

Analysis Report

FCC ID: ZY9-1201781

The equipment under test (EUT) is a weather sensor operating at 433MHz. The EUT is powered by 3.0VDC (2 x 1.5V "AA" 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: 84.6dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 87.6dB μ V/m at 3m in frequency 433MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.17\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.17mW.

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$

= $3.0 \cdot 5 / \text{sqrt}(0.433)$ mW

= 22.8 mW

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