

To whom it may concern,

On behalf of our customer Endress+Hauser SE+Co. KG, we hereby declare the following device:

FCC ID : LCGVU121
IC : 2519A-VU121
Brand : Endress+Hauser
Model : VU121

The EUT has one transmitter (BLE). The RF exposure assessment is based on the BLE mode. The EUT is considered as 'Mobile' use.

The EUT has a maximum rated output power in BLE mode of 2.4 mW in the frequency range of 2402 – 2480 MHz which means that the worst case prediction of power density (100% reflection) at 20 cm distance (worst case) can be calculated as follows :

$$S = \frac{\text{EIRP}}{4 \cdot \pi \cdot R^2} \quad (\text{power density without reflection})$$

$$S = \frac{2^2 \cdot \text{EIRP}}{4 \cdot \pi \cdot R^2} \quad (\text{power density with 100\% reflection})$$

$$S = \frac{2^2 \cdot \text{EIRP}}{4 \cdot \pi \cdot R^2} = \frac{\text{EIRP (mW)}}{\pi \cdot (20\text{cm})^2} = \frac{2.6}{\pi \cdot (20)^2} = 0.0021 \text{ mW/cm}^2$$

(limit = 10 W/m² is 1.0 mW/cm²)

This means that the equipment is in compliance with FCC KDB Publication 447498, 47 C.F.R. §1.1310 and §2.1091 fulfils the requirements of RSS-102 Issue 5 Section 2.5.2. stating: **at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz.**

For this EUT this calculates to: $1.31 \times 10^{-2} (2402^{0.6834}) = 2.68 \text{ W}$.

The EUT's maximum rate output power (EIRP) of 2.6 mW is within this requirement.

Note: For conservativeness, the lowest frequency is used for calculation.

Best regards,
TÜV Rheinland Nederland B.V.



R. van der Meer, Test Engineer