RF Exposure Evaluation Report

Equipment under Test	:	Interactive IoT Device
Model No.	:	NCP IOT-01
Applicant	:	New Century Products Co., Ltd.
Address	:	1F., No. 415, Sec. 5, Nanjing E. Rd., Songshan Dist., Taipei City
Date of Receipt	:	October 14, 2021
Date of Report	:	March 11, 2022

Prepared by

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1 Requirement for Compliance

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

1. For the test separation distance <= 50mm

$$\frac{\text{Max. Tune up Power}_{(\text{mW})}}{\text{Min. Test Separation Distance}_{(\text{mm})}} \times \sqrt{f_{(\text{GHz})}} \leq 3.0$$

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2. For the test separation distance > 50 mm, and the frequency at 100 MHz to 1500MHz

$$\left[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50\ \text{mm}) \times \left(\frac{f_{(\text{MHz})}}{150}\right)\right]_{(\text{mW})}$$

3. For the test separation distance > 50 mm, and the frequency at > 1500 MHz to 6GHz

$$[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50\ \text{mm}) \times 10]_{(\text{mW})}$$

Frequency Range (MHz)	Maximium Power		Antenna distance (mm)	Calculated Result (mW)	Limit (mW)
	(dBm)	(mW)			
2402~2480	-8.4	0.1	5	0.03	3.0

2 Result

According to result, the SAR testing for this device is not required.