

## MPE CALCULATION

FCC ID: 2AKNFRDR7018

RF Exposure Requirements:	47 CFR §1. 1307(b)
RF Radiation Exposure Limits:	47 CFR §1. 1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	902-928MHz
Limits for General Population/Uncontrolled Exposure in the band of:	300 - 1500 MHz
Power Density Limit:	0.618 mW / cm <sup>2</sup>

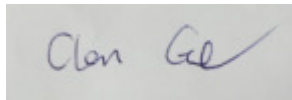
**Equation:**  $S = PG / 4\pi R^2$  or  $R = \sqrt{PG / 4\pi S}$   
Where, S = Power Density  
P = Power Input to Antenna  
G = Antenna Gain  
R = distance to the center of radiated antenna

Prediction distance 90cm

(RFID 902-928MHz): Power = 33.06dBm, Antenna Gain = 12.43dBi, Apparent Gain = 12.43 dBi, Power density = 0.430 mW/cm<sup>2</sup>

Type	CH Freq (MHz)	Conducted Power (dBm)	Tune-Up Tolerance	Maximum Tune-up power (dBm)	Antenna Gain (dBi)	Measurement Distance (cm)	Calculated MPE (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )	Pass/Fail
902-928MHz RFID	910.4	33.06	±1	34.06	12.43	90	0.430	0.618	Pass

The Above Result had shown that the Device complied with MPE requirement.



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