



FCC ID: 2AG7X-V21

Portable device

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V06

The 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where:

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

BT-EDR

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| GFSK       | 2.441               | -0.54                  | 0.88                  | -0±1                | 1.00                    | 1.26                   | <5            | 0.39338             | 3.00                    | YES                |
| Pi/4 DQPSK | 2.402               | -0.13                  | 0.97                  | -0±1                | 1.00                    | 1.26                   | <5            | 0.39023             | 3.00                    | YES                |
| 8DPSK      | 2.402               | -0.3                   | 0.93                  | -0±1                | 1.00                    | 1.26                   | <5            | 0.39023             | 3.00                    | YES                |

BT-BLE

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| GFSK       | 2.440               | 0.26                   | 1.06                  | 0±1                 | 1.00                    | 1.26                   | <5            | 0.39330             | 3.00                    | YES                |

2.4G-WIFI

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| 802.11n20  | 2.437               | 5.86                   | 3.85                  | 5±1                 | 6.00                    | 3.98                   | <5            | 1.24296             | 3.00                    | YES                |

5G-WIFI

| Modulation | Channel Freq. (GHz) | Conducte d power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| 802.11AC2  | 5.180               | 5.90                   | 3.89                  | 5±1                 | 6.00                    | 3.98                   | <5            | 1.81215             | 3.00                    | YES                |



5.8G-WIFI

| Modulation | Channel Freq. (GHz) | Conducte d power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculation | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|--------------------|-------------------------|--------------------|
| 802.11n20  | 5.745               | 5.61                   | 3.64                  | 5±1                 | 6.00                    | 3.98                   | <5            | 1.90842            | 3.00                    | YES                |

For the Max simultaneous transmission

| Evaluation mode | Result calculation | Total Result calculation | SAR Exclusion threshold | Result |
|-----------------|--------------------|--------------------------|-------------------------|--------|
| 2.4G-WIFI       | 1.24296            | 2.02964                  | 3.0                     | Pass   |
| BT-EDR          | 0.39338            |                          |                         |        |
| BT-BLE          | 0.39330            |                          |                         |        |

| Evaluation mode | Result calculation | Total Result calculation | SAR Exclusion threshold | Result |
|-----------------|--------------------|--------------------------|-------------------------|--------|
| 5G-WIFI         | 1.81215            | 2.59883                  | 3.0                     | Pass   |
| BT-EDR          | 0.39338            |                          |                         |        |
| BT-BLE          | 0.39330            |                          |                         |        |

| Evaluation mode | Result calculation | Total Result calculation | SAR Exclusion threshold | Result |
|-----------------|--------------------|--------------------------|-------------------------|--------|
| 5.8G-WIFI       | 1.90842            | 2.6951                   | 3.0                     | Pass   |
| BT-EDR          | 0.39338            |                          |                         |        |
| BT-BLE          | 0.39330            |                          |                         |        |

**Conclusion:**

For the max result :  $2.6951 < 3.0$ , the SAR testing is not required.