Certification Exhibit

FCC ID: R7PNG0R1S4

FCC Rule Part: 47 CFR Part 2.1091

Project Number: 72185765

Manufacturer: Landis + Gyr Technology, Inc
Model Name: Series-6 RF Mesh mSBR Card
Product Marketing Number: N651

RF Exposure

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

Technical Information (900MHz– FCC 15.247):
Antenna Type: Dipole Antenna
Antenna Gain: 5.15 dBi
Maximum Transmitter Conducted Power: 29.96dBm, 990.83mW
Maximum System EIRP: 35.11dBm, 3243.40mW
Exposure Conditions: 20 centimeters
*Worst Case from all 900 MHz modes (FHSS/Hybrid/DTS)

Technical Information (900MHz– FCC 15.247):
Antenna Type: Sector Antenna
Antenna Gain: 9 dBi
Maximum Transmitter Conducted Power: 25.77dBm, 377.57mW
Maximum System EIRP: 34.77dBm, 2999.16mW
Exposure Conditions: 20 centimeters
*Worst Case from all 900 MHz modes (FHSS/Hybrid/DTS)

RF Exposure Calculation

Table 1: Device Characteristics

Technical Parameters	Dipole Antenna	Sector Antenna
Frequency Range (GHz)	0.9022-0.9278	0.9022-0.9278
Frequency Range (MHz)	902.2 – 927.8	902.2 – 927.8
Separation Distance (cm)	20.00	20.0
Separation Distance (m)	0.2000	0.200
Antenna Gain (dBi)	5.15	9.0
ERP Easily Determined	YES	YES
Conducted Power (dBm)	29.96	25.77
Conducted Power (mW)	990.83	377.57
Duty Factor (Source-Based) %	100.0	100.0
Maximum (Source-Based) Time-Averaged Conducted Power (mW)	990.83	377.57
Maximum (Source-Based) Time-Averaged ERP (mW)	1977.68	1828.76
Maximum (Source-Based) Time-Averaged EIRP (mW)	3243.40	2999.16
Maximum Output (mW)	1977.68	1828.76

Test Exemption Criteria

Test exemption is determined by 47 CFR 1.1307(b)(3)(i)(B) where single RF source is exempt if:
The available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. Pth is given by:

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

Table 2: 47 CFR 1.1307(b)(3)(i)(B) SAR – Based Exemption Pth (mW)

Technical Parameters	Dipole Antenna	Sector Antenna
x	1.46	1.46
ERP_{20cm}(mW)	1840.49	1840.49
Maximum Output (mW)	1977.681	1828.758
P_{th} (mW)	4601.220	4601.220
Exemption	**YES**	**YES**