

FCC MPE TEST REPORT

Project Number : EA1506Q-002
Test Report Number : TR-W1511-011
Type of Equipment : S-DAQ
FCC ID : A3LSRC-BAMVC2
Model Name : SRC-BAMVC2
Multiple Model Name : N/A
Applicant : Samsung Electronics Co., Ltd.
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Manufacturer : Samsung Electronics
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 Gyenggi-do, 443-742, Korea
Regulation : FCC Part 15 Subpart C 15.247
Total page of Report : 4 Pages
Date of Receipt : 2015-09-08
Date of Issue : 2015-11-12
Test Result : PASS

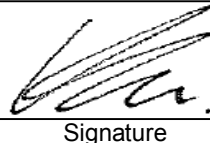
This test report only contains the result of a single test of the sample supplied for the examination.
 It is not a generally valid assessment of the features of the respective products of the mass-production.

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2015-11-12
Date

Reviewed by Park, Young-cheol / Technical Manager



2015-11-12
Date

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Release Control Record

Issue Report No.	Issued Date	Revisions	Effect Section
TR-W1511-011	2015-11-10	Initial Release	All

1. EUT (Equipment Under Test)

1.1 General Description

The EUT is a device for transferring voltage signal and equipment information to an agent PC through wired/wireless communication. For wireless communication, the EUT has WLAN module has function for 802.11a/b/g, and measure RF output power is as following table..

1.2 RF Output Power

Operating Mode	Channel	Frequency (MHz)	Data rate (Mbps)	Output Power (dBm)
802.11b	Low	2412	11	16.34
	Middle	2437	11	16.30
	High	2462	11	16.21
802.11g	Low	2412	6	20.01
	Middle	2437	6	19.74
	High	2462	6	19.53
802.11a (U-NII Band 1)	Low	5 180	6	13.35
	Middle	5 200	6	13.46
	High	5 240	6	13.72
802.11a (U-NII Band 3)	Low	5 745	6	8.97
	Middle	5 765	6	8.85
	High	5 805	6	8.10

2. TEST RESULT

2.1 RF Exposure Limit

According to the FCC rule 1.1310 table 1B, the limit for the maximum permissible RF exposure for an uncontrolled environment are 1.0 mW/cm² for the frequency range between 1 500 MHz and 100 000 MHz.

2.2 RF Exposure Calculation

This calculation is based on the highest EIRP possible from the EUT., considering maximum power and antenna gain, and considering RF Exposure limit, 1.0 mW/cm². For getting power density, the Furiis formula used was:

$$S = \text{EIRP} / (4 * \pi * D^2)$$

Where

S = Power density in mW/cm²

EIRP = Equivalent Isotropic Radiated Power in mW, = P x G

P = Maximum Antenna Output Power in W

G = Numerical Antenna Gain

D = Separation distance in cm = 20 cm

Also separation distance is given by:

$$D = \sqrt{(P \times G) / (4 \times \pi \times S)}$$

2.3 RF Exposure Data

Mode	P (dBm)	P (mW)	G (dBi), Log	G (dBi), Linear	S (mW/cm ²) @ 20 cm
802.11b	16.34	43.05	4.16	2.61	0.022
802.11g	20.01	100.23			0.052
802.11a (U-Nii Band 1)	13.72	23.55	3.92	2.47	0.012
802.11a (U-NII Band 3)	8.97	7.89			0.004

2.4 Conclusion

The EUT met the requirement for General population / Uncontrolled environment of power density at 20 cm separation distance.