

Calculation: RF-Exposure for Licensed Transmitter

FCC ID: **2AXKDTOBYL3414**

Type of Device: **LTE Module inside HINO TCU1 (host device)**

In accordance with **CFR47, §1.1310 Radiofrequency radiation exposure limits** and

☒ 447498 D01 General RF Exposure Guidance v06

☐ 447498 D04 Interim General RF Exposure Guidance v01

The device operates in different frequency bands (**670.5 ~ 2565.0 MHz**).

The highest radiated output power over all supported bands is **PCS 1900**.

S: Limit for power density according to Table 1 to § 1.1310(e)(1)

☐ (i) Occupational / Controlled Exposure

☒ (ii) General Population / Uncontrolled Exposure

(Limit for **1860~1900 MHz** leading to highest output power: **1.0 mW/cm²**)

Limit for lowest supported frequency **670.5 MHz**: $f/1500 \sim 0.44 \text{ mW/cm}^2$)

P: **271 mW** (max conducted output power leading to highest radiated power)

G: **3.98** (numeric gain based on measured antenna gain **6 dBi**)

D: Duty cycle: **1** (100%)

R: Distance in what the limit of S must be reached: **20 cm**
(refer also to the manufacturers installation / user manual)

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \Rightarrow \underline{S} = \frac{271 \text{ mW} \cdot 3.98 \cdot 1}{4 \cdot \pi \cdot (20 \text{ cm})^2} = \underline{\underline{0,21 \frac{\text{mW}}{\text{cm}^2}}}$$

Conclusion: The maximum value of the calculated power density over all supported frequency bands at the recommended minimum separation distance of 20 cm is well below the lowest/strongest limit.