

Statement for RF Exposure

Order No. : 11822931H
Applicant : DENSO CORPORATION
Type of Equipment : Millimeter Wave Radar Sensor
Model No. : DNMWR010
Test standard : FCC Part 15 Subpart C: 2017
Test result : Complied

[FCC rule]

§1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

(b) (2) (ii) Unlicensed PCS, unlicensed NII and millimeter wave devices are also subject to routine environmental evaluation for RF exposure prior to equipment authorization or use, as specified in §§15.253(f), 15.255(g), 15.257(g), 15.319(i), and 15.407(f) of this chapter.

§1.1310 Radiofrequency radiation exposure limits.

(d) (3) At operating frequencies above 6 GHz, the MPE limits shall be used in all cases to evaluate the environmental impact of human exposure to RF radiation as specified in §1.1307(b).

(e) Table 1 below sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*100	6
3.0–30	1842/f	4.89/f	*900/f ²	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*100	30
1.34–30	824/f	2.19/f	*180/f ²	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

§2.1091 Radiofrequency radiation exposure evaluation: mobile devices.

(c) (2) Unlicensed personal communications service devices, unlicensed millimeter wave devices and unlicensed NII devices authorized under §§15.253(f), 15.255(g), 15.257(g), 15.319(i), and 15.407(f) of this chapter are also subject to routine environmental evaluation for RF exposure prior to equipment authorization or use if their ERP is 3 watts or more or if they meet the definition of a portable device as specified in §2.1093(b) requiring evaluation under the provisions of that section.

[Results]

Mode	Average EIRP [mW]	Separation Distance [cm]	Power Density Result [mW/cm ²]	Power Density Limit [mW/cm ²]
Normal operating mode (FM-CW + FCM)	63.47	20	0.013	1

Calculating formula:

$$\text{Power Density} = \text{Average EIRP} / (4 * \text{Pi} * \text{Separation Distance} ^ 2)$$

This EIRP was measured in sufficient far field of 1.5 m distance and calculated at 20 cm.

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124