

RF Exposure

FCC ID: XGR-SP3000T
IC: 8398A-SP3000T

Frequency: 2405-2480 MHz (16 channels)

Modulation: OQPSK

Mid-Channel: 2.440 GHz

Mid-Channel Peak Power, Conducted: 6.2 dBm == 4.2 mW

Antenna Gain (max): G = 3.3 dBi

Peak, Radiated = 6.2 dBm + 3.3 dBi = 9.5 dBm = 8.91 mW

The devices are programmed in such a way, that the duty cycle is less than 5% during operation.

Average, Radiated (calculated): $8.91 * 5\% = 0.45 \text{ mW}$

SAR Test Exclusion Thresholds specified in KDB447498 Appendix A:

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	30	35	40	45	50	mm
150	232	271	310	349	387	SAR Test Exclusion Threshold (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

Evaluation:

During operation (operational mode) this device is typically used > 20 cm from persons. The devices are only held in the hand for manual (de-)activation using a magnetic mat. The Calculated Radiated Average output power is taken as worst case, and this emission level appears to be far under the maximum allowed emission level at even the closest distance for 2.4G device specified in this table.

Conclusion:

The emitted power appears to be below the required limit, so PASS.