

RAK811 Lora Performance Test Report

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After update the new version, this document without prior notice.

1. RF Test, Use Equipment: Spectrum Analyzer/Gateway

Test Diagram:

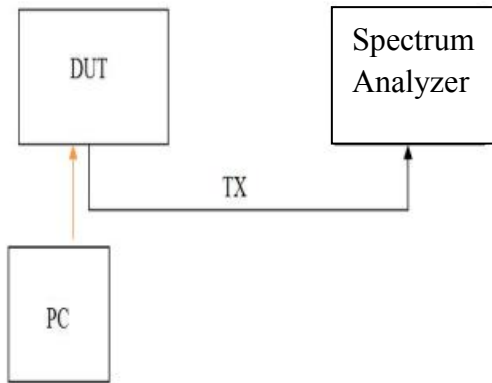


Figure 1 TX Test Diagram

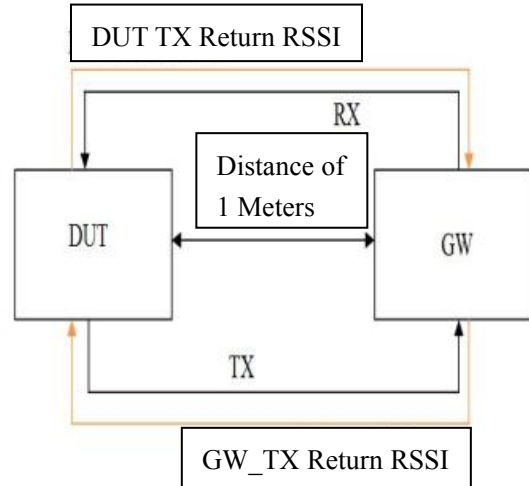


Figure 2 RSSI Test Diagram

RF Parameter Test			
Module		868M	
		RFO_HF (14dB)	PA_BOOST (20dB)
TX	Power	13.91dBm	18.51dBm
	RSSI (GW)	-36	-31
RX	RSSI (DUT)	-37	-42

RF Parameter Test			
Module		915M	
		RFO_HF (14dB)	PA_BOOST (20dB)
TX	Power	14.53dBm	18.74dBm
	RSSI (GW)	-	-
RX	RSSI (DUT)	-35	-40

2. Power Test, Use Equipment: Spectrum Analyzer/Ammeter

Test Diagram:

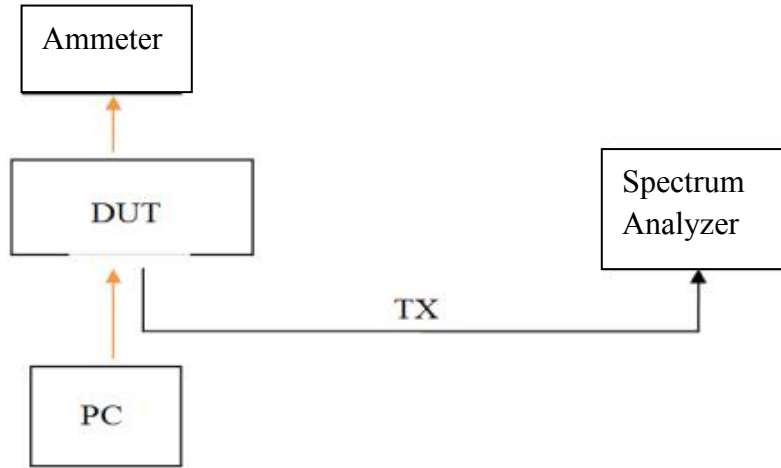


Figure 3 Consumption Test

868M Consumption Test			
Standby Current	Sleep Current	TX Peak Current (14dB)	TX Peak Current (20dB)
5.5mA	371uA	30.38mA	131.8mA

915M Consumption Test			
Standby Current	Sleep Current	TX Peak Current (14dB)	TX Peak Current (20dB)
5.5mA	372uA	32.16mA	137.5mA

3. Outdoor Communication Test

14dB Communication Test				
Test Distance	868M		915M	
	TX (RSSI)	RX (RSSI)	TX (RSSI)	RX (RSSI)
1m	- 30	- 28	- 109	- 43
1000m	- 100	- 93	-	-
2000m	- 131	- 116	-	-

20dB Communication Test				
Test Distance	868M		915M	
	TX (RSSI)	RX (RSSI)	TX (RSSI)	RX (RSSI)
1m	- 31	- 25	- 39	- 43
1000m	- 96	- 91	-	-
2000m	- 124	- 102	-	-



4. Modification Records

Edition	Author	Date	Modification content
V1.0	wenyong. tang	2017/01/04	Creating document