RF Exposure Evaluation declaration

Product Name : Intel 7260M2NA

Model No. : 7260M2NA

FCC ID : PD97260NA

Applicant : Intel Mobile Communications

Address : 100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA

Date of Receipt : Sep. 12, 2014

Date of Declaration : Nov. 21, 2014

Report No. : 1490343R-RF-US-RFEXP

Testing Laboratory
3023

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intel 7260M2NA
Model No.	7260M2NA
Trade Name	Intel
IMEI No.	004402-xx-xxxxxx-x
FCC ID	PD97260NA
TX Frequency	GSM850: 824.2 ~ 848.8 MHz
	GSM1900: 1850.2~ 1909.8MHz
	WCDMA Band 2: 1852.4 ~ 1907.6 MHz
	WCDMA Band 4: 1712.4~ 1752.6 MHz
	WCDMA Band 5: 826.4~ 846.6 MHz
	LTE Band 2: 1850~1910MHz
	LTE Band 4: 1710~1755MHz
	LTE Band 5: 824~849MHz
	LTE Band 17: 704~716MHz
Rx Frequency	GSM850: 869.2 ~ 893.8 MHz
	GSM1900: 1930.2 ~ 1989.8 MHz
	WCDMA Band 2: 1932.4 ~ 1987.6 MHz
	WCDMA Band 4: 2112.4 ~ 2152.6 MHz
	WCDMA Band 5: 871.4 ~ 891.6 MHz
	LTE Band 2: 1930~1990MHz
	LTE Band 4: 2110~2155MHz
	LTE Band 5: 869~894MHz
	LTE Band 17: 734~746MHz
HW Version	PR3.1
SW Version	1433
Antenna Type	Dipole

1.2. Antenna List :

No.	Manufacturer	Part No.	Peak Gain
1	Pulse	SPDA24700/2700	2dBi

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	30
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $Pd = (Pout*G)/(4*Pi*R^2)$

Where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm^2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 21℃and 60％ RH.

2.3. Test Result of RF Exposure Evaluation

Product : Intel 7260M2NA
Test Item : RF Exposure Evaluation
Test Site : N/A

GPRS 850
Peak Gain: 2dBi

Frequency	Conducted Peak Power (dBm)	Maximum ERP (W)	Maximum ERP Limit(W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
848.8	32.07	1.56	7	12.5	23.04	201.3	0.0635	0.57	Pass
836.4	31.78	1.46	7	25	25.76	376.7	0.1188	0.56	Pass
836.4	31.29	1.30	7	37.5	27.03	504.7	0.1591	0.56	Pass
836.4	30.58	1.10	7	50	27.57	571.4	0.1802	0.56	Pass

EGPRS 850
Peak Gain: 2dBi

Frequency	Conducted Peak Power (dBm)	Maximum ERP/EIRP (W)	Maximum ERP/EIRP Limit(W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
824.2	27.54	0.55	7	12.5	18.51	70.9	0.0224	0.55	Pass
824.2	27.48	0.54	7	25	21.46	139.9	0.0441	0.55	Pass
824.2	26.85	0.47	7	37.5	22.59	181.6	0.0572	0.55	Pass
824.2	25.74	0.36	7	50	22.73	187.5	0.00591	0.55	Pass

GPRS 1900
Peak Gain: 2dBi

Frequency	Conducted Peak Power (dBm)	Maximum EIRP (W)	Maximum EIRP Limit(W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
1850.2	29.84	1.53	2	12.5	20.81	120.5	0.0380	1	Pass
1850.2	29.83	1.52	2	25	23.81	240.4	0.0758	1	Pass
1850.2	29.27	1.34	2	37.5	25.01	317.0	0.0999	1	Pass
1850.2	28.18	1.04	2	50	25.17	328.8	0.1037	1	Pass

EGPRS 1900
Peak Gain: 2dBi

Frequency	Conducted Peak Power (dBm)	Maximum EIRP (W)	Maximum EIRP Limit(W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
1909.8	26.67	0.74	2	12.5	17.64	58.1	0.0183	1	Pass
1909.8	26.76	0.75	2	25	20.74	118.6	0.0374	1	Pass
1909.8	25.99	0.63	2	37.5	21.73	148.9	0.0470	1	Pass
1909.8	24.75	0.47	2	50	21.74	149.3	0.0471	1	Pass

WCDMA
Peak Gain: 2dBi

Band	Frequency	Conducted Peak Power (dBm)	Maximum ERP/EIRP (W)	Maximum ERP/EIRP Limit (W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
II	1852.4	24.66	0.46	2	100	24.66	292.4	0.0922	1	Pass
IV	1712.4	24.54	0.45	1	100	24.54	284.4	0.0897	1	Pass
V	826.4	23.88	0.24	7	100	23.88	244.3	0.0770	0.55	Pass

LTE
Peak Gain: 2dBi

Band	Frequency	Conducted Peak Power (dBm)	Maximum ERP/EIRP (W)	Maximum ERP/EIRP Limit (W)	Duty Cycle (%)	Conducted Average Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
II	1855	23.21	0.33	2	100	23.21	209.4	0.0660	1	Pass
IV	1750	23.09	0.32	1	100	23.09	203.7	0.0642	1	Pass
V	824.7	22.85	0.19	7	100	22.85	192.8	0.0608	0.55	Pass
XVII	709	22.82	0.18	3	100	22.82	191.4	0.0604	0.47	Pass

Note: The conducted output power is refer to report No.: 1490343R-HPUSP11V00 & 1490343R-HPUSP45V00 from the QuieTek.