

RADIO FREQUENCY EXPOSURE

Limit

According to section 4.3.1 of KDB 447498 D01 General RF Exposure Guidance v06, SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Appendix A.

Appendix A

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

| 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 | |
| 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 | |

Note: Manufacturer declared that the maximum antenna gain is 2 dBi (Max.).

Conducted Power Results

| Test Mode | Channel | Frequency (MHz) | Measured Peak Output Power (dBm) |
|-------------|---------|-----------------|----------------------------------|
| GFSK(1Mbps) | 00 | 2402 | -0.66 |
| | 19 | 2440 | -0.87 |
| | 39 | 2480 | -1.00 |

Manufacturing tolerance

| GFSK (1Mbps Peak) | | | |
|----------------------|-----------|------------|------------|
| Channel | Channel 0 | Channel 19 | Channel 39 |
| Target (dBm) | -1.0 | -1.0 | -1.5 |
| Tolerance \pm (dB) | 1.0 | 1.0 | 1.0 |

Results

| Test Mode | Channel Frequency (MHz) | Max. Tune Up Power (dBm, Peak) | Max. Eirp including Tune Up (dBm, Peak) | Max. Eirp including Tune Up (mW, Peak) | Exemption Limit (mW) |
|-------------|-------------------------|--------------------------------|---|--|----------------------|
| GFSK(1Mbps) | 2402 | 0 | 2 | 1.58 | 10 |
| | 2440 | 0 | 2 | 1.58 | 10 |
| | 2480 | -0.5 | 1.5 | 1.41 | 10 |

The antenna gain of the EUT for BT is 2 dBi (Max). the Maximum Eirp is used for Routine Evaluation Exemption according to section 4.3.1 of KDB 447498 D01.

So, the SAR evaluation is not required.