



TEST REPORT

according to

FCC Rules and Regulations Part 15 Subpart C(15.247) /

RSS-210 Issue 8

Applicant	: Realtek Semiconductor Corp.
Address	: No. 2,Innovation Road II, Hsinchu Science Park, Hsinchu 300,Taiwan
Equipment	: 802.11b/g/n RTL8723BE Combo module
Model No.	: RTL8723BE
FCC ID	: TX2-RTL8723BE
IC	: 6317A-RTL8723BE

The test result refers exclusively to the test presented test model / sample.,

- Without written approval of **CerpPASS Technology (Suzhou) Co.,Ltd.** the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Rules and Regulations Part 15/RSS-210. The test report has been issued separately.
- The test report must not be used by the clients to claim product certification approval by **NVLAP** or any agency of the Government.



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CERTIFICATE OF COMPLIANCE

according to

FCC Rules and Regulations Part 15 Subpart C /

RSS-210 Issue 8

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I **HEREBY CERTIFY THAT :**

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was **passed** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2010)/ RSS-210 Issue 8.**

The test was carried out on Jan 13, 2015 at **CerpPASS Technology (Suzhou) Co.,Ltd**

Signature

Miro Chueh/ Technical director



1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
§ 15.209(a)	. Radiated Emission	Pass
§ 15.247(b)	. Output Power	Pass



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Product	802.11b/g/n RTL8723BE Combo module
Model No.	RTL8723BE
Host Type	Notebook Computer
Host Model	Lenovo IdeaPad Flex 3-1120
Power Supply	From host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM BT(GFSK, 8-DPSK) for FHSS BT-LE (GFSK) for DTS
Modulation technology	DSSS, OFDM, DTS, FHSS
Operating Frequency	2.4GHz: 2.412 ~ 2.462GHz BT&BT-LE: 2.402 ~ 2.480GHz
Number of channel	For 15.247(2.4GHz): 11 for 802.11b, 802.11g, 802.11n (HT20), 7 for 802.11n (HT40) 79 for BT 40 for BT-LE(GFSK)
Other EUT details	SISO Operation Only WiFi - TX Diversity Supported Bluetooth Operation Limited to Aux Port WiFi and Bluetooth Simultaneous Transmission Supported



2.2 Carrier Frequency of Channels

For 2.4G 802.11b, 802.11g, 802.11n (20MHz)			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

For 2.4G 802.11n (40MHz)			
Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	---	08	2447
02	---	09	2452
03	2422	---	---
04	2427	---	---
05	2432	---	---
06	2437	---	---
07	2442	---	---

For 2.4G BT							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2422	40	2442	60	2462
01	2403	21	2423	41	2443	61	2463
02	2404	22	2424	42	2444	62	2464
03	2405	23	2425	43	2445	63	2465
04	2406	24	2426	44	2446	64	2466
05	2407	25	2427	45	2447	65	2467
06	2408	26	2428	46	2448	66	2468
07	2409	27	2429	47	2449	67	2469
08	2410	28	2430	48	2450	68	2470
09	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472



11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461	---	---

For 2.4G BT-LE

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480



2.3 Test Configuration

For 2.4GHz				
Test Items	Mode	Data Rate	Channel	Transmit Configuration
Radiated Emissions Below 1GHz	Normal Link	--	--	--
Radiated Emissions Above 1GHz	11b	1 Mbps	1/6/11	1Tx(Chain 1)
	11g	6Mbps	1/6/11	1Tx(Chain 1)
	11n(HT20)	MCS0	1/6/11	1Tx(Chain 1)
	11n(HT40)	MCS0	3/6/9	1Tx(Chain 1)
	BT	--	0/39/78	1Tx(Chain 2)
	BT-LE	1 Mbps	0/19/39	1Tx(Chain 2)
Band Edge Emissions	11b	1 Mbps	1/11	1Tx(Chain 1)
	11g	6Mbps	1/11	1Tx(Chain 1)
	11n(HT20)	MCS0	1/11	1Tx(Chain 1)
	11n(HT40)	MCS0	3/9	1Tx(Chain 1)
	BT	--	0/78	1Tx(Chain 2)
	BT-LE	1 Mbps	0/39	1Tx(Chain 2)



2.4 General Information of Test

Test Site:	Cerpass Technology (Suzhou) Co.,Ltd
Test Site Location :	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China
NVLAP LAB Code :	200814-0
FCC Registration Number :	916572, 331395
IC Registration Number :	7290A-1, 7290A-2
VCCI Registration Number :	T-1945 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test below 1GHz G-227 for Radiated emission test above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30MHz Radiation: from 30MHz to 25000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2.5 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	±2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	±4.11 dB
		Horizontal	±4.10 dB
Occupied Bandwidth	---	---	±7500 Hz
Maximum Peak Output Power	---	---	±1.4 dB
Band Edges	---	---	±2.2 dB
Power Spectral Density	---	---	±2.2 dB



3. Maximum Conducted Output Power

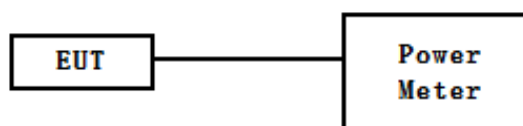
3.1 Test Limit

The Maximum Conducted Output Power Measurement is 30dBm.

3.2 Test Procedures

The antenna port (RF output) of the EUT was connected to the input (RF input) of a Power Meter. Power was read directly from the Power Meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

3.3 Test Setup Layout



3.4 Measurement equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Series Power Meter	ML2495A	ANRITSU	1224005	2014/03/27	2015/03/26
Power Sensor	MA2411B	ANRITSU	1207295	2014/03/27	2015/03/26



3.5 Result

802.11b Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
01	2412	16.5
06	2437	16.5
11	2462	16.5

802.11g Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
01	2412	14.5
06	2437	16.5
11	2462	14.5

802.11n(HT20) Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
01	2412	14.0
06	2437	16.5
11	2462	13.5

802.11n(HT40) Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
03	2422	13.5
06	2437	16.0
09	2452	13.5



BT(GFSK) Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
00	2402	8.96
39	2441	8.97
78	2480	8.72

LE(GFSK) Chain 1		
Channel	Frequency(MHz)	Conducted Power(dBm)
00	2402	8.06
19	2440	8.76
39	2480	8.45