RF Exposure

Test Requirement: FCC 47CFR 15.247(i)

FCC ID: LMZ-PS990
Test Date: 2023-06-25
Mode of Operation: BT Tx mode

Requirements:

In 15.247(i), an equipment shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the limits in §§ 1.1307.

Applications to the Commission for construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities must contain a statement confirming compliance with the limits unless the facility, operation, or transmitter is categorically excluded, as discussed below. Technical information showing the basis for this statement must be submitted to the Commission upon request.

According to KDB447498 D04 General RF Exposure Guidance v01, Appendix B Exemptions for Single RF Sources, B.3 MPE-based Exemption

B.3 MPE-based Exemption

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION

| SOBJECT TO ROUTINE ENVIRONMENTAL EVALUATION | | | | | | |
|---|---|-----------------------|--------------------|---|---------------------|--------------------------------------|
| RF Source | | | Minimum Distance | | | Threshold |
| Frequency | | | | | | ERP |
| f _L MHz | | ƒ _H MHz | $\lambda_L / 2\pi$ | | λ _H / 2π | W |
| 0.3 | _ | 1.34 | 159 m | _ | 35.6 m | 1,920 R ² |
| 1.34 | _ | 30 | 35.6 m | _ | 1.6 m | 3,450 R ² /f ² |
| 30 | _ | 300 | 1.6 m | _ | 159 mm | 3.83 R ² |
| 300 | _ | 1,500 | 159 mm | _ | 31.8 mm | 0.0128 R ² f |
| 1,500 | | 100,00 | 31.8 mm | _ | 0.5 mm | 19.2R ² |

Subscripts L and H are low and high; λ is wavelength.

From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.

Test Result of BT Tx mode(DTS): PASS

RF Exposure Evaluation

The Maximum ERP = 1.385mW (at frequency = 2.402 GHz)

SAR Test Exclusion Thresholds=768mW,

The test separation distances is 20 cm