

# Testing Report

SRD Antennas(905-926.5MHz)

Customer Name: AJAX SYSTEMS

Product Name EN54 Fire ReX Jeweller

Sample Model: -

Issue Date: 22.05.2026

|                                                                                                                |                  |
|----------------------------------------------------------------------------------------------------------------|------------------|
| <br>Engineer: B.Hermaniuk   | Date: 22.05.2026 |
| <br>Approver: O. Tymoshenko | Date: 22.05.2026 |

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# 1. General Information

## 1.1. General information of testing institutions

|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| Name        | «AJAX SYSTEMS MANUFACTURING» LLC                                   |
| Address     | 5 Sklyarenka Str., Kyiv, 04073, Ukraine                            |
| Web-address | <a href="https://ajax.systems/">https://ajax.systems/</a>          |
| E-mail      | <a href="mailto:kuraksa.s@ajax.systems">kuraksa.s@ajax.systems</a> |

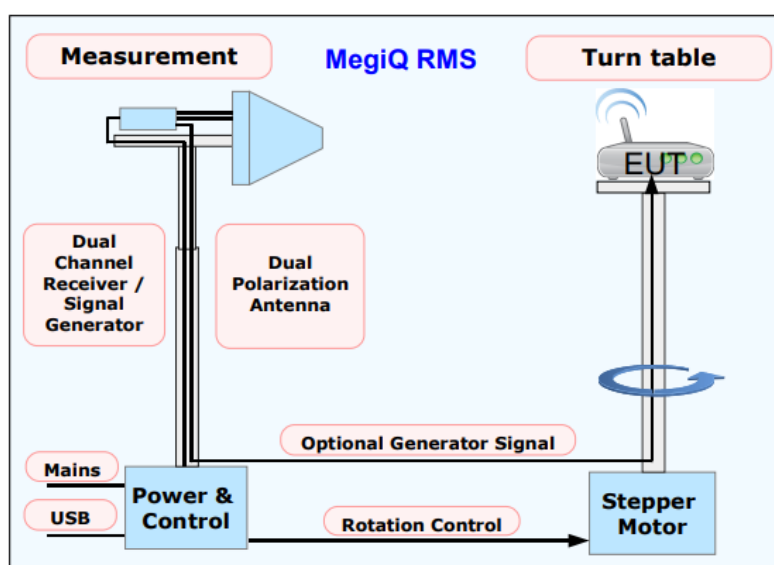
## 1.2. Testing principle

The MegiQ Radiation Measurement System (RMS) is a compact test system that performs 3-axis radiation pattern measurement in non-anechoic spaces.



**RMS0440 – RMS0460**  
**RMS0640 – RMS0660**

### Measurement System



### 1.3. Test equipment

| Equipment               | Manufacturer                | Model                    | Identifier<br>(serial number) | Calibration<br>date |
|-------------------------|-----------------------------|--------------------------|-------------------------------|---------------------|
| Vector network analyzer | MegiQ                       | RMS0460                  | 00003028                      | 10/2024 – 10/2026   |
| Antenna                 | Narda Safety Test Solutions | LP-02                    | 001ZX10321                    | 08/2024 – 08/2026   |
| Shielded room           |                             | —                        | —                             | —                   |
| Power&Control unit      | MegiQ                       | ---                      | —                             | —                   |
| Turn table              | MegiQ                       | ---                      | —                             | —                   |
| Personal computer       | ASUS                        | Vivobook S M5606UA-MX026 | 380000281174                  | —                   |

### 1.4. Test environment

|             |           |
|-------------|-----------|
| Temperature | 22.5°C    |
| Humidity    | 58%RH     |
| Pressure    | 100.20kPa |

### 1.5. Statement

- (1) The test results in the report are only applicable to the tested samples and the tested samples work under the environment described in the report.
- (2) Only «AJAX SYSTEMS MANUFACTURING» LLC have the right to modify the report, and the modification information shall be annotated in the revision form.
- (3) Any objection to this report shall be raised within 30 days after formal confirmation of the report.
- (4) This report is invalid if there is any evidence that the sample information provided is falsified.
- (5) The report is invalid without the signature of the approver

## 2. Sample Information

### 2.1. Client

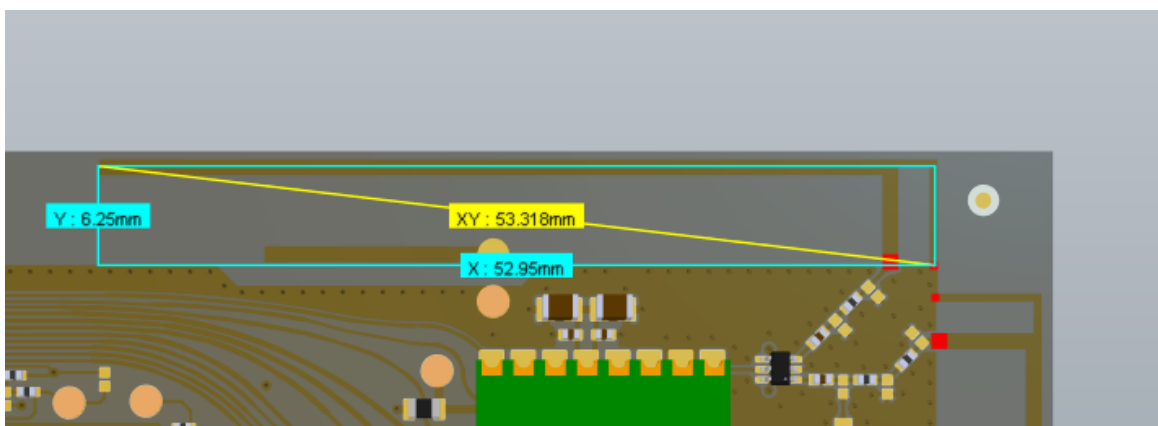
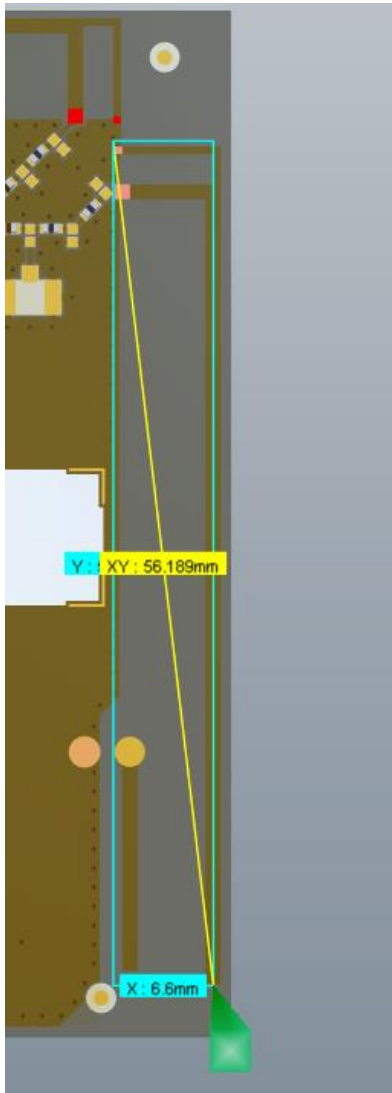
|              |                                         |
|--------------|-----------------------------------------|
| Name         | «AJAX SYSTEMS MANUFACTURING» LLC        |
| Address      | 5 Sklyarenka Str., Kyiv, 04073, Ukraine |
| Manufacturer | «AJAX SYSTEMS MANUFACTURING» LLC        |

### 2.2. Description of EUT

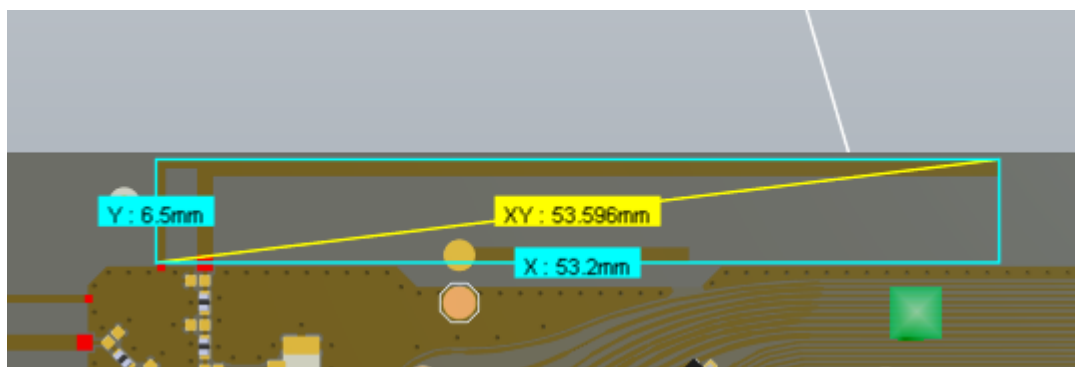
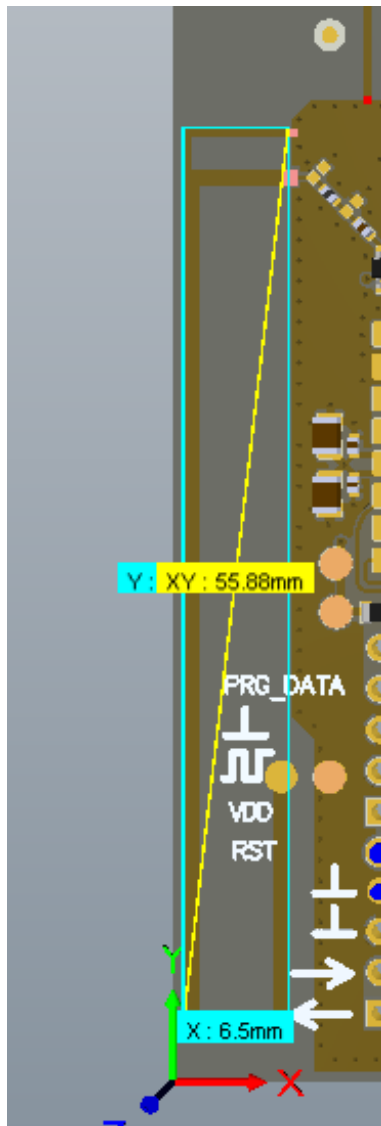
|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Product Name    | EN54 Fire ReX Jeweller                                      |
| Antenna Size    | Jeweller:55*6.6 mm/53*6.25mm<br>Wings:55*6.5 mm/53.2*6.5 mm |
| Serial No.      | -                                                           |
| Antenna Type    | PCB antenna                                                 |
| Test Item       | VSWR; Antenna gain; Radiation pattern                       |
| Frequency Range | 905-926.5MHz                                                |
| HW info         | ERX.001.MBR.001v3                                           |

### 2.3. EUT appearance

Jeweller



## Wings



### 3. Test Result

#### 3.1. Test standard

| Name                         | Parameter            | Method                                                               | Standard no.           |
|------------------------------|----------------------|----------------------------------------------------------------------|------------------------|
| Mobile communication antenna | Antenna gain         | Generic specification for antennas used in the mobile communications | GB/T 9410-2008         |
|                              | Radiation pattern    |                                                                      |                        |
|                              | VSWR                 |                                                                      |                        |
| Antenna                      |                      | IEEE Standard Test Procedures for Antennas                           | ANSI/IEEE Std 149-1979 |
|                              | Gain and directivity |                                                                      |                        |

#### 3.2. Test uncertainty

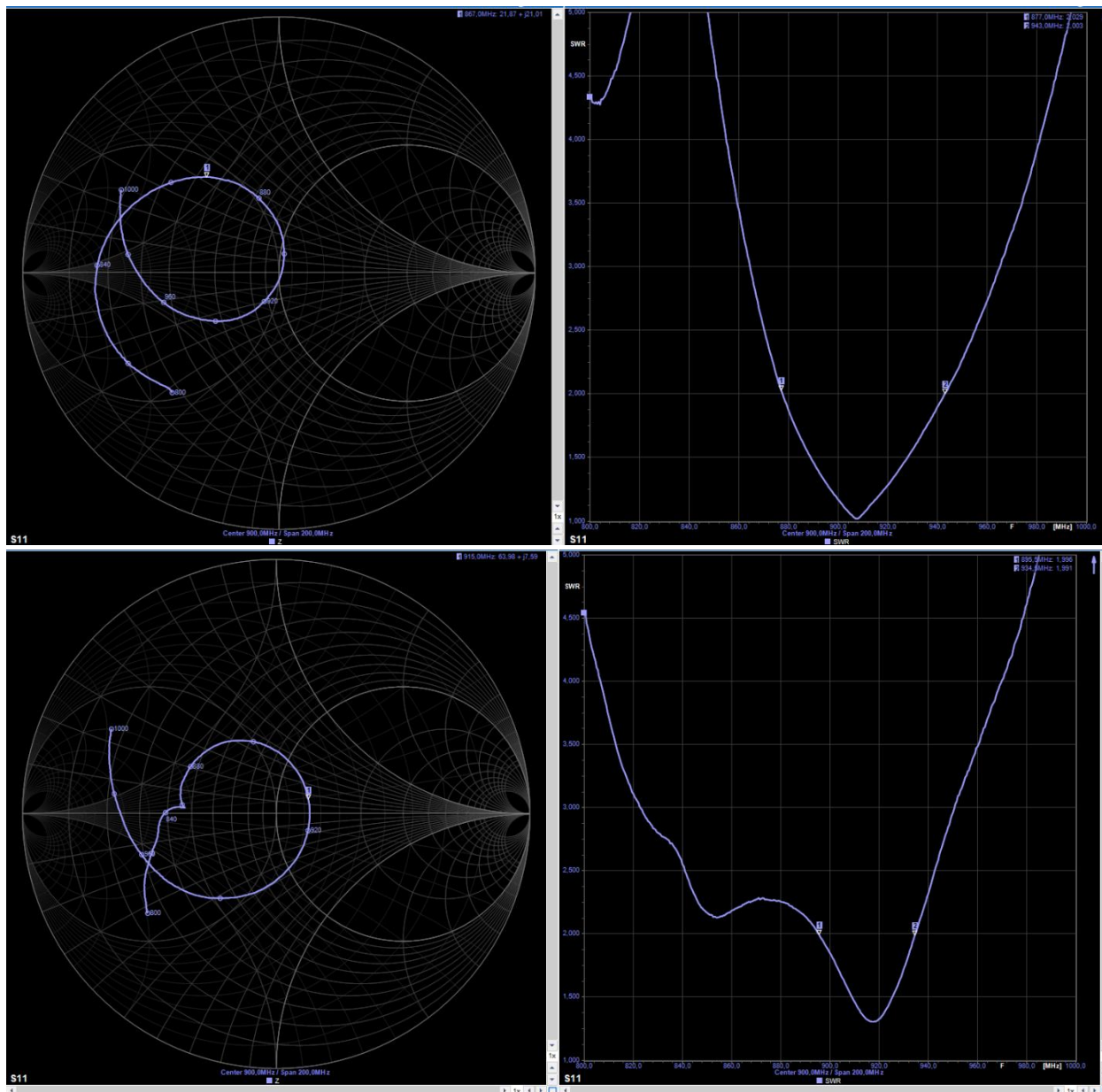
The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of K=2 and the 95% confidence level to express the extended uncertainty.

| Item                 | Uncertainty |
|----------------------|-------------|
| VSWR                 | $\pm 0.2$   |
| Antenna gain         | $\pm 0.6$   |
| Radiation efficiency | $\pm 0.6$   |

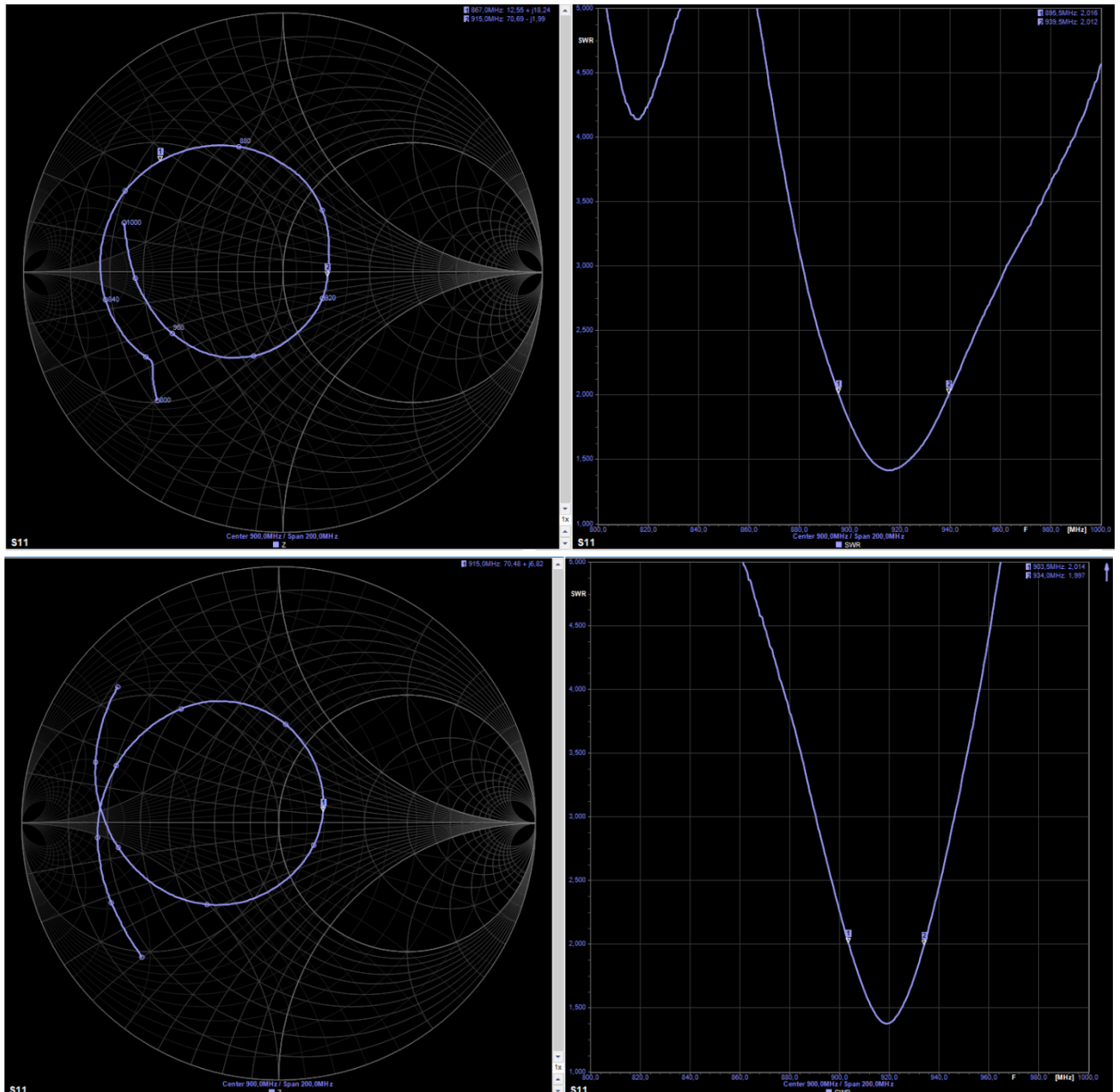
### 3.3. Test data

#### 3.3.1. VSWR parameters

Jwl



## Wings



### 3.3.2. VSWR data

| Frequency/MHz | 905 | 915 | 926.5 |
|---------------|-----|-----|-------|
| jeweller      |     |     |       |
| horizontal    | 1.2 | 1.3 | 1.5   |
| vertical      | 1.6 | 1.5 | 1.6   |
| wings         |     |     |       |
| horizontal    | 1.6 | 1.4 | 1.5   |
| vertical      | 2   | 1.5 | 1.6   |

### 3.3.3. Typical efficiency and gain

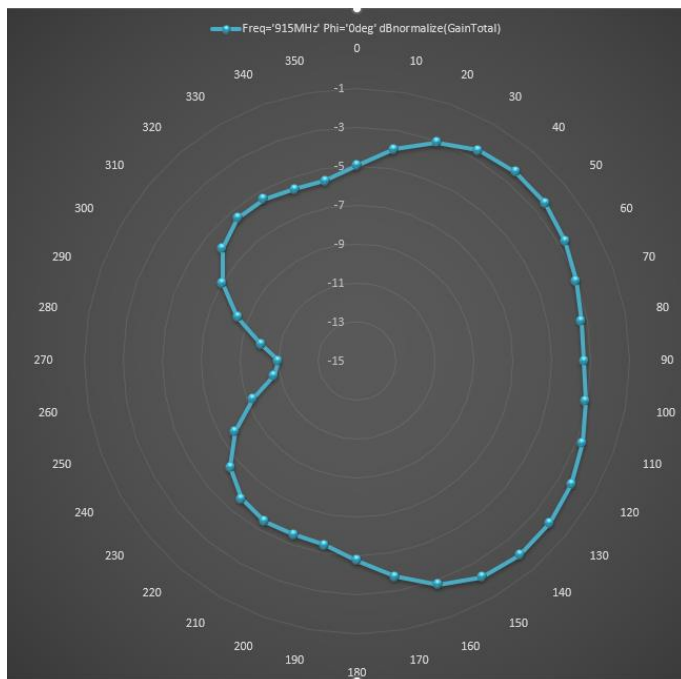
| Frequency/MHz | 905  | 915  | 926.5 |
|---------------|------|------|-------|
| jwl           |      |      |       |
| Peak Gain/dBi | -1.9 | -2.1 | -2    |
| Peak Gain/dBi | -1.8 | -2.2 | -2.1  |
| wings         |      |      |       |
| Peak Gain/dBi | -2   | -2.2 | -2.1  |
| Peak Gain/dBi | -1.9 | -2.1 | -2    |

### 3.3.4. Typical free space radiation pattern

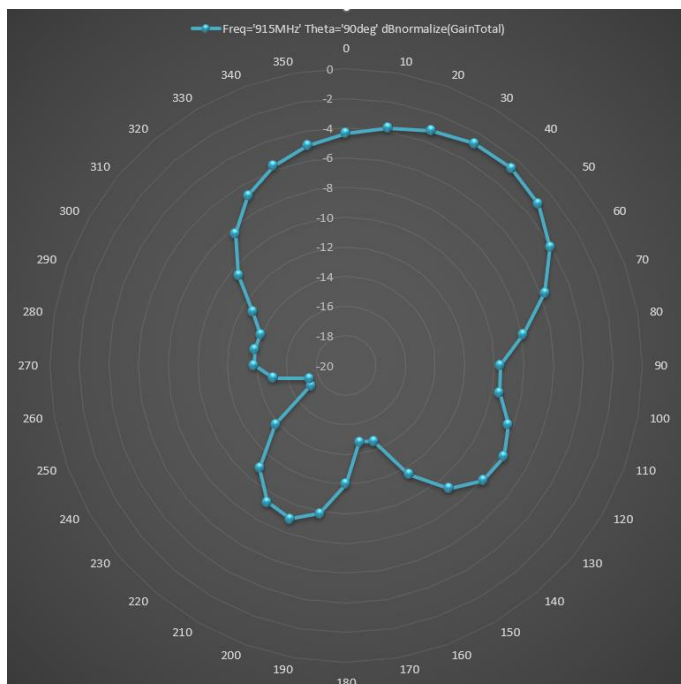
915 MHz

Jwl 1

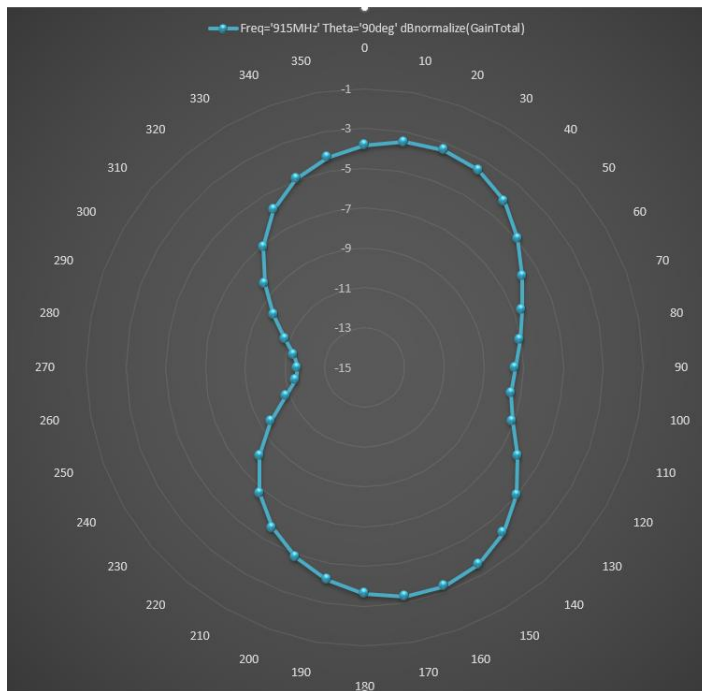
XZ theta0 phi0-360



XY phi90 theta 0-180

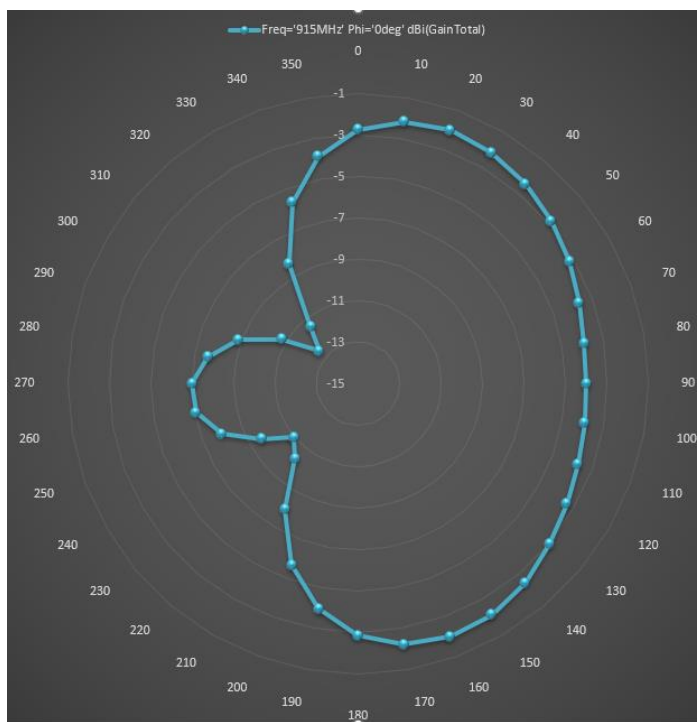


ZY theta90 phi0-360

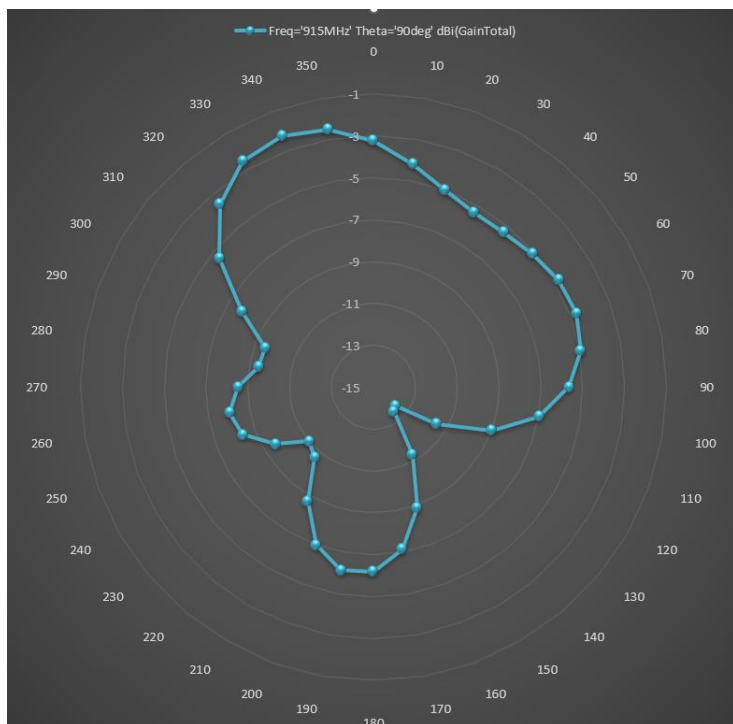


Jwl 2

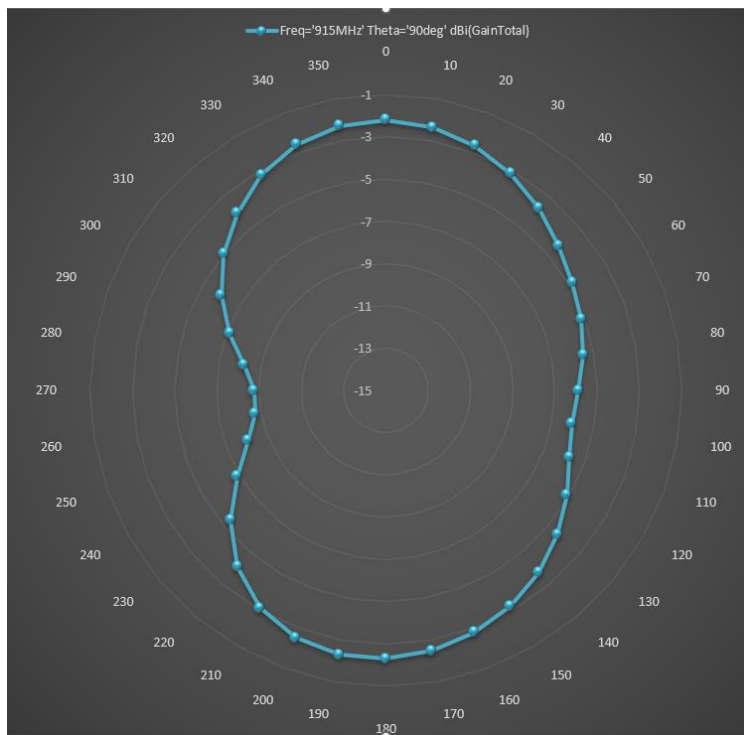
XZ theta0 phi0-360



XY phi90 theta 0-180

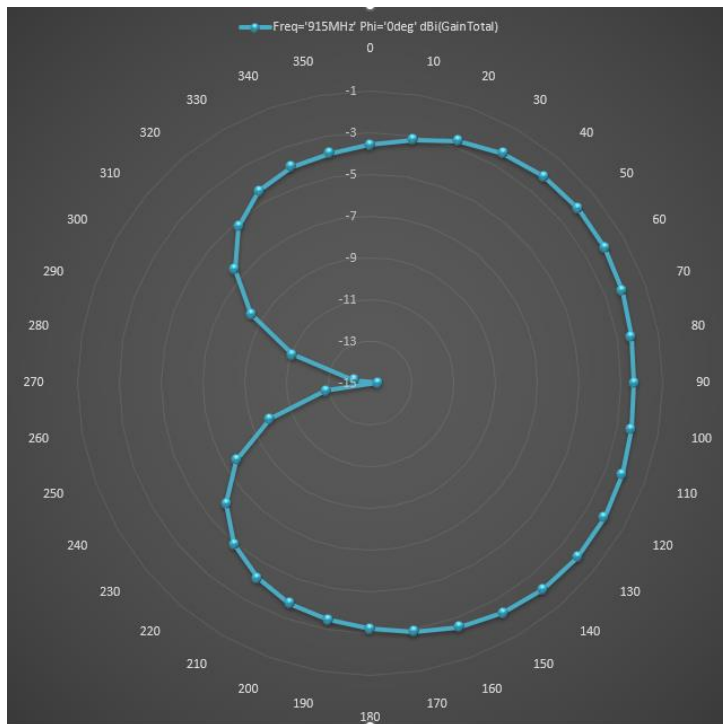


ZY theta90 phi0-360

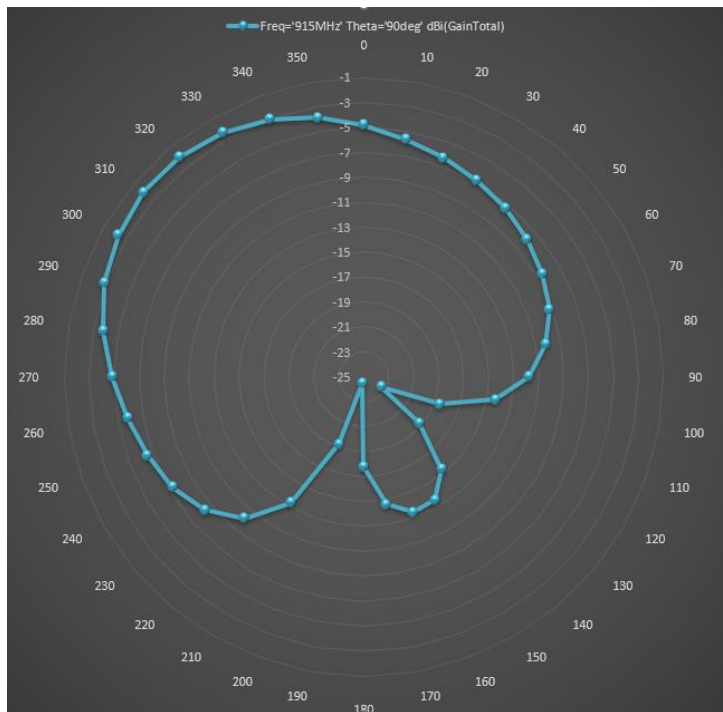


## Wings 1

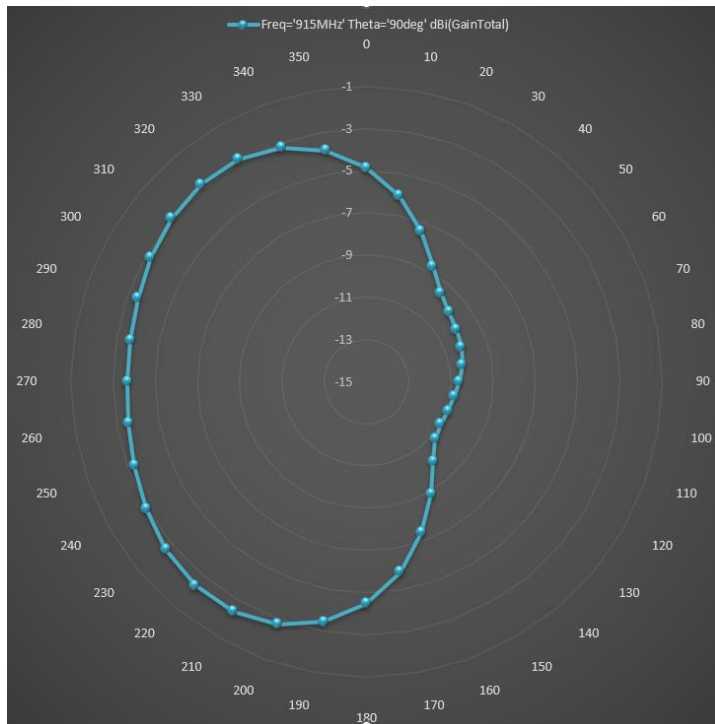
XZ theta0 phi0-360



XY phi90 theta 0-180

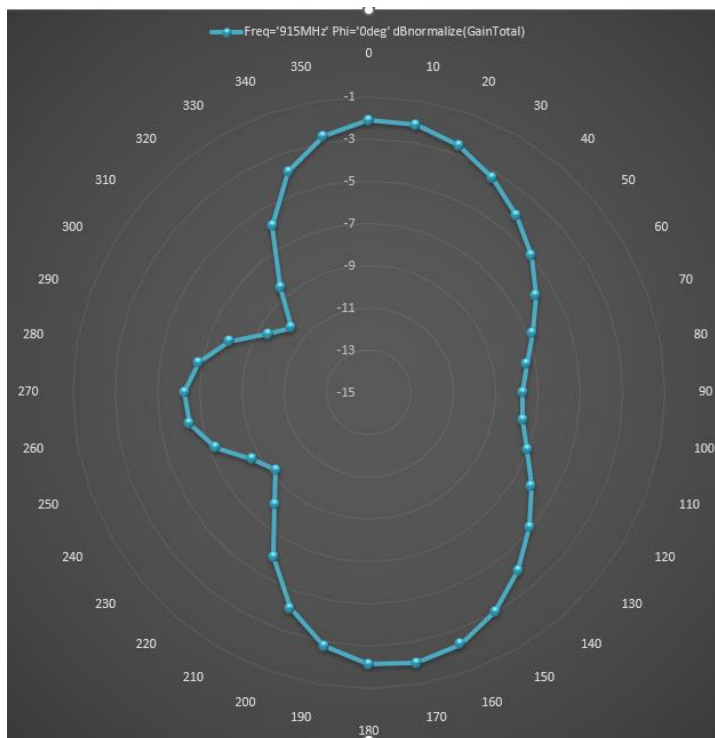


ZY theta90 phi0-360

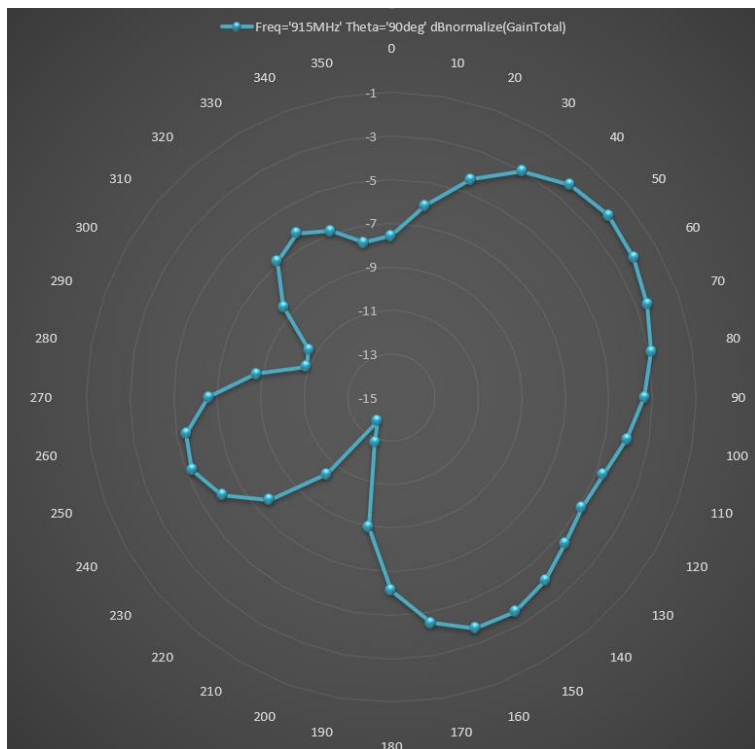


Wings 2

XZ theta0 phi0-360



XY phi90 theta 0-180



ZY theta90 phi0-360

