RF Exposure / MPE Calculation

No.	15364137M
Customer	Yoshikawakogyo RF Semicon Co., Ltd.
Description of EUT	12ch RW
Model Number of EUT	YRQLSG55
FCC ID	2BK24YRQLSG55

Yoshikawakogyo RF Semicon Co., Ltd. declares that Model: YRQLSG55 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 “YRQLSG55“ 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 0.978mW/cm^2 uncontrolled exposure limit. The Friis formula used was:

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

Where

P = 9000.00 mW (Maximum average output power)

☐ Time average was used for the above value in consideration of 6-minutes time-averaging

☑ Burst power average used was the provided specification value by the customer.

G = 0.001 Numerical Antenna gain; equal to -31 dBi

r = 20 cm (Separation distance)

Power Density Result S = **0.00142 mW/cm^2**