

Analysis Report

Report No.: 13030575HKG-003

The equipment under test (EUT) is the transmitter of a weather sensor operating at 910MHz-925MHz (51 channels). The EUT is powered by 1.2VDC (1X 1.2V "AA" rechargeable battery) and/or 120VAC. The EUT connects corresponding sensor and it will transmit RF signal to the corresponding receiver and the receiver will display the humidity, temperature, wind speed and rainfall on the screen of receiver.

Antenna Type: External, Integral

Antenna Gain: 0dBi

Nominal rated field strength: 87.6dB 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 90.6dB μ V/m at 3m in frequency 925MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.344\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.344mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(0.925)$ mW

= 15.60 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.