

RF Exposure / MPE Calculation

No.	:	10818685H
Applicant	:	TOKAI RIKA CO., LTD.
Type of Equipment	:	Onboard Transceiver Unit
Model No.	:	WA42A
FCC ID	:	MOZWA42A

TOKAI RIKA CO., LTD. declares that Model: WA42A complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091 (for mobile).

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the “WA42A” as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 0.61mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

P	=	32.81 mW (Maximum average output power)
G	=	0.631 Numerical Antenna gain; equal to -2 dBi
r	=	20 cm (Separation distance)

$$\text{Power Density Result } S = 0.00412 \text{ mW/cm}^2$$

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