

LRM001 使用手冊

Version: 1.0

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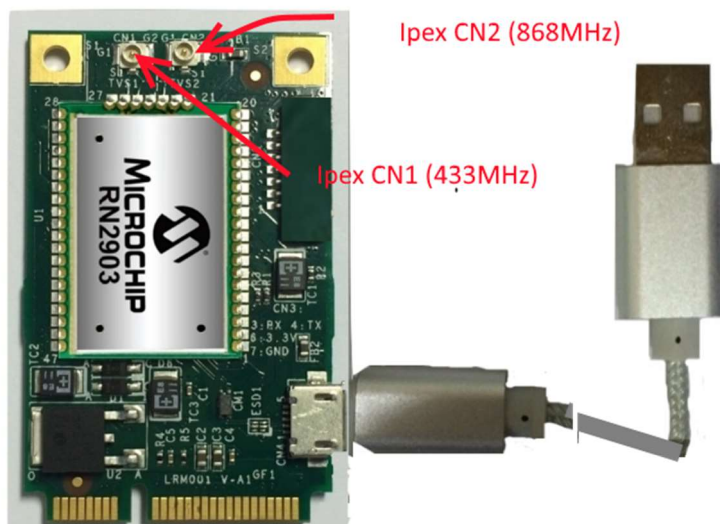
1. 介紹

The LRM001使用 LoRa技術、符合低資料速率無線網路標準，可實現物聯網(IoT)和機器對機器(M2M)無線通訊距離超過5公里；低耗電量的應用需求，並且能夠將數百萬的無線感測器節點與LoRa技術開道連接起來。

目前IoT市場正呈現爆發式成長，開發人員面臨的挑戰是基於有限的資源建立簡單、強大的基礎設施。而LRM001模組配有LoRa協定堆疊，可輕鬆連接現已建成且迅速發展的LoRa聯盟基礎設施，從而打造覆蓋全國範圍的低功耗廣域網路(LPWANs)。

2. 設定 LRM001

1. 安裝 Ipex to SMA CN1 (433MHz) CN2 (868MHz or 915MHz)
2. 連接天線 SMA
3. 接 MicroUSB 到 LRM001
4. 接 USB 到 Embedded System



安裝 Windows driver

- 1) Please install LRM001 driver to work in Windows. [Download link](http://www.liyatech.com/upload/products/20160514170420305.exe) . (<http://www.liyatech.com/upload/products/20160514170420305.exe>) . [Driver document link](#).
- 2) Please connect LRM001 with PC through micro USB cable.
- 3) Please install the LoRa antenna to LRM001

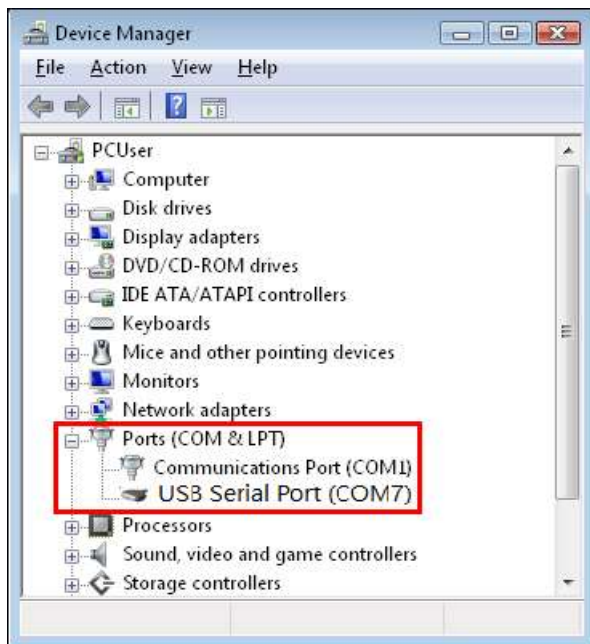
安裝 Linux Driver

- 1) In x86 system , because Ubuntu and Debian has already built the driver inside the OS. Mac OS and Raspberry Pi has already got the driver built in. There is no need to install the linux driver.
- 2) Please download LRM001 ,[Download link](#) , linux driver and install it. ([Installation manual download link](#))
- 3) Please connect LRM001 with PC through micro USB cable.
- 4) Please install the LoRa antenna to LRM001

3. 使用 LRM001

3.1 取得連接埠資訊

開啟裝置管理員，點選連接埠選項，確認連接埠號碼為哪個 Port , 如下圖是 COM7



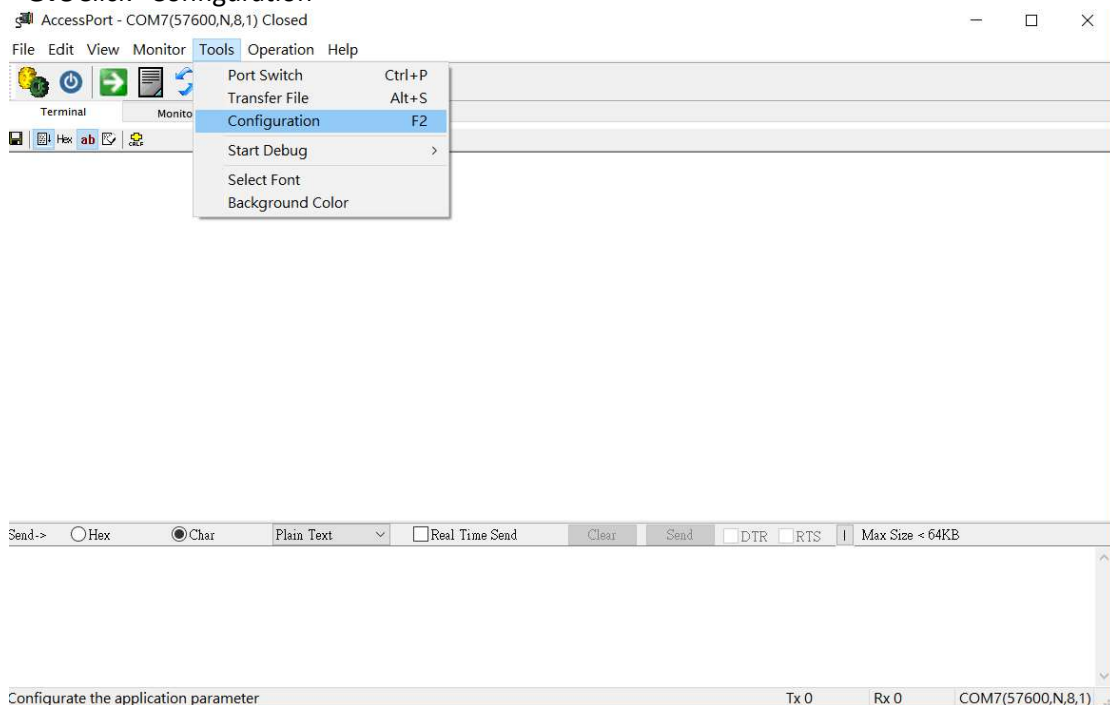
3.2 Download software “Accessport” from <http://www.sudt.com/en/ap/download.htm>

3.3 Unzip the file **Accessport137.zip**

3.4 Run **accessport137.exe**

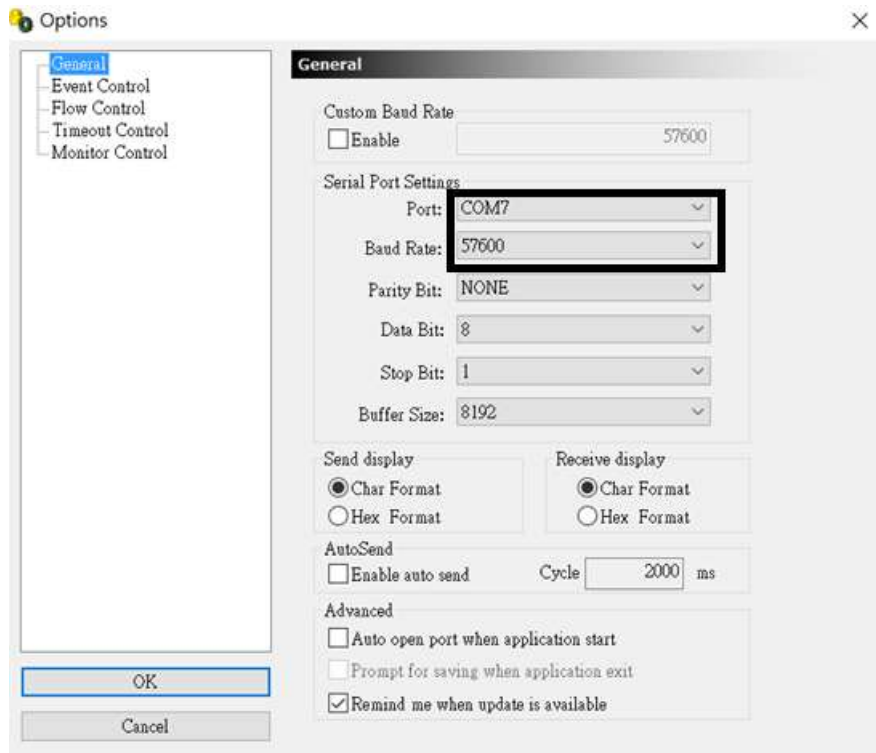
3.5 Click “Tools” in menu bar

3.6 Click “Configuration”

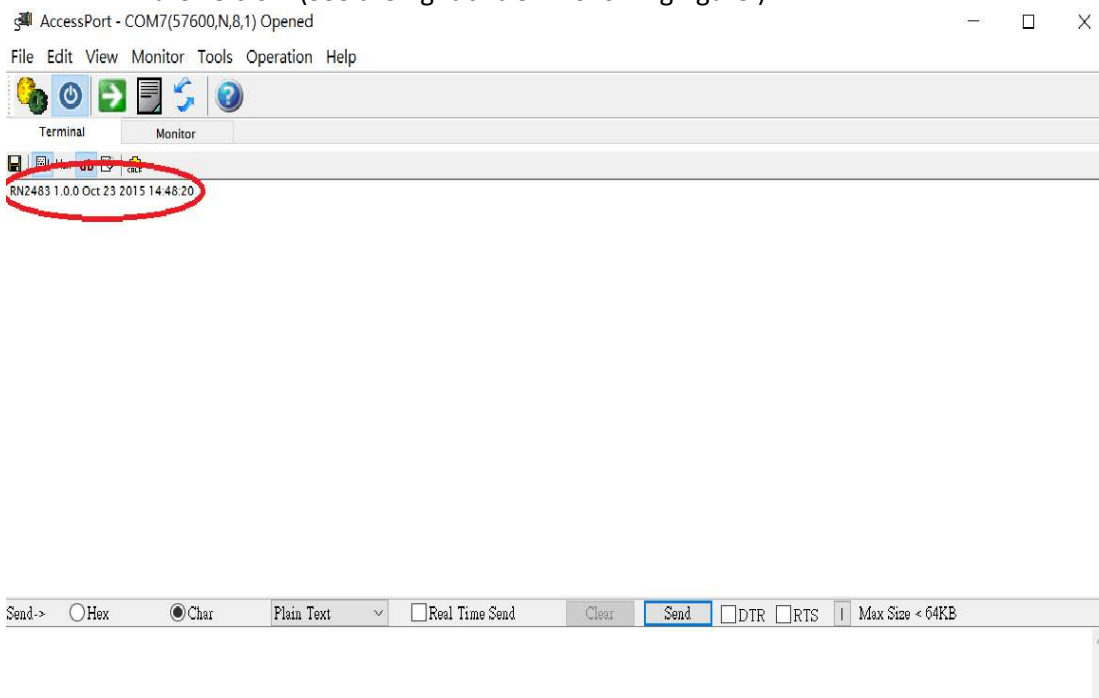


3.8 Keyin the Port number “COM 7” which we check in step 1

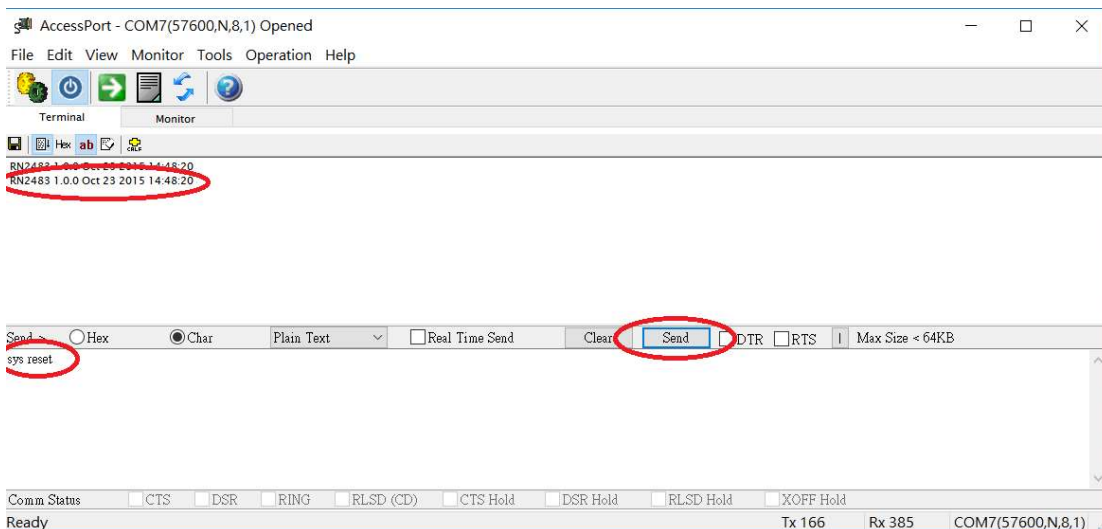
3.9 Keyin the baud rate “57600”.



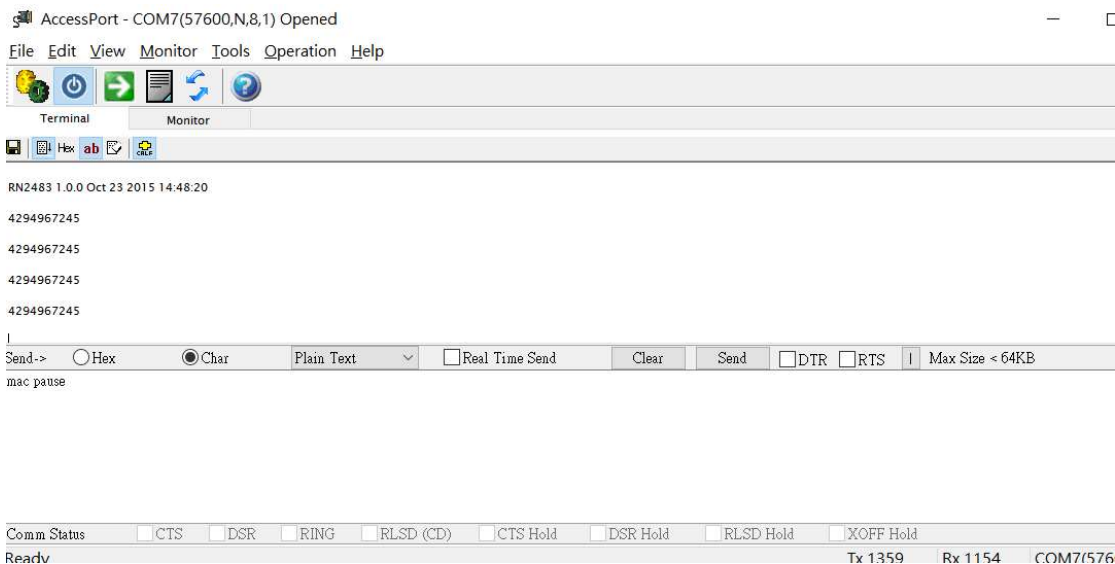
3.10 Click OK. You will see the “RN2483 1.0.0 Oct 23 2015 14:48:20”. It is the model number and firmware version. (See the right circle in following figure.)



- 3.11 In the “comm window” , Key in “sys reset”. Click “return” (in keyboard)
- 3.12 Click “Send”
- 3.13 The “RN2483 1.0.0 Oct 23 2015 14:48:20” will be shown in the 2nd line.



3.14 You may key in other command like “set mac pause”, it will reply “4294967245” The command is in the attached RN2483 manual.



3.15 Please clear the “comm Status”, if there is anything not smooth.

4. AT 指令

Please download [RN2483's command manual](#). All of the LRM001's settings and commands are transmitted over UART using the ASCII interface. All commands need to be terminated with <CR><LF> and any replies they generate will also be terminated by the same sequence.

Noted: All AT commands are case sensitive.

5. 注意事項

5.1 本產品符合低功率電波輻射性電機管理辦法

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。

5.2 安裝

安裝注意事項, 產品天線安裝需由專業工程人員安裝天線方能使用, 不宜直接販售給一般消費者