

# Analysis Report

Report No.: 12120950HKG-002  
FCC ID: RYH-BNC013RC

The equipment under test (EUT) is a weather sensor operating at 433MHz. The EUT is powered by 3.0VDC (2X 1.5V "AAA" batteries). The EUT will transmit RF signal to the corresponding receiver and the receiver will display the humidity and temperature on the screen.

Antenna Type: Internal, integral

Antenna Gain: 0dBi

Nominal rated field strength: 66.6dB $\mu$ V/m at 3m

Allowed field strength of production tolerance: +/-8dB

Maximum allowed field strength of production: 74.6dB $\mu$ V/m @ 3m

According to the KDB 447498:

Based on the Maximum allowed field strength of production was 74.6dB $\mu$ V/m at 3m in frequency 433.912MHz, thus;

The EIRP =  $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.009\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.009mW.

$$\begin{aligned}\text{Threshold} &= 3.0 * (\text{min. test separation distance, mm}) / \text{SQRT}(f \text{ in GHz}) \\ &= 3.0 * (5 / \text{SQRT}(0.433912)) = 22.77\text{mW}\end{aligned}$$

Since the above maximum output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.