

# **Raptor Regulatory Antenna Information**

# Raptor Antenna Information

## I. Antenna Assembly Specifications

**Antenna assembly overview: Peak Gain including cable loss.**

| Designator                             | Manufacture   | Antenna type | Cable Assembly Info.                                                                      | Peak Gain W/<br>Cable loss (dBi) |
|----------------------------------------|---------------|--------------|-------------------------------------------------------------------------------------------|----------------------------------|
| (P/N:HAS-03-115)<br>Main antenna       | Hitachi Cable | Film Antenna | (P/N: U.FL-2LP)<br>50 ohm Coaxial.<br>length: 175mm<br>diameter: 1.1mm<br>Connector: U.FL | 2400-2500MHz<br>1.53 dBi (peak)  |
|                                        |               |              |                                                                                           | 5150-5350MHz<br>3.38 dBi (peak)  |
|                                        |               |              |                                                                                           | 5470-5725MHz<br>3.56 dBi (peak)  |
|                                        |               |              |                                                                                           | 5725-5850MHz<br>3.16 dBi (peak)  |
| (P/N: HAS-03-116)<br>Auxiliary antenna | Hitachi Cable | Film Antenna | (P/N: U.FL-2LP)<br>50 ohm Coaxial.<br>length: 165mm<br>diameter: 1.1mm<br>Connector: U.FL | 2400-2500MHz<br>-3.86 dBi (peak) |
|                                        |               |              |                                                                                           | 5150-5350MHz<br>3.50 dBi (peak)  |
|                                        |               |              |                                                                                           | 5470-5725MHz<br>3.65 dBi (peak)  |
|                                        |               |              |                                                                                           | 5725-5850MHz<br>3.20 dBi (peak)  |

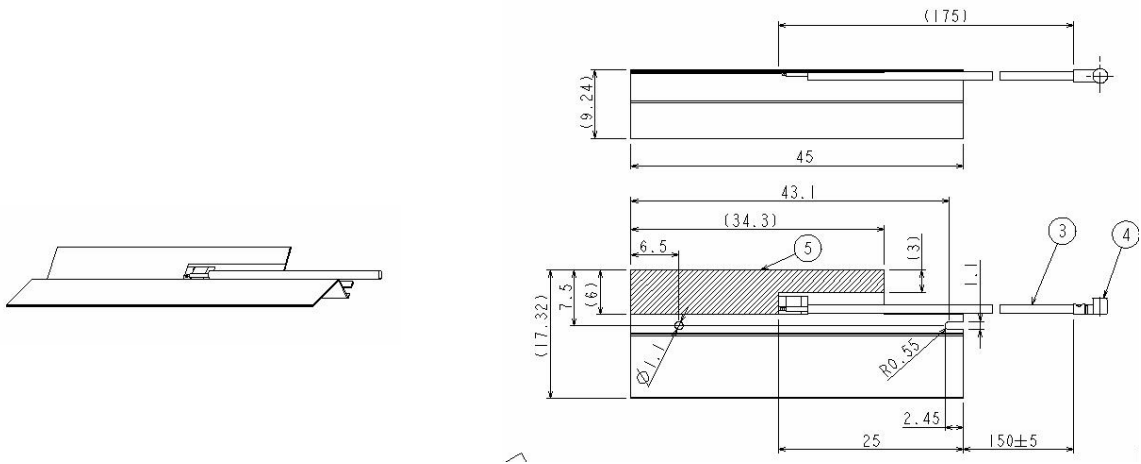
**Antenna overview: Peak Gain not including cable loss.**

| Antenna Designator                     | Manufacture   | Antenna type | Peak Gain w/o<br>Cable Loss (dBi) |
|----------------------------------------|---------------|--------------|-----------------------------------|
| (P/N: HAS-03-115)<br>Main antenna      | Hitachi Cable | Film Antenna | 2400-2500MHz<br>2.04 dBi (peak)   |
|                                        |               |              | 5150-5350MHz<br>4.20 dBi (peak)   |
|                                        |               |              | 5470-5725MHz<br>4.38 dBi (peak)   |
|                                        |               |              | 5725-5850MHz<br>3.98 dBi (peak)   |
| (P/N: HAS-03-116)<br>Auxiliary antenna | Hitachi Cable | Film Antenna | 2400-2500MHz<br>-3.38 dBi (peak)  |
|                                        |               |              | 5150-5350MHz<br>4.28 dBi (peak)   |
|                                        |               |              | 5470-5725MHz<br>4.43 dBi (peak)   |
|                                        |               |              | 5725-5850MHz<br>3.98 dBi (peak)   |

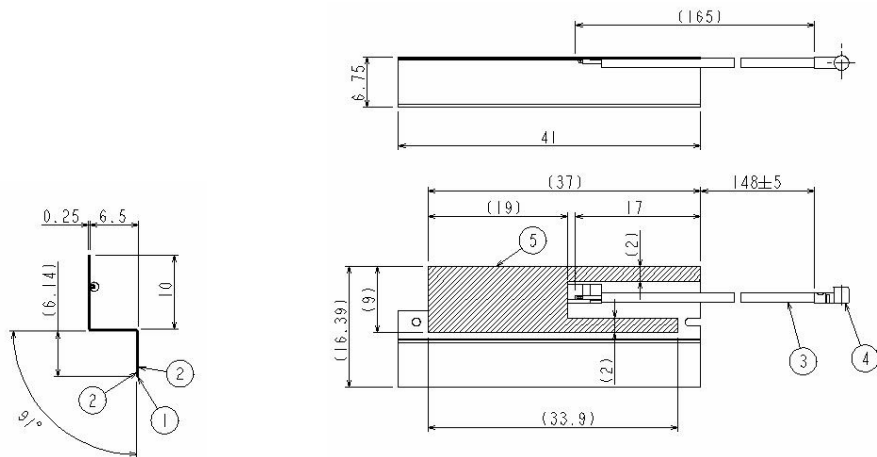
**Cable assembly overview: Cable loss (including connector).**

| Designator                                                     | Manufacture   | Cable type and length                                                                            | VSWR                            | Cable Loss (dBi)                       |
|----------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------|
| <b>(P/N: HAS-03-115)</b><br>For use with the Main antenna      | Hitachi Cable | <b>(P/N: U.FL-2LP)</b><br>50 ohm Coaxial.<br>length: 175mm<br>diameter: 1.1mm<br>Connector: U.FL | 2400-2500MHz<br><b>1.40 max</b> | 2400-2500MHz<br><b>0.51 dBi (peak)</b> |
|                                                                |               |                                                                                                  | 5150-5350MHz<br><b>1.60 max</b> | 5150-5350MHz<br><b>0.82 dBi (peak)</b> |
|                                                                |               |                                                                                                  | 5470-5725MHz<br>1.84 max        | 5470-5725MHz<br>0.82 dBi (peak)        |
|                                                                |               |                                                                                                  | 5725-5850MHz<br>2.04max         | 5725-5850MHz<br>0.82 dBi (peak)        |
| <b>(P/N: HAS-03-116)</b><br>For use with the Auxiliary antenna | Hitachi Cable | <b>(P/N: U.FL-2LP)</b><br>50 ohm Coaxial.<br>length: 165mm<br>diameter: 1.1mm<br>Connector: U.FL | 2400-2500MHz<br><b>1.63 max</b> | 2400-2500MHz<br><b>0.48 dBi (peak)</b> |
|                                                                |               |                                                                                                  | 5150-5350MHz<br><b>1.50 max</b> | 5150-5350MHz<br><b>0.78 dBi (peak)</b> |
|                                                                |               |                                                                                                  | 5470-5725MHz<br>1.18 max        | 5470-5725MHz<br>0.78 dBi (peak)        |
|                                                                |               |                                                                                                  | 5725-5850MHz<br>1.37 max        | 5725-5850MHz<br>0.78 dBi (peak)        |

**Please insert mechanical drawings of antennae here.**



## Main Antenna

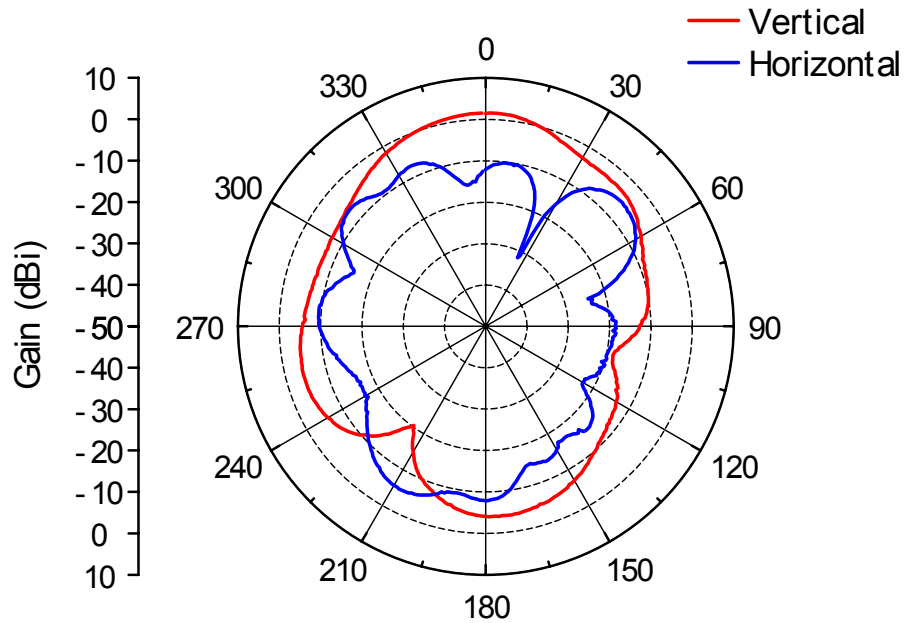


## Auxiliary Antenna

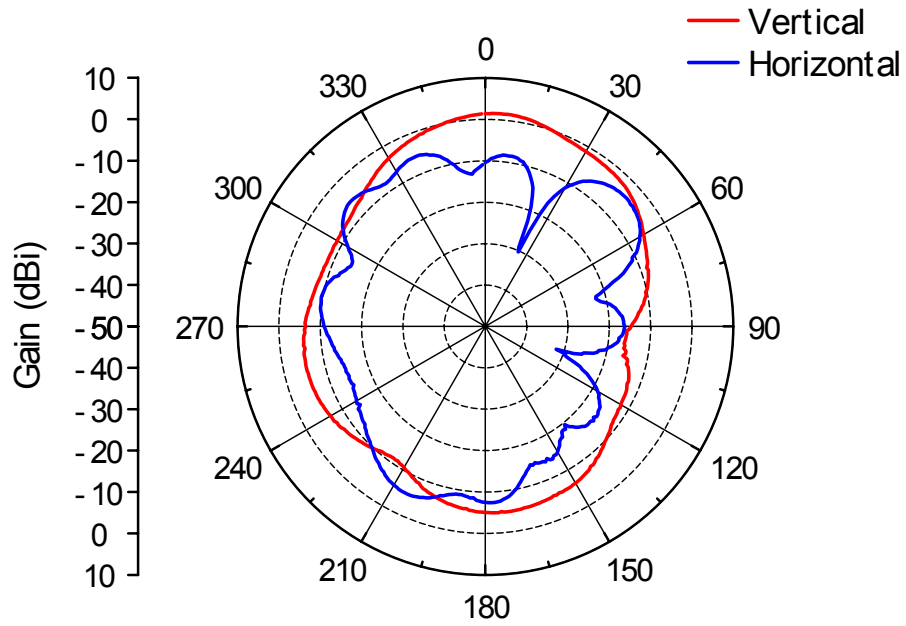
## Radiation characteristic of antennae Loaded (In Host System)

### 2400-2500MHz radiation characteristic

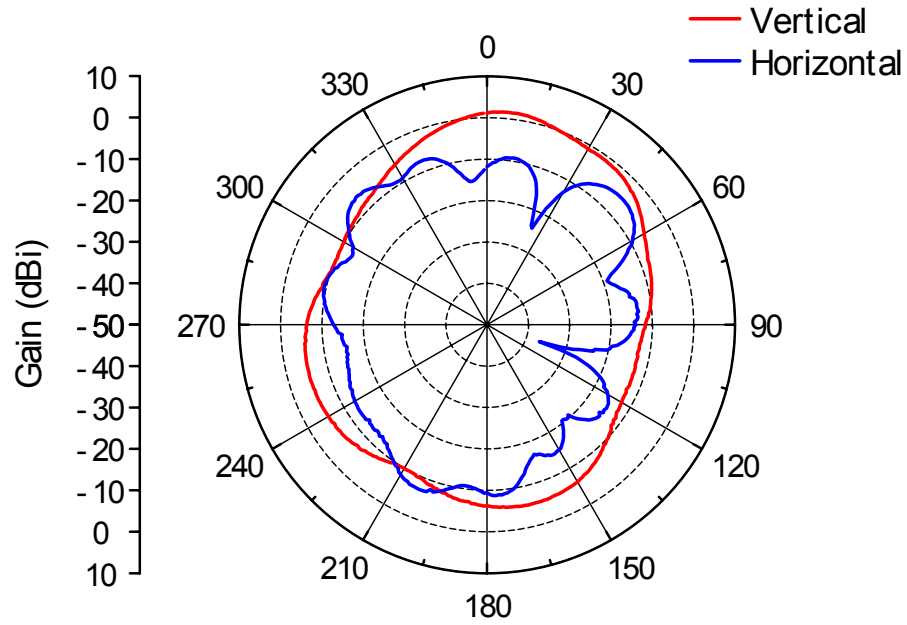
Main antenna: 2400 MHz



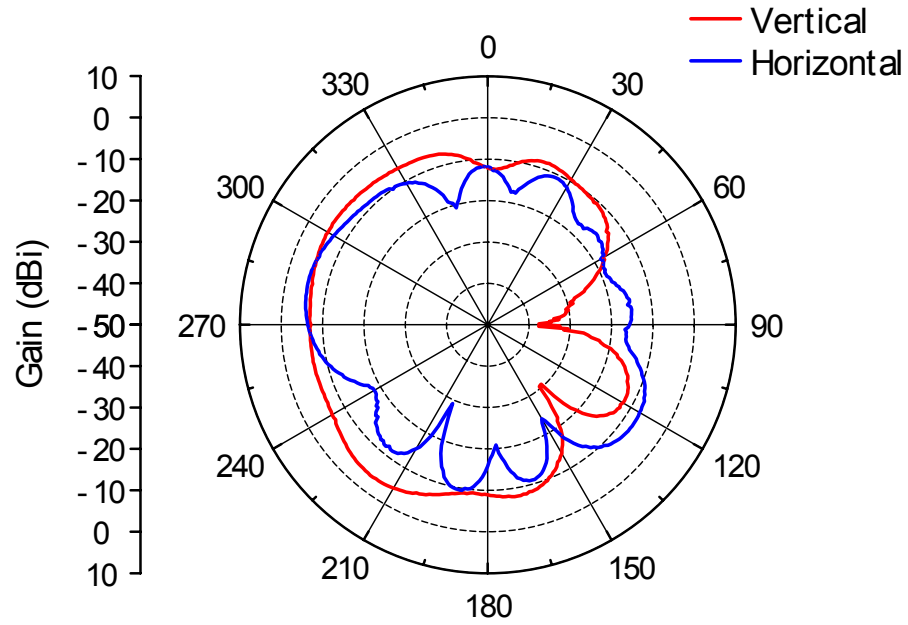
|                       |          |
|-----------------------|----------|
| Center Frequency      | 2400 MHz |
| Horizontal (dBi) peak | -5.46    |
| Vertical (dBi) peak   | 1.53     |
| Horz+Vert (dBi) peak  | X.XX     |

**Main antenna: 2450 MHz**

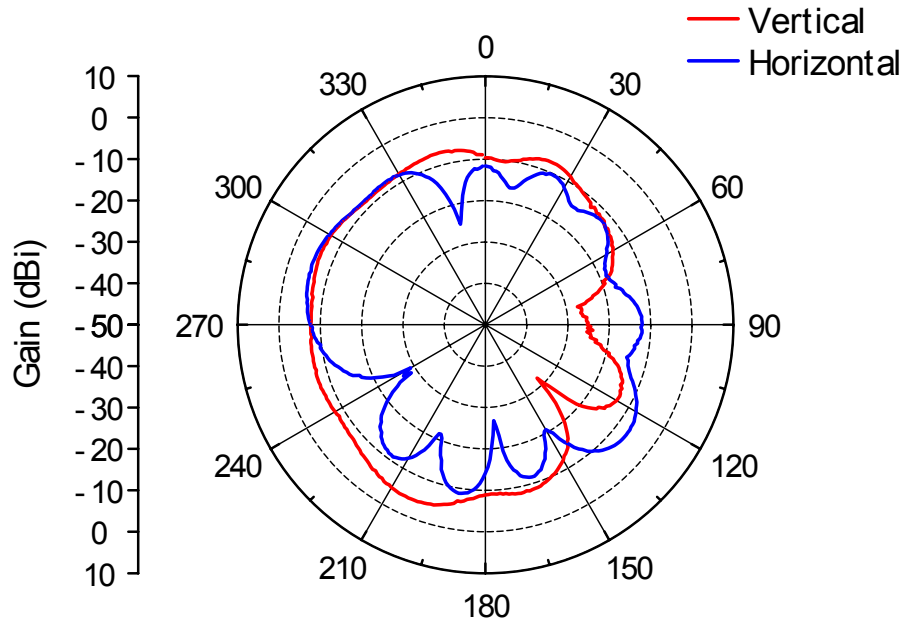
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>2450 MHz</b> |
| Horizontal (dBi) peak | <b>-3.93</b>    |
| Vertical (dBi) peak   | <b>1.47</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Main antenna: 2500 MHz**

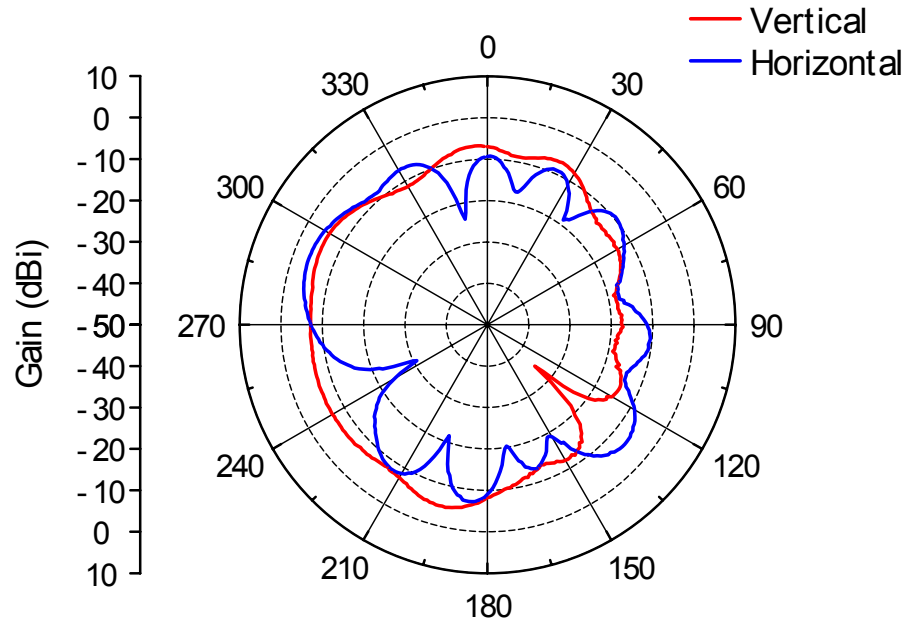
|                       |          |
|-----------------------|----------|
| Center Frequency      | 2500 MHz |
| Horizontal (dBi) peak | -5.36    |
| Vertical (dBi) peak   | 1.50     |
| Horz+Vert (dBi) peak  | X.XX     |

**Auxiliary antenna: 2400 MHz**

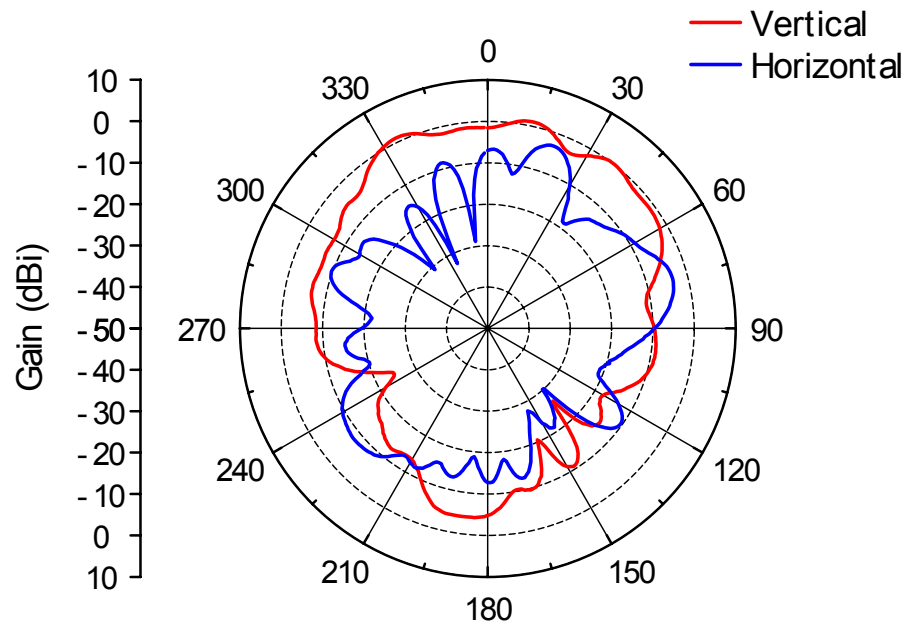
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>2400 MHz</b> |
| Horizontal (dBi) peak | <b>-5.35</b>    |
| Vertical (dBi) peak   | <b>-3.86</b>    |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 2450 MHz**

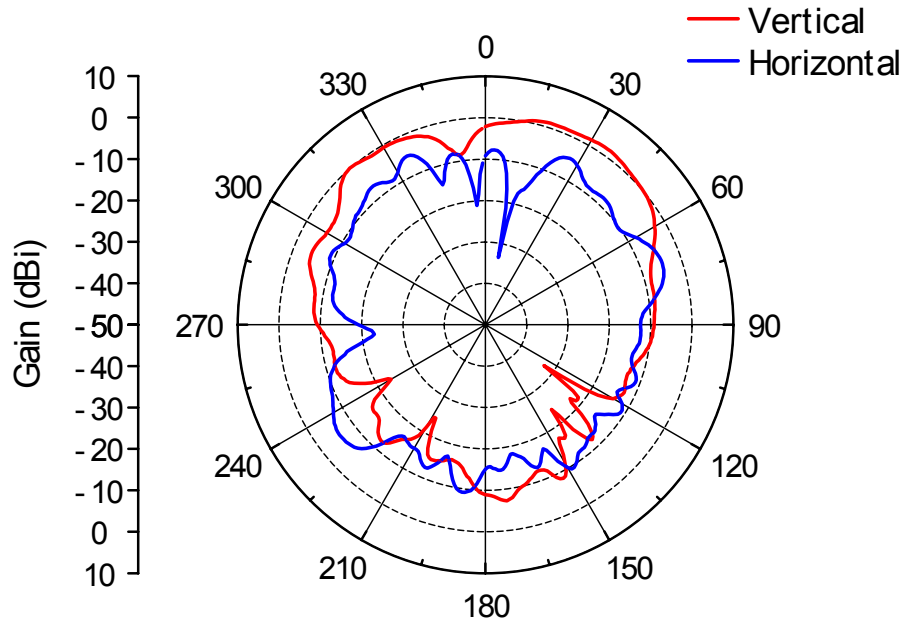
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>2450 MHz</b> |
| Horizontal (dBi) peak | <b>-5.58</b>    |
| Vertical (dBi) peak   | <b>-4.21</b>    |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 2500 MHz**

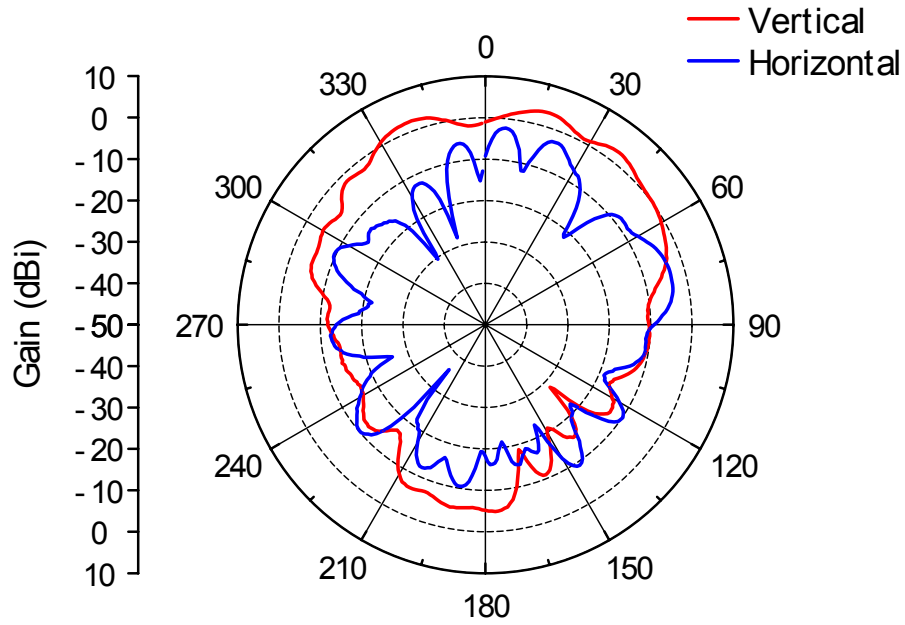
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>2500 MHz</b> |
| Horizontal (dBi) peak | <b>-3.94</b>    |
| Vertical (dBi) peak   | <b>-4.74</b>    |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**5150-5135 MHz radiation characteristic****Main antenna: 5150 MHz**

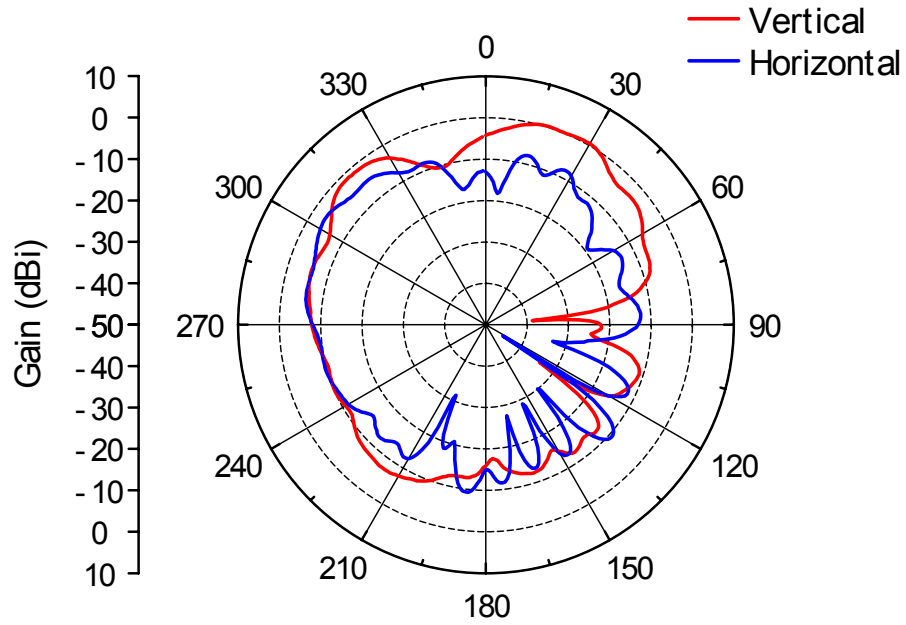
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5150 MHz</b> |
| Horizontal (dBi) peak | <b>-3.17</b>    |
| Vertical (dBi) peak   | <b>1.03</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Main antenna: 5250 MHz**

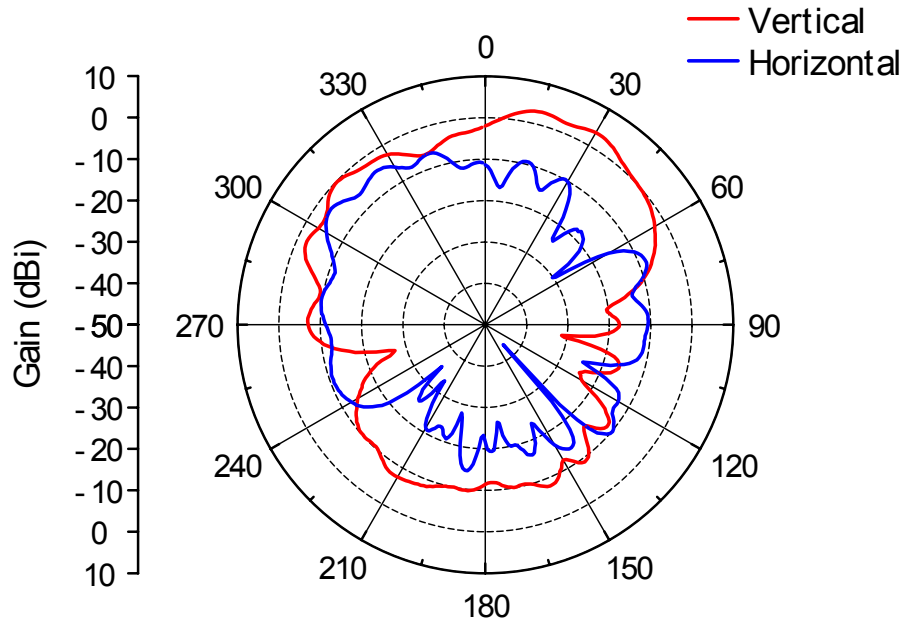
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5250 MHz</b> |
| Horizontal (dBi) peak | <b>-4.69</b>    |
| Vertical (dBi) peak   | <b>1.74</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Main antenna: 5350 MHz**

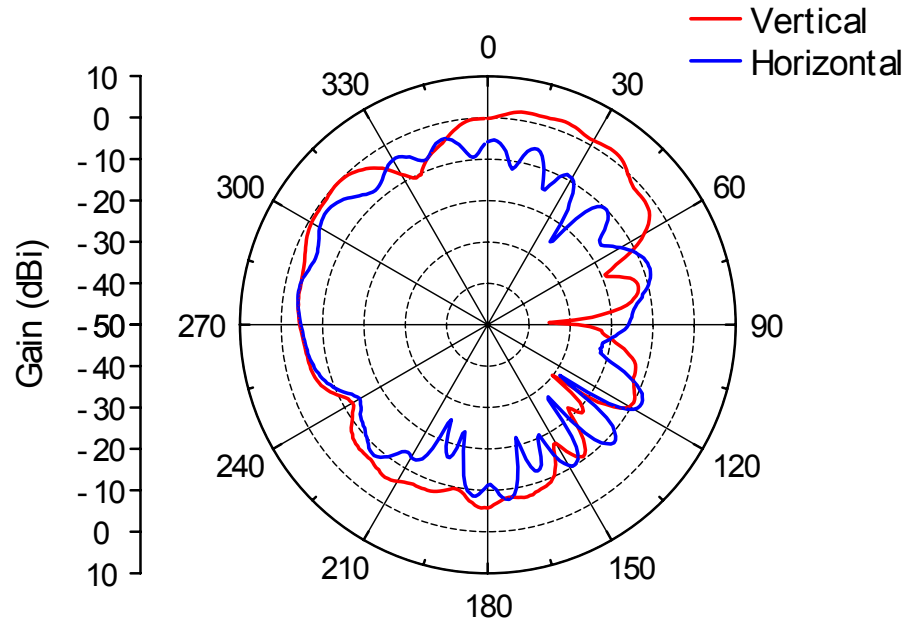
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5350 MHz</b> |
| Horizontal (dBi) peak | <b>-2.28</b>    |
| Vertical (dBi) peak   | <b>3.38</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 5150 MHz**

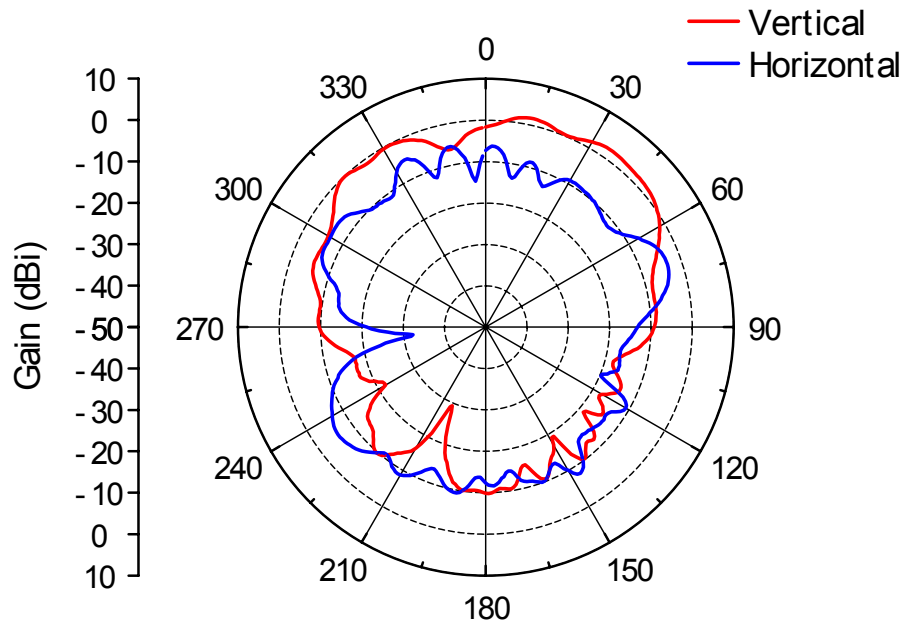
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5150 MHz</b> |
| Horizontal (dBi) peak | <b>-3.48</b>    |
| Vertical (dBi) peak   | <b>0.44</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 5250 MHz**

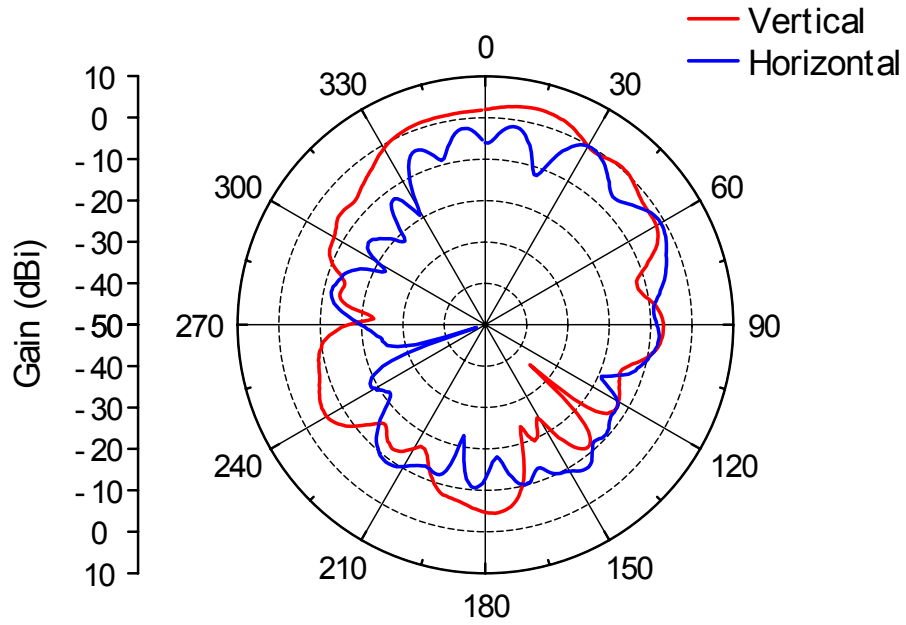
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5250 MHz</b> |
| Horizontal (dBi) peak | <b>-3.39</b>    |
| Vertical (dBi) peak   | <b>3.50</b>     |
| Horz+Vert (dBi) peak  | <b>3.50</b>     |

**Auxiliary antenna: 5350 MHz**

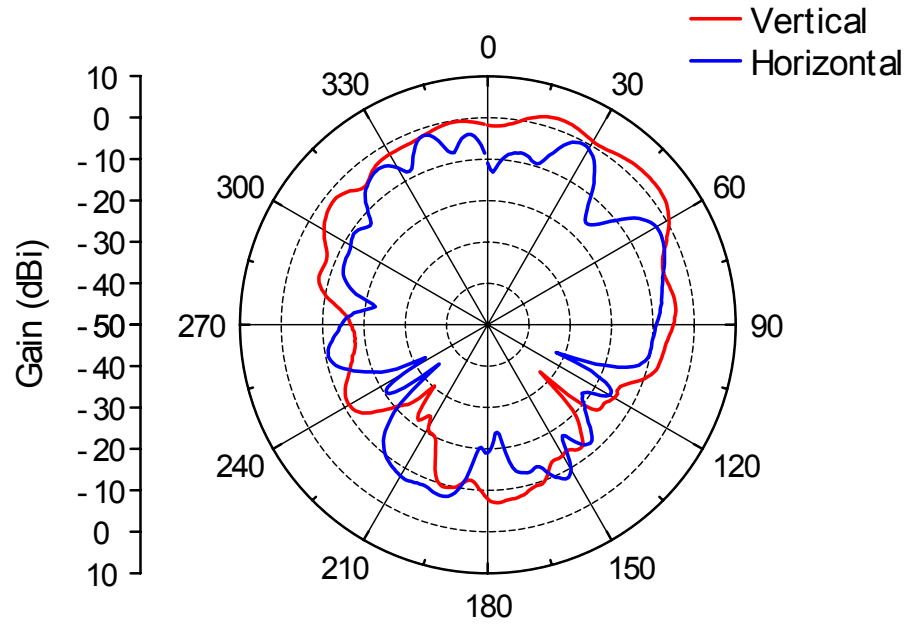
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5350 MHz</b> |
| Horizontal (dBi) peak | <b>-2.41</b>    |
| Vertical (dBi) peak   | <b>2.44</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**5470-5725MHz radiation characteristic****Main antenna: 5470 MHz**

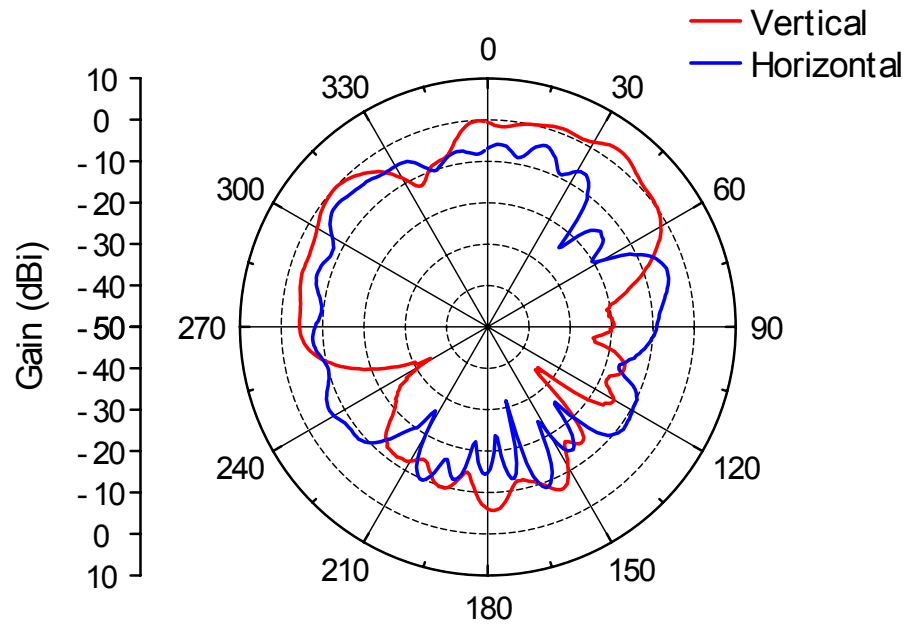
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5470 MHz</b> |
| Horizontal (dBi) peak | <b>-3.47</b>    |
| Vertical (dBi) peak   | <b>2.38</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Main antenna: 5597.5 MHz**

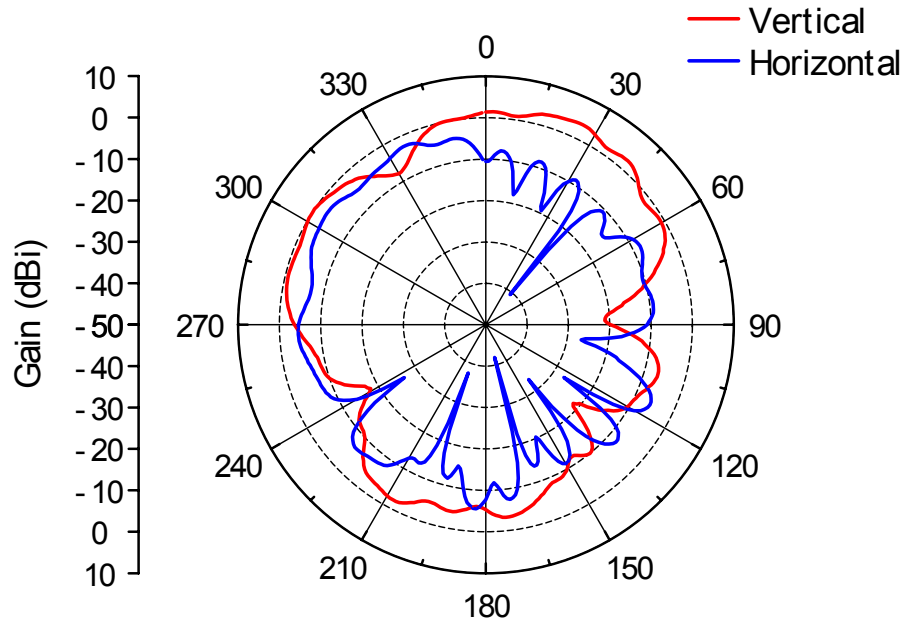
|                       |                   |
|-----------------------|-------------------|
| Center Frequency      | <b>5597.5 MHz</b> |
| Horizontal (dBi) peak | <b>-0.19</b>      |
| Vertical (dBi) peak   | <b>3.56</b>       |
| Horz+Vert (dBi) peak  | <b>X.XX</b>       |

**Main antenna: 5725 MHz**

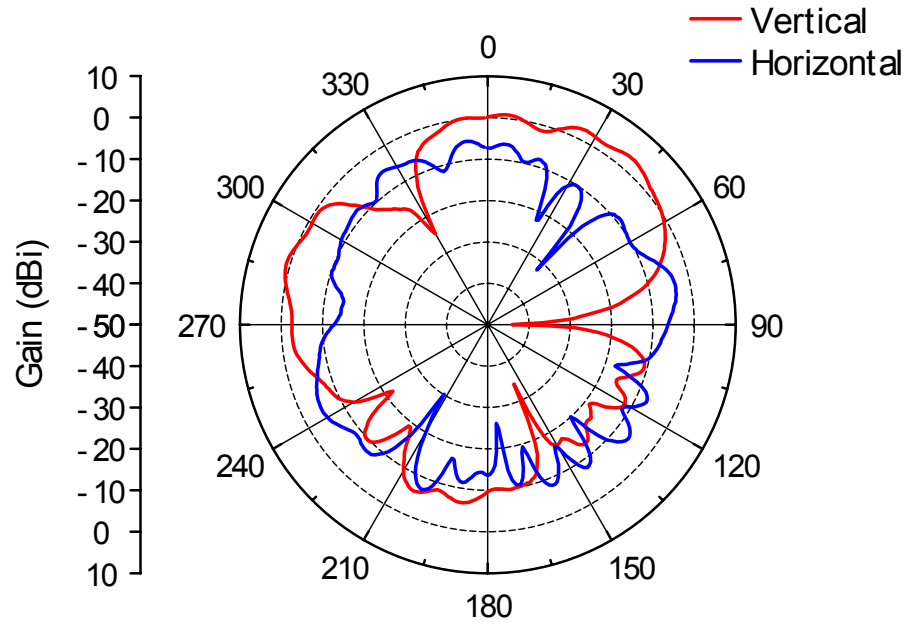
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5725 MHz</b> |
| Horizontal (dBi) peak | <b>-0.68</b>    |
| Vertical (dBi) peak   | <b>2.88</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 5470 MHz**

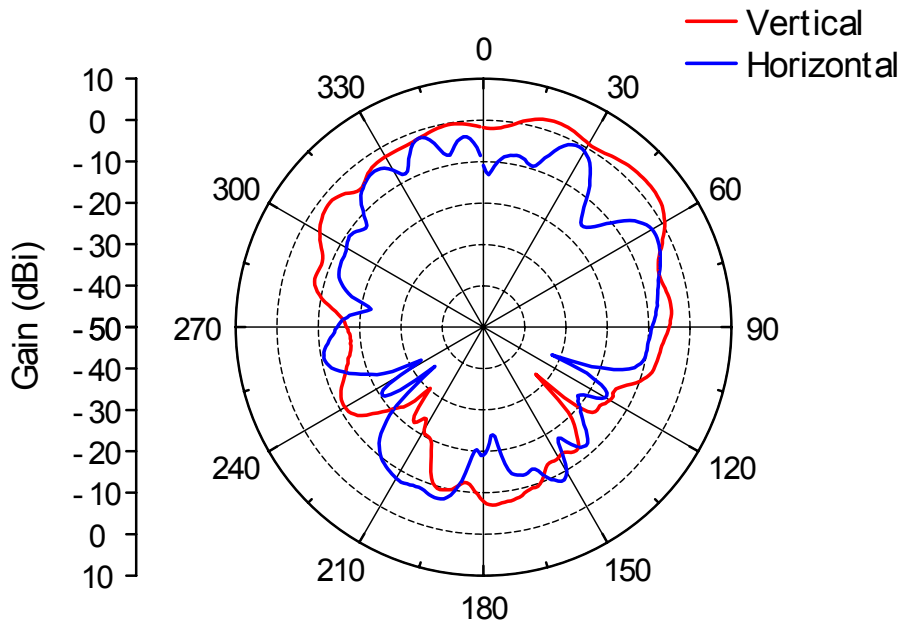
|                       |          |
|-----------------------|----------|
| Center Frequency      | 5470 MHz |
| Horizontal (dBi) peak | -3.11    |
| Vertical (dBi) peak   | 3.21     |
| Horz+Vert (dBi) peak  | X.XX     |

**Auxiliary antenna: 5597.5 MHz**

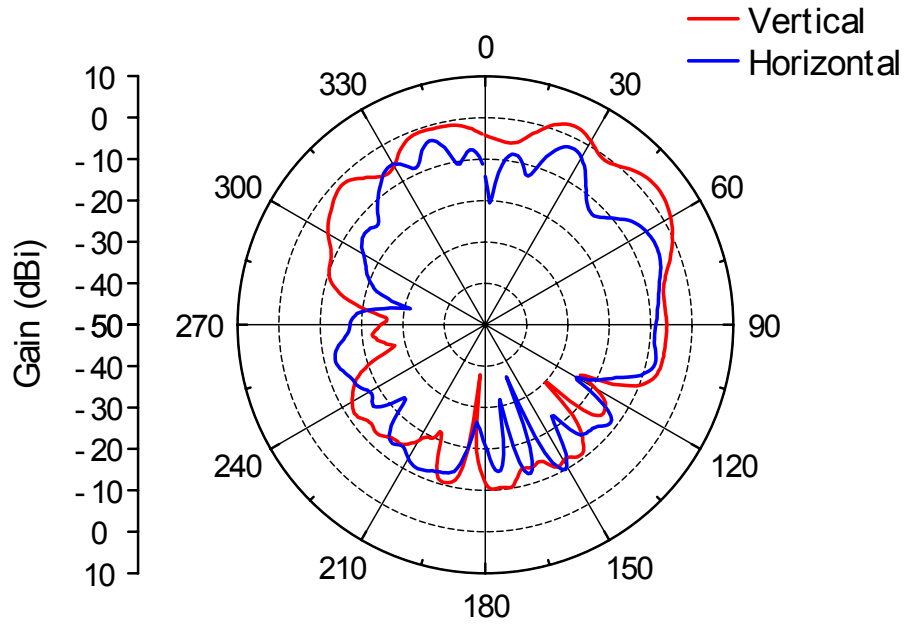
|                       |                   |
|-----------------------|-------------------|
| Center Frequency      | <b>5597.5 MHz</b> |
| Horizontal (dBi) peak | <b>-2.63</b>      |
| Vertical (dBi) peak   | <b>3.65</b>       |
| Horz+Vert (dBi) peak  | <b>X.XX</b>       |

**Auxiliary antenna: 5725 MHz**

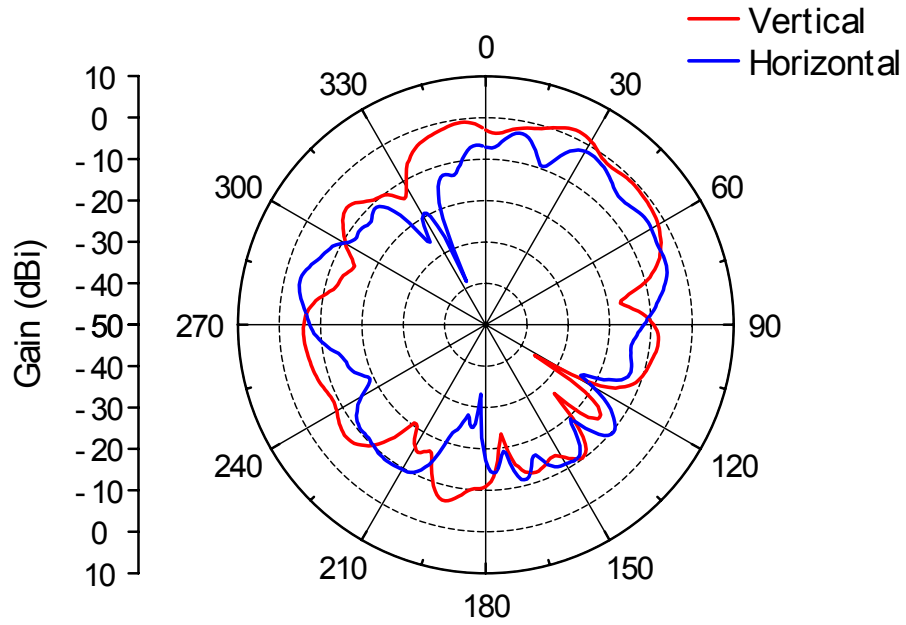
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5725 MHz</b> |
| Horizontal (dBi) peak | <b>-3.62</b>    |
| Vertical (dBi) peak   | <b>3.20</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**5725-5850 MHz radiation characteristic****Main antenna: 5725 MHz**

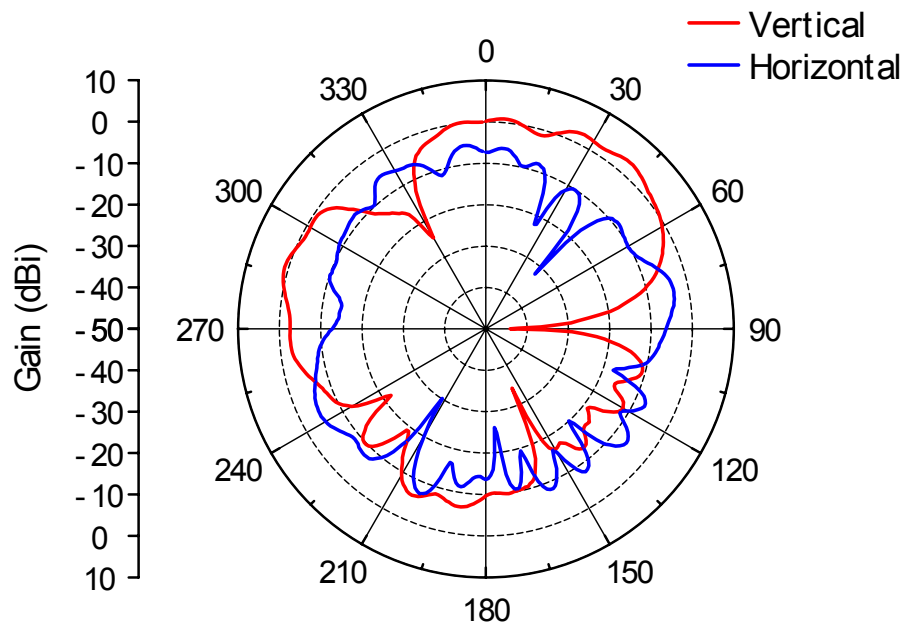
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5725 MHz</b> |
| Horizontal (dBi) peak | <b>-0.68</b>    |
| Vertical (dBi) peak   | <b>2.88</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Main antenna: 5787.5 MHz**

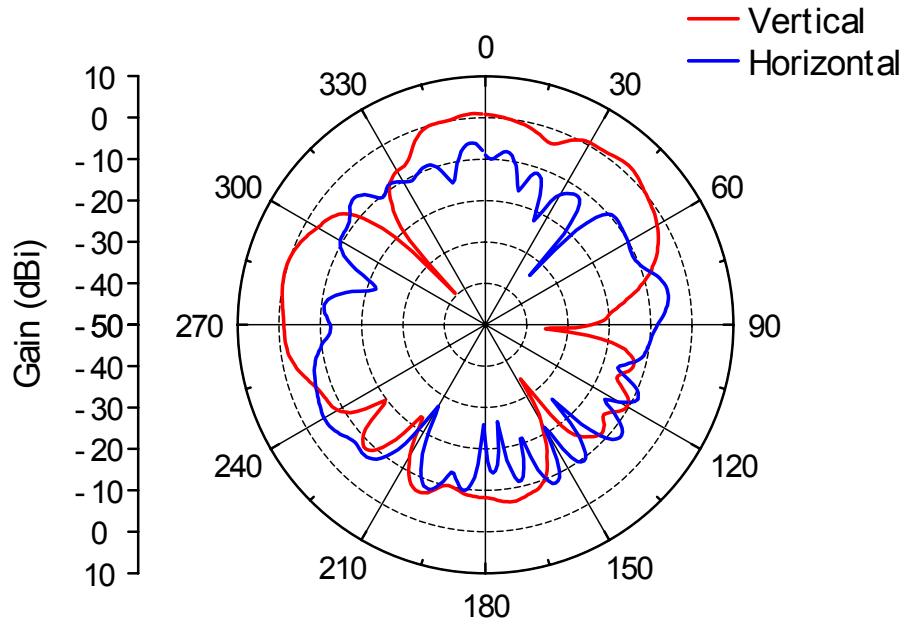
|                       |                   |
|-----------------------|-------------------|
| Center Frequency      | <b>5787.5 MHz</b> |
| Horizontal (dBi) peak | <b>-2.47</b>      |
| Vertical (dBi) peak   | <b>3.16</b>       |
| Horz+Vert (dBi) peak  | <b>X.XX</b>       |

**Main antenna: 5850 MHz**

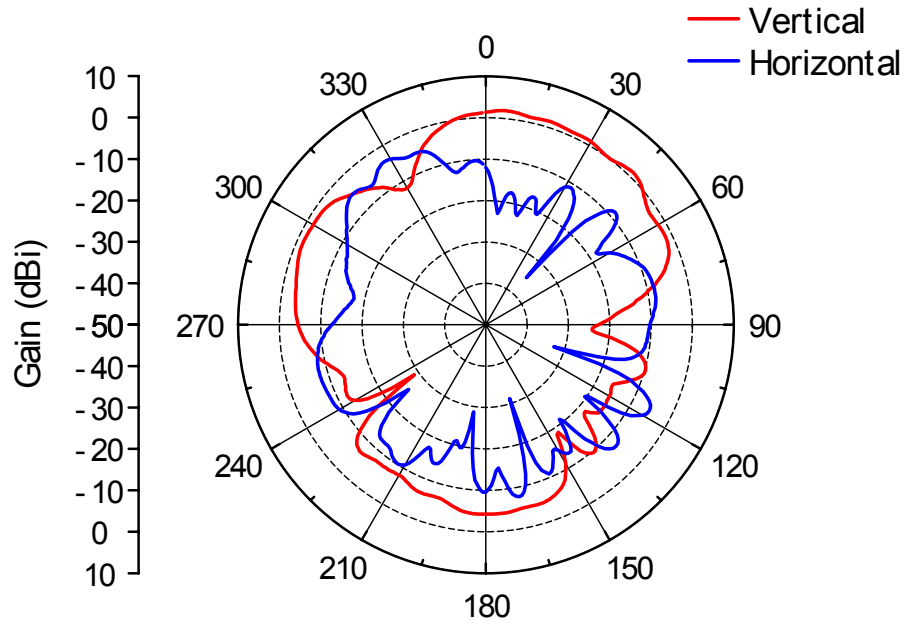
|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5850 MHz</b> |
| Horizontal (dBi) peak | <b>-1.64</b>    |
| Vertical (dBi) peak   | <b>1.82</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 5725 MHz**

|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5725 MHz</b> |
| Horizontal (dBi) peak | <b>-3.62</b>    |
| Vertical (dBi) peak   | <b>3.20</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

**Auxiliary antenna: 5787.5 MHz**

|                       |                   |
|-----------------------|-------------------|
| Center Frequency      | <b>5787.5 MHz</b> |
| Horizontal (dBi) peak | <b>-4.93</b>      |
| Vertical (dBi) peak   | <b>1.77</b>       |
| Horz+Vert (dBi) peak  | <b>X.XX</b>       |

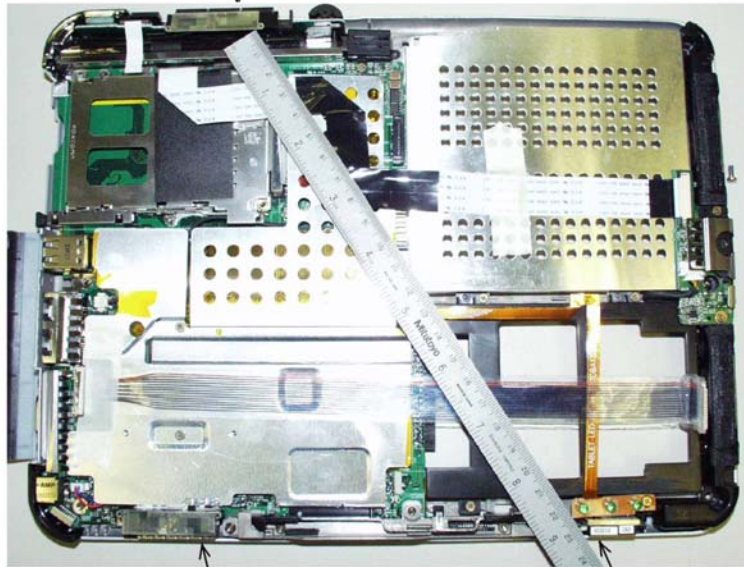
**Auxiliary antenna: 5850 MHz**

|                       |                 |
|-----------------------|-----------------|
| Center Frequency      | <b>5850 MHz</b> |
| Horizontal (dBi) peak | <b>-3.64</b>    |
| Vertical (dBi) peak   | <b>1.87</b>     |
| Horz+Vert (dBi) peak  | <b>X.XX</b>     |

## Host PC Information

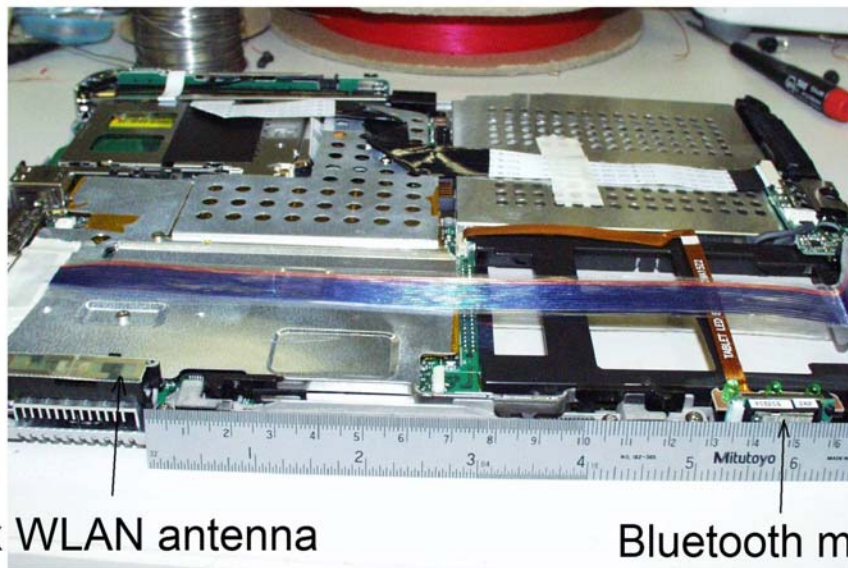
Host model: HP Tablet PC TR1105, HP Compaq Tablet TC1105  
Agency Series # xxxxxxxx

Main WLAN antenna



Aux WLAN antenna

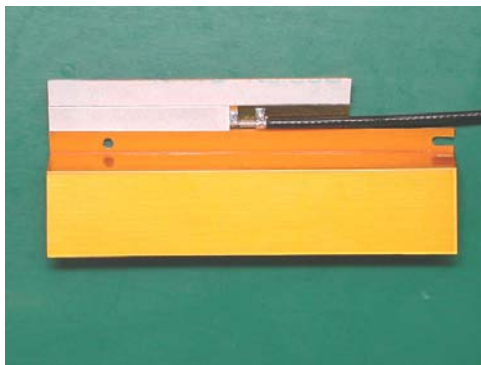
Bluetooth module



Aux WLAN antenna

Bluetooth module

### Main Antenna



### Auxiliary Antenna

