RF Exposure Evaluation

1. The corresponding SAR Exclusion Threshold condition, listed below:
1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] .[Vf(GHz)]≤3.0 for 1-g SAR and≤7.5 for 10-g extremity SAR,16 where
➢ f(GHz) is the RF channel transmit frequency in GHz
➢ Power and distance are rounded to the nearest mW and mm before calculation
➢ The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is≤50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm):(f(MHz)/1 50)] mW, at 100MHz to 1 500 MHz
b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)-10] mW at > 1500 MHz and≤ 6 GHz
3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1+log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.
b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by /2 for test separation distances≤50 mm.
c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

2. CL ASSIFICATION
The antenna of this product, under normal use condition, is at less than 20cm away from the body of the user. So, this device is classified as Portable Device.

EUT Specification

FCC ID	2BL3Q-HN101
PRODUCT:	Car keys
MODEL NO.:	HN101
ST ANDARDS:	FCC Part 15.231 KDB 447498 D01 V06 ANSI C95.1- 1999 FCC §1.1310
Antenna type:	PCB antenna
Antenna gain (Max)	2.1dBi
Evaluation applied	☐ MPE Evaluation ☒ SAR Evaluation

3. SAR TEST EXCLUSION THRESHOLDS

The measured conducted PK Power

Mode	Frequency(MHz)	Field strength(dBuV/m@3)	EIRP (dBm)
TX	433.92	65.08	-30.08

Note:

$EIRP=E_{Meas}+20\log(d_{Meas})-104.7$

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBuV/m

d_{Meas} is the measurement distance, in m

EIRP=E+20log(d)-104.7

The tuned conducted PK Power (declared by client)

Mode	Frequency(MHz)	Target Power (dBm)	Tolerance ±(dBm)
TX	433.92	-30	1

Frequency (MHz)	Minimum Separation distance (mm)	RF Output power		Result	Limit for 1-g SAR	Verdict
		(dBm)	(mW)			
433.92	5	-29	0.00126	0.000269	3.0	Exempt from SAR

Conclusion

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.