



**Ear Force i70 RX Wireless Audio Headset.**

**SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm**

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

EUT has Wi-Fi transmitter operating in 2400 – 2483.5 MHz and 5,150 – 5,250 MHz bands and a Bluetooth transmitter. The applicable limits for the EUT are the grayed out cells in the table below.

The headphones are constructed such that the minimum separation distance between the Transmitters and head is 25mm.

<b>MHz</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>mm</b>
<b>150</b>	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
<b>300</b>	27	55	82	110	137	
<b>450</b>	22	45	67	89	112	
<b>835</b>	16	33	49	66	82	
<b>900</b>	16	32	47	63	79	
<b>1500</b>	12	24	37	49	61	
<b>1900</b>	11	22	33	44	54	
<b>2450</b>	10	19	29	38	48	
<b>3600</b>	8	16	24	32	40	
<b>5200</b>	7	13	20	26	33	
<b>5400</b>	6	13	19	26	32	
<b>5800</b>	6	12	19	25	31	

<b>MHz</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>	<b>mm</b>
<b>150</b>	232	271	310	349	387	SAR Test Exclusion Threshold (mW)
<b>300</b>	164	192	219	246	274	
<b>450</b>	134	157	179	201	224	
<b>835</b>	98	115	131	148	164	
<b>900</b>	95	111	126	142	158	
<b>1500</b>	73	86	98	110	122	
<b>1900</b>	65	76	87	98	109	
<b>2450</b>	57	67	77	86	96	
<b>3600</b>	47	55	63	71	79	
<b>5200</b>	39	46	53	59	66	
<b>5400</b>	39	45	52	58	65	
<b>5800</b>	37	44	50	56	62	

Reference - FCC KDB 447498 D01 General RF Exposure Guidance v05 Appendix A



## Evaluation.

EUT has Wi-Fi transmitter operating in 2400 – 2483.5 MHz and 5,150 – 5,250 MHz bands and a Bluetooth transmitter. It is possible for Bluetooth and Wi-Fi transmitters to be on simultaneously.

The highest power levels measured are used in the following calculations.

2.4 GHz Bluetooth and Wi-Fi radio operating in the 5150 – 5250 MHz band.

Frequency (MHz)	Maximum Power (dBm)	Maximum Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	EIRP Limit (mW)	% of limit
2402	7.72	2.8	10.52	11.27	48	23.5
5180	10.29	3.3	13.59	22.86	33	69.3
					<b>Total %</b>	<b>92.8</b>

2.4 GHz Bluetooth and Wi-Fi radio operating in the 2.4 GHz band.

Frequency (MHz)	Maximum Power (dBm)	Maximum Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	EIRP Limit (mW)	% of limit
2462	8.67	-1.5	7.17	5.21	48	10.9
2402	7.72	2.8	10.52	11.27	48	23.5
					<b>Total %</b>	<b>34.4</b>

**Conclusion: No SAR required**

**EUT**

