

Client: XPLOER	PR Number: PR185702
Model: ICON28	T-Log Number: TL185702-RA-ICON28
Contact: Huong Monnier	Project Manager: Christine Krebill
Standard: FCC Part 15, RSS-210, RSS-247	Project Engineer: David Bare
	Class: N/A

SAR Exclusion

Specific Details

Objective: Evaluate the RF Exposure requirements per FCC 1.1310, 2.1091, 2.1093 and RSS-102.

Date of Test: 7/15/2025

Test Engineer: David Bare

General Test Configuration

SAR exclusion calculation formula is from FCC KDB 447498 D01 section 4.3:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}]$$

Where: $f_{(\text{GHz})}$ is the RF transmit channel frequency

Theraml based ER calculation formula above 10 MHz is from RSS-102 section 8.2 Equation 10:

$$\text{SAR}_{\text{estimate}} / \text{SAR}_{\text{limit}}$$

where $\text{SAR}_{\text{estimate}} = P_{\text{max}} / P_{\text{max,exemption}} * \text{SAR}_{\text{limit}}$

Summary of Results

Device complies with SAR exclusion at 5mm separation:	Yes
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Deviations From The Standard

No deviations were made from the requirements of the standard.

FCC SAR Exclusion Calculation (KDB 447498 D01 v6)

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Separation Distance (mm)	SAR Exclusion Calc.	SAR Exclusion Limit
2404	-3.9	0.4	0	-4.3	-3.9	0.15	5.0	0.13	3.0
2440	-3.2	0.5	0	-3.3	-3.2	0.22	5.0	0.15	3.0
2476	-2.7	0.5	0	-2.4	-2.7	0.31	5.0	0.17	3.0

@ Power adjusted for stated 34% maximum duty cycle in use

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ISED Canada SAR Exclusion Calculation (Highest of output power or EIRP)

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Separation Distance (mm)	Maximum Power or EIRP (mW)	SAR Exclusion Limit (mW)
2404	-3.9	0.4	0	-4.3	-3.9	0.15	5.0	0.41	3.0
2440	-3.2	0.5	0	-3.3	-3.2	0.22	5.0	0.48	3.0
2476	-2.7	0.5	0	-2.4	-2.7	0.31	5.0	0.54	3.0

Combined exposure from 2 radios (highest contribution from each radio) as a percentage of the corresponding limit

FCC

2.4 GHz	5.7%	% of SAR exclusion limit
4.1-45kHz	69.5%	% of RF exposure limit (see separate report)
TER	75.2%	TER is < 100%

ISED

2.4 GHz	4.5%	ER per equation 10 of RSS-102
Thermal based TER	4.5%	
NS based TER	71.6%	Max of H or E field / Limit