Certification Exhibit

FCC ID: R7PEG1R1S7

FCC Rule Part: 47 CFR Part 2.1093

Project Number: 72157711

Manufacturer: Landis+Gyr Technology, Inc.
Model: LTE-M CELLULAR

RF Exposure

General Information:

Applicant: Landis+Gyr Technology, Inc.
Device Category: Mobile
Environment: General Population/Uncontrolled Exposure

Technical Information Zigbee Radio):

Antenna Type: PCB Trace Inverted F
Antenna Gain: -3.07dBi
Maximum Transmitter Conducted Power: 22.3dBm, 169.82mW
Maximum System EIRP: 19.23dBm, 83.75mW
Exposure Conditions: Greater than 20 centimeters

Technical Information (Cellular Radio):

Antenna Type: Patch, Taoglas, P/N: FXUB84
Antenna Gain: 2.1dBi (700-787MHz), 0.1dBi (824-894MHz), 3.6dBi (1710-1880MHz), 4.1dBi (1850-1990MHz)

LTE B2
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 28.1dBm, 645.65mW

LTE B4
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 27.6dBm, 575.44mW

LTE B5
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 24.1dBm, 257.04mW

LTE B12
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 26.1dBm, 407.38mW

LTE B13
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 26.1dBm, 407.38mW

LTE B14
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 26.1dBm, 407.38mW

LTE B17
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 26.1dBm, 407.38mW

LTE B25
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 28.1dBm, 645.65mW

LTE B26
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 24.1dBm, 257.04mW

LTE B66
Maximum Transmitter Conducted Power: 24dBm, 251.19mW
Maximum System EIRP: 27.6dBm, 575.44mW
Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm^2) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = 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)

Table 1: MPE Calculation

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/cm^2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)
2405	22.3	1.00	169.82	-3.07	0.493	20	0.0167
1850	24	1.00	251.19	4.1	2.570	20	0.128
1710	24	1.00	251.19	3.6	2.291	20	0.114
824	24	0.55	251.19	0.1	1.023	20	0.051
699	24	0.47	251.19	2.1	1.622	20	0.081
777	24	0.52	251.19	2.1	1.622	20	0.0810
788	24	0.53	251.19	2.1	1.622	20	0.081
704	24	0.47	251.19	2.1	1.622	20	0.081
1850	24	1.00	251.19	4.1	2.570	20	0.128
814	24	0.54	251.19	0.1	1.023	20	0.051
1710	24	1.00	251.19	3.6	2.291	20	0.114

Table 2: Simultaneous Transmissions Calculations

Technology	Transmit Frequency (MHz)	Power Density Limit (mW/m^2)	Power Density (mW/m^2)	MPE Ratio to Limit (%)	Sum of MPE Ratios (%)	Limit (%)
LTE B2	1850	1.00	0.128	12.84	14.51	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B4	1710	1.00	0.114	11.45	13.11	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B5	824	0.55	0.051	9.31	10.98	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B12	699	0.47	0.081	17.39	19.06	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B13	777	0.52	0.081	15.65	17.31	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B14	788	0.53	0.081	15.43	17.09	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B17	704	0.47	0.081	17.27	18.93	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B25	1850	1.00	0.128	12.84	14.51	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B26	814	0.54	0.051	9.42	11.09	100
Zigbee	2405	1.00	0.0167	1.67		
LTE B66	1710	1.00	0.114	11.45	13.12	100
Zigbee	2405	1.00	0.0167	1.67		