

Applicant: President Electronics USA FCC ID: 2AEOCPC213

Test Report S/N: 45461895-R1.0 **Project:** 1640

EXHIBIT 7 – FCC RF EXPOSURE (MPE) REPORT

Prediction of MPE Limit 47 CFR § 2.1091

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2}$$

$$S_C = \frac{P_A G_N}{4\pi R_C^2}$$

$$R_{c} = \sqrt{\frac{P_{A}G_{N}}{4\pi S_{I}}}$$

$$S_L = \frac{180}{f^2} (mW/cm^2)$$

 S_{20} = Power Density of the Device at 20cm

 S_L = Power Density Limit

 S_C = Power Density of the Device at the Compliance Distance R_C

 $R_{20} = 20 cm$

R_c = Minimum Distance to the Radiating Element to Meet Compliance

 P_T = Power Input to Antenna

 P_A = Adjust Power

 G_N = Numeric Gain of the Antenna

f = Transmit Frequency

Transmit Duty Cycle (VOX) = 75%

Use Group = General Popuation

Transmit Duty Cycle:	75.00	(%)
Tx Frequency (f):	27.405	(MHz)
RF Power at Antenna Input Port (P_T):	12000.00	(mW)
Antenna Gain:	3.00	(dBi)
Numeric Antenna Gain (G _N):	2.00	(numeric)
Cable or Other Loss:	0.00	(dB)
Duty Cycle/Loss Adjusted Power (PA):	9000.00	(mW)

S _L =	0.240	(mW/cm ²)
S ₂₀ at 20cm =	3.573	(mW/cm ²)
$R_c =$	77.2	(cm)
s _c =	0.24	(mW/cm ²)

User's Manual must indicate a minimum separation distance of:	78cm
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NOTE: The ISED MPE calculation yields a separation distance of <u>92cm</u>. The User's Manual indicates the worst-case <u>92cm</u>.