



# Testo Saviers-868MHz

**Engineer : Wade**

**Report date : 2022/02/15 REV 09**

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# Revision History

| Revision | Date       | Engineer    | Description                                          |
|----------|------------|-------------|------------------------------------------------------|
| 01       | 2021/06/18 | Eason       | New Release                                          |
| 02       | 2021/06/23 | Eason       | Update                                               |
| 03       | 2021/07/29 | George Hung | Placement change and antenna pattern modify .        |
| 04       | 2021/08/17 | George Hung | Mechanization change,antenna pattern modify .        |
| 05       | 2021/08/25 | George Hung | Antenna pattern modify .                             |
| 06       | 2021/08/31 | George Hung | Antenna pattern modify .                             |
| 07       | 2021/09/02 | George Hung | Feed point placement change,antenna pattern modify . |
| 08       | 2021/11/05 | Wade        | UP DATA                                              |
| 09       | 2022/02/15 | Wade        | Update Revision                                      |

# Antenna specification

| Item                               | Specification    |
|------------------------------------|------------------|
| Operating Frequency(MHz)           | 868-925          |
| Bandwidth                          | 57 MHz (Min.)    |
| Return Loss                        | -2.5 dB (Max)    |
| Polarization                       | Linear           |
| Azimuth Bandwidth                  | Omni-directional |
| Peak Gain                          | -1.13 dBi (Max)  |
| Impedance                          | 50Ω              |
| Material                           | FPC              |
| Maximum Power                      | 1W               |
| V.S.W.R                            | 6.7 : 1          |
| Radiation                          | Omni directional |
| Efficiency<br>(Exclude cable loss) | >11%             |
| Connector                          | MHF              |
| Cable type                         | OD:1.13          |
| Operating Temperature              | -10~60°C         |
| Storage temp                       | -10~70°C         |

# Antenna photo

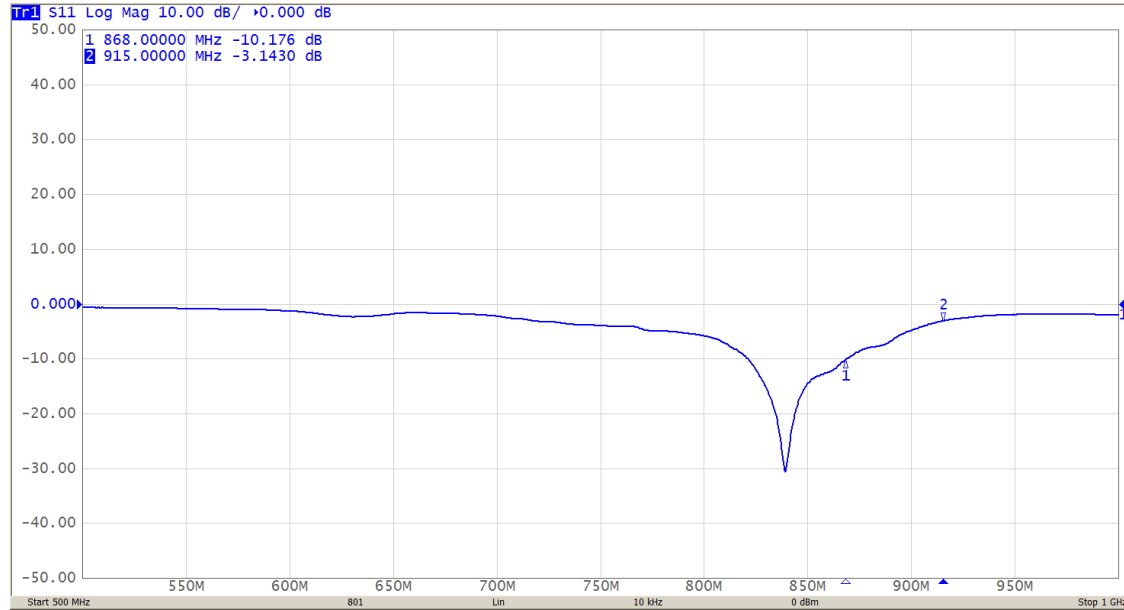


# Antenna photo



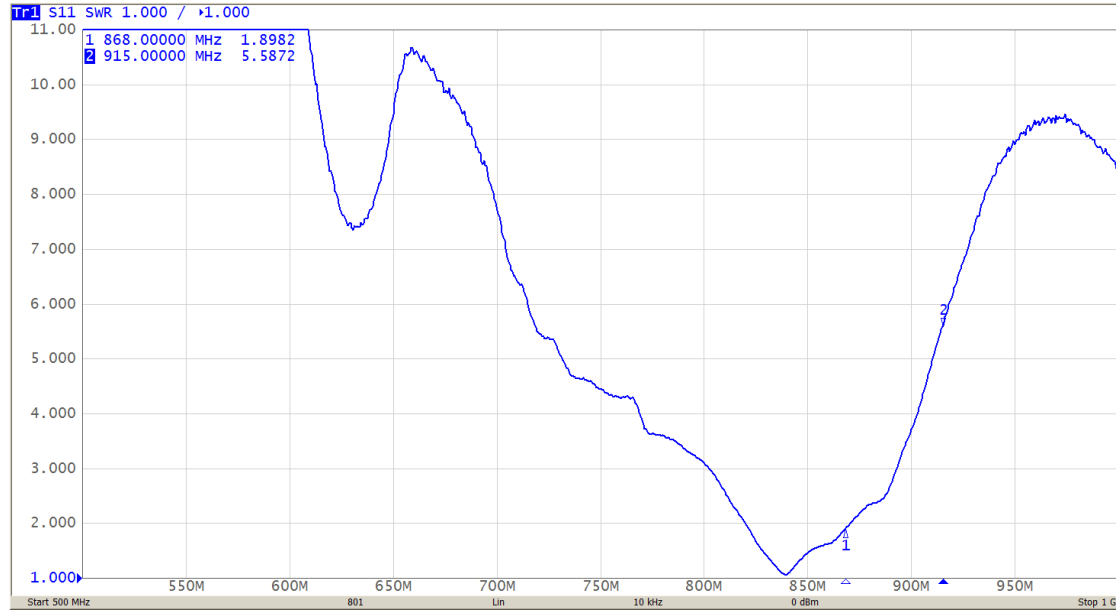
# Antenna Measurement Vector Network Analyzer

# Return Loss



|           |       |      |
|-----------|-------|------|
| Freq(MHz) | 868   | 915  |
| dB        | -10.1 | -3.1 |

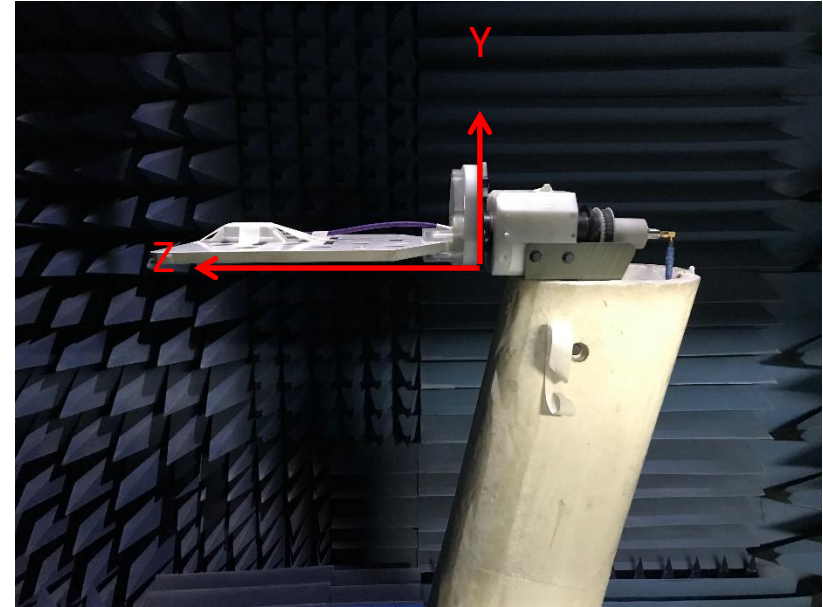
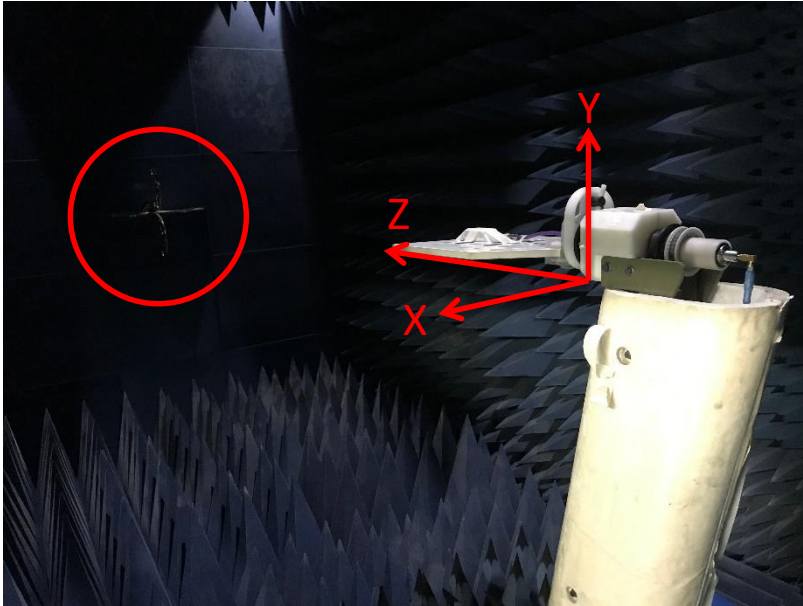
# V.S.W.R



| Freq(MHz) | 868 | 915 |
|-----------|-----|-----|
|           | 1.8 | 5.5 |

# The antenna anechoic chamber measurement

# Chamber measurement photo



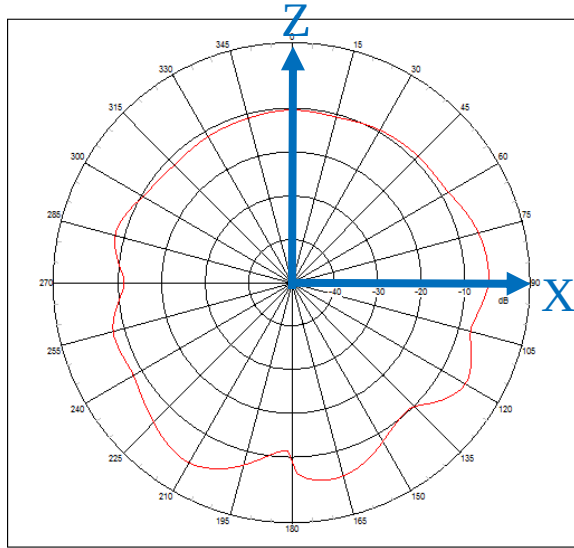
# 3D Gain Total

| Freq(GHz) | Peak Gain(dBi) | 3D-avg Gain(dBi) | Efficiency(%) |
|-----------|----------------|------------------|---------------|
| 0.828     | -2.43          | -5.53            | 28            |
| 0.838     | -2.25          | -5.69            | 27            |
| 0.848     | -1.56          | -5.28            | 30            |
| 0.858     | -1.43          | -5.33            | 29            |
| 0.868     | -1.13          | -5.16            | 30            |
| 0.878     | -1.72          | -5.77            | 26            |
| 0.905     | -4.91          | -8.59            | 14            |
| 0.915     | -5.4           | -8.91            | 13            |
| 0.925     | -6.11          | -9.73            | 11            |

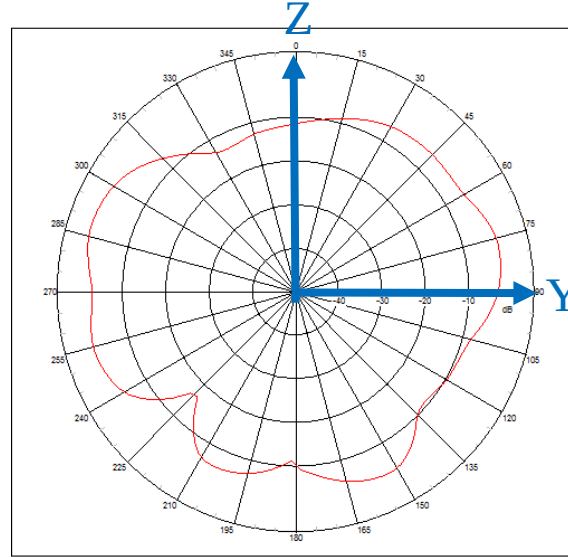
# 2D Patten

Frequency : 868MHz

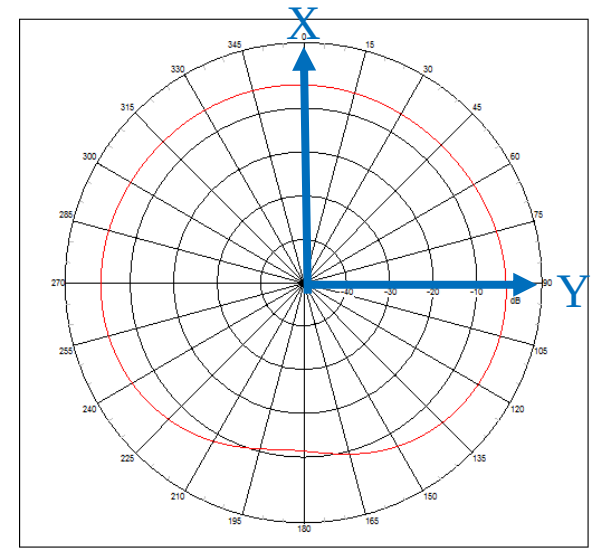
ZX-plane



YZ-plane



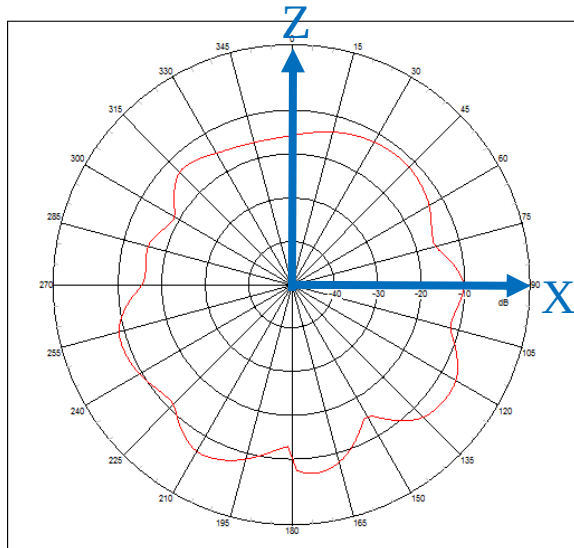
XY-plane



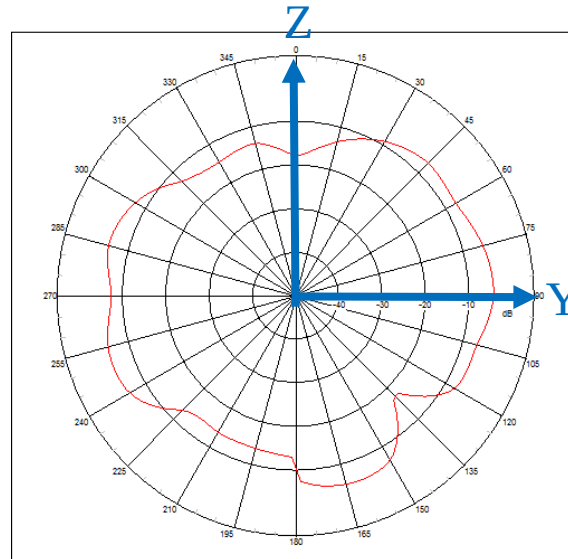
# 2D Patten

Frequency : 915MHz

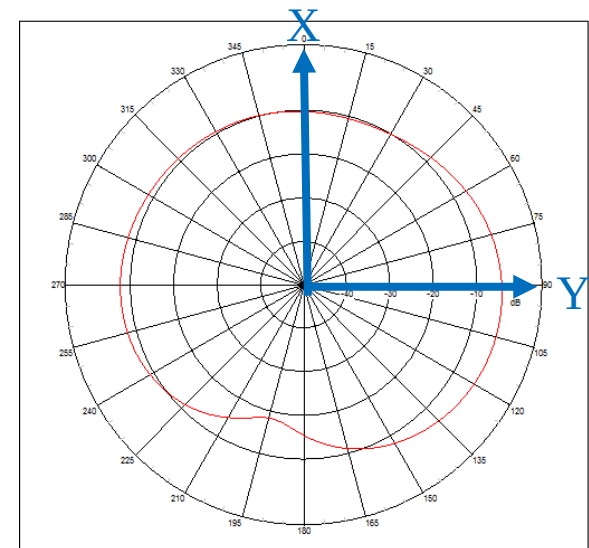
ZX-plane



YZ-plane



XY-plane





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MAKING THE PERFECT CONNECTION

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