



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Certification Exhibit:

Schweitzer Engineering Laboratories, Inc.
SEL-LG-SBR
RF Exposure

FCC Code of Federal Regulations 47 Part 1.1307(b) (1)

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Industry Canada RSS-102 Issue 4 March 2010

RF Exposure Statement of Compliance

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name:	SEL-LG-SBR
Kind of Equipment:	Module / Mobile
Frequency Range:	902.1 - 927.9MHz
Operational Rule Part:	FCC Part 15.247, RSS-210 Annex 8
RF Exposure Category:	General Population / Uncontrolled Exposure
Model Number(s):	SEL-LG-SBR
Model(s) Tested:	SEL-LG-SBR
Serial Number(s):	9151018D
Date of Tests:	September 20-23, 2010
Test Conducted For:	Schweitzer Engineering Laboratories, Inc. 2350 NE Hopkins Court Pullman, Washington 99163-5603, USA



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Transmitter Information:

Maximum Conducted Output Power:	22.04 dBm (159.9558 mW)
Frequency:	902.1 MHz
Antenna Type:	Whip
Antenna Gain:	5.25 dBi

Exposure Limit:

Maximum Permissible Exposure (MPE) limit for General Population / Uncontrolled Exposure in the frequency range 300 – 1500 MHz *:

$$(S) \text{ (mW/cm}^2\text{)} = f \text{ (MHz)} / 1500$$

$$S = 902.1 / 1500 = \mathbf{0.6014} \text{ mW/cm}^2$$

MPE Calculation:

Power Density (mW/cm²):

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

S = Power Density (mW/cm²)

P = Power Input to the antenna (mW)

G = Numeric Power Gain of the antenna

R = Distance to the center of the radiation of the antenna (cm)



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Results:

P =	22.04	dBm						
G =	5.25	dBi						
R =	20	cm						
Limit Factor*	1500							
π	3.14159							
Transmit Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain	Distance (cm)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Margin
902.1	22.04	159.95580	5.25	3.34965	20	0.1066	0.6014	0.495

* Specific to frequency range and exposure type. See OET 65c for guidance and adjust Power Density Limit equation accordingly.

Summary of Results:

With a minimum separation distance of 20 centimeters as defined by FCC 2.1091(b), for a mobile device, the Schweitzer Engineering Laboratories, Inc., SEL-LG-SBR **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

Conclusion:

The Schweitzer Engineering Laboratories, Inc., SEL-LG-SBR operating under FCC part 15.247 and RSS-210 Annex 8 complies with the requirements of FCC Part 1.1307(b)(1) and Industry Canada RSS-102 Issue 4 March 2010 for RF Exposure Evaluation.