AMIMON

Model: **AMN42012**

FCC ID: **VQSAMN42012**

IC: **7680A-AMN42012**

RF Exposure

Requirements

Test Requirement	Part 15.407(f)	Radio frequency devices operating under the provisions of this part are subject to the radio frequency radiation exposure requirements specified in §§1.1307(b), 1.1310, 2.1093 and 2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a "general population/uncontrolled" environment.
Radiofrequency radiation exposure evaluation: mobile devices	Part 2.1091	For purposes of this section, the definitions in § 1.1307(b)(2) of this chapter shall apply. A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons.
RF Exposure Requirement	Part 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 §§15.255(f), 15.257(g), 15.319(i), and 15.407(f) of this chapter.
RF Exposure Predictions	OET Bulletin 65, equation 6	For truly worst-case predictions of power density at or near a surface 100% reflection of incoming radiation can be assumed: $$MPE = \frac{P_{conducted} \cdot G_{Antenna}}{\pi \cdot r^2}$$ Where, S = MPE = power density (appropriate units, e.g. mW/cm^2) $P_{conducted}$ = power input to the antenna (appropriate units, e.g. mW) $G_{Antenna}$ = power gain of the antenna in the direction of interest relative to an isotropic radiator r= distance to the center of radiation of the antenna (appropriate units, e.g. cm)
RF Exposure Limit	Part 1.1310	(d) (2) For operations within the frequency range of 300 kHz and 6 GHz (inclusive), the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 in

paragraph (e)(1) of this section, may be used instead of whole-body SAR limits as set forth in paragraphs (a) through (c) of this section to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part, except for portable devices as defined in § 2.1093 of this chapter as these evaluations shall be performed according to the SAR provisions in § 2.1093.

(d) (4) Both the MPE limits listed in Table 1 in paragraph (e)(1) of this section and the SAR limits as set forth in paragraphs (a) through (c) of this section are for continuous exposure, that is, for indefinite time periods. Exposure levels higher than the limits are permitted for shorter exposure times, as long as the average exposure over a period not more than the specified averaging time in Table 1 in paragraph (e)(1) is less than (or equal to) the exposure limits.

(e)(1) Table 1 to §1.1310(e)(1) sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

(e)(3) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. For example, RF sources intended for consumer use shall be subject to the limits for general population/uncontrolled exposure in this section.

Table 1 to §1.1310(e)(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)
(ii) 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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz.

* = Plane-wave equivalent power density.

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Results

BW	Freq	Conducted Power		Antenna Gain		Distance	Power Density	Limit
[MHz]	[MHz]	[dBm]	[mW]	[dBi]	numeric	[cm]	[mW/cm^2]	[mW/cm^2]
40	5750	21.7	147.91	2	1.58	20	0.187	1
40	5790	21.2	131.83	2	1.58	20	0.166	1
40	5830	21.7	147.91	2	1.58	20	0.187	1

Judgment

Pass with 0.81mW/cm^2 margin