

# APPROVAL SHEET

**Customer Name:** *Compal Electronics, Inc.*

**Date:** 2021/01/28

**Doc. Version:** AO

|                    |                         |
|--------------------|-------------------------|
| <b>OEM P/N</b>     |                         |
| <b>HLN P/N</b>     | <b>260-25084</b>        |
| <b>Description</b> | <b>Monopole Antenna</b> |
| <b>Version</b>     |                         |

| <b>Provided By<br/>Hong-Lin Technology</b> | <b>Reviewed By<br/>Hong-Lin Technology</b> | <b>Approved By<br/>Customer</b> |
|--------------------------------------------|--------------------------------------------|---------------------------------|
|                                            |                                            |                                 |

**HONGBO Technology Group Limited**  
**4F., NO.143, Sinhu 1<sup>st</sup> Rd., Neihu Dist.,**  
**Taipei City 11494, Taiwan R.O.C**  
**TEL: 886-2-2792-6009**  
**FAX: 886-2-2793-9328**

# Index

- 1. Introduction**
- 2. Revision History**
- 3. Product Specifications**
- 4. Antenna Performance**
- 5. FAI & CPK**

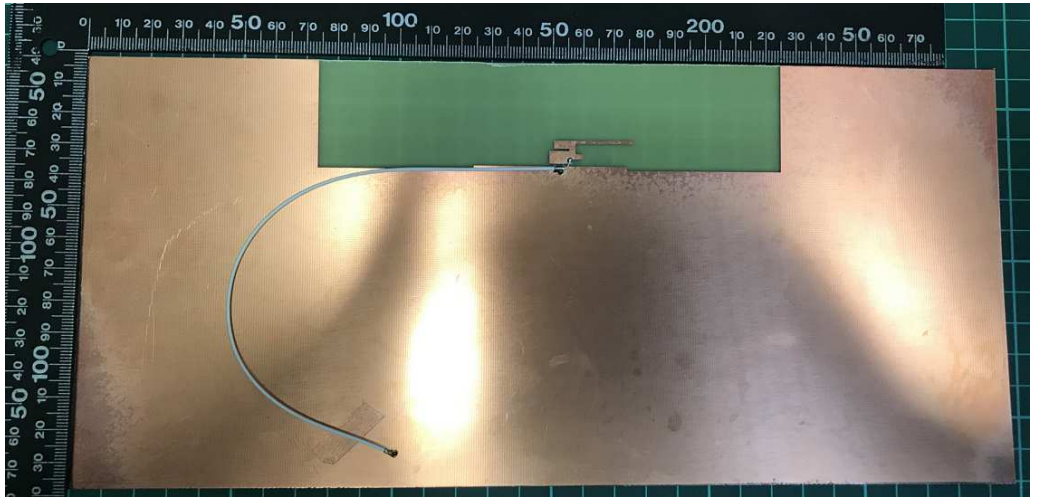
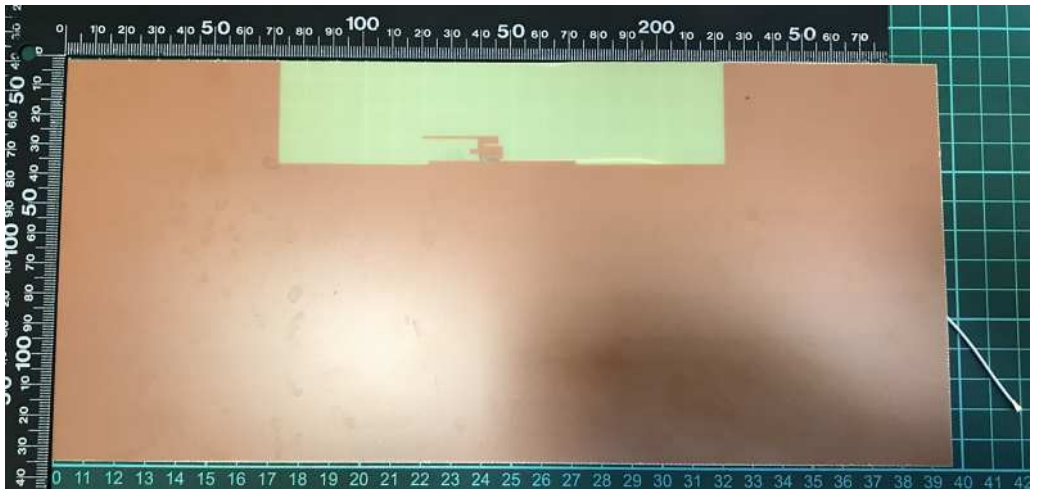
## 1.Introduction

### 1.1 Antenna

1.1.1 Location: Base

1.1.2 Cable Length: L=200mm;

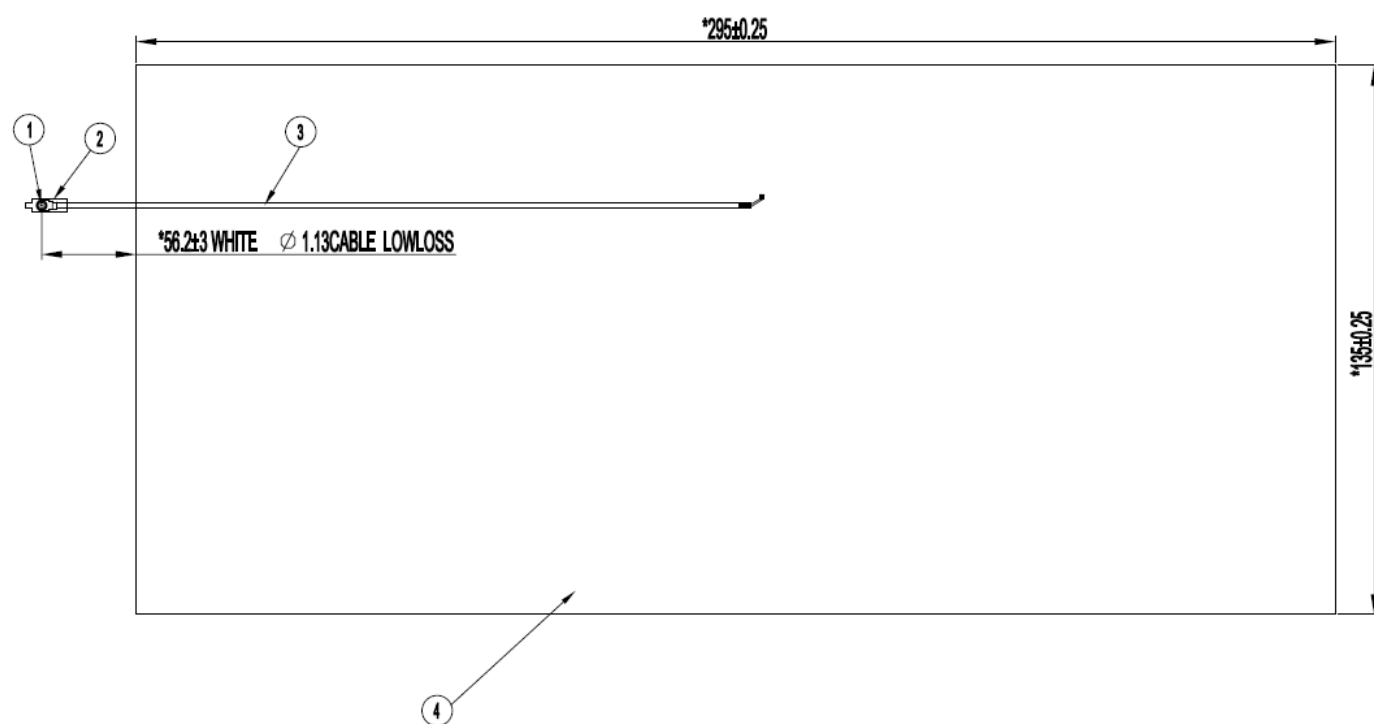
Connector: I-PEX MHF 4L Plug for OD 1.13mm (20565-001R-13)

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
|              | WiFi Monopole                                                                        |
| Antenna Type | Monopole                                                                             |
| Cable        | 1.13 LLS WiFi White Cable                                                            |
| Photo Front  |   |
| Photo back   |  |

## 2.Revision History

| Date       | Version | Revision History |
|------------|---------|------------------|
| 2021/01/21 | A0      | New Release      |

### 3.1 Mechanical Specifications





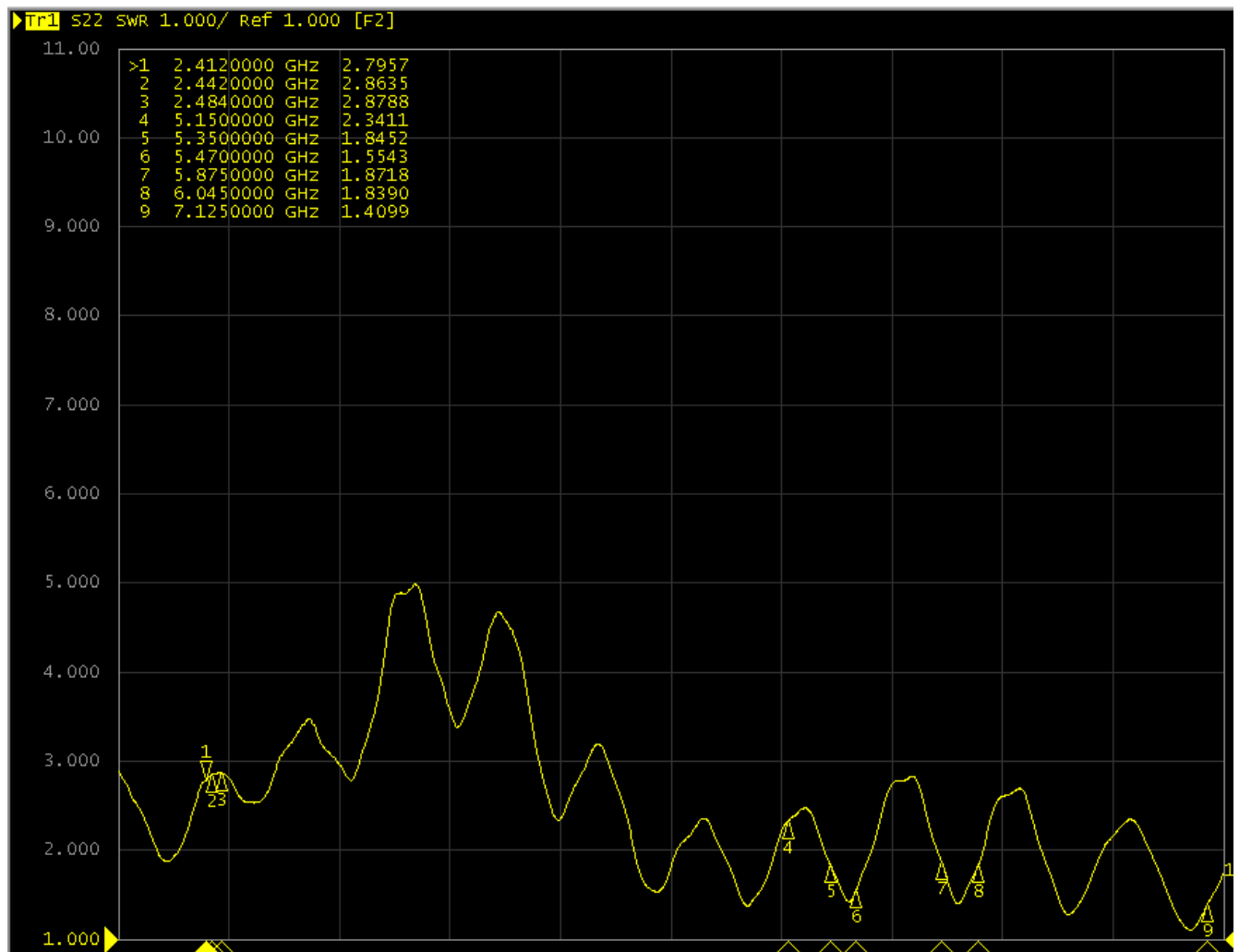
**HONGBO TELECOMMUNICATION**

### 3.2 Antenna Material List

|     |      |                                                       |      |        |
|-----|------|-------------------------------------------------------|------|--------|
| 4.  |      | Monopole_ANT_PCB W135*L295 T=0.4MM (金安國紀)             | 1    |        |
| 3.  |      | Monopole_ANT_Cable $\phi$ 1.13 LOW LOSS (White) (FEP) | 1    | 神宇     |
| 2.  |      | $\phi$ 1.5 L=20mm PE軟套管(熱膠套管): 透明                     | 1    |        |
| 1.  |      | MHF 4L Plug for OD 1.13mm (20565-001R-13)             | 1    | I-PEX  |
| NO. | SORT | SPECIFICATION                                         | Q'TY | VENDOR |

## 4 .Antenna Performance

### 4.1 VSWR



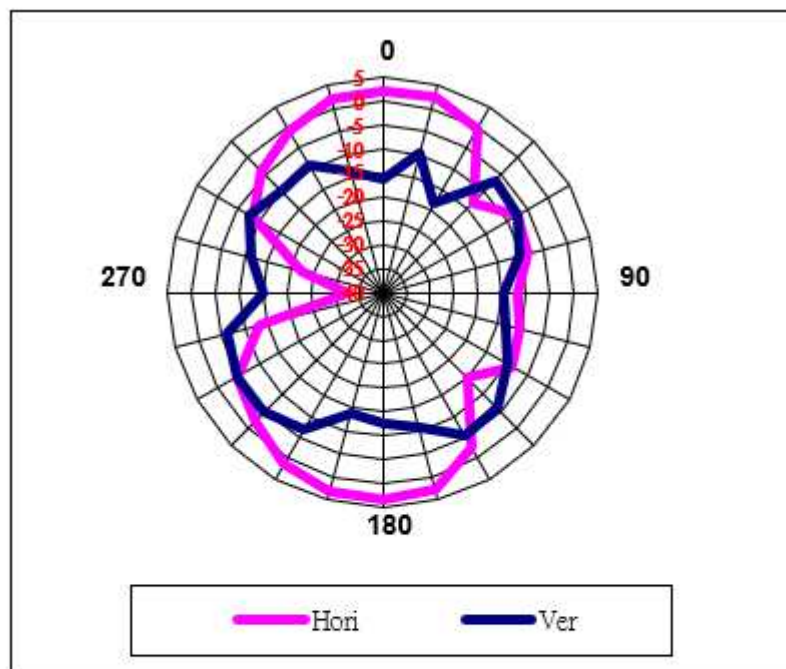
## 4.2 Antenna Pattern

**Antenna Peak Gain Table:**

| Frequency<br>(MHz) | Tx1 antenna |          |            |
|--------------------|-------------|----------|------------|
|                    | Horizontal  | Vertical | Cable Loss |
|                    | (dBi)       | (dBi)    |            |
| 2412               | 3.14        | -4.59    | 0.49       |
| 2422               | 3.14        | -4.30    | 0.49       |
| 2437               | 3.14        | -4.09    | 0.50       |
| 2442               | 3.22        | -3.96    | 0.50       |
| 2452               | 3.18        | -3.86    | 0.50       |
| 2484               | 3.12        | -3.54    | 0.51       |
| 5150               | -1.21       | 3.21     | 0.76       |
| 5180               | -0.88       | 3.35     | 0.76       |
| 5250               | -1.39       | 3.19     | 0.77       |
| 5320               | -1.99       | 3.37     | 0.78       |
| 5350               | -2.07       | 3.42     | 0.78       |
| 5470               | -2.34       | 4.46     | 0.80       |
| 5500               | -1.85       | 4.77     | 0.81       |
| 5725               | -0.98       | 4.29     | 0.84       |
| 5785               | -0.37       | 4.49     | 0.85       |
| 5805               | -0.46       | 4.72     | 0.85       |
| 5850               | -0.68       | 4.71     | 0.86       |
| 5875               | -0.78       | 4.64     | 0.86       |
| 5925               | -1.54       | 4.71     | 0.87       |
| 6085               | -1.86       | 4.75     | 0.87       |
| 6245               | -2.29       | 4.74     | 0.88       |
| 6405               | -3.69       | 4.70     | 0.90       |
| 6425               | -3.63       | 4.25     | 0.90       |
| 6465               | -3.32       | 4.29     | 0.91       |
| 6525               | -2.61       | 4.22     | 0.92       |
| 6645               | -2.09       | 4.78     | 0.93       |
| 6795               | -1.37       | 4.81     | 0.96       |
| 6875               | -1.57       | 4.71     | 0.97       |
| 6975               | 1.46        | 4.74     | 0.98       |
| 7095               | 2.10        | 4.74     | 0.99       |
| 7125               | -0.79       | 4.71     | 1.00       |

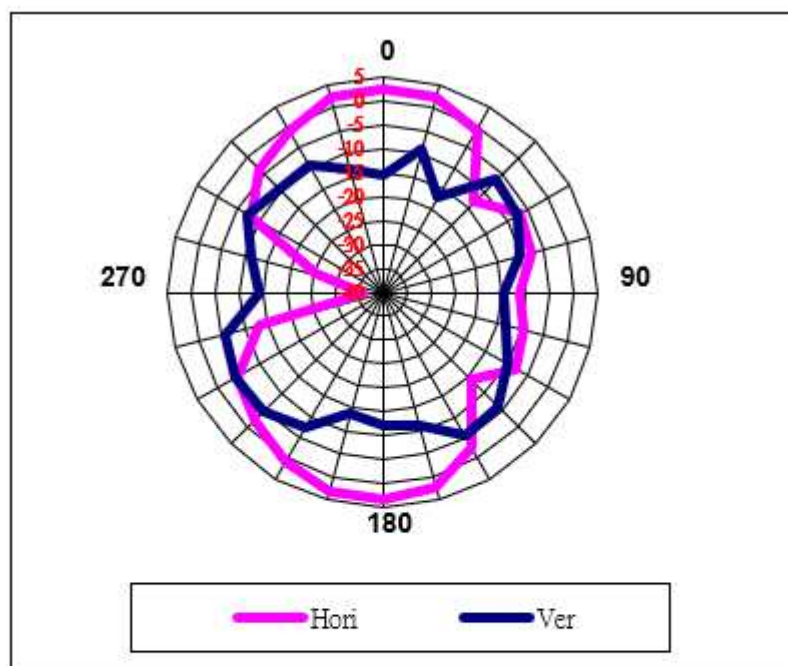
### Section 3. Radiation characteristics of antennae Loaded in Host Platform

Ant : 2412 MHz



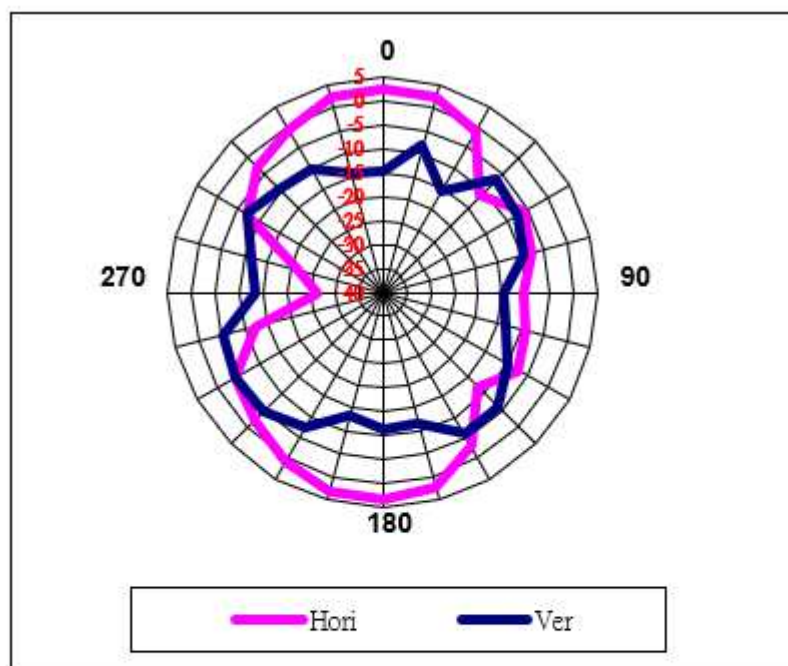
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2412  |
| Horizontal peak gain (dBi) | 3.14  |
| Vertical peak gain (dBi)   | -4.59 |

Ant : 2422 MHz



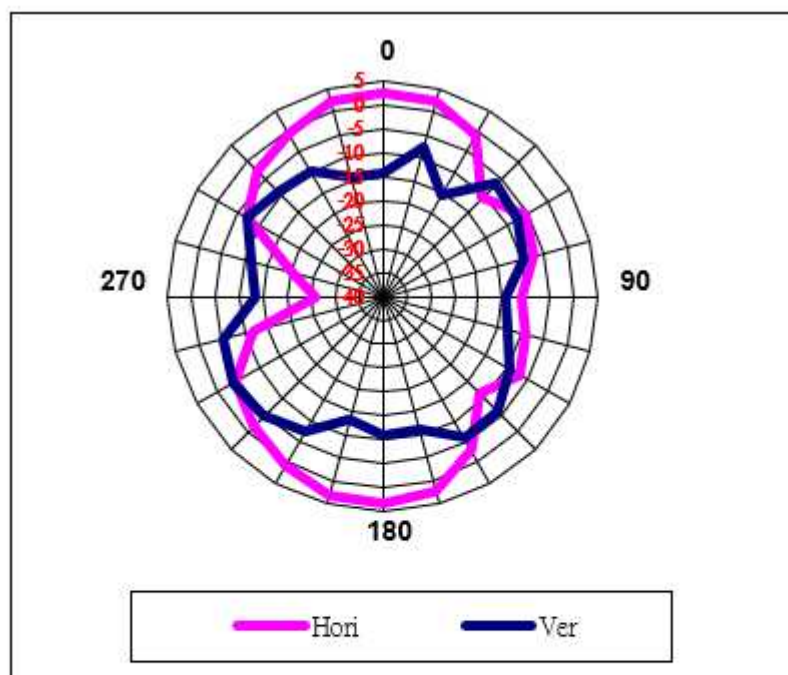
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2422  |
| Horizontal peak gain (dBi) | 3.14  |
| Vertical peak gain (dBi)   | -4.30 |

Ant : 2437 MHz



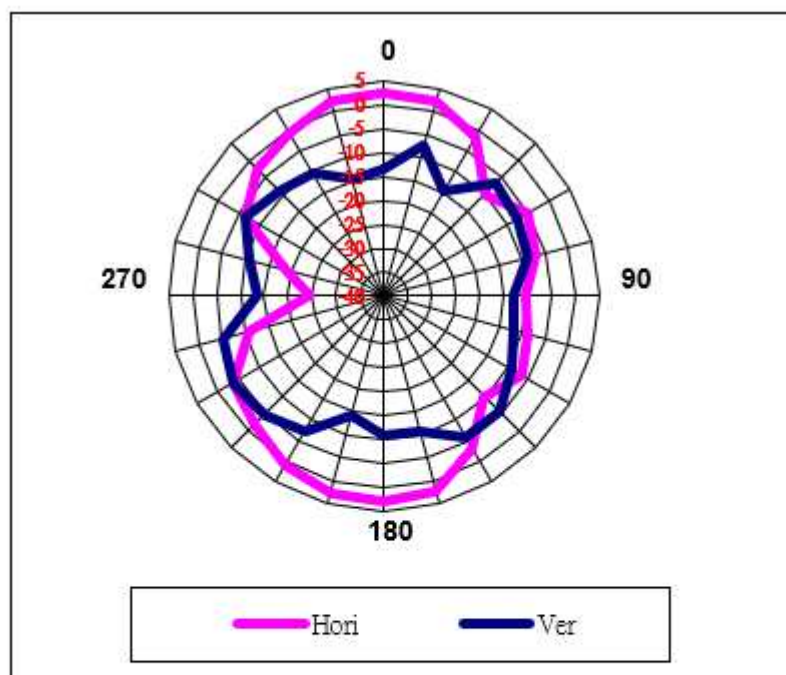
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2437  |
| Horizontal peak gain (dBi) | 3.14  |
| Vertical peak gain (dBi)   | -4.09 |

Ant :2442 MHz



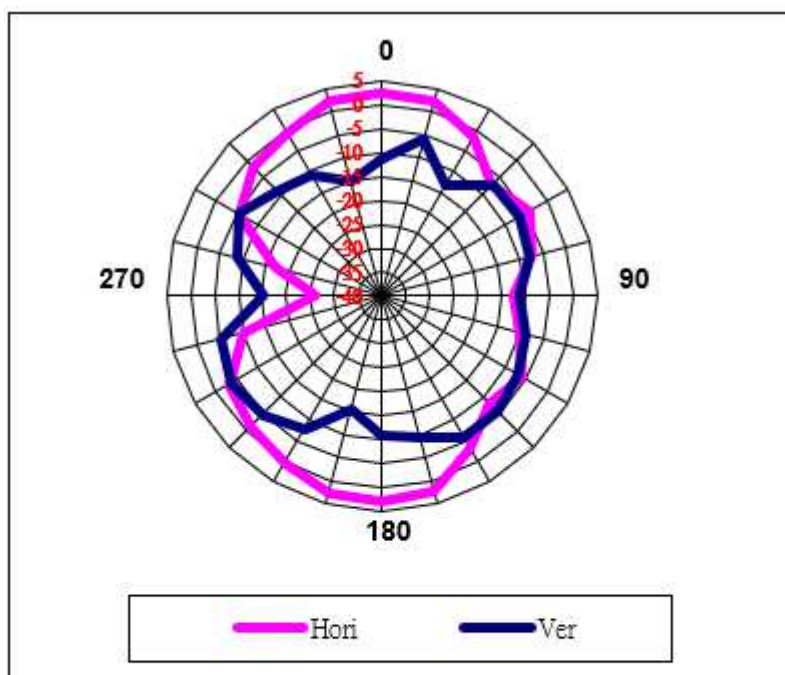
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2442  |
| Horizontal peak gain (dBi) | 3.22  |
| Vertical peak gain (dBi)   | -3.96 |

Ant : 2452MHz



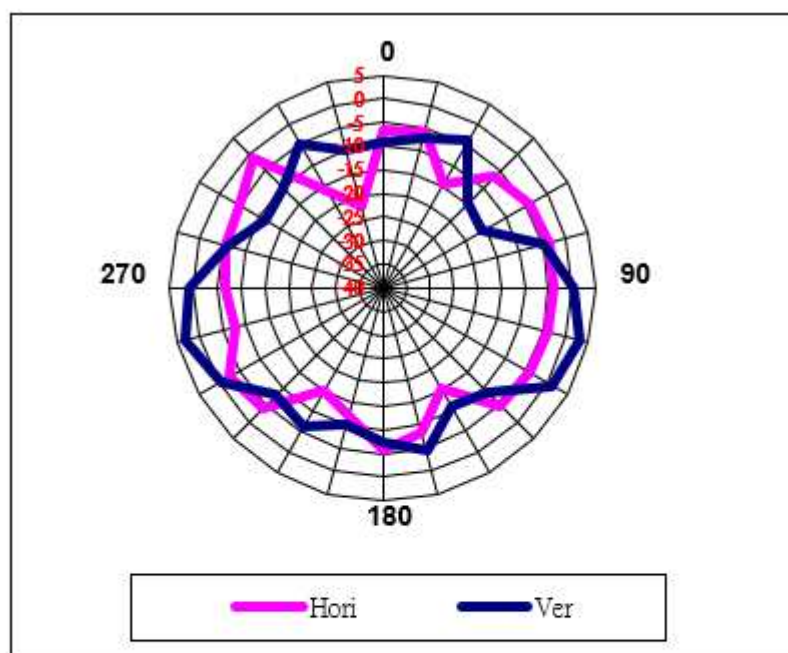
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2452  |
| Horizontal peak gain (dBi) | 3.18  |
| Vertical peak gain (dBi)   | -3.86 |

Ant : 2484 MHz



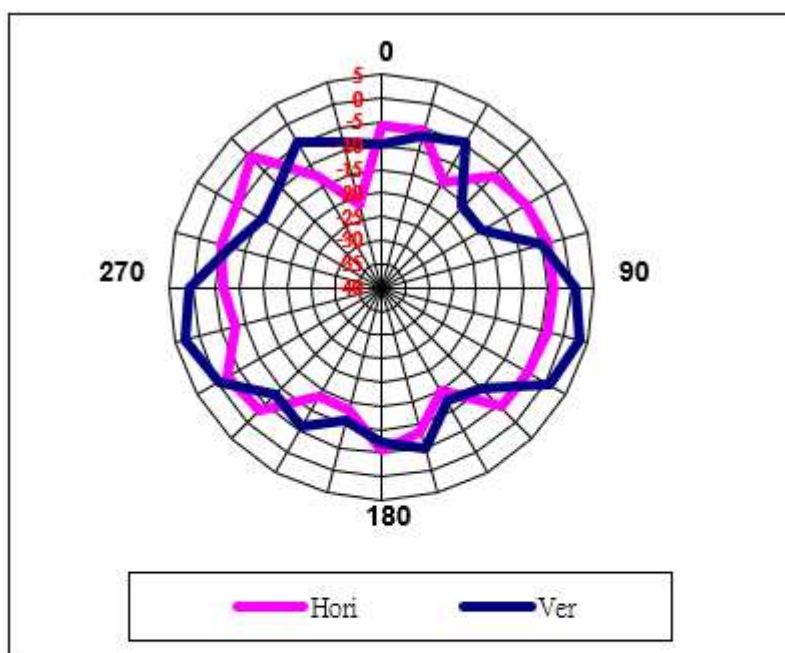
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 2484  |
| Horizontal peak gain (dBi) | 3.12  |
| Vertical peak gain (dBi)   | -3.54 |

Ant : 5150 MHz



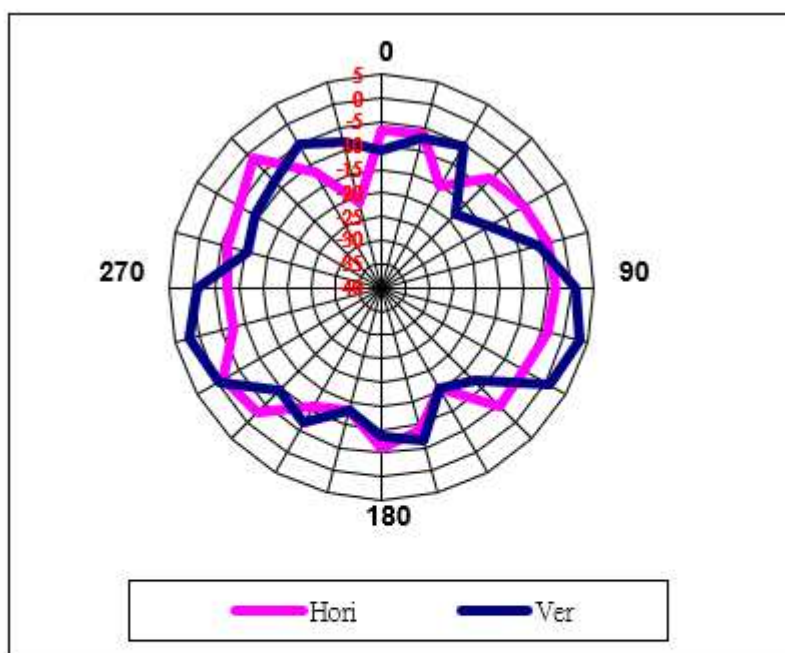
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5150  |
| Horizontal peak gain (dBi) | -1.21 |
| Vertical peak gain (dBi)   | 3.21  |

Ant : 5180 MHz



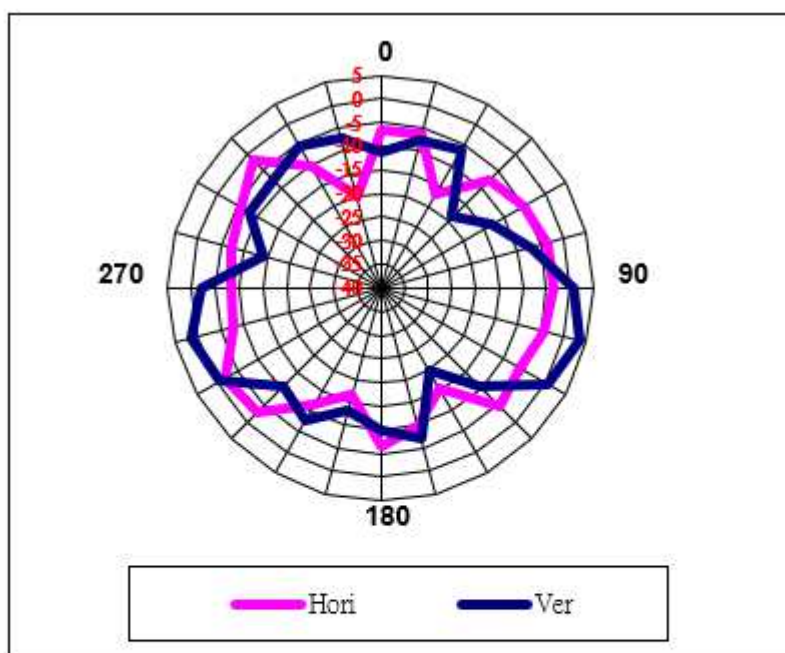
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5180  |
| Horizontal peak gain (dBi) | -0.88 |
| Vertical peak gain (dBi)   | 3.35  |

Ant : 5250 MHz



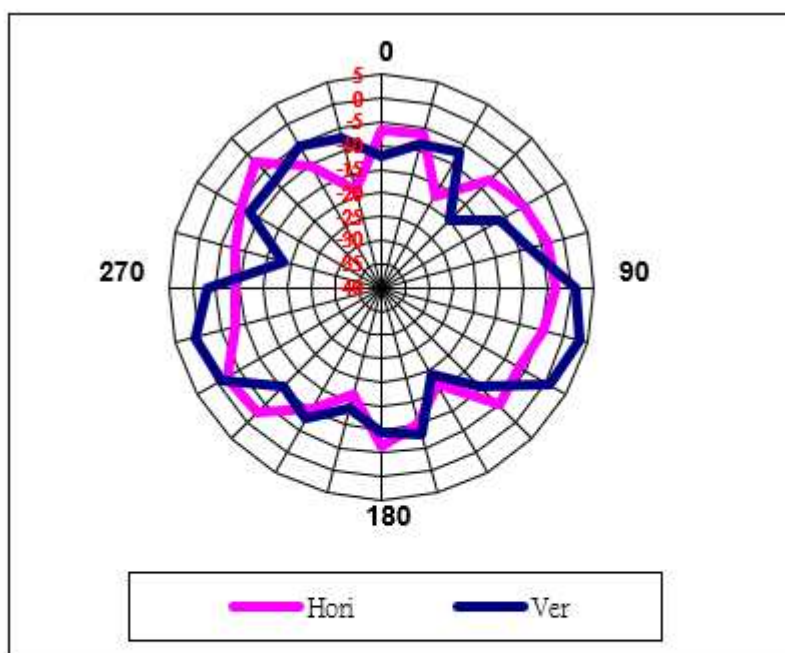
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5250  |
| Horizontal peak gain (dBi) | -1.39 |
| Vertical peak gain (dBi)   | 3.19  |

Ant : 5320 MHz



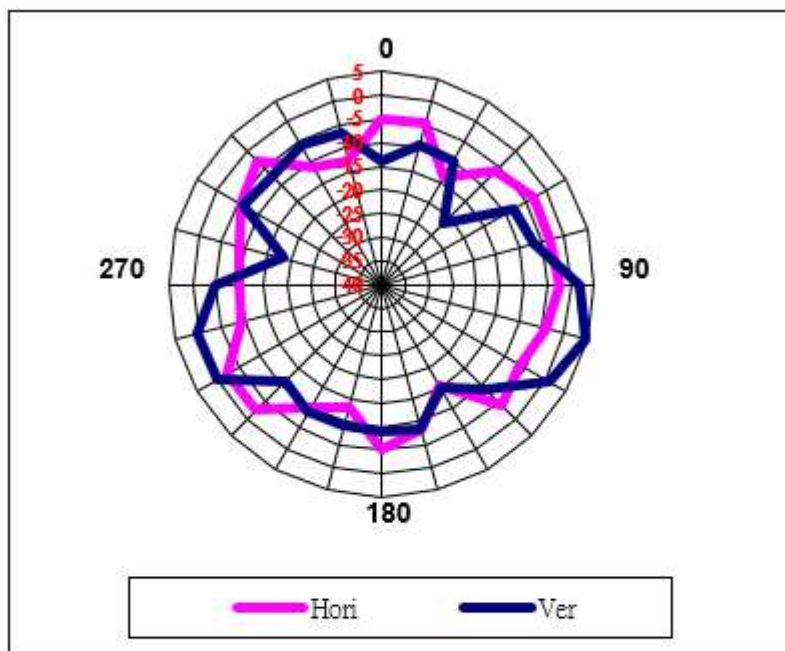
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5320  |
| Horizontal peak gain (dBi) | -1.99 |
| Vertical peak gain (dBi)   | 3.37  |

Ant : 5350 MHz



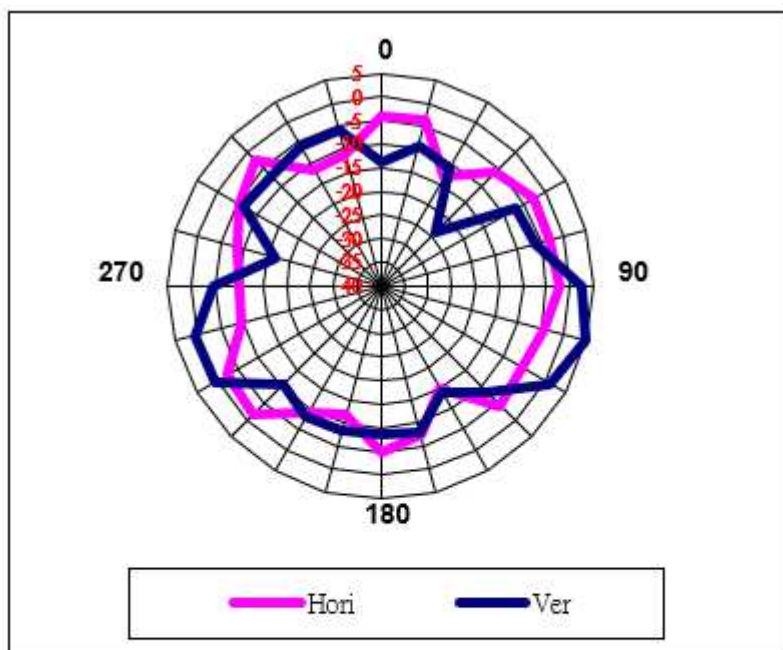
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5350  |
| Horizontal peak gain (dBi) | -2.07 |
| Vertical peak gain (dBi)   | 3.42  |

Ant : 5470 MHz



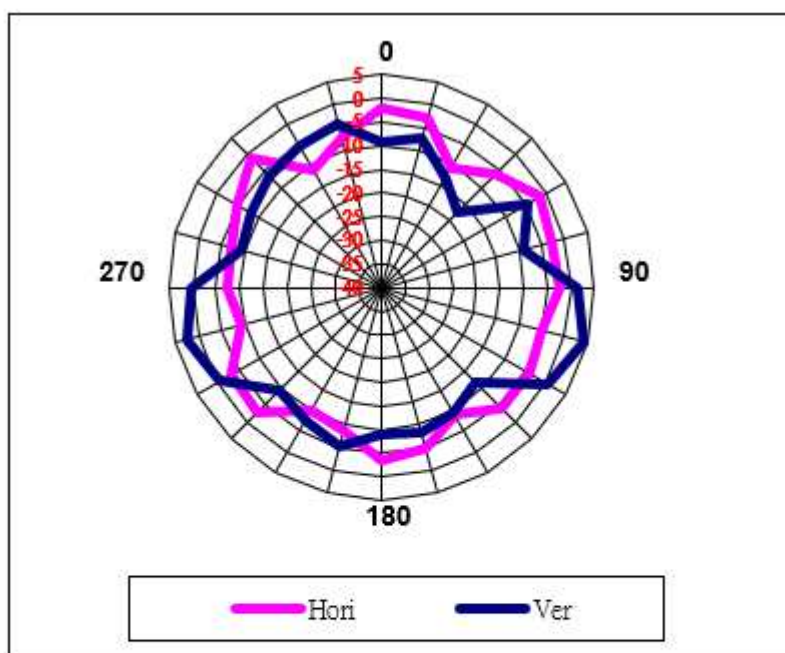
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5470  |
| Horizontal peak gain (dBi) | -2.34 |
| Vertical peak gain (dBi)   | 4.46  |

Ant : 5500 MHz



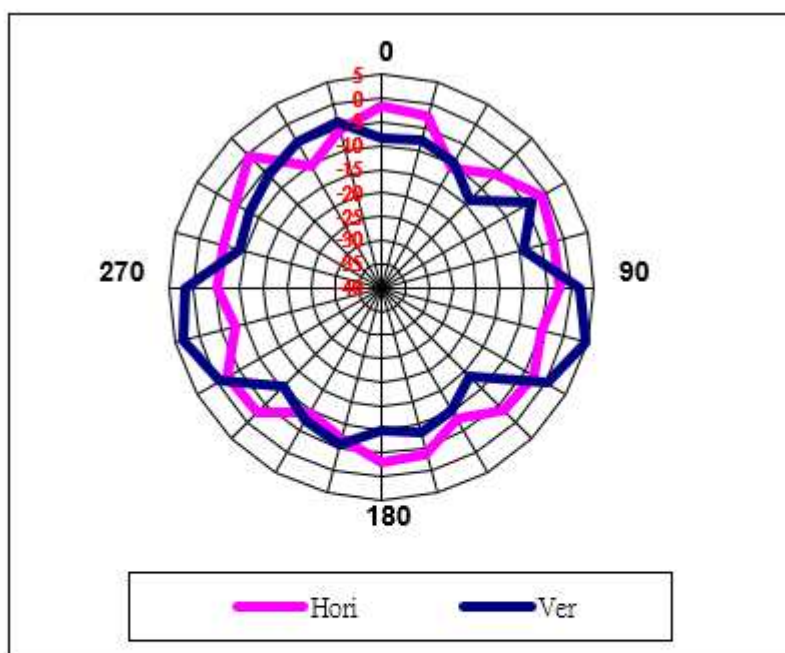
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5500  |
| Horizontal peak gain (dBi) | -1.85 |
| Vertical peak gain (dBi)   | 4.77  |

Ant : 5725 MHz



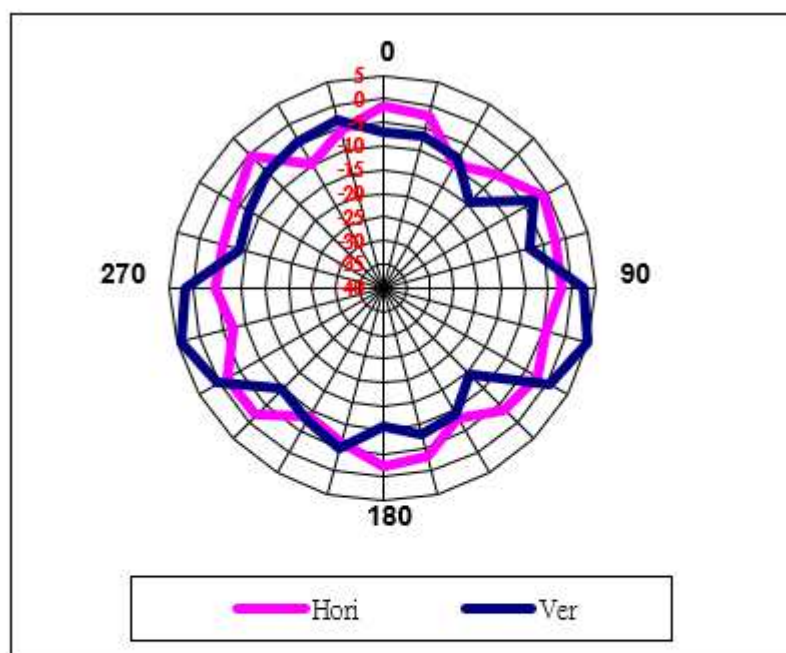
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5725  |
| Horizontal peak gain (dBi) | -0.98 |
| Vertical peak gain (dBi)   | 4.29  |

Ant : 5785 MHz



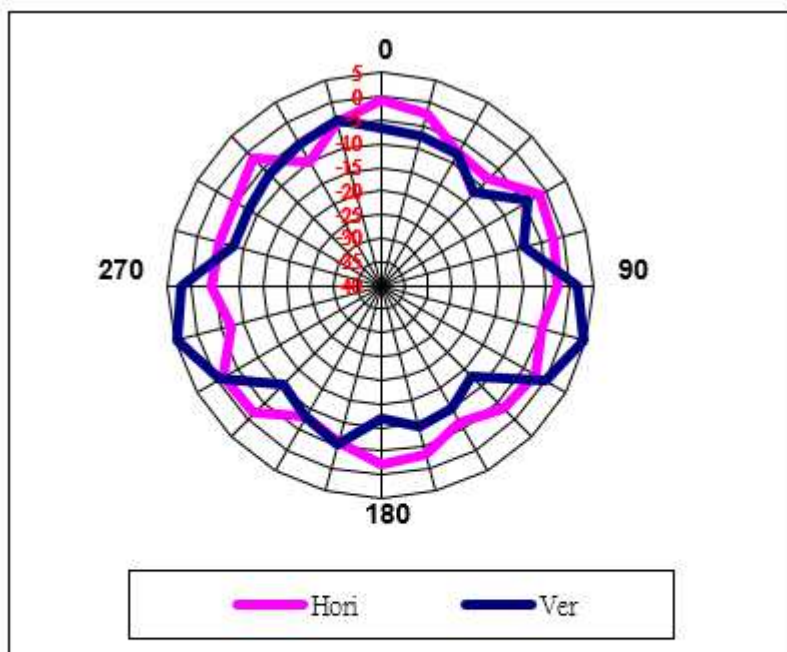
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5785  |
| Horizontal peak gain (dBi) | -0.37 |
| Vertical peak gain (dBi)   | 4.49  |

Ant : 5805 MHz



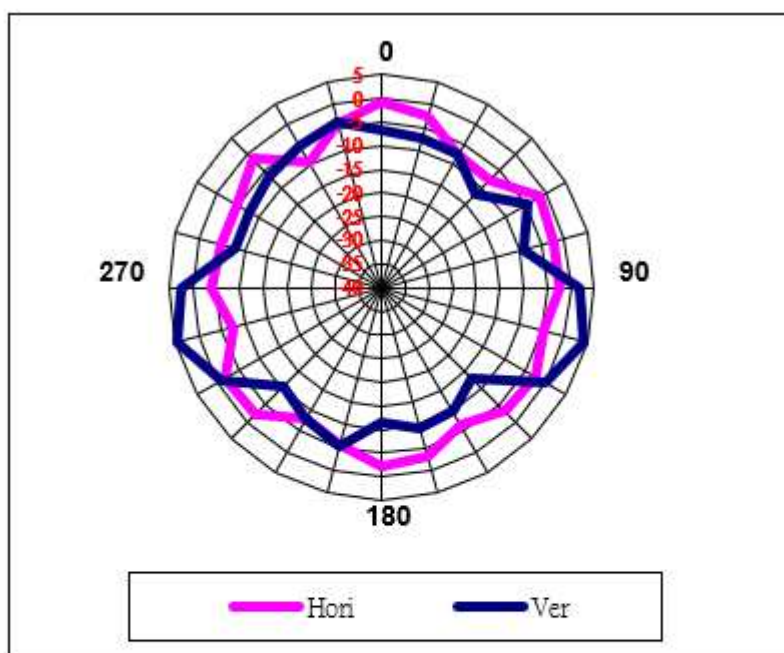
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5805  |
| Horizontal peak gain (dBi) | -0.46 |
| Vertical peak gain (dBi)   | 4.72  |

Ant : 5850 MHz



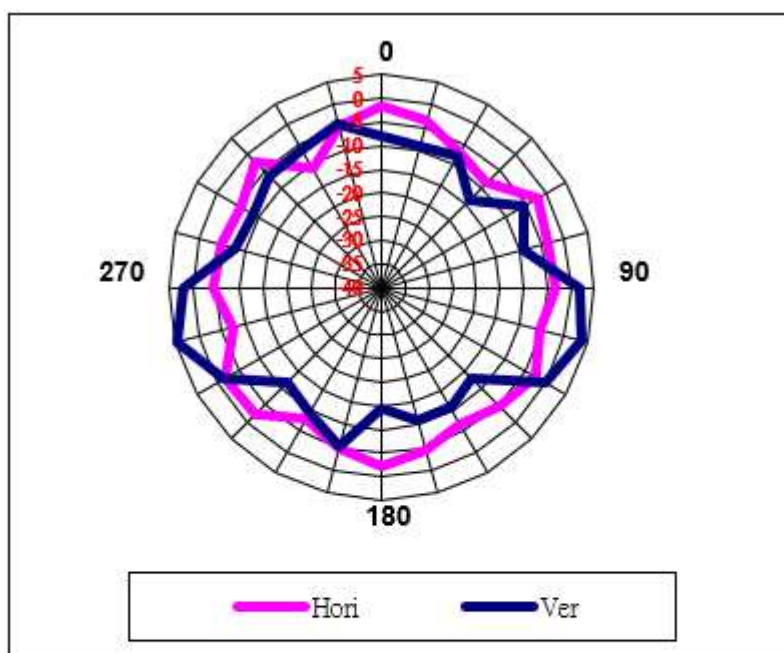
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5850  |
| Horizontal peak gain (dBi) | -0.68 |
| Vertical peak gain (dBi)   | 4.71  |

Ant : 5875 MHz



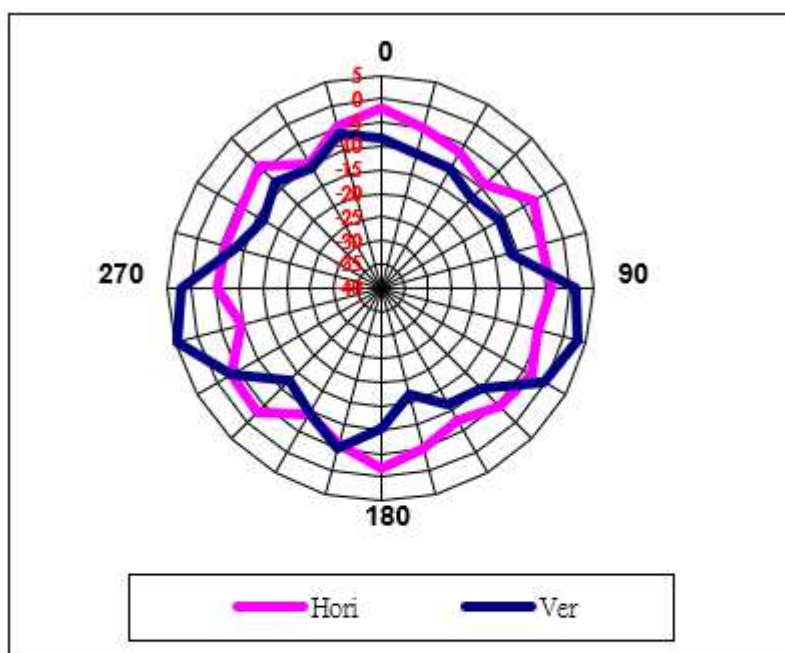
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5875  |
| Horizontal peak gain (dBi) | -0.78 |
| Vertical peak gain (dBi)   | 4.64  |

Ant : 5925 MHz



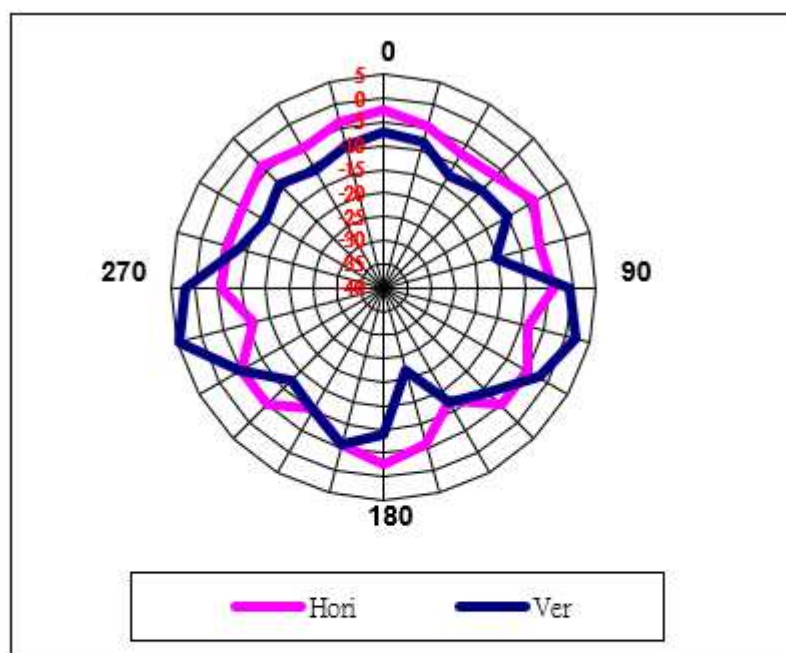
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 5925  |
| Horizontal peak gain (dBi) | -1.54 |
| Vertical peak gain (dBi)   | 4.71  |

Ant : 6085 MHz



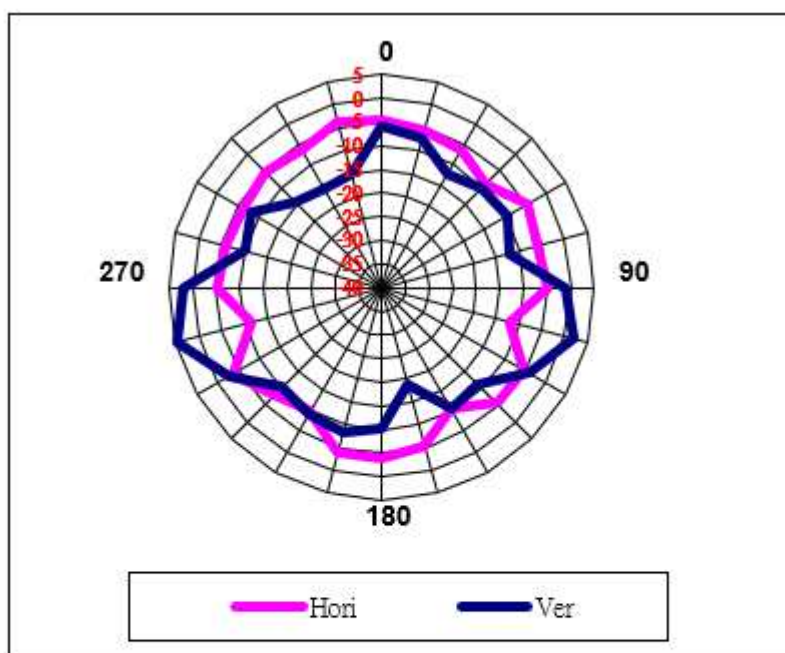
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6085  |
| Horizontal peak gain (dBi) | -1.86 |
| Vertical peak gain (dBi)   | 4.75  |

Ant : 6245 MHz



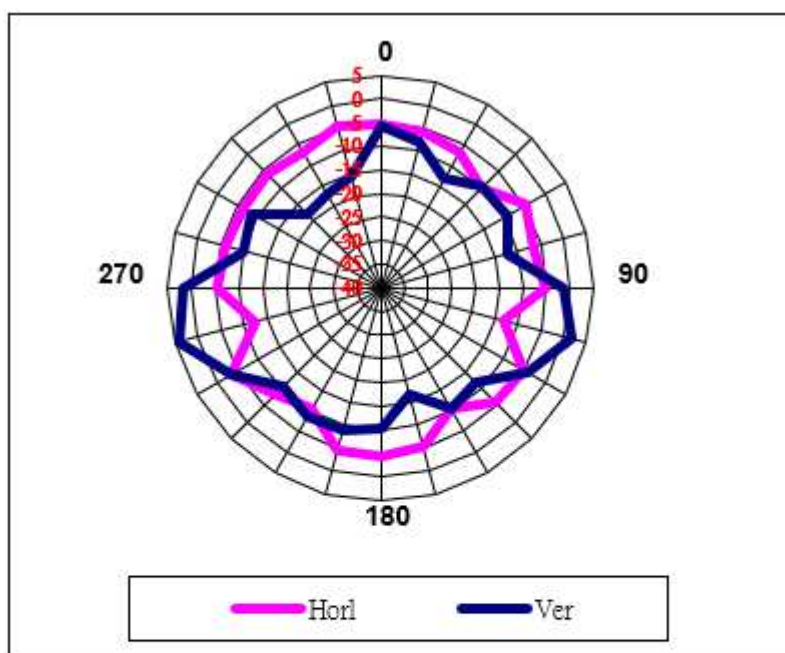
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6245  |
| Horizontal peak gain (dBi) | -2.29 |
| Vertical peak gain (dBi)   | 4.74  |

Ant : 6405 MHz



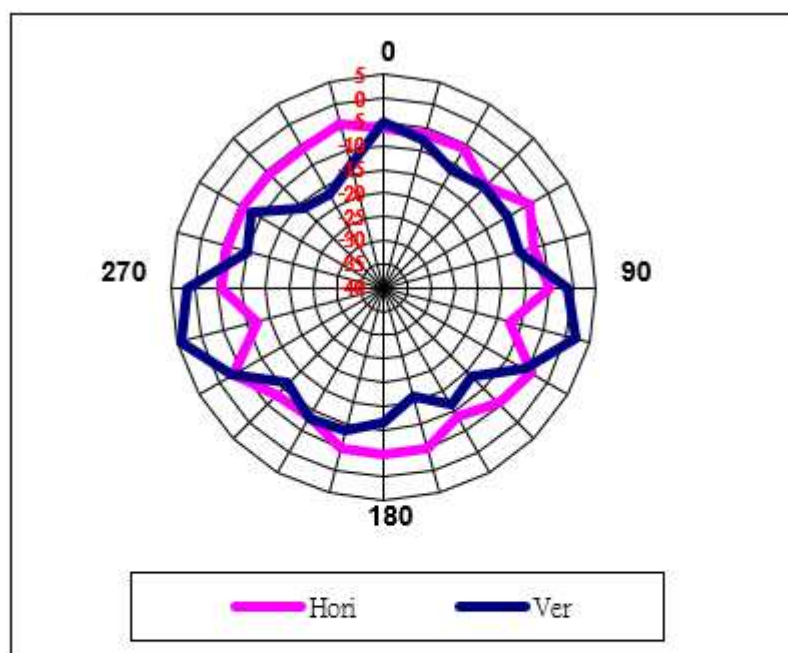
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6405  |
| Horizontal peak gain (dBi) | -3.69 |
| Vertical peak gain (dBi)   | 4.70  |

Ant : 6425 MHz



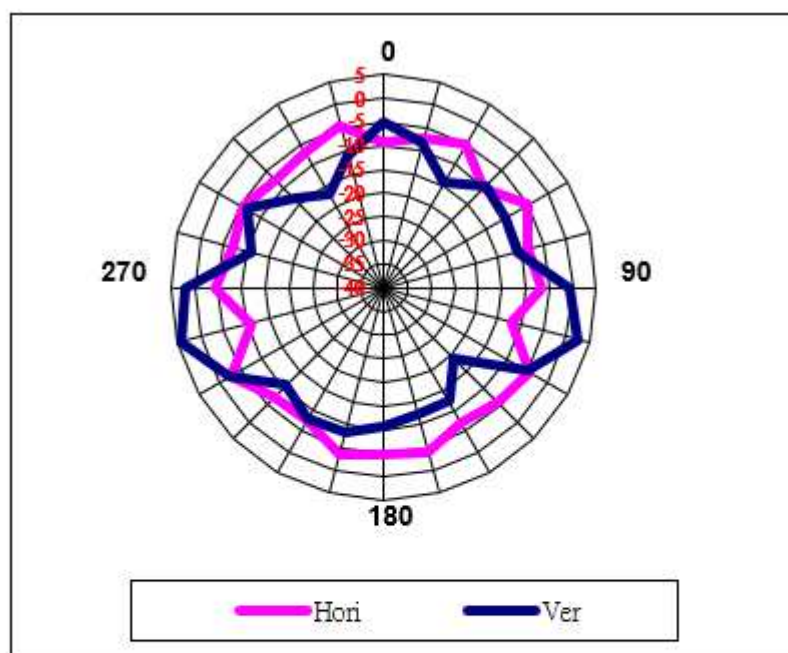
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6425  |
| Horizontal peak gain (dBi) | -3.63 |
| Vertical peak gain (dBi)   | 4.25  |

Ant : 6465 MHz



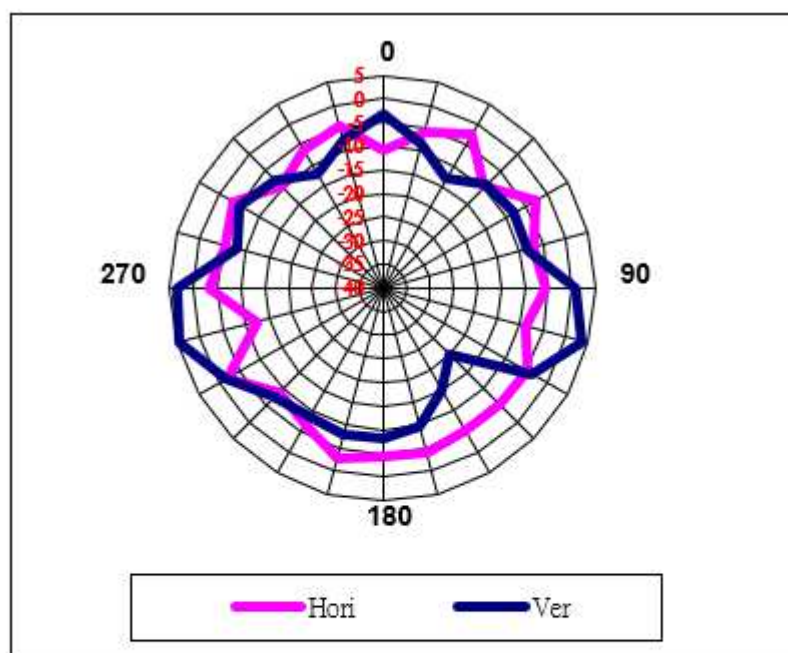
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6465  |
| Horizontal peak gain (dBi) | -3.32 |
| Vertical peak gain (dBi)   | 4.29  |

Ant : 6525 MHz



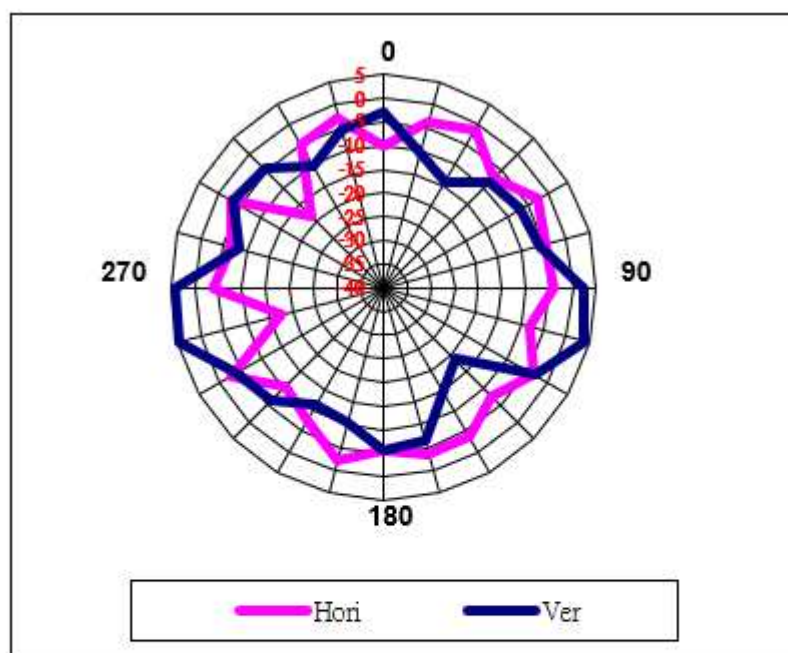
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6525  |
| Horizontal peak gain (dBi) | -2.61 |
| Vertical peak gain (dBi)   | 4.22  |

Ant : 6645 MHz



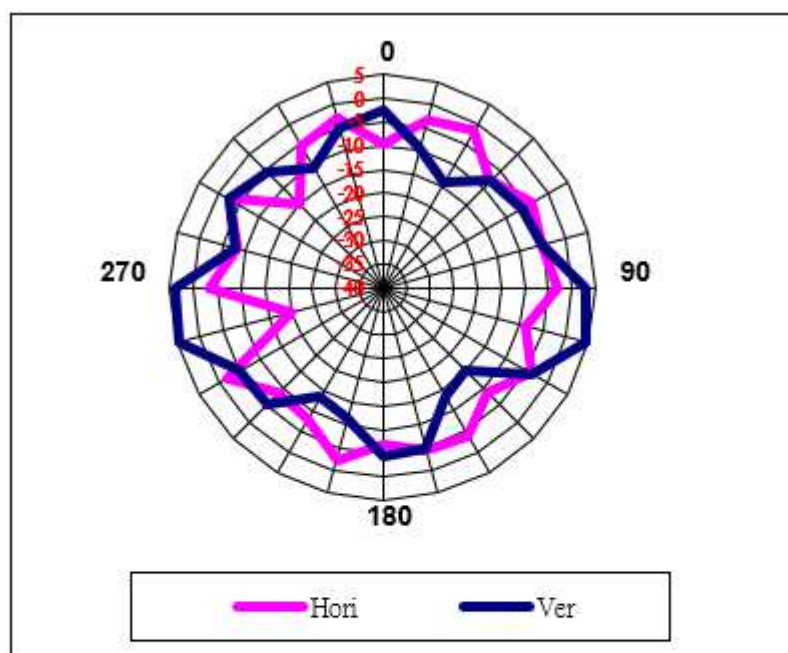
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6645  |
| Horizontal peak gain (dBi) | -2.09 |
| Vertical peak gain (dBi)   | 4.78  |

Ant : 6795 MHz



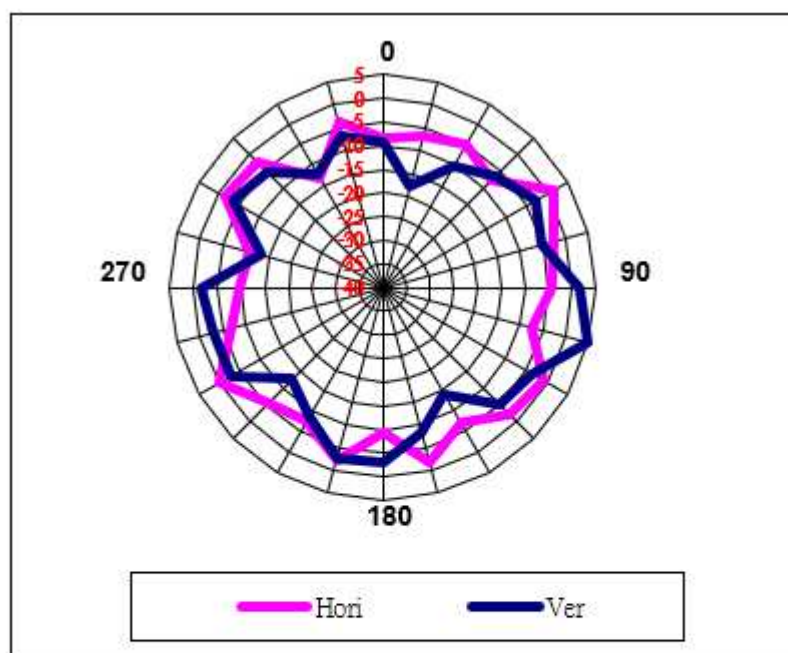
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6795  |
| Horizontal peak gain (dBi) | -1.37 |
| Vertical peak gain (dBi)   | 4.81  |

Ant : 6875 MHz



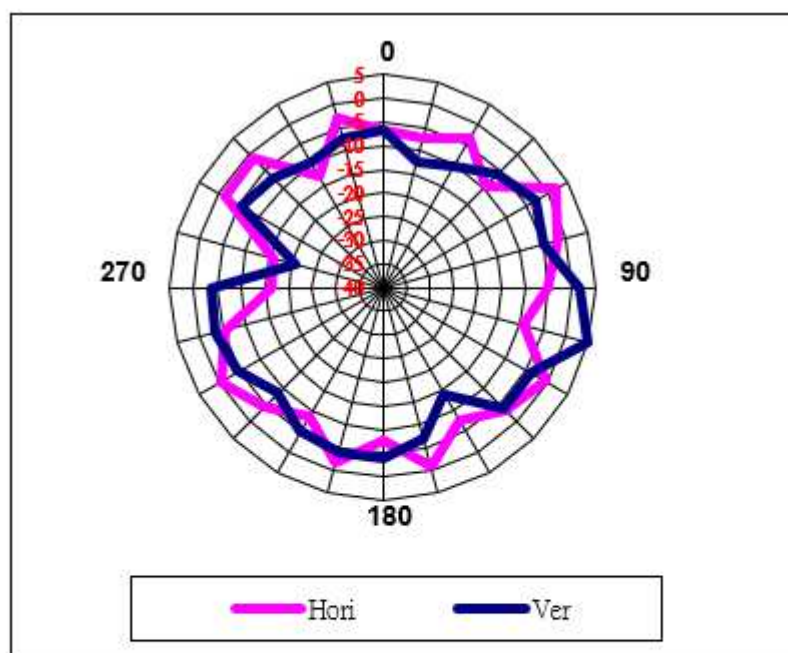
|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 6875  |
| Horizontal peak gain (dBi) | -1.57 |
| Vertical peak gain (dBi)   | 4.71  |

Ant : 6975 MHz



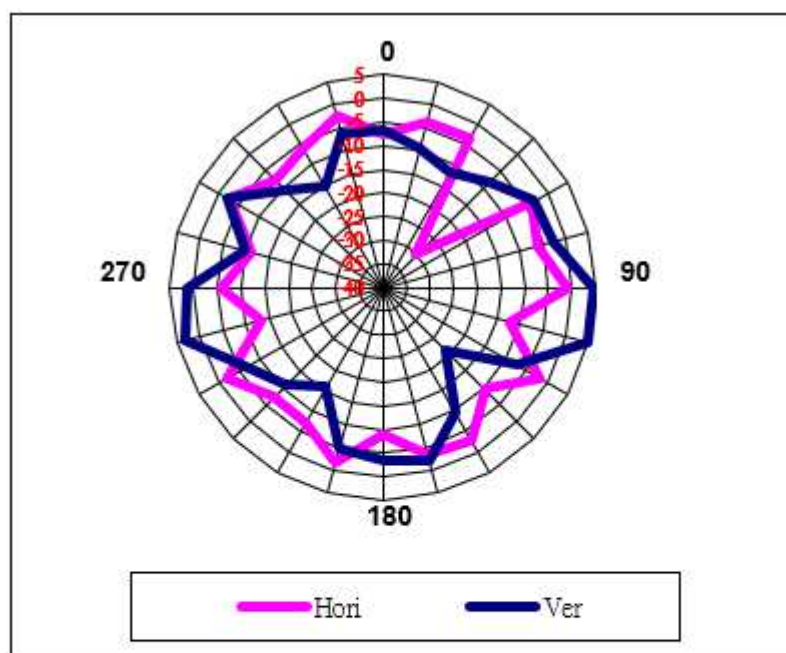
|                            |      |
|----------------------------|------|
| Frequency (MHz)            | 6975 |
| Horizontal peak gain (dBi) | 1.46 |
| Vertical peak gain (dBi)   | 4.74 |

Ant : 7095 MHz



|                            |      |
|----------------------------|------|
| Frequency (MHz)            | 7095 |
| Horizontal peak gain (dBi) | 2.10 |
| Vertical peak gain (dBi)   | 4.74 |

Ant : 7125 MHz



|                            |       |
|----------------------------|-------|
| Frequency (MHz)            | 7125  |
| Horizontal peak gain (dBi) | -0.79 |
| Vertical peak gain (dBi)   | 4.71  |