FCC ID: SS4FR900 **ATTACHMENT**

RF EXPOSURE EVULATION

1.1 Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength	Magnetic field Strength	Power density (mW/cm²)	Averaging time
1.34 - 30.....	824/f	2.19/f	*(180/ f²)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....	.....	.....	**f/1500**	30
1500 - 100.000.....	.....	.....	1.0	30

F = frequency in MHz

* = Plane-wave equivalent power density

1.2 MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Power density at the specific separation:

$S = PG/(4R^2\pi)$ $S = (851.14 * 3.98) / (4 * 20^2 * \pi)$ $S = 0.674$ mW/cm^2	Where, S = Maximum power density (mW/cm^2) 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 (20 cm = limit for MPE)

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1.3 MAXIMUM PERMISSIBLE EXPOSURE Prediction

- Calculated under the worst-case conditions of each mode.

(Measured power 29.30 dBm ± 0.5dB)

900 MHz RFID Mode

Max Peak output Power at antenna input terminal	29.30	dBm
Max Peak output Power at antenna input terminal	851.14	mW
Prediction distance	20	cm
Prediction frequency	915.25	MHz
Antenna Gain(typical)	6	dBi
Antenna Gain(numeric)	3.98	-

For 100 MHz to 6 GHz and *test separation distances* > 50 mm, the 1-g and 10-g *SAR test exclusion thresholds* are determined by the following (also illustrated in Appendix B)

[(Power allowed at numeric threshold for 50mm in step a)] + [(test separation distance – 50mm) * (f(MHz)/150] mW = [998] + [140] * [902.75 / 150] = 1840.56 mW

Thus, SAR for this device is not required.