

# RF exposure information

## Product information from applicant

Applicant	:	YAESU MUSEN CO., LTD.
Applicant address	:	Tennozu Parkside Building 2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002, Japan
FCC ID	:	K660C354X10
ISED ID	:	511B-0C354X10
Product description	:	Bluetooth Adapter Unit
Operating frequency range	:	2402 - 2480 MHz
Peak output power (Measured)	:	6.7dBm @2.402GHz, 6.9dBm @2.441GHz, 7.4dBm @2.480GHz (DH5) 5.0dBm @2.402GHz, 5.8dBm @2.441GHz, 6.6dBm @2.480GHz (2DH5) 5.5dBm @2.402GHz, 6.2dBm @2.441GHz, 6.9dBm @2.480GHz (3DH5)
Maximum antenna gain	:	+2.14 dBi (Manufacturer 's declares)

## Analysis for portable use

For FCC

Standalone SAR test exclusion considerations are defined in the KDB 447498 Chapter 4.3.1. 1-g head or body SAR exclusion threshold is defined with formula.

$[(\text{Max. power of channel, mW}) / (\text{Min. test separation distance, mm})] * [\sqrt{f \text{ [GHz]}}] \leq 3.0$  for 1-g SAR

The maximum Conducted Peak Output Power is 7.4dBm (Manufacture specification).

The best-case gain of the antenna is 2.14dBi.

$\text{EIRP} = (7.4\text{dBm}) + (+2.14\text{dBi}) = 9.54\text{dBm}$

9.54dBm logarithmic terms covert to numeric result is nearby 8.99mW

General RF Exposure (worst) =  $(8.99\text{mW} / 15\text{mm}) * \sqrt{2.480\text{GHz}} = 0.94 \leq 3.0$

Bluetooth Adapter Unit meets the SAR exclusion. So, SAR evaluation is not needed.

For ISED

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in RSS-102 Table 1.

Output power level is 8.99mW e.i.r.p. < 15mW (Exemption limits at separation distance of  $\leq 15\text{mm}$  @2450MHz)

Bluetooth Adapter Unit meets the SAR exclusion. So, SAR evaluation is not needed.