Quanta Microsystems Inc.

ZM101 module operation manual-RF mode

Quanta Microsystems, Inc.

Reason for Release：

Revision	Effective Date	Author	Description of Changes
0.1	03/28/2008	Samuel Wang	Modified from OP_ZM100-1

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1. **Adaptor board connection and setup**

   ■ **Power IN (+2.7~+3.3Vdc)**

      ◆ **USB plug in:**

         ― **J_USB should be selected as USB PWR IN mode**

         ― **USB +5V → LDO→Power in**

      ◆ **RCA Jack plug in:**

         ― **J_DC should be 2-3 pin short.**

         ― **Use a +4~7V(inner) DC adaptor plug in CON_RCA→ LDO→Power in**

      ◆ **Pin header plug in:**

         ― **Use other power source(such as power supply)**

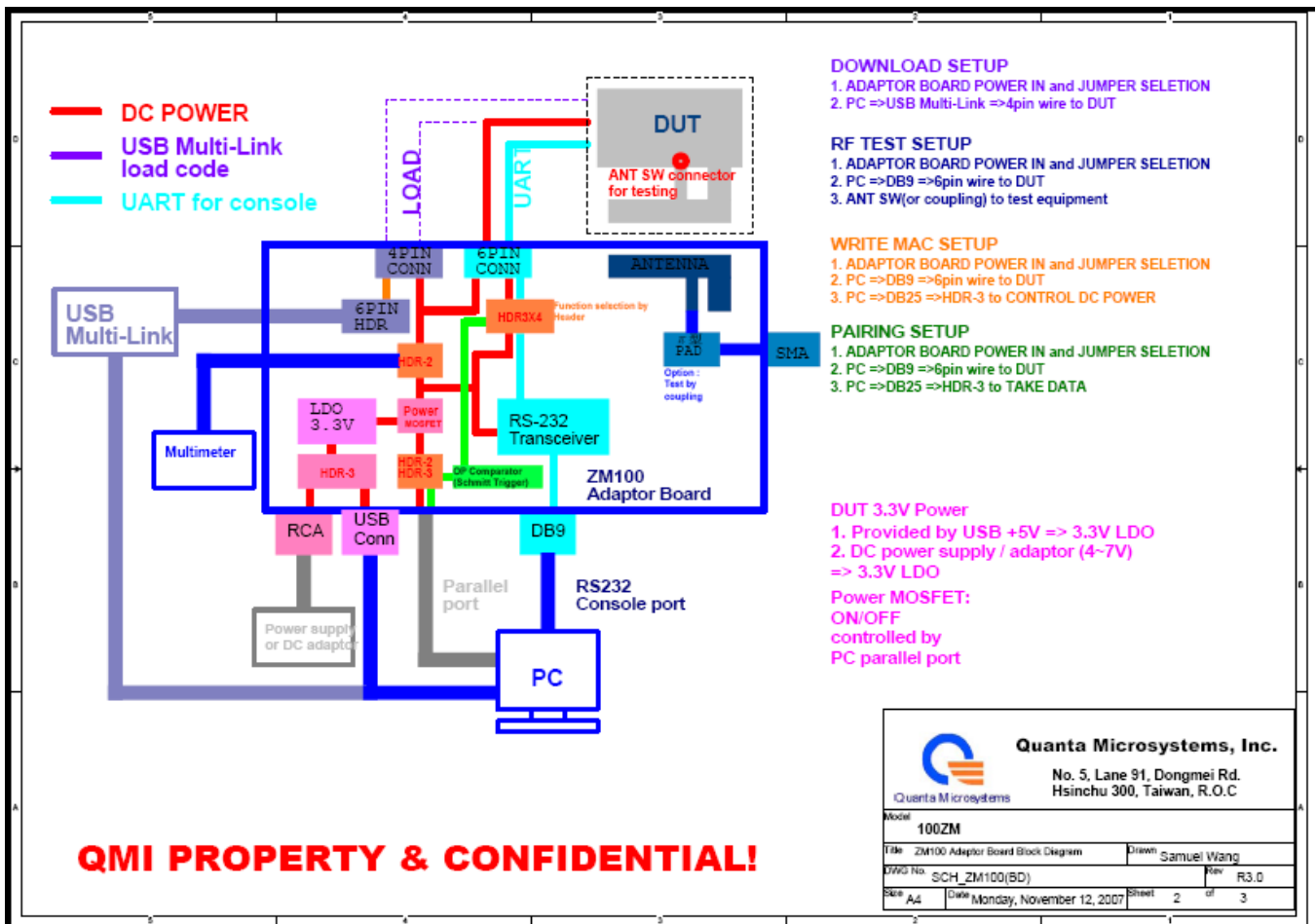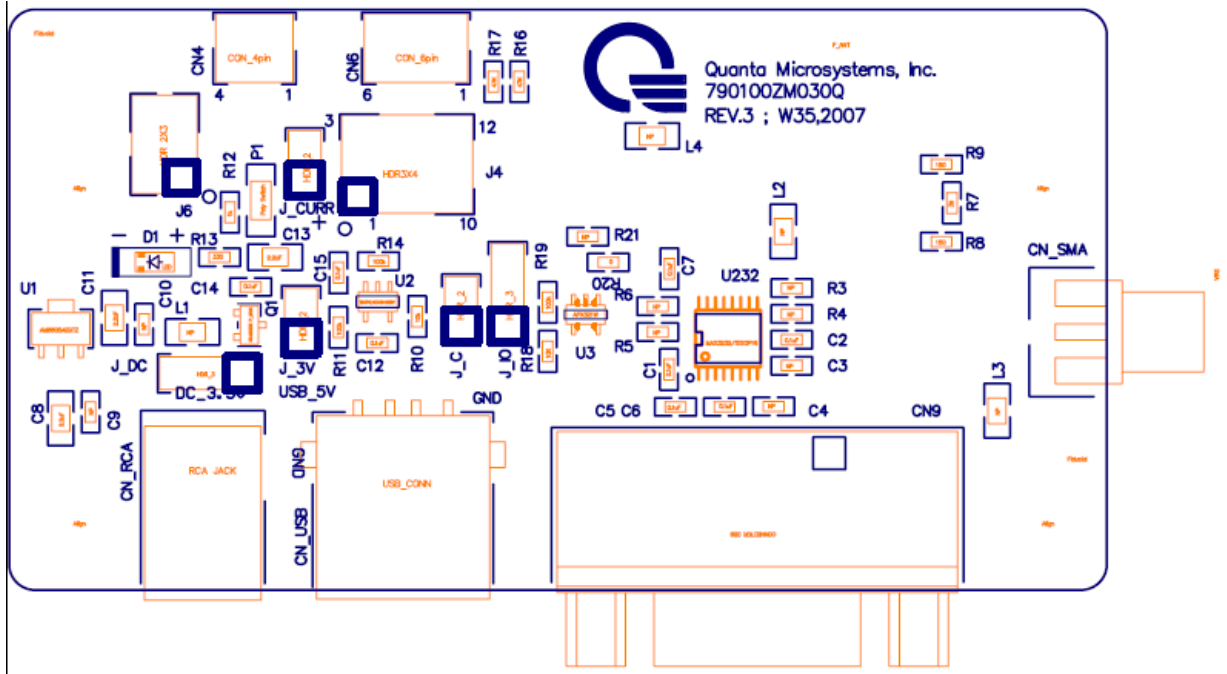   ― **Supply +2.7~+3.3V and plug in by J_3V pin header→Power in**

Fig1.1 Adaptor board and DUT test setup

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■ **Adaptor board placement and jumper selection**

- ◆ **J_CURRENT: For DC current measurement use; Default is short by Jumper.**
- ◆ **J_DC: DC input selection**
    - — **1-2 Short by Jumper : Use USB +5V→LDO→3.3V**
    - — **2-3 Short by Jumper : Use RCA Jack**
    - — **Open : Use J_3V pin header**
- ◆ **CN USB: Insert USB A-type cable connect to USB host to provide +5Vdc.**
- ◆ **CN_RCA : Provide +4~7Vdc by RCA Jack.**
- ◆ **J_3V : Provide +2.7~3.3V by pin header, positive port are marked in square.**
- ◆ **CN9 : D-SUB9 for UART console.**
- ◆ **CON4 : insert 4-wire cable connect to DUT for FW download.**
- ◆ **CON6 : insert 6-wire cable connect to DUT for RF testing.**

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- ◆
- ■ **FW download**
    - ◆ **Connect 4pin connector to adaptor and use USB multi-link or programmer download, 2X3 pin header pin1 are marked in square.**
    - ◆ **Open OS hyper terminal as a com port used**

- ■ **UART connection**
    - ◆ **Use a D-SUB9 cable connects to PC com port**
    - ◆ **Open OS hyper terminal as a com port used**
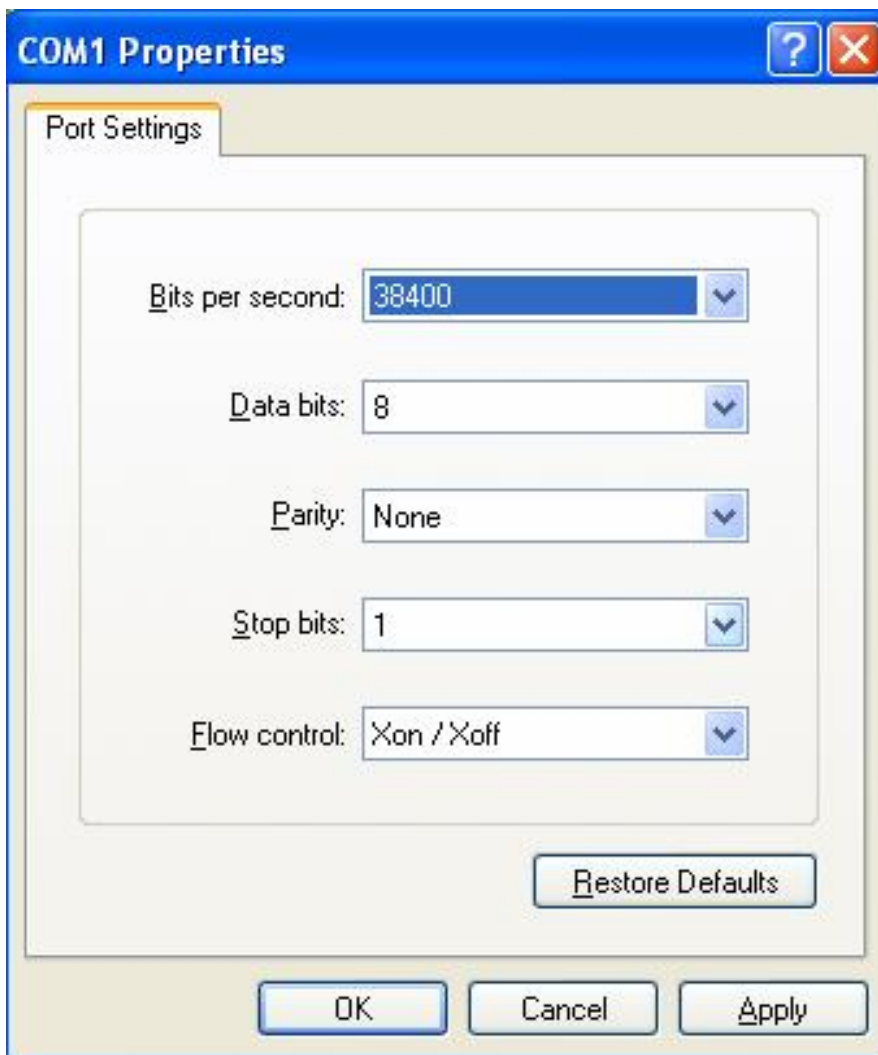   - ◆ **Set properties as following**

Fig 1.1 Hyper terminal COM port settings

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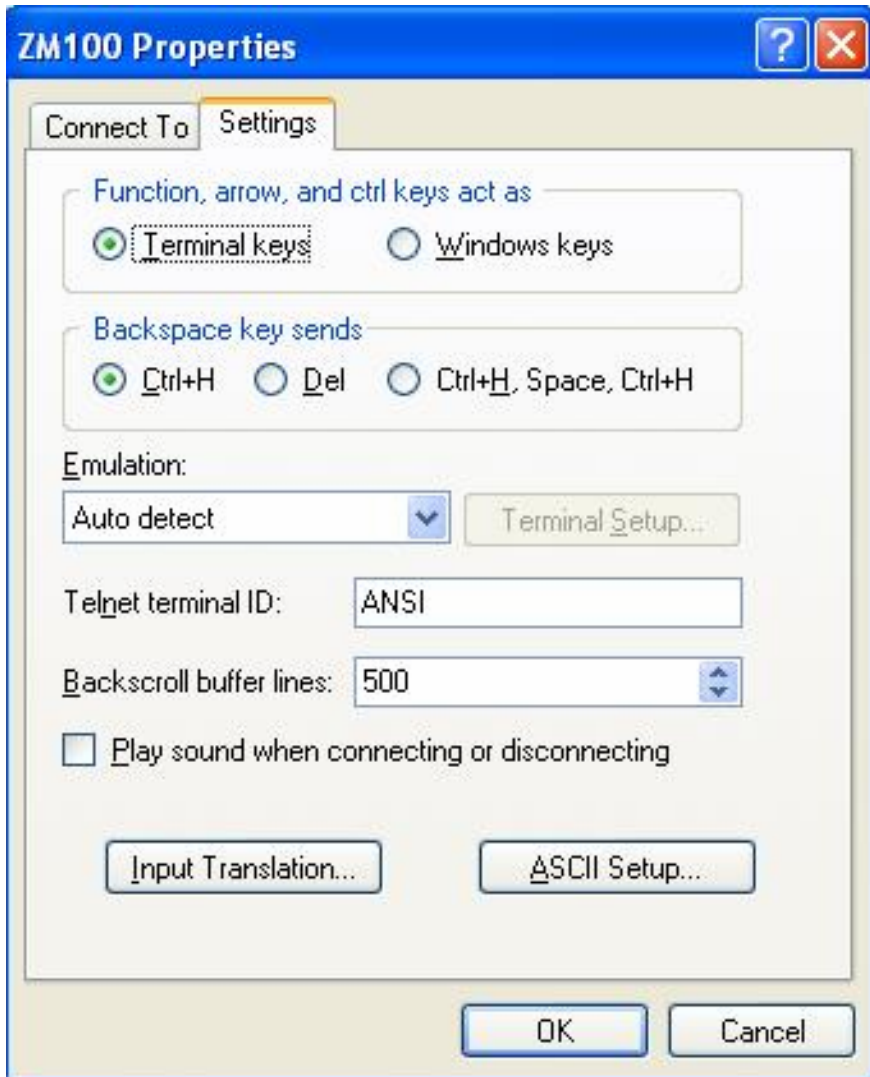
Fig 1.2 Hyper terminal Properties settings

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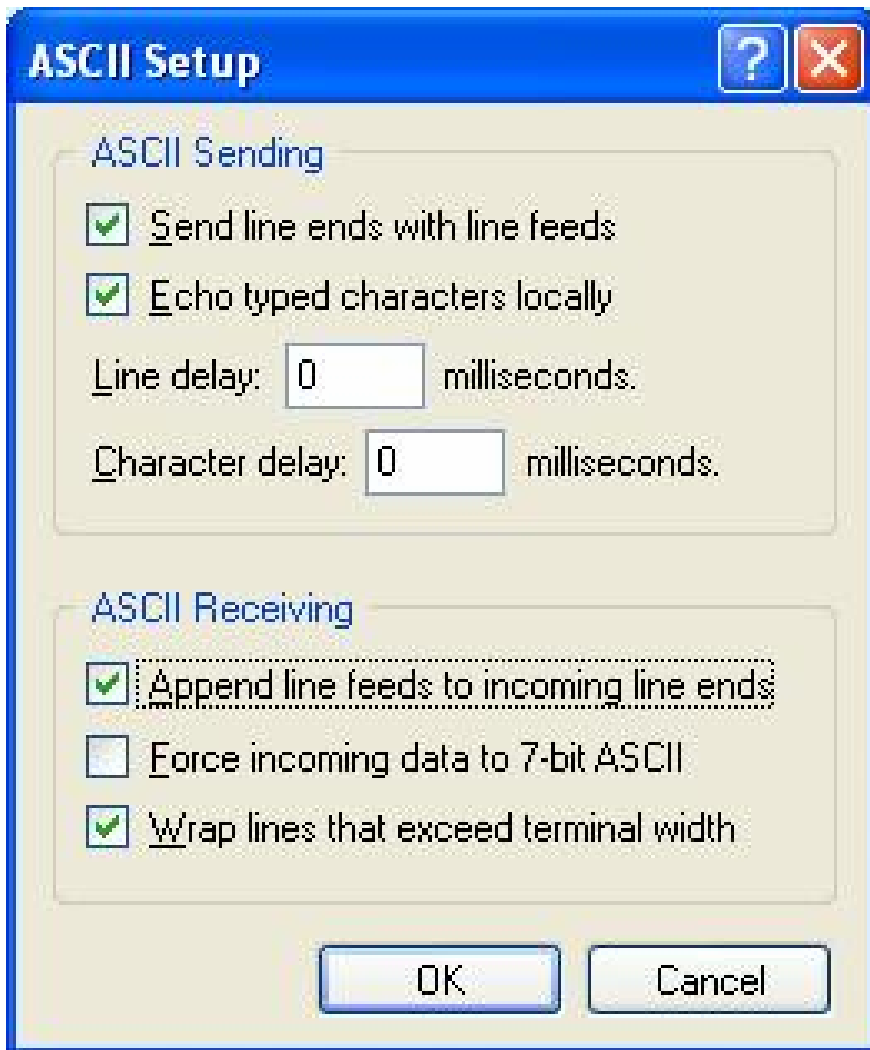| Subject:	ZM101 operation manual-RF mode			Rev:	0.2
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Fig 1.3 ASCII setup

**After finished above item, connect DUT and adaptor board by 6pin wire connection.
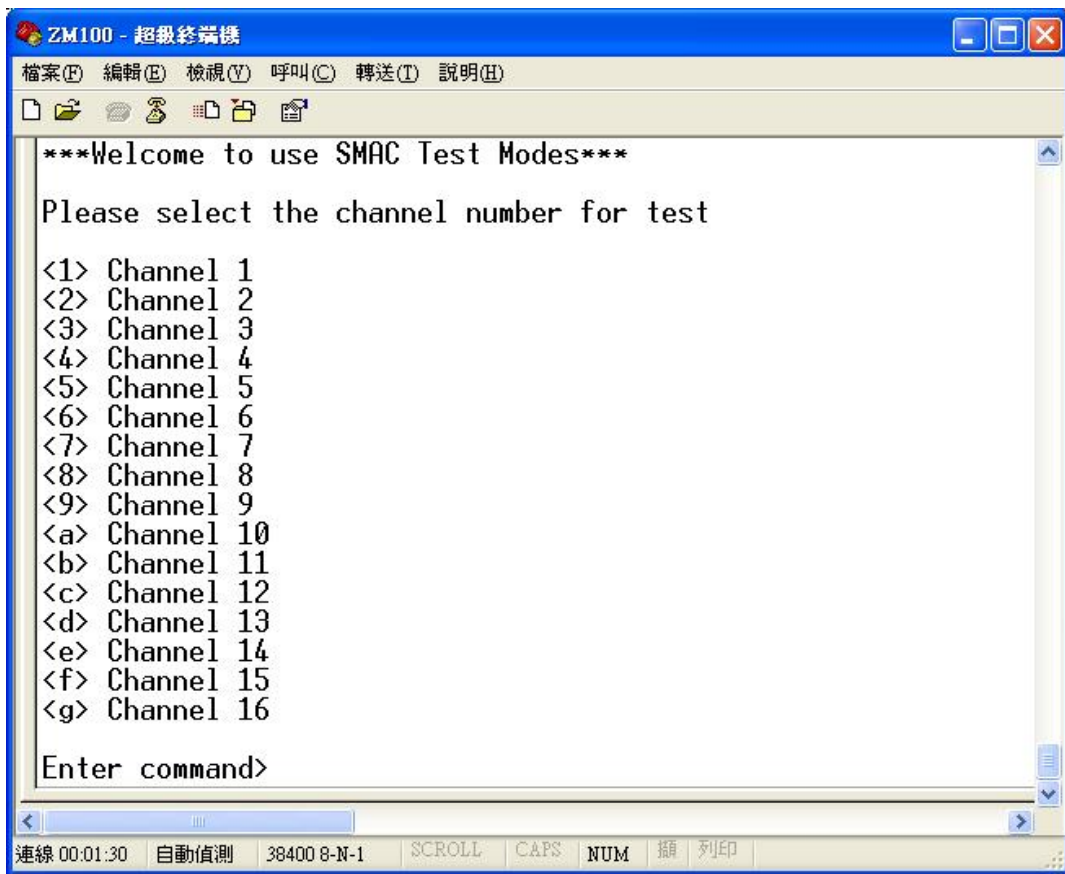Then it will be operating as RF test mode**

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2. **RF test mode application**
   - ■ **Channel selection**
     - ◆ **Set channel**
       - — **Select character "1,2,3….,f,g to set channel 1~16**

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◆ **Set output power**

— **Default power: -0.66dBm (select character "n")**

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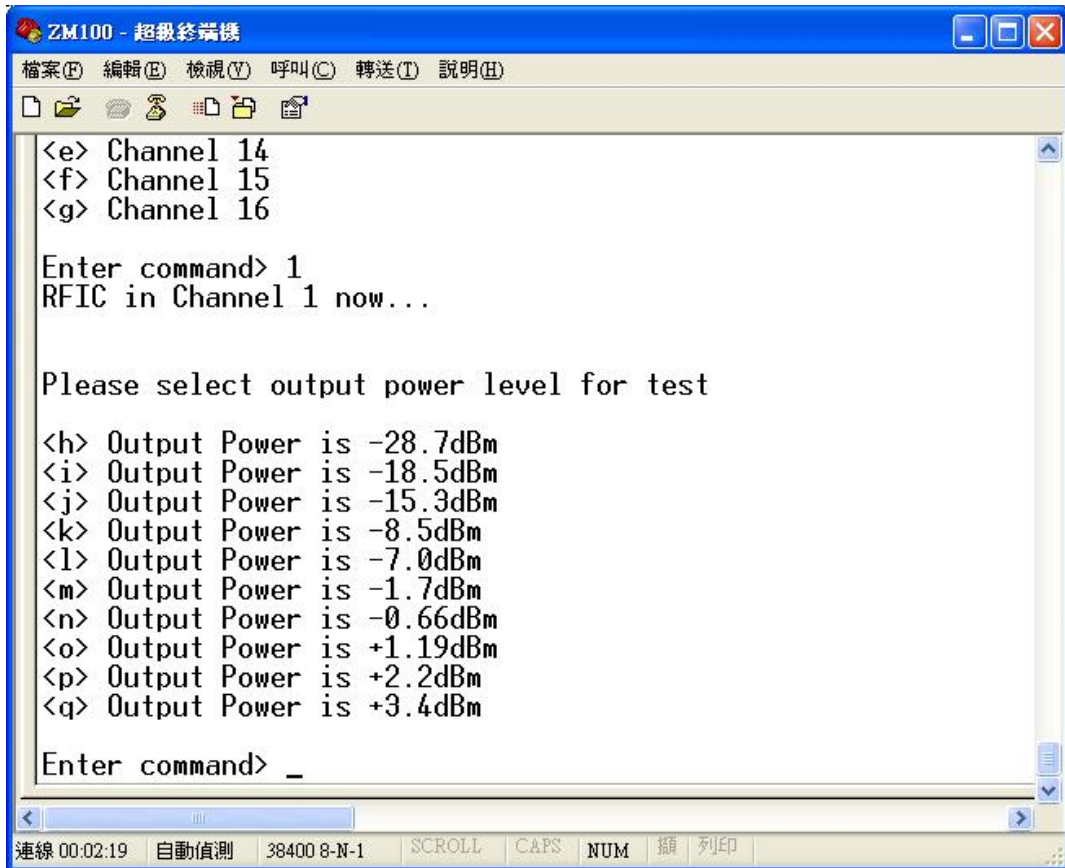
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◆ **Set operation mode**
  – **Select character "v,w,x…r,s" for operation mode**
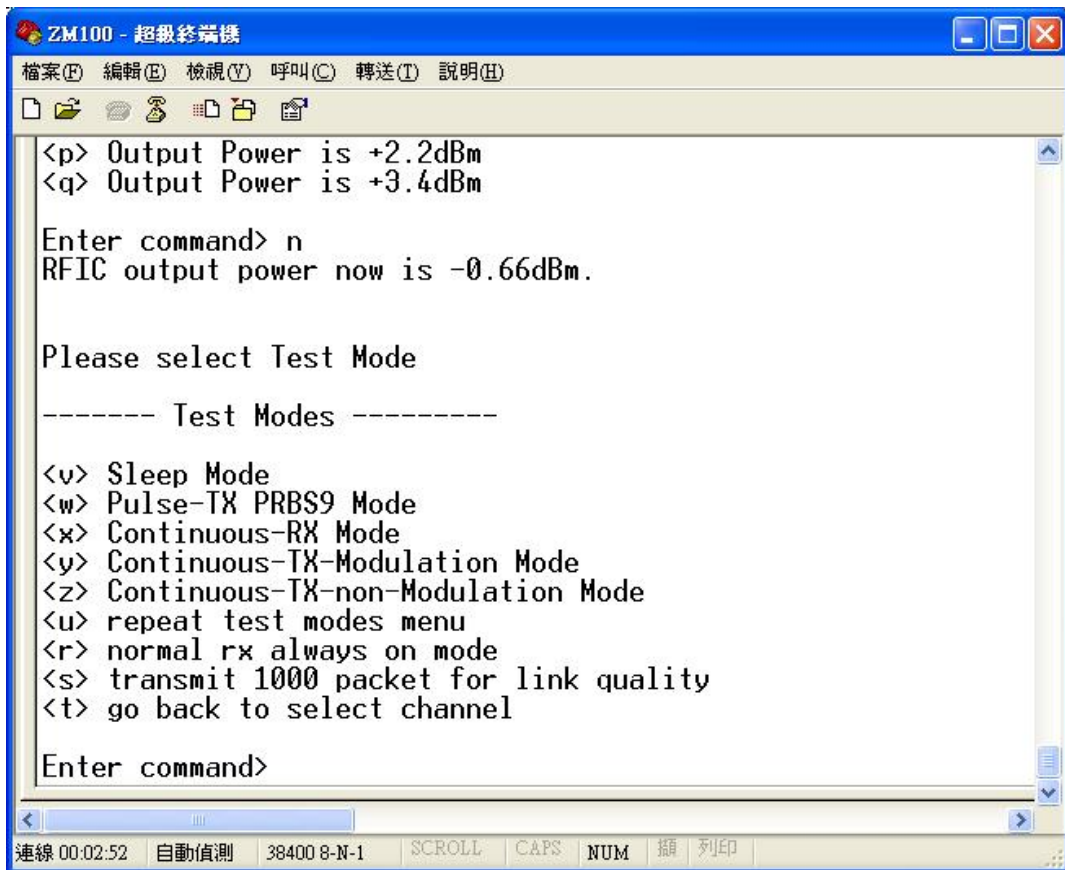
After you finished testing, you can select character "t" to go back to main manual. If you can not go back to main manual (ex. DUT on sleep mode); it shall be power off then power on DUT to go back to main manual.

Federal Communication Commission Interference Statement

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users, and
2. The transmitter module may not be co-located with any other transmitter or antenna,

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users.   The final end product must be labeled in a visible area with the following: "Contains FCC ID:T5U-ZM101".

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.