FCC ID: RUNMPC8377EWLAN
IC: 6744A-MPC8377

Statement of compliance to Maximum Permissible Exposure (MPE)

Equipment	:	Wireless Router
Type/Model	:	MPC8377EWLAN
Applicant	:	Freescale Semiconductor, Inc. 6501 William Cannon Dr, Austin, Texas, 78735, United States
Definition of EUT	:	☒ **Mobile device** ☐ **Portable device**

Here assuming a worst-case prediction of power density (100% reflection), then
$S = 4PG / (4\pi R^2) = PG / (\pi R^2)$.
Where S = power density in mW/cm^2
P = transmit power in mW
G = numeric gain of transmit antenna
R = distance (cm)

As we can see from the test report SH09020124-001:
The maximum P = 29.51dBm = 893.31mW
G = 2.5dBi = 1.78
Here R is chosen to be 23cm,

$S = PG / (\pi R^2) = 893.31 * 1.78 / (3.14 * 23 * 23) = 0.96 mW/cm^2$

This level is below the 1 mW/cm^2 MPE for General Population / Uncontrolled Exposure as stated in OET BULLETIN 65 Edition 97-01.
Conclusion: this EUT fulfills 47CFR Part 15.247(i) (2007) with the definition outlined in the User's Manual. (See appendix I)

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Appendix I

Definition below must be outlined in the User Manual:

1. The installed antennas must not be located in a manner that allows exposure of the general population at a distance of less than 23cm.
2. Mount the antennas in a manner that prevents any personnel from entering the area within 23cm from the central position of the antenna.