## 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091 Maximum Permissible Exposure Calculations

## FCC ID: SZV-PTM535U

EUT Device Category = General Population/Uncontrolled Exposure

EUT consists of one ISM band radio transmitting operating at a frequency of: **902.875 MHz** 

MPE Summary:

According subpart 1.1307 (b)(1) and 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure										
Frequency (MHz)		Electric Strength (V/m)		Magnetic Strength (A/m)		-	Averaging (Minutes)	Time		
0.3-1.34		614		1.63		*(100)	30			
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

## Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g.  $mW/cm^2$ )

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm) PG = EIRP

MPE and Limit are calculated as follows:

f (MHz)	Field Strength (dBuV/m)	EIRP (mW)	Power Density (mW/cm^2)	Limit (mW/cm^2)	Δ	
902.875	80.2	0.03	0.000006	0.6	0.59999	

**Result:** The device meets FCC MPE limit at 20 cm for General Population/Uncontrolled Exposure as specified in 47 CRF §1.1310 and §2.1091.