

MID CHANNEL 40 DATA

Project No:13J14910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:T1n\_HT20\_CDD\_ch40  
Test By:Steven Tran

**Horizontal 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 1          | 1300.15              | 45.39                | PK       | 30.2                 | -32.9                       | 0             | 42.69             | 54                      | -11.31              | 74                     | -31.31           | 99          | Horz     |
| *2         | 5195.502             | 39.72                | PK       | 34.3                 | -24.7                       | 0.9           | 50.22             | -                       | -                   | -                      | -                | 201         | Horz     |

**Vertical 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 3          | 1326.537             | 46.5                 | PK       | 29.9                 | -32.8                       | 0             | 43.6              | 54                      | -10.4               | 74                     | -30.4            | 201         | Vert     |
| *4         | 5195.502             | 40.06                | PK       | 34.3                 | -24.7                       | 0.9           | 50.56             | -                       | -                   | -                      | -                | 201         | Vert     |

**Horizontal 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 5          | 15598.801            | 34.98                | PK       | 40.4                 | -16.6                       | 0.4           | 59.18             | -                       | -                   | 74                     | -14.82           | 100         | Horz     |

**Vertical 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 6          | 15593.603            | 34.92                | PK       | 40.4                 | -16.6                       | 0.3           | 59.02             | -                       | -                   | 74                     | -14.98           | 201         | Vert     |

**Horizontal 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 7          | 15601.199            | 26.99                | PK       | 40.4                 | -16.6                       | 0.4           | 51.19             | 54                      | -2.81               | 74                     | -22.81           | 99          | Horz     |

**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 8          | 15601.199            | 25.59                | PK       | 40.4                 | -16.6                       | 0.4           | 49.79             | 54                      | -4.21               | 74                     | -24.21           | 201         | Vert     |

**Horizontal 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 7          | 15599.169            | 16.78                | AV       | 40.4                 | -16.6                       | 0.4           | 43.2              | 54                      | -10.8               | -                      | -                | 99          | Horz     |

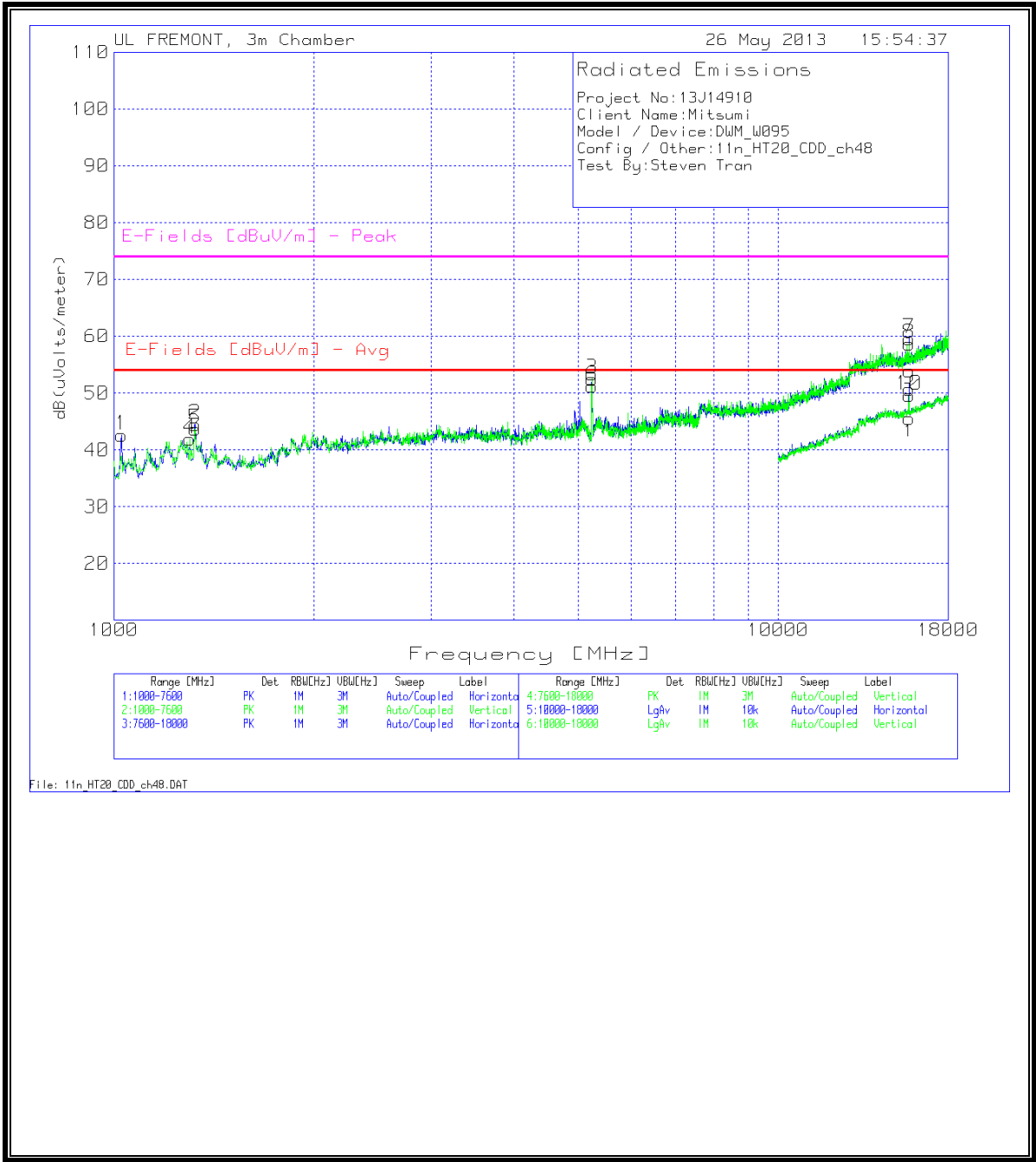
**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/m eter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|---------------------|------------------------|------------------|-------------|----------|
| 8          | 15601.199            | 15.63                | AV       | 40.4                 | -16.6                       | 0.4           | 40.81             | 54                      | -13.19              | -                      | -                | 201         | Vert     |

\* Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

HIGH CHANNEL 48 GRAPH



## HIGH CHANNEL 48 DATA

Project No:13J14910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:11n\_HT20\_CDD\_ch48\_5240MHz  
Test By:Steven Tran

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 1          | 1026.387             | 49.17                | PK       | 27.2                 | -33.8                       | 0             | 42.57             | 54                      | -11.43         | 74                       | -31.43      | 99          | Horz     |
| 2          | 1326.537             | 47.43                | PK       | 29.9                 | -32.8                       | 0             | 44.53             | 54                      | -9.47          | 74                       | -29.47      | 99          | Horz     |
| *3         | 5238.381             | 41.96                | PK       | 34.3                 | -24.7                       | 0.9           | 52.46             | -                       | -              | -                        | -           | 201         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 4          | 1300.15              | 44.61                | PK       | 30.2                 | -32.9                       | 0             | 41.91             | 54                      | -12.09         | 74                       | -32.09      | 201         | Vert     |
| 5          | 1326.537             | 46.53                | PK       | 29.9                 | -32.8                       | 0             | 43.63             | 54                      | -10.37         | 74                       | -30.37      | 201         | Vert     |
| *6         | 5244.978             | 40.74                | PK       | 34.3                 | -24.7                       | 0.9           | 51.24             | -                       | -              | -                        | -           | 201         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 7          | 15718.341            | 35.17                | PK       | 40.4                 | -16.4                       | 0.4           | 59.57             | -                       | -              | 74                       | -14.43      | 99          | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 8          | 15718.341            | 34.27                | PK       | 40.4                 | -16.4                       | 0.4           | 58.67             | -                       | -              | 74                       | -15.33      | 201         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 9          | 15725.137            | 26.33                | PK       | 40.4                 | -16.4                       | 0.4           | 50.73             | 54                      | -3.27          | 74                       | -23.27      | 99          | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 10         | 15713.143            | 25.27                | PK       | 40.4                 | -16.4                       | 0.4           | 49.67             | 54                      | -4.33          | 74                       | -24.33      | 201         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 9          | 15738.18             | 16.78                | AV       | 40.4                 | -16.4                       | 0.4           | 42.53             | 54                      | -11.47         | -                        | -           | 100         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|---------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 10         | 15725.188            | 15.89                | AV       | 40.4                 | -16.4                       | 0.4           | 40.58             | 54                      | -13.42         | -                        | -           | 199         | Vert     |

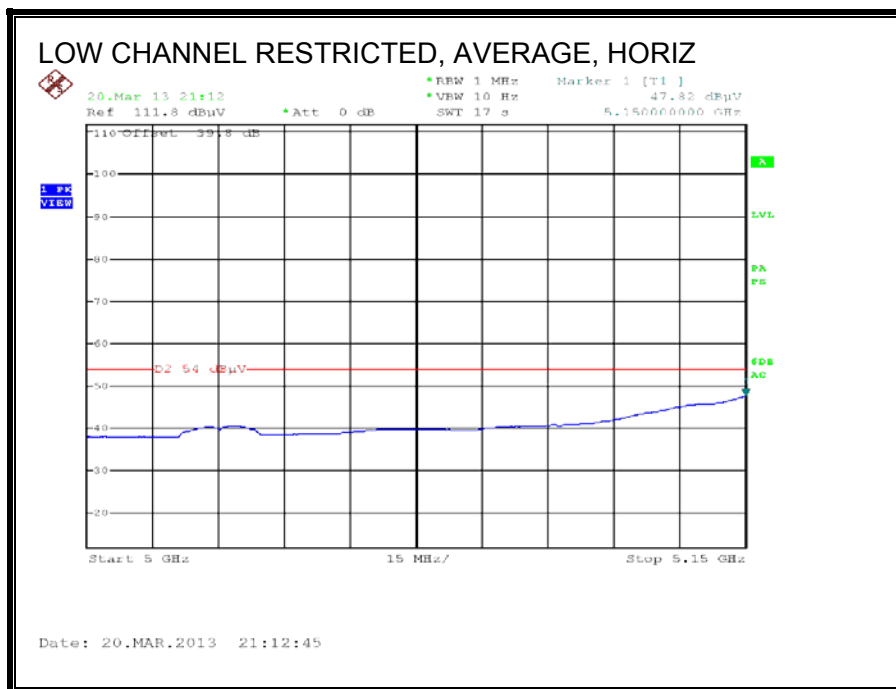
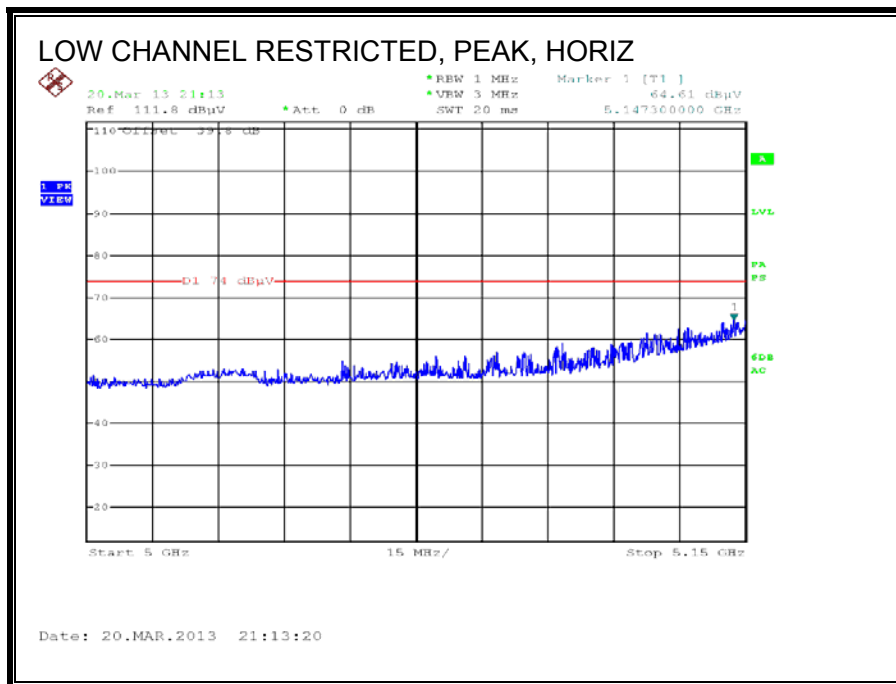
\* Fundamental

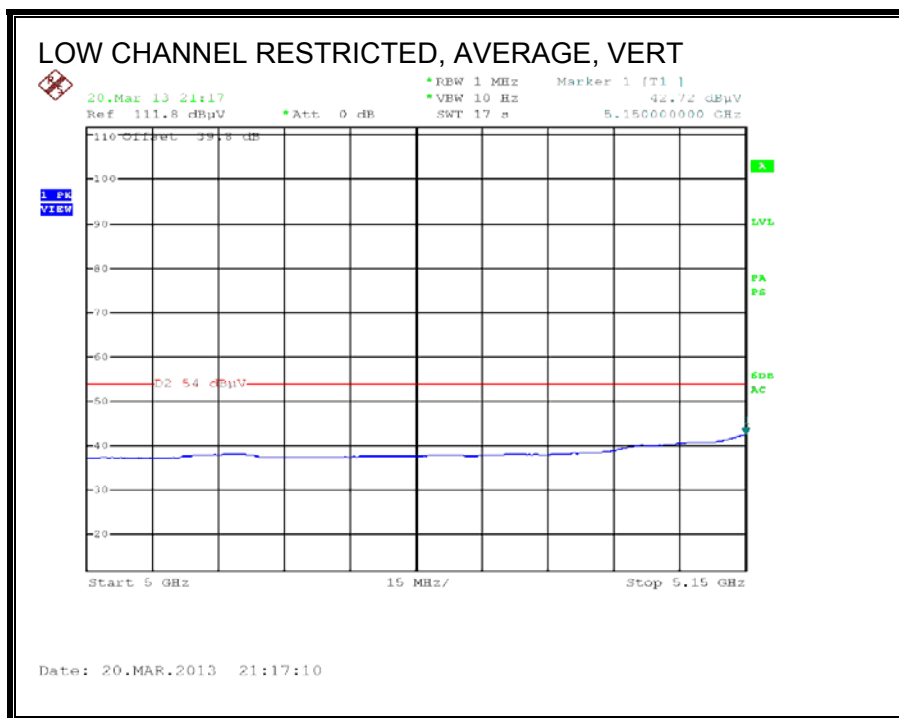
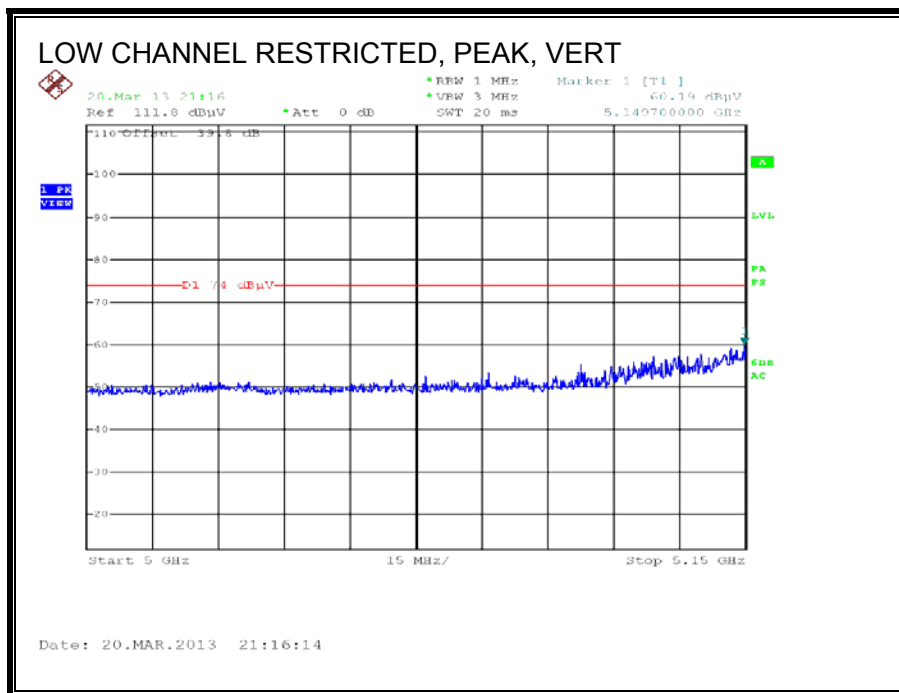


PK - Peak detector  
QP - Quasi-Peak detector  
AV - Average detector

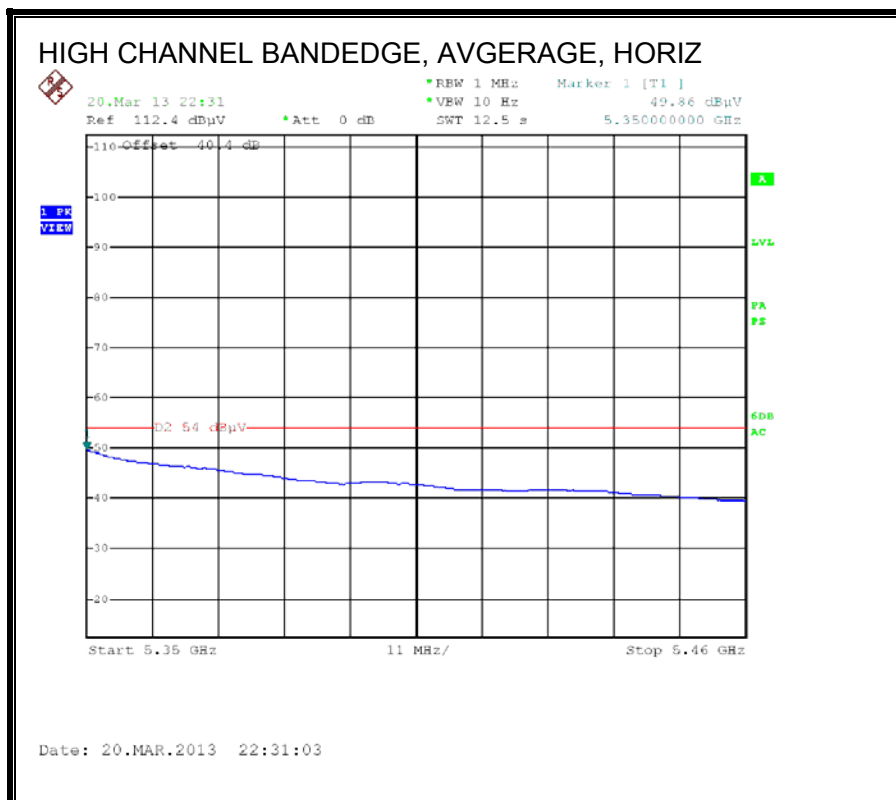
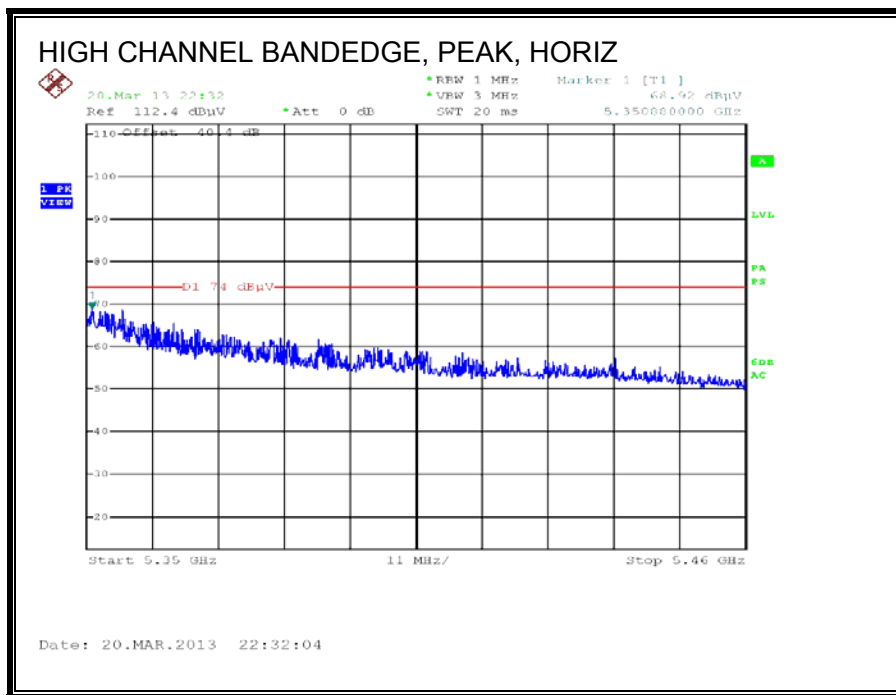
## 9.4. 802.11n HT20 SDM MCS8 2TX MODE IN THE 5.2 GHz BAND

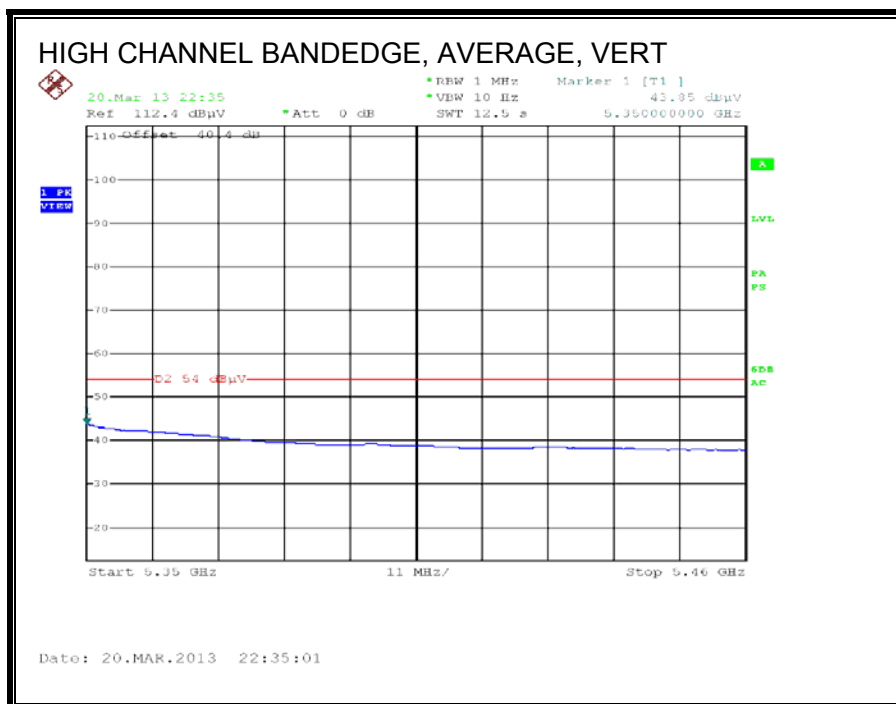
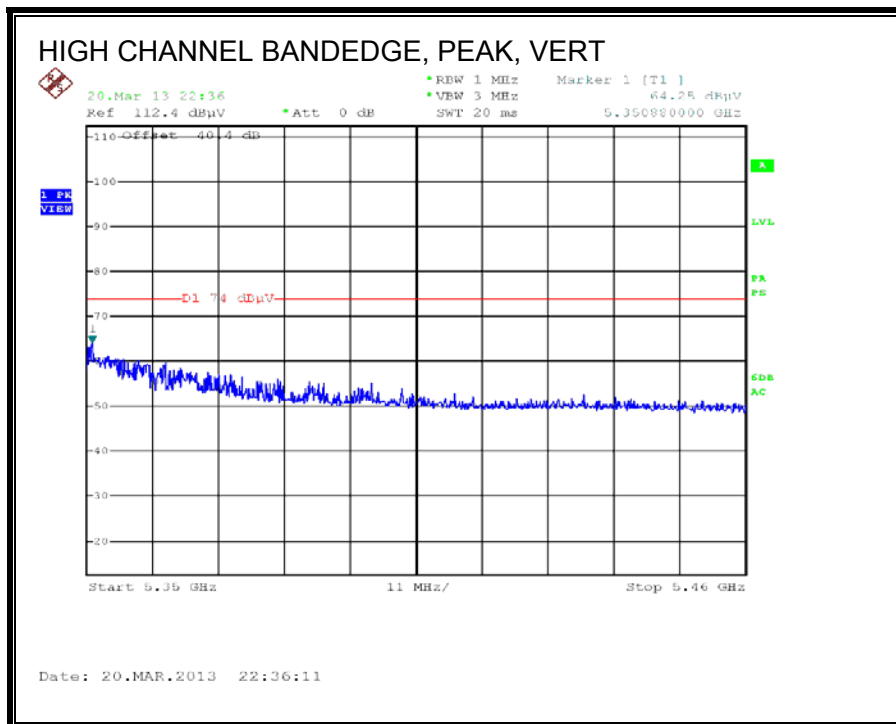
### RESTRICTED BANDEDGE (LOW CHANNEL)



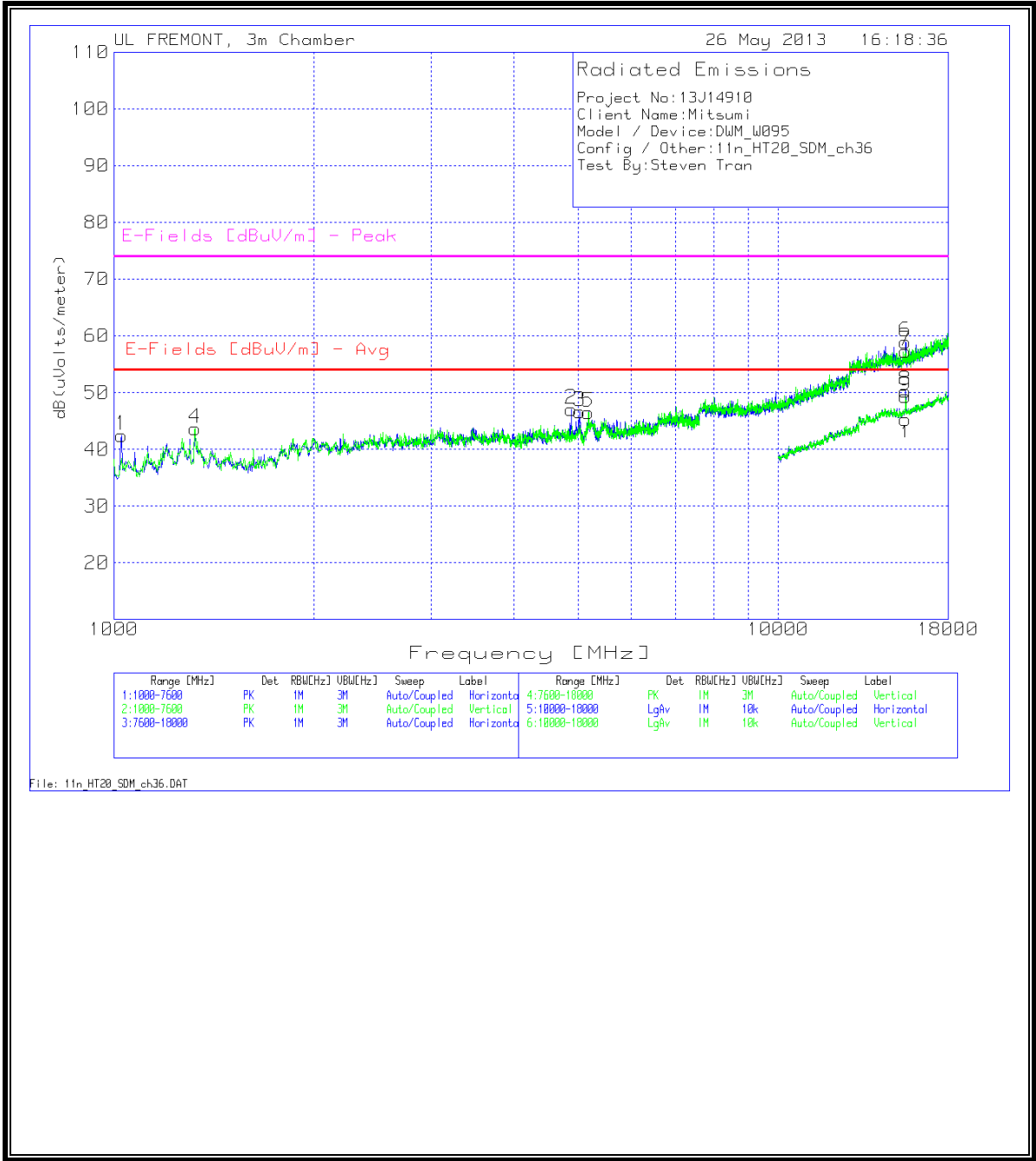


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





**HARMONICS AND SPURIOUS EMISSIONS**  
**LOW CHANNEL 36 GRAPH**



**LOW CHANNEL 36 DATA**

Project No:13J14910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:11n\_HT20\_SDM\_ch36  
Test By:Steven Tran

**Horizontal 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 1          | 1026.387             | 49.05                | PK       | 27.2                 | -33.8                       | 0                  | 42.45             | 54                      | -11.55         | 74                       | -31.55      | 100         | Horz     |
| 2          | 4878.861             | 38.11                | PK       | 34                   | -25.2                       | 0.2                | 47.11             | 54                      | -6.89          | 74                       | -26.89      | 201         | Horz     |
| 3          | 5027.286             | 36.6                 | PK       | 34.1                 | -24.9                       | 0.9                | 46.7              | 54                      | -7.3           | 74                       | -27.3       | 201         | Horz     |

**Vertical 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor [dB/m] (dB) | T34 Preamp/ Cable Loss [dB] (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Margin | E-Fields [dBuV/m] - Peak | Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|-----------------------------|----------------------------------|--------------------|-------------------|-------------------------|--------|--------------------------|--------|-------------|----------|
| 4          | 1326.537             | 46.57                | PK       | 29.9                        | -32.8                            | 0                  | 43.67             | 54                      | -10.33 | 74                       | -30.33 | 201         | Vert     |
| *5         | 5179.01              | 36.15                | PK       | 34.2                        | -24.7                            | 0.9                | 46.55             | -                       | -      | -                        | -      | 201         | Vert     |

**Horizontal 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 6          | 15531.234            | 34.59                | PK       | 40.3                 | -16.5                       | 0.5                | 58.89             | -                       | -              | 74                       | -15.11      | 99          | Horz     |

**Vertical 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 7          | 15541.629            | 33.07                | PK       | 40.3                 | -16.5                       | 0.5                | 57.37             | -                       | -              | 74                       | -16.63      | 201         | Vert     |

**Horizontal 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 8          | 15541.229            | 26.06                | PK       | 40.3                 | -16.5                       | 0.5                | 50.36             | -                       | -              | 74                       | -23.64      | 100         | Horz     |

**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 9          | 15545.227            | 25.14                | PK       | 40.3                 | -16.5                       | 0.4                | 49.34             | -                       | -              | 74                       | -24.66      | 201         | Vert     |

**Horizontal 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 8          | 15556.309            | 16.96                | AV       | 40.3                 | -16.5                       | 0.5                | 43.89             | 54                      | -10.11         | -                        | -           | 100         | Horz     |

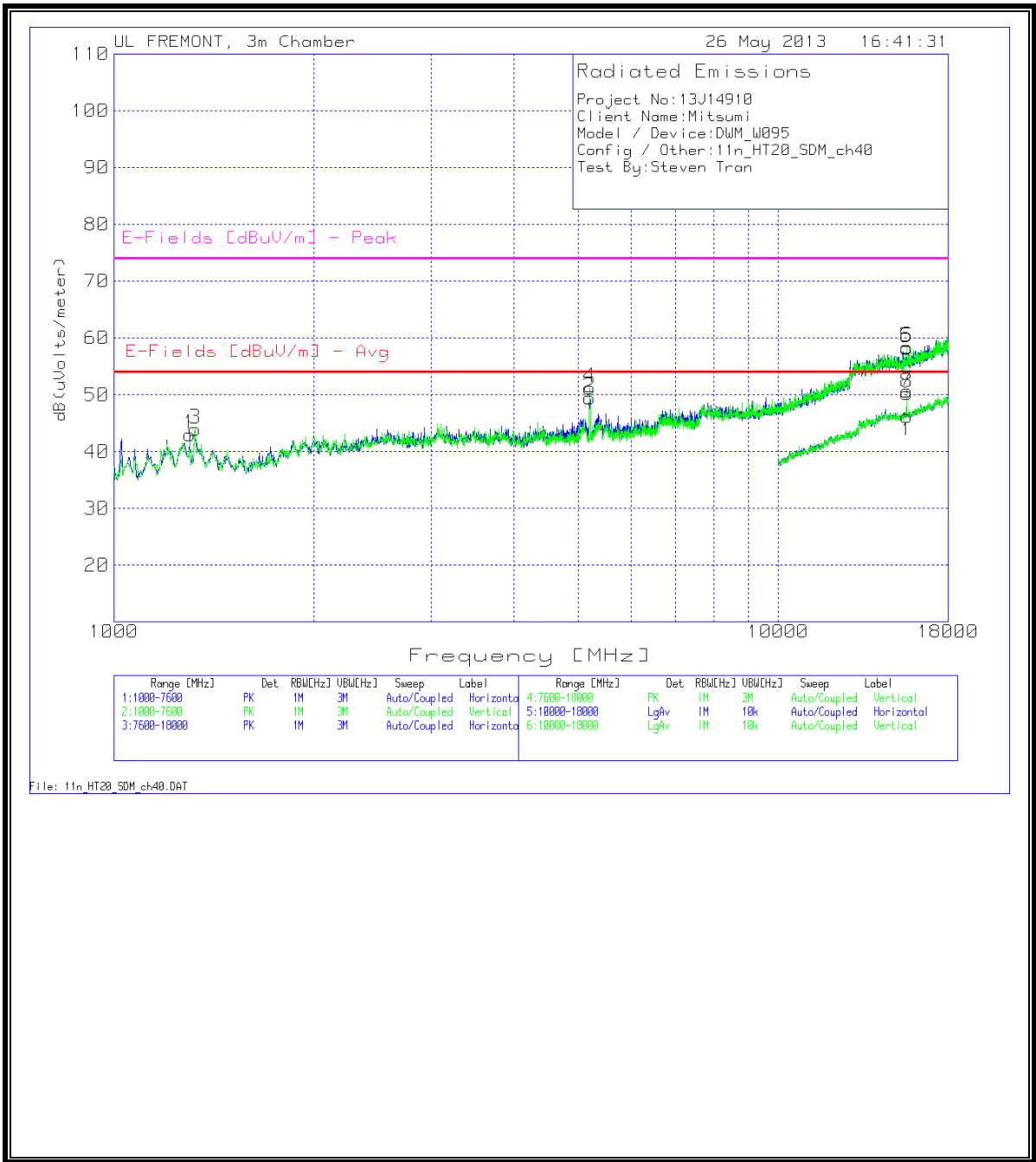
**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T119 Ant Factor (dB) | T34 Preamp/ Cable Loss (dB) | T159 BRF [dB] (dB) | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin | E-Fields [dBuV/m] - Peak | Peak Margin | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|----------------------|-----------------------------|--------------------|-------------------|-------------------------|----------------|--------------------------|-------------|-------------|----------|
| 9          | 15632.457            | 15.44                | AV       | 40.3                 | -16.5                       | 0.4                | 36.54             | 54                      | -17.46         | -                        | -           | 201         | Vert     |

\* Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

MID CHANNEL 40 GRAPH



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MID CHANNEL 40 DATA

Project No:13J14910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:11n HT20 SDM Ch40\_5200MHz  
Test By:Joe Vang

**Horizontal 1000 - 7600MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1023.088             | 48.15               | PK       | 27.5                   | -36                   | 3.2               | 0             | 42.85                              | 53.97                   | -11.12              | 74                       | -31.15           | 100         | Horz     |
| 2          | 1075.862             | 48.03               | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 43.13                              | 53.97                   | -10.84              | 74                       | -30.87           | 200         | Horz     |
| 3          | 4898.651             | 41.1                | PK       | 34.6                   | -34.9                 | 7.1               | 0.2           | 48.1                               | 53.97                   | -5.87               | 74                       | -25.9            | 100         | Horz     |
| *4         | 5205.397             | 40.58               | PK       | 34.8                   | -34.9                 | 7.4               | 0.9           | 48.78                              | -                       | -                   | -                        | -                | 200         | Horz     |

**Vertical 1000 - 7600MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 5          | 1075.862             | 46.87               | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 41.97                              | 53.97                   | -12                 | 74                       | -32.03           | 200         | Vert     |
| *6         | 5205.397             | 42.34               | PK       | 34.8                   | -34.9                 | 7.4               | 0.9           | 50.54                              | -                       | -                   | -                        | -                | 200         | Vert     |

**Horizontal 7600 - 18000MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 7          | 10396.202            | 35.71               | PK       | 38.1                   | -34.5                 | 10.7              | 0.2           | 50.21                              | -                       | -                   | 74                       | -23.79           | 200         | Horz     |
| 8          | 13868.066            | 33.73               | PK       | 39.2                   | -32.1                 | 12.6              | 0.4           | 53.83                              | -                       | -                   | 74                       | -20.17           | 100         | Horz     |

**Vertical 7600 - 18000MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 9          | 10391.004            | 37.36               | PK       | 38.1                   | -34.5                 | 10.7              | 0.3           | 51.96                              | -                       | -                   | 74                       | -22.04           | 200         | Vert     |
| 10         | 15598.801            | 32.27               | PK       | 41.1                   | -32.9                 | 13.5              | 0.2           | 54.17                              | -                       | -                   | 74                       | -19.83           | 200         | Vert     |

**Horizontal 10000 - 18000MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 11         | 10399.8              | 26.18               | PK       | 38.1                   | -34.5                 | 10.7              | 0.2           | 40.68                              | -                       | -                   | 68.2                     | -27.52           | 100         | Horz     |
| 12         | 13898.051            | 22.81               | PK       | 39.2                   | -32.1                 | 12.6              | 0.6           | 43.11                              | -                       | -                   | 68.2                     | -25.09           | 200         | Horz     |

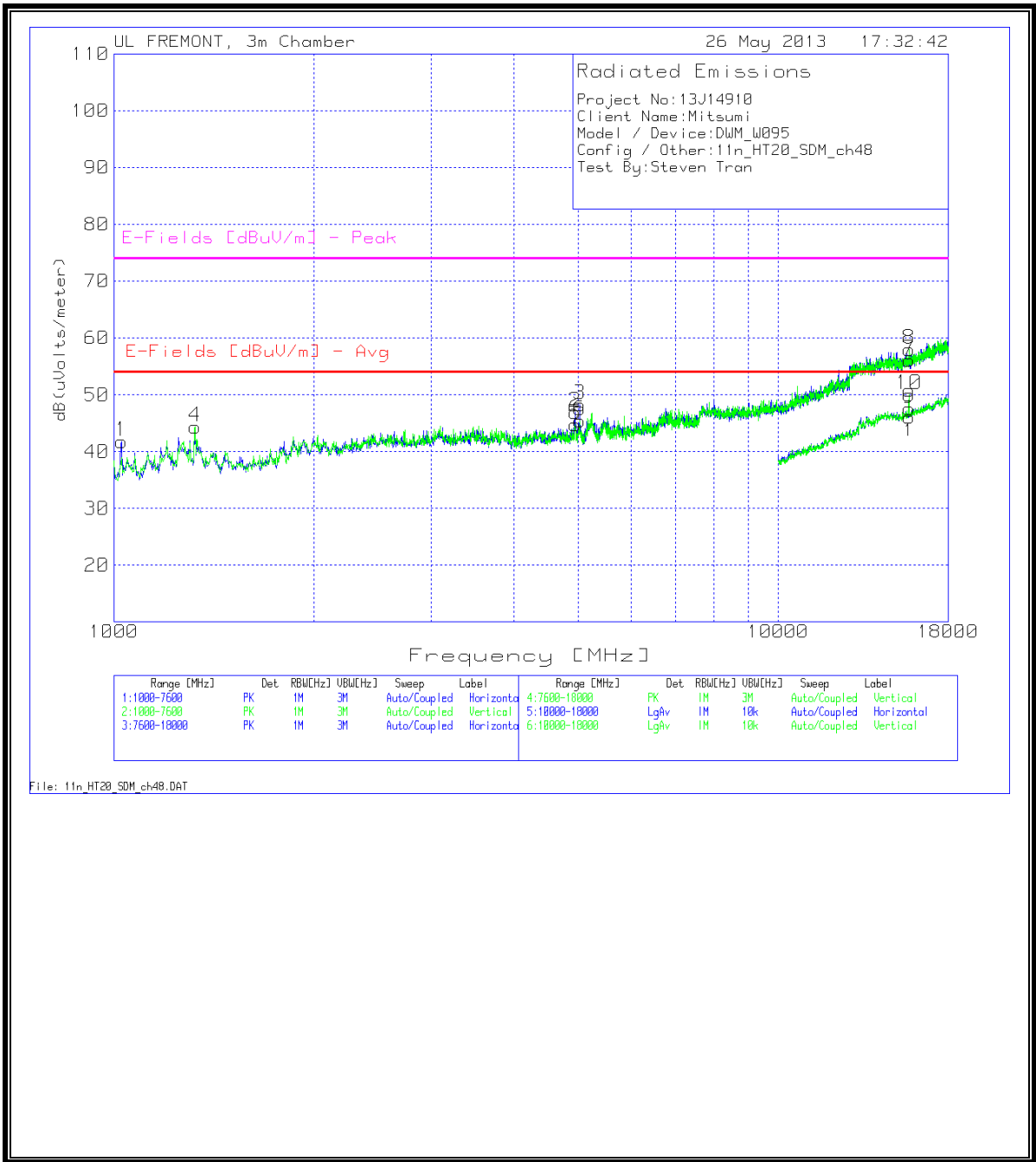
**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency [MHz] | Meter Reading[dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|---------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 13         | 10399.8              | 26.73               | PK       | 38.1                   | -34.5                 | 10.7              | 0.2           | 41.23                              | -                       | -                   | 68.2                     | -26.97           | 200         | Vert     |
| 14         | 15601.199            | 22.27               | PK       | 41.1                   | -32.9                 | 13.5              | 0.2           | 44.17                              | 53.97                   | -9.8                | 74                       | -29.83           | 200         | Vert     |

\* Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

HIGH CHANNEL 48 GRAPH



## HIGH CHANNEL 48 DATA

Project No:13J14910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:11n HT20 SDM Ch48\_5240MHz  
Test By:Joe Vang

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 1          | 1026.387             | 48.34                | PK       | 27.5                   | -36                   | 3.2               | 0             | 43.04                              | 53.97                   | -10.93      | 74                       | -30.96      | 100         | Horz     |
| 2          | 1075.862             | 48.4                 | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 43.5                               | 53.97                   | -10.47      | 74                       | -30.5       | 100         | Horz     |
| 3          | 5271.364             | 37.28                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 45.58                              | -                       | -           | 68.2                     | -22.62      | 200         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 4          | 1075.862             | 47.45                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 42.55                              | 53.97                   | -11.42      | 74                       | -31.45      | 200         | Vert     |
| 5          | 2025.787             | 43.38                | PK       | 31.8                   | -35                   | 4.2               | 0             | 44.38                              | 53.97                   | -9.59       | 74                       | -29.62      | 100         | Vert     |
| 6          | 5268.066             | 37.2                 | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 45.5                               | -                       | -           | 68.2                     | -22.7       | 100         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 7          | 13746.526            | 34.13                | PK       | 39.1                   | -32.1                 | 12.5              | 0.6           | 54.23                              | -                       | -           | 68.2                     | -13.97      | 100         | Horz     |
| 8          | 17864.868            | 32.1                 | PK       | 42.2                   | -31.3                 | 14.8              | 0.4           | 58.2                               | -                       | -           | 74                       | -15.8       | 200         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 9          | 11737.131            | 34.35                | PK       | 39                     | -33.5                 | 11.4              | 0.3           | 51.55                              | -                       | -           | 74                       | -22.45      | 200         | Vert     |

### Horizontal 10000 - 18000MHz

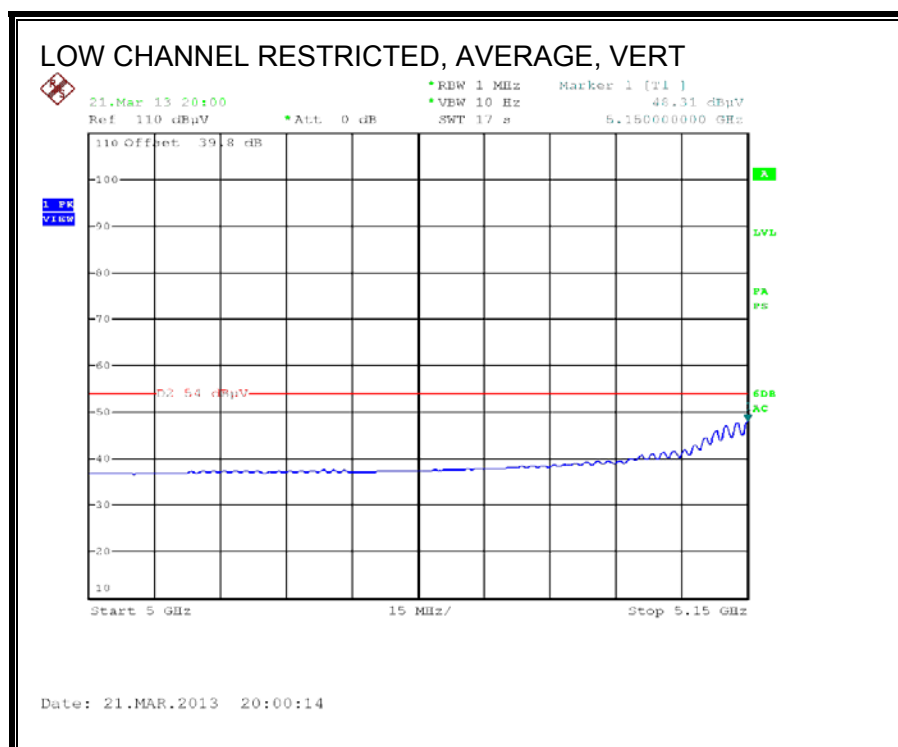
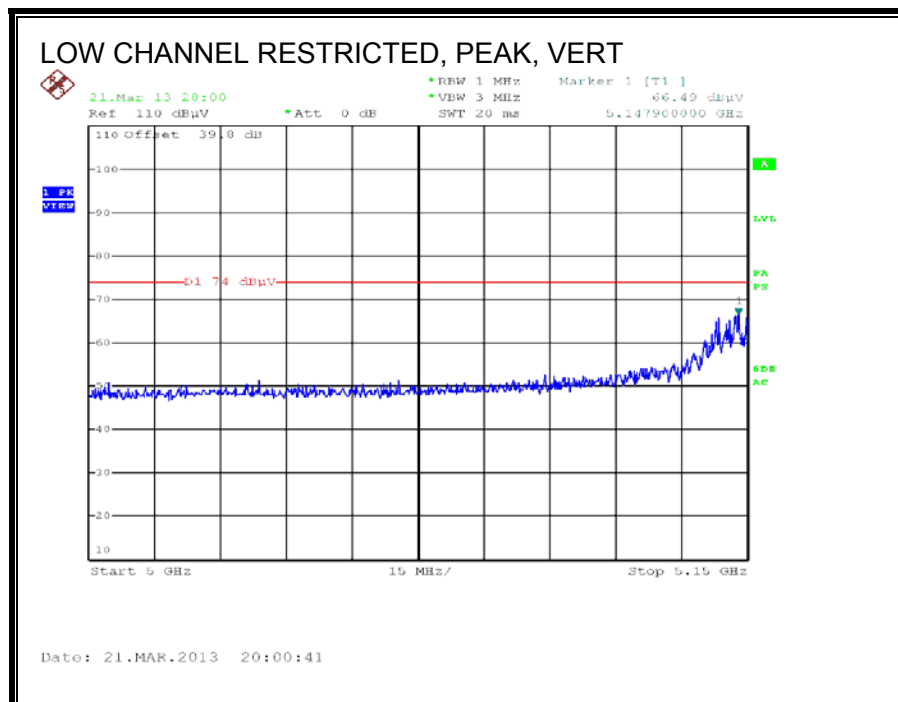
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 10         | 13734.133            | 22.4                 | PK       | 39.1                   | -32.1                 | 12.5              | 0.7           | 42.6                               | -                       | -           | 68.2                     | -25.6       | 100         | Horz     |
| 11         | 17740.13             | 21.47                | PK       | 42.2                   | -31.4                 | 14.7              | 0.2           | 47.17                              | 53.97                   | -6.8        | 74                       | -26.83      | 200         | Horz     |

### Vertical 10000 - 18000MHz

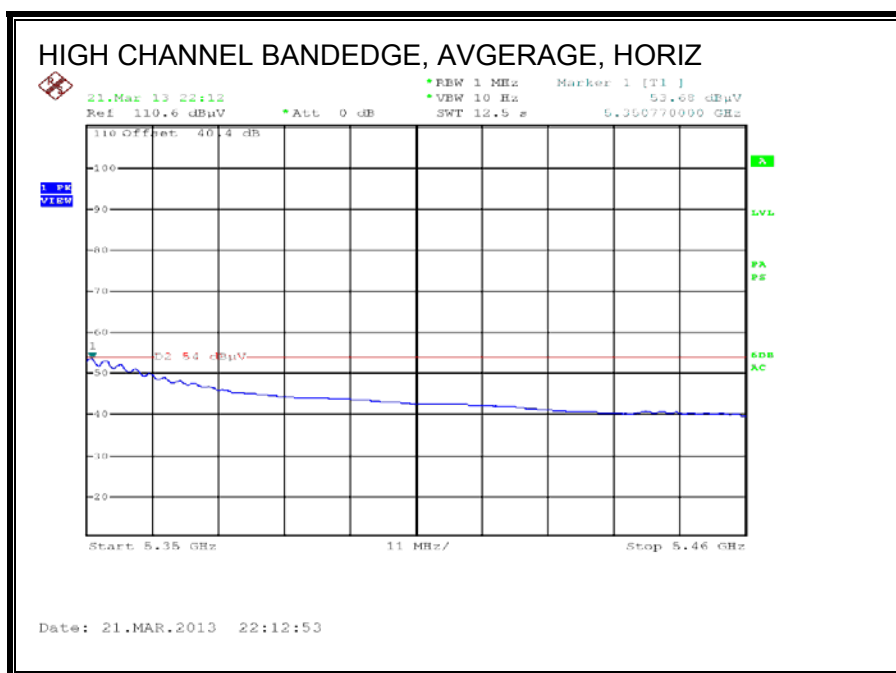
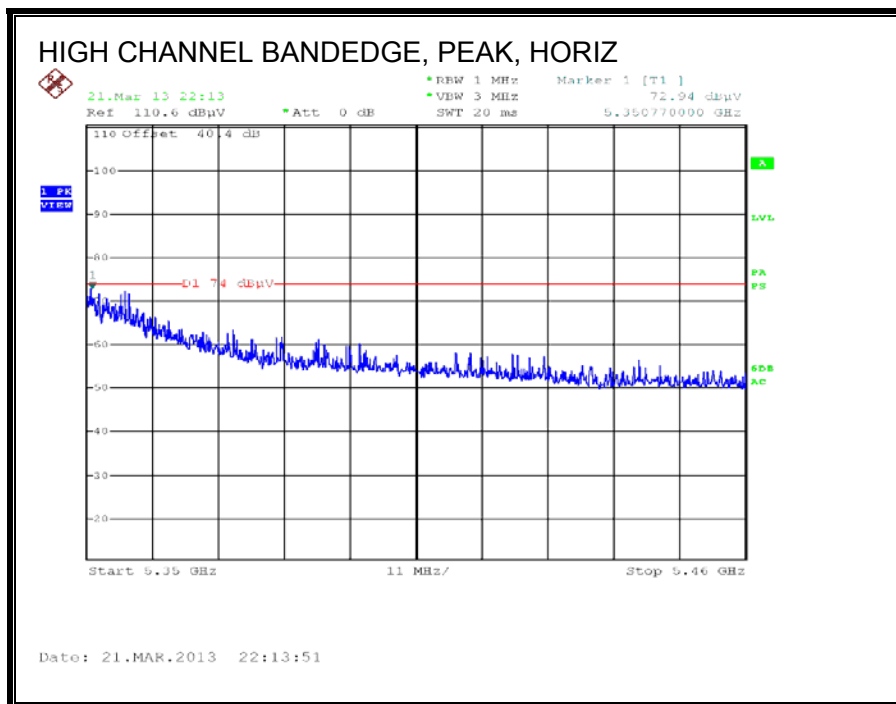
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 12         | 11863.068            | 23.84                | PK       | 39.1                   | -33.4                 | 11.5              | 0.2           | 41.24                              | 53.97                   | -12.73      | 74                       | -32.76      | 100         | Vert     |

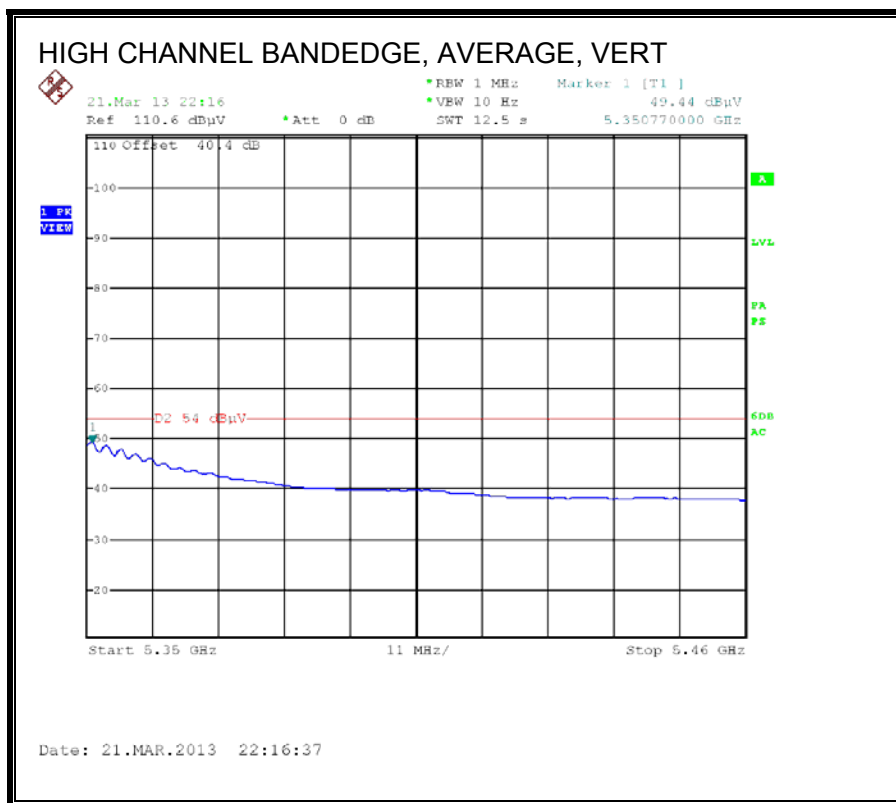
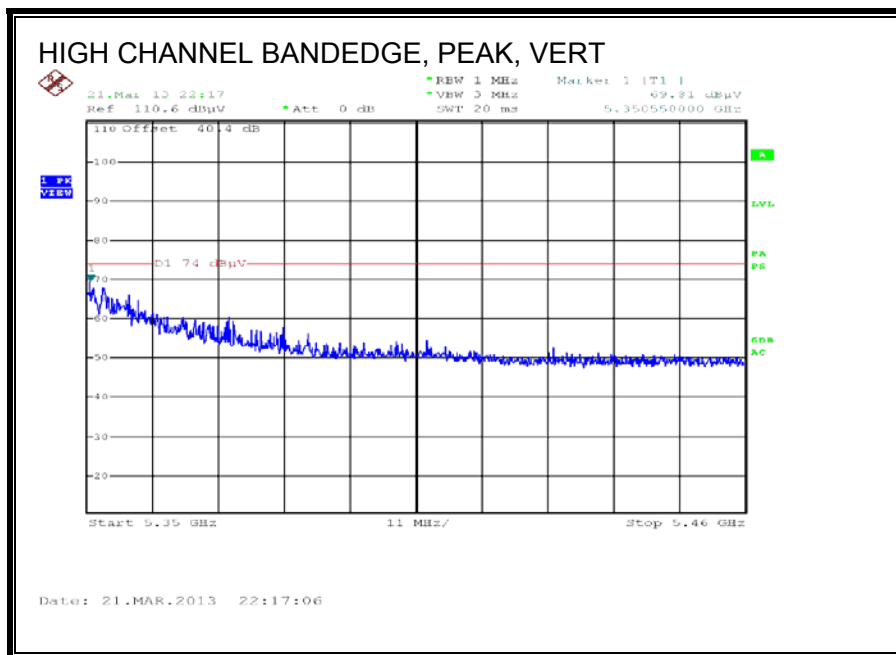
PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector





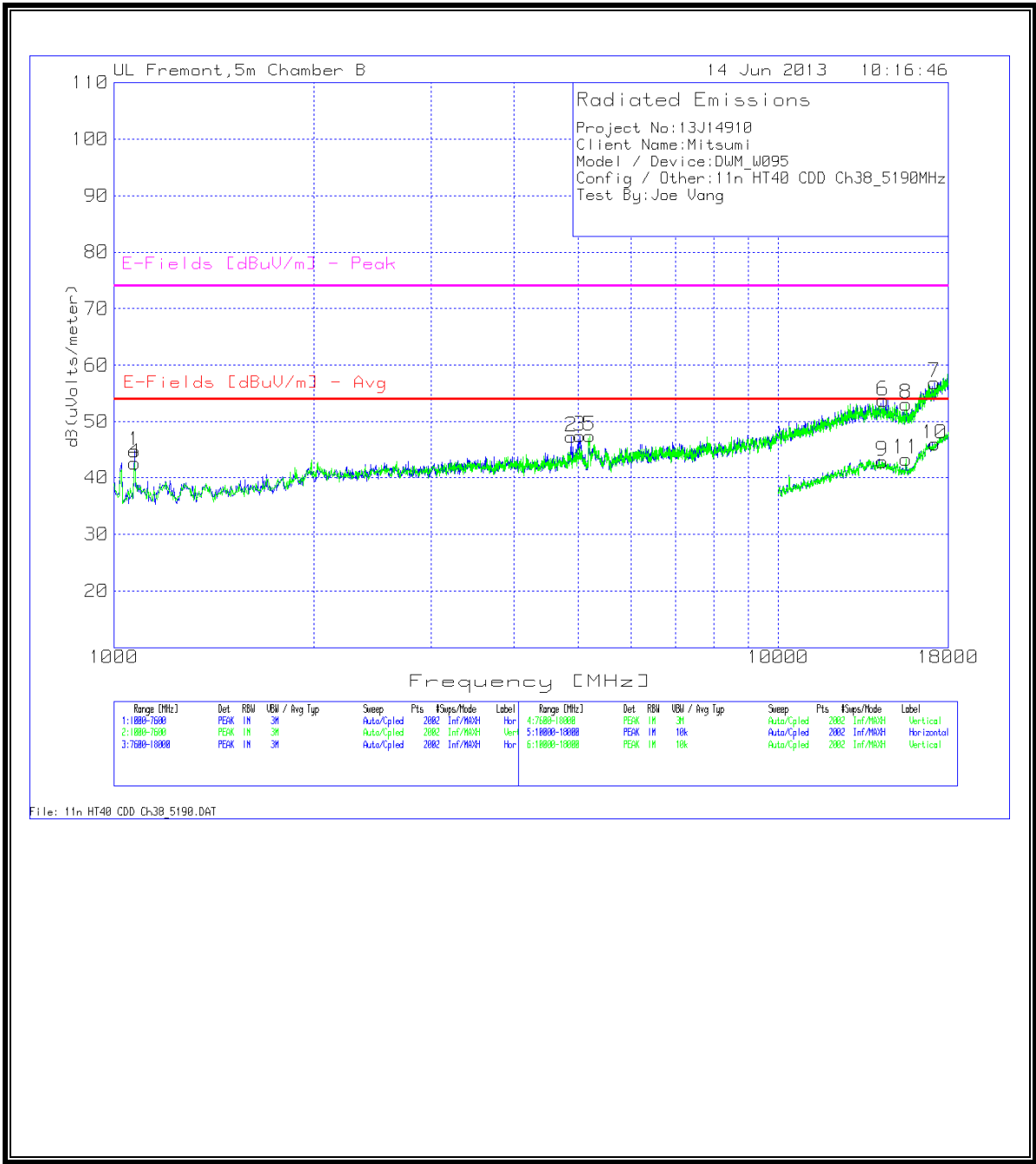
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL 38 GRAPH



LOW CHANNEL 38 DATA

Project No:13114910  
Client Name:Mitsumi  
Model / Device:DWM\_W095  
Config / Other:11n HT40 CDD Ch38\_5190MHz  
Test By:Joe Vang

**Horizontal 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1075.862             | 49.61                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 44.71                              | 53.97                   | -9.26               | 74                       | -29.29           | 100         | Horz     |
| 2          | 4875.562             | 40.31                | PK       | 34.6                   | -34.9                 | 7.1               | 0.2           | 47.31                              | 53.97                   | -6.66               | 74                       | -26.69           | 200         | Horz     |
| 3          | 5020.69              | 39.68                | PK       | 34.6                   | -34.9                 | 7.2               | 0.9           | 47.48                              | 53.97                   | -6.49               | 74                       | -26.52           | 200         | Horz     |

**Vertical 1000 - 7600MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 4          | 1075.862             | 47.42                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 42.52                              | 53.97                   | -11.45              | 74                       | -31.48           | 200         | Vert     |
| 5          | 5202.099             | 39.28                | PK       | 34.8                   | -34.9                 | 7.4               | 0.9           | 47.48                              | -                       | -                   | 68.2                     | -20.72           | 200         | Vert     |

**Horizontal 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 14367.016            | 33.45                | PK       | 39.6                   | -32.4                 | 12.8              | 0.3           | 53.75                              | -                       | -                   | 74                       | -20.25           | 100         | Horz     |
| 7          | 17178.811            | 32.36                | PK       | 41.6                   | -31.7                 | 14.4              | 0.3           | 56.96                              | -                       | -                   | 74                       | -17.04           | 100         | Horz     |

**Vertical 7600 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 15578.011            | 31.24                | PK       | 41                     | -32.9                 | 13.5              | 0.3           | 53.14                              | -                       | -                   | 74                       | -20.86           | 200         | Vert     |

**Horizontal 10000 - 18000MHz**

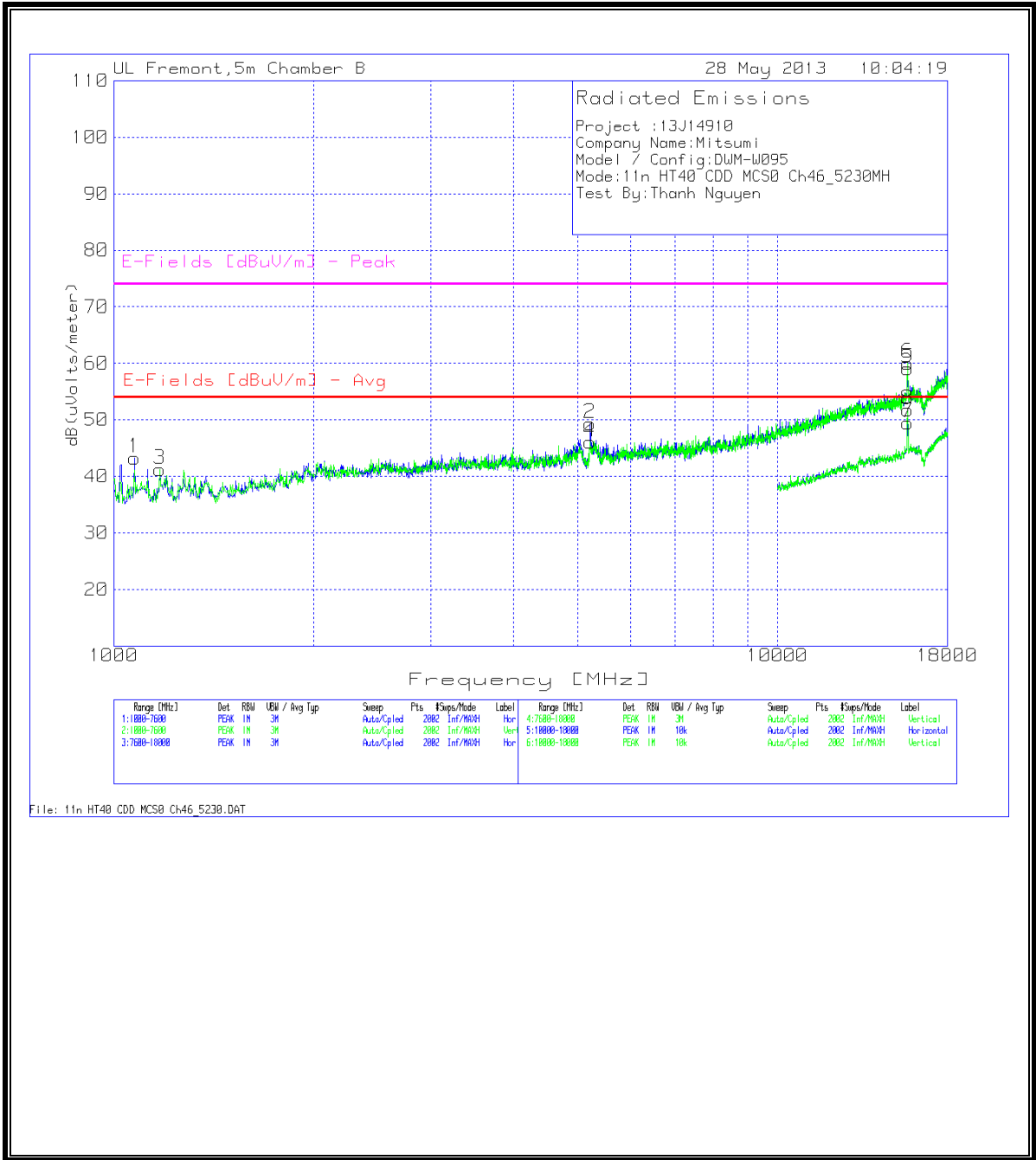
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 9          | 14333.833            | 22.6                 | PK       | 39.6                   | -32.4                 | 12.8              | 0.3           | 42.9                               | -                       | -                   | 68.2                     | -25.3            | 100         | Horz     |
| 10         | 17196.402            | 21.21                | PK       | 41.6                   | -31.7                 | 14.4              | 0.4           | 45.91                              | -                       | -                   | 68.2                     | -22.29           | 200         | Horz     |

**Vertical 10000 - 18000MHz**

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 11         | 15569.215            | 21.31                | PK       | 41                     | -32.9                 | 13.5              | 0.3           | 43.21                              | 53.97                   | -10.76      | 74                       | -30.79      | 200         | Vert     |

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

HIGH CHANNEL 46 GRAPH



# HIGH CHANNEL 46 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:11n HT40 CDD MCS0 Ch46\_5230MH  
Test By:Thanh Nguyen

## Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRP [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1075.862             | 48.15                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 43.25                               | 53.97                   | -10.72              | 74                       | -30.75           | 100         | Horz     |
| 2          | 5215.292             | 41.05                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 49.35                               | -                       | -                   | 68.2                     | -18.85           | 200         | Horz     |

## Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRP [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 3          | 1174.813             | 45.42                | PK       | 28.2                   | -35.7                 | 3.3               | 0             | 41.22                               | 53.97                   | -12.75              | 74                       | -32.78           | 200         | Vert     |
| 4          | 5218.591             | 37.74                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 46.04                               | -                       | -                   | 68.2                     | -22.16           | 200         | Vert     |

## Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 5          | 15676.762            | 36.79                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 59.09                               | -                       | -                   | 74                       | -14.91           | 100         | Horz     |

## Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 15687.156            | 37.79                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 60.09                               | -                       | -                   | 74                       | -13.91           | 200         | Vert     |

## Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 7          | 15685.157            | 27.17                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 49.47                               | 53.97                   | -4.5                | 74                       | -24.53           | 100         | Horz     |

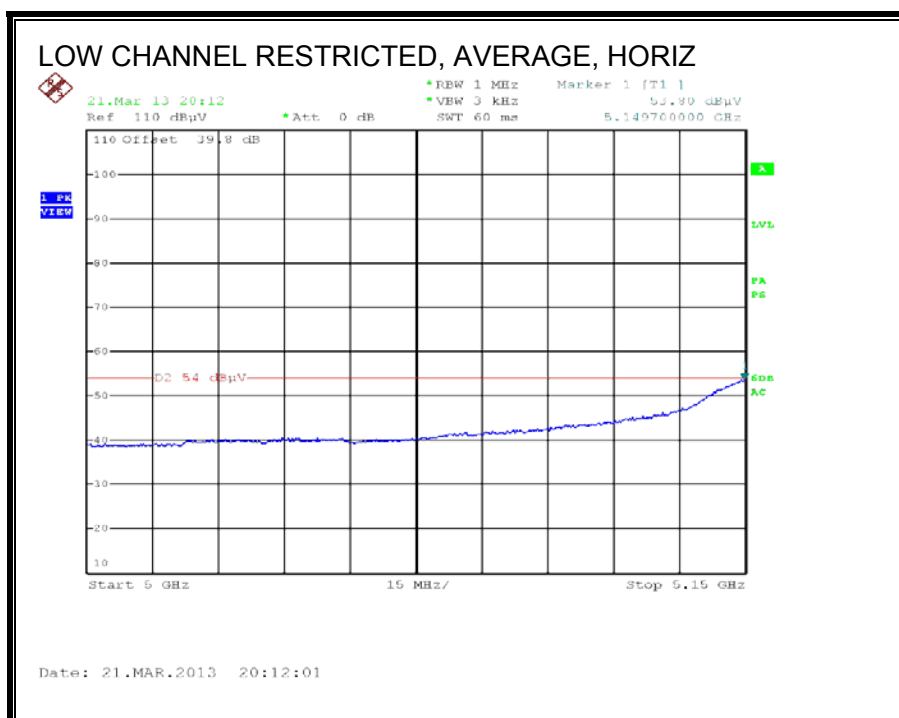
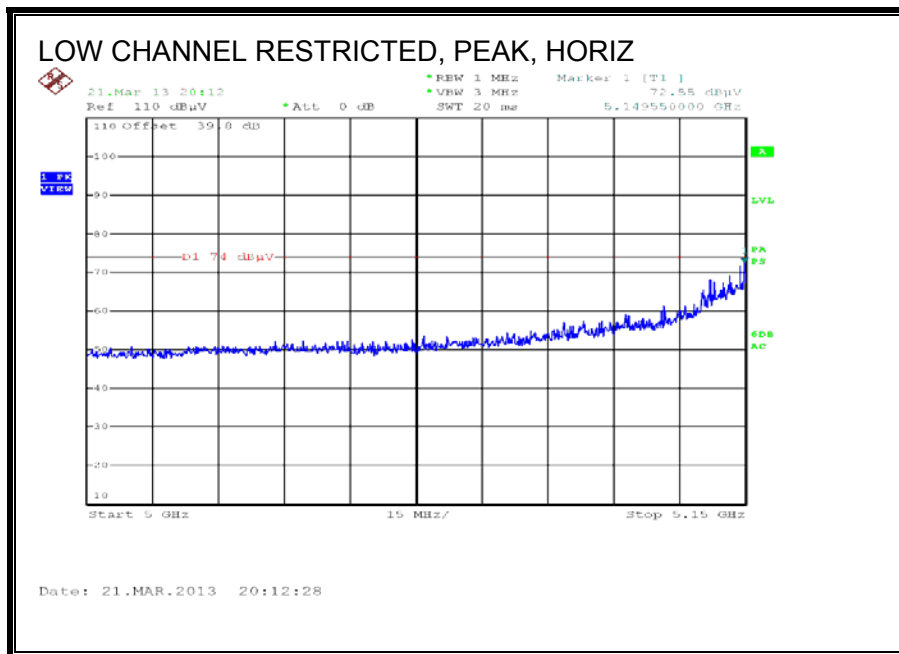
## Vertical 10000 - 18000MHz

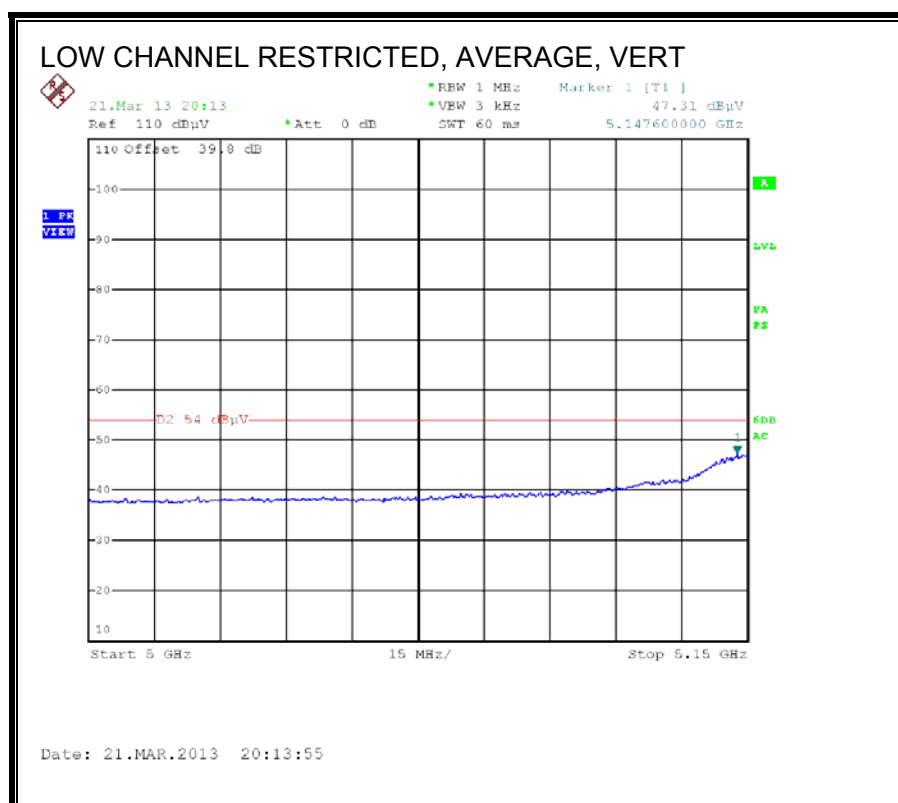
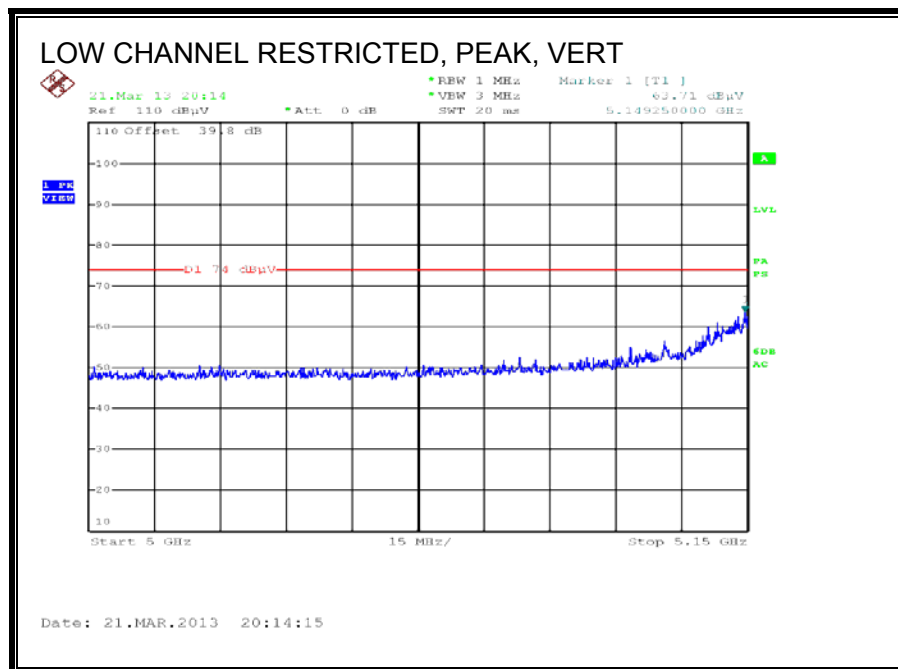
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 15685.157            | 29.52                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 51.82                               | 53.97                   | -2.15               | 74                       | -22.18           | 200         | Vert     |

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

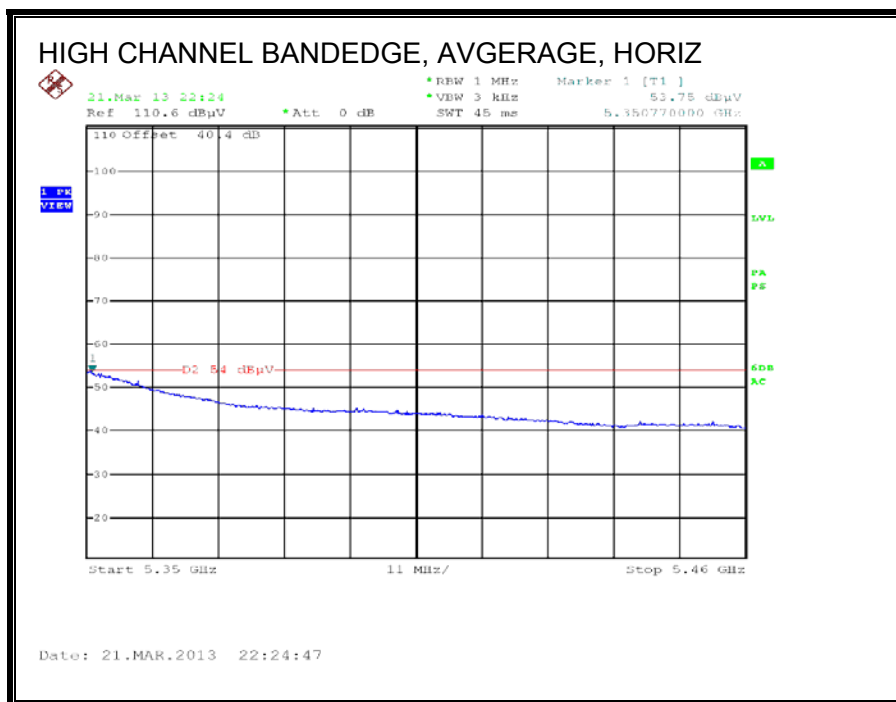
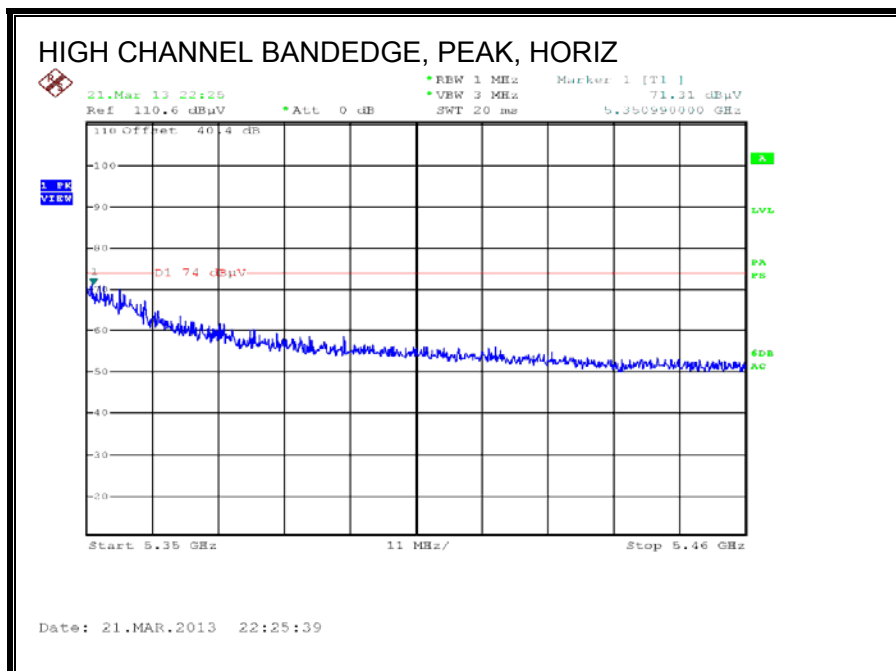
## 9.6. 802.11n HT40 SDM MCS8 2TX MODE IN THE 5.2 GHz BAND

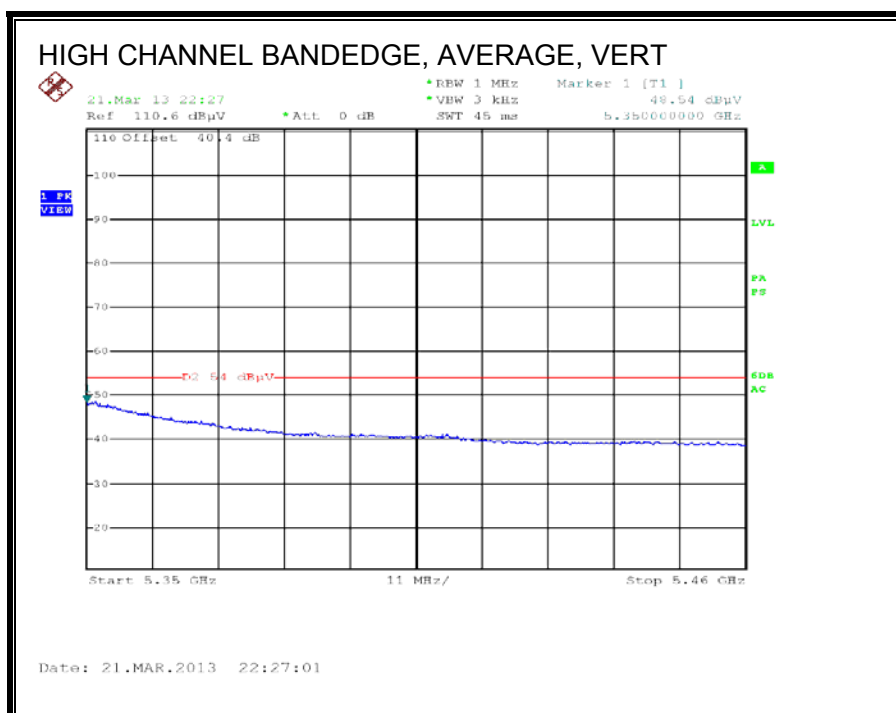
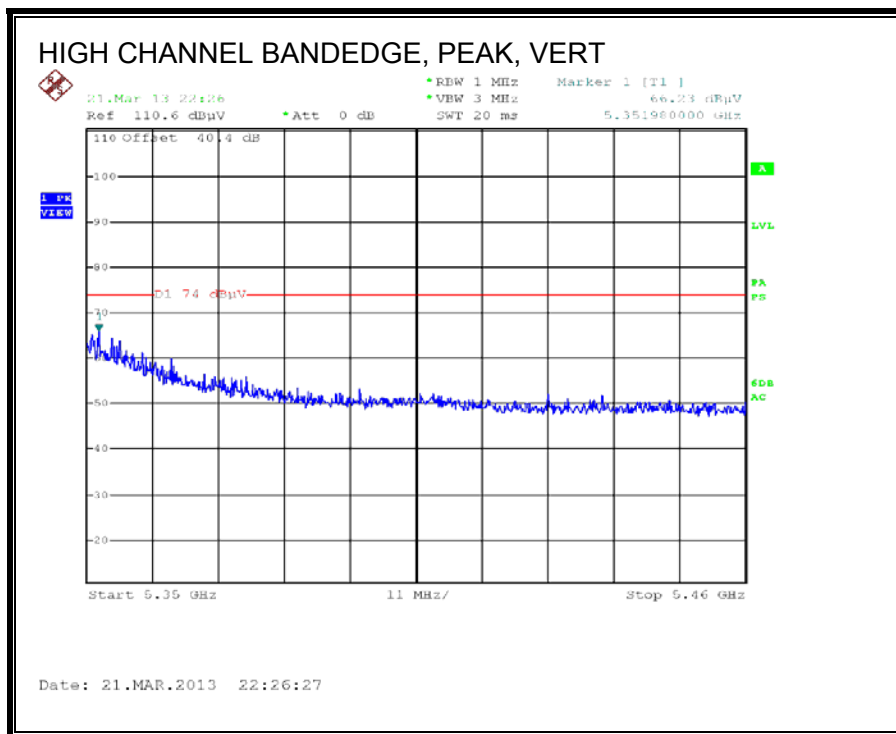
### RESTRICTED BANDEDGE (LOW CHANNEL)





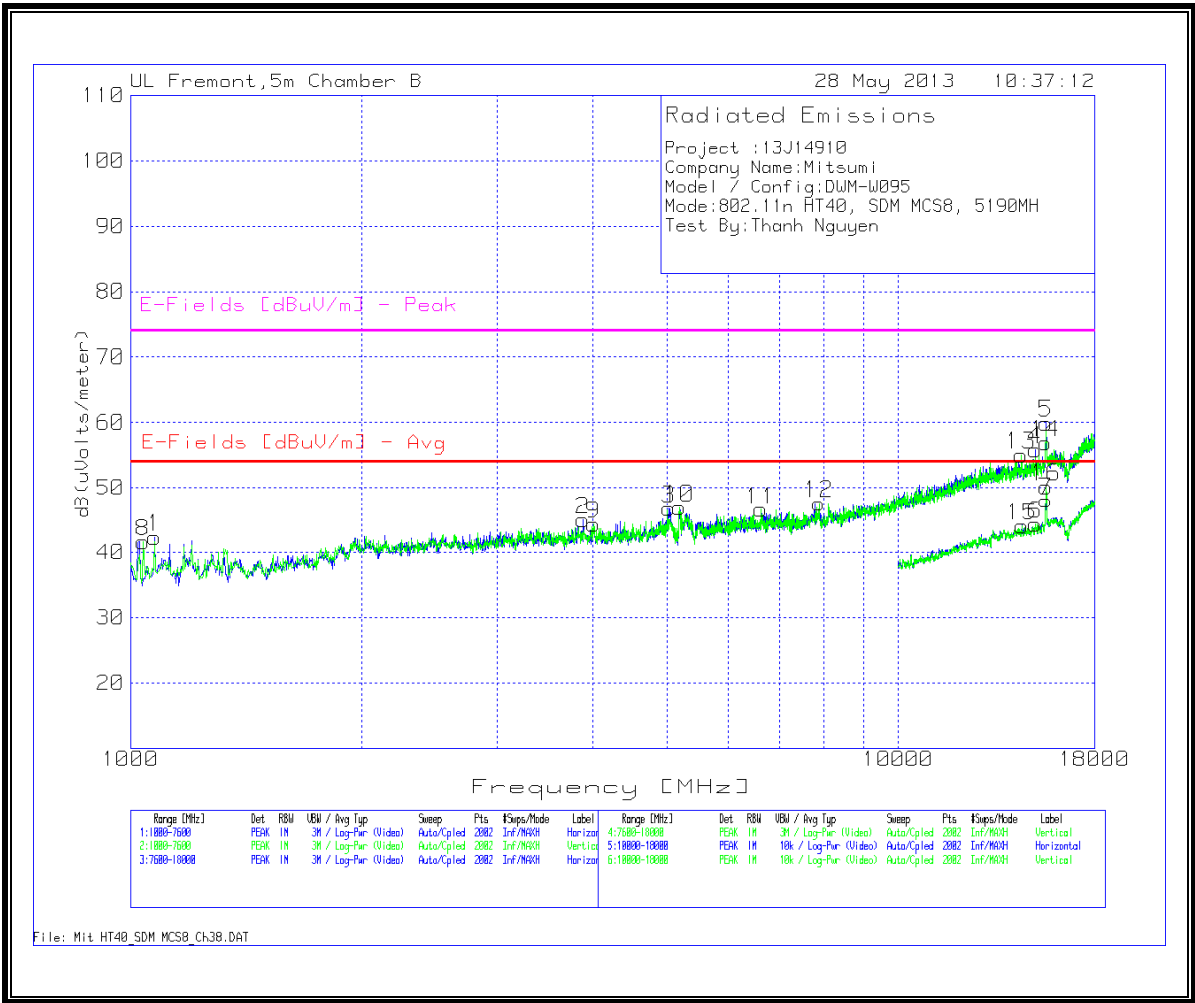
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**





HARMONICS AND SPURIOUS EMISSIONS

Low Channel



## LOW CHANNEL 38 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11n HT40, SDM MCS8, 5190MH  
Test By:Thanh Nguyen

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1075.862             | 47.27                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 42.37            | 53.97                   | -11.6               | 74                       | -31.63           | 100         | Horz     |
| 2          | 3889.355             | 39.76                | PK       | 33.9                   | -34.9                 | 6.1               | 0.1           | 44.96            | 53.97                   | -9.01               | 74                       | -29.04           | 200         | Horz     |
| 3          | 5030.585             | 39.03                | PK       | 34.6                   | -34.9                 | 7.2               | 0.9           | 46.83            | 53.97                   | -7.14               | 74                       | -27.17           | 200         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 1039.58              | 46.67                | PK       | 27.6                   | -35.9                 | 3.2               | 0             | 41.57            | 53.97                   | -12.4               | 74                       | -32.43           | 200         | Vert     |
| 9          | 4011.394             | 38.95                | PK       | 33.9                   | -34.8                 | 6.2               | 0.1           | 44.35            | 53.97                   | -9.62               | 74                       | -29.65           | 100         | Vert     |
| *10        | 5185.607             | 38.75                | PK       | 34.8                   | -34.9                 | 7.4               | 0.9           | 46.95            | -                       | -                   | -                        | -                | 200         | Vert     |
| 11         | 6620.39              | 37.18                | PK       | 35.9                   | -35                   | 8.4               | 0.1           | 46.58            | -                       | -                   | 68.2                     | -21.62           | 100         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 4          | 15089.455            | 34.79                | PK       | 40.1                   | -32.9                 | 13.2              | 0.6           | 55.79            | -                       | -                   | 68.2                     | -12.41           | 100         | Horz     |
| 5          | 15583.208            | 38.13                | PK       | 41                     | -32.9                 | 13.5              | 0.2           | 59.93            | -                       | -                   | 74                       | -14.07           | 100         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 12         | 7880.66              | 36.94                | PK       | 36.1                   | -35.1                 | 9.2               | 0.5           | 47.64            | -                       | -                   | 68.2                     | -20.56           | 100         | Vert     |
| 13         | 14465.767            | 34.58                | PK       | 39.7                   | -32.5                 | 12.9              | 0.4           | 55.08            | -                       | -                   | 68.2                     | -13.12           | 100         | Vert     |
| 14         | 15546.827            | 34.77                | PK       | 41                     | -32.9                 | 13.5              | 0.5           | 56.87            | -                       | -                   | 74                       | -17.13           | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 15077.461            | 23.24                | PK       | 40.1                   | -32.9                 | 13.2              | 0.7           | 44.34            | -                       | -                   | 68.2                     | -23.86           | 200         | Horz     |
| 7          | 15573.213            | 26.16                | PK       | 41                     | -32.9                 | 13.5              | 0.3           | 48.06            | 53.97                   | -5.91               | 74                       | -25.94           | 100         | Horz     |

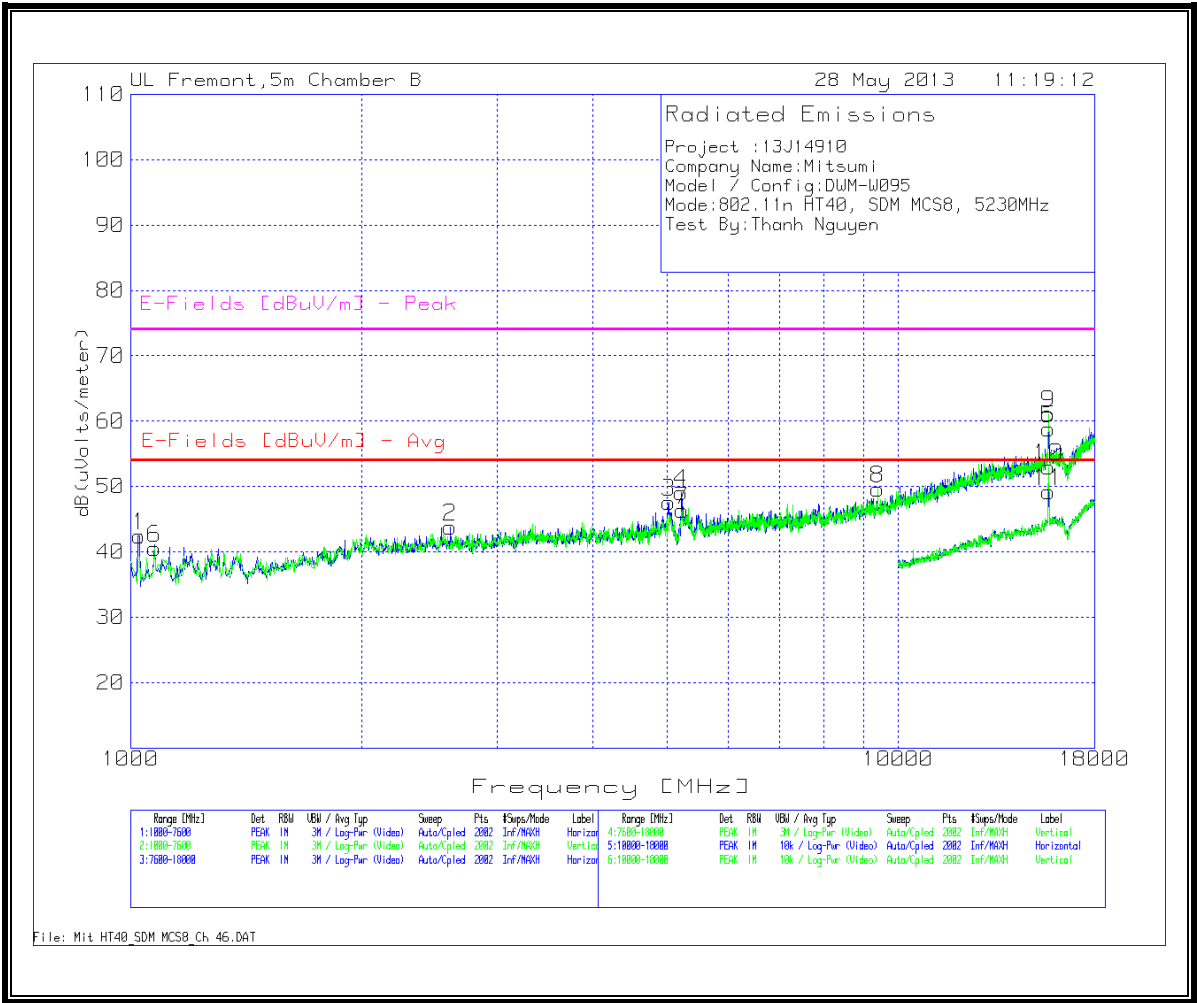
### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 15         | 14481.759            | 23.53                | PK       | 39.7                   | -32.5                 | 12.9              | 0.5           | 44.13            | 53.97                   | -9.84               | 74                       | -29.87           | 100         | Vert     |
| 16         | 15565.217            | 28.18                | PK       | 41                     | -32.9                 | 13.5              | 0.4           | 50.18            | 53.97                   | -3.79               | 74                       | -23.82           | 200         | Vert     |

\* Fundametal

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

High Channel



## HIGH CHANNEL 46 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11n HT40, SDM MCS8, 5230MHz  
Test By:Thanh Nguyen

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRP [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1026.387             | 47.78                | PK       | 27.5                   | -36                   | 3.2               | 0             | 42.48            | 53.97                   | -11.49              | 74                       | -31.52           | 100         | Horz     |
| 2          | 2609.595             | 41.43                | PK       | 32.6                   | -35.1                 | 4.8               | 0.1           | 43.83            | 53.97                   | -10.14              | 74                       | -30.17           | 100         | Horz     |
| 3          | 5020.69              | 39.75                | PK       | 34.6                   | -34.9                 | 7.2               | 0.9           | 47.55            | 53.97                   | -6.42               | 74                       | -26.45           | 100         | Horz     |
| 4          | 5215.292             | 40.73                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 49.03            | -                       | -                   | 68.2                     | -19.17           | 200         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRP [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 1075.862             | 45.45                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 40.55            | 53.97                   | -13.42              | 74                       | -33.45           | 200         | Vert     |
| *7         | 5225.187             | 38.13                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 46.43            | -                       | -                   | -                        | -                | 200         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 5          | 15687.156            | 36.48                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 58.78            | -                       | -                   | 74                       | -15.22           | 100         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 9398.301             | 37.46                | PK       | 37.1                   | -35.1                 | 10.1              | 0.1           | 49.66            | 53.97                   | -4.31               | 74                       | -24.34           | 200         | Vert     |
| 9          | 15687.156            | 38.84                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 61.14            | -                       | -                   | 74                       | -12.86           | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 11         | 15685.157            | 26.89                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 49.19            | 53.97                   | -4.78               | 74                       | -24.81           | 100         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 10         | 15681.159            | 30.73                | PK       | 41.2                   | -32.9                 | 13.6              | 0.4           | 53.03            | 53.97                   | -0.94               | 74                       | -20.97           | 200         | Vert     |

### Vertical 7600 - 18000MHz

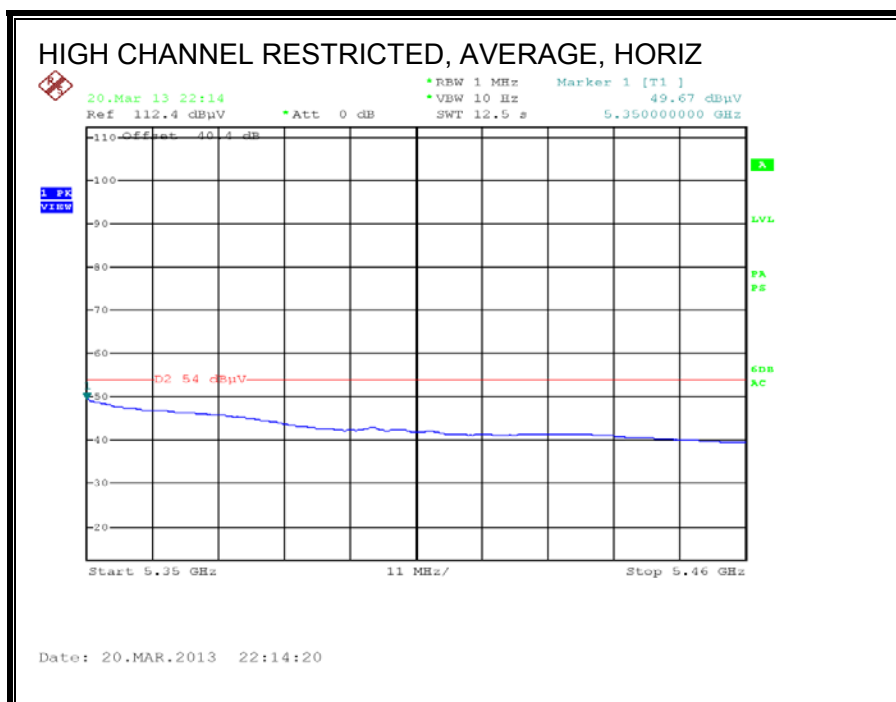
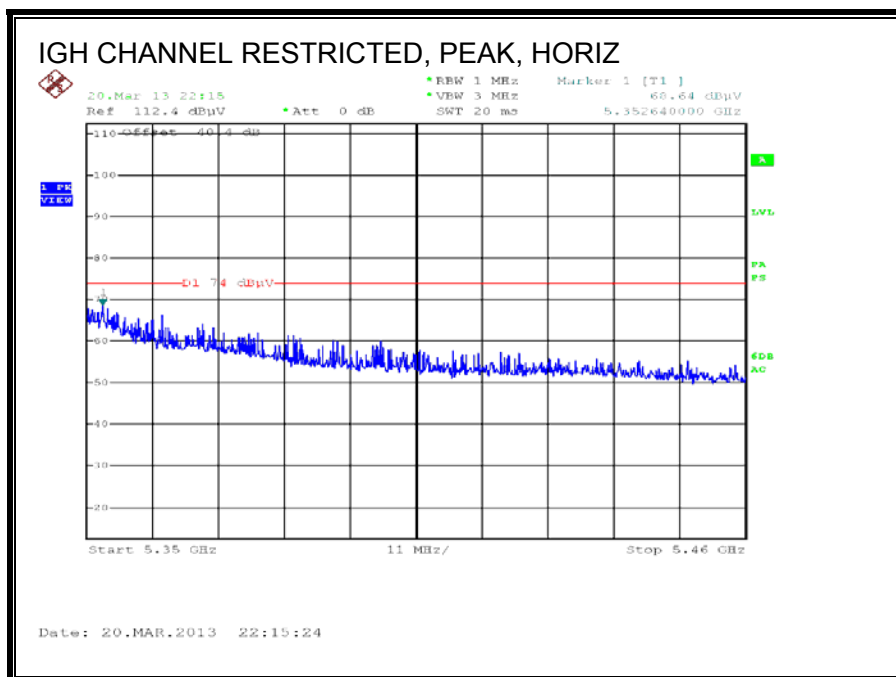
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 9398.301             | 25.39                | Av       | 37.1                   | -35.1                 | 10.1              | 0.1           | 37.59            | 53.97                   | -16.38              | -                        | -                | 144         | Vert     |

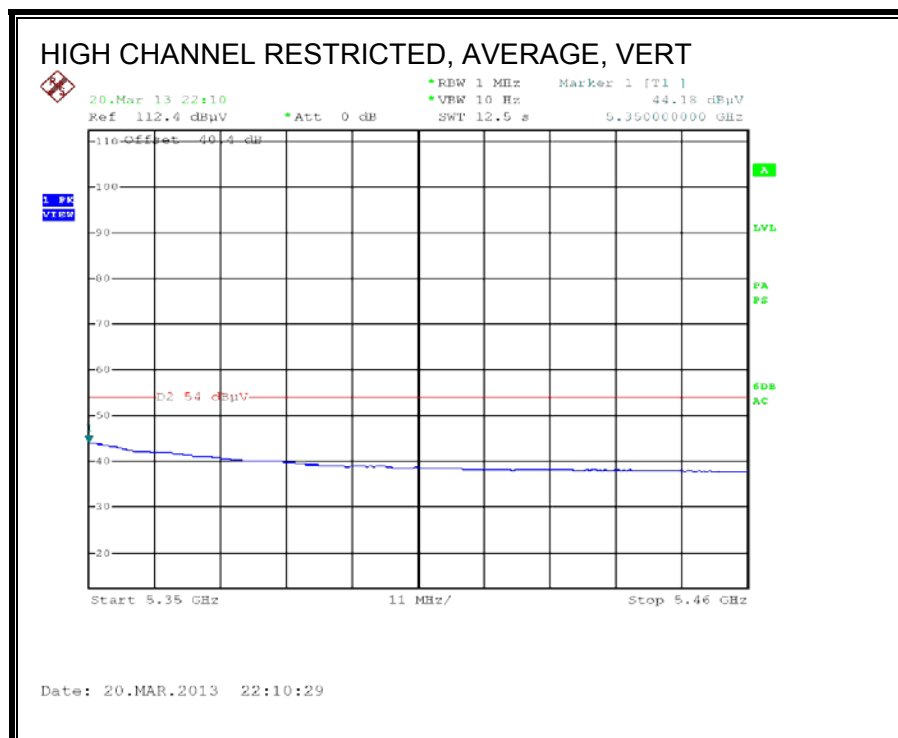
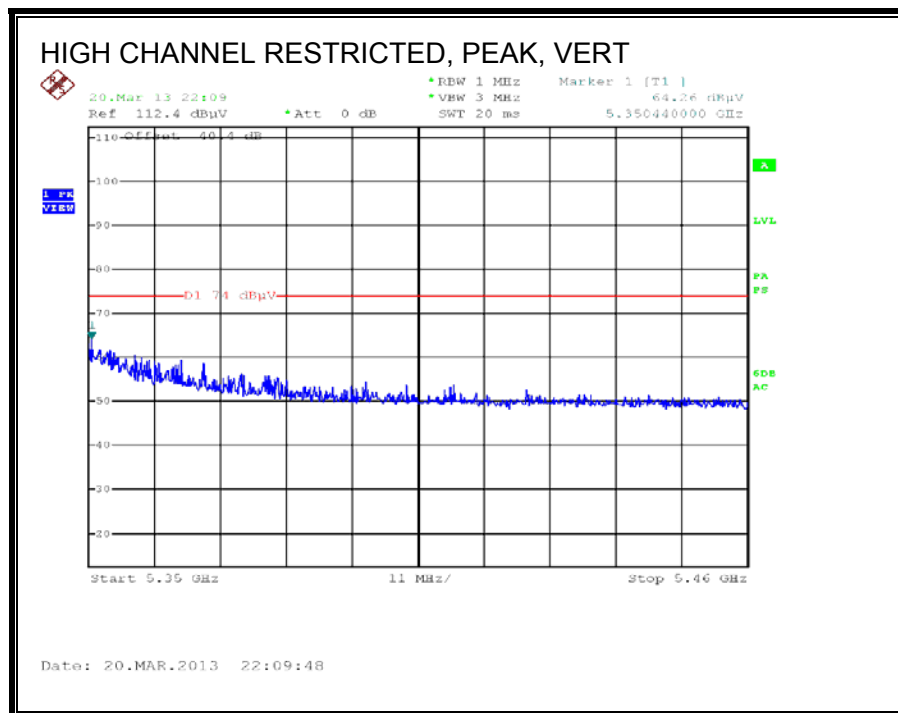
\* Fundametal

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

## 9.7. 802.11a CDD 2TX MODE IN THE 5.3 GHz BAND

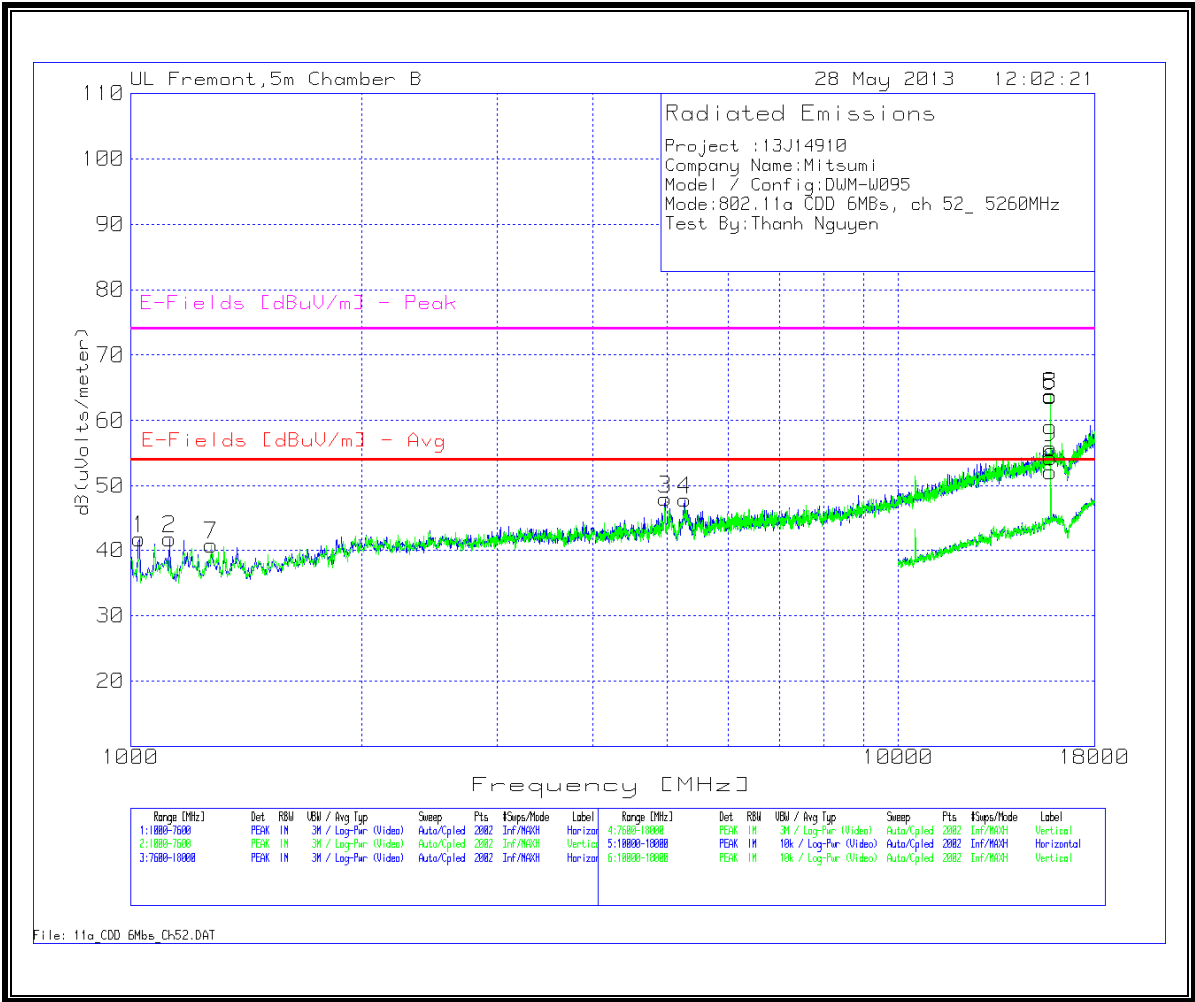
### RESTRICTED BANDEDGE (HIGH CHANNEL)





HARMONICS AND SPURIOUS EMISSIONS

Low Channel



## LOW CHANNEL 52 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11a CDD 6MBs, ch 52\_ 5260MHz  
Test By:Thanh Nguyen

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 1          | 1026.387             | 47.05                | PK       | 27.5                   | -36                   | 3.2               | 0             | 41.75             | 53.97                   | -12.22      | 74                       | -32.25      | 100         | Horz     |
| 2          | 1125.337             | 46.28                | PK       | 28                     | -35.8                 | 3.3               | 0             | 41.78             | 53.97                   | -12.19      | 74                       | -32.22      | 100         | Horz     |
| 3          | 4967.916             | 40.64                | PK       | 34.6                   | -34.9                 | 7.2               | 0.4           | 47.94             | 53.97                   | -6.03       | 74                       | -26.06      | 100         | Horz     |
| *4         | 5264.768             | 39.54                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 47.84             | -                       | -           | -                        | -           | 100         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 7          | 1273.763             | 44.4                 | PK       | 28.6                   | -35.6                 | 3.4               | 0             | 40.8              | -                       | -           | 68.2                     | -27.4       | 200         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 5          | 15775.512            | 41.47                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 63.67             | -                       | -           | 74                       | -10.33      | 100         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 8          | 15780.71             | 41.67                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 63.87             | -                       | -           | 74                       | -10.13      | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 6          | 15785.107            | 30.05                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 52.25             | 53.97                   | -1.72       | 74                       | -21.75      | 100         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 9          | 15781.109            | 33.69                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 55.89             | 53.97                   | 1.92        | 74                       | -18.11      | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 6          | 15781.1              | 27.42                | Av       | 41.3                   | -32.9                 | 13.6              | 0.2           | 49.62             | 53.97                   | -4.35       | -                        | -           | 156         | Horz     |

### Vertical 10000 - 18000MHz

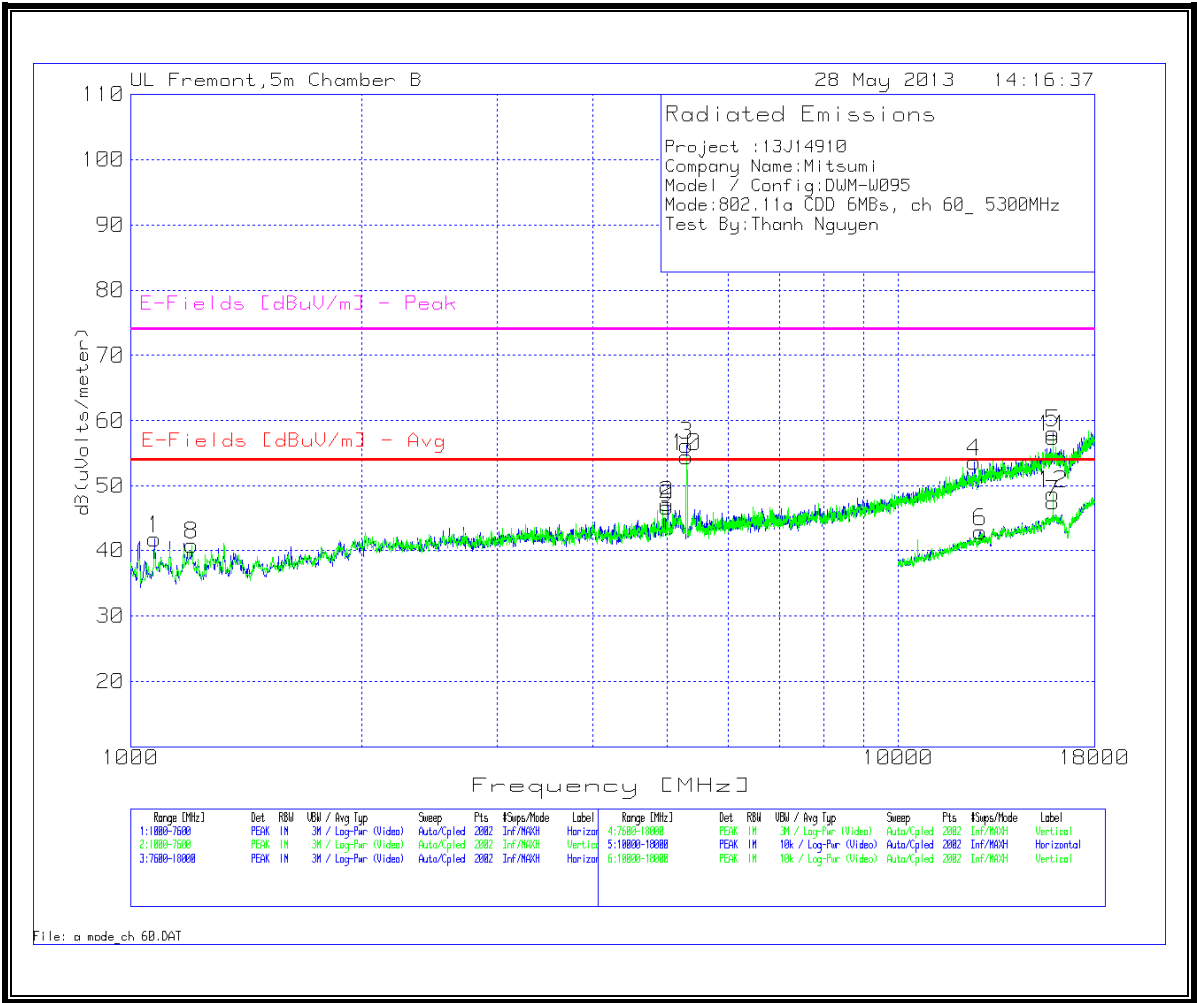
| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 9          | 15780.82             | 27.91                | Av       | 41.3                   | -32.9                 | 13.6              | 0.2           | 50.11             | 53.97                   | -3.86       | -                        | -           | 127         | Vert     |

\* Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector



Mid Channel



## MID CHANNEL 60 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11a CDD 6MBs, ch 60\_ 5300MHz  
Test By:Thanh Nguyen

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency [MHz] | Meter Reading [dBuV] | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1075.862             | 46.62                | PK       | 27.8                   | -35.9                 | 3.2               | 0             | 41.72            | 53.97                   | -12.25              | 74                       | -32.28           | 100         | Horz     |
| 2          | 5000.9               | 39.59                | PK       | 34.6                   | -34.9                 | 7.2               | 0.7           | 47.19            | 53.97                   | -6.78               | 74                       | -26.81           | 100         | Horz     |
| *3         | 5297.751             | 47.96                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 56.26            | -                       | -                   | -                        | -                | 200         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 8          | 1201.199       | 44.77         | PK       | 28.4                   | -35.7                 | 3.4               | 0             | 40.87            | 53.97                   | -13.1               | 74                       | -33.13           | 200         | Vert     |
| 9          | 4997.601       | 39.11         | PK       | 34.6                   | -34.9                 | 7.2               | 0.6           | 46.61            | 53.97                   | -7.36               | 74                       | -27.39           | 200         | Vert     |
| *10        | 5301.049       | 46.19         | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 54.49            | -                       | -                   | -                        | -                | 200         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 4          | 12547.926      | 35.03         | PK       | 39.2                   | -32.5                 | 11.8              | 0.2           | 53.73            | -                       | -                   | 74                       | -20.27           | 200         | Horz     |
| 5          | 15889.855      | 35.49         | PK       | 41.5                   | -32.9                 | 13.7              | 0.3           | 58.09            | -                       | -                   | 74                       | -15.91           | 100         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 11         | 15900.25       | 34.91         | PK       | 41.5                   | -32.9                 | 13.7              | 0.2           | 57.41            | -                       | -                   | 74                       | -16.59           | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 12802.599      | 23.22         | PK       | 39.2                   | -32.1                 | 12                | 0.5           | 42.82            | -                       | -                   | 68.2                     | -25.38           | 100         | Horz     |
| 7          | 15901.049      | 24.89         | PK       | 41.5                   | -32.9                 | 13.7              | 0.2           | 47.39            | 53.97                   | -6.58               | 74                       | -26.61           | 100         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 12         | 15897.051      | 26.27         | PK       | 41.5                   | -32.9                 | 13.7              | 0.2           | 48.77            | 53.97                   | -5.2                | 74                       | -25.23           | 200         | Vert     |

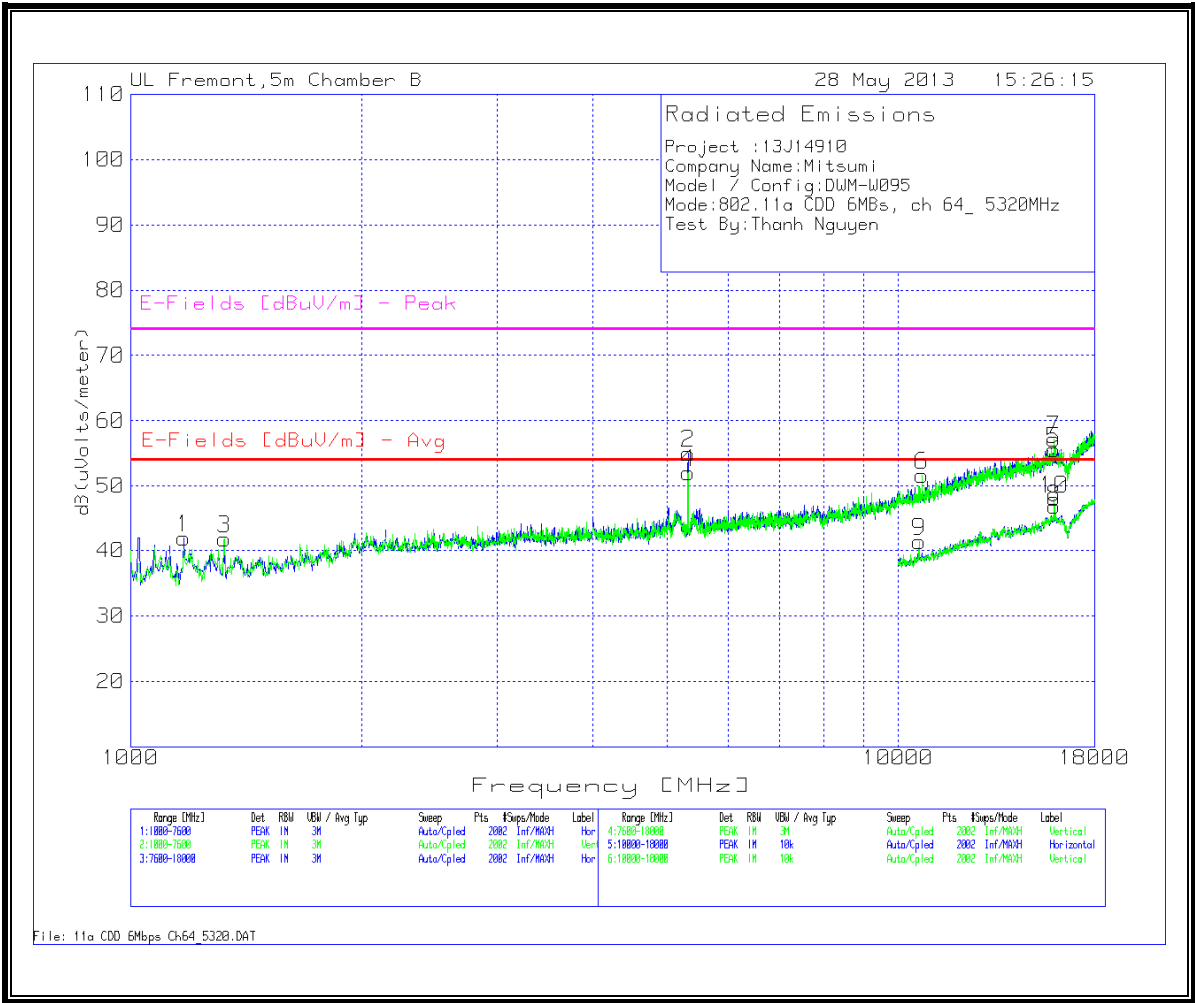
### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T345 Ant Factor [dB/m] | T345 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | dB(uVolts/meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------|---------------|----------|------------------------|-----------------------|-------------------|---------------|------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 12         | 15894.59       | 23.59         | Av       | 41.5                   | -32.9                 | 13.7              | 0.2           | 46.09            | 53.97                   | -7.88               | -                        | -                | 188         | Vert     |

\* Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

High Channel



# HIGH CHANNEL 64 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11a CDD 6MBs, ch 64\_ 5320MHz  
Test By:Thanh Nguyen

## Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 1          | 1174.813             | 46.05                | PK       | 28.2                   | -35.7                 | 3.3               | 0             | 41.85                               | 53.97                   | -12.12      | 74                       | -32.15      | 200         | Horz     |
| *2         | 5324.138             | 46.61                | PK       | 34.9                   | -34.9                 | 7.5               | 0.9           | 55.01                               | -                       | -           | -                        | -           | 100         | Horz     |

## Vertical 1000 - 7600MHz

| Marker No. | Test Frequency | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 3          | 1326.537       | 45.26                | PK       | 28.5                   | -35.5                 | 3.5               | 0             | 41.76                               | 53.97                   | -12.21      | 74                       | -32.24      | 200         | Vert     |
| *4         | 5324.138       | 43.6                 | PK       | 34.9                   | -34.9                 | 7.5               | 0.9           | 52                                  | -                       | -           | -                        | -           | 200         | Vert     |

## Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 5          | 15962.619      | 32.61                | PK       | 41.6                   | -32.9                 | 13.7              | 0.5           | 55.51                               | -                       | -           | 74                       | -18.49      | 100         | Horz     |

## Vertical 7600 - 18000MHz

| Marker No. | Test Frequency | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 6          | 10728.836      | 36.19                | PK       | 38.3                   | -34.2                 | 10.9              | 0.5           | 51.69                               | -                       | -           | 74                       | -22.31      | 100         | Vert     |
| 7          | 15957.421      | 34.46                | PK       | 41.5                   | -32.9                 | 13.7              | 0.4           | 57.16                               | -                       | -           | 74                       | -16.84      | 200         | Vert     |

## Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 8          | 15965.017      | 23.81                | PK       | 41.6                   | -32.9                 | 13.7              | 0.5           | 46.71                               | 53.97                   | -7.26       | 74                       | -27.29      | 100         | Horz     |

## Vertical 10000 - 18000MHz

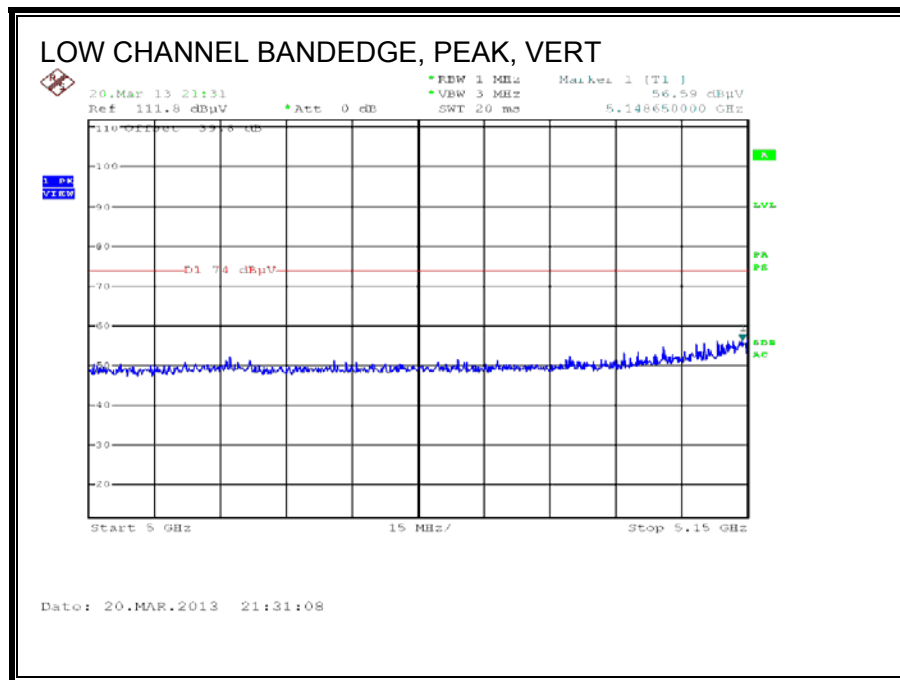
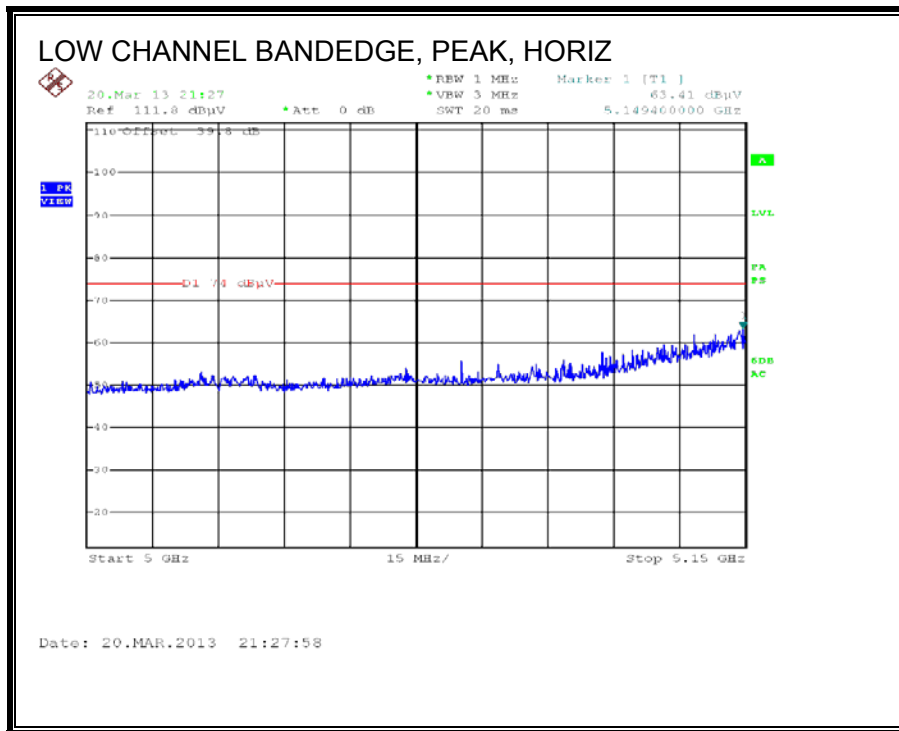
| Marker No. | Test Frequency | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T192 HPF [dB] | Corrected Reading dB(uVolts /meter) | E-Fields [dBuV/m] - Avg | Margin (dB) | E-Fields [dBuV/m] - Peak | Margin (dB) | Height [cm] | Polarity |
|------------|----------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------------------------|-------------------------|-------------|--------------------------|-------------|-------------|----------|
| 9          | 10639.68       | 26.4                 | PK       | 38.3                   | -34.3                 | 10.8              | 0.2           | 41.4                                | 53.97                   | -12.57      | 74                       | -32.6       | 200         | Vert     |
| 10         | 15965.017      | 25.09                | PK       | 41.6                   | -32.9                 | 13.7              | 0.5           | 47.99                               | 53.97                   | -5.98       | 74                       | -26.01      | 200         | Vert     |

\* Fundamental

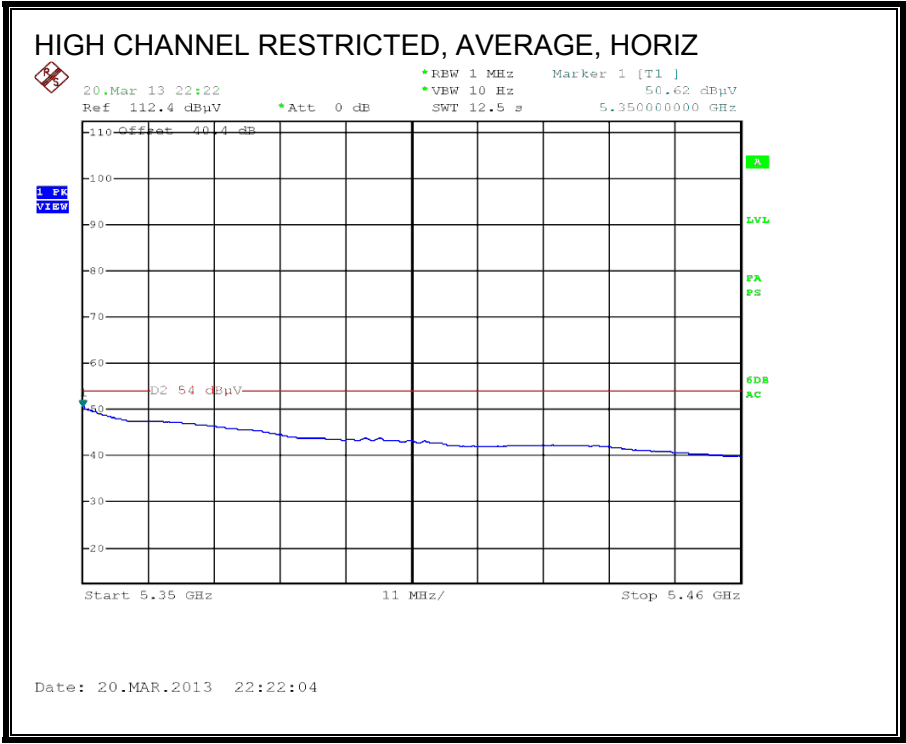
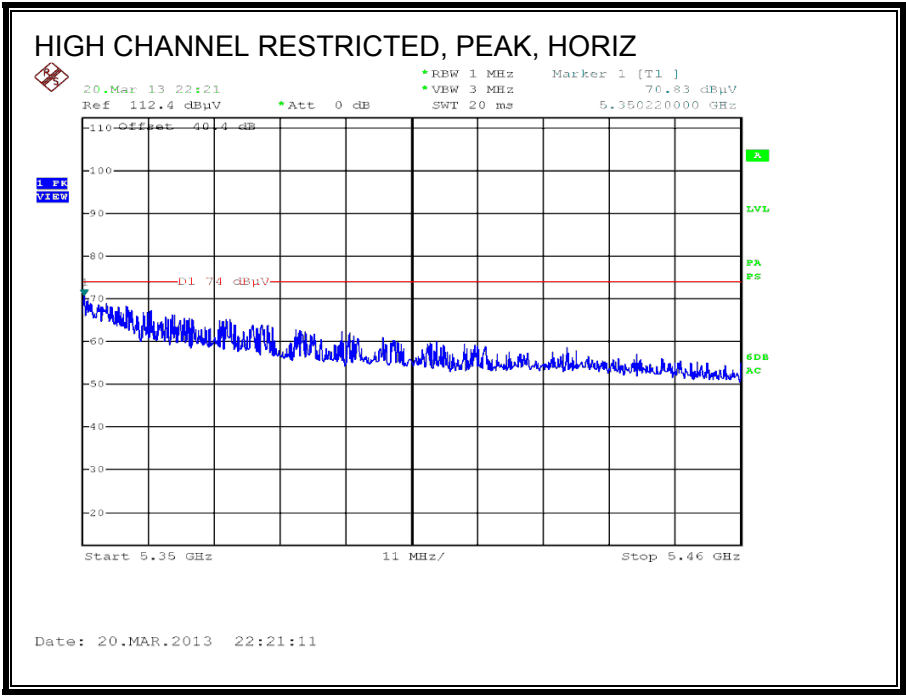
PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

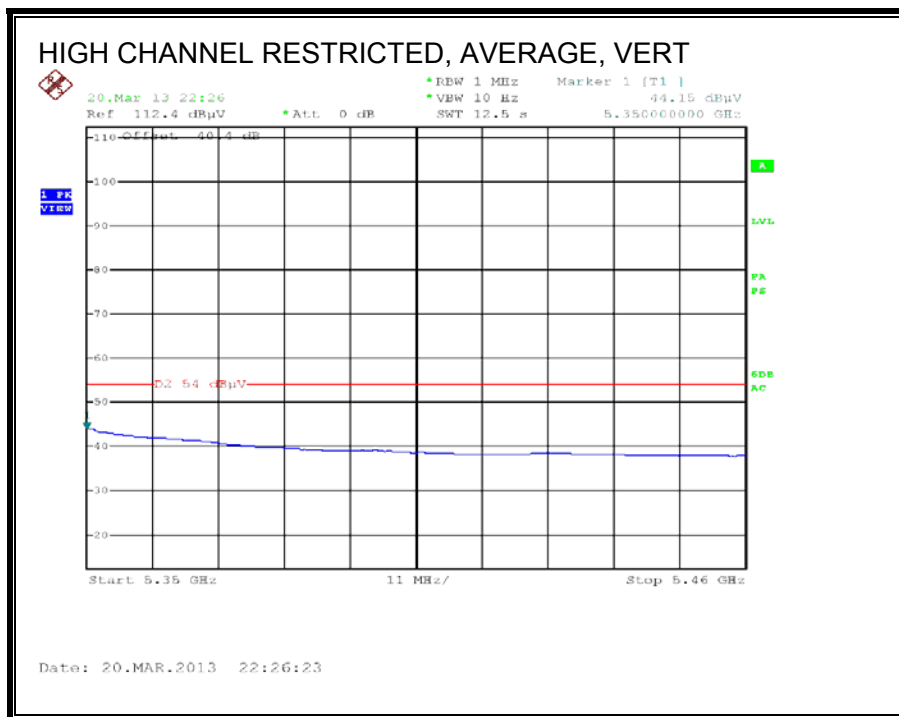
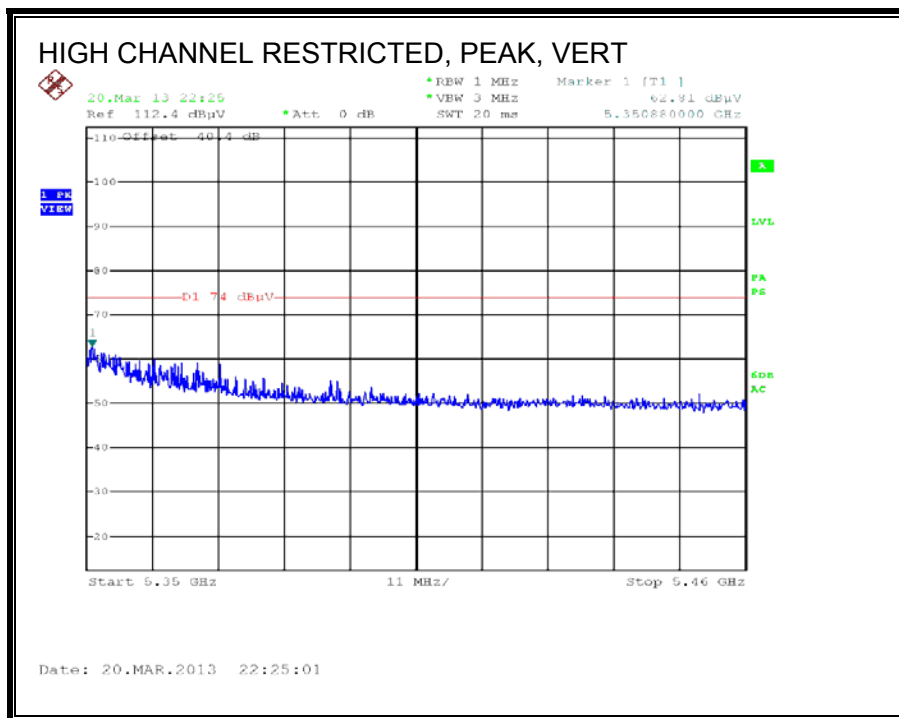
## 9.8. 802.11n HT20 CDD MCS0 2TX MODE IN THE 5.3 GHz BAND

### AUTHORIZED BANDEDGE (LOW CHANNEL)

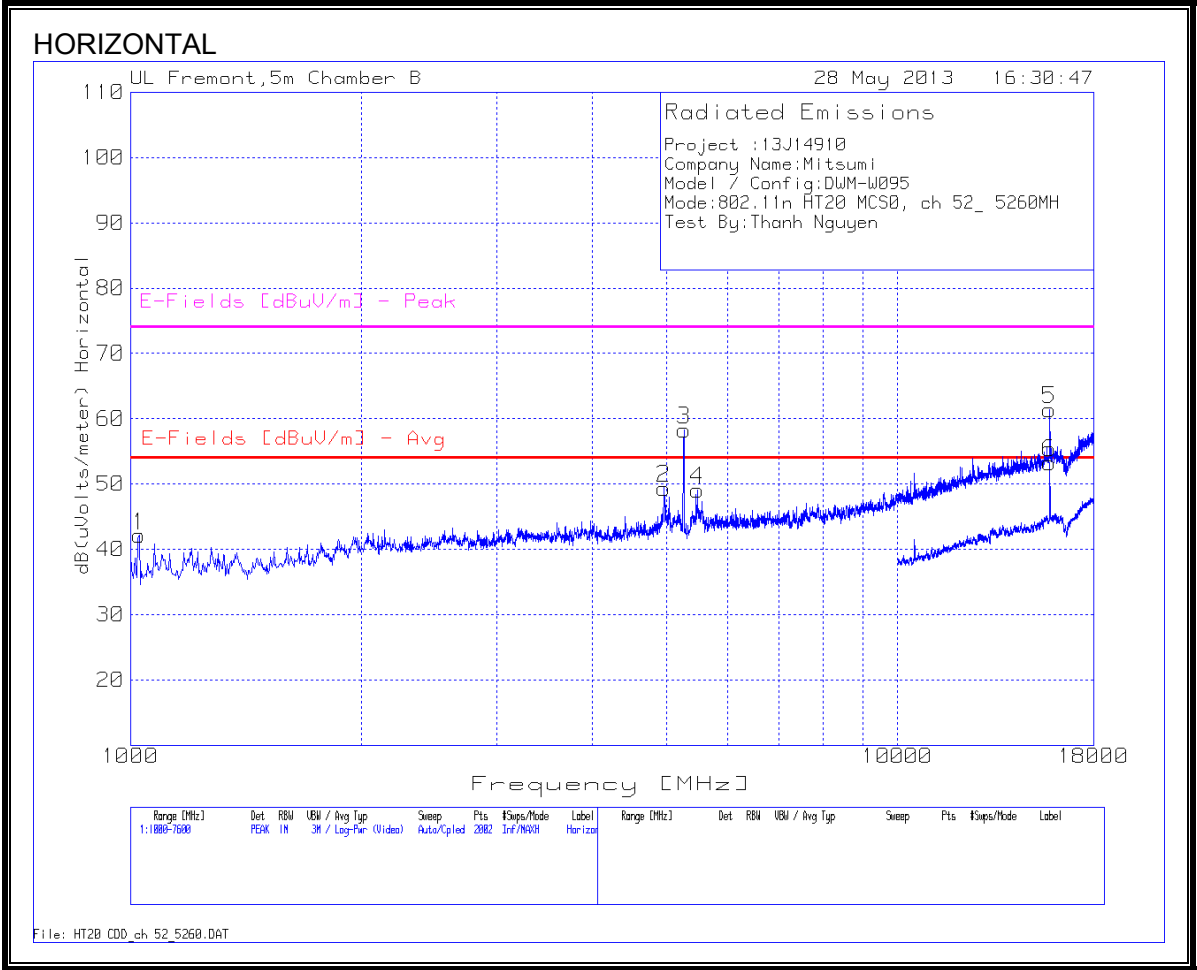


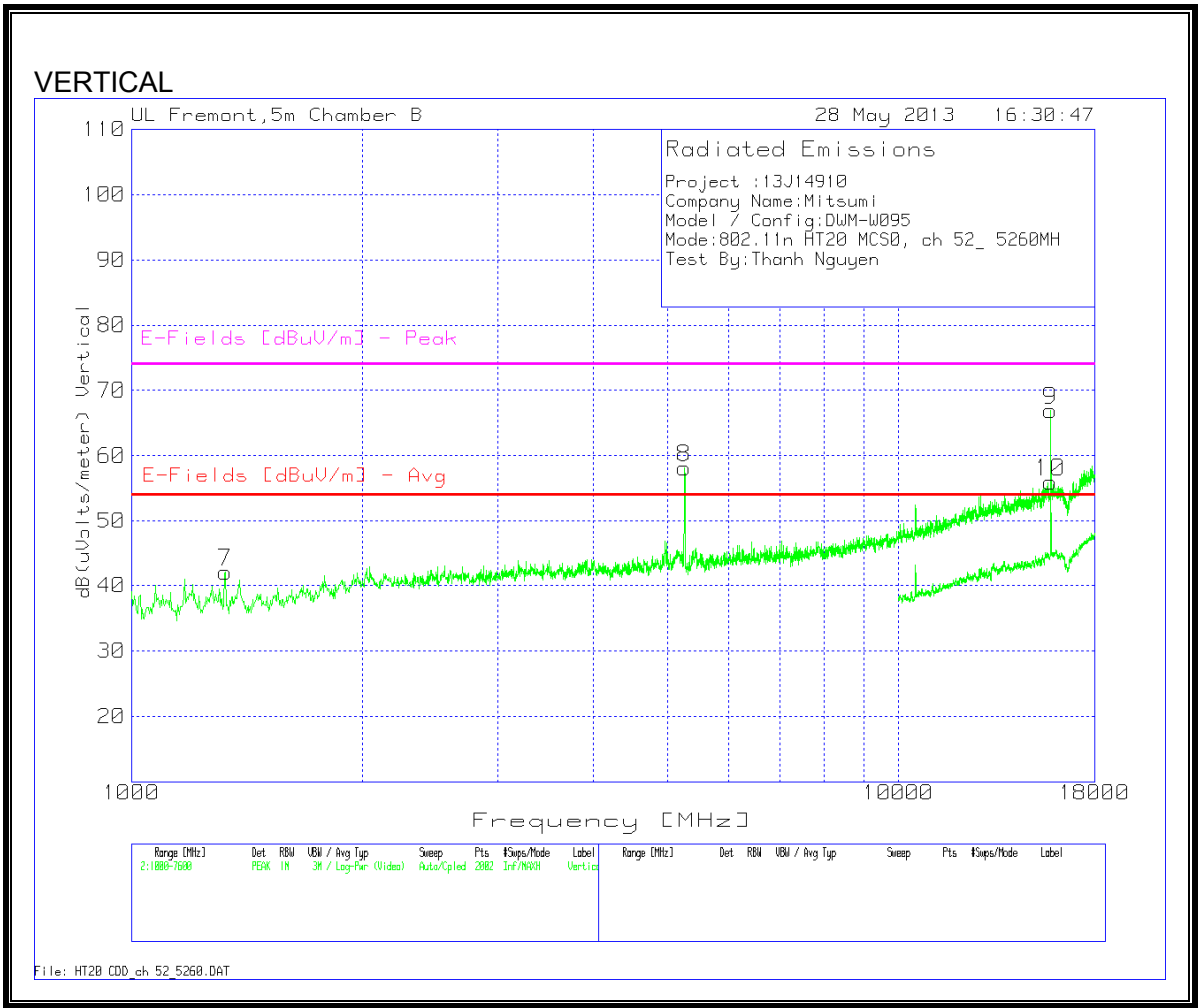
RESTRICTED BANDEDGE (HIGH CHANNEL





**HARMONICS AND SPURIOUS EMISSIONS**  
**LOW CHANNEL GRAPH**





## LOW CHANNEL 52 DATA

Project :13J14910  
Company Name:Mitsumi  
Model / Config:DWM-W095  
Mode:802.11n HT20 MCS0, ch 52\_ 5260MHz  
Test By:Thanh Nguyen

### Horizontal 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 1          | 1026.387             | 47.41                | PK       | 27.5                   | -36                   | 3.2               | 0             | 42.11             | 53.97                   | -11.86              | 74                       | -31.89           | 158         | Horz     |
| 2          | 4958.021             | 42.14                | PK       | 34.6                   | -34.9                 | 7.2               | 0.3           | 49.34             | 53.97                   | -4.63               | 74                       | -24.66           | 158         | Horz     |
| *3         | 5264.768             | 49.95                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 58.25             | -                       | -                   | -                        | -                | 200         | Horz     |
| 4          | 5479.16              | 40.53                | PK       | 34.9                   | -34.9                 | 7.6               | 0.9           | 49.03             | -                       | -                   | 68.2                     | -19.17           | 158         | Horz     |

### Vertical 1000 - 7600MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 7          | 1326.537             | 45.6                 | PK       | 28.5                   | -35.5                 | 3.5               | 0             | 42.1              | 53.97                   | -11.87              | 74                       | -31.9            | 200         | Vert     |
| *8         | 5261.469             | 49.81                | PK       | 34.9                   | -34.9                 | 7.4               | 0.9           | 58.11             | -                       | -                   | -                        | -                | 200         | Vert     |

### Horizontal 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 5          | 15775.512            | 39.23                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 61.43             | -                       | -                   | 74                       | -12.57           | 100         | Horz     |

### Vertical 7600 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 9          | 15780.71             | 44.77                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 66.97             | -                       | -                   | 74                       | -7.03            | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 15775.512            | 31.13                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 53.33             | 53.97                   | -0.64               | 74                       | -20.67           | 100         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 10         | 15780.71             | 33.78                | PK       | 41.3                   | -32.9                 | 13.6              | 0.2           | 55.98             | 53.97                   | 2.01                | 74                       | -18.02           | 200         | Vert     |

### Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 6          | 15780.512            | 26.35                | Av       | 41.3                   | -32.9                 | 13.6              | 0.2           | 48.55             | 53.97                   | -5.42               | -                        | -                | 107         | Horz     |

### Vertical 10000 - 18000MHz

| Marker No. | Test Frequency (MHz) | Meter Reading (dBuV) | Detector | T345 Ant Factor [dB/m] | T145 Preamp Gain [dB] | Cable Factor [dB] | T159 BRF [dB] | dB(uVolts/ meter) | E-Fields [dBuV/m] - Avg | Average Margin (dB) | E-Fields [dBuV/m] - Peak | Peak Margin (dB) | Height [cm] | Polarity |
|------------|----------------------|----------------------|----------|------------------------|-----------------------|-------------------|---------------|-------------------|-------------------------|---------------------|--------------------------|------------------|-------------|----------|
| 10         | 15778.11             | 29.08                | Av       | 41.3                   | -32.9                 | 13.6              | 0.2           | 51.28             | 53.97                   | -2.69               | -                        | -                | 132         | Vert     |

\*: Fundamental

PK - Peak detector  
QP - Quasi-Peak detector  
Av - Average detector

**HARMONICS AND SPURIOUS EMISSIONS**  
**MID CHANNEL GRAPH**

