

RF exposure information

Product description

Applicant	:	Renesas Electronics Corporation
Applicant address	:	3-2-24 Toyosu Koto-ku Tokyo 135-0061 Japan
FCC ID	:	2AEMXRX23WTBQ56
IC ID	:	20194-RX23WTBQ56
Hardware version ID number	:	RTK5RXW0C00000BJ
Product marketing name	:	RTK5RXW0C00000BJ
Product description	:	Microcomputer Board
Operating frequency range	:	2402 - 2480 MHz
Measured conducted output power	:	+2.53 dBm@2402 MHz, +2.56 dBm@2442 MHz, 2.60 dBm@ 2480 MHz (result is referred from test report WE190516BB2-13 issued by SGS Japan Inc.)
Maximum antenna gain	:	+1.6 dBi

Analysis for mobile use

The maximum conducted peak output power is +2.60 dBm (2480 MHz).

The best case gain of the antenna is +1.6 dBi.

E.I.R.P. = (+2.60 dBm) + (1.6 dBi) = +4.2 dBm

+4.2 dBm logarithmic terms convert to numeric result is nearby 2.63 mW.

$$S = \frac{E. I. R. P.}{4\pi R^2} = \frac{2.63 \text{ mW}}{4\pi(20 \text{ cm})^2} = 0.00052328 \text{ mW/cm}^2$$

For FCC

E.I.R.P. (mW)	Evaluation distance R (cm)	Power density S (mW/cm ²)	MPE limit (mW/cm ²)	Result
2.63	20	0.00052328	1	Complied

For ISED

E.I.R.P. (mW)	Evaluation distance R (cm)	Power density S (mW/cm ²)	MPE limit (W/m ²)	Result
2.63	20	0.00052328	0.02619 ^{0.6834} 5.47 (@2480MHz)	Complied

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