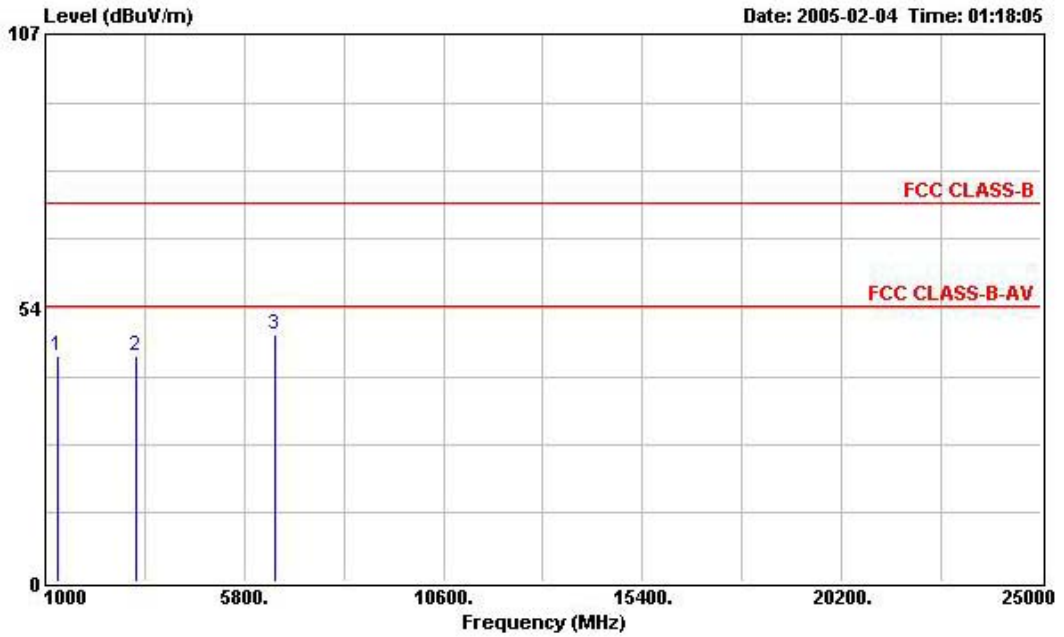




Mode 2

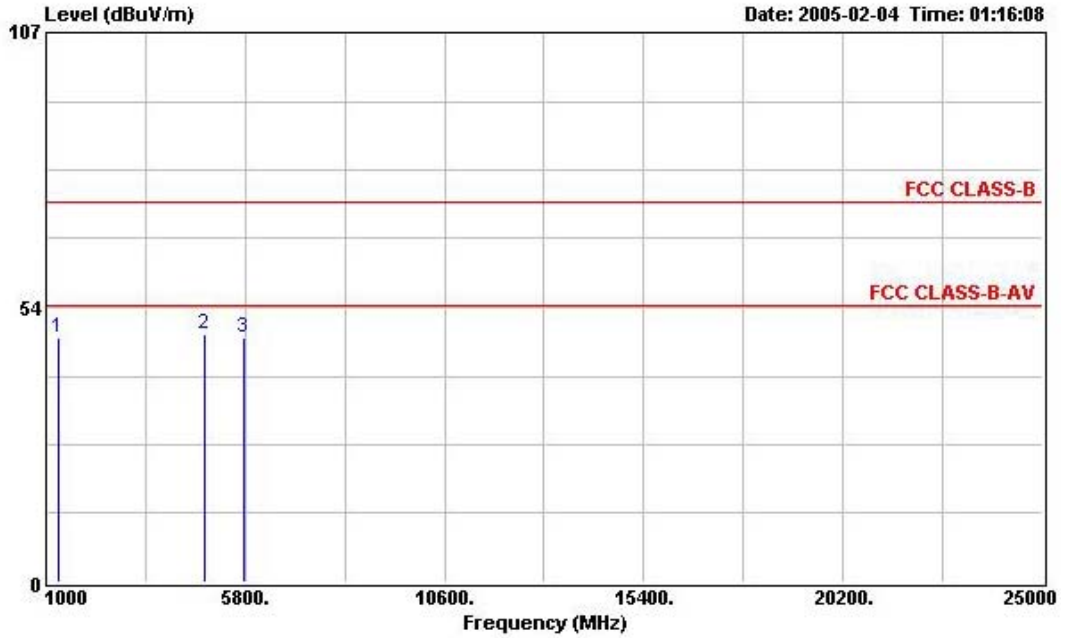
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 44.26  | -29.74     | 74.00      | 57.38      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 3196.000 | 44.01  | -29.99     | 74.00      | 50.38      | 30.56        | 2.26       | 39.19         | Peak   | ---     | ---       |
| 3 | 6536.000 | 48.40  | -25.60     | 74.00      | 50.32      | 34.36        | 3.41       | 39.69         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 47.56  | -26.44     | 74.00      | 60.68      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 4820.000 | 48.25  | -25.75     | 74.00      | 52.59      | 32.96        | 2.84       | 40.14         | Peak   | ---     | ---       |
| 3 | 5752.000 | 47.63  | -26.37     | 74.00      | 50.32      | 34.05        | 3.18       | 39.92         | Peak   | ---     | ---       |

Note:

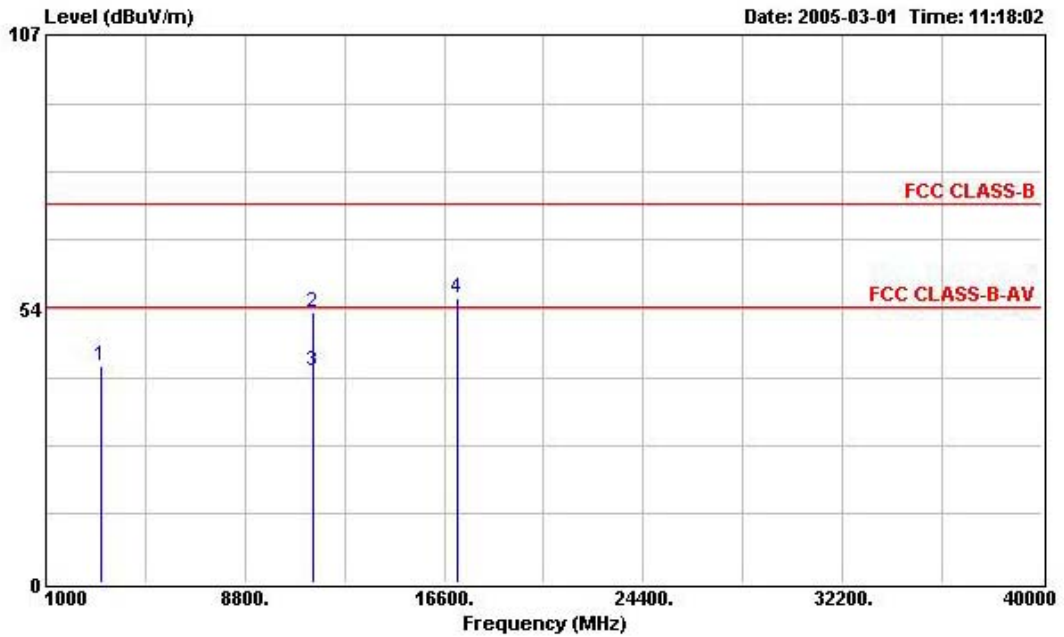
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 3

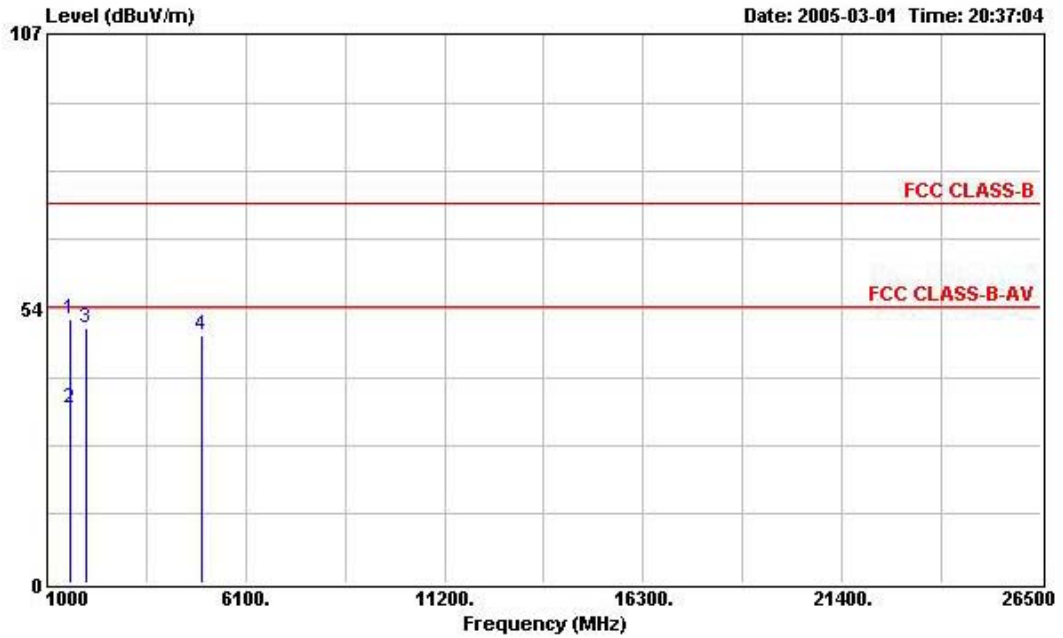
(A) Polarization: Horizontal



|   | Freq      | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|-----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz       | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 3196.000  | 42.28  | -31.72     | 74.00      | 48.78      | 30.48        | 2.26       | 39.24         | Peak    | ---     | ---       |
| 2 | 11488.000 | 52.79  | -21.21     | 74.00      | 47.54      | 39.08        | 4.74       | 38.57         | Peak    | ---     | ---       |
| 3 | 11488.000 | 41.46  | -12.54     | 54.00      | 36.21      | 39.08        | 4.74       | 38.57         | Average | ---     | ---       |
| 4 | 17100.000 | 55.43  | -18.57     | 74.00      | 45.56      | 41.04        | 5.57       | 36.74         | Peak    | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark  | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|---------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |         | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |         | cm  | deg   |
| 1 | 1596.000 | 51.32  | -22.68 | 74.00  | 63.48 | 25.60  | 1.52  | 39.28  | Peak    | --- | ---   |
| 2 | 1596.000 | 34.07  | -19.93 | 54.00  | 46.23 | 25.60  | 1.52  | 39.28  | Average | --- | ---   |
| 3 | 2004.000 | 49.62  | -24.38 | 74.00  | 60.12 | 27.42  | 1.73  | 39.65  | Peak    | --- | ---   |
| 4 | 4988.000 | 48.26  | -25.74 | 74.00  | 52.23 | 33.27  | 2.91  | 40.15  | Peak    | 100 | 0     |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

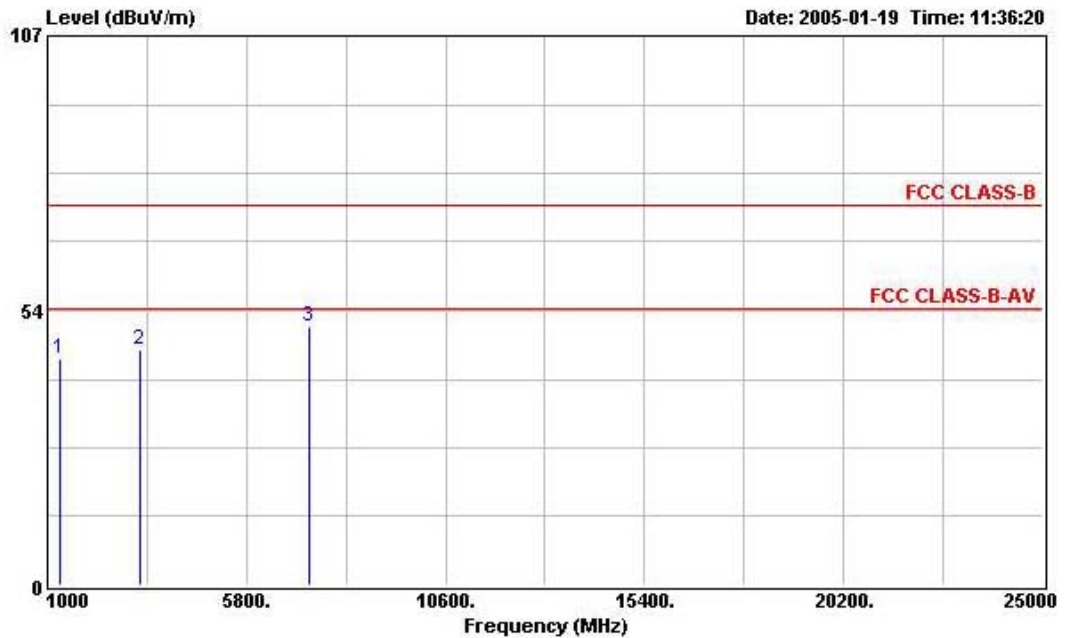


5.6.9. Test Results for CH 06 / 2437 MHz ( for emission above 1GHz)

- Modulation Type: DSSS
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Mode 1**

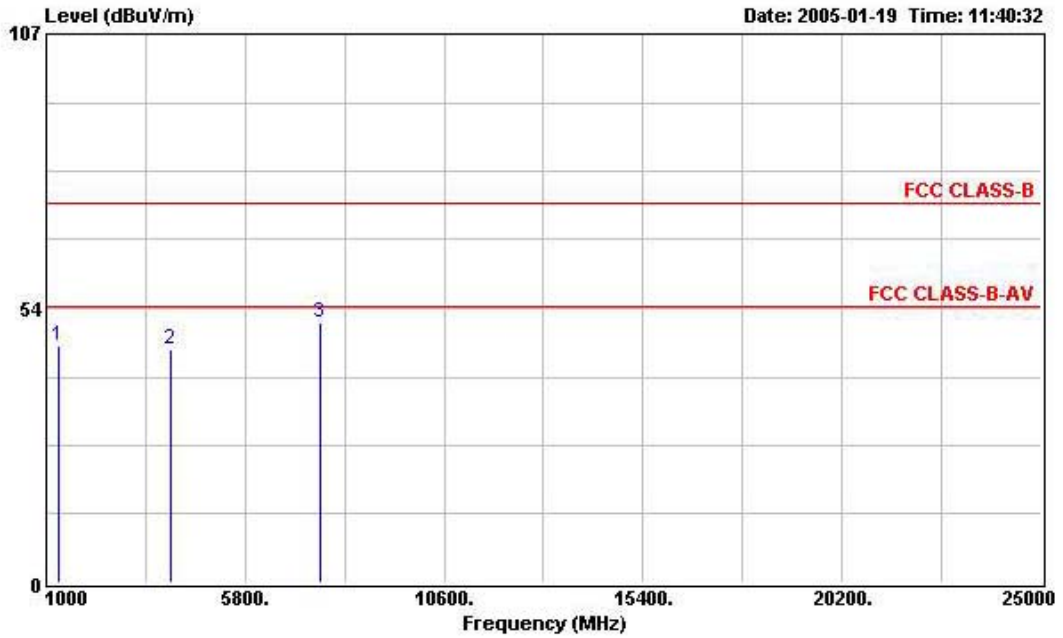
**(A) Polarization: Horizontal**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|-------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | dB     | dBuV/m | dBuV  | dB    | dB    | dB     |        | cm  | deg   |
| 1 | 1296.000 | 43.96  | -30.04 | 74.00  | 57.08 | 24.73 | 1.36  | 39.21  | Peak   | --- | ---   |
| 2 | 3248.000 | 45.90  | -28.10 | 74.00  | 52.09 | 30.67 | 2.28  | 39.14  | Peak   | --- | ---   |
| 3 | 7300.000 | 50.41  | -23.59 | 74.00  | 50.25 | 35.98 | 3.64  | 39.46  | Peak   | --- | ---   |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |        | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |        | cm  | deg   |
| 1 | 1300.000 | 46.16  | -27.84 | 74.00  | 59.28 | 24.73  | 1.36  | 39.21  | Peak   | --- | ---   |
| 2 | 3988.000 | 45.61  | -28.39 | 74.00  | 50.07 | 32.46  | 2.49  | 39.41  | Peak   | --- | ---   |
| 3 | 7616.000 | 50.89  | -23.11 | 74.00  | 49.76 | 36.73  | 3.76  | 39.36  | Peak   | --- | ---   |

Note:

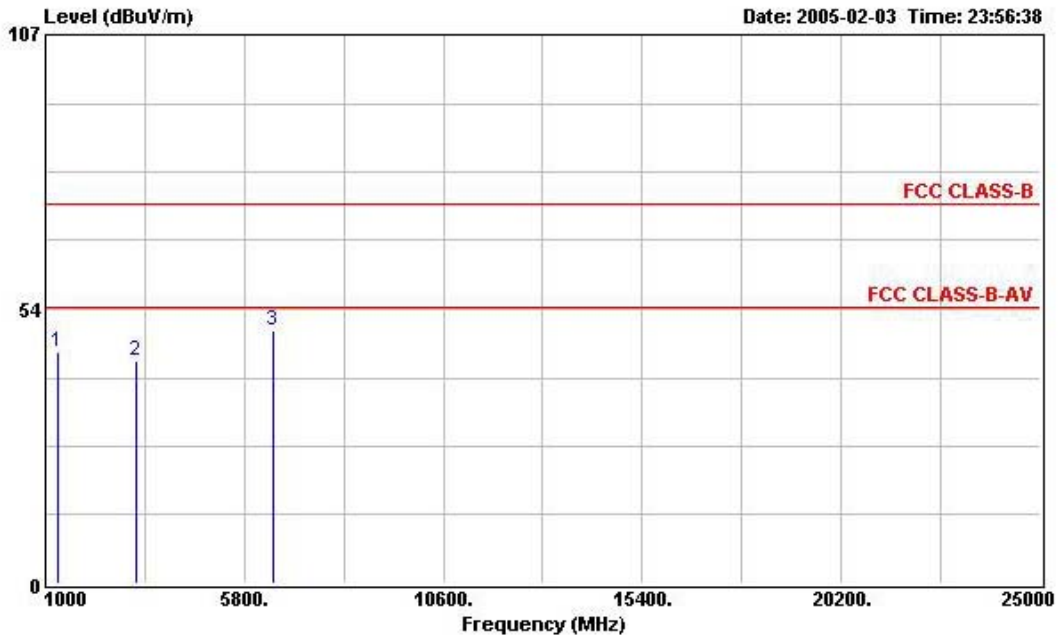
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 2

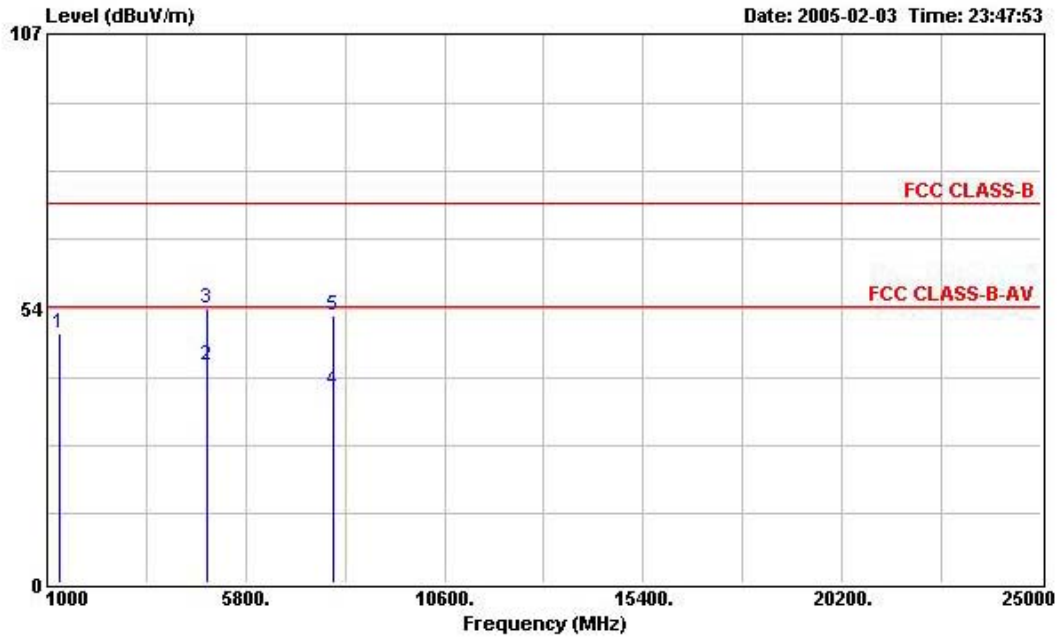
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 45.03  | -28.97     | 74.00      | 58.15      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 3192.000 | 43.33  | -30.67     | 74.00      | 49.80      | 30.48        | 2.26       | 39.21         | Peak   | ---     | ---       |
| 3 | 6476.000 | 49.32  | -24.68     | 74.00      | 51.34      | 34.29        | 3.40       | 39.71         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1296.000 | 48.65  | -25.35     | 74.00      | 61.77      | 24.73        | 1.36       | 39.21         | Peak    | ---     | ---       |
| 2 | 4876.000 | 42.41  | -11.59     | 54.00      | 46.57      | 33.11        | 2.87       | 40.14         | Average | ---     | ---       |
| 3 | 4876.000 | 53.43  | -20.57     | 74.00      | 57.59      | 33.11        | 2.87       | 40.14         | Peak    | ---     | ---       |
| 4 | 7932.000 | 37.61  | -16.39     | 54.00      | 35.97      | 37.03        | 3.87       | 39.26         | Average | ---     | ---       |
| 5 | 7932.000 | 52.13  | -21.87     | 74.00      | 50.49      | 37.03        | 3.87       | 39.26         | Peak    | ---     | ---       |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

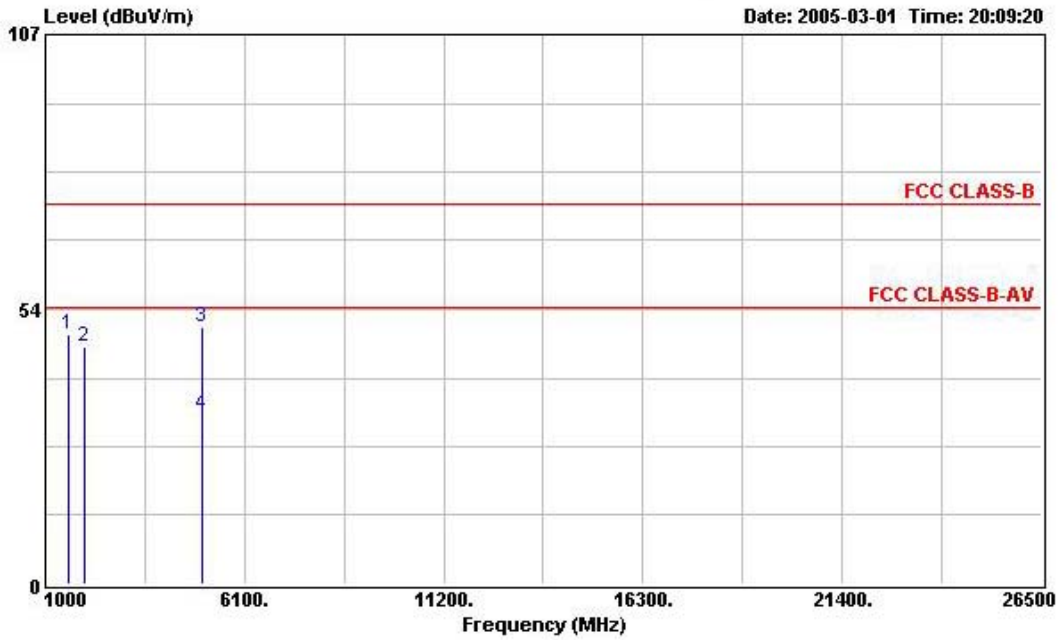
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level





Mode 3

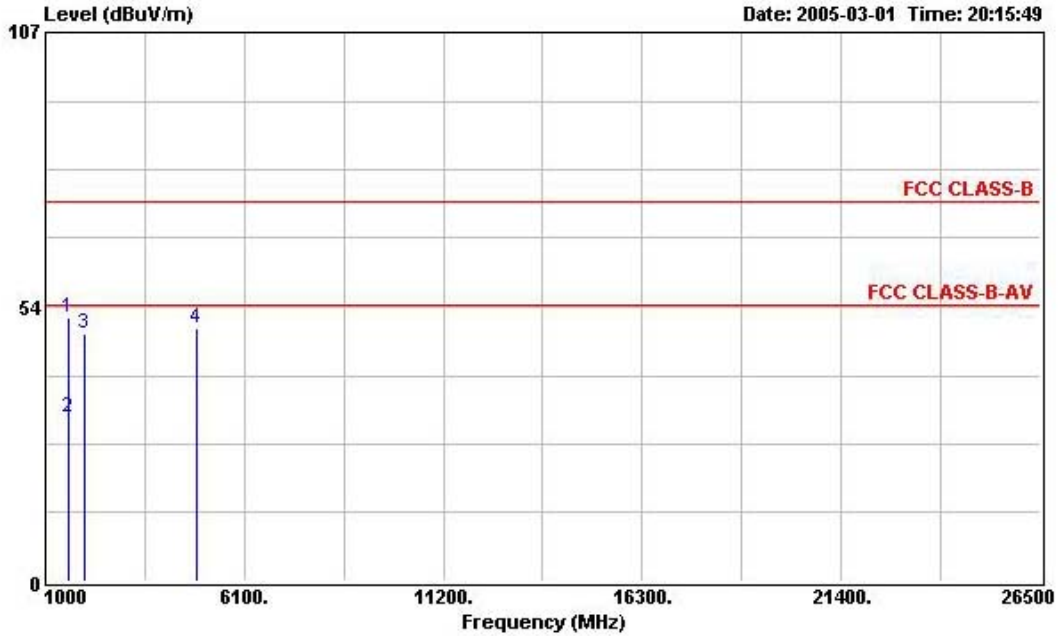
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1598.000 | 48.62  | -25.38     | 74.00      | 60.77      | 25.61        | 1.52       | 39.28         | Peak    | ---     | ---       |
| 2 | 1998.000 | 46.32  | -27.68     | 74.00      | 56.85      | 27.40        | 1.72       | 39.65         | Peak    | ---     | ---       |
| 3 | 5000.000 | 50.07  | -23.93     | 74.00      | 53.98      | 33.32        | 2.92       | 40.15         | Peak    | 100     | 0         |
| 4 | 5000.000 | 33.12  | -20.88     | 54.00      | 37.03      | 33.32        | 2.92       | 40.15         | Average | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark  | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|---------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |         | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |         | cm  | deg   |
| 1 | 1598.000 | 51.53  | -22.47 | 74.00  | 63.68 | 25.61  | 1.52  | 39.28  | Peak    | --- | ---   |
| 2 | 1598.000 | 31.94  | -22.06 | 54.00  | 44.09 | 25.61  | 1.52  | 39.28  | Average | --- | ---   |
| 3 | 1998.000 | 48.38  | -25.62 | 74.00  | 58.91 | 27.40  | 1.72  | 39.65  | Peak    | --- | ---   |
| 4 | 4876.000 | 49.32  | -24.68 | 74.00  | 53.51 | 33.08  | 2.87  | 40.14  | Peak    | 100 | 0     |

**Note:**

Emission level (dBUV/m) = 20 log Emission level (uV/m)

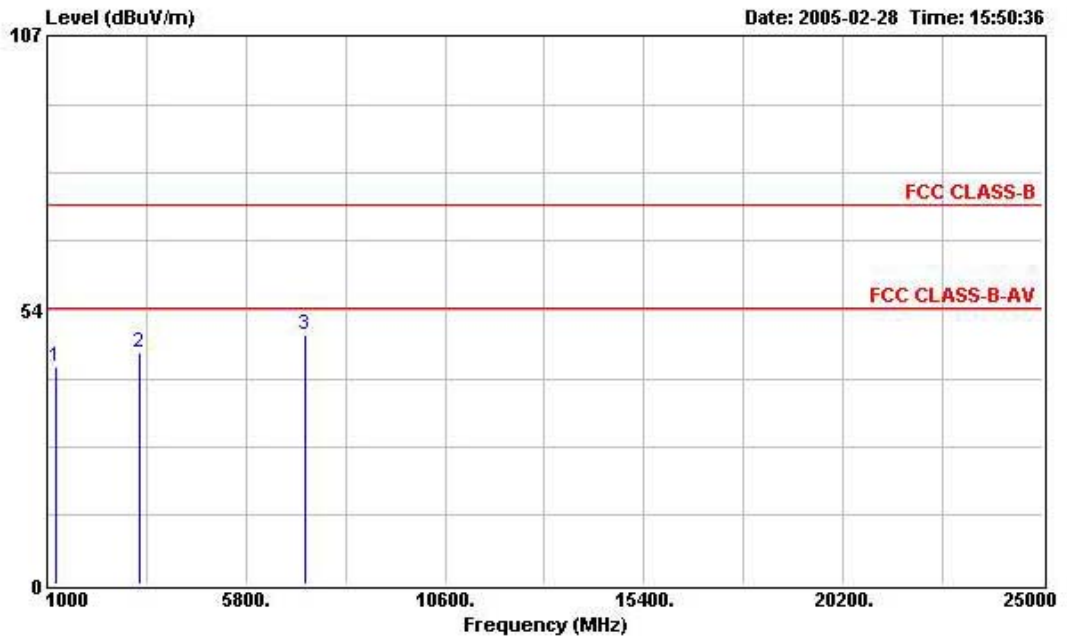
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



- Modulation Type: OFDM
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Mode 1**

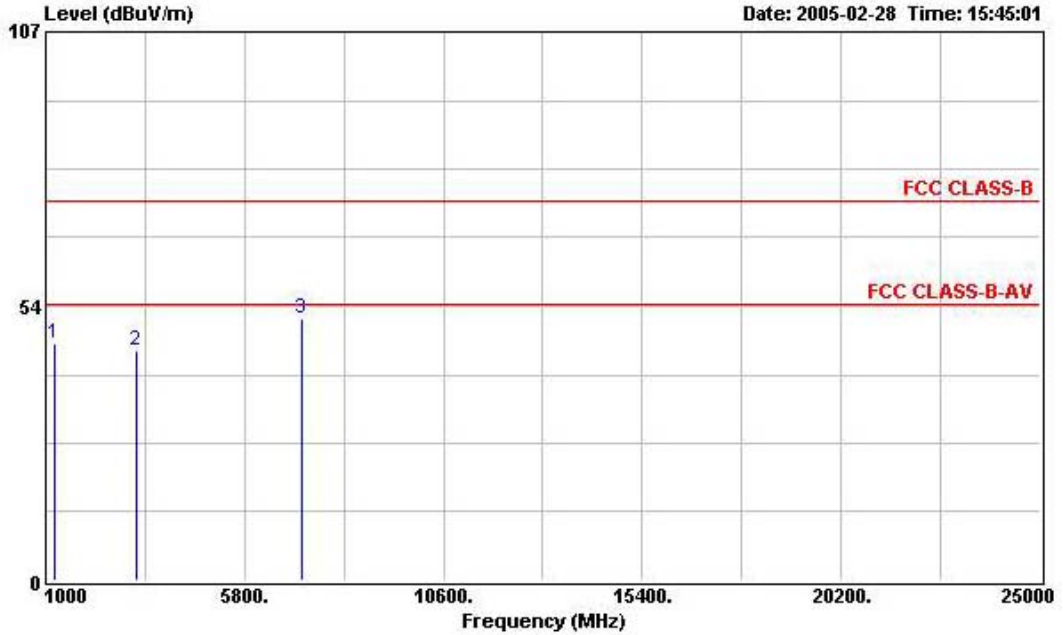
**(A) Polarization: Horizontal**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |        | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |        | cm  | deg   |
| 1 | 1196.000 | 42.38  | -31.62 | 74.00  | 55.74 | 24.54  | 1.32  | 39.22  | Peak   | --- | ---   |
| 2 | 3248.000 | 45.03  | -28.97 | 74.00  | 51.22 | 30.67  | 2.28  | 39.14  | Peak   | --- | ---   |
| 3 | 7216.000 | 48.63  | -25.37 | 74.00  | 48.72 | 35.77  | 3.62  | 39.48  | Peak   | --- | ---   |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |        | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |        | cm  | deg   |
| 1 | 1196.000 | 46.12  | -27.88 | 74.00  | 59.48 | 24.54  | 1.32  | 39.22  | Peak   | --- | ---   |
| 2 | 3188.000 | 44.94  | -29.06 | 74.00  | 51.41 | 30.48  | 2.26  | 39.21  | Peak   | --- | ---   |
| 3 | 7164.000 | 51.19  | -22.81 | 74.00  | 51.47 | 35.62  | 3.60  | 39.50  | Peak   | --- | ---   |

Note:

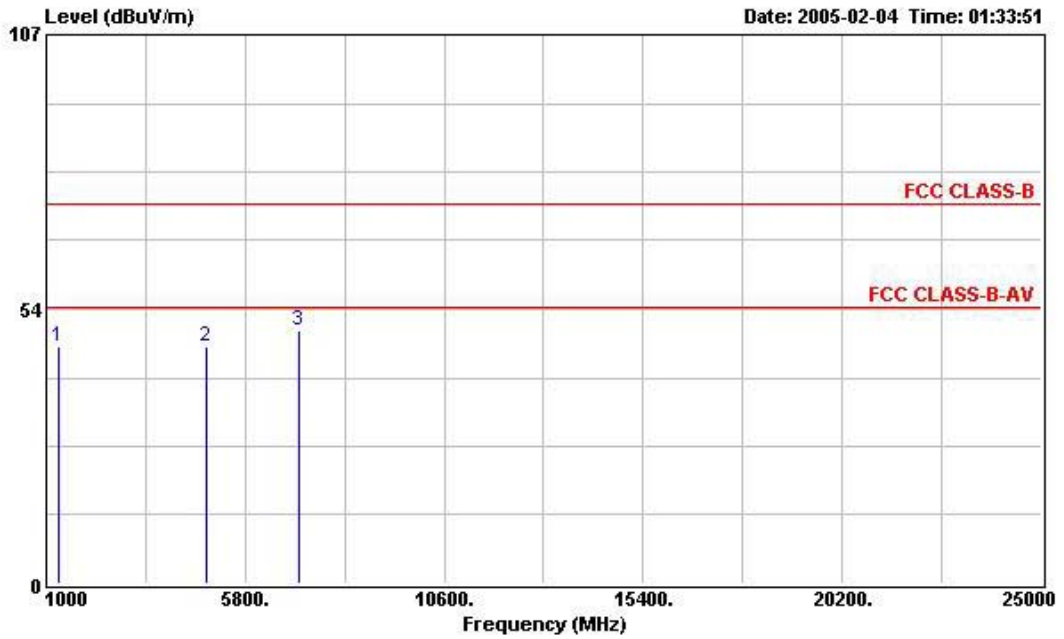
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 2

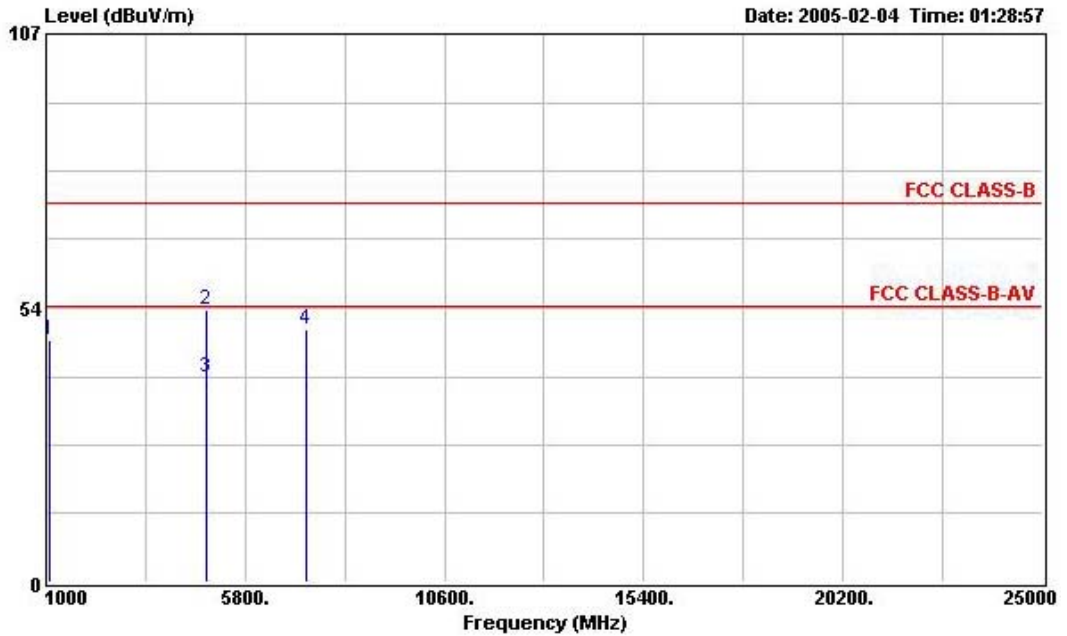
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 46.08  | -27.92     | 74.00      | 59.20      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 4876.000 | 46.07  | -27.93     | 74.00      | 50.23      | 33.11        | 2.87       | 40.14         | Peak   | ---     | ---       |
| 3 | 7096.000 | 49.34  | -24.66     | 74.00      | 49.87      | 35.41        | 3.58       | 39.52         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1096.000 | 47.10  | -26.90     | 74.00      | 60.67      | 24.39        | 1.27       | 39.23         | Peak    | ---     | ---       |
| 2 | 4876.000 | 53.01  | -20.99     | 74.00      | 57.17      | 33.11        | 2.87       | 40.14         | Peak    | ---     | ---       |
| 3 | 4876.000 | 39.99  | -14.01     | 54.00      | 44.15      | 33.11        | 2.87       | 40.14         | Average | ---     | ---       |
| 4 | 7276.000 | 49.35  | -24.65     | 74.00      | 49.19      | 35.98        | 3.64       | 39.46         | Peak    | ---     | ---       |

Note:

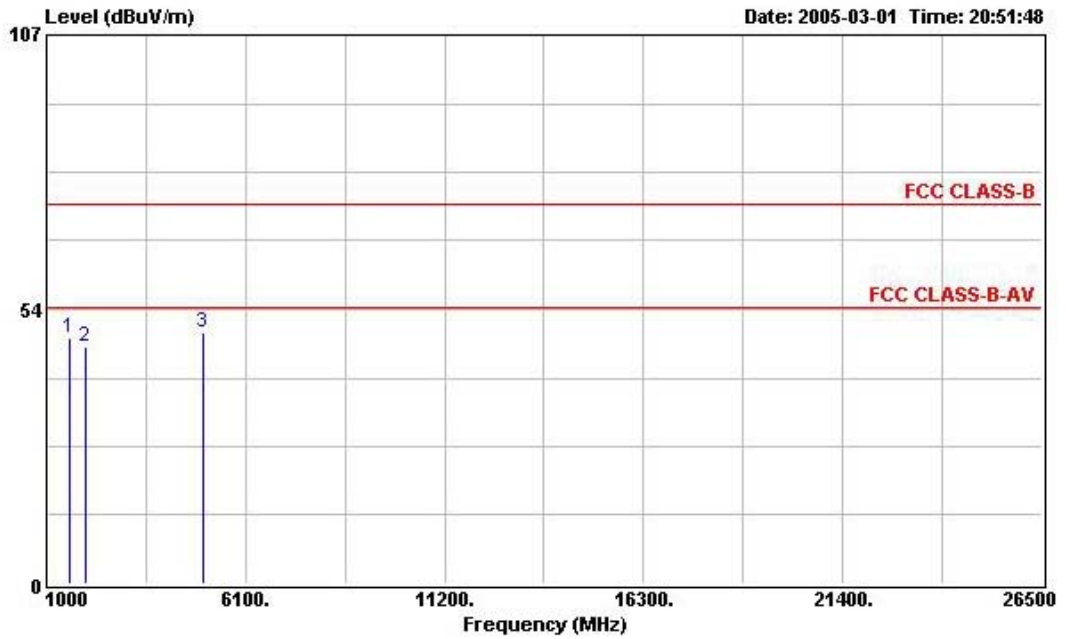
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 3

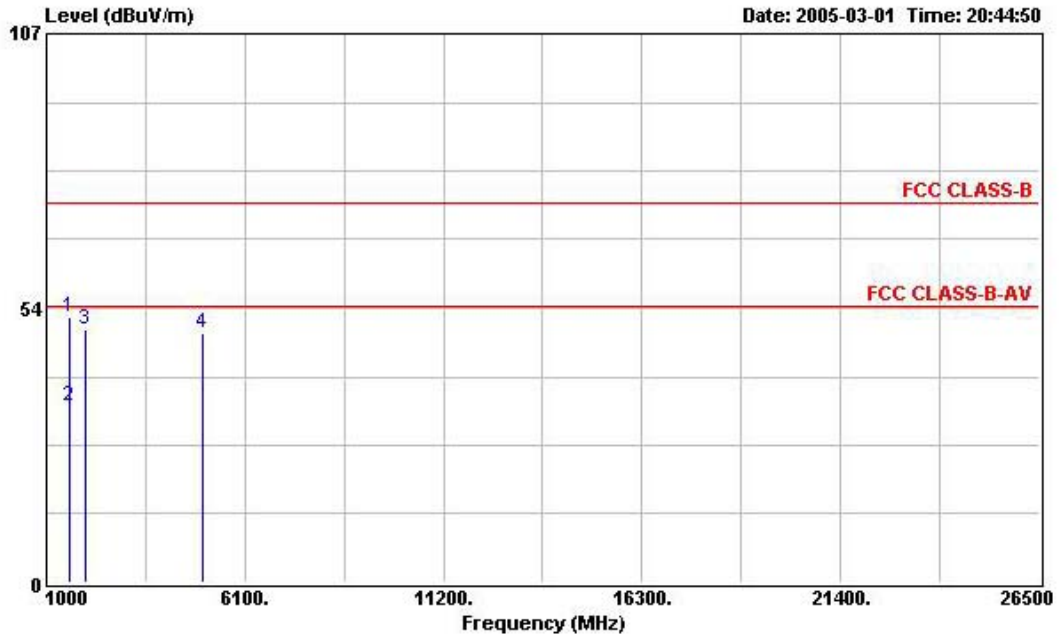
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1596.000 | 47.97  | -26.03     | 74.00      | 60.13      | 25.60        | 1.52       | 39.28         | Peak   | ---     | ---       |
| 2 | 1998.000 | 46.10  | -27.90     | 74.00      | 56.63      | 27.40        | 1.72       | 39.65         | Peak   | ---     | ---       |
| 3 | 5000.000 | 49.12  | -24.88     | 74.00      | 53.03      | 33.32        | 2.92       | 40.15         | Peak   | 100     | 0         |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1598.000 | 51.60  | -22.40     | 74.00      | 63.75      | 25.61        | 1.52       | 39.28         | Peak    | ---     | ---       |
| 2 | 1598.000 | 34.26  | -19.74     | 54.00      | 46.41      | 25.61        | 1.52       | 39.28         | Average | ---     | ---       |
| 3 | 1998.000 | 49.25  | -24.75     | 74.00      | 59.78      | 27.40        | 1.72       | 39.65         | Peak    | ---     | ---       |
| 4 | 5000.000 | 48.79  | -25.21     | 74.00      | 52.70      | 33.32        | 2.92       | 40.15         | Peak    | 100     | 360       |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



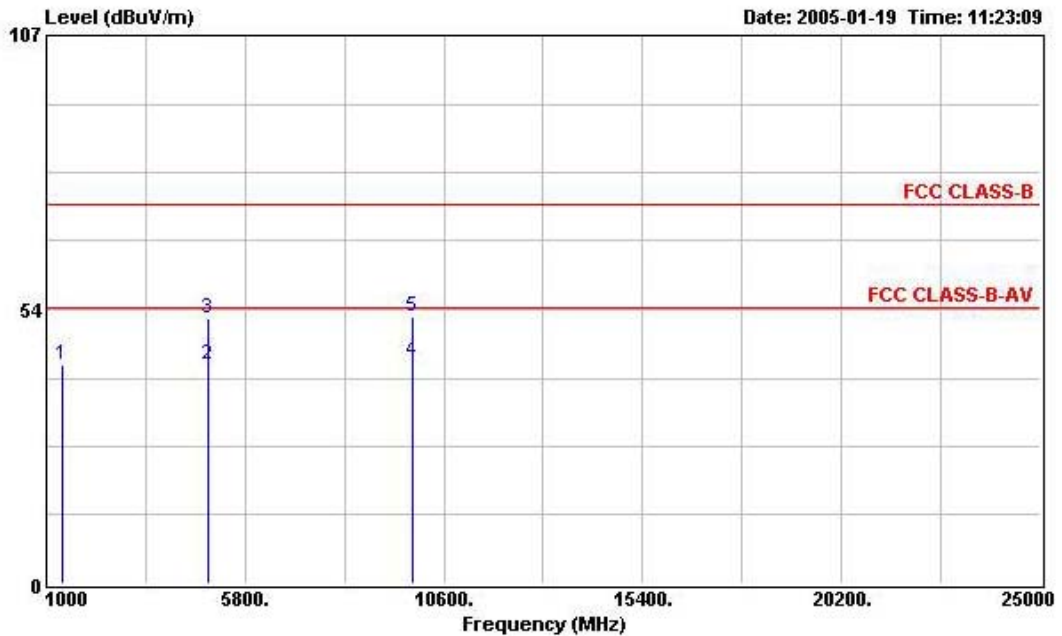


5.6.10. Test Results for CH 11 / 2462 MHz (for emission above 1GHz)

- Modulation Type: DSSS
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Mode 1**

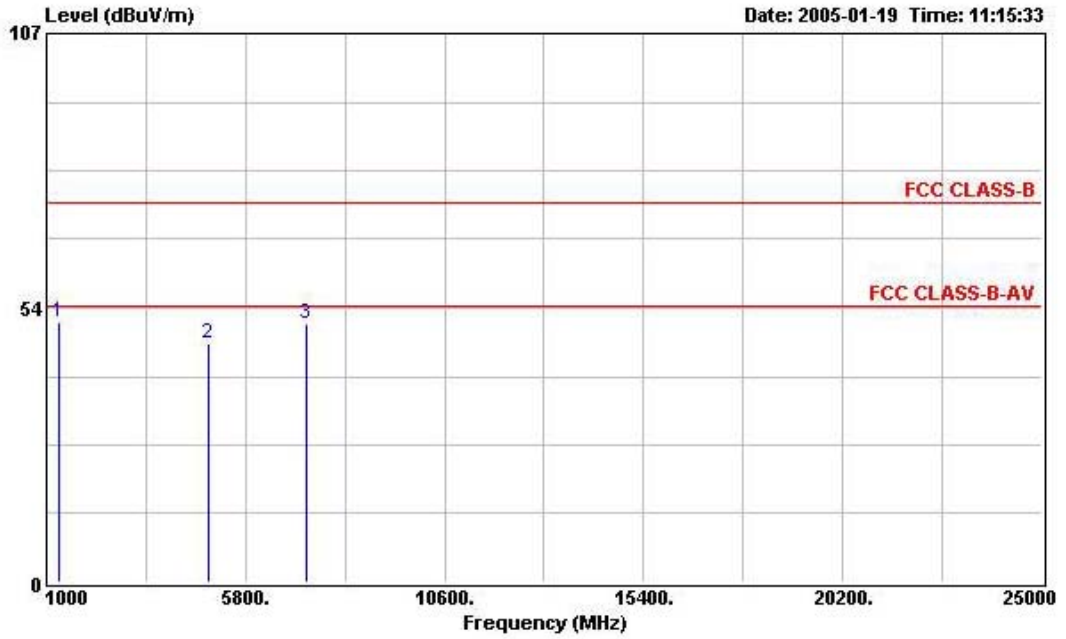
**(A) Polarization: Horizontal**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1400.000 | 42.87  | -31.13     | 74.00      | 55.69      | 24.94        | 1.43       | 39.19         | Peak    | ---     | ---       |
| 2 | 4924.000 | 42.59  | -11.41     | 54.00      | 46.63      | 33.21        | 2.90       | 40.15         | Average | ---     | ---       |
| 3 | 4924.000 | 51.89  | -22.11     | 74.00      | 55.93      | 33.21        | 2.90       | 40.15         | Peak    | ---     | ---       |
| 4 | 9848.000 | 43.42  | -10.58     | 54.00      | 39.46      | 38.65        | 3.99       | 38.68         | Average | ---     | ---       |
| 5 | 9848.000 | 52.02  | -21.98     | 74.00      | 48.06      | 38.65        | 3.99       | 38.68         | Peak    | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1300.000 | 50.56  | -23.44     | 74.00      | 63.68      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 4928.000 | 46.61  | -27.39     | 74.00      | 50.65      | 33.21        | 2.90       | 40.15         | Peak   | ---     | ---       |
| 3 | 7288.000 | 50.31  | -23.69     | 74.00      | 50.15      | 35.98        | 3.64       | 39.46         | Peak   | ---     | ---       |

Note:

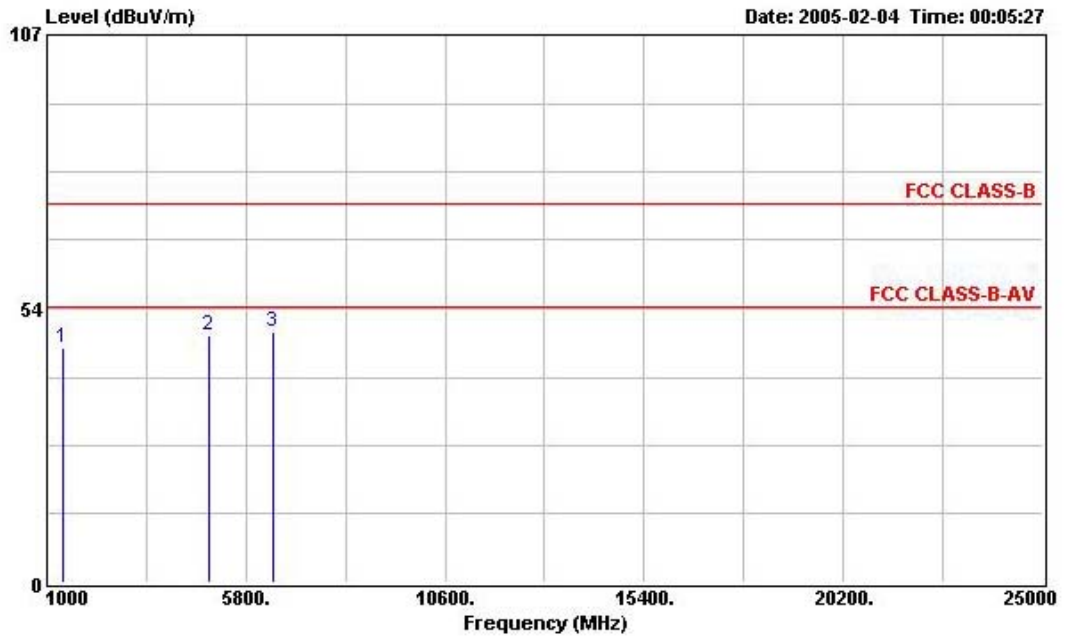
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 2

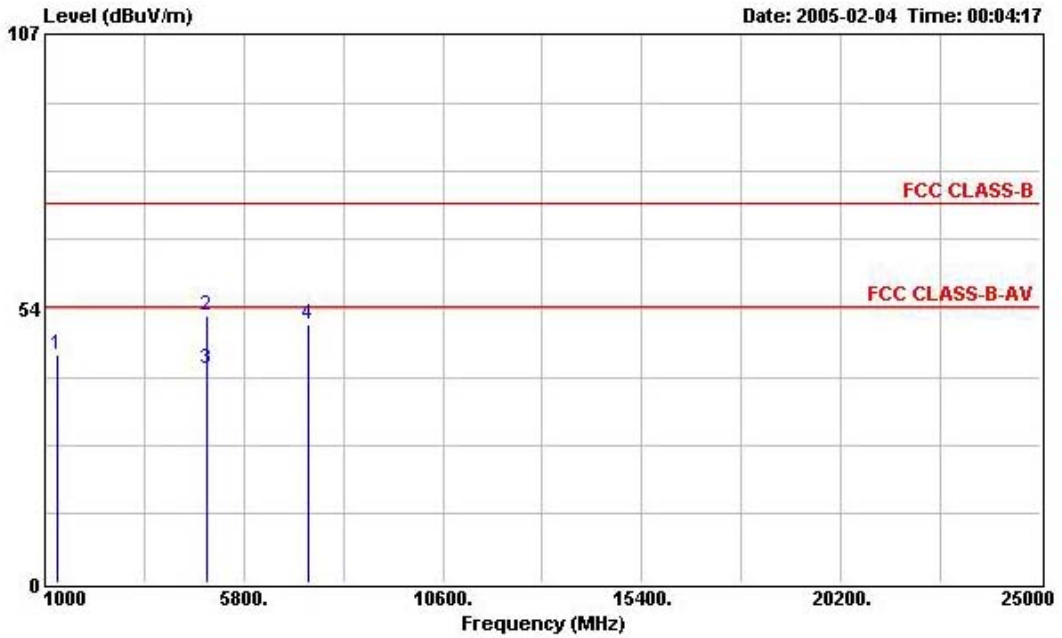
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1396.000 | 45.79  | -28.21     | 74.00      | 58.66      | 24.91        | 1.41       | 39.19         | Peak   | ---     | ---       |
| 2 | 4928.000 | 48.25  | -25.75     | 74.00      | 52.29      | 33.21        | 2.90       | 40.15         | Peak   | ---     | ---       |
| 3 | 6452.000 | 49.07  | -24.93     | 74.00      | 51.12      | 34.27        | 3.39       | 39.71         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|    | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|----|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|    | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1. | 1296.000 | 44.50  | -29.50     | 74.00      | 57.62      | 24.73        | 1.36       | 39.21         | Peak    | ---     | ---       |
| 2. | 4924.000 | 52.00  | -22.00     | 74.00      | 56.04      | 33.21        | 2.90       | 40.15         | Peak    | ---     | ---       |
| 3. | 4924.000 | 41.55  | -12.45     | 54.00      | 45.59      | 33.21        | 2.90       | 40.15         | Average | ---     | ---       |
| 4. | 7344.000 | 50.52  | -23.48     | 74.00      | 50.18      | 36.13        | 3.66       | 39.45         | Peak    | ---     | ---       |

Note:

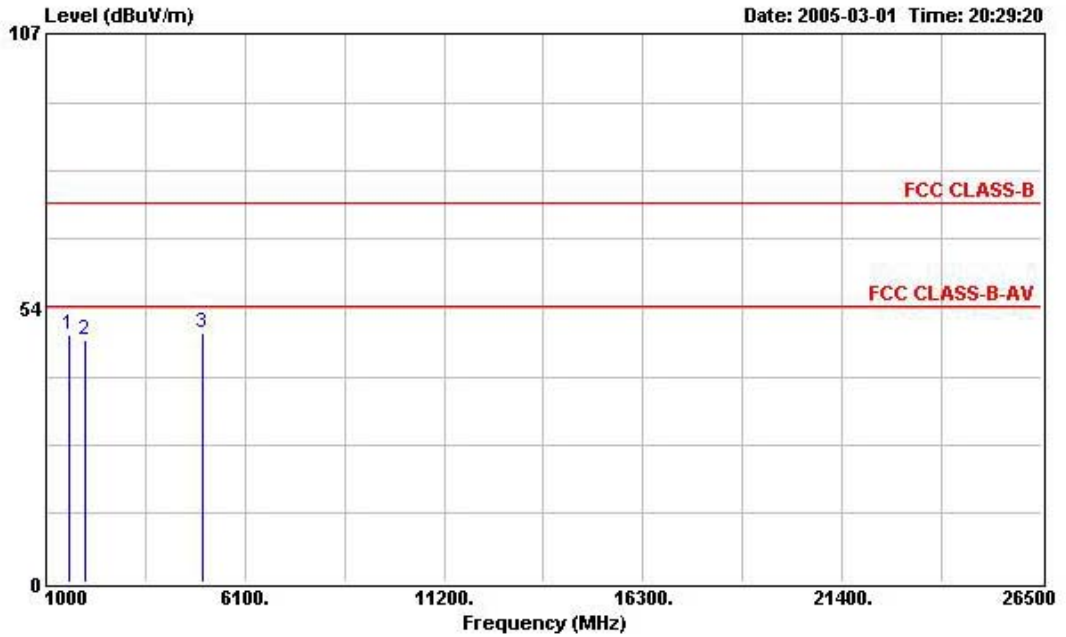
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 3

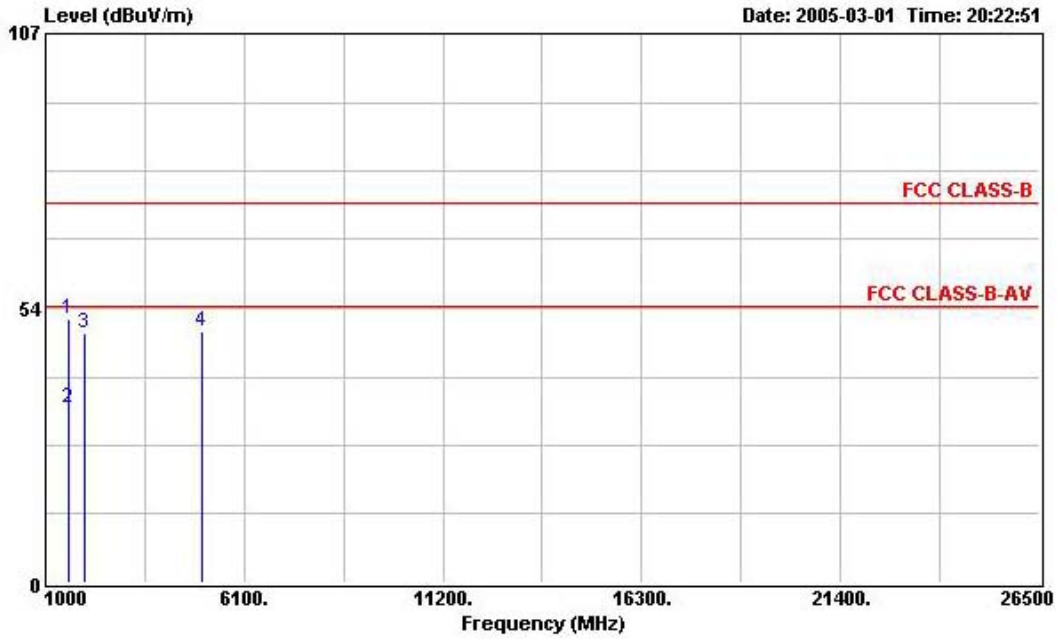
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1596.000 | 48.25  | -25.75     | 74.00      | 60.41      | 25.60        | 1.52       | 39.28         | Peak   | ---     | ---       |
| 2 | 1998.000 | 47.25  | -26.75     | 74.00      | 57.78      | 27.40        | 1.72       | 39.65         | Peak   | ---     | ---       |
| 3 | 5000.000 | 48.69  | -25.31     | 74.00      | 52.60      | 33.32        | 2.92       | 40.15         | Peak   | 100     | 0         |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark  | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|---------|-----|-------|
|   | MHz      | dBUV/m | Limit  | Line   | Level | Factor | Loss  | Factor |         | Pos | Pos   |
|   |          |        | dB     | dBUV/m | dBUV  | dB     | dB    | dB     |         | cm  | deg   |
| 1 | 1596.000 | 51.35  | -22.65 | 74.00  | 63.51 | 25.60  | 1.52  | 39.28  | Peak    | --- | ---   |
| 2 | 1596.000 | 34.12  | -19.88 | 54.00  | 46.28 | 25.60  | 1.52  | 39.28  | Average | --- | ---   |
| 3 | 1998.000 | 48.49  | -25.51 | 74.00  | 59.02 | 27.40  | 1.72  | 39.65  | Peak    | --- | ---   |
| 4 | 5000.000 | 49.08  | -24.92 | 74.00  | 52.99 | 33.32  | 2.92  | 40.15  | Peak    | 100 | 360   |

Note:

Emission level (dBUV/m) = 20 log Emission level (uV/m)

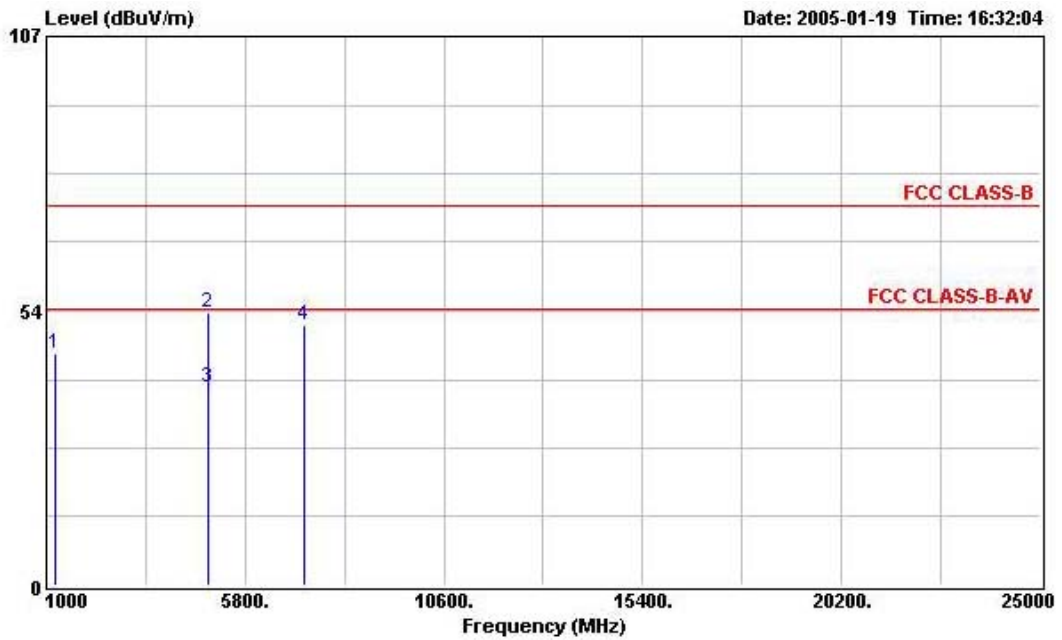
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



- Modulation Type: OFDM
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Mode 1**

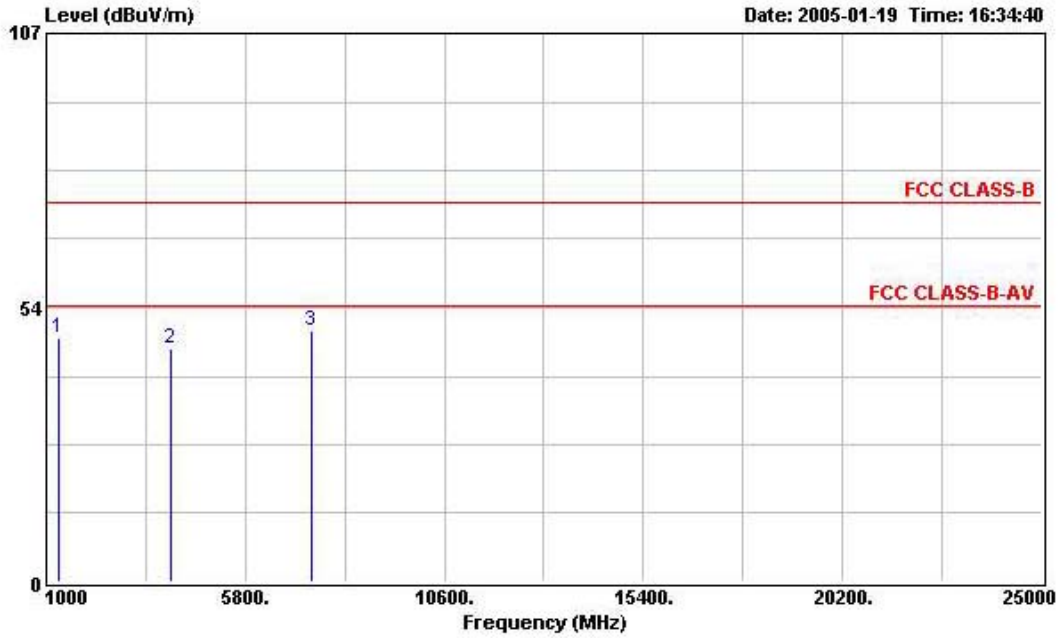
**(A) Polarization: Horizontal**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1196.000 | 45.08  | -28.92     | 74.00      | 58.44      | 24.54        | 1.32       | 39.22         | Peak    | ---     | ---       |
| 2 | 4928.000 | 53.21  | -20.79     | 74.00      | 57.25      | 33.21        | 2.90       | 40.15         | Peak    | ---     | ---       |
| 3 | 4928.000 | 38.55  | -15.45     | 54.00      | 42.59      | 33.21        | 2.90       | 40.15         | Average | ---     | ---       |
| 4 | 7220.000 | 50.84  | -23.16     | 74.00      | 50.93      | 35.77        | 3.62       | 39.48         | Peak    | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |        | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |        | cm  | deg   |
| 1 | 1300.000 | 47.48  | -26.52 | 74.00  | 60.60 | 24.73  | 1.36  | 39.21  | Peak   | --- | ---   |
| 2 | 3988.000 | 45.66  | -28.34 | 74.00  | 50.12 | 32.46  | 2.49  | 39.41  | Peak   | --- | ---   |
| 3 | 7388.000 | 49.04  | -24.96 | 74.00  | 48.50 | 36.29  | 3.68  | 39.43  | Peak   | --- | ---   |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

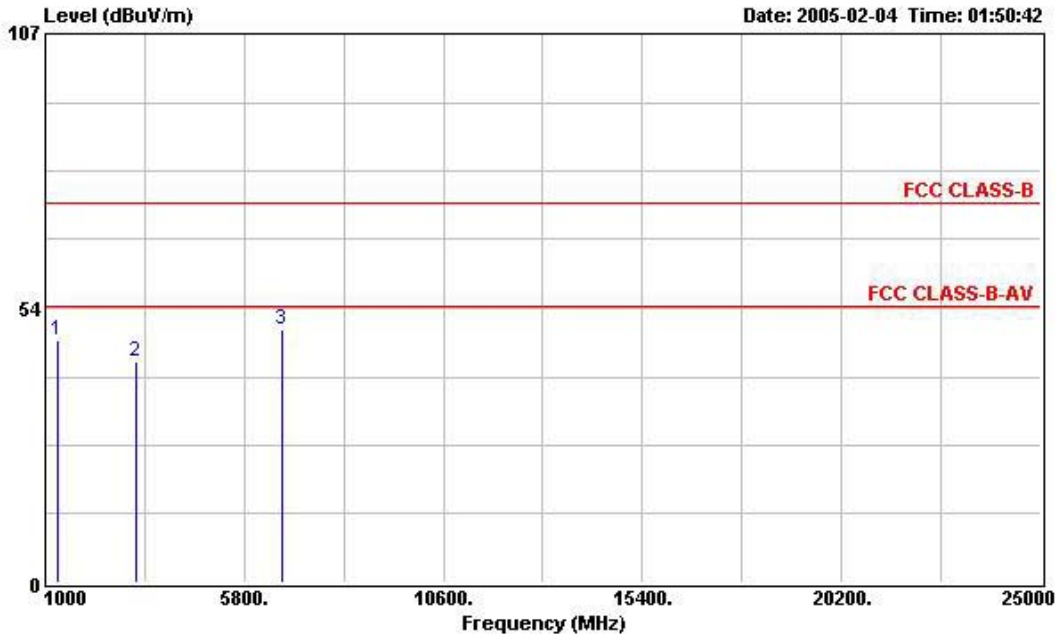
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level





Mode 2

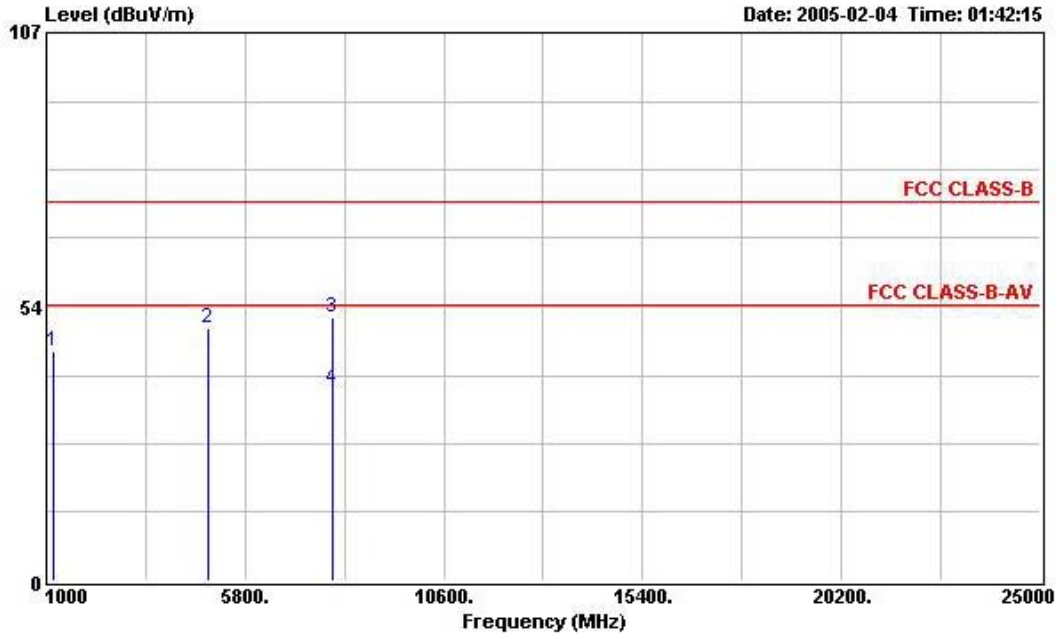
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 47.17  | -26.83     | 74.00      | 60.29      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 3192.000 | 42.95  | -31.05     | 74.00      | 49.42      | 30.48        | 2.26       | 39.21         | Peak   | ---     | ---       |
| 3 | 6724.000 | 49.23  | -24.77     | 74.00      | 50.77      | 34.63        | 3.46       | 39.63         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark  | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|---------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |         | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |         | cm  | deg   |
| 1 | 1192.000 | 44.71  | -29.29 | 74.00  | 58.07 | 24.54  | 1.32  | 39.22  | Peak    | --- | ---   |
| 2 | 4920.000 | 49.42  | -24.58 | 74.00  | 53.53 | 33.14  | 2.89  | 40.14  | Peak    | --- | ---   |
| 3 | 7900.000 | 51.33  | -22.67 | 74.00  | 49.72 | 37.02  | 3.86  | 39.27  | Peak    | --- | ---   |
| 4 | 7900.000 | 37.62  | -16.38 | 54.00  | 36.01 | 37.02  | 3.86  | 39.27  | Average | --- | ---   |

Note:

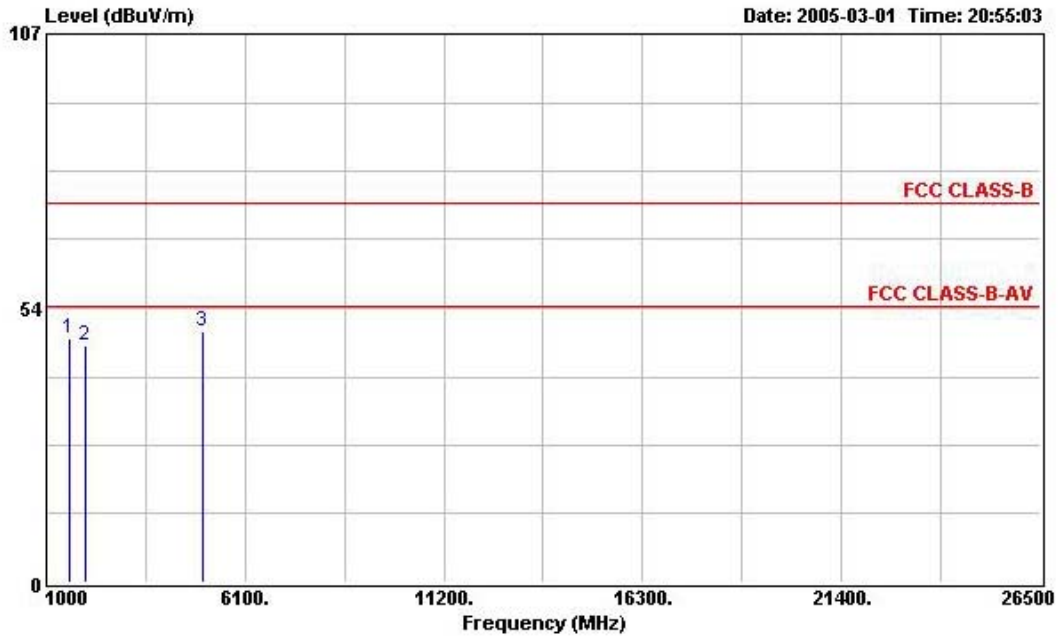
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 3

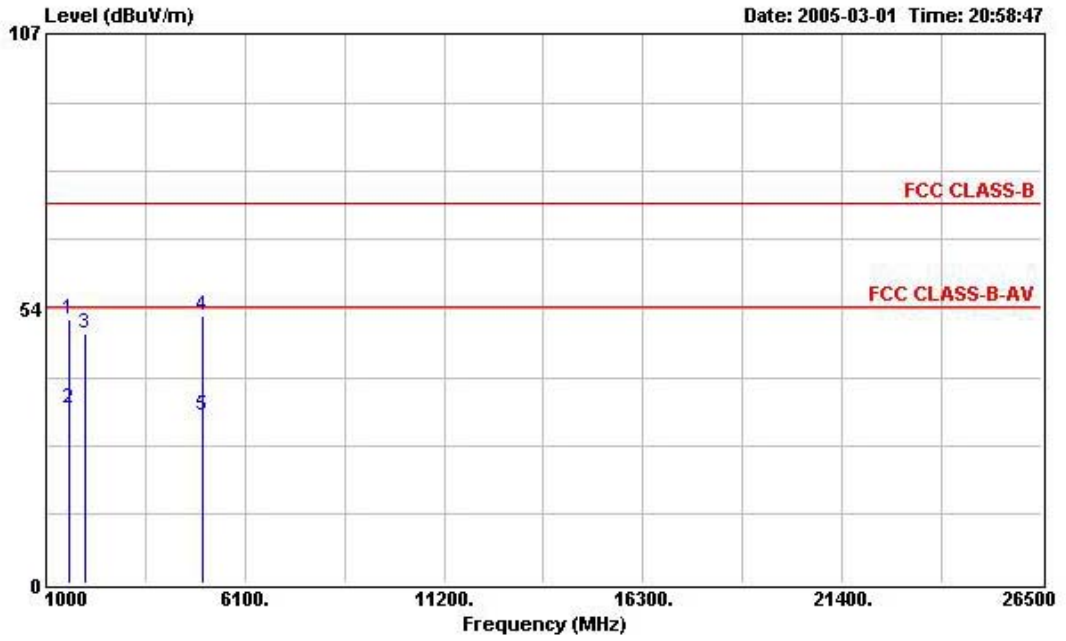
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1596.000 | 47.50  | -26.50     | 74.00      | 59.66      | 25.60        | 1.52       | 39.28         | Peak   | ---     | ---       |
| 2 | 1996.000 | 46.28  | -27.72     | 74.00      | 56.81      | 27.40        | 1.72       | 39.65         | Peak   | ---     | ---       |
| 3 | 4992.000 | 48.91  | -25.09     | 74.00      | 52.82      | 33.32        | 2.92       | 40.15         | Peak   | 100     | 360       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe | Cable | Preamp | Remark  | Ant | Table |
|---|----------|--------|--------|--------|-------|-------|-------|--------|---------|-----|-------|
|   | MHz      | dBuV/m | dB     | dBuV/m | dBuV  | dB    | dB    | dB     |         | cm  | deg   |
| 1 | 1596.000 | 51.52  | -22.48 | 74.00  | 63.68 | 25.60 | 1.52  | 39.28  | Peak    | --- | ---   |
| 2 | 1596.000 | 34.06  | -19.94 | 54.00  | 46.22 | 25.60 | 1.52  | 39.28  | Average | --- | ---   |
| 3 | 2004.000 | 48.76  | -25.24 | 74.00  | 59.26 | 27.42 | 1.73  | 39.65  | Peak    | --- | ---   |
| 4 | 5000.000 | 52.02  | -21.98 | 74.00  | 55.93 | 33.32 | 2.92  | 40.15  | Peak    | 100 | 0     |
| 5 | 5000.000 | 32.73  | -21.27 | 54.00  | 36.64 | 33.32 | 2.92  | 40.15  | Average | --- | ---   |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

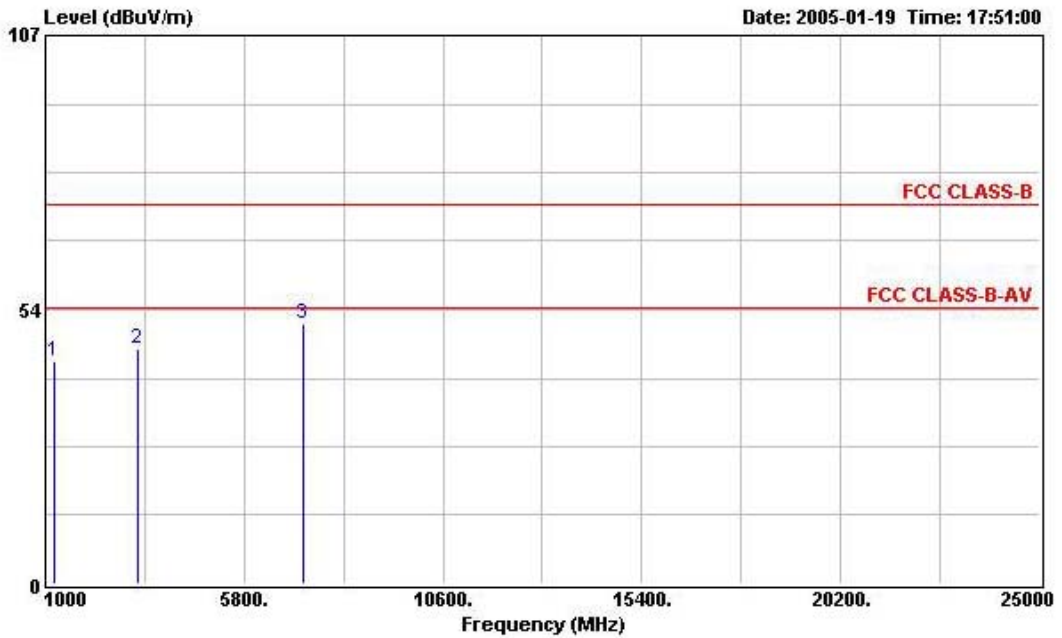


5.6.11. Test Results for CH 06 / 2437MHz ( for emission above 1GHz)

- Modulation Type: OFDM (Turbo Mode)
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment during the Test: 100.00%
- Test Engineer: Ted Chiu

**Mode 1**

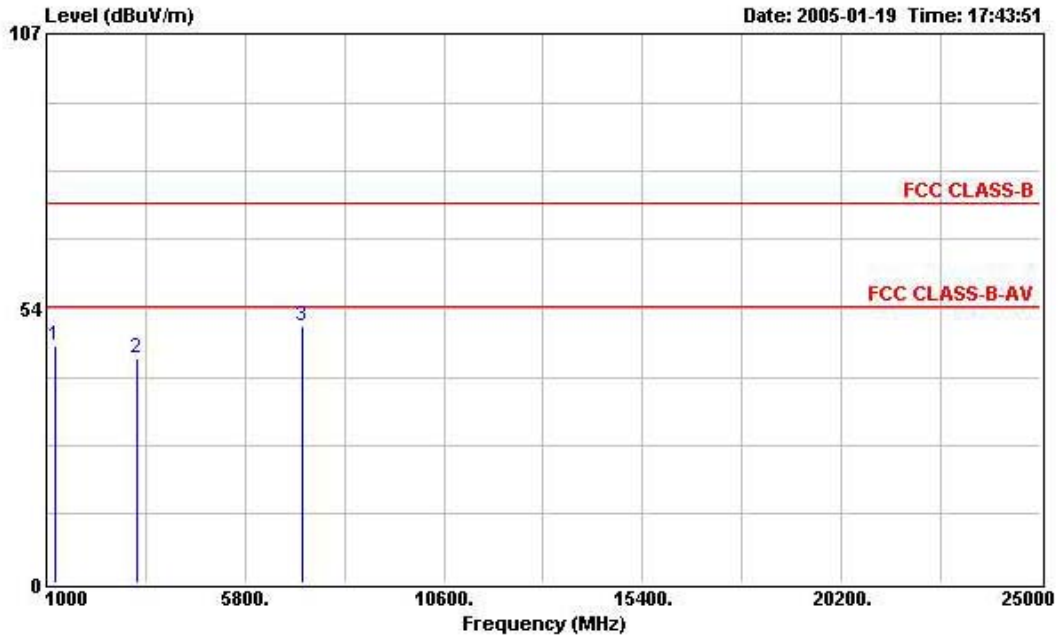
**(A) Polarization: Horizontal**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1196.000 | 43.38  | -30.62     | 74.00      | 56.74      | 24.54        | 1.32       | 39.22         | Peak   | ---     | ---       |
| 2 | 3248.000 | 46.03  | -27.97     | 74.00      | 52.22      | 30.67        | 2.28       | 39.14         | Peak   | ---     | ---       |
| 3 | 7216.000 | 50.63  | -23.37     | 74.00      | 50.72      | 35.77        | 3.62       | 39.48         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over   | Limit  | Read  | Probe  | Cable | Preamp | Remark | Ant | Table |
|---|----------|--------|--------|--------|-------|--------|-------|--------|--------|-----|-------|
|   | MHz      | dBuV/m | Limit  | Line   | Level | Factor | Loss  | Factor |        | Pos | Pos   |
|   |          |        | dB     | dBuV/m | dBuV  | dB     | dB    | dB     |        | cm  | deg   |
| 1 | 1196.000 | 46.12  | -27.88 | 74.00  | 59.48 | 24.54  | 1.32  | 39.22  | Peak   | --- | ---   |
| 2 | 3188.000 | 43.94  | -30.06 | 74.00  | 50.41 | 30.48  | 2.26  | 39.21  | Peak   | --- | ---   |
| 3 | 7164.000 | 50.19  | -23.81 | 74.00  | 50.47 | 35.62  | 3.60  | 39.50  | Peak   | --- | ---   |

Note:

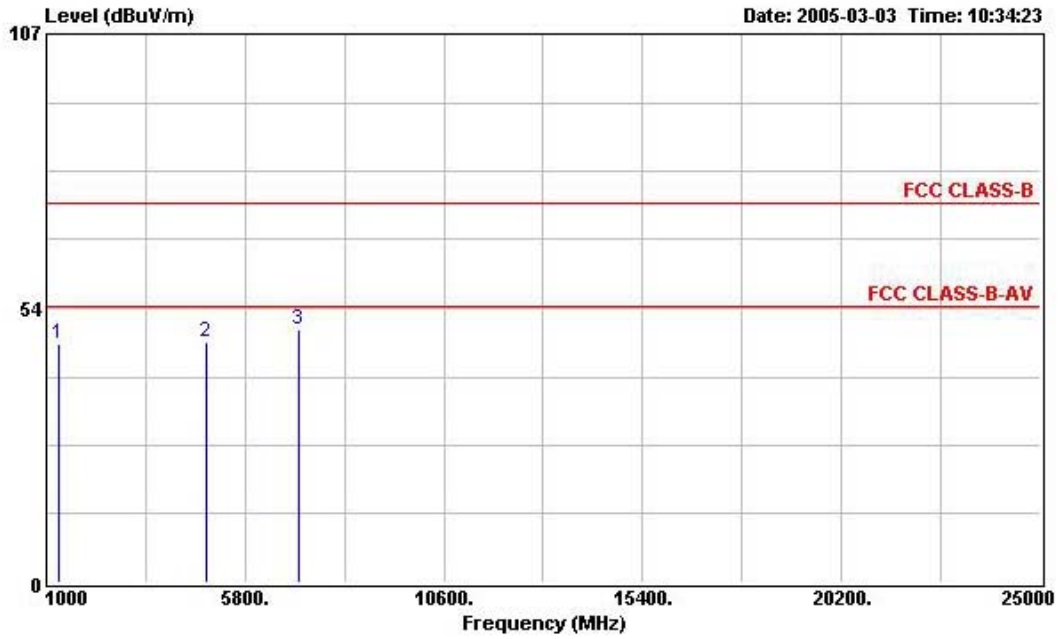
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



Mode 2

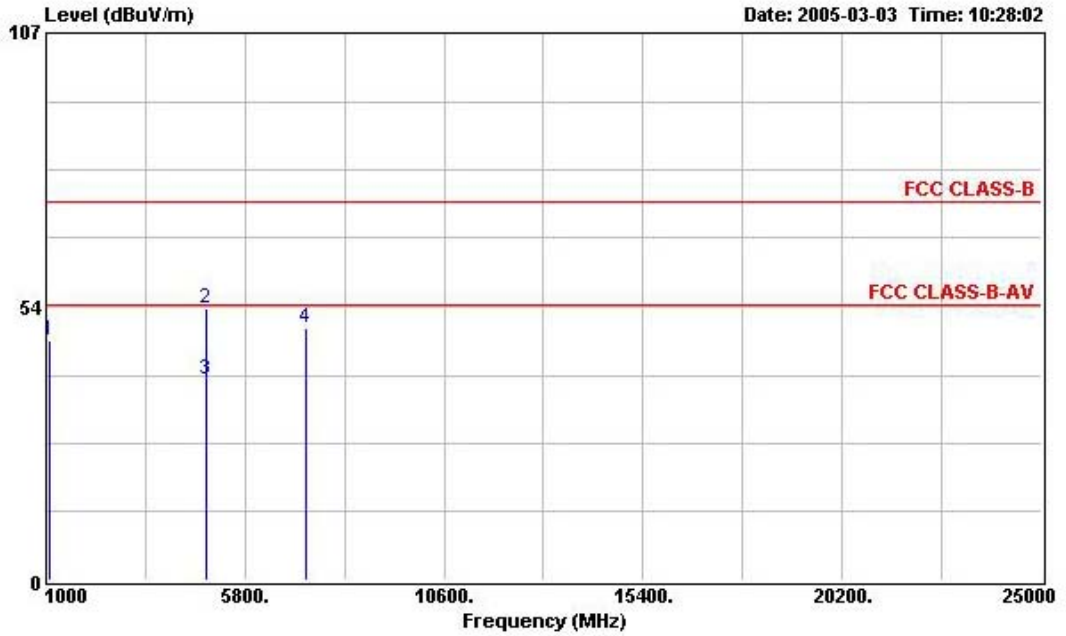
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|--------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |        | cm      | deg       |
| 1 | 1296.000 | 46.39  | -27.61     | 74.00      | 59.51      | 24.73        | 1.36       | 39.21         | Peak   | ---     | ---       |
| 2 | 4876.000 | 46.81  | -27.19     | 74.00      | 50.97      | 33.11        | 2.87       | 40.14         | Peak   | ---     | ---       |
| 3 | 7096.000 | 49.28  | -24.72     | 74.00      | 49.81      | 35.41        | 3.58       | 39.52         | Peak   | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1096.000 | 47.02  | -26.98     | 74.00      | 60.59      | 24.39        | 1.27       | 39.23         | Peak    | ---     | ---       |
| 2 | 4876.000 | 53.06  | -20.94     | 74.00      | 57.22      | 33.11        | 2.87       | 40.14         | Peak    | ---     | ---       |
| 3 | 4876.000 | 39.26  | -14.74     | 54.00      | 43.42      | 33.11        | 2.87       | 40.14         | Average | ---     | ---       |
| 4 | 7276.000 | 49.35  | -24.65     | 74.00      | 49.19      | 35.98        | 3.64       | 39.46         | Peak    | ---     | ---       |

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

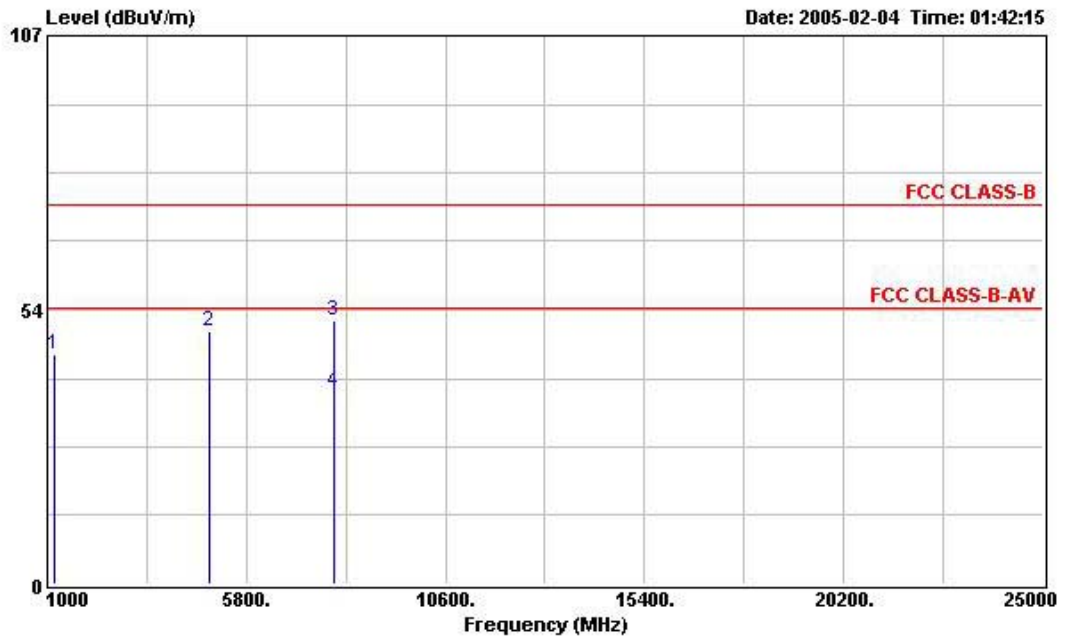
Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level





Mode 3

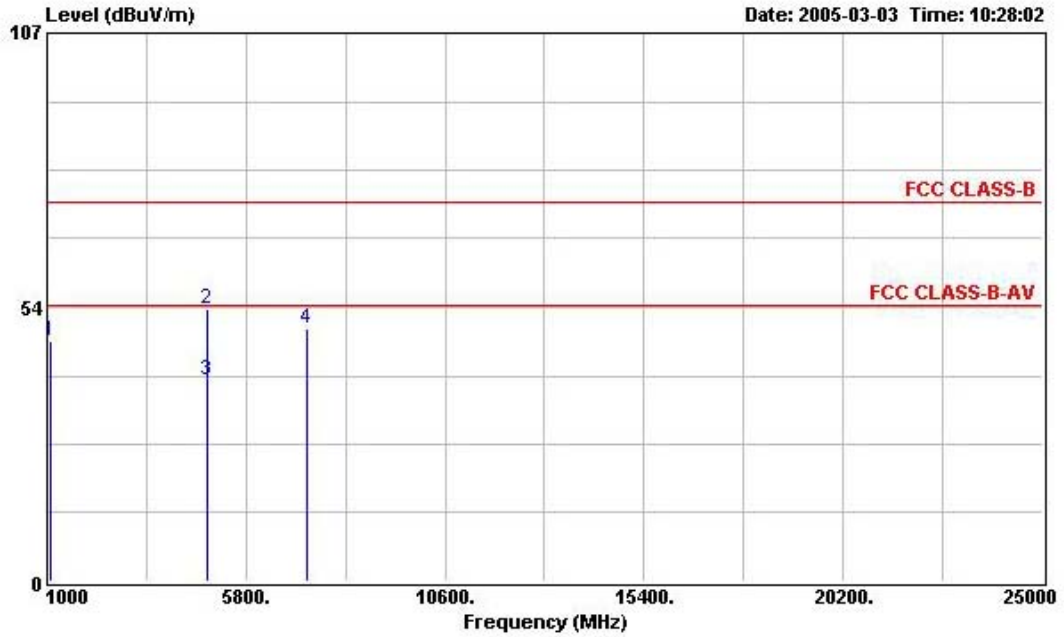
(A) Polarization: Horizontal



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1192.000 | 44.71  | -29.29     | 74.00      | 58.07      | 24.54        | 1.32       | 39.22         | Peak    | ---     | ---       |
| 2 | 4920.000 | 49.42  | -24.58     | 74.00      | 53.53      | 33.14        | 2.89       | 40.14         | Peak    | ---     | ---       |
| 3 | 7900.000 | 51.33  | -22.67     | 74.00      | 49.72      | 37.02        | 3.86       | 39.27         | Peak    | ---     | ---       |
| 4 | 7900.000 | 37.62  | -16.38     | 54.00      | 36.01      | 37.02        | 3.86       | 39.27         | Average | ---     | ---       |



**(B) Polarization: Vertical**



|   | Freq     | Level  | Over Limit | Limit Line | Read Level | Probe Factor | Cable Loss | Preamp Factor | Remark  | Ant Pos | Table Pos |
|---|----------|--------|------------|------------|------------|--------------|------------|---------------|---------|---------|-----------|
|   | MHz      | dBuV/m | dB         | dBuV/m     | dBuV       | dB           | dB         | dB            |         | cm      | deg       |
| 1 | 1096.000 | 47.02  | -26.98     | 74.00      | 60.59      | 24.39        | 1.27       | 39.23         | Peak    | ---     | ---       |
| 2 | 4876.000 | 53.06  | -20.94     | 74.00      | 57.22      | 33.11        | 2.87       | 40.14         | Peak    | ---     | ---       |
| 3 | 4876.000 | 39.26  | -14.74     | 54.00      | 43.42      | 33.11        | 2.87       | 40.14         | Average | ---     | ---       |
| 4 | 7276.000 | 49.35  | -24.65     | 74.00      | 49.19      | 35.98        | 3.64       | 39.46         | Peak    | ---     | ---       |

Note:

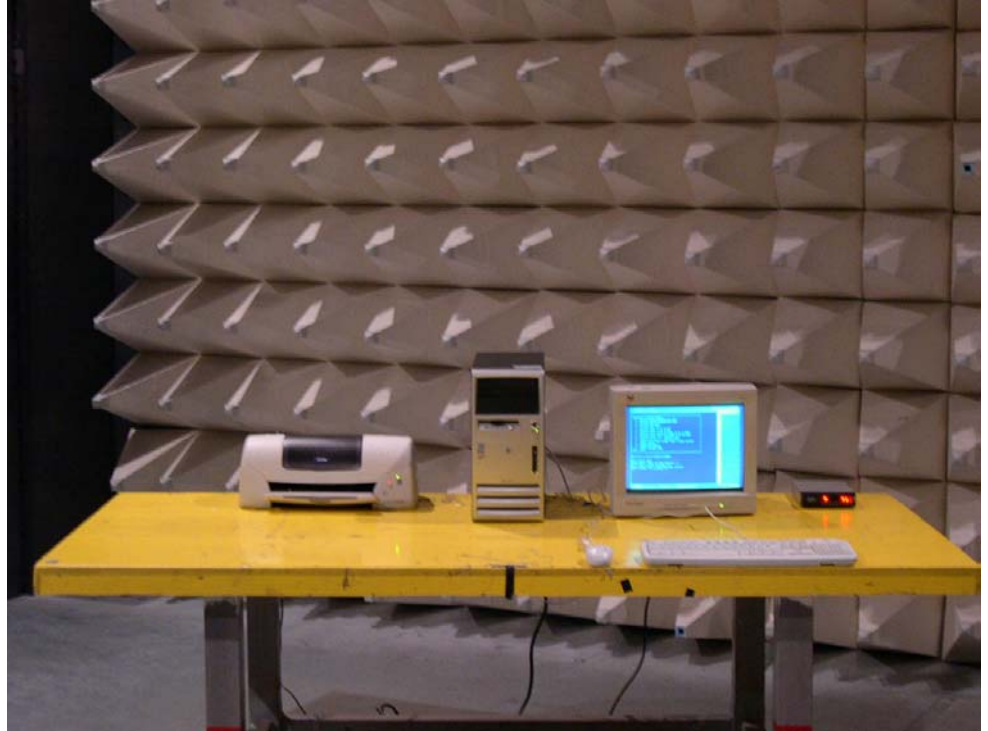
Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

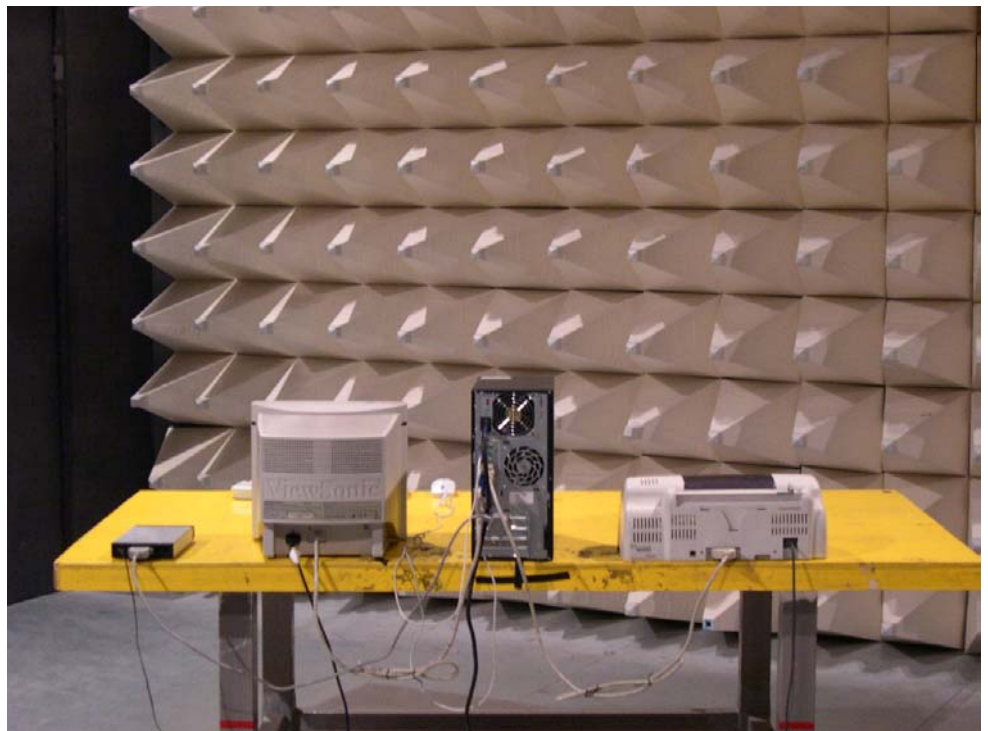
5.6.12. Photographs of Radiated Emission Test Configuration

Mode 1

FRONT VIEW

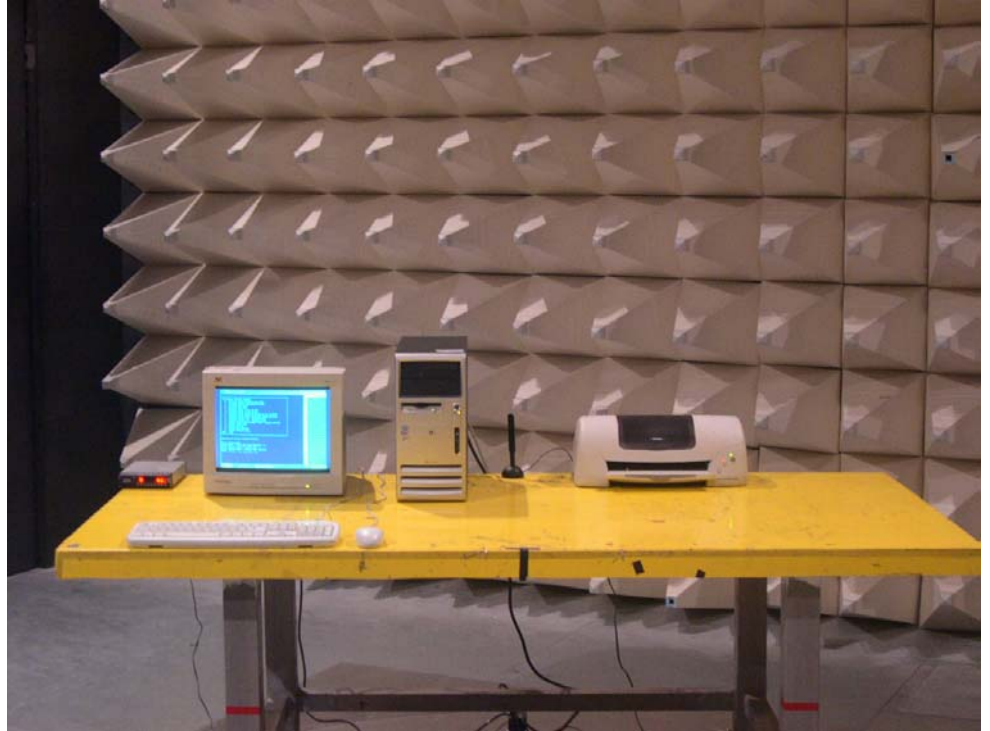


REAR VIEW

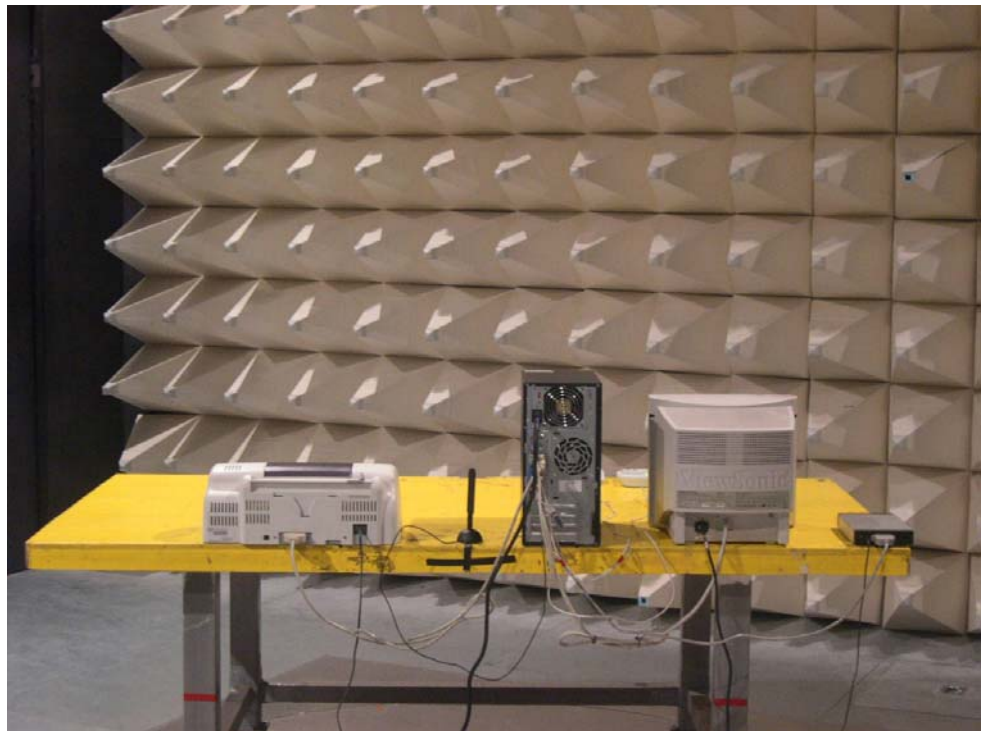


Mode 2

FRONT VIEW

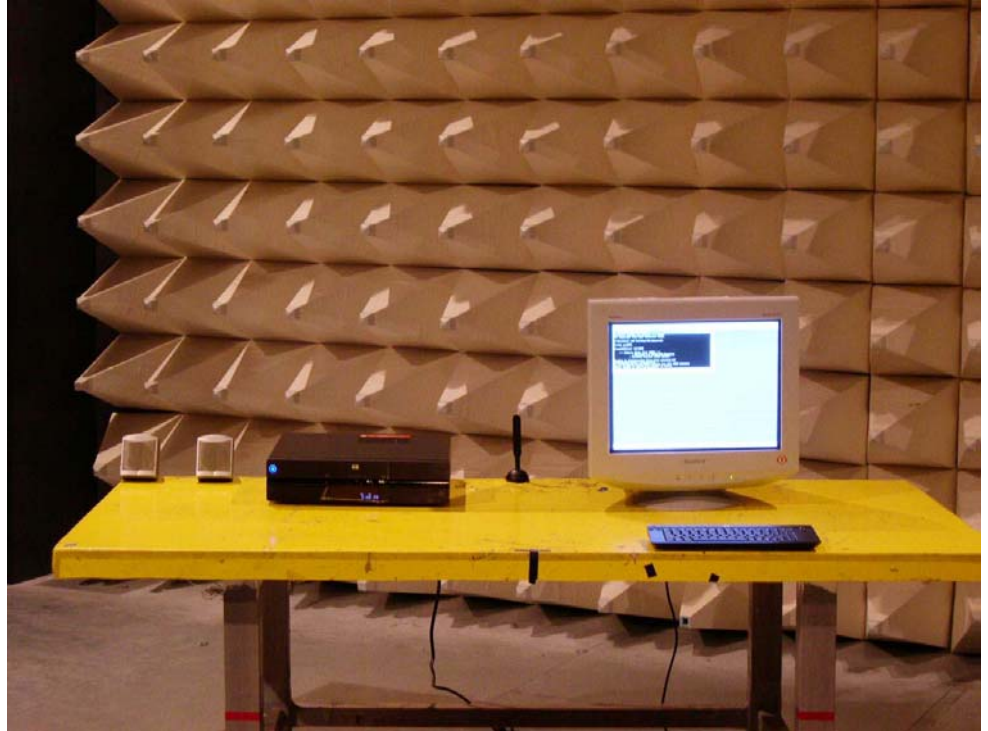


REAR VIEW

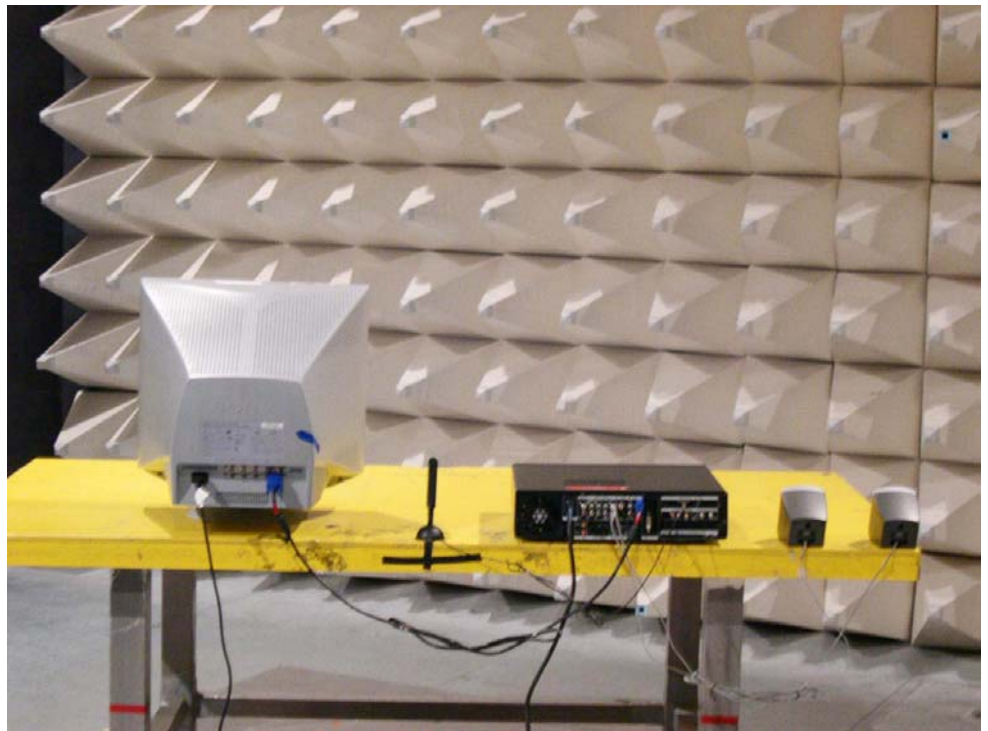


Mode 3

FRONT VIEW



REAR VIEW





## 5.7. Antenna Requirements

### 5.7.1. Standard Applicable

Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Section 15.247(b)/(c):

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

If the intentional radiator is used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

### 5.7.2. Antenna Connected Construction

Please refer to section 1.5.

### 5.7.3. Antenna Gain

Please refer to section 1.5. antennas gain of EUT are less than 6dBi. Therefore peak conducted power limit shall not be degraded any more. Antenna report of manufacturer will have more detail antenna gain or antenna pattern.

### 5.7.4. Test Criteria

All test results complied with the requirements of 15.203/15.247(b)/(c).

## 5.8. RF Exposure

### 5.8.1. Limit For Maximum Permissible Exposure (MPE)

This product can be classified as mobile device, so the 20cm separation distance warning is required. In this section, the power density at 20cm location is calculated to examine if it is lower than the limit.

#### (A) Limits for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|--|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                   | 6  |
| 3.0-30                | 1842 / f                          | 4.89 / f                          | (900 / f)*                               | 6  |
| 30-300                | 61.4                              | 0.163                             | 1.0                                      | 6  |
| 300-1500              |                                   |                                   | F/300                                    | 6  |
| 1500-100,000          |                                   |                                   | 5  | 6  |

#### (B) Limits for General Population / Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S ( minutes ) |
|-----------------------|-----------------------------------|-----------------------------------|---|--|
| 0.3-1.34              | 614                               | 1.63                              | (100)*                                  | 30   |
| 1.34-30               | 824/f                             | 2.19/f                            | (180/f)*                                | 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

### 5.8.2. MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (mW/cm}^2\text{)} = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = Peak RF output power (mW)

**G** = EUT Antenna numeric gain (numeric)

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=20cm, as well as the gain of the used antenna, the RF power density can be obtained.

5.8.3. Calculated Result and Limit

- Modulation Type: DSSS
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Antenna 1**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 2.50               | 1.78                   | 20.20                   | 104.71                   | 0.0371                                  | 1  |
| 06          | 2.50               | 1.78                   | 20.50                   | 112.20                   | 0.0398                                  | 1  |
| 11          | 2.50               | 1.78                   | 19.50                   | 89.13                    | 0.0316                                  | 1  |

**Antenna 2**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 2.00               | 1.58                   | 20.20                   | 104.71                   | 0.0329                                  | 1  |
| 06          | 2.00               | 1.58                   | 20.50                   | 112.20                   | 0.0353                                  | 1  |
| 11          | 2.00               | 1.58                   | 19.50                   | 89.13                    | 0.0280                                  | 1  |

**Antenna 3, 4**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 3.00               | 2.00                   | 20.20                   | 104.71                   | 0.0417                                  | 1  |
| 06          | 3.00               | 2.00                   | 20.50                   | 112.20                   | 0.0447                                  | 1  |
| 11          | 3.00               | 2.00                   | 19.50                   | 89.13                    | 0.0355                                  | 1  |





- Modulation Type: OFDM
- Temperature: 26°C
- Relative Humidity: 64%
- Duty Cycle of the Equipment During the Test: 100.00%
- Test Engineer: Ted Chiu

**Antenna 1**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 2.50               | 1.78                   | 19.80                   | 95.50                    | 0.0338                                  | 1  |
| 06          | 2.50               | 1.78                   | 19.70                   | 93.33                    | 0.0331                                  | 1  |
| 11          | 2.50               | 1.78                   | 19.10                   | 81.28                    | 0.0288                                  | 1  |

**Antenna 2**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 2.00               | 1.58                   | 19.80                   | 95.50                    | 0.0300                                  | 1  |
| 06          | 2.00               | 1.58                   | 19.70                   | 93.33                    | 0.0294                                  | 1  |
| 11          | 2.00               | 1.58                   | 19.10                   | 81.28                    | 0.0256                                  | 1  |

**Antenna 3, 4**

| Channel No. | Antenna Gain (dBi) | Antenna Gain (numeric) | Peak Output Power (dBm) | Peak Output Power ( mW ) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) |
|-------------|--------------------|------------------------|-------------------------|--------------------------|---|--|
| 01          | 3.00               | 2.00                   | 19.80                   | 95.50                    | 0.0380                                  | 1  |
| 06          | 3.00               | 2.00                   | 19.70                   | 93.33                    | 0.0372                                  | 1  |
| 11          | 3.00               | 2.00                   | 19.10                   | 81.28                    | 0.0324                                  | 1  |

## 6. List of Measuring Equipments Used

| Items | Instrument               | Manufacturer   | Model No.    | Serial No. | Characteristics  | Calibration Date | Remark                |
|-------|--------------------------|----------------|--------------|------------|------------------|------------------|-----------------------|
| 1     | EMC Receiver             | R&S            | ESCS 30      | 100174     | 9 KHz – 2.75 GHz | Feb. 15, 2005    | Conduction (CO04-HY)  |
| 2     | LISN                     | MessTec        | NNB-2/16Z    | 2001/004   | 9 KHz – 30 MHz   | Jun. 09, 2004    | Conduction (CO04-HY)  |
| 3     | LISN (Support Unit)      | MessTec        | NNB-2/16Z    | 99041      | 9 KHz – 30 MHz   | Apr. 27, 2004    | Conduction (CO04-HY)  |
| 4     | EMI Filter               | LINDGREN       | LRE-2030     | 2651       | < 450 Hz         | N/A              | Conduction (CO04-HY)  |
| 5     | RF Cable-CON             | UTIFLEX        | 3102-26886-4 | CB044      | 9KHz~30MHz       | Apr. 21, 2004    | Conduction (CO04-HY)  |
| 6     | 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M       | 03CH03-HY  | 30MHz~1GHz<br>3m | Jun. 21, 2004    | Radiation (03CH03-HY) |
| 7     | Spectrum analyzer        | R&S            | FSP40        | 100004     | 9KHZ~40GHZ       | Aug. 31, 2004    | Radiation (03CH03-HY) |
| 8     | Amplifier                | SCHAFFNER      | CPA9231A     | 18667      | 9KHz – 2GHz      | Jan. 10, 2005    | Radiation (03CH03-HY) |
| 9     | Biconical Antenna        | SCHWARZBECK    | VHBB 9124    | 301        | 30MHz –200MHz    | Jul. 28, 2004    | Radiation (03CH03-HY) |
| 10    | Log Antenna              | SCHWARZBECK    | VUSLP 9111   | 221        | 200MHz -1GHz     | Jul. 28, 2004    | Radiation (03CH03-HY) |
| 11    | RF Cable-R03m            | Jye Bao        | RG142        | CB021      | 30MHz~1GHz       | Feb. 22, 2005    | Radiation (03CH03-HY) |
| 12    | Amplifier                | MITEQ          | AFS44        | 849984     | 100MHz~26.5GHz   | Mar. 26, 2004    | Radiation (03CH03-HY) |
| 13    | Horn Antenna             | EMCO           | 3115         | 6741       | 1GHz – 18GHz     | Apr. 07, 2004    | Radiation (03CH03-HY) |
| 14    | Turn Table               | HD             | DS 420       | 420/650/00 | 0 ~ 360 degree   | N/A              | Radiation (03CH03-HY) |
| 15    | Antenna Mast             | HD             | MA 240       | 240/560/00 | 1 m - 4 m        | N/A              | Radiation (03CH03-HY) |
| 16    | Horn Antenna             | Schwarzbeck    | BBHA9170     | 154        | 18GHz~40GHz      | Jun. 09, 2004    | Radiation (03CH03-HY) |
| 17    | RF Cable-HIGH            | Jye Bao        | RG142        | CB030-HIGH | 1GHz~29.5GHz     | Dec.01, 2004     | Radiation (03CH03-HY) |

※ Calibration Interval of instruments listed above is one year.



| Items | Instrument                 | Manufacturer | Model No. | Serial No.  | Characteristics | Calibration Date | Remark              |
|-------|----------------------------|--------------|-----------|-------------|-----------------|------------------|---------------------|
| 18    | Spectrum analyzer          | R&S          | FSP30     | 100023      | 9KHZ~30GHZ      | Aug. 02, 2004    | Conducted (TH01-HY) |
| 19    | Power meter                | R&S          | NRVS      | 100444      | DC~40GHZ        | Jun. 15, 2004    | Conducted (TH01-HY) |
| 20    | Power sensor               | R&S          | NRV-Z55   | 100049      | DC~40GHZ        | Jun. 15, 2004    | Conducted (TH01-HY) |
| 21    | Power Sensor               | R&S          | NRV-Z32   | 100057      | 30MHz-6GHz      | Jun. 15, 2004    | Conducted (TH01-HY) |
| 22    | AC power source            | HPC          | HPA-500W  | HPA-9100024 | AC 0~300V       | Jun. 16, 2004    | Conducted (TH01-HY) |
| 23    | AC power source            | G.W.         | GPC-6030D | C671845     | DC 1V~60V       | Nov. 05, 2004    | Conducted (TH01-HY) |
| 24    | Temp. and Humidity Chamber | KSON         | THS-C3L   | 612         | N/A             | Oct. 01, 2004    | Conducted (TH01-HY) |
| 25    | RF CABLE-1m                | Jye Bao      | RG142     | CB034-1m    | 20MHz~7GHz      | Jan. 01, 2005    | Conducted (TH01-HY) |
| 26    | RF CABLE-2m                | Jye Bao      | RG142     | CB035-2m    | 20MHz~1GHz      | Jan. 01, 2005    | Conducted (TH01-HY) |

※ Calibration Interval of instruments listed above is one year.

## 7. Company Profile

SPORTON Lab. was established in 1986 with one shielded room: the first private EMI test facility, offering local manufacturers an alternative EMI test facility apart from ERSO. In 1988, one 3M and 10M/3M open area test site were setup and also obtained official accreditation from FCC, VCCI and NEMKO. In 1993, a Safety laboratory was founded and obtained accreditation from UL of USA, CSA of Canada and TUV (Rhineland & PS) of Germany. In 1995, one EMC lab, including EMI and EMS test facilities was setup. In 1997, SPORTON Group has provided financial expense to relocate the headquarter to Orient Scientific Park in Taipei Hsien to offer more comprehensive, more qualified and better service to local suppliers and manufactures. In 1999, Safety Group and Component Group were setup. In 2001, SPORTON has established 3M/10M chamber in Hwa Ya Technology Park.

### 7.1. Certificate of Accreditation

|        |                 |
|--------|-----------------|
| Taiwan | BSMI, CNLA, DGT |
| USA    | FCC, NVLAP, UL  |
| EU     | Nemko, TUV      |
| Japan  | VCCI            |
| Canada | Industry Canada |

### 7.2. Test Location

|        |  |
|--------|--|
| SHIJR  | ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.<br>TEL : 02-2696-2468<br>FAX : 02-2696-2255                 |
| HWA YA | ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.<br>TEL : 03-327-3456<br>FAX : 03-318-0055 |
| LINKOU | ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C<br>TEL : 02-2601-1640<br>FAX : 02-2601-1695                               |
| DUNGHU | ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.<br>TEL : 02-2631-4739<br>FAX : 02-2631-9740                            |
| JUNGHE | ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.<br>TEL : 02-8227-2020<br>FAX : 02-8227-2626                           |
| NEIHU  | ADD : 4Fl., No. 339, Hsin Hu 2 <sup>nd</sup> Rd., Taipei 114, Taiwan, R.O.C.<br>TEL : 02-2794-8886<br>FAX : 02-2794-9777                         |

## 8. CNLA Certificate of Accreditation

Test Lab. : Sporton International Inc.  
Accreditation Number : 1190  
Originally Accredited : 2003/12/15  
Effective Period : 2003/12/15~2006/12/14  
Accredited Scope : 47 CFR FCC Part 15 Subpart C (9kHz~40GHz)



Taiwan Accreditation Foundation  
Chinese National Laboratory Accreditation  
Certificate of Accreditation

Accreditation Criteria: ISO 17025  
Accreditation Number: 1190  
Organization/Laboratory: EMC & Wireless Communications Laboratory, Sporton International Inc.  
Originally Accredited: December 15, 2003  
Effective Period: December 15, 2003 To December 14, 2006  
Accredited Scope: Electrical Testing Field, 7 items, details shown in the following pages.  
Specific Accreditation Program: Recognition and Approval of Designated Laboratory for Commodities Inspection

  
President, Taiwan Accreditation Foundation  
Date: July 19, 2004

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