

## §15.247 (a) (1) (iii) - DWELL TIME

### Standard Applicable

According to §15.247 (a)(1)(iii), frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

### Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to zero span mode. And then, set RBW and VBW of spectrum analyzer to proper value.
4. Measure the time duration of one transmission on the measured frequency. And then plot the result with time difference of this time duration.
5. Repeat above procedures until all frequencies measured were complete.

### Test Equipment

| Manufacturer | Description       | Model No. | Serial No. | Calibration Date |
|--------------|-------------------|-----------|------------|------------------|
| HP           | Spectrum Analyzer | 8565EC    | 3946A00131 | 2004-08-06       |
| HP           | Plotter           | 7475A     | 2517A05739 | N/R              |

**\* Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 22° C     |
| Relative Humidity: | 59%       |
| ATM Pressure:      | 1020 mbar |

*\*The testing was performed by Jerry Wang on 2005-06-08.*

**Measurement Results**

## Base

| Channel | Frequency<br>MHz | Pulse Wide<br>uSec | Number of<br>Occupied<br>time | Dwell<br>Time<br>Sec | Limit<br>Sec |
|---------|------------------|--------------------|-------------------------------|----------------------|--------------|
| Low     | 2401.80          | 1075.0             | 57                            | 0.061                | 0.4          |
| Mid     | 2440.16          | 1108.3             | 53                            | 0.063                | 0.4          |
| High    | 2479.40          | 1116.7             | 54                            | 0.060                | 0.4          |

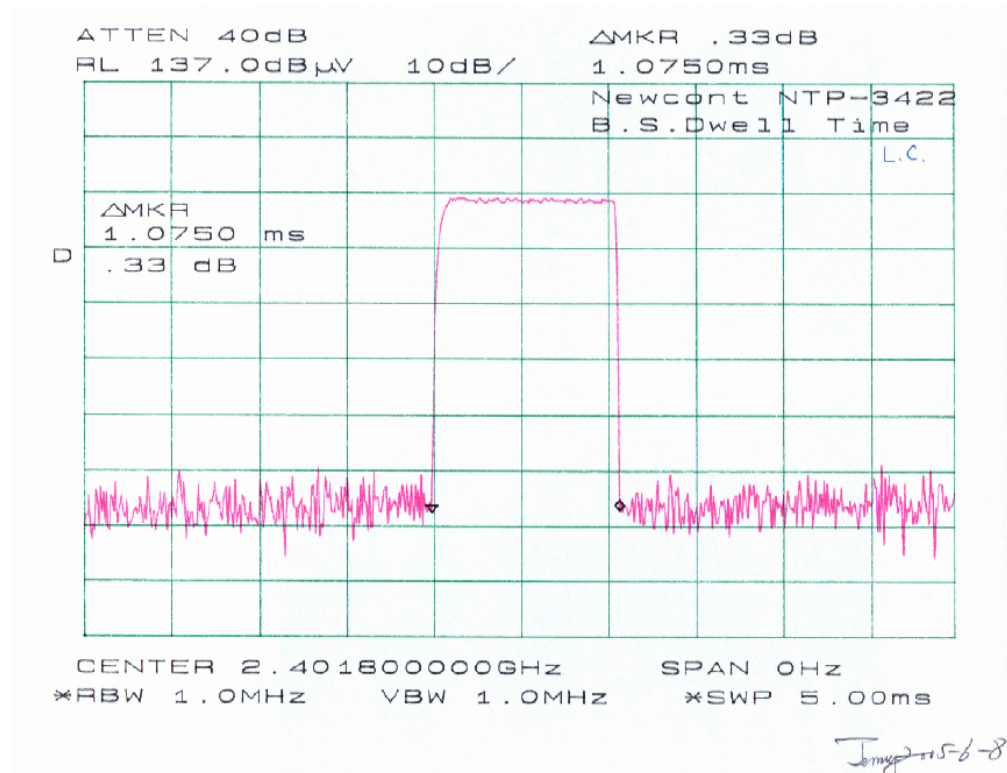
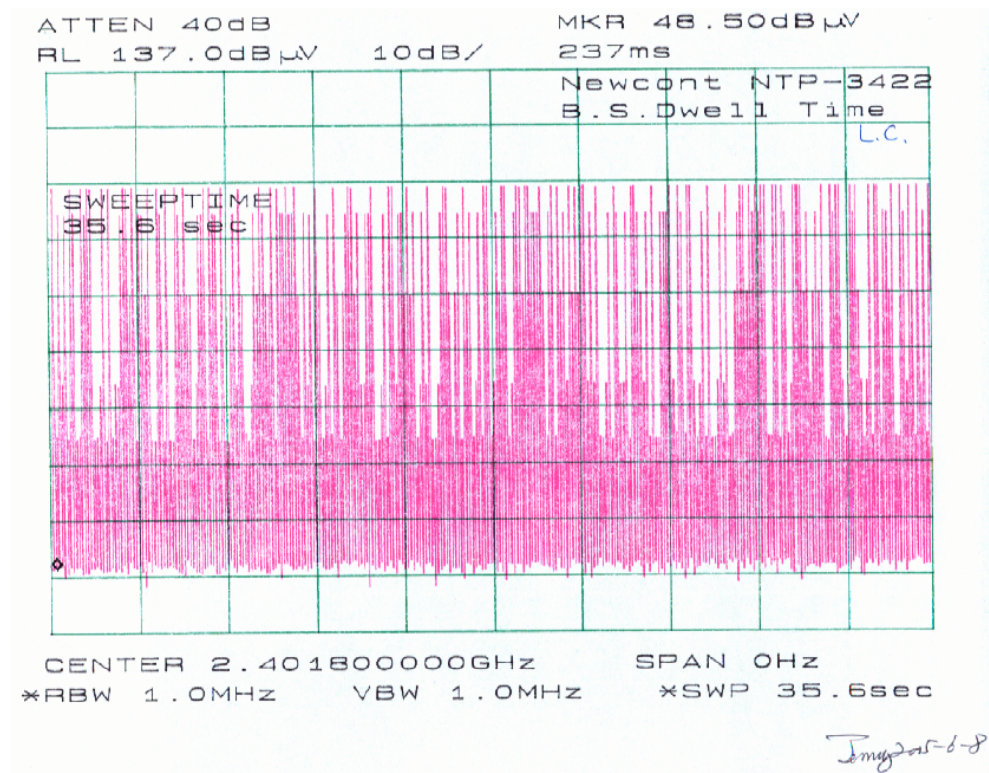
## Handset

| Channel | Frequency<br>MHz | Pulse Wide<br>uSec | Number of<br>Occupied<br>time | Dwell<br>Time<br>Sec | Limit<br>Sec |
|---------|------------------|--------------------|-------------------------------|----------------------|--------------|
| Low     | 2401.80          | 1083.0             | 58                            | 0.063                | 0.4          |
| Mid     | 2440.16          | 1083.3             | 56                            | 0.061                | 0.4          |
| High    | 2479.40          | 1083.0             | 57                            | 0.062                | 0.4          |

**Plots of Dwell Time**

Please refer the following plots.

## Base: Low Channel



## Base: Middle Channel

