## RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

FCC ID：**2ALVF-FFCYCA1**

## EUT Specification

| **EUT** | **Bedside Interactive Terminal** |
|---|---|
| **Frequency band (Operating)** | ☐WLAN: 2.412GHz ~ 2.462GHz<br>☐WLAN: 5.18GHz ~ 5.24GHz<br>☐WLAN: 5.745GHz ~ 5.825GHz<br>☒Others: 2.402GHz~2.480GHz<br>☐Others: 13.56MHz |
| **Device category** | ☐Portable (<20cm separation)<br>☒Mobile (>20cm separation)<br>☐Others ___ |
| **Exposure classification** | ☐Occupational/Controlled exposure (S = 5mW/cm2)<br>☒General Population/Uncontrolled exposure (S=1mW/cm2) |
| **Antenna diversity** | ☒Single antenna<br>☐Multiple antennas<br>☐Tx diversity<br>☐Rx diversity<br>☐Tx/Rx diversity |
| **Max. output power** | -4.817 dBm (0.0003W), |
| **Antenna gain (Max)** | 0 dBi |
| **Evaluation applied** | ☒MPE Evaluation<br>☐SAR Evaluation |

Limits for Maximum Permissible Exposure(MPE)

| **Frequency Range(MHz)** | **Electric Field Strength(V/m)** | **Magnetic Field Strength(A/m)** | **Power Density($mW/cm^2$)** | **Average Time** |
|---|---|---|---|---|
| **(A) Limits for Occupational/Control Exposures** | | | | |
| **300-1500** | **--** | **--** | **F/300** | **6** |
| **1500-100000** | **--** | **--** | **5** | **6** |
| **(B) Limits for General Population/Uncontrol Exposures** | | | | |
| **300-1500** | **--** | **--** | **F/1500** | **6** |
| **1500-100000** | **--** | **--** | **1** | **30** |

## Friis transmission formula: Pd=(Pout*G)\(4*pi*R2)

Where
Pd= Power density in $mW/cm^2$
Pout=output power to antenna in Mw
G= gain of antenna in linear scale
Pi=3.1416
R= distance between observation point and center of the radiator in cm
Pd the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

## Measurement Result

| Operating Mode | Channel Frequency | Measured Power | Tune up tolerance | Max. Tune up Power | Antenna Gain | Power density at 20cm | Power density Limits ($mW/cm^2$) |
|---|---|---|---|---|---|---|---|
| | (MHz) | (dBm) | (dBm) | (dBm) | (dBi) | ($mW/cm^2$) | |
| BT4.0 | 2402 | -4.985 | -4.985±1 | -3.985 | 0 | 0.0001 | 1 |
| | 2440 | -4.817 | -4.817±1 | -3.817 | 0 | 0.0001 | 1 |
| | 2480 | -5.750 | -5.750±1 | -4.75 | 0 | 0.0001 | 1 |