

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 100, 140 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                  |

**Channel 100**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5413.40 | 65.29  | 74.00  | -8.71  | 61.87  | 4.38         | 33.57  | 34.53  | Peak    | 2     | 173       | VERTICAL |
| 2 | 5426.14 | 53.98  | 54.00  | -0.02  | 50.56  | 4.38         | 33.57  | 34.53  | Average | 2     | 173       | VERTICAL |
| 3 | 5468.26 | 57.57  | 74.00  | -16.43 | 54.04  | 4.41         | 33.65  | 34.53  | Peak    | 2     | 173       | VERTICAL |
| 4 | 5470.00 | 45.22  | 54.00  | -8.78  | 41.69  | 4.41         | 33.65  | 34.53  | Average | 2     | 173       | VERTICAL |
| 5 | 5501.45 | 114.88 |        |        | 111.29 | 4.42         | 33.70  | 34.53  | Peak    | 2     | 173       | VERTICAL |
| 6 | 5506.37 | 102.68 |        |        | 99.09  | 4.42         | 33.70  | 34.53  | Average | 2     | 173       | VERTICAL |

Item 5, 6 are the fundamental frequency at 5500 MHz.

**Channel 140**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5701.45 | 113.29 |        |       | 109.05 | 4.49         | 34.32  | 34.57  | Peak    | 5     | 164       | VERTICAL |
| 2 | 5702.03 | 102.67 |        |       | 98.43  | 4.49         | 34.32  | 34.57  | Average | 5     | 164       | VERTICAL |
| 3 | 5778.55 | 64.70  | 74.00  | -9.30 | 60.23  | 4.52         | 34.53  | 34.58  | Peak    | 5     | 164       | VERTICAL |
| 4 | 5782.31 | 53.51  | 54.00  | -0.49 | 49.05  | 4.52         | 34.53  | 34.59  | Average | 5     | 164       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5700 MHz.



|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 149, 157, 165 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                       |

**Channel 149**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5671.15 | 67.48  | 68.20      | -0.72      | 63.34      | 4.48              | 34.22          | 34.56         | Peak    | 5     | 164   | VERTICAL  |
| 2 | 5725.00 | 77.34  | 78.20      | -0.86      | 73.05      | 4.50              | 34.37          | 34.58         | Peak    | 5     | 164   | VERTICAL  |
| 3 | 5747.17 | 115.21 |            |            | 110.87     | 4.50              | 34.42          | 34.58         | Peak    | 5     | 164   | VERTICAL  |
| 4 | 5747.17 | 104.49 |            |            | 100.15     | 4.50              | 34.42          | 34.58         | Average | 5     | 164   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5745 MHz.

**Channel 157**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5703.29 | 67.38  | 68.20      | -0.82      | 63.14      | 4.49              | 34.32          | 34.57         | Peak    | 4     | 168   | VERTICAL  |
| 2 | 5725.00 | 58.24  | 78.20      | -19.96     | 53.95      | 4.50              | 34.37          | 34.58         | Peak    | 4     | 168   | VERTICAL  |
| 3 | 5783.70 | 116.91 |            |            | 112.45     | 4.52              | 34.53          | 34.59         | Peak    | 4     | 168   | VERTICAL  |
| 4 | 5787.17 | 106.20 |            |            | 101.69     | 4.52              | 34.58          | 34.59         | Average | 4     | 168   | VERTICAL  |
| 5 | 5856.95 | 68.07  | 78.20      | -10.13     | 63.33      | 4.55              | 34.79          | 34.60         | Peak    | 4     | 168   | VERTICAL  |
| 6 | 5863.47 | 67.94  | 68.20      | -0.26      | 63.20      | 4.55              | 34.79          | 34.60         | Peak    | 4     | 168   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5785 MHz.

**Channel 165**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5822.83 | 117.42 |            |            | 112.81     | 4.53              | 34.68          | 34.60         | Peak    | 7     | 162   | VERTICAL  |
| 2 | 5822.83 | 106.95 |            |            | 102.34     | 4.53              | 34.68          | 34.60         | Average | 7     | 162   | VERTICAL  |
| 3 | 5850.00 | 75.45  | 78.20      | -2.75      | 70.78      | 4.54              | 34.73          | 34.60         | Peak    | 7     | 162   | VERTICAL  |
| 4 | 5902.98 | 67.92  | 68.20      | -0.28      | 63.08      | 4.56              | 34.89          | 34.61         | Peak    | 7     | 162   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5825 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 38, 46 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 11, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                |

### Channel 38

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | A/Pos   | T/Pos | Pol/Phase  |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|------------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | cm      | deg   |            |
| 1 | 5150.00 | 53.79  | 54.00  | -0.21 | 48.85  | 6.13         | 34.01  | 35.20  | Average | 197   | 6 VERTICAL |
| 2 | 5150.00 | 67.12  | 74.00  | -6.88 | 62.18  | 6.13         | 34.01  | 35.20  | Peak    | 197   | 6 VERTICAL |
| 3 | 5193.00 | 99.09  |        |       | 94.05  | 6.16         | 34.08  | 35.20  | Average | 197   | 6 VERTICAL |
| 4 | 5193.00 | 110.02 |        |       | 104.98 | 6.16         | 34.08  | 35.20  | Peak    | 197   | 6 VERTICAL |

Item 3, 4 are the fundamental frequency at 5190 MHz.

### Channel 46

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | A/Pos   | T/Pos | Pol/Phase  |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|------------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | cm      | deg   |            |
| 1 | 5142.80 | 53.86  | 54.00  | -0.14 | 48.95  | 6.13         | 33.98  | 35.20  | Average | 146   | 5 VERTICAL |
| 2 | 5145.20 | 66.45  | 74.00  | -7.55 | 61.51  | 6.13         | 34.01  | 35.20  | Peak    | 146   | 5 VERTICAL |
| 3 | 5218.00 | 113.61 |        |       | 108.49 | 6.17         | 34.15  | 35.20  | Peak    | 146   | 5 VERTICAL |
| 4 | 5233.00 | 101.82 |        |       | 96.66  | 6.18         | 34.18  | 35.20  | Average | 146   | 5 VERTICAL |

Item 3, 4 are the fundamental frequency at 5230 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 11, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                |

#### Channel 54

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark        | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|--------|--------|--------|--------------|--------|---------------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB            | cm    | deg   |           |
| 1 | 5257.00 | 102.61 |        |        | 97.39  | 6.20         | 34.22  | 35.20 Average | 173   | 2     | VERTICAL  |
| 2 | 5265.00 | 113.98 |        |        | 108.72 | 6.21         | 34.25  | 35.20 Peak    | 173   | 2     | VERTICAL  |
| 3 | 5353.00 | 53.91  | 54.00  | -0.09  | 48.43  | 6.26         | 34.42  | 35.20 Average | 173   | 2     | VERTICAL  |
| 4 | 5363.00 | 63.82  | 74.00  | -10.18 | 58.33  | 6.27         | 34.42  | 35.20 Peak    | 173   | 2     | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5270 MHz.

#### Channel 62

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark        | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|--------|-------|--------|--------------|--------|---------------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB            | cm    | deg   |           |
| 1 | 5296.80 | 111.78 |        |       | 106.43 | 6.23         | 34.32  | 35.20 Peak    | 160   | 0     | VERTICAL  |
| 2 | 5297.20 | 100.16 |        |       | 94.81  | 6.23         | 34.32  | 35.20 Average | 160   | 0     | VERTICAL  |
| 3 | 5350.00 | 53.82  | 54.00  | -0.18 | 48.34  | 6.26         | 34.42  | 35.20 Average | 160   | 0     | VERTICAL  |
| 4 | 5352.80 | 68.26  | 74.00  | -5.74 | 62.78  | 6.26         | 34.42  | 35.20 Peak    | 160   | 0     | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5310 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 11, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                       |

### Channel 102

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5412.00 | 51.91  | 54.00      | -2.09      | 46.27      | 6.31       | 34.53          | 35.20         | Average | 177   | 2     | VERTICAL  |
| 2 | 5460.00 | 63.40  | 74.00      | -10.60     | 57.64      | 6.33       | 34.63          | 35.20         | Peak    | 177   | 2     | VERTICAL  |
| 3 | 5467.00 | 69.08  | 74.00      | -4.92      | 63.31      | 6.34       | 34.63          | 35.20         | Peak    | 177   | 2     | VERTICAL  |
| 4 | 5470.00 | 53.60  | 54.00      | -0.40      | 47.79      | 6.34       | 34.67          | 35.20         | Average | 177   | 2     | VERTICAL  |
| 5 | 5507.60 | 98.11  |            |            | 92.24      | 6.36       | 34.71          | 35.20         | Average | 177   | 2     | VERTICAL  |
| 6 | 5507.60 | 109.28 |            |            | 103.41     | 6.36       | 34.71          | 35.20         | Peak    | 177   | 2     | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5510 MHz.

### Channel 110

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5456.40 | 64.39  | 74.00      | -9.61      | 58.63      | 6.33       | 34.63          | 35.20         | Peak    | 156   | 0     | VERTICAL  |
| 2 | 5457.00 | 53.88  | 54.00      | -0.12      | 48.12      | 6.33       | 34.63          | 35.20         | Average | 156   | 0     | VERTICAL  |
| 3 | 5464.60 | 64.72  | 74.00      | -9.28      | 58.95      | 6.34       | 34.63          | 35.20         | Peak    | 156   | 0     | VERTICAL  |
| 4 | 5467.00 | 53.75  | 54.00      | -0.25      | 47.98      | 6.34       | 34.63          | 35.20         | Average | 156   | 0     | VERTICAL  |
| 5 | 5544.60 | 113.31 |            |            | 107.40     | 6.37       | 34.74          | 35.20         | Peak    | 156   | 0     | VERTICAL  |
| 6 | 5554.80 | 102.04 |            |            | 96.11      | 6.38       | 34.75          | 35.20         | Average | 156   | 0     | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5550 MHz.

### Channel 134

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5667.00 | 103.66 |            |            | 97.60      | 6.43       | 34.83          | 35.20         | Average | 164   | 0     | VERTICAL  |
| 2 | 5667.00 | 115.27 |            |            | 109.21     | 6.43       | 34.83          | 35.20         | Peak    | 164   | 0     | VERTICAL  |
| 3 | 5726.40 | 68.11  | 68.20      | -0.09      | 61.97      | 6.45       | 34.89          | 35.20         | Peak    | 164   | 0     | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5670 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 151, 159 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 07, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                  |

**Channel 151**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | Loss         | Factor | Factor | deg     | cm    |           |          |
| 1 | 5712.40 | 68.11  | 68.20  | -0.09 | 63.66  | 4.71         | 34.32  | 34.58  | Peak    | 360   | 186       | VERTICAL |
| 2 | 5723.84 | 75.58  | 78.20  | -2.62 | 71.07  | 4.72         | 34.37  | 34.58  | Peak    | 360   | 186       | VERTICAL |
| 3 | 5749.79 | 95.95  |        |       | 91.38  | 4.73         | 34.42  | 34.58  | Average | 360   | 186       | VERTICAL |
| 4 | 5759.05 | 109.15 |        |       | 104.51 | 4.74         | 34.48  | 34.58  | Average | 360   | 186       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5755 MHz.

**Channel 159**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | Loss         | Factor | Factor | deg     | cm    |           |          |
| 1 | 5708.92 | 67.50  | 68.20  | -0.70 | 63.05  | 4.71         | 34.32  | 34.58  | Peak    | 360   | 176       | VERTICAL |
| 2 | 5724.13 | 69.33  | 78.20  | -8.87 | 64.82  | 4.72         | 34.37  | 34.58  | Peak    | 360   | 176       | VERTICAL |
| 3 | 5788.92 | 113.61 |        |       | 108.86 | 4.76         | 34.58  | 34.59  | Peak    | 360   | 176       | VERTICAL |
| 4 | 5798.80 | 101.42 |        |       | 96.67  | 4.76         | 34.58  | 34.59  | Average | 360   | 176       | VERTICAL |
| 5 | 5850.00 | 69.00  | 78.20  | -9.20 | 64.07  | 4.80         | 34.73  | 34.60  | Peak    | 360   | 176       | VERTICAL |
| 6 | 5868.68 | 67.96  | 68.20  | -0.24 | 62.96  | 4.81         | 34.79  | 34.60  | Peak    | 360   | 176       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5795 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 38, 46 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                |

**Channel 38**

|   | Freq    | Level  | Limit  | Over  | Read   | Cable | Antenna | Preamp | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|--------|-------|--------|-------|---------|--------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB    | dB/m    | dB     |         | deg   | cm    |           |
| 1 | 5150.00 | 69.64  | 74.00  | -4.36 | 66.77  | 4.26  | 33.14   | 34.53  | Peak    | 0     | 171   | VERTICAL  |
| 2 | 5150.00 | 53.96  | 54.00  | -0.04 | 51.09  | 4.26  | 33.14   | 34.53  | Average | 0     | 171   | VERTICAL  |
| 3 | 5194.63 | 97.27  |        |       | 94.30  | 4.28  | 33.22   | 34.53  | Average | 0     | 171   | VERTICAL  |
| 4 | 5200.42 | 110.05 |        |       | 107.08 | 4.28  | 33.22   | 34.53  | Peak    | 0     | 171   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5190 MHz.

**Channel 46**

|   | Freq    | Level  | Limit  | Over  | Read   | Cable | Antenna | Preamp | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|--------|-------|--------|-------|---------|--------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB    | dB/m    | dB     |         | deg   | cm    |           |
| 1 | 5143.63 | 64.69  | 74.00  | -9.31 | 61.82  | 4.26  | 33.14   | 34.53  | Peak    | 0     | 183   | VERTICAL  |
| 2 | 5145.95 | 53.83  | 54.00  | -0.17 | 50.96  | 4.26  | 33.14   | 34.53  | Average | 0     | 183   | VERTICAL  |
| 3 | 5227.11 | 113.67 |        |       | 110.63 | 4.30  | 33.27   | 34.53  | Peak    | 0     | 183   | VERTICAL  |
| 4 | 5233.47 | 103.49 |        |       | 100.45 | 4.30  | 33.27   | 34.53  | Average | 0     | 183   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5230 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 54, 62 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                |

**Channel 54**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5273.47 | 104.28 |            |            | 101.17     | 4.31              | 33.33          | 34.53         | Average | 1     | 184   | VERTICAL  |
| 2 | 5275.79 | 114.31 |            |            | 111.17     | 4.32              | 33.35          | 34.53         | Peak    | 1     | 184   | VERTICAL  |
| 3 | 5354.05 | 53.76  | 54.00      | -0.24      | 50.48      | 4.35              | 33.46          | 34.53         | Average | 1     | 184   | VERTICAL  |
| 4 | 5355.79 | 64.43  | 74.00      | -9.57      | 61.15      | 4.35              | 33.46          | 34.53         | Peak    | 1     | 184   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5270 MHz.

**Channel 62**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5305.95 | 111.40 |            |            | 108.22     | 4.33              | 33.38          | 34.53         | Peak    | 1     | 158   | VERTICAL  |
| 2 | 5306.53 | 100.73 |            |            | 97.55      | 4.33              | 33.38          | 34.53         | Average | 1     | 158   | VERTICAL  |
| 3 | 5350.00 | 53.92  | 54.00      | -0.08      | 50.64      | 4.35              | 33.46          | 34.53         | Average | 1     | 158   | VERTICAL  |
| 4 | 5350.58 | 66.81  | 74.00      | -7.19      | 63.53      | 4.35              | 33.46          | 34.53         | Peak    | 1     | 158   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5310 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                       |

### Channel 102

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5426.43 | 51.67  | 54.00      | -2.33      | 48.25      | 4.38       | 33.57          | 34.53         | Average | 2     | 173   | VERTICAL  |
| 2 | 5427.00 | 62.58  | 74.00      | -11.42     | 59.16      | 4.38       | 33.57          | 34.53         | Peak    | 2     | 173   | VERTICAL  |
| 3 | 5465.95 | 67.70  | 74.00      | -6.30      | 64.17      | 4.41       | 33.65          | 34.53         | Peak    | 2     | 173   | VERTICAL  |
| 4 | 5470.00 | 53.98  | 54.00      | -0.02      | 50.45      | 4.41       | 33.65          | 34.53         | Average | 2     | 173   | VERTICAL  |
| 5 | 5505.95 | 109.74 |            |            | 106.15     | 4.42       | 33.70          | 34.53         | Peak    | 2     | 173   | VERTICAL  |
| 6 | 5506.53 | 99.38  |            |            | 95.79      | 4.42       | 33.70          | 34.53         | Average | 2     | 173   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5510 MHz.

### Channel 110

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5453.05 | 63.52  | 74.00      | -10.48     | 60.03      | 4.40       | 33.62          | 34.53         | Peak    | 2     | 158   | VERTICAL  |
| 2 | 5456.53 | 52.84  | 54.00      | -1.16      | 49.35      | 4.40       | 33.62          | 34.53         | Average | 2     | 158   | VERTICAL  |
| 3 | 5466.53 | 65.10  | 74.00      | -8.90      | 61.57      | 4.41       | 33.65          | 34.53         | Peak    | 2     | 158   | VERTICAL  |
| 4 | 5466.53 | 53.98  | 54.00      | -0.02      | 50.45      | 4.41       | 33.65          | 34.53         | Average | 2     | 158   | VERTICAL  |
| 5 | 5546.53 | 112.84 |            |            | 109.15     | 4.43       | 33.80          | 34.54         | Peak    | 2     | 158   | VERTICAL  |
| 6 | 5546.53 | 102.65 |            |            | 98.96      | 4.43       | 33.80          | 34.54         | Average | 2     | 158   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5550 MHz.

### Channel 134

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5666.53 | 112.40 |            |            | 108.26     | 4.48       | 34.22          | 34.56         | Peak    | 1     | 168   | VERTICAL  |
| 2 | 5666.53 | 102.18 |            |            | 98.04      | 4.48       | 34.22          | 34.56         | Average | 1     | 168   | VERTICAL  |
| 3 | 5746.42 | 53.90  | 54.00      | -0.10      | 49.56      | 4.50       | 34.42          | 34.58         | Average | 1     | 168   | VERTICAL  |
| 4 | 5755.68 | 64.97  | 74.00      | -9.03      | 60.56      | 4.51       | 34.48          | 34.58         | Peak    | 1     | 168   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5670 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 151, 159 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                  |

**Channel 151**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5714.42 | 68.02  | 68.20      | -0.18      | 63.79      | 4.49              | 34.32          | 34.58         | Peak    | 5     | 159   | VERTICAL  |
| 2 | 5722.68 | 73.71  | 78.20      | -4.49      | 69.42      | 4.50              | 34.37          | 34.58         | Peak    | 5     | 159   | VERTICAL  |
| 3 | 5746.32 | 108.99 |            |            | 104.65     | 4.50              | 34.42          | 34.58         | Peak    | 5     | 159   | VERTICAL  |
| 4 | 5747.47 | 98.13  |            |            | 93.79      | 4.50              | 34.42          | 34.58         | Average | 5     | 159   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5755 MHz.

**Channel 159**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5712.68 | 67.46  | 68.20      | -0.74      | 63.23      | 4.49              | 34.32          | 34.58         | Peak    | 5     | 172   | VERTICAL  |
| 2 | 5725.00 | 68.60  | 78.20      | -9.60      | 64.31      | 4.50              | 34.37          | 34.58         | Peak    | 5     | 172   | VERTICAL  |
| 3 | 5787.47 | 104.82 |            |            | 100.31     | 4.52              | 34.58          | 34.59         | Average | 5     | 172   | VERTICAL  |
| 4 | 5790.37 | 116.29 |            |            | 111.78     | 4.52              | 34.58          | 34.59         | Peak    | 5     | 172   | VERTICAL  |
| 5 | 5850.58 | 75.36  | 78.20      | -2.84      | 70.69      | 4.54              | 34.73          | 34.60         | Peak    | 5     | 172   | VERTICAL  |
| 6 | 5872.74 | 68.14  | 68.20      | -0.06      | 63.35      | 4.55              | 34.84          | 34.60         | Peak    | 5     | 172   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5795 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT80 CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 11, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                     |

### Channel 42

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5143.00 | 53.78  | 54.00      | -0.22      | 48.87      | 6.13              | 33.98          | 35.20         | Average | 163   | 5     | VERTICAL  |
| 2 | 5143.00 | 64.62  | 74.00      | -9.38      | 59.71      | 6.13              | 33.98          | 35.20         | Peak    | 163   | 5     | VERTICAL  |
| 3 | 5202.00 | 105.97 |            |            | 100.90     | 6.16              | 34.11          | 35.20         | Peak    | 163   | 5     | VERTICAL  |
| 4 | 5218.00 | 96.85  |            |            | 91.73      | 6.17              | 34.15          | 35.20         | Average | 163   | 5     | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5210 MHz.

### Channel 58

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5297.80 | 97.81  |            |            | 92.46      | 6.23              | 34.32          | 35.20         | Average | 157   | 3     | VERTICAL  |
| 2 | 5301.40 | 106.65 |            |            | 101.30     | 6.23              | 34.32          | 35.20         | Peak    | 157   | 3     | VERTICAL  |
| 3 | 5353.00 | 53.86  | 54.00      | -0.14      | 48.38      | 6.26              | 34.42          | 35.20         | Average | 157   | 3     | VERTICAL  |
| 4 | 5356.00 | 66.47  | 74.00      | -7.53      | 60.99      | 6.26              | 34.42          | 35.20         | Peak    | 157   | 3     | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5290 MHz.

### Channel 106

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5441.20 | 65.30  | 74.00      | -8.70      | 59.58      | 6.32              | 34.60          | 35.20         | Peak    | 172   | 1     | VERTICAL  |
| 2 | 5459.60 | 53.27  | 54.00      | -0.73      | 47.51      | 6.33              | 34.63          | 35.20         | Average | 172   | 1     | VERTICAL  |
| 3 | 5465.20 | 67.99  | 74.00      | -6.01      | 62.22      | 6.34              | 34.63          | 35.20         | Peak    | 172   | 1     | VERTICAL  |
| 4 | 5467.60 | 53.87  | 54.00      | -0.13      | 48.06      | 6.34              | 34.67          | 35.20         | Average | 172   | 1     | VERTICAL  |
| 5 | 5502.00 | 94.83  |            |            | 88.96      | 6.36              | 34.71          | 35.20         | Average | 172   | 1     | VERTICAL  |
| 6 | 5540.00 | 104.80 |            |            | 98.89      | 6.37              | 34.74          | 35.20         | Peak    | 172   | 1     | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5530 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT80 CH, 122, 138, 155<br>/ Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 07, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)   |

**Channel 122**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark        | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|--------|-------|--------|--------------|--------|---------------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB            | deg   | cm    |           |
| 1 | 5454.21 | 67.05  | 74.00  | -6.95 | 63.42  | 4.54         | 33.62  | 34.53 Peak    | 360   | 182   | VERTICAL  |
| 2 | 5460.00 | 49.85  | 54.00  | -4.15 | 46.22  | 4.54         | 33.62  | 34.53 Average | 360   | 182   | VERTICAL  |
| 3 | 5467.11 | 67.82  | 74.00  | -6.18 | 64.15  | 4.55         | 33.65  | 34.53 Peak    | 360   | 182   | VERTICAL  |
| 4 | 5470.00 | 50.05  | 54.00  | -3.95 | 46.38  | 4.55         | 33.65  | 34.53 Average | 360   | 182   | VERTICAL  |
| 5 | 5581.78 | 96.93  |        |       | 92.89  | 4.63         | 33.96  | 34.55 Average | 360   | 182   | VERTICAL  |
| 6 | 5583.95 | 111.90 |        |       | 107.86 | 4.63         | 33.96  | 34.55 Peak    | 360   | 182   | VERTICAL  |
| 7 | 5725.00 | 52.59  | 54.00  | -1.41 | 48.08  | 4.72         | 34.37  | 34.58 Average | 360   | 182   | VERTICAL  |
| 8 | 5730.79 | 67.35  | 74.00  | -6.65 | 62.84  | 4.72         | 34.37  | 34.58 Peak    | 360   | 182   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5610 MHz.

**Channel 138**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark        | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|--------|--------|--------|--------------|--------|---------------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB            | deg   | cm    |           |
| 1 | 5460.00 | 58.54  | 74.00  | -15.46 | 54.91  | 4.54         | 33.62  | 34.53 Peak    | 360   | 181   | VERTICAL  |
| 2 | 5460.00 | 47.68  | 54.00  | -6.32  | 44.05  | 4.54         | 33.62  | 34.53 Average | 360   | 181   | VERTICAL  |
| 3 | 5470.00 | 58.96  | 74.00  | -15.04 | 55.29  | 4.55         | 33.65  | 34.53 Peak    | 360   | 181   | VERTICAL  |
| 4 | 5470.00 | 47.59  | 54.00  | -6.41  | 43.92  | 4.55         | 33.65  | 34.53 Average | 360   | 181   | VERTICAL  |
| 5 | 5674.08 | 111.43 |        |        | 107.09 | 4.68         | 34.22  | 34.56 Peak    | 360   | 181   | VERTICAL  |
| 6 | 5683.49 | 96.51  |        |        | 92.18  | 4.68         | 34.22  | 34.57 Average | 360   | 181   | VERTICAL  |
| 7 | 5850.00 | 49.34  | 54.00  | -4.66  | 44.41  | 4.80         | 34.73  | 34.60 Average | 360   | 181   | VERTICAL  |
| 8 | 5856.51 | 61.51  | 74.00  | -12.49 | 56.51  | 4.81         | 34.79  | 34.60 Peak    | 360   | 181   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5690 MHz.

**Channel 155**

|   | Freq    | Level  | Limit  | Over   | Read  | CableAntenna | Preamp | Remark        | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|--------|--------|-------|--------------|--------|---------------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV  | dB           | dB/m   | dB            | deg   | cm    |           |
| 1 | 5688.23 | 67.99  | 68.20  | -0.21  | 63.59 | 4.70         | 34.27  | 34.57 Peak    | 0     | 178   | VERTICAL  |
| 2 | 5719.21 | 71.54  | 78.20  | -6.66  | 67.03 | 4.72         | 34.37  | 34.58 Peak    | 0     | 178   | VERTICAL  |
| 3 | 5759.08 | 104.05 |        |        | 99.41 | 4.74         | 34.48  | 34.58 Average | 0     | 178   | VERTICAL  |
| 4 | 5759.80 | 89.77  |        |        | 85.13 | 4.74         | 34.48  | 34.58 Peak    | 0     | 178   | VERTICAL  |
| 5 | 5858.68 | 66.41  | 78.20  | -11.79 | 61.41 | 4.81         | 34.79  | 34.60 Peak    | 0     | 178   | VERTICAL  |
| 6 | 5860.00 | 66.35  | 68.20  | -1.85  | 61.35 | 4.81         | 34.79  | 34.60 Peak    | 0     | 178   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5775 MHz.

|                      |                               |                       |  |
|----------------------|-------------------------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C                        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu                    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT80 CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 08, 2014 / Dec. 09, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)                                     |

**Channel 42**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5142.76 | 68.84  | 74.00      | -5.16      | 65.97      | 4.26       | 33.14          | 34.53         | Peak    | 358   | 178   | VERTICAL  |
| 2 | 5148.55 | 53.93  | 54.00      | -0.07      | 51.06      | 4.26       | 33.14          | 34.53         | Average | 358   | 178   | VERTICAL  |
| 3 | 5203.49 | 105.86 |            |            | 102.89     | 4.28       | 33.22          | 34.53         | Peak    | 358   | 178   | VERTICAL  |
| 4 | 5213.62 | 95.84  |            |            | 92.83      | 4.29       | 33.25          | 34.53         | Average | 358   | 178   | VERTICAL  |
| 5 | 5351.45 | 48.68  | 54.00      | -5.32      | 45.40      | 4.35       | 33.46          | 34.53         | Average | 358   | 178   | VERTICAL  |
| 6 | 5371.71 | 60.57  | 74.00      | -13.43     | 57.25      | 4.36       | 33.49          | 34.53         | Peak    | 358   | 178   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5210 MHz.

**Channel 58**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5149.28 | 59.62  | 74.00      | -14.38     | 56.75      | 4.26       | 33.14          | 34.53         | Peak    | 8     | 174   | VERTICAL  |
| 2 | 5150.00 | 47.41  | 54.00      | -6.59      | 44.54      | 4.26       | 33.14          | 34.53         | Average | 8     | 174   | VERTICAL  |
| 3 | 5277.70 | 94.67  |            |            | 91.53      | 4.32       | 33.35          | 34.53         | Average | 8     | 174   | VERTICAL  |
| 4 | 5279.87 | 108.03 |            |            | 104.89     | 4.32       | 33.35          | 34.53         | Peak    | 8     | 174   | VERTICAL  |
| 5 | 5350.00 | 70.37  | 74.00      | -3.63      | 67.09      | 4.35       | 33.46          | 34.53         | Peak    | 8     | 174   | VERTICAL  |
| 6 | 5350.00 | 53.75  | 54.00      | -0.25      | 50.47      | 4.35       | 33.46          | 34.53         | Average | 8     | 174   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5290 MHz.

**Channel 106**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5442.18 | 67.65  | 74.00      | -6.35      | 64.20      | 4.39       | 33.59          | 34.53         | Peak    | 8     | 168   | VERTICAL  |
| 2 | 5457.56 | 53.36  | 54.00      | -0.64      | 49.87      | 4.40       | 33.62          | 34.53         | Average | 8     | 168   | VERTICAL  |
| 3 | 5462.69 | 67.89  | 74.00      | -6.11      | 64.36      | 4.41       | 33.65          | 34.53         | Peak    | 8     | 168   | VERTICAL  |
| 4 | 5467.82 | 53.81  | 54.00      | -0.19      | 50.28      | 4.41       | 33.65          | 34.53         | Average | 8     | 168   | VERTICAL  |
| 5 | 5502.44 | 104.82 |            |            | 101.23     | 4.42       | 33.70          | 34.53         | Peak    | 8     | 168   | VERTICAL  |
| 6 | 5517.82 | 95.11  |            |            | 91.46      | 4.43       | 33.75          | 34.53         | Average | 8     | 168   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5530 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT80 CH, 122, 138, 155 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Dec. 09, 2014 | <b>Test Mode</b>      | Mode 3 (Ant. 4 Panel antenna / 9.2dBi)  |

**Channel 122**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5586.92 | 101.96 |            |            | 98.10      | 4.45              | 33.96          | 34.55         | Average | 3     | 164   | VERTICAL  |
| 2 | 5626.67 | 112.47 |            |            | 108.51     | 4.46              | 34.06          | 34.56         | Peak    | 3     | 164   | VERTICAL  |
| 3 | 5727.31 | 53.82  | 54.00      | -0.18      | 49.53      | 4.50              | 34.37          | 34.58         | Average | 3     | 164   | VERTICAL  |
| 4 | 5727.95 | 68.38  | 74.00      | -5.62      | 64.09      | 4.50              | 34.37          | 34.58         | Peak    | 3     | 164   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5610 MHz.

**Channel 138**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5686.15 | 113.86 |            |            | 109.67     | 4.49              | 34.27          | 34.57         | Peak    | 3     | 160   | VERTICAL  |
| 2 | 5686.80 | 103.64 |            |            | 99.45      | 4.49              | 34.27          | 34.57         | Average | 3     | 160   | VERTICAL  |
| 3 | 5850.00 | 48.32  | 54.00      | -5.68      | 43.65      | 4.54              | 34.73          | 34.60         | Average | 3     | 160   | VERTICAL  |
| 4 | 5850.64 | 59.43  | 74.00      | -14.57     | 54.76      | 4.54              | 34.73          | 34.60         | Peak    | 3     | 160   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5690 MHz.

**Channel 155**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5702.56 | 68.06  | 68.20      | -0.14      | 63.82      | 4.49              | 34.32          | 34.57         | Peak    | 6     | 156   | VERTICAL  |
| 2 | 5724.36 | 69.85  | 78.20      | -8.35      | 65.56      | 4.50              | 34.37          | 34.58         | Peak    | 6     | 156   | VERTICAL  |
| 3 | 5784.62 | 105.77 |            |            | 101.31     | 4.52              | 34.53          | 34.59         | Peak    | 6     | 156   | VERTICAL  |
| 4 | 5787.18 | 95.81  |            |            | 91.30      | 4.52              | 34.58          | 34.59         | Average | 6     | 156   | VERTICAL  |
| 5 | 5852.56 | 64.32  | 78.20      | -13.88     | 59.65      | 4.54              | 34.73          | 34.60         | Peak    | 6     | 156   | VERTICAL  |
| 6 | 5872.44 | 65.50  | 68.20      | -2.70      | 60.71      | 4.55              | 34.84          | 34.60         | Peak    | 6     | 156   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5775 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11a CH 36, 40, 48 /<br>Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 14, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                       |

**Channel 36**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5101.40 | 53.81  | 54.00  | -0.19 | 50.97  | 4.31         | 33.06  | 34.53  | Average | 301   | 138       | VERTICAL |
| 2 | 5102.00 | 64.17  | 74.00  | -9.83 | 61.33  | 4.31         | 33.06  | 34.53  | Peak    | 301   | 138       | VERTICAL |
| 3 | 5181.80 | 111.39 |        |       | 108.37 | 4.36         | 33.19  | 34.53  | Peak    | 301   | 138       | VERTICAL |
| 4 | 5181.80 | 100.73 |        |       | 97.71  | 4.36         | 33.19  | 34.53  | Average | 301   | 138       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5180 MHz.

**Channel 40**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5121.40 | 53.87  | 54.00  | -0.13 | 50.99  | 4.32         | 33.09  | 34.53  | Average | 301   | 152       | VERTICAL |
| 2 | 5122.00 | 64.41  | 74.00  | -9.59 | 61.53  | 4.32         | 33.09  | 34.53  | Peak    | 301   | 152       | VERTICAL |
| 3 | 5201.20 | 101.40 |        |       | 98.34  | 4.37         | 33.22  | 34.53  | Average | 301   | 152       | VERTICAL |
| 4 | 5201.80 | 111.76 |        |       | 108.70 | 4.37         | 33.22  | 34.53  | Peak    | 301   | 152       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5200 MHz.

**Channel 48**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5121.80 | 46.81  | 54.00  | -7.19  | 43.93  | 4.32         | 33.09  | 34.53  | Average | 300   | 161       | VERTICAL |
| 2 | 5136.20 | 59.09  | 74.00  | -14.91 | 56.18  | 4.33         | 33.11  | 34.53  | Peak    | 300   | 161       | VERTICAL |
| 3 | 5241.80 | 116.94 |        |        | 113.77 | 4.40         | 33.30  | 34.53  | Peak    | 300   | 161       | VERTICAL |
| 4 | 5241.80 | 106.43 |        |        | 103.26 | 4.40         | 33.30  | 34.53  | Average | 300   | 161       | VERTICAL |
| 5 | 5361.80 | 60.70  | 74.00  | -13.30 | 57.26  | 4.48         | 33.49  | 34.53  | Peak    | 300   | 161       | VERTICAL |
| 6 | 5361.80 | 48.46  | 54.00  | -5.54  | 45.02  | 4.48         | 33.49  | 34.53  | Average | 300   | 161       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5240 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11a CH 52, 60, 64 /<br>Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 14, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                       |

**Channel 52**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5141.20 | 59.11  | 74.00  | -14.89 | 56.16  | 4.34         | 33.14  | 34.53  | Peak    | 301   | 165       | VERTICAL |
| 2 | 5141.20 | 46.99  | 54.00  | -7.01  | 44.04  | 4.34         | 33.14  | 34.53  | Average | 301   | 165       | VERTICAL |
| 3 | 5261.80 | 106.25 |        |        | 103.03 | 4.42         | 33.33  | 34.53  | Average | 301   | 165       | VERTICAL |
| 4 | 5262.40 | 117.23 |        |        | 114.01 | 4.42         | 33.33  | 34.53  | Peak    | 301   | 165       | VERTICAL |
| 5 | 5381.80 | 48.29  | 54.00  | -5.71  | 44.82  | 4.49         | 33.51  | 34.53  | Average | 301   | 165       | VERTICAL |
| 6 | 5386.60 | 61.18  | 74.00  | -12.82 | 57.71  | 4.49         | 33.51  | 34.53  | Peak    | 301   | 165       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5260 MHz.

**Channel 60**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5301.20 | 101.39 |        |       | 98.10  | 4.44         | 33.38  | 34.53  | Average | 300   | 149       | VERTICAL |
| 2 | 5301.80 | 111.84 |        |       | 108.55 | 4.44         | 33.38  | 34.53  | Peak    | 300   | 149       | VERTICAL |
| 3 | 5381.60 | 64.39  | 74.00  | -9.61 | 60.92  | 4.49         | 33.51  | 34.53  | Peak    | 300   | 149       | VERTICAL |
| 4 | 5381.60 | 53.91  | 54.00  | -0.09 | 50.44  | 4.49         | 33.51  | 34.53  | Average | 300   | 149       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5318.80 | 102.38 |        |       | 99.05  | 4.45         | 33.41  | 34.53  | Average | 123   | 192       | VERTICAL |
| 2 | 5319.20 | 111.99 |        |       | 108.66 | 4.45         | 33.41  | 34.53  | Peak    | 123   | 192       | VERTICAL |
| 3 | 5399.20 | 64.53  | 74.00  | -9.47 | 61.02  | 4.50         | 33.54  | 34.53  | Peak    | 123   | 192       | VERTICAL |
| 4 | 5399.20 | 53.93  | 54.00  | -0.07 | 50.42  | 4.50         | 33.54  | 34.53  | Average | 123   | 192       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5320 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11a CH 100, 140 /<br>Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 14, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                     |

**Channel 100**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5420.40 | 64.10  | 74.00  | -9.90  | 60.54  | 4.52         | 33.57  | 34.53  | Peak    | 107   | 163       | VERTICAL |
| 2 | 5420.40 | 53.85  | 54.00  | -0.15  | 50.29  | 4.52         | 33.57  | 34.53  | Average | 107   | 163       | VERTICAL |
| 3 | 5420.40 | 53.53  | 54.00  | -0.47  | 49.97  | 4.52         | 33.57  | 34.53  | Average | 107   | 163       | VERTICAL |
| 4 | 5469.20 | 59.27  | 74.00  | -14.73 | 55.60  | 4.55         | 33.65  | 34.53  | Peak    | 107   | 163       | VERTICAL |
| 5 | 5470.00 | 46.82  | 54.00  | -7.18  | 43.15  | 4.55         | 33.65  | 34.53  | Average | 107   | 163       | VERTICAL |
| 6 | 5500.80 | 113.13 |        |        | 109.39 | 4.57         | 33.70  | 34.53  | Peak    | 107   | 163       | VERTICAL |
| 7 | 5500.80 | 103.27 |        |        | 99.53  | 4.57         | 33.70  | 34.53  | Average | 107   | 163       | VERTICAL |

Item 6, 7 are the fundamental frequency at 5500 MHz.

**Channel 140**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5701.20 | 112.56 |        |       | 108.10 | 4.71         | 34.32  | 34.57  | Peak    | 298   | 148       | VERTICAL |
| 2 | 5701.20 | 102.42 |        |       | 97.96  | 4.71         | 34.32  | 34.57  | Average | 298   | 148       | VERTICAL |
| 3 | 5781.60 | 53.97  | 54.00  | -0.03 | 49.28  | 4.75         | 34.53  | 34.59  | Average | 298   | 148       | VERTICAL |
| 4 | 5782.20 | 68.74  | 74.00  | -5.26 | 64.05  | 4.75         | 34.53  | 34.59  | Peak    | 298   | 148       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5700 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11a CH 149, 157, 165 /<br>Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 14, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                          |

**Channel 149**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5663.00 | 65.73  | 68.20  | -2.47 | 61.45  | 4.67         | 34.17  | 34.56  | Peak    | 134   | 196       | VERTICAL |
| 2 | 5724.60 | 78.09  | 78.20  | -0.11 | 73.58  | 4.72         | 34.37  | 34.58  | Peak    | 134   | 196       | VERTICAL |
| 3 | 5743.80 | 112.49 |        |       | 107.92 | 4.73         | 34.42  | 34.58  | Peak    | 134   | 196       | VERTICAL |
| 4 | 5744.20 | 103.23 |        |       | 98.66  | 4.73         | 34.42  | 34.58  | Average | 134   | 196       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5745 MHz.

**Channel 157**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5703.40 | 67.94  | 68.20  | -0.26  | 63.48  | 4.71         | 34.32  | 34.57  | Peak    | 137   | 204       | VERTICAL |
| 2 | 5716.60 | 60.10  | 78.20  | -18.10 | 55.65  | 4.71         | 34.32  | 34.58  | Peak    | 137   | 204       | VERTICAL |
| 3 | 5783.40 | 104.98 |        |        | 100.29 | 4.75         | 34.53  | 34.59  | Average | 137   | 204       | VERTICAL |
| 4 | 5783.80 | 114.93 |        |        | 110.24 | 4.75         | 34.53  | 34.59  | Peak    | 137   | 204       | VERTICAL |
| 5 | 5853.60 | 62.19  | 78.20  | -16.01 | 57.19  | 4.81         | 34.79  | 34.60  | Peak    | 137   | 204       | VERTICAL |
| 6 | 5863.80 | 67.46  | 68.20  | -0.74  | 62.46  | 4.81         | 34.79  | 34.60  | Peak    | 137   | 204       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5785 MHz.

**Channel 165**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5826.20 | 111.67 |        |       | 106.80 | 4.79         | 34.68  | 34.60  | Peak    | 108   | 116       | VERTICAL |
| 2 | 5826.20 | 101.94 |        |       | 97.07  | 4.79         | 34.68  | 34.60  | Average | 108   | 116       | VERTICAL |
| 3 | 5850.40 | 72.63  | 78.20  | -5.57 | 67.70  | 4.80         | 34.73  | 34.60  | Peak    | 108   | 116       | VERTICAL |
| 4 | 5901.00 | 66.85  | 68.20  | -1.35 | 61.74  | 4.83         | 34.89  | 34.61  | Peak    | 108   | 116       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5825 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT20 CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 14, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                     |

**Channel 36**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5091.90 | 53.94  | 54.00      | -0.06      | 51.10      | 4.31              | 33.06          | 34.53         | Average | 300   | 159   | VERTICAL  |
| 2 | 5101.40 | 65.07  | 74.00      | -8.93      | 62.23      | 4.31              | 33.06          | 34.53         | Peak    | 300   | 159   | VERTICAL  |
| 3 | 5182.40 | 113.05 |            |            | 110.03     | 4.36              | 33.19          | 34.53         | Peak    | 300   | 159   | VERTICAL  |
| 4 | 5187.20 | 101.65 |            |            | 98.63      | 4.36              | 33.19          | 34.53         | Average | 300   | 159   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5180 MHz.

**Channel 40**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5120.60 | 53.71  | 54.00      | -0.29      | 50.83      | 4.32              | 33.09          | 34.53         | Average | 298   | 249   | VERTICAL  |
| 2 | 5121.20 | 63.94  | 74.00      | -10.06     | 61.06      | 4.32              | 33.09          | 34.53         | Peak    | 298   | 249   | VERTICAL  |
| 3 | 5201.20 | 112.72 |            |            | 109.66     | 4.37              | 33.22          | 34.53         | Peak    | 298   | 249   | VERTICAL  |
| 4 | 5201.20 | 101.88 |            |            | 98.82      | 4.37              | 33.22          | 34.53         | Average | 298   | 249   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5200 MHz.

**Channel 48**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5127.80 | 59.82  | 74.00      | -14.18     | 56.91      | 4.33              | 33.11          | 34.53         | Peak    | 300   | 161   | VERTICAL  |
| 2 | 5150.00 | 46.98  | 54.00      | -7.02      | 44.03      | 4.34              | 33.14          | 34.53         | Average | 300   | 161   | VERTICAL  |
| 3 | 5237.60 | 105.08 |            |            | 101.95     | 4.39              | 33.27          | 34.53         | Average | 300   | 161   | VERTICAL  |
| 4 | 5246.60 | 116.15 |            |            | 112.98     | 4.40              | 33.30          | 34.53         | Peak    | 300   | 161   | VERTICAL  |
| 5 | 5357.00 | 61.52  | 74.00      | -12.48     | 58.12      | 4.47              | 33.46          | 34.53         | Peak    | 300   | 161   | VERTICAL  |
| 6 | 5360.80 | 47.97  | 54.00      | -6.03      | 44.53      | 4.48              | 33.49          | 34.53         | Average | 300   | 161   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5240 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 15, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                     |

**Channel 52**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5137.40 | 44.73  | 54.00      | -9.27      | 41.82      | 4.33              | 33.11          | 34.53         | Average | 129   | 205   | VERTICAL  |
| 2 | 5143.60 | 58.13  | 74.00      | -15.87     | 55.18      | 4.34              | 33.14          | 34.53         | Peak    | 129   | 205   | VERTICAL  |
| 3 | 5258.20 | 116.59 |            |            | 113.42     | 4.40              | 33.30          | 34.53         | Peak    | 129   | 205   | VERTICAL  |
| 4 | 5258.20 | 105.25 |            |            | 102.08     | 4.40              | 33.30          | 34.53         | Average | 129   | 205   | VERTICAL  |
| 5 | 5350.00 | 59.95  | 74.00      | -14.05     | 56.55      | 4.47              | 33.46          | 34.53         | Peak    | 129   | 205   | VERTICAL  |
| 6 | 5374.00 | 45.94  | 54.00      | -8.06      | 42.50      | 4.48              | 33.49          | 34.53         | Average | 129   | 205   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5260 MHz.

**Channel 60**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5300.80 | 101.28 |            |            | 97.99      | 4.44              | 33.38          | 34.53         | Average | 258   | 198   | VERTICAL  |
| 2 | 5301.20 | 111.79 |            |            | 108.50     | 4.44              | 33.38          | 34.53         | Peak    | 258   | 198   | VERTICAL  |
| 3 | 5381.20 | 53.77  | 54.00      | -0.23      | 50.30      | 4.49              | 33.51          | 34.53         | Average | 258   | 198   | VERTICAL  |
| 4 | 5381.60 | 64.25  | 74.00      | -9.75      | 60.78      | 4.49              | 33.51          | 34.53         | Peak    | 258   | 198   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5318.80 | 113.25 |            |            | 109.92     | 4.45              | 33.41          | 34.53         | Peak    | 123   | 188   | VERTICAL  |
| 2 | 5318.80 | 102.95 |            |            | 99.62      | 4.45              | 33.41          | 34.53         | Average | 123   | 188   | VERTICAL  |
| 3 | 5394.80 | 53.79  | 54.00      | -0.21      | 50.28      | 4.50              | 33.54          | 34.53         | Average | 123   | 188   | VERTICAL  |
| 4 | 5405.20 | 64.22  | 74.00      | -9.78      | 60.71      | 4.50              | 33.54          | 34.53         | Peak    | 123   | 188   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5320 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT20 CH 100, 140 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 15, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                   |

**Channel 100**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5418.80 | 64.84  | 74.00      | -9.16      | 61.28      | 4.52       | 33.57          | 34.53         | Peak    | 132   | 178   | VERTICAL  |
| 2 | 5418.80 | 53.85  | 54.00      | -0.15      | 50.29      | 4.52       | 33.57          | 34.53         | Average | 132   | 178   | VERTICAL  |
| 3 | 5469.60 | 69.28  | 74.00      | -4.72      | 65.61      | 4.55       | 33.65          | 34.53         | Peak    | 132   | 178   | VERTICAL  |
| 4 | 5470.00 | 48.55  | 54.00      | -5.45      | 44.88      | 4.55       | 33.65          | 34.53         | Average | 132   | 178   | VERTICAL  |
| 5 | 5498.80 | 114.36 |            |            | 110.62     | 4.57       | 33.70          | 34.53         | Peak    | 132   | 178   | VERTICAL  |
| 6 | 5498.80 | 103.40 |            |            | 99.66      | 4.57       | 33.70          | 34.53         | Average | 132   | 178   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5500 MHz.

**Channel 140**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | T/Pos | A/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | deg   | cm    |           |
| 1 | 5698.80 | 112.63 |            |            | 108.23     | 4.70       | 34.27          | 34.57         | Peak    | 213   | 182   | VERTICAL  |
| 2 | 5698.80 | 102.36 |            |            | 97.96      | 4.70       | 34.27          | 34.57         | Average | 213   | 182   | VERTICAL  |
| 3 | 5725.00 | 71.08  | 74.00      | -2.92      | 66.57      | 4.72       | 34.37          | 34.58         | Peak    | 213   | 182   | VERTICAL  |
| 4 | 5774.00 | 53.79  | 54.00      | -0.21      | 49.09      | 4.75       | 34.53          | 34.58         | Average | 213   | 182   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5700 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 149, 157, 165 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 15, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)  |

**Channel 149**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5667.80 | 62.94  | 68.20  | -5.26 | 58.60  | 4.68         | 34.22  | 34.56  | Peak    | 176   | 184       | VERTICAL |
| 2 | 5723.80 | 77.86  | 78.20  | -0.34 | 73.35  | 4.72         | 34.37  | 34.58  | Peak    | 176   | 184       | VERTICAL |
| 3 | 5743.40 | 110.79 |        |       | 106.22 | 4.73         | 34.42  | 34.58  | Peak    | 176   | 184       | VERTICAL |
| 4 | 5744.20 | 101.03 |        |       | 96.46  | 4.73         | 34.42  | 34.58  | Average | 176   | 184       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5745 MHz.

**Channel 157**

|   | Freq    | Level  | Limit  | Over   | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|--------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5707.80 | 66.31  | 68.20  | -1.89  | 61.86  | 4.71         | 34.32  | 34.58  | Peak    | 181   | 262       | VERTICAL |
| 2 | 5722.60 | 58.45  | 78.20  | -19.75 | 53.94  | 4.72         | 34.37  | 34.58  | Peak    | 181   | 262       | VERTICAL |
| 3 | 5778.60 | 115.04 |        |        | 110.34 | 4.75         | 34.53  | 34.58  | Peak    | 181   | 262       | VERTICAL |
| 4 | 5783.40 | 105.42 |        |        | 100.73 | 4.75         | 34.53  | 34.59  | Average | 181   | 262       | VERTICAL |
| 5 | 5858.80 | 65.48  | 78.20  | -12.72 | 60.48  | 4.81         | 34.79  | 34.60  | Peak    | 181   | 262       | VERTICAL |
| 6 | 5864.60 | 66.25  | 68.20  | -1.95  | 61.25  | 4.81         | 34.79  | 34.60  | Peak    | 181   | 262       | VERTICAL |

Item 3, 4 are the fundamental frequency at 5785 MHz.

**Channel 165**

|   | Freq    | Level  | Limit  | Over  | Read   | CableAntenna | Preamp | Remark | T/Pos   | A/Pos | Pol/Phase |          |
|---|---------|--------|--------|-------|--------|--------------|--------|--------|---------|-------|-----------|----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB           | dB/m   | dB     | deg     | cm    |           |          |
| 1 | 5831.80 | 113.91 |        |       | 109.04 | 4.79         | 34.68  | 34.60  | Peak    | 94    | 176       | VERTICAL |
| 2 | 5831.80 | 103.92 |        |       | 99.05  | 4.79         | 34.68  | 34.60  | Average | 94    | 176       | VERTICAL |
| 3 | 5850.00 | 77.59  | 78.20  | -0.61 | 72.66  | 4.80         | 34.73  | 34.60  | Peak    | 94    | 176       | VERTICAL |
| 4 | 5860.40 | 67.30  | 68.20  | -0.90 | 62.30  | 4.81         | 34.79  | 34.60  | Peak    | 94    | 176       | VERTICAL |

Item 1, 2 are the fundamental frequency at 5825 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 36, 40, 48 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                     |

### Channel 36

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5147.76 | 72.87  | 74.00      | -1.13      | 67.93      | 6.13              | 34.01          | 35.20         | Peak    | 188   | 135   | VERTICAL  |
| 2 | 5150.00 | 53.83  | 54.00      | -0.17      | 48.89      | 6.13              | 34.01          | 35.20         | Average | 188   | 135   | VERTICAL  |
| 3 | 5177.76 | 103.00 |            |            | 97.97      | 6.15              | 34.08          | 35.20         | Average | 188   | 135   | VERTICAL  |
| 4 | 5178.08 | 113.15 |            |            | 108.12     | 6.15              | 34.08          | 35.20         | Peak    | 188   | 135   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5180 MHz.

### Channel 40

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5117.63 | 62.49  | 74.00      | -11.51     | 57.64      | 6.11              | 33.94          | 35.20         | Peak    | 195   | 50    | VERTICAL  |
| 2 | 5121.80 | 52.23  | 54.00      | -1.77      | 47.38      | 6.11              | 33.94          | 35.20         | Average | 195   | 50    | VERTICAL  |
| 3 | 5202.24 | 103.05 |            |            | 97.98      | 6.16              | 34.11          | 35.20         | Average | 195   | 50    | VERTICAL  |
| 4 | 5202.24 | 112.91 |            |            | 107.84     | 6.16              | 34.11          | 35.20         | Peak    | 195   | 50    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5200 MHz.

### Channel 48

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5136.06 | 56.58  | 74.00      | -17.42     | 51.68      | 6.12              | 33.98          | 35.20         | Peak    | 201   | 53    | VERTICAL  |
| 2 | 5150.00 | 44.05  | 54.00      | -9.95      | 39.11      | 6.13              | 34.01          | 35.20         | Average | 201   | 53    | VERTICAL  |
| 3 | 5237.60 | 113.21 |            |            | 108.05     | 6.18              | 34.18          | 35.20         | Peak    | 201   | 53    | VERTICAL  |
| 4 | 5242.40 | 103.07 |            |            | 97.89      | 6.20              | 34.18          | 35.20         | Average | 201   | 53    | VERTICAL  |
| 5 | 5361.54 | 44.74  | 54.00      | -9.26      | 39.25      | 6.27              | 34.42          | 35.20         | Average | 201   | 53    | VERTICAL  |
| 6 | 5363.46 | 57.42  | 74.00      | -16.58     | 51.93      | 6.27              | 34.42          | 35.20         | Peak    | 201   | 53    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5240 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 52, 60, 64 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                     |

**Channel 52**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5141.83 | 45.07  | 54.00      | -8.93      | 40.16      | 6.13       | 33.98          | 35.20         | Average | 195   | 138   | VERTICAL  |
| 2 | 5147.60 | 56.53  | 74.00      | -17.47     | 51.59      | 6.13       | 34.01          | 35.20         | Peak    | 195   | 138   | VERTICAL  |
| 3 | 5262.40 | 103.29 |            |            | 98.06      | 6.21       | 34.22          | 35.20         | Average | 195   | 138   | VERTICAL  |
| 4 | 5262.40 | 113.82 |            |            | 108.59     | 6.21       | 34.22          | 35.20         | Peak    | 195   | 138   | VERTICAL  |
| 5 | 5350.00 | 44.67  | 54.00      | -9.33      | 39.19      | 6.26       | 34.42          | 35.20         | Average | 195   | 138   | VERTICAL  |
| 6 | 5383.65 | 57.22  | 74.00      | -16.78     | 51.65      | 6.28       | 34.49          | 35.20         | Peak    | 195   | 138   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5260 MHz.

**Channel 60**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5306.41 | 113.75 |            |            | 108.40     | 6.23       | 34.32          | 35.20         | Peak    | 183   | 157   | VERTICAL  |
| 2 | 5306.73 | 103.39 |            |            | 98.04      | 6.23       | 34.32          | 35.20         | Average | 183   | 157   | VERTICAL  |
| 3 | 5386.86 | 53.68  | 54.00      | -0.32      | 48.11      | 6.28       | 34.49          | 35.20         | Average | 183   | 157   | VERTICAL  |
| 4 | 5387.18 | 63.90  | 74.00      | -10.10     | 58.33      | 6.28       | 34.49          | 35.20         | Peak    | 183   | 157   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5300 MHz.

**Channel 64**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5315.51 | 112.79 |            |            | 107.39     | 6.24       | 34.36          | 35.20         | Peak    | 170   | 135   | VERTICAL  |
| 2 | 5317.76 | 103.50 |            |            | 98.10      | 6.24       | 34.36          | 35.20         | Average | 170   | 135   | VERTICAL  |
| 3 | 5350.96 | 68.88  | 74.00      | -5.12      | 63.40      | 6.26       | 34.42          | 35.20         | Peak    | 170   | 135   | VERTICAL  |
| 4 | 5397.76 | 53.23  | 54.00      | -0.77      | 47.65      | 6.29       | 34.49          | 35.20         | Average | 170   | 135   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5320 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 100, 140 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                   |

**Channel 100**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5421.86 | 53.36  | 54.00      | -0.64      | 47.69      | 6.31              | 34.56          | 35.20         | Average | 195   | 96    | VERTICAL  |
| 2 | 5423.78 | 63.93  | 74.00      | -10.07     | 58.26      | 6.31              | 34.56          | 35.20         | Peak    | 195   | 96    | VERTICAL  |
| 3 | 5468.72 | 72.15  | 74.00      | -1.85      | 66.34      | 6.34              | 34.67          | 35.20         | Peak    | 195   | 96    | VERTICAL  |
| 4 | 5470.00 | 52.25  | 54.00      | -1.75      | 46.44      | 6.34              | 34.67          | 35.20         | Average | 195   | 96    | VERTICAL  |
| 5 | 5502.24 | 103.83 |            |            | 97.96      | 6.36              | 34.71          | 35.20         | Average | 195   | 96    | VERTICAL  |
| 6 | 5502.24 | 113.63 |            |            | 107.76     | 6.36              | 34.71          | 35.20         | Peak    | 195   | 96    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5500 MHz.

**Channel 140**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5706.41 | 111.97 |            |            | 105.86     | 6.44              | 34.87          | 35.20         | Peak    | 185   | 104   | VERTICAL  |
| 2 | 5706.73 | 102.05 |            |            | 95.94      | 6.44              | 34.87          | 35.20         | Average | 185   | 104   | VERTICAL  |
| 3 | 5725.00 | 53.90  | 54.00      | -0.10      | 47.76      | 6.45              | 34.89          | 35.20         | Average | 185   | 104   | VERTICAL  |
| 4 | 5725.00 | 70.66  | 74.00      | -3.34      | 64.52      | 6.45              | 34.89          | 35.20         | Peak    | 185   | 104   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5700 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT20 CH 149, 157, 165 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)  |

**Channel 149**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5666.92 | 63.19  | 68.20      | -5.01      | 57.13      | 6.43       | 34.83          | 35.20         | Peak    | 183   | 141   | VERTICAL  |
| 2 | 5725.00 | 77.82  | 78.20      | -0.38      | 71.68      | 6.45       | 34.89          | 35.20         | Peak    | 183   | 141   | VERTICAL  |
| 3 | 5747.24 | 102.03 |            |            | 95.88      | 6.45       | 34.90          | 35.20         | Average | 183   | 141   | VERTICAL  |
| 4 | 5750.77 | 111.66 |            |            | 105.51     | 6.45       | 34.90          | 35.20         | Peak    | 183   | 141   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5745 MHz.

**Channel 157**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5704.74 | 65.09  | 68.20      | -3.11      | 58.99      | 6.44       | 34.86          | 35.20         | Peak    | 194   | 88    | VERTICAL  |
| 2 | 5725.00 | 57.22  | 78.20      | -20.98     | 51.08      | 6.45       | 34.89          | 35.20         | Peak    | 194   | 88    | VERTICAL  |
| 3 | 5778.27 | 104.73 |            |            | 98.54      | 6.46       | 34.93          | 35.20         | Average | 194   | 88    | VERTICAL  |
| 4 | 5778.91 | 114.52 |            |            | 108.33     | 6.46       | 34.93          | 35.20         | Peak    | 194   | 88    | VERTICAL  |
| 5 | 5858.72 | 64.74  | 78.20      | -13.46     | 58.46      | 6.50       | 34.98          | 35.20         | Peak    | 194   | 88    | VERTICAL  |
| 6 | 5863.85 | 64.85  | 68.20      | -3.35      | 58.56      | 6.50       | 34.99          | 35.20         | Peak    | 194   | 88    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5785 MHz.

**Channel 165**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5822.44 | 115.20 |            |            | 108.97     | 6.48       | 34.95          | 35.20         | Peak    | 180   | 57    | VERTICAL  |
| 2 | 5822.76 | 104.84 |            |            | 98.61      | 6.48       | 34.95          | 35.20         | Average | 180   | 57    | VERTICAL  |
| 3 | 5850.00 | 77.75  | 78.20      | -0.45      | 71.48      | 6.49       | 34.98          | 35.20         | Peak    | 180   | 57    | VERTICAL  |
| 4 | 5908.72 | 64.69  | 68.20      | -3.51      | 58.35      | 6.52       | 35.02          | 35.20         | Peak    | 180   | 57    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5825 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 38, 46 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                 |

### Channel 38

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5149.36 | 68.54  | 74.00      | -5.46      | 63.60      | 6.13              | 34.01          | 35.20         | Peak    | 172   | 17    | VERTICAL  |
| 2 | 5150.00 | 53.92  | 54.00      | -0.08      | 48.98      | 6.13              | 34.01          | 35.20         | Average | 172   | 17    | VERTICAL  |
| 3 | 5195.13 | 96.79  |            |            | 91.72      | 6.16              | 34.11          | 35.20         | Average | 172   | 17    | VERTICAL  |
| 4 | 5195.13 | 106.00 |            |            | 100.93     | 6.16              | 34.11          | 35.20         | Peak    | 172   | 17    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5190 MHz.

### Channel 46

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5144.87 | 53.21  | 54.00      | -0.79      | 48.27      | 6.13              | 34.01          | 35.20         | Average | 172   | 20    | VERTICAL  |
| 2 | 5145.51 | 64.45  | 74.00      | -9.55      | 59.51      | 6.13              | 34.01          | 35.20         | Peak    | 172   | 20    | VERTICAL  |
| 3 | 5235.13 | 112.31 |            |            | 107.15     | 6.18              | 34.18          | 35.20         | Peak    | 172   | 20    | VERTICAL  |
| 4 | 5235.45 | 102.50 |            |            | 97.34      | 6.18              | 34.18          | 35.20         | Average | 172   | 20    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5230 MHz.



|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 54, 62 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                 |

**Channel 54**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | PoI/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5264.55 | 111.53 |            |            | 106.27     | 6.21              | 34.25          | 35.20         | Peak    | 182   | 21    | VERTICAL  |
| 2 | 5265.19 | 102.40 |            |            | 97.14      | 6.21              | 34.25          | 35.20         | Average | 182   | 21    | VERTICAL  |
| 3 | 5354.49 | 62.66  | 74.00      | -11.34     | 57.18      | 6.26              | 34.42          | 35.20         | Peak    | 182   | 21    | VERTICAL  |
| 4 | 5355.13 | 52.19  | 54.00      | -1.81      | 46.71      | 6.26              | 34.42          | 35.20         | Average | 182   | 21    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5270 MHz.

**Channel 62**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | PoI/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5315.13 | 97.18  |            |            | 91.78      | 6.24              | 34.36          | 35.20         | Average | 177   | 19    | VERTICAL  |
| 2 | 5315.13 | 106.22 |            |            | 100.82     | 6.24              | 34.36          | 35.20         | Peak    | 177   | 19    | VERTICAL  |
| 3 | 5350.00 | 53.90  | 54.00      | -0.10      | 48.42      | 6.26              | 34.42          | 35.20         | Average | 177   | 19    | VERTICAL  |
| 4 | 5350.00 | 68.98  | 74.00      | -5.02      | 63.50      | 6.26              | 34.42          | 35.20         | Peak    | 177   | 19    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5310 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)  |

### Channel 102

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5435.00 | 49.03  | 54.00      | -4.97      | 43.31      | 6.32       | 34.60          | 35.20         | Average | 171   | 22    | VERTICAL  |
| 2 | 5460.00 | 61.27  | 74.00      | -12.73     | 55.51      | 6.33       | 34.63          | 35.20         | Peak    | 171   | 22    | VERTICAL  |
| 3 | 5469.36 | 68.70  | 74.00      | -5.30      | 62.89      | 6.34       | 34.67          | 35.20         | Peak    | 171   | 22    | VERTICAL  |
| 4 | 5470.00 | 53.61  | 54.00      | -0.39      | 47.80      | 6.34       | 34.67          | 35.20         | Average | 171   | 22    | VERTICAL  |
| 5 | 5505.19 | 106.42 |            |            | 100.55     | 6.36       | 34.71          | 35.20         | Peak    | 171   | 22    | VERTICAL  |
| 6 | 5505.51 | 97.17  |            |            | 91.30      | 6.36       | 34.71          | 35.20         | Average | 171   | 22    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5510 MHz.

### Channel 110

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5459.36 | 62.56  | 74.00      | -11.44     | 56.80      | 6.33       | 34.63          | 35.20         | Peak    | 178   | 18    | VERTICAL  |
| 2 | 5460.00 | 52.64  | 54.00      | -1.36      | 46.88      | 6.33       | 34.63          | 35.20         | Average | 178   | 18    | VERTICAL  |
| 3 | 5464.87 | 64.73  | 74.00      | -9.27      | 58.96      | 6.34       | 34.63          | 35.20         | Peak    | 178   | 18    | VERTICAL  |
| 4 | 5465.19 | 53.13  | 54.00      | -0.87      | 47.36      | 6.34       | 34.63          | 35.20         | Average | 178   | 18    | VERTICAL  |
| 5 | 5555.77 | 102.40 |            |            | 96.47      | 6.38       | 34.75          | 35.20         | Average | 178   | 18    | VERTICAL  |
| 6 | 5555.77 | 111.80 |            |            | 105.87     | 6.38       | 34.75          | 35.20         | Peak    | 178   | 18    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5550 MHz.

### Channel 134

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5667.12 | 102.95 |            |            | 96.89      | 6.43       | 34.83          | 35.20         | Average | 179   | 99    | VERTICAL  |
| 2 | 5667.12 | 112.12 |            |            | 106.06     | 6.43       | 34.83          | 35.20         | Peak    | 179   | 99    | VERTICAL  |
| 3 | 5726.92 | 70.93  | 74.00      | -3.07      | 64.79      | 6.45       | 34.89          | 35.20         | Peak    | 179   | 99    | VERTICAL  |
| 4 | 5752.56 | 53.74  | 54.00      | -0.26      | 47.58      | 6.46       | 34.90          | 35.20         | Average | 179   | 99    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5670 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT40 CH 151, 159 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                   |

**Channel 151**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5712.44 | 68.16  | 68.20      | -0.04      | 62.05      | 6.44              | 34.87          | 35.20         | Peak    | 184   | 99    | VERTICAL  |
| 2 | 5722.44 | 71.13  | 78.20      | -7.07      | 65.01      | 6.45              | 34.87          | 35.20         | Peak    | 184   | 99    | VERTICAL  |
| 3 | 5752.12 | 96.61  |            |            | 90.45      | 6.46              | 34.90          | 35.20         | Average | 184   | 99    | VERTICAL  |
| 4 | 5752.12 | 106.31 |            |            | 100.15     | 6.46              | 34.90          | 35.20         | Peak    | 184   | 99    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5755 MHz.

**Channel 159**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5712.76 | 65.92  | 68.20      | -2.28      | 59.81      | 6.44              | 34.87          | 35.20         | Peak    | 186   | 52    | VERTICAL  |
| 2 | 5723.40 | 69.73  | 78.20      | -8.47      | 63.59      | 6.45              | 34.89          | 35.20         | Peak    | 186   | 52    | VERTICAL  |
| 3 | 5797.89 | 113.41 |            |            | 107.20     | 6.47              | 34.94          | 35.20         | Peak    | 186   | 52    | VERTICAL  |
| 4 | 5798.21 | 103.07 |            |            | 96.86      | 6.47              | 34.94          | 35.20         | Average | 186   | 52    | VERTICAL  |
| 5 | 5851.60 | 71.59  | 78.20      | -6.61      | 65.32      | 6.49              | 34.98          | 35.20         | Peak    | 186   | 52    | VERTICAL  |
| 6 | 5861.60 | 68.16  | 68.20      | -0.04      | 61.87      | 6.50              | 34.99          | 35.20         | Peak    | 186   | 52    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5795 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 38, 46 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                 |

**Channel 38**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5145.83 | 67.61  | 74.00      | -6.39      | 62.67      | 6.13       | 34.01          | 35.20         | Peak    | 192   | 158   | VERTICAL  |
| 2 | 5150.00 | 53.99  | 54.00      | -0.01      | 49.05      | 6.13       | 34.01          | 35.20         | Average | 192   | 158   | VERTICAL  |
| 3 | 5186.47 | 95.37  |            |            | 90.34      | 6.15       | 34.08          | 35.20         | Average | 192   | 158   | VERTICAL  |
| 4 | 5186.47 | 105.20 |            |            | 100.17     | 6.15       | 34.08          | 35.20         | Peak    | 192   | 158   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5190 MHz.

**Channel 46**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5142.95 | 50.35  | 54.00      | -3.65      | 45.44      | 6.13       | 33.98          | 35.20         | Average | 195   | 88    | VERTICAL  |
| 2 | 5143.91 | 65.68  | 74.00      | -8.32      | 60.74      | 6.13       | 34.01          | 35.20         | Peak    | 195   | 88    | VERTICAL  |
| 3 | 5233.53 | 99.84  |            |            | 94.68      | 6.18       | 34.18          | 35.20         | Average | 195   | 88    | VERTICAL  |
| 4 | 5233.53 | 109.01 |            |            | 103.85     | 6.18       | 34.18          | 35.20         | Peak    | 195   | 88    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5230 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 54, 62 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                 |

#### Channel 54

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5262.31 | 100.15 |            |            | 94.92      | 6.21              | 34.22          | 35.20         | Average | 194   | 57    | VERTICAL  |
| 2 | 5265.51 | 109.98 |            |            | 104.72     | 6.21              | 34.25          | 35.20         | Peak    | 194   | 57    | VERTICAL  |
| 3 | 5358.01 | 50.86  | 54.00      | -3.14      | 45.38      | 6.26              | 34.42          | 35.20         | Average | 194   | 57    | VERTICAL  |
| 4 | 5362.50 | 62.64  | 74.00      | -11.36     | 57.15      | 6.27              | 34.42          | 35.20         | Peak    | 194   | 57    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5270 MHz.

#### Channel 62

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5306.47 | 95.64  |            |            | 90.29      | 6.23              | 34.32          | 35.20         | Average | 186   | 159   | VERTICAL  |
| 2 | 5306.47 | 106.20 |            |            | 100.85     | 6.23              | 34.32          | 35.20         | Peak    | 186   | 159   | VERTICAL  |
| 3 | 5350.00 | 53.71  | 54.00      | -0.29      | 48.23      | 6.26              | 34.42          | 35.20         | Average | 186   | 159   | VERTICAL  |
| 4 | 5351.92 | 69.82  | 74.00      | -4.18      | 64.34      | 6.26              | 34.42          | 35.20         | Peak    | 186   | 159   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5310 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 102, 110, 134 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)  |

### Channel 102

|   | Freq    | Level  | Limit  | Over   | Read   | Cable | Antenna | Preamp | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|--------|--------|--------|-------|---------|--------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB    | dB/m    | dB     |         | cm    | deg   |           |
| 1 | 5460.00 | 47.29  | 54.00  | -6.71  | 41.53  | 6.33  | 34.63   | 35.20  | Average | 205   | 84    | VERTICAL  |
| 2 | 5460.00 | 59.38  | 74.00  | -14.62 | 53.62  | 6.33  | 34.63   | 35.20  | Peak    | 205   | 84    | VERTICAL  |
| 3 | 5464.23 | 68.42  | 74.00  | -5.58  | 62.65  | 6.34  | 34.63   | 35.20  | Peak    | 205   | 84    | VERTICAL  |
| 4 | 5470.00 | 53.67  | 54.00  | -0.33  | 47.86  | 6.34  | 34.67   | 35.20  | Average | 205   | 84    | VERTICAL  |
| 5 | 5513.53 | 96.48  |        |        | 90.60  | 6.37  | 34.71   | 35.20  | Average | 205   | 84    | VERTICAL  |
| 6 | 5514.17 | 107.01 |        |        | 101.13 | 6.37  | 34.71   | 35.20  | Peak    | 205   | 84    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5510 MHz.

### Channel 110

|   | Freq    | Level  | Limit  | Over   | Read   | Cable | Antenna | Preamp | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|--------|--------|--------|-------|---------|--------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB     | dBuV   | dB    | dB/m    | dB     |         | cm    | deg   |           |
| 1 | 5457.44 | 50.48  | 54.00  | -3.52  | 44.72  | 6.33  | 34.63   | 35.20  | Average | 184   | 53    | VERTICAL  |
| 2 | 5457.76 | 61.94  | 74.00  | -12.06 | 56.18  | 6.33  | 34.63   | 35.20  | Peak    | 184   | 53    | VERTICAL  |
| 3 | 5466.80 | 50.71  | 54.00  | -3.29  | 44.94  | 6.34  | 34.63   | 35.20  | Average | 184   | 53    | VERTICAL  |
| 4 | 5467.76 | 61.49  | 74.00  | -12.51 | 55.68  | 6.34  | 34.67   | 35.20  | Peak    | 184   | 53    | VERTICAL  |
| 5 | 5552.89 | 110.92 |        |        | 104.99 | 6.38  | 34.75   | 35.20  | Peak    | 184   | 53    | VERTICAL  |
| 6 | 5558.01 | 100.40 |        |        | 94.47  | 6.38  | 34.75   | 35.20  | Average | 184   | 53    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5550 MHz.

### Channel 134

|   | Freq    | Level  | Limit  | Over  | Read   | Cable | Antenna | Preamp | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|--------|-------|--------|-------|---------|--------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m | dB    | dBuV   | dB    | dB/m    | dB     |         | cm    | deg   |           |
| 1 | 5673.53 | 101.81 |        |       | 95.73  | 6.43  | 34.85   | 35.20  | Average | 192   | 92    | VERTICAL  |
| 2 | 5675.45 | 111.26 |        |       | 105.18 | 6.43  | 34.85   | 35.20  | Peak    | 192   | 92    | VERTICAL  |
| 3 | 5726.92 | 53.38  | 54.00  | -0.62 | 47.24  | 6.45  | 34.89   | 35.20  | Average | 192   | 92    | VERTICAL  |
| 4 | 5727.89 | 71.88  | 74.00  | -2.12 | 65.74  | 6.45  | 34.89   | 35.20  | Peak    | 192   | 92    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5670 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT40 CH 151, 159 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                   |

**Channel 151**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5715.00 | 68.14  | 68.20      | -0.06      | 62.03      | 6.44       | 34.87          | 35.20         | Peak    | 185   | 128   | VERTICAL  |
| 2 | 5717.95 | 74.91  | 78.20      | -3.29      | 68.79      | 6.45       | 34.87          | 35.20         | Peak    | 185   | 128   | VERTICAL  |
| 3 | 5757.56 | 106.73 |            |            | 100.56     | 6.46       | 34.91          | 35.20         | Peak    | 185   | 128   | VERTICAL  |
| 4 | 5758.53 | 96.71  |            |            | 90.54      | 6.46       | 34.91          | 35.20         | Average | 185   | 128   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5755 MHz.

**Channel 159**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5709.87 | 63.46  | 68.20      | -4.74      | 57.35      | 6.44       | 34.87          | 35.20         | Peak    | 176   | 14    | VERTICAL  |
| 2 | 5719.55 | 67.76  | 78.20      | -10.44     | 61.64      | 6.45       | 34.87          | 35.20         | Peak    | 176   | 14    | VERTICAL  |
| 3 | 5790.51 | 111.91 |            |            | 105.71     | 6.47       | 34.93          | 35.20         | Peak    | 176   | 14    | VERTICAL  |
| 4 | 5791.47 | 100.74 |            |            | 94.53      | 6.47       | 34.94          | 35.20         | Average | 176   | 14    | VERTICAL  |
| 5 | 5850.32 | 75.31  | 78.20      | -2.89      | 69.04      | 6.49       | 34.98          | 35.20         | Peak    | 176   | 14    | VERTICAL  |
| 6 | 5860.96 | 67.04  | 68.20      | -1.16      | 60.75      | 6.50       | 34.99          | 35.20         | Peak    | 176   | 14    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5795 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT80 CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                      |

### Channel 42

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5146.80 | 65.44  | 74.00      | -8.56      | 60.50      | 6.13              | 34.01          | 35.20         | Peak    | 197   | 156   | VERTICAL  |
| 2 | 5147.44 | 53.66  | 54.00      | -0.34      | 48.72      | 6.13              | 34.01          | 35.20         | Average | 197   | 156   | VERTICAL  |
| 3 | 5221.54 | 92.47  |            |            | 87.35      | 6.17              | 34.15          | 35.20         | Average | 197   | 156   | VERTICAL  |
| 4 | 5222.18 | 102.33 |            |            | 97.21      | 6.17              | 34.15          | 35.20         | Peak    | 197   | 156   | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5210 MHz.

### Channel 58

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5295.13 | 102.56 |            |            | 97.24      | 6.23              | 34.29          | 35.20         | Peak    | 180   | 20    | VERTICAL  |
| 2 | 5299.62 | 93.41  |            |            | 88.06      | 6.23              | 34.32          | 35.20         | Average | 180   | 20    | VERTICAL  |
| 3 | 5350.00 | 53.76  | 54.00      | -0.24      | 48.28      | 6.26              | 34.42          | 35.20         | Average | 180   | 20    | VERTICAL  |
| 4 | 5350.00 | 66.71  | 74.00      | -7.29      | 61.23      | 6.26              | 34.42          | 35.20         | Peak    | 180   | 20    | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5290 MHz.

### Channel 106

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5459.36 | 52.90  | 54.00      | -1.10      | 47.14      | 6.33              | 34.63          | 35.20         | Average | 178   | 13    | VERTICAL  |
| 2 | 5460.00 | 64.38  | 74.00      | -9.62      | 58.62      | 6.33              | 34.63          | 35.20         | Peak    | 178   | 13    | VERTICAL  |
| 3 | 5467.44 | 68.18  | 74.00      | -5.82      | 62.37      | 6.34              | 34.67          | 35.20         | Peak    | 178   | 13    | VERTICAL  |
| 4 | 5470.00 | 53.62  | 54.00      | -0.38      | 47.81      | 6.34              | 34.67          | 35.20         | Average | 178   | 13    | VERTICAL  |
| 5 | 5505.00 | 101.11 |            |            | 95.24      | 6.36              | 34.71          | 35.20         | Peak    | 178   | 13    | VERTICAL  |
| 6 | 5540.90 | 92.37  |            |            | 86.46      | 6.37              | 34.74          | 35.20         | Average | 178   | 13    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5530 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss1 VHT80 CH, 122, 138, 155 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)   |

### Channel 122

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5457.44 | 59.56  | 74.00      | -14.44     | 53.80      | 6.33       | 34.63          | 35.20         | Peak    | 166   | 59    | VERTICAL  |
| 2 | 5458.08 | 47.25  | 54.00      | -6.75      | 41.49      | 6.33       | 34.63          | 35.20         | Average | 166   | 59    | VERTICAL  |
| 3 | 5467.44 | 60.41  | 74.00      | -13.59     | 54.60      | 6.34       | 34.67          | 35.20         | Peak    | 166   | 59    | VERTICAL  |
| 4 | 5470.00 | 47.53  | 54.00      | -6.47      | 41.72      | 6.34       | 34.67          | 35.20         | Average | 166   | 59    | VERTICAL  |
| 5 | 5611.92 | 107.91 |            |            | 101.92     | 6.40       | 34.79          | 35.20         | Peak    | 166   | 59    | VERTICAL  |
| 6 | 5612.56 | 99.02  |            |            | 93.03      | 6.40       | 34.79          | 35.20         | Average | 166   | 59    | VERTICAL  |
| 7 | 5726.92 | 65.29  | 74.00      | -8.71      | 59.15      | 6.45       | 34.89          | 35.20         | Peak    | 166   | 59    | VERTICAL  |
| 8 | 5728.21 | 51.84  | 54.00      | -2.16      | 45.70      | 6.45       | 34.89          | 35.20         | Average | 166   | 59    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5610 MHz.

### Channel 138

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5460.00 | 45.63  | 54.00      | -8.37      | 39.87      | 6.33       | 34.63          | 35.20         | Average | 179   | 99    | VERTICAL  |
| 2 | 5460.00 | 54.88  | 74.00      | -19.12     | 49.12      | 6.33       | 34.63          | 35.20         | Peak    | 179   | 99    | VERTICAL  |
| 3 | 5470.00 | 44.59  | 54.00      | -9.41      | 38.78      | 6.34       | 34.67          | 35.20         | Average | 179   | 99    | VERTICAL  |
| 4 | 5470.00 | 56.53  | 74.00      | -17.47     | 50.72      | 6.34       | 34.67          | 35.20         | Peak    | 179   | 99    | VERTICAL  |
| 5 | 5677.18 | 99.09  |            |            | 93.01      | 6.43       | 34.85          | 35.20         | Average | 179   | 99    | VERTICAL  |
| 6 | 5677.18 | 108.19 |            |            | 102.11     | 6.43       | 34.85          | 35.20         | Peak    | 179   | 99    | VERTICAL  |
| 7 | 5850.00 | 45.98  | 54.00      | -8.02      | 39.71      | 6.49       | 34.98          | 35.20         | Average | 179   | 99    | VERTICAL  |
| 8 | 5850.00 | 56.37  | 74.00      | -17.63     | 50.10      | 6.49       | 34.98          | 35.20         | Peak    | 179   | 99    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5690 MHz.

### Channel 155

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5715.00 | 67.96  | 68.20      | -0.24      | 61.85      | 6.44       | 34.87          | 35.20         | Peak    | 169   | 87    | VERTICAL  |
| 2 | 5724.36 | 72.24  | 78.20      | -5.96      | 66.10      | 6.45       | 34.89          | 35.20         | Peak    | 169   | 87    | VERTICAL  |
| 3 | 5778.85 | 93.48  |            |            | 87.29      | 6.46       | 34.93          | 35.20         | Average | 169   | 87    | VERTICAL  |
| 4 | 5794.23 | 103.16 |            |            | 96.95      | 6.47       | 34.94          | 35.20         | Peak    | 169   | 87    | VERTICAL  |
| 5 | 5853.21 | 66.80  | 78.20      | -11.40     | 60.53      | 6.49       | 34.98          | 35.20         | Peak    | 169   | 87    | VERTICAL  |
| 6 | 5862.56 | 63.87  | 68.20      | -4.33      | 57.58      | 6.50       | 34.99          | 35.20         | Peak    | 169   | 87    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5775 MHz.

|                      |               |                       |  |
|----------------------|---------------|-----------------------|--|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%  |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT80 CH 42, 58, 106 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)                                      |

### Channel 42

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase  |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|------------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |            |
| 1 | 5142.95 | 67.93  | 74.00      | -6.07      | 63.02      | 6.13              | 33.98          | 35.20         | Peak    | 183   | 96    | HORIZONTAL |
| 2 | 5148.72 | 53.89  | 54.00      | -0.11      | 48.95      | 6.13              | 34.01          | 35.20         | Average | 183   | 96    | HORIZONTAL |
| 3 | 5197.82 | 88.15  |            |            | 83.08      | 6.16              | 34.11          | 35.20         | Average | 183   | 96    | HORIZONTAL |
| 4 | 5218.33 | 99.30  |            |            | 94.18      | 6.17              | 34.15          | 35.20         | Peak    | 183   | 96    | HORIZONTAL |

Item 3, 4 are the fundamental frequency at 5210 MHz.

### Channel 58

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5262.44 | 101.78 |            |            | 96.55      | 6.21              | 34.22          | 35.20         | Peak    | 194   | 139   | VERTICAL  |
| 2 | 5302.18 | 92.12  |            |            | 86.77      | 6.23              | 34.32          | 35.20         | Average | 194   | 139   | VERTICAL  |
| 3 | 5351.28 | 53.93  | 54.00      | -0.07      | 48.45      | 6.26              | 34.42          | 35.20         | Average | 194   | 139   | VERTICAL  |
| 4 | 5356.41 | 67.49  | 74.00      | -6.51      | 62.01      | 6.26              | 34.42          | 35.20         | Peak    | 194   | 139   | VERTICAL  |

Item 1, 2 are the fundamental frequency at 5290 MHz.

### Channel 106

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | CableAntenna Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|-------------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB                | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5456.15 | 53.83  | 54.00      | -0.17      | 48.07      | 6.33              | 34.63          | 35.20         | Average | 189   | 143   | VERTICAL  |
| 2 | 5456.80 | 68.17  | 74.00      | -5.83      | 62.41      | 6.33              | 34.63          | 35.20         | Peak    | 189   | 143   | VERTICAL  |
| 3 | 5461.67 | 53.94  | 54.00      | -0.06      | 48.18      | 6.33              | 34.63          | 35.20         | Average | 189   | 143   | VERTICAL  |
| 4 | 5462.95 | 68.02  | 74.00      | -5.98      | 62.25      | 6.34              | 34.63          | 35.20         | Peak    | 189   | 143   | VERTICAL  |
| 5 | 5506.92 | 91.60  |            |            | 85.73      | 6.36              | 34.71          | 35.20         | Average | 189   | 143   | VERTICAL  |
| 6 | 5517.18 | 102.12 |            |            | 96.24      | 6.37              | 34.71          | 35.20         | Peak    | 189   | 143   | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5530 MHz.

|                      |               |                       |   |
|----------------------|---------------|-----------------------|---|
| <b>Temperature</b>   | 24.5°C        | <b>Humidity</b>       | 57%   |
| <b>Test Engineer</b> | Akina Chiu    | <b>Configurations</b> | IEEE 802.11ac MCS0/Nss3 VHT80 CH, 122, 138, 155 / Chain 1 + Chain 2 + Chain 3 |
| <b>Test Date</b>     | Nov. 16, 2014 | <b>Test Mode</b>      | Mode 4 (Ant. 5 PCB antenna / 5.74dBi)   |

**Channel 122**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5457.44 | 48.96  | 54.00      | -5.04      | 43.20      | 6.33       | 34.63          | 35.20         | Average | 186   | 97    | VERTICAL  |
| 2 | 5457.44 | 62.45  | 74.00      | -11.55     | 56.69      | 6.33       | 34.63          | 35.20         | Peak    | 186   | 97    | VERTICAL  |
| 3 | 5466.80 | 49.16  | 54.00      | -4.84      | 43.39      | 6.34       | 34.63          | 35.20         | Average | 186   | 97    | VERTICAL  |
| 4 | 5468.08 | 62.60  | 74.00      | -11.40     | 56.79      | 6.34       | 34.67          | 35.20         | Peak    | 186   | 97    | VERTICAL  |
| 5 | 5597.18 | 97.63  |            |            | 91.66      | 6.39       | 34.78          | 35.20         | Average | 186   | 97    | VERTICAL  |
| 6 | 5599.74 | 107.75 |            |            | 101.77     | 6.40       | 34.78          | 35.20         | Peak    | 186   | 97    | VERTICAL  |
| 7 | 5725.00 | 50.24  | 54.00      | -3.76      | 44.10      | 6.45       | 34.89          | 35.20         | Average | 186   | 97    | VERTICAL  |
| 8 | 5727.56 | 63.10  | 74.00      | -10.90     | 56.96      | 6.45       | 34.89          | 35.20         | Peak    | 186   | 97    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5610 MHz.

**Channel 138**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5460.00 | 46.43  | 54.00      | -7.57      | 40.67      | 6.33       | 34.63          | 35.20         | Average | 171   | 94    | VERTICAL  |
| 2 | 5460.00 | 56.88  | 74.00      | -17.12     | 51.12      | 6.33       | 34.63          | 35.20         | Peak    | 171   | 94    | VERTICAL  |
| 3 | 5470.00 | 45.73  | 54.00      | -8.27      | 39.92      | 6.34       | 34.67          | 35.20         | Average | 171   | 94    | VERTICAL  |
| 4 | 5470.00 | 57.17  | 74.00      | -16.83     | 51.36      | 6.34       | 34.67          | 35.20         | Peak    | 171   | 94    | VERTICAL  |
| 5 | 5677.98 | 97.80  |            |            | 91.72      | 6.43       | 34.85          | 35.20         | Average | 171   | 94    | VERTICAL  |
| 6 | 5707.63 | 107.93 |            |            | 101.82     | 6.44       | 34.87          | 35.20         | Peak    | 171   | 94    | VERTICAL  |
| 7 | 5850.00 | 46.96  | 54.00      | -7.04      | 40.69      | 6.49       | 34.98          | 35.20         | Average | 171   | 94    | VERTICAL  |
| 8 | 5850.00 | 57.04  | 74.00      | -16.96     | 50.77      | 6.49       | 34.98          | 35.20         | Peak    | 171   | 94    | VERTICAL  |

Item 5, 6 are the fundamental frequency at 5690 MHz.

**Channel 155**

|   | Freq    | Level  | Limit Line | Over Limit | Read Level | Cable Loss | Antenna Factor | Preamp Factor | Remark  | A/Pos | T/Pos | Pol/Phase |
|---|---------|--------|------------|------------|------------|------------|----------------|---------------|---------|-------|-------|-----------|
|   | MHz     | dBuV/m | dBuV/m     | dB         | dBuV       | dB         | dB/m           | dB            |         | cm    | deg   |           |
| 1 | 5707.95 | 68.18  | 68.20      | -0.02      | 62.07      | 6.44       | 34.87          | 35.20         | Peak    | 192   | 92    | VERTICAL  |
| 2 | 5724.36 | 69.76  | 78.20      | -8.44      | 63.62      | 6.45       | 34.89          | 35.20         | Peak    | 192   | 92    | VERTICAL  |
| 3 | 5768.59 | 101.82 |            |            | 95.65      | 6.46       | 34.91          | 35.20         | Peak    | 192   | 92    | VERTICAL  |
| 4 | 5778.21 | 92.46  |            |            | 86.27      | 6.46       | 34.93          | 35.20         | Average | 192   | 92    | VERTICAL  |
| 5 | 5852.56 | 65.01  | 78.20      | -13.19     | 58.74      | 6.49       | 34.98          | 35.20         | Peak    | 192   | 92    | VERTICAL  |
| 6 | 5867.69 | 64.91  | 68.20      | -3.29      | 58.62      | 6.50       | 34.99          | 35.20         | Peak    | 192   | 92    | VERTICAL  |

Item 3, 4 are the fundamental frequency at 5775 MHz.

Note:

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

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

## 4.7. Frequency Stability Measurement

### 4.7.1. Limit

In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be  $\pm 20$  ppm maximum for the 5 GHz band (IEEE 802.11n specification).

### 4.7.2. Measuring Instruments and Setting

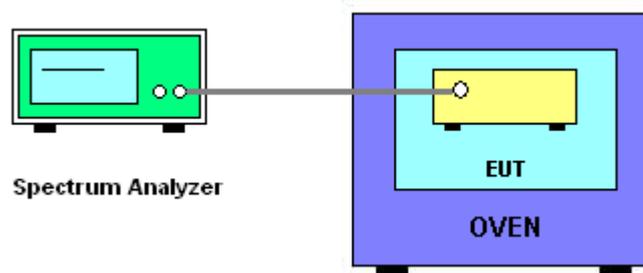
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

| Spectrum Parameter | Setting  |
|--------------------|--|
| Attenuation        | Auto   |
| Span Frequency     | Entire absence of modulation emissions bandwidth |
| RBW                | 10 kHz   |
| VBW                | 10 kHz   |
| Sweep Time         | Auto   |

### 4.7.3. Test Procedures

10. The transmitter output (antenna port) was connected to the spectrum analyzer.
11. EUT have transmitted absence of modulation signal and fixed channelize.
12. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
13. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
14.  $f_c$  is declaring of channel frequency. Then the frequency error formula is  $(f_c - f) / f_c \times 10^6$  ppm and the limit is less than  $\pm 20$  ppm (IEEE 802.11n specification).
15. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
16. Extreme temperature is  $0^\circ\text{C} \sim 50^\circ\text{C}$ .

### 4.7.4. Test Setup Layout



#### 4.7.5. Test Deviation

There is no deviation with the original standard.

#### 4.7.6. EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

#### 4.7.7. Test Result of Frequency Stability

|                      |          |                  |               |
|----------------------|----------|------------------|---------------|
| <b>Temperature</b>   | 25°C     | <b>Humidity</b>  | 56%           |
| <b>Test Engineer</b> | Mars Lin | <b>Test Date</b> | Nov. 21, 2014 |

Mode: 20 MHz

##### Voltage vs. Frequency Stability

| Voltage              | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (V)                  | 5200 MHz                    | 5300 MHz  | 5580 MHz  | 5785 MHz  |
| 126.50               | 5200.0800                   | 5300.0021 | 5580.0023 | 5785.0029 |
| 110.00               | 5200.0012                   | 5300.0015 | 5580.0016 | 5785.0016 |
| 93.50                | 5200.0001                   | 5300.0005 | 5580.0004 | 5785.0005 |
| Max. Deviation (MHz) | 0.0800                      | 0.0021    | 0.0023    | 0.0029    |
| Max. Deviation (ppm) | 15.38                       | 0.40      | 0.41      | 0.50      |

##### Temperature vs. Frequency Stability

| Temperature          | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (°C)                 | 5200 MHz                    | 5300 MHz  | 5580 MHz  | 5785 MHz  |
| 0                    | 5200.0019                   | 5300.0018 | 5580.0032 | 5785.0034 |
| 10                   | 5200.0015                   | 5300.0016 | 5580.0024 | 5785.0026 |
| 20                   | 5200.0012                   | 5300.0015 | 5580.0016 | 5785.0016 |
| 30                   | 5200.0011                   | 5300.0012 | 5580.0002 | 5785.0004 |
| 40                   | 5200.0009                   | 5300.0008 | 5579.9994 | 5784.9996 |
| 50                   | 5200.0006                   | 5300.0004 | 5579.9989 | 5784.9989 |
| Max. Deviation (MHz) | 0.0019                      | 0.0018    | 0.0032    | 0.0034    |
| Max. Deviation (ppm) | 0.37                        | 0.34      | 0.57      | 0.59      |

Mode: 40 MHz

**Voltage vs. Frequency Stability**

| Voltage              | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (V)                  | 5190 MHz                    | 5310 MHz  | 5550 MHz  | 5755 MHz  |
| 126.50               | 5190.0036                   | 5310.0038 | 5550.0042 | 5755.0032 |
| 110.00               | 5190.0024                   | 5310.0026 | 5550.0016 | 5755.0016 |
| 93.50                | 5190.0008                   | 5310.0004 | 5550.0006 | 5755.0004 |
| Max. Deviation (MHz) | 0.0036                      | 0.0038    | 0.0042    | 0.0032    |
| Max. Deviation (ppm) | 0.69                        | 0.72      | 0.76      | 0.56      |

**Temperature vs. Frequency Stability**

| Temperature          | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (°C)                 | 5190 MHz                    | 5310 MHz  | 5550 MHz  | 5755 MHz  |
| 0                    | 5190.0042                   | 5310.0049 | 5550.0042 | 5755.0042 |
| 10                   | 5190.0032                   | 5310.0038 | 5550.0024 | 5755.0026 |
| 20                   | 5190.0024                   | 5310.0026 | 5550.0016 | 5755.0016 |
| 30                   | 5190.0012                   | 5310.0002 | 5549.9998 | 5755.0004 |
| 40                   | 5190.0002                   | 5309.9992 | 5549.9986 | 5754.9992 |
| 50                   | 5189.9994                   | 5309.9981 | 5549.9973 | 5754.9984 |
| Max. Deviation (MHz) | 0.0042                      | 0.0049    | 0.0042    | 0.0042    |
| Max. Deviation (ppm) | 0.81                        | 0.92      | 0.76      | 0.73      |

Mode: 80 MHz

**Voltage vs. Frequency Stability**

| Voltage              | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (V)                  | 5210 MHz                    | 5290 MHz  | 5530 MHz  | 5775 MHz  |
| 126.50               | 5210.0042                   | 5290.0056 | 5530.0048 | 5775.0039 |
| 110.00               | 5210.0026                   | 5290.0030 | 5530.0028 | 5775.0015 |
| 93.50                | 5210.0002                   | 5290.0004 | 5530.0002 | 5775.0002 |
| Max. Deviation (MHz) | 0.0042                      | 0.0056    | 0.0048    | 0.0039    |
| Max. Deviation (ppm) | 0.81                        | 1.06      | 0.87      | 0.68      |

**Temperature vs. Frequency Stability**

| Temperature          | Measurement Frequency (MHz) |           |           |           |
|----------------------|-----------------------------|-----------|-----------|-----------|
| (°C)                 | 5210 MHz                    | 5290 MHz  | 5530 MHz  | 5775 MHz  |
| 0                    | 5210.0052                   | 5290.0061 | 5530.0048 | 5775.0032 |
| 10                   | 5210.0048                   | 5290.0051 | 5530.0032 | 5775.0026 |
| 20                   | 5210.0026                   | 5290.0030 | 5530.0028 | 5775.0015 |
| 30                   | 5209.9992                   | 5290.0002 | 5529.9998 | 5774.9992 |
| 40                   | 5209.9981                   | 5289.9989 | 5529.9986 | 5774.9986 |
| 50                   | 5209.9974                   | 5289.9984 | 5529.9982 | 5774.9973 |
| Max. Deviation (MHz) | 0.005200                    | 0.0061    | 0.0048    | 0.0032    |
| Max. Deviation (ppm) | 1.00                        | 1.15      | 0.87      | 0.55      |

## **4.8. Antenna Requirements**

### **4.8.1. Limit**

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

### **4.8.2. Antenna Connector Construction**

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

## 5. LIST OF MEASURING EQUIPMENTS

| Instrument                 | Manufacturer | Model No.    | Serial No.    | Characteristics  | Calibration Date | Remark                |
|----------------------------|--------------|--------------|---------------|------------------|------------------|-----------------------|
| Horn Antenna               | EMCO         | 3115         | 00075790      | 750MHz~18GHz     | Oct. 28, 2014    | Radiation (03CH01-CB) |
| Horn Antenna               | Schwarzbeck  | BBHA 9170    | BBHA9170252   | 15GHz ~ 40GHz    | Aug. 22, 2014    | Radiation (03CH01-CB) |
| Pre-Amplifier              | Agilent      | 8449B        | 3008A02310    | 1GHz ~ 26.5GHz   | Dec. 16, 2013    | Radiation (03CH01-CB) |
| Pre-Amplifier              | WM           | TF-130N-R1   | 923365        | 26GHz ~ 40GHz    | Nov. 25, 2014    | Radiation (03CH01-CB) |
| Spectrum Analyzer          | R&S          | FSV40        | 101026        | 9kHz ~ 40GHz     | Aug. 28, 2014    | Radiation (03CH01-CB) |
| Turn Table                 | INN CO       | CO 2000      | N/A           | 0 ~ 360 degree   | N.C.R.           | Radiation (03CH01-CB) |
| Antenna Mast               | INN CO       | CO 2000      | N/A           | 1 m - 4 m        | N.C.R.           | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-1 | N/A           | 1 GHz – 26.5 GHz | Nov. 17, 2013    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-1 | N/A           | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-2 | N/A           | 1 GHz – 26.5 GHz | Nov. 17, 2013    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-2 | N/A           | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-3 | N/A           | 1 GHz - 40 GHz   | Nov. 17, 2013    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-3 | N/A           | 1 GHz - 40 GHz   | Nov. 15, 2014    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-4 | N/A           | 1 GHz - 40 GHz   | Nov. 17, 2013    | Radiation (03CH01-CB) |
| RF Cable-high              | Woken        | High Cable-4 | N/A           | 1 GHz - 40 GHz   | Nov. 15, 2014    | Radiation (03CH01-CB) |
| Spectrum analyzer          | R&S          | FSV40        | 100979        | 9kHz~40GHz       | Dec.12, 2014     | Conducted (TH01-CB)   |
| Temp. and Humidity Chamber | Ten Billion  | TTH-D3SP     | TBN-931011    | -30~100 degree   | Jun. 03, 2014    | Conducted (TH01-CB)   |
| RF Cable-high              | Woken        | RG402        | High Cable-7  | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Conducted (TH01-CB)   |
| RF Cable-high              | Woken        | RG402        | High Cable-8  | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Conducted (TH01-CB)   |
| RF Cable-high              | Woken        | RG402        | High Cable-9  | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Conducted (TH01-CB)   |
| RF Cable-high              | Woken        | RG402        | High Cable-10 | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Conducted (TH01-CB)   |
| RF Cable-high              | Woken        | RG402        | High Cable-6  | 1 GHz – 26.5 GHz | Nov. 15, 2014    | Conducted (TH01-CB)   |
| Power Sensor               | Agilent      | U2021XA      | MY53410001    | 50MHz~18GHz      | Nov. 03, 2014    | Conducted (TH01-CB)   |

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

## 6. MEASUREMENT UNCERTAINTY

| Test Items                        | Uncertainty | Remark                   |
|-----------------------------------|-------------|--------------------------|
| Radiated Emission (1GHz ~ 18GHz)  | 3.7 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz) | 3.5 dB      | Confidence levels of 95% |
| Conducted Emission                | 1.7 dB      | Confidence levels of 95% |