Statement of compliance to Maximum Permissible Exposure (MPE)

Equipment	: MX31PDK
Type/Model	: MX31PDK
Applicant	: Freescale Semiconductor, Inc. 8133 Leesburg Pike Suite 700, Vienna, Virginia, 22182, United States
Definition of EUT	: ☒ **Mobile device** ☐ **Portable device**

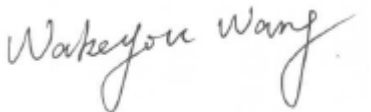
Here assuming a worst-case prediction of power density (100% reflection), then
$S = 4PG / (4\pi R^2) = PG / (\pi R^2)$.
Where S = power density in mW/cm^2
P = transmit power in mW
G = numeric gain of transmit antenna
R = distance (cm)

As we can see from the test report SH08010962-001:
The maximum P = 5.77mW
G = 1.2dBi = 1.32
As the **mobile device** is defined as that separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structures and the body of the user or nearby persons, here R is chosen to be 20cm
$S = PG / (\pi R^2) = 5.77 * 1.32 / (3.14 * 20 * 20) = 0.006 mW/cm^2$

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) (2006) with the definition outlined in the User's Manual that the EUT is a mobile device. (See appendix I)

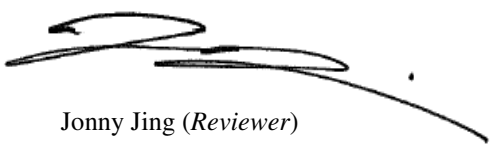
Date of issue: March 6, 2008

Prepared by:



Wakeyou Wang (*Project engineer*)

Reviewed by:



Jonny Jing (*Reviewer*)

Appendix I

Definition below must be outlined in the User Manual:

This product is a mobile device and the distance between that and the user or nearby persons should no less than 20cm under normal operational condition.