RafaelMicro
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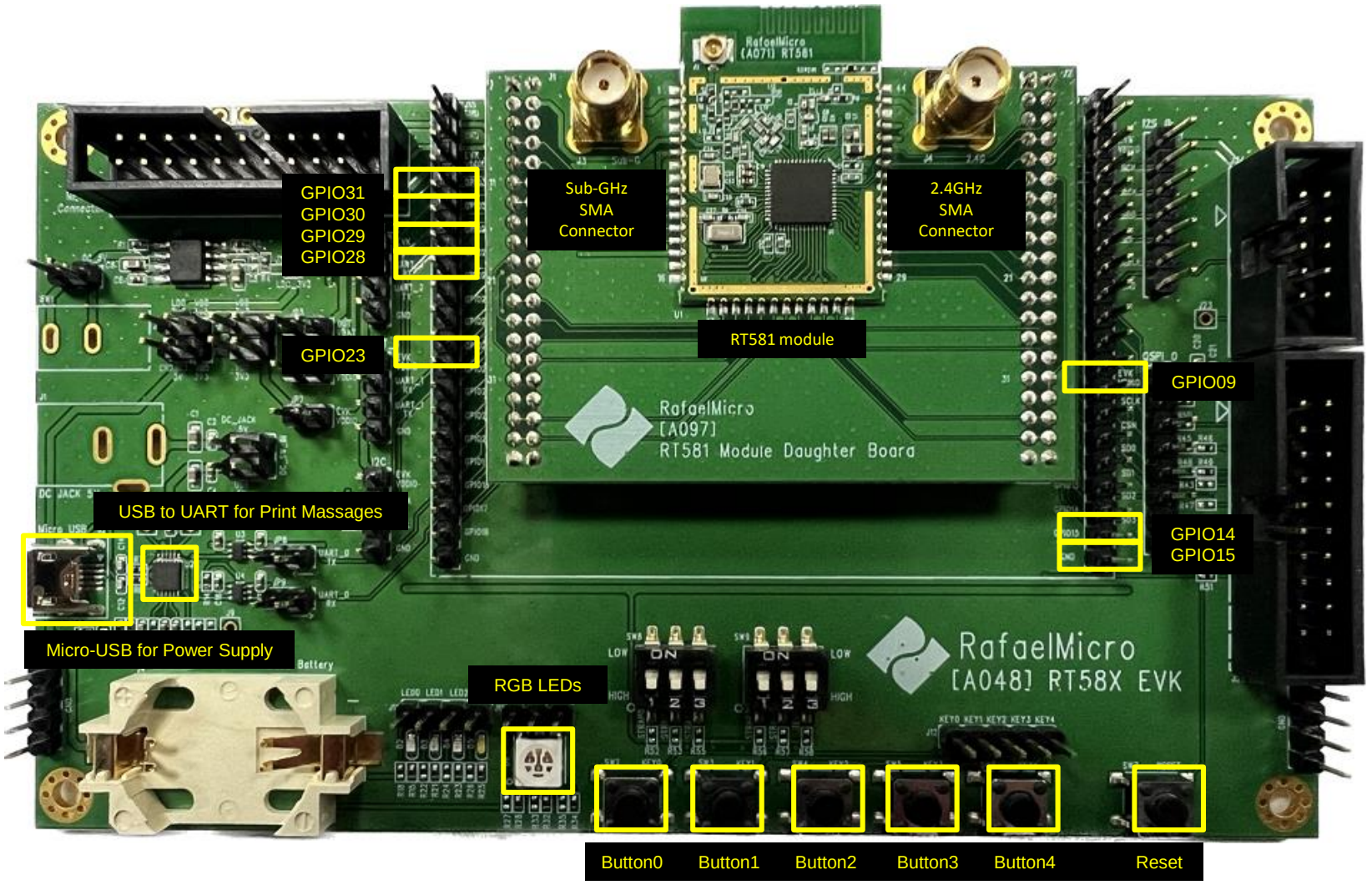
RT581 SubG Field Test User Guide

V1.0

Prepare By Rafael

RT581 EVK Buttons and Pins Definition



RT581 SubG Parameter Selection

Frequency (MHz)	903 / 907 / 911 / 915 / 919 / 923 / 927 (7 Channels)
Data Rate (kbps)	6.25 / 50 / 100 / 200 / 300
Tx Power (dBm)	20

Select frequency with these IO

GPIO	Frequency (MHz)
31	903
30	907
29	911
28	915
23	919
14	923
9	927

Select frequency with these Buttons

Switch	Data Rate (Kbps)
Button0 (GPIO0)	6.25
Button1 (GPIO1)	50
Button2 (GPIO2)	100
Button3 (GPIO3)	200
Button4 (GPIO4)	300

Select frequency with GPIO15

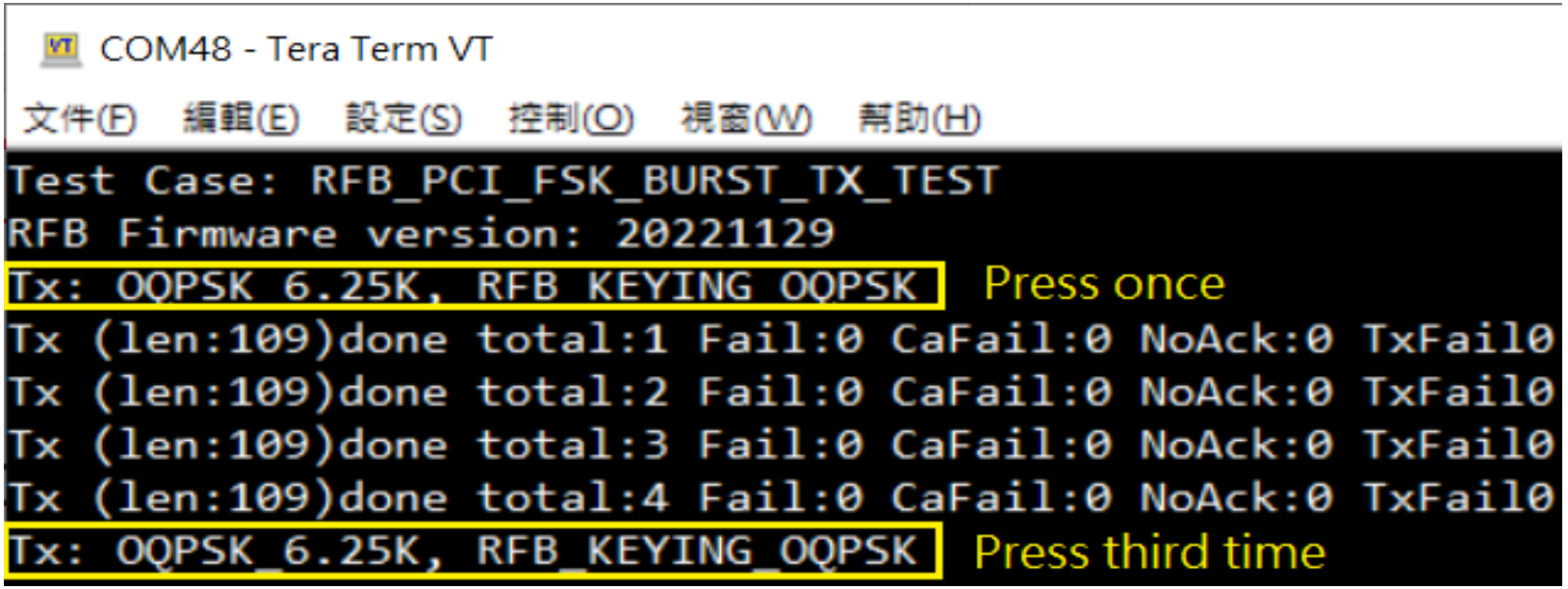
GPIO	Tx / Rx
15	0: Rx, 1: Tx

RT581 SubG Test Process

- Connect GPIOxx to GND before Power on or Rest to select the frequency to test
  (ex. connect GPIO28 to GND frequency is 915MHz)
- Connect GPIO15 to GND before Power on or Rest as SubG Rx
  (ex. connect GPIO15 to GND as Rx, GPIO15 NC as Tx)

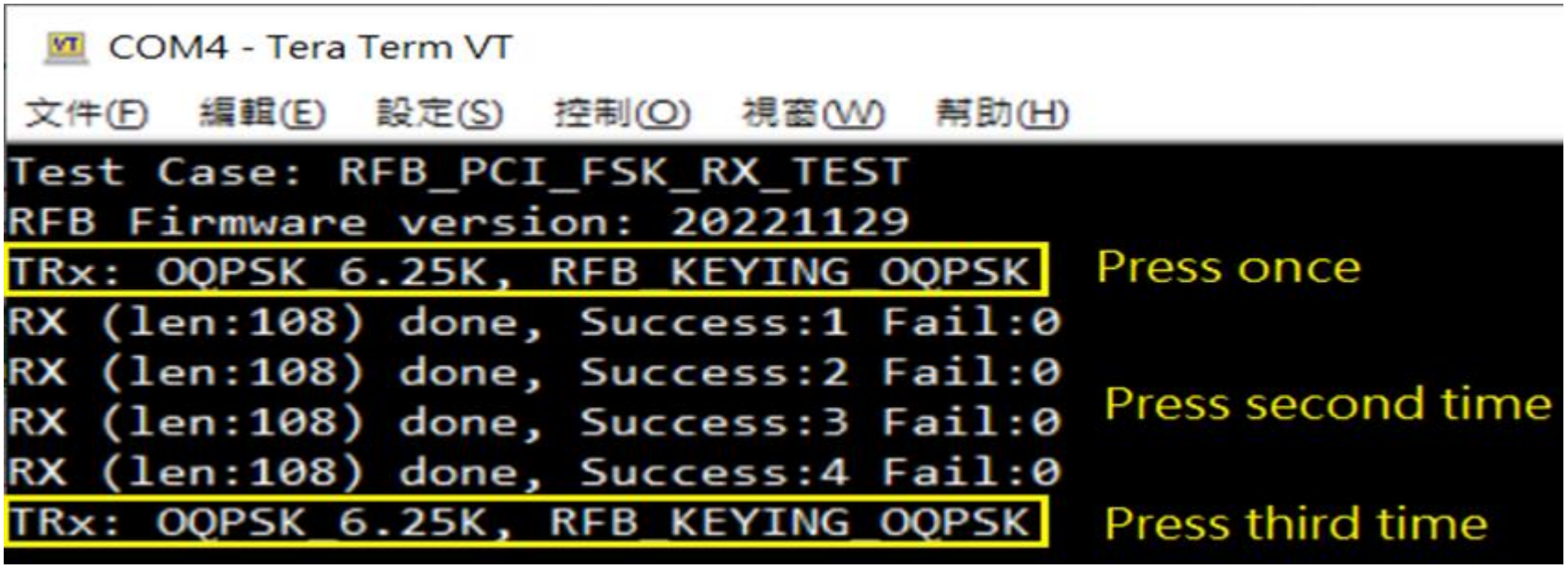
RT581 SubG Tx Test Procedure

- Press Button0~4 once to select the data rate to test (ex. Press Button0 once to select 6.25Kbps to test)
- Press the same button second time to start Tx (ex. Press button0 second time to start Tx)
- Press the same button third time to stop Tx (ex. Press button0 third time to stop Tx)



RT581 SubG Rx Test Procedure

- Press Button0~4 once to select the data rate to test (ex. Press Button0 once to select 6.25Kbps to test)
- Press the same button second time to start Rx (ex. Press button0 second time to start Rx)
- Press the same button third time to stop Rx (ex. Press button0 third time to stop Rx)



RT581 SubG Tx LED Indication

- Tx / Rx frequency, data rate must be the same
- Press the same button second time to start Tx and blue LED turn on
  (Tx sends 300 packets each time)
- Check the Packet ACK Rate(PAR) after 300 packets of Tx completed
  - PAR > 30% red LED turn on (Fail)
  - PAR < 30% green LED turn on (Pass)

RT581 SubG Rx LED Indication

- Press the same button second time to start Rx and red LED turn on
- If Rx does not receive any signal for more than 1 second, the red LED flashing
- If Rx receives the signal again, the red LED stays on
- Stop Rx function red LED turn off

Thank You

よろしくお願い申し上げます