



### 13. Radio Frequency Exposure

The measurements shown in this test report were made in accordance with the procedures given in  
 FCC Part 2 (Section 2.1091)  
 KDB 447498  
 IEEE C95.1

#### 13.1 EUT Specification

<b>Frequency band (Operating)</b>	902MHz~928MHz
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation)
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure <input checked="" type="checkbox"/> General Population/Uncontrolled exposure
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A

**Remark:**

- The maximum conducted output power is 25.14dBm (326.588mW) at 926.76MHz (with 7dBi antenna gain.)
- DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
- For mobile or fixed location transmitters, no SAR consideration applied.

\*Note: Simultaneous transmission is not applicable for this EUT.

#### 13.2 Test Results

No non-compliance noted.



### 13.3 Calculation

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{3770}$

Where  $E =$  Field strength in Volts / meter

$P =$  Power in Watts

$G =$  Numeric antenna gain

$d =$  Distance in meters

$S =$  Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$P (mW) = P (W) / 1000$  and

$d (cm) = d(m) / 100$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where  $d =$  Distance in cm

$P =$  Power in mW

$G =$  Numeric antenna gain

$S =$  Power density in mW / cm<sup>2</sup>



### 13.4 Maximum Permissible Exposure

Channel Frequency (MHz)	Max. Conducted output power(dBm)	Antenna Gain(dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
903.24	24.15	7	20	0.259	0.602
914.76	24.75	7	20	0.298	0.610
926.76	25.14	7	20	0.326	0.618