MT7981
QA Tool User Guide

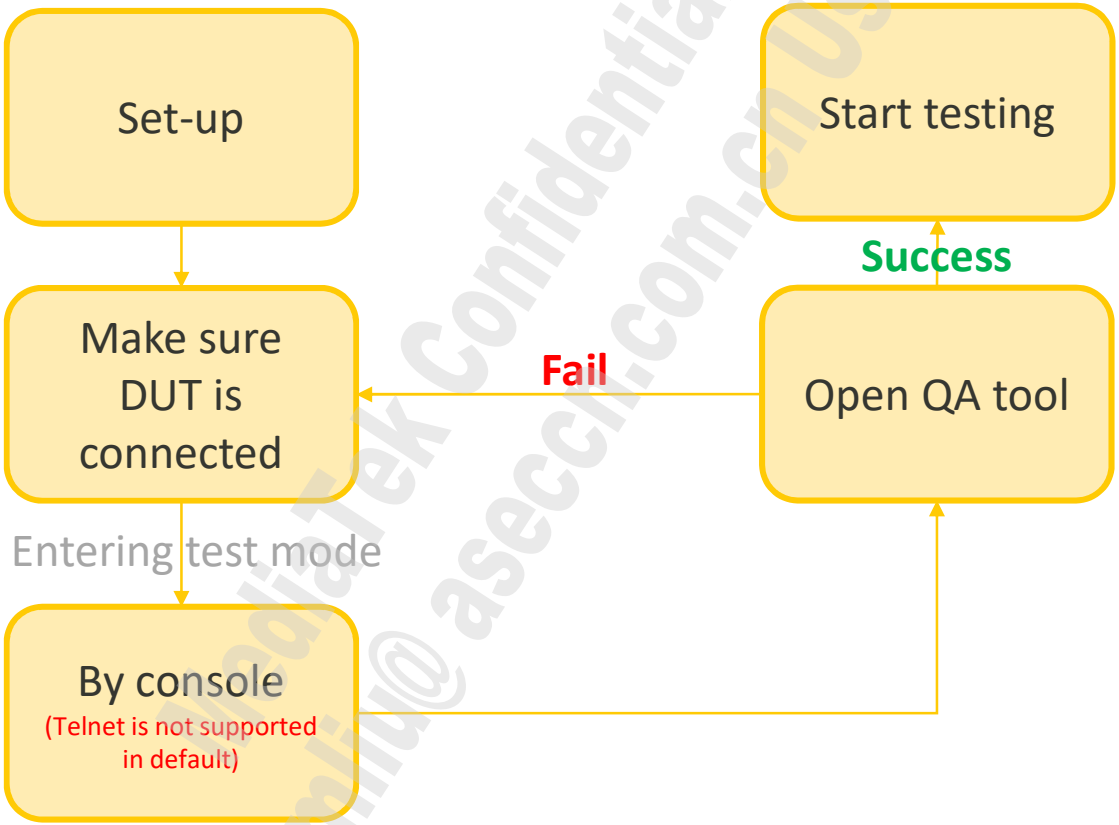
Outline

- Before test
- Static test
  - TX
  - RX
- Debug tool
  - EEPROM
  - DC tone(single, two)
  - Duplicate mode(for EMI test)

Note

- * : Annotation
- ❶: Essential steps
- ❶: Function
- blue: noteworthy items

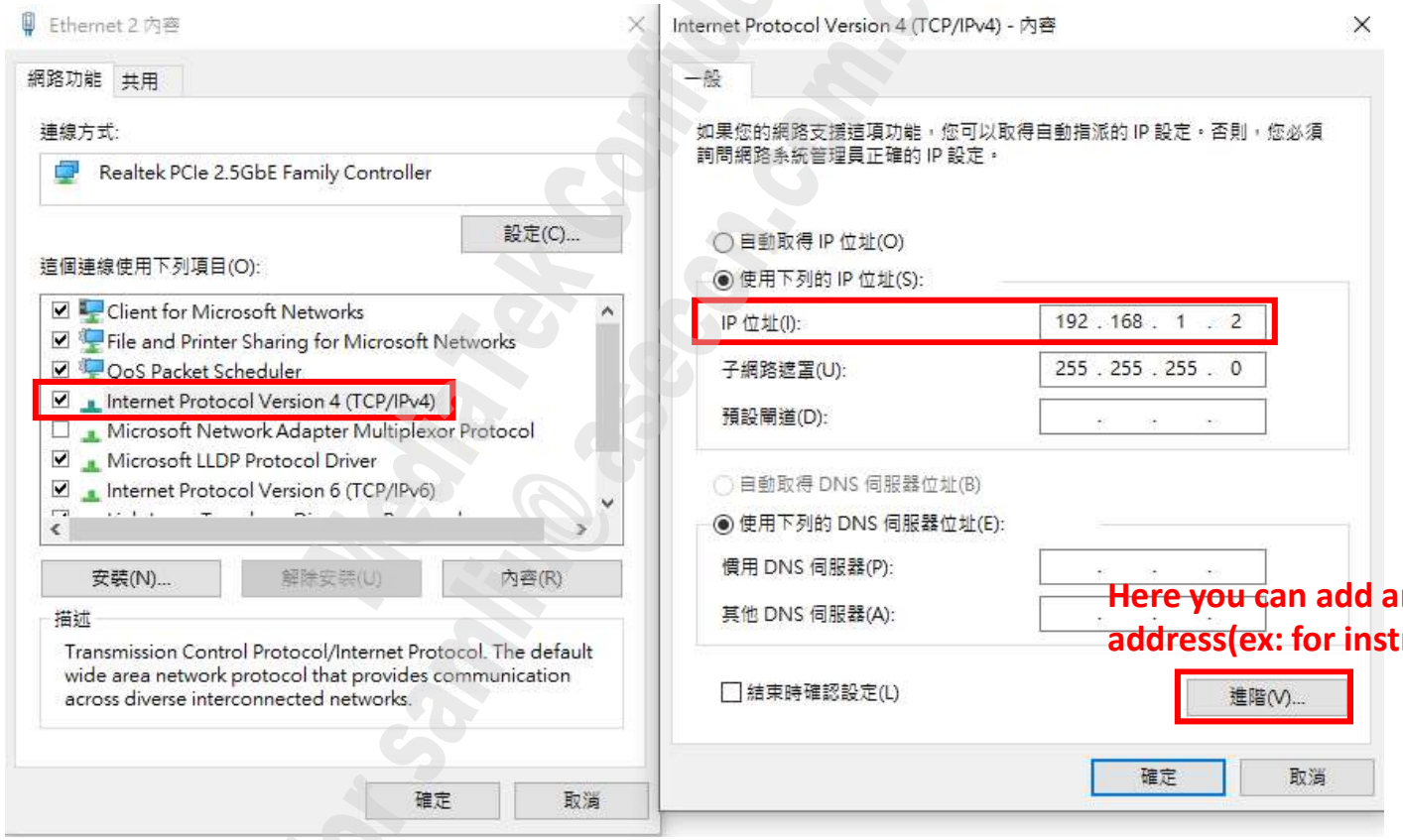
Flow



1. Set-up

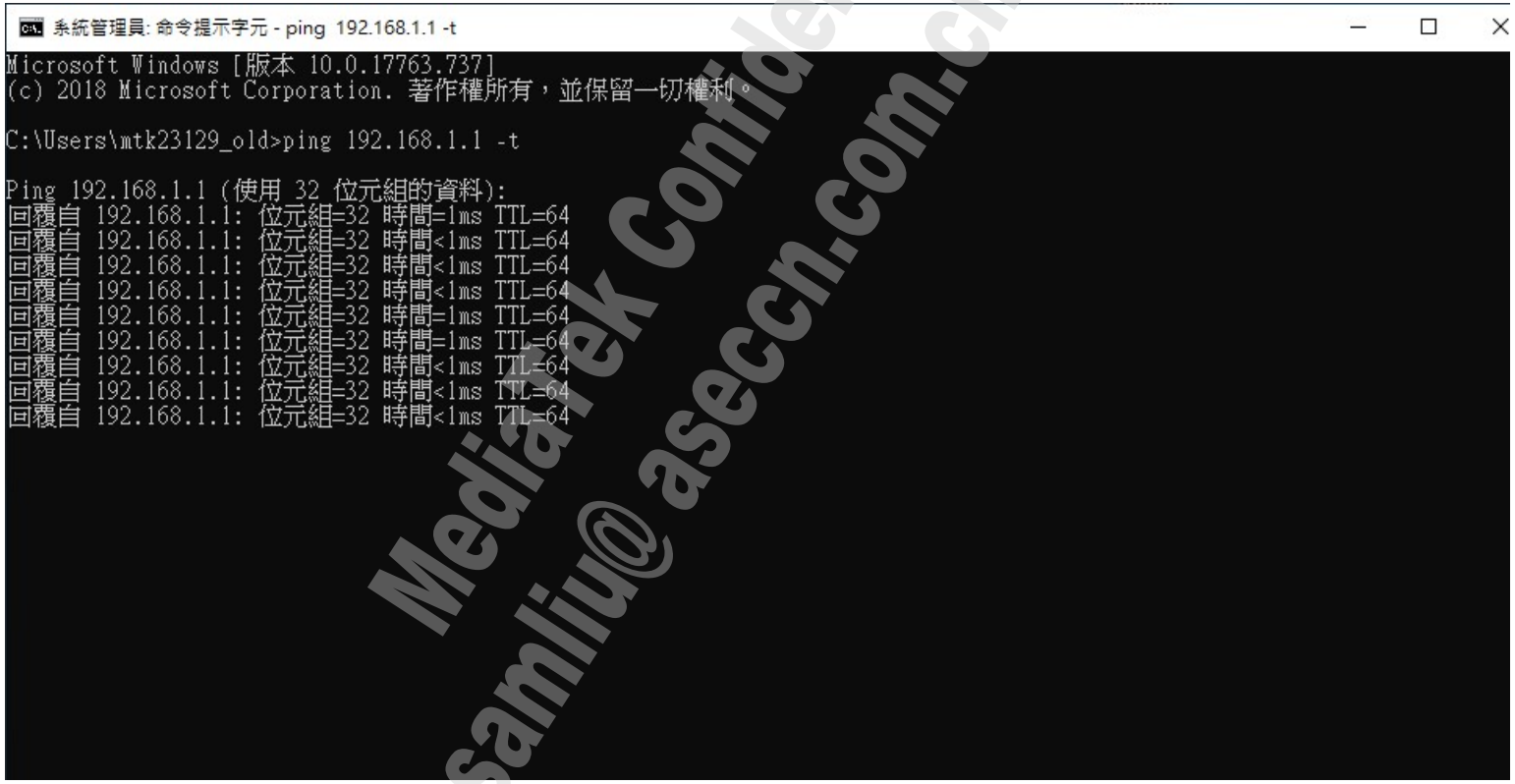
- **DUT Default IP: 192.168.1.1**
- **To connect to DUT, network IP should be set to same IP domain**

  (ex: 192.168.1.2 or 192.168.1.3,…etc.)



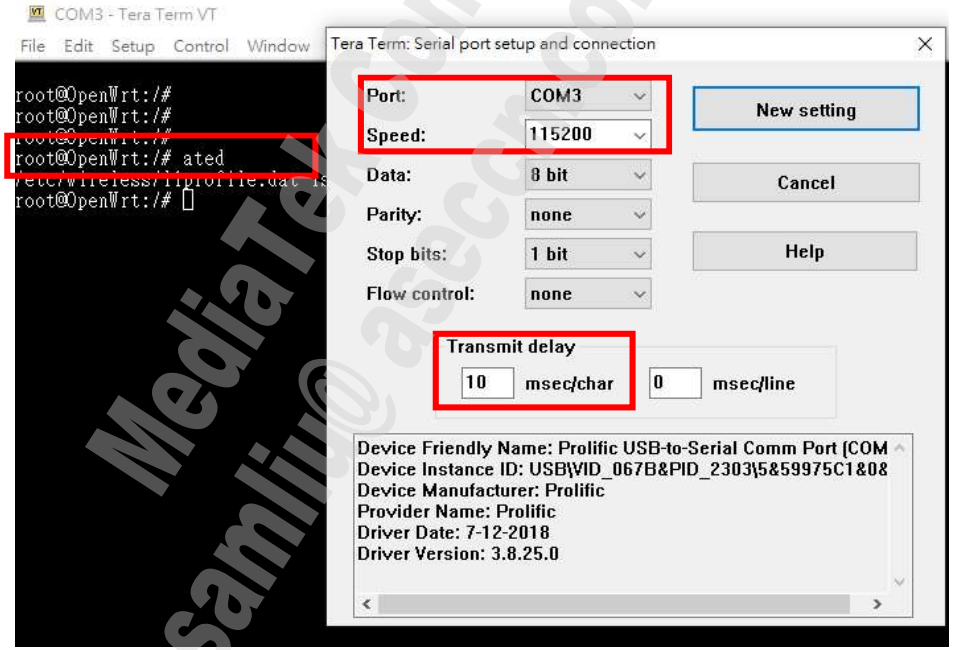
2. Make sure DUT is connected to testing PC/NB

- **Open command window.**
- **Key-in "ping 192.168.1.1 -t" to ping DUT continuously.**



3. Entering test mode

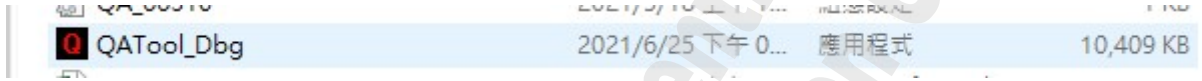
- **By Console(telnet is not supported)**
  - Select port, and baud rate(speed) set to 115200.
  - 10 ms transmit delay is recommended.
  - Key-in “ated” right after “root@LEDE:/#” to enter test-mode.



4. Open QA tool

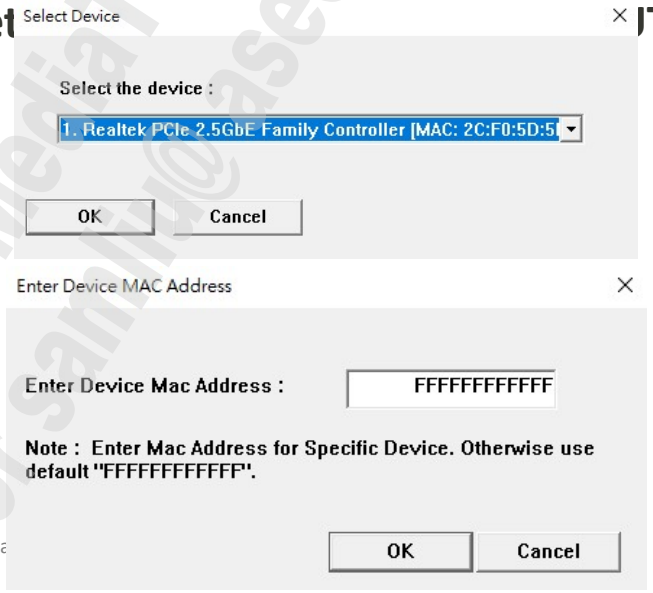
- Open “QATool_Dbg.exe”.

  *If you can't launch QA tool (popup can't find wpcap.dll message), please install WinPcap.



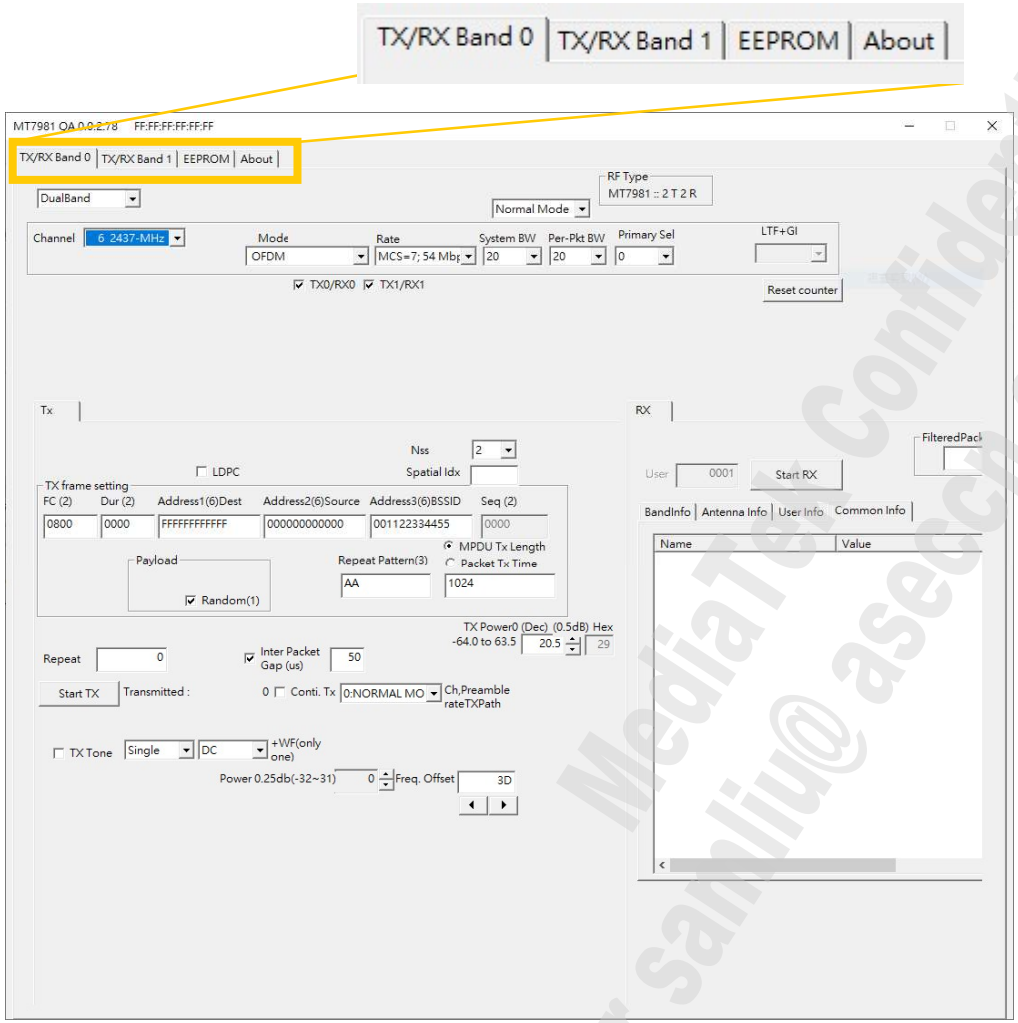
- Choose “APSOC”.

- Select corresponded net IT)



- Press OK

5. Start using QA Tool



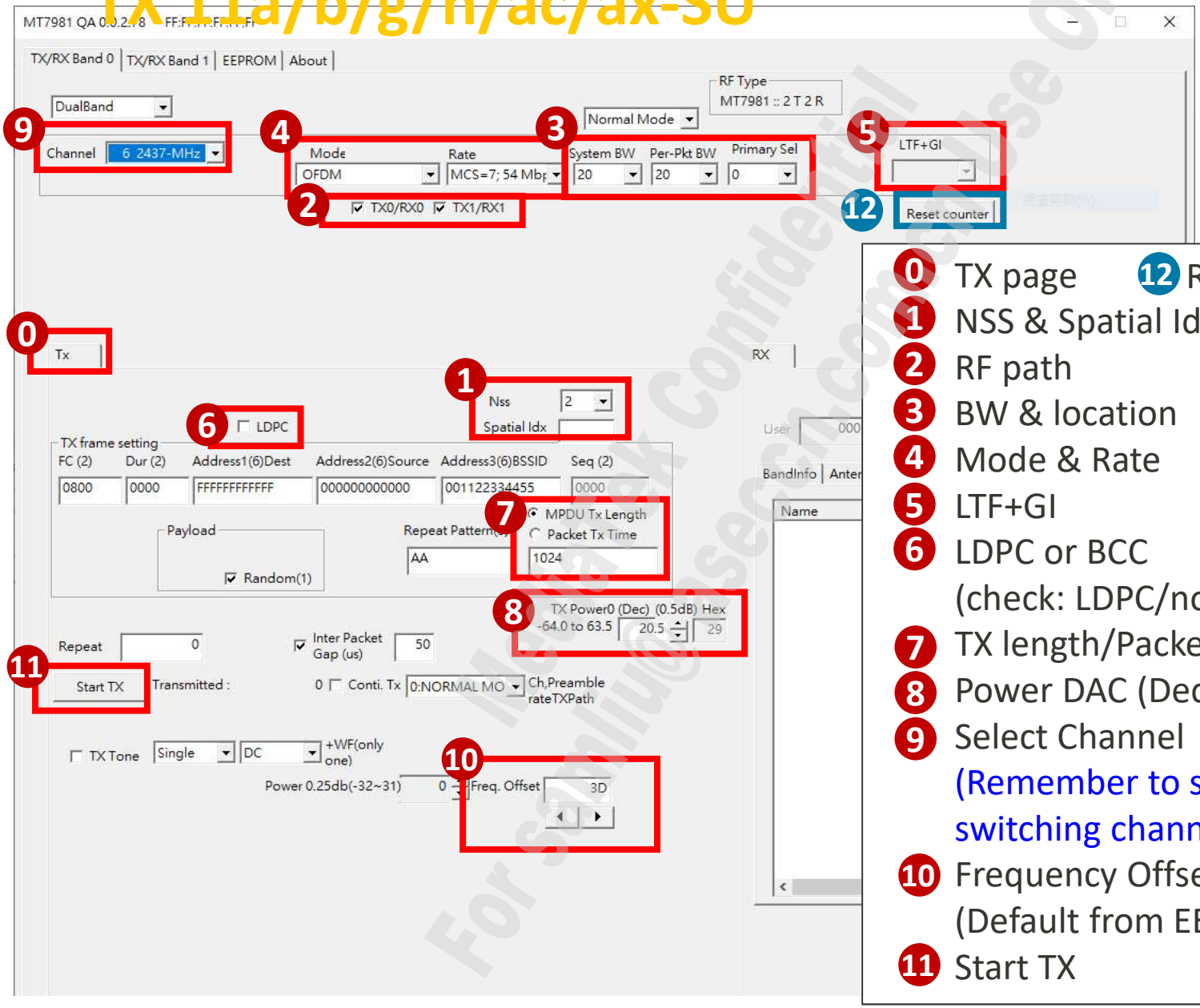
Page	Usage
TX/RX Band0 *	(PHY0) G Band TX/RX
TX/RX Band1 *	(PHY1) A Band TX/RX
EEPROM	Read/Write/Save EEPROM

**For DBDC: TX/RX pages are separated into:*

G band ➔TX/RX Band0

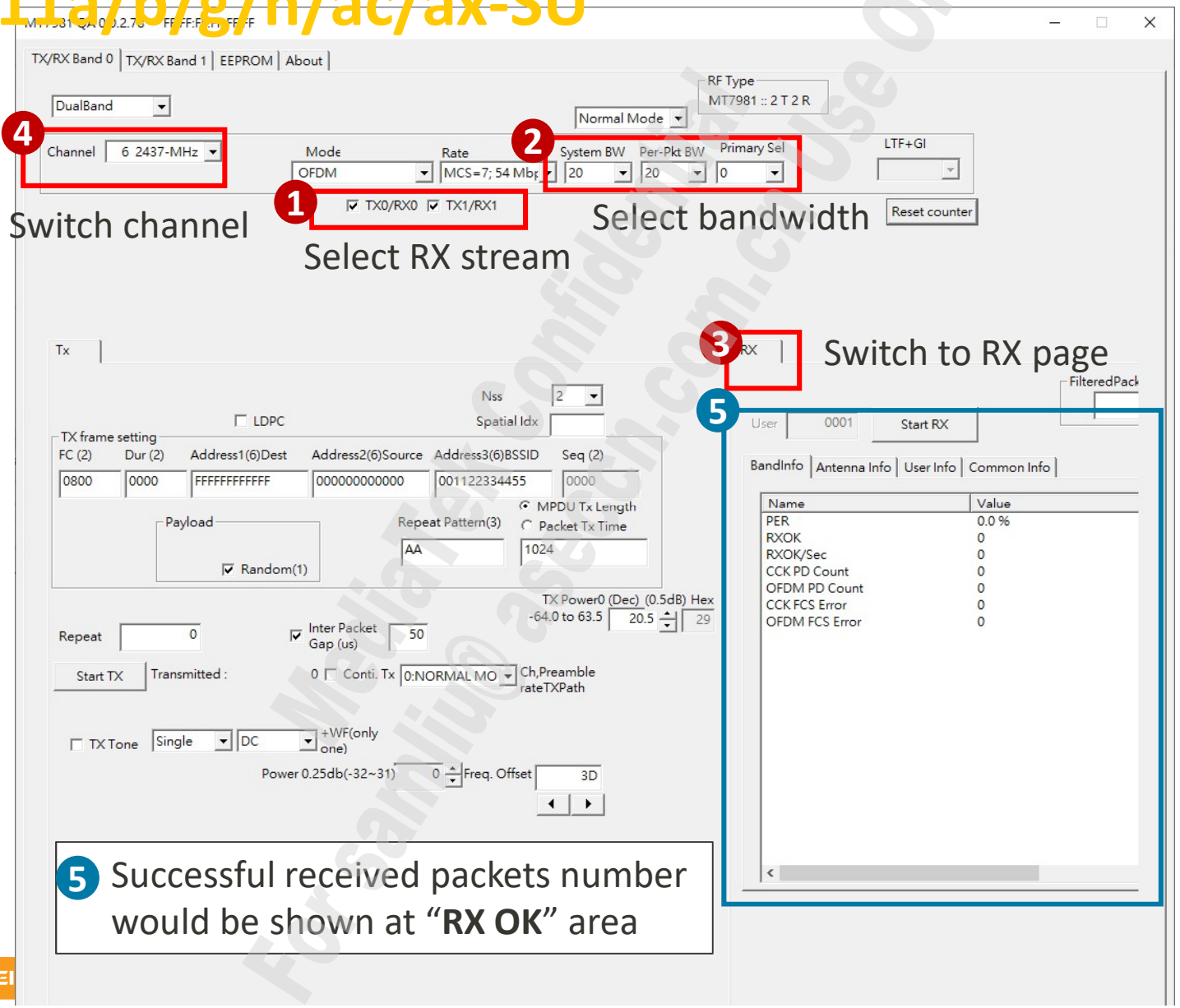
A band ➔TX/RX Band1

TX 11a/b/g/n/ac/ax-SU

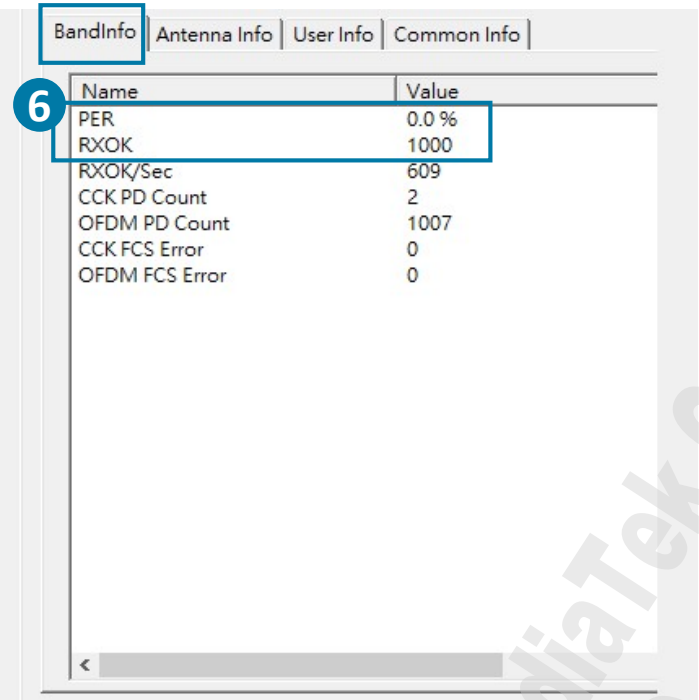


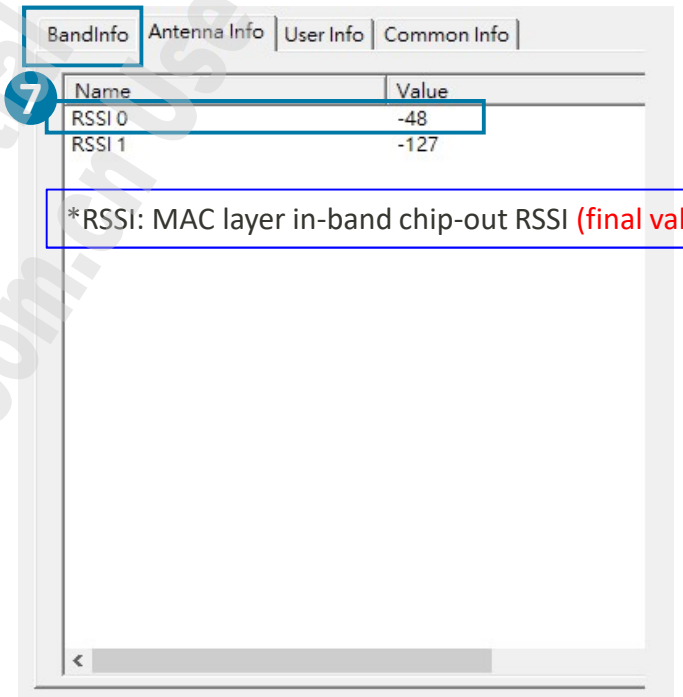
0 TX page
12 Reset TX/RX counter
1 NSS & Spatial Idx
2 RF path
3 BW & location
4 Mode & Rate
5 LTF+GI
6 LDPC or BCC
(check: LDPC/non-check: BCC)*
7 TX length/Packet time
8 Power DAC (Dec/Hex,0.5dB)
9 Select Channel
(Remember to stop TX before switching channel)
10 Frequency Offset
(Default from EEPROM)
11 Start TX

RX 11a/b/g/n/ac/ax-SU

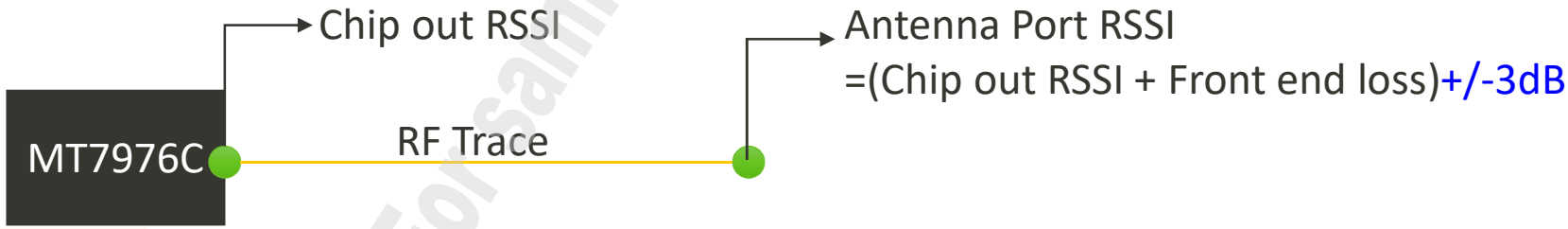


RX 11a/b/g/n/ac/ax-SU

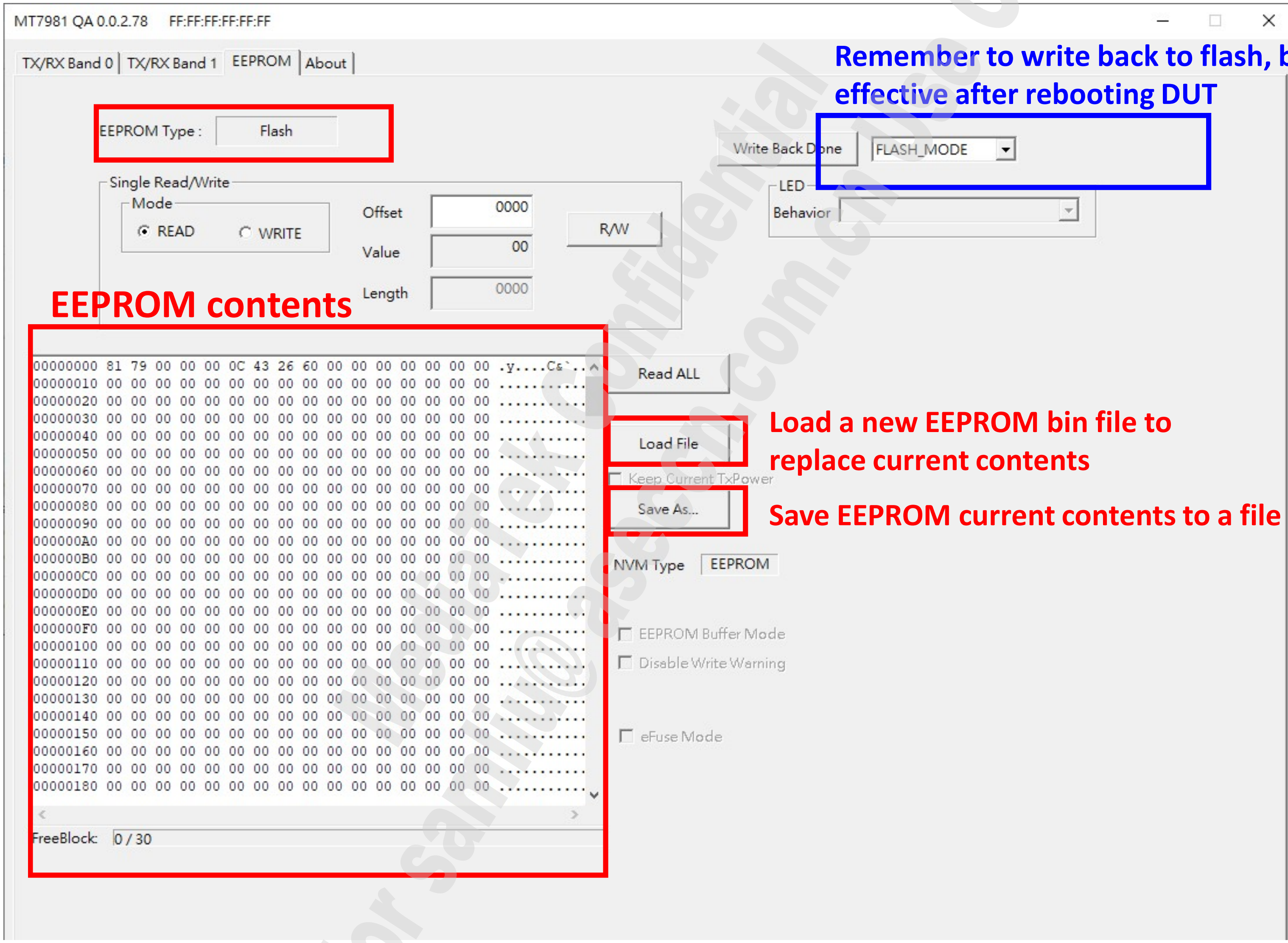




- 7 RSSI means chip-out RSSI in QATool.



EEPROM



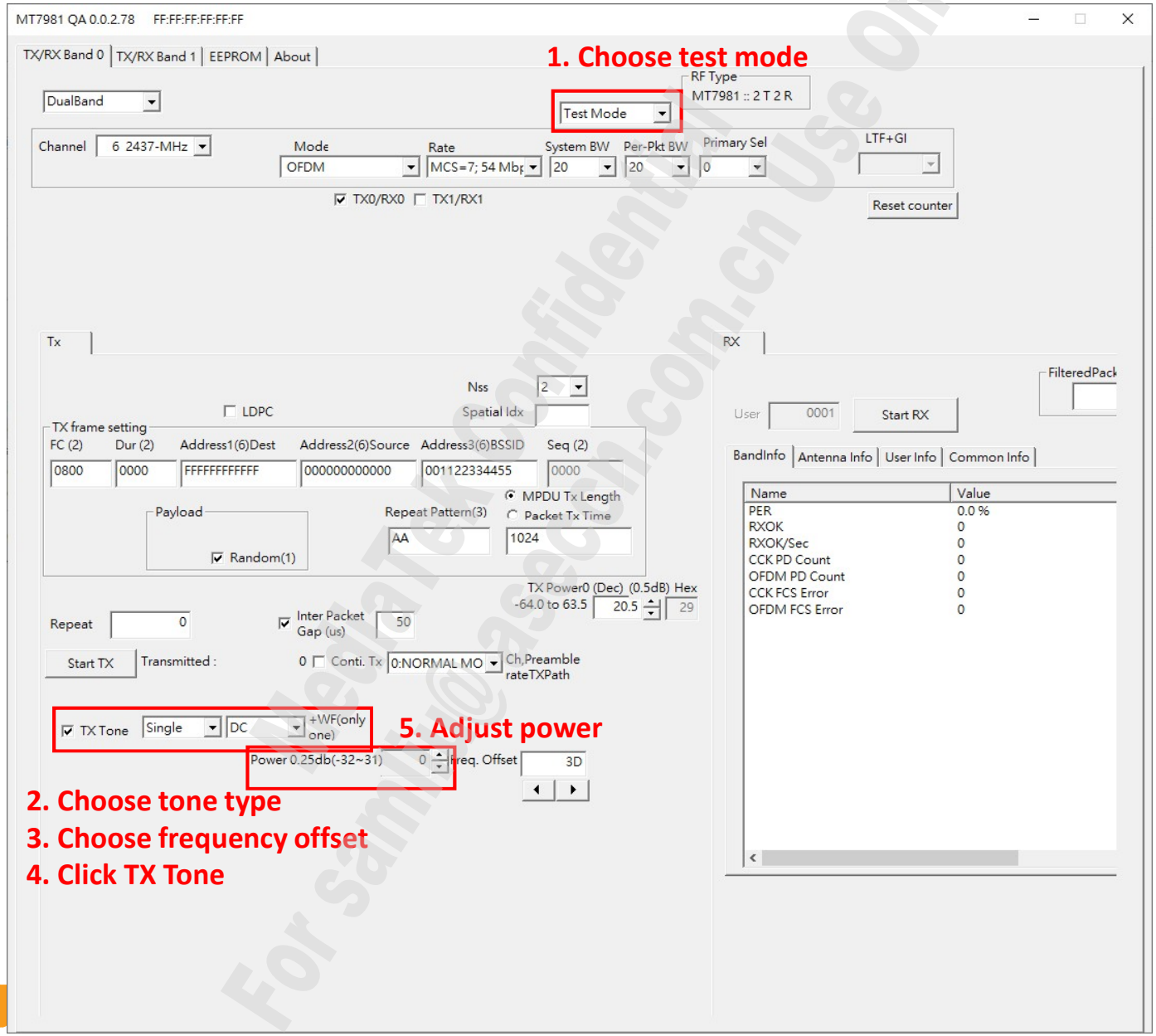
Remember to write back to flash, become effective after rebooting DUT

EEPROM contents

Load a new EEPROM bin file to replace current contents

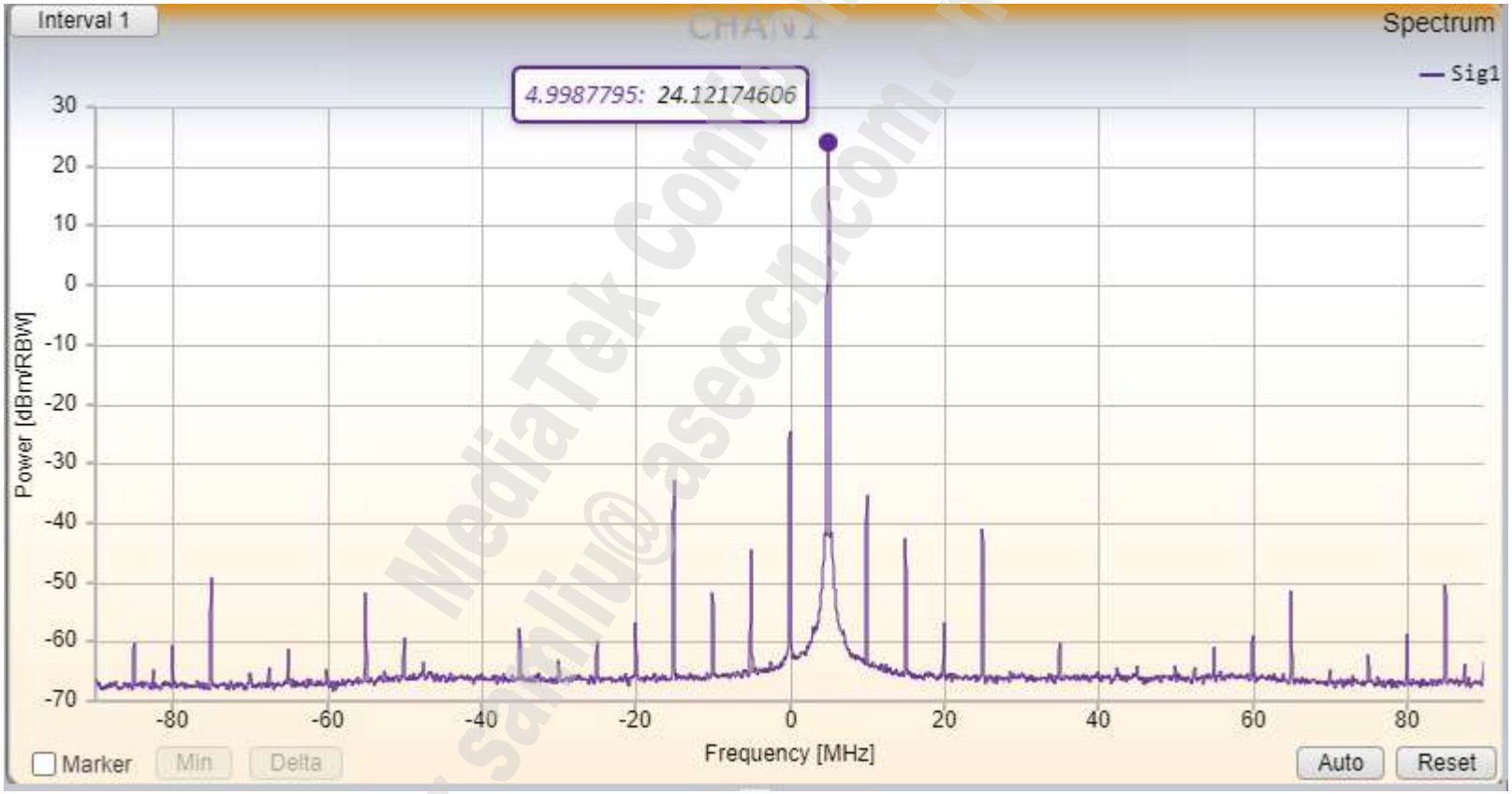
Save EEPROM current contents to a file

DC tone



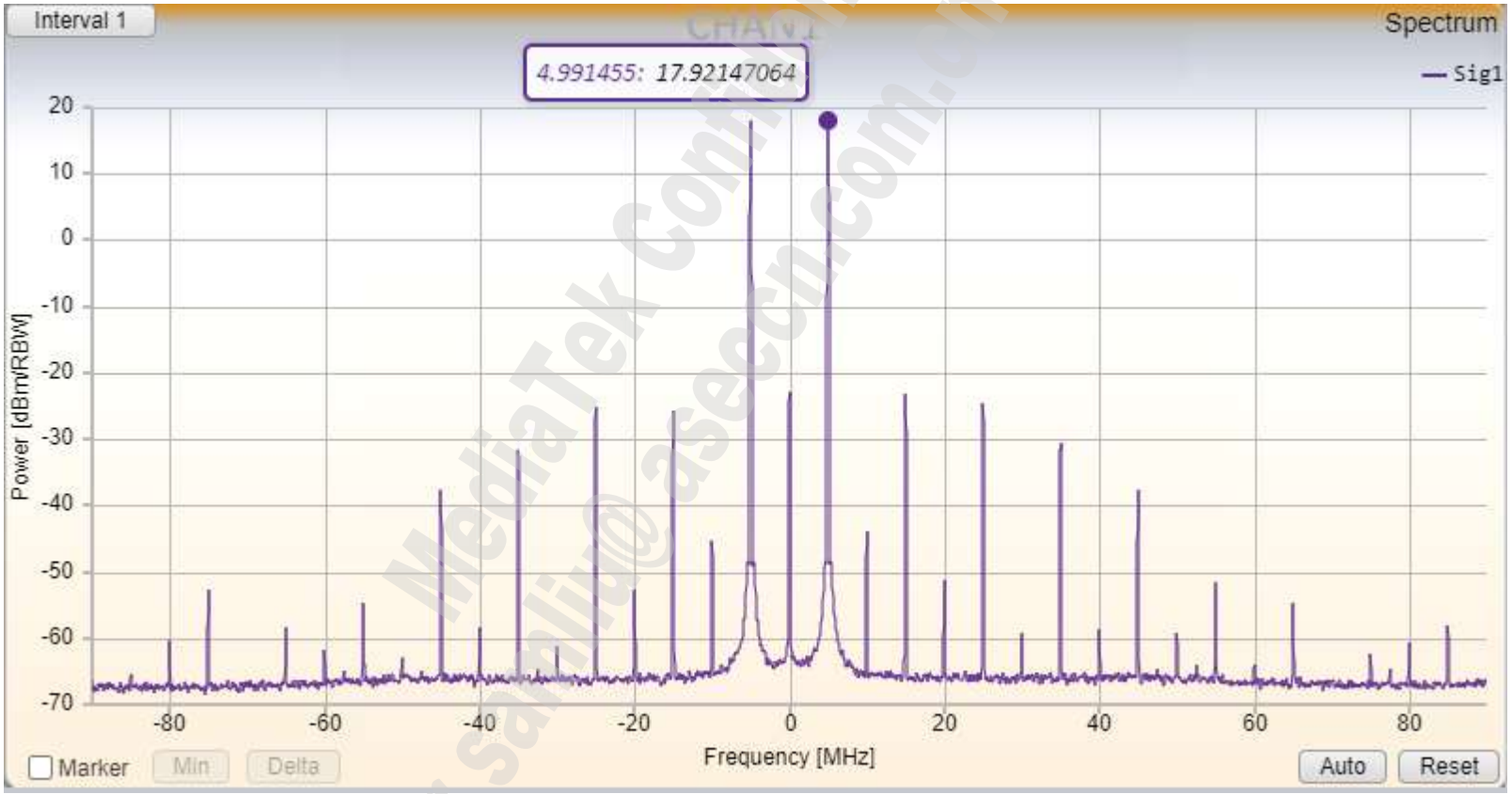
Single tone

- **5M single tone for IRR**

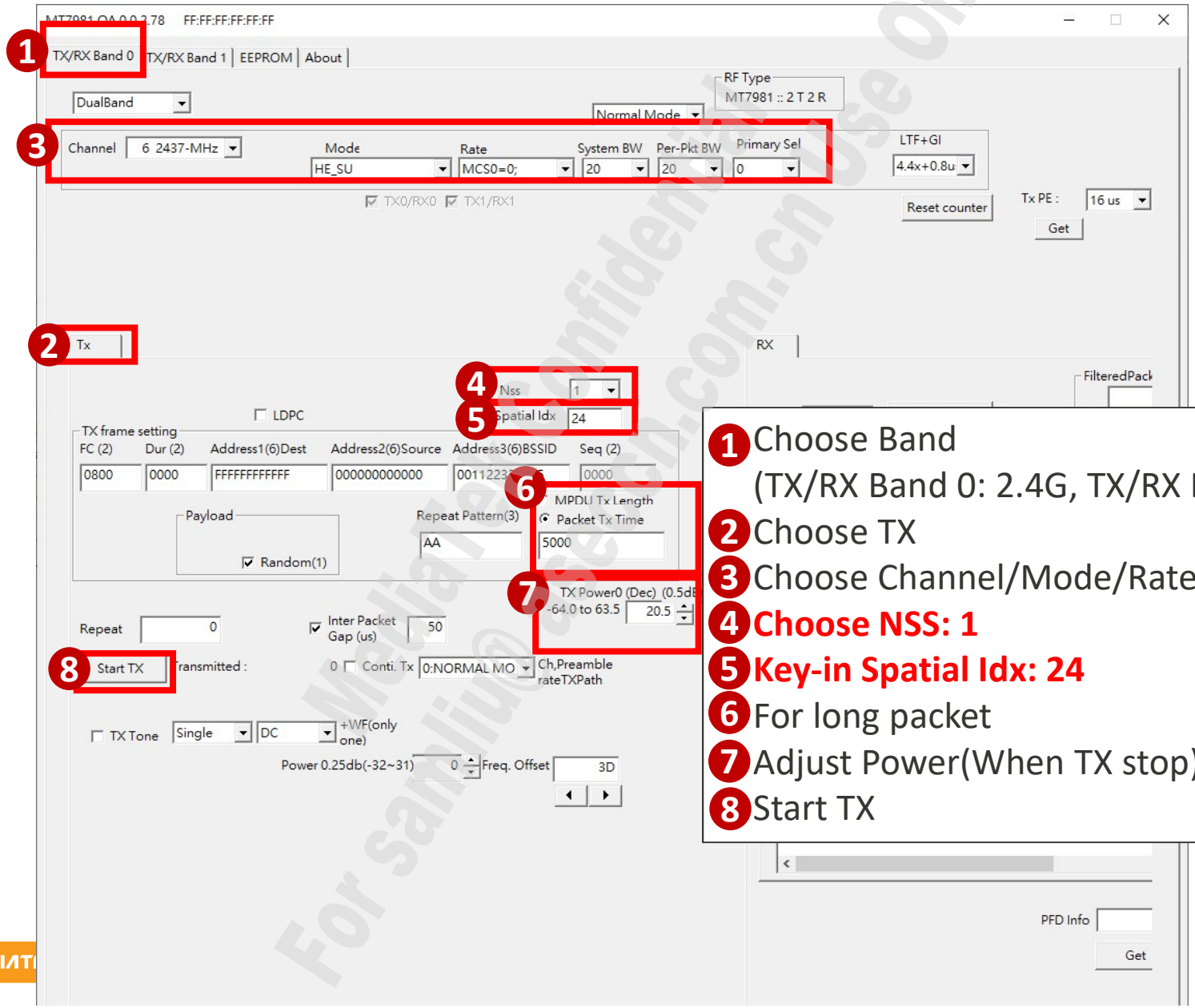


Two tone

- **5M two tone for IM3**



Duplicate Mode (For EMI test)



1. Choose Band
   (TX/RX Band 0: 2.4G, TX/RX Band1: 5G)
2. Choose TX
3. Choose Channel/Mode/Rate/BW
4. **Choose NSS: 1**
5. **Key-in Spatial Idx: 24**
6. For long packet
7. Adjust Power(When TX stop)
8. Start TX

MEDIATEK

everyday genius