



FCC RF Exposure

EUT Description: Digital UHF Wireless Audio System

Model No.: Saramonic K9 XTX

FCC ID: 2AHMB-51901XTX

1. Limits

According to KDB 447498 D01 General RF Exposure Guidance v06 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:

$[(\text{max power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,

Where:

Result = $P/D \cdot \sqrt{F}$

F = the RF channel transmit frequency in GHz

P = Maximum turn-up power in mw

D = Min. test separation distance in mm

2. Test Result of RF Exposure Evaluation

2.4GTX: EIRP(dBm)=87.83(dBuV/m)-95.2=-7.37(dBm)

	Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power (dBm/mW)	Min test separation distance (mm)	Result	Limit	SAR Test Exclusion
BLE	2440	-0.02	0 $\pm$ 1	1/1.259	5	0.393	3.0	Pass
2.4G TX	2402	-7.37	-7 $\pm$ 1	-6/0.251	5	0.078	3.0	Pass
DWN	550.0	-15.919	-15 $\pm$ 1	-14/0.040	5	0.006	3.0	Pass

Note:

PK Output power = conducted power.

Conducted power see the test report **HK2602270244-1E/2E/3E**, BT antenna gain=-7.0dBi, 2.4GTX antenna gain=-1.55dBi, FM antenna gain=6.56dBi.

BT and 2.4GTX Simultaneous evaluation:

$0.393/3 + 0.078/3 = 0.157 < 1$, SAR testing is not required

DWM and 2.4GTX Simultaneous evaluation:

$0.006/3 + 0.078/3 = 0.028 < 1$, SAR testing is not required

BT and DWM do not support simultaneous transmission.

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine RF Exposure test exclusion. The test exclusion threshold meets the requirements, SAR testing is not required.

Note: Exclusion Thresholds Results = $[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Distance = 5mm