RF Exposure Evaluation declaration

Product Name : 802.11b/g/n RTL8723BS Combo module

Model No. : RTL8723BS

FCC ID : TX2-RTL8723BS

Applicant : Realtek Semiconductor Corp.

Address : No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

Date of Receipt : Mar. 31, 2015

Date of Declaration : Apr. 10, 2015

Report No. : 1540072R-SAUSP38V00

Report Version : V1.0

Testing Laboratory
3023

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.
This report must not be used to claim product endorsement by TAF or any agency of the government.
The test report shall not be reproduced without the written approval of QuieTek Corporation.

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	802.11b/g/n RTL8723BS Combo module
Model No.	RTL8723BS
Trade Name	Realtek
FCC ID	TX2-RTL8723BS
TX Frequency	WLAN : 802.11b/g/n-20M: 2412MHz~2462MHz 802.11n-40M: 2422MHz~2452MHz BT: 2402~2480MHz
Channel Number	WLAN : 802.11b/g/n-20MHz: 11, n-40MHz: 7 BT: 79; BLE: 40
Type of Modulation	DSSS/OFDM (BPSK/QPSK/16QAM/64QAM) FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)

*Note: This is to request a Class II permissive change for FCC ID: TX2-RTL8723BS, originally granted on 05/14/2014

The major change filed under this application is:

Change #1: Implementation in new tablet

Model number: EF20RAX

Product name: Note Book

2. RF Exposure Evaluation

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to section 4.3.1/4.3.2 of KDB 447498 D01 Mobile Portable RF Exposure v05,

2.1 Standalone SAR test exclusion :

1) [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR at test separation distances ≤ 50 mm
2) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, for 100 MHz to 1500 MHz at test separation distances>50 mm
3) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW for > 1500 MHz and ≤ 6 GHz at test separation distances >50 mm

2.2 Simultaneous transmission SAR test exclusion :

When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration

(1) (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm; where x = 7.5
(2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm.

3. Measurement Result

Standalone SAR test exclusion:

Mode	Frequency (MHz)	Maximum output power		separation distance (cm)	SAR test exclusion power (mW)
		(dBm)	(mW)		
WLAN	2450	16.45	44.16	19	1496
BT	2450	5.09	3.23	19	1496

Simultaneous transmission SAR test exclusion:

WLAN (0.4W/Kg) + BT(0.4W/Kg) <1.6W/Kg , so SAR test exclusion applies to that simultaneous transmission configuration