

Model: S02GHR08		Test Number: 190528	
MPE Calculator	RF Exposure uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.		
	dBi = dB gain compared to an isotropic radiator.		
	S = power density in mW/cm ²		
	Transmitter maximum Output power operating at 100% (Watts)	4.0000	
	Percent Duty Cycle operation (%)	100.0	Antenna Gain (dBi) 26.9
	Output Power for 100% duty Cycle operation (Watts)	4.0000	Antenna Gain (Numeric) 489.78
Tx Frequency (MHz)	2312	Calculation power (Watts) 4.0000	dBd + 2.17 = dBi dBi to dBd 2.2
Cable Loss (dB)	0.0	Adjusted Power (dBm) 36.02	Antenna Gain (dBd) 24.73
			Antenna minus cable (dBi) 26.90
	Calculated ERP (mw) 1,188,666.41	1,188.67	EIRP = Po(dBm) + Gain (dB)
	Calculated EIRP (mw) 1,959,115.28	1,959.12	Radiated (EIRP) dBm 62.921
			ERP = EIRP - 2.17 dB
			Radiated (ERP) dBm 60.751
	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> $\text{Power density (S) mW/cm}^2 = \frac{\text{EIRP}}{4 \pi r^2}$ <p>r (cm) EIRP (mW)</p> </div>		
	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310	
		Frequency (MHz)	Occupational Limit (mW/cm ²)
5	mW/cm ²	30-300	1
50	W/m ²		0.2
	General Public Limit	300-1,500	f/300
1	mW/cm ²	1,500-10,000	5
10	W/m ²		1
	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102	
		Frequency (MHz)	Occupational Limit (W/m ²)
0.6455f ^{0.5}	W/m ²	100-6,000	0.6455f ^{0.5}
38.6	W/m ²	6,000-15,000	50
	General Public Limit	48-300	1.291
0.02619f ^{0.6834}	W/m ²	300-6,000	0.02619f ^{0.6834}
5.2	W/m ²	6,000-15,000	10
f = Transmit Frequency (MHz)			f (MHz) = 2312
P _T = Power Input to Antenna (mW)			P _T (mW) = 4,000.0000
Duty cycle (percentage of operation)			% = 100.0
P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)			P _A (mW) = 4,000.00
G _N = Numeric Gain of the Antenna			G _N (numeric) = 489.78
S ₂₀ = Power Density of device at 20cm (W/m ²)		S ₂₀ =(P _A G _N)/(4πR ₂₀) ²	S ₂₀ (W/m ²) = 3897.54
S _L = Power Density Limit (W/m ²)			S _L (W/m ²) = 5.213
R _C = Minimum distance to the Radiating Element for Compliance (cm)		R _C =√(P _A G _N /4πs _i)	R _C (cm) = 546.9
S _C = Power Density of the device at the Compliance Distance R _C (W/m ²)		S _C =(P _A G _N)/(4πR _C) ²	S _C (W/m ²) = 5.21
R ₂₀ = 20cm			R ₂₀ = 20
	For Compliance with Canada General Population Limits, User Manual must indicate a minimum separation distance of		546.9 cm
	Or in Meters for Compliance with Canada General Population Limits, a minimum separation distance of		5.5 Meters

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Revision 1

SAF Tehnika AS
Model: Phoenix G2
Test: 190528
Test to: 47CFR 27, RSS-195
File: PhoenixG2 RFExp

S/N's: 300540100019 / 300550100020
FCC ID: W9Z-PHOENIXG2
IC: 8855A-PHOENIXG2
Date: November 13, 2019
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