RF Exposure

Test Requirement: FCC ID: Test Date: Mode of Operation: FCC 47CFR 15.247(i) RQZSPF-2118A 2023-12-13 wireless 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 §§ 1.1310 and 2.1093 of this chapter.

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.

SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION								
RF Source			Minimum Distance			Threshold		
Frequency						ERP		
$f_{\rm L}$ MHz		<i>f</i> н MHz	$\lambda_L / 2\pi$		$\lambda_{\rm H}$ / 2π	W		
0.3	_	1.34	159 m	_	35.6 m	1,920 R ²		
1.34	_	30	35.6 m	-	1.6 m	$3,450 \text{ R}^2/f^2$		
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 0	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.								

TABLE B.1-	-THRESHOLDS	S FOR SINGLE	RF SOURCES
SUBJECT TO I	ROUTINE ENV	IRONMENTAL	EVALUATION

Test Result of wireless Tx mode: RF Exposure Evaluation

The Maximum ERP = 2.173mW (at frequency = 2.403 GHz) SAR Test Exclusion Thresholds=4.32mW (19.2*0.015*0.015=0.00432W), The test separation distance is 15mm.