RF Exposure evaluation

According to 447498 D04 Interim General RF Exposure Guidance v01

$$P_{\text{th}} (\text{mW}) = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \le 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \le 40 \text{ cm} \end{cases}$$
(B.2)

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20} \operatorname{cm}\sqrt{f}}\right)$$

$$P_{\text{th }}(\text{mW}) = ERP_{20\,\text{cm}}(\text{mW}) = \begin{cases} 2040f & 0.3\,\text{GHz} \le f < 1.5\,\text{GHz} \\ \\ 3060 & 1.5\,\text{GHz} \le f \le 6\,\text{GHz} \end{cases} \tag{B.1}$$

Table B.2—Example Power Thresholds (mW)

П	Distance (mm)										
1		5	10	15	20	25	30	35	40	45	50
Frequency (MHz)	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169

ERP:

Peak Power + Antenna Gain -2.15=3.25dBm+2.1dBi-2.15dB=3.2dBm=2.09mW < 3mW

(Worst case recorded)

Then SAR evaluation is not required

output power:3.25dBm=2.113mW<3mW