

RF Exposure / SAR Statement (Reference)

No. : 13004393S

Applicant	:	Murata Manufacturing Co., Ltd.
Type of Equipment	:	Communication Module
Model No.	:	Type1VY
FCC ID	:	VPYLB1VY

Murata Manufacturing Co., Ltd. declares that Model : Type1VY complies with
FCC radiation exposure requirement specified in the FCC Rules 2.1091(for mobile).
Type1VY is intended to be used Bluetooth and Wireless LAN simultaneously within 20 cm.

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the “Type1VY” as calculated
from FCC Part 1, §1.1310, TABLE 1 (B) Limits for General Population / Uncontrolled Exposure.
This calculation is based on the highest EIRP possible from the system,
considering maximum power and antenna gain, and considering a 1.0mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = ((P1 * G1) + (P2 * G2)) / (4 * \pi * r^2)$$

Where

P1 =	9.33 mW (Maximum average output power) *1)
P2 =	27.93 mW (Maximum average output power) *2)
G1 =	1.24 Numerical Antenna gain; equal to 0.93 dBi *1)
G2 =	1.58 Numerical Antenna gain; equal to 1.98 dBi *2)
r =	20.0 cm

For: Type1VY (Bluetooth and Wireless LAN)

$$S = 0.01107 \text{ mW/cm}^2$$

Even taking into account the tolerance, this device can be satisfied with the limits.

*1) Bluetooth value

2) Wireless LAN (5 GHz band) value, Antenna gain=Directional gain

* Higher value in 2.4 GHz band and 5 GHz band

This calculation was made to show that the EUT complies with the limit in simultaneous transmitting of Bluetooth and Wireless LAN.

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