

To whom it may concern,

On behalf of our customer N.V. Nederlandsche Apparatenfabriek 'Nedap', we hereby declare the following device:

FCC ID : CGDLWIOT2  
IC : 1444A-LWIOT2  
Manufacturer : N.V. Nederlandsche Apparatenfabriek 'Nedap'.  
Brand : Nedap  
Model : Luxon IoT Node Zhaga and Luxon IoT Node Nema  
HVIN : 9986979 and 9987061

The EUT is considered as 'Mobile' use.

The EUT has a maximum rated output power e.i.r.p. of 9.97 mW (equals about 9.9 dBm) in the frequency range of 2408 – 2475 MHz which means that the worst case prediction of power density (100% reflection) at 20 cm distance (worst case) can be calculated as follows :

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

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

$$S = \frac{2^2 \cdot \text{EIRP}}{4 \cdot \pi \cdot R^2} = \frac{\text{EIRP (mW)}}{\pi \cdot (20\text{cm})^2} = \frac{9.97}{\pi \cdot (20)^2} = 0.0079 \text{ mW/cm}^2$$

(limit = 10 W/m<sup>2</sup> is 1.0 mW/cm<sup>2</sup>)

This means that the equipment is in compliance with FCC KDB Publication 447498, 47 C.F.R. §1.1310 and §2.1091 and 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:  $1.31 \times 10^{-2} (2408^{0.6834}) = 2.68 \text{ W}$ .

The EUT's maximum rate output power (EIRP) of 9.97 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