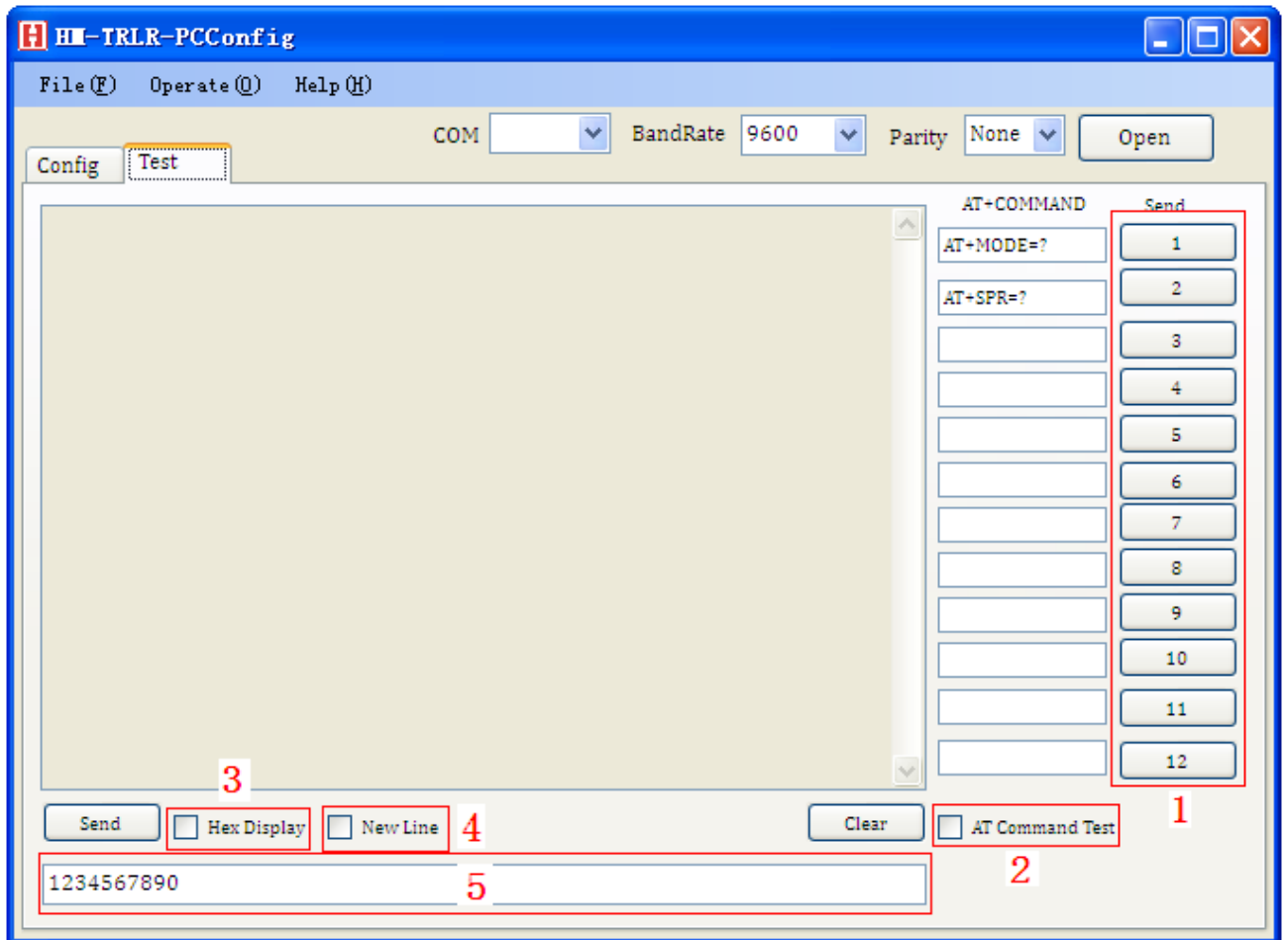


1	PC serial port and baud rate choose.
2	Valid only for setting HM-TRLR-S Series Moudle
3	RF module modulation mode choice
4	Working frequency choose ,pay attention to the working frequency.
5	Valid only for setting HM-TRLR-S Series Moudle
6	LoRa modulation, wireless baud rate
7	Write and read parameter

Write Operation step:

- 1) Choose the port of PC, baud rate and check mode .Then open the port.
- 2) Set the parameter of module.
- 3) Click the “Write” button. If succeed that Tx Led flickers and display “Write Success”. If failed, display “Write Fail” .

2、 Test interface operation:



1	AT command button
2	AT command test check box.
3	Hexadecimal display
4	Send data automatically add a carriage return
5	Send data content

AT testing step:

- 1) Open the port.
- 2) Hook on the “AT Command Test”options.
- 3) Write AT command in AT+COMMAND editing box and click the right button.

Data communication test step:

- 1)PC connect to two HM-TRLR-Test Boards.
- 2)Open the serial port.
- 3)HM-TRLR module configuration the same parameter.
- 4) Cancel the “AT Command Test”options.
- 5)Fill send data content and click the “Send” button.

5. Off-line operation:

When in the off-line mode ,please confirm if jumper J2/J2/J4/J5/J3 connect to EVB-side. Plug HM-TRLR module in demo board and choose the right serial parameter in J1.

Baud rate jumper choose:

jumper	Baud rate
1 ○○ 2 ○○ 3 ○○ 4 ○○	1200
1 ●● 2 ○○ 3 ○○ 4 ○○	2400
1 ○○ 2 ●● 3 ○○ 4 ○○	4800
1 ●● 2 ●● 3 ○○ 4 ○○	9600
1 ○○ 2 ○○ 3 ●● 4 ○○	14400
1 ●● 2 ○○ 3 ●● 4 ○○	19200
1 ○○ 2 ●● 3 ●● 4 ○○	38400
1 ●● 2 ●● 3 ●● 4 ○○	56000
1 ○○ 2 ○○ 3 ○○ 4 ●●	56700
1 ●● 2 ○○ 3 ○○ 4 ●●	115200

Choose the check way of port:

EVEN <input type="radio"/> Odd <input type="radio"/>	None Check
EVEN <input checked="" type="radio"/> Odd <input type="radio"/>	EVEN Check
EVEN <input type="radio"/> Odd <input checked="" type="radio"/>	Odd Check

6. Working mode:

In the off-line mode, the test board has four working mode: normal mode、transmit mode、receive mode and sleep mode.

1) Normal mode: After power on, the test board is in normal mode, The user pressing the S1 button momentarily that make the test board send data. When send data red led flash once. When receive data green led flash once and buzzer beeps once.

2) Transmit mode: In the normal mode, long-pressing the S1 button and hear the buzzer beeps twice. Then the test board entry to the transmit mode. In the transmit mode, send the data in every three seconds. The buzzer beeps once after receive data. When pressing the S1 button momentarily that reback to the normal mode after buzzer beeps once.

3) Receive mode: In the normal mode, long-pressing the S2 button and hear the buzzer beeps twice, then the test board entry to the receive mode. In the receive mode, the buzzer beeps once after receive data and return data. When pressing the S2 button momentarily that make it return to normal mode after buzzer beeps once.

4) sleep mode: In the normal mode, long-pressing S1/S2 button. The test board turn into sleep mode after buzzer beeps twice and Red/Green Led flashed. The user can

7. Communication test:

1) Manual communication test: When two test boards into normal mode. The user press S1 button momentarily of one test board. Another test board beeps once after receive data.

2) Automatic communication test: When one of the test board into transmit mode and another into receive mode, then the buzzer beeps. That means it received data.

Pay attention: Test boards do not, turn off the power.

HOPE MICROELECTRONICS CO.,LTD
Add: 2/F, Building 3, Pingshan Private
Enterprise Science and Technology
Park, Lishan Road, XiLi Town,
Nanshan District, Shenzhen,
Guangdong, China
Tel: 86-755-82973805
Fax: 86-755-82973550
Email: sales@hoperf.com
Website: <http://www.hoperf.com>
<http://www.hoperf.cn>

This document may contain preliminary information and is subject to change by Hope Microelectronics without notice. Hope Microelectronics assumes no responsibility or liability for any use of the information contained herein. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Hope Microelectronics or third parties. The products described in this document are not intended for use in implantation or other direct life support applications where malfunction may result in the direct physical harm or injury to persons. NO WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE OFFERED IN THIS DOCUMENT.

©2006, HOPE MICROELECTRONICS CO.,LTD. All rights reserved.