Memo

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No GFU18_RF_Exposure

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Date February 4, 2004

To Federal Communications Commission
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Subject **GFU18 (FCC-ID: RFDGFU18) - Evaluation of RF Exposure**

Prediction of MPE limit at given distance:

Equation: $S = P*G / 4\pi R^2$

S = power density
P = power input to the antenna
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

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure:

Frequency Range(MHz)	Power Density (mW/cm^2)	Averageing Time (minutes)
300 - 1500	f/1500	30
1500 - 100000	1	30

800MHz TDMA (Class IV)

Maximum peak output power at antenna input terminal:	26.1	dBm
Maximum peak output power at antenna input terminal:	411	mW
Antenna gain (typical):	0	dBi
Prediction distance:	20	cm
Prediction frequency:	850	MHz
Power density at prediction frequency:	**0.0818**	**mW/cm^2**
MPE limit for uncontrolled exposure at prediction frequency:	0.567	mW/cm^2

1900MHz TDMA (Class IV)

Maximum peak output power at antenna input terminal:	26.1	dBm
Maximum peak output power at antenna input terminal:	411	mW
Antenna gain (typical):	0	dBi
Prediction distance:	20	cm
Prediction frequency:	1900	MHz
Power density at prediction frequency:	**0.0818**	**mW/cm^2**
MPE limit for uncontrolled exposure at prediction frequency:	1	mW/cm^2

Conclusion:
The power density levels at a distance of 20cm with the supported antenna (0dBi) are below the maximum levels allowed by the FCC regulations.