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## **Certification Exhibit**

**FCC ID: R7PNG0R1S7**

**FCC Rule Part: 47 CFR Part 2.1091**

**Project Number: 721007330**

Manufacturer: Landis + Gyr Technology, Inc  
Model Name: S5-MCM0

## **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: PIFA Antenna  
 \*\*Total Antenna Gain: 0 dBi  
 \*Maximum Transmitter Conducted Power: 27.97 dBm, 626.61mW  
 Maximum System EIRP: 27.97 dBm, 626.61 mW  
 Exposure Conditions: 20 centimeters  
 \*Worst Case from all 900 MHz modes (DSS)  
 \*\*Declared by the customer

**RF Exposure Calculation****Table 1: Device Characteristics**

Technical Parameters	900 MHz Radio
Frequency Range (GHz)	0.902-0.928
Frequency Range (MHz)	902 – 928
Separation Distance (cm)	20.00
Separation Distance (m)	0.2000
Antenna Gain (dBi)	0.00
ERP Easily Determined	YES
1-g body or 10-g extremity	Body
Conducted Power (dBm)	27.97
Conducted Power (mW)	626.61
Duty Factor (Source-Based) %	100.0
Maximum (Source-Based) Time-Averaged Conducted Power (mW)	626.61
Maximum (Source-Based) Time-Averaged ERP (mW)	382.08
Maximum (Source-Based) Time-Averaged EIRP (mW)	626.61
Maximum Output (mW)	626.61

**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:

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

Where

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

and

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

$d$  = the separation distance (cm);

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

Technical Parameters	900 MHz Radio
x	1.46
ERP <sub>20cm</sub> (mW)	1840.90
Maximum Output (mW)	626.614
P <sub>th</sub> (mW)	1840.896
Exemption	<b>YES</b>
Contribution Ratio (P / P <sub>th</sub> )	0.340
Distance to Limit (cm)	9.582