

Antenna Datasheet

WA1616 Controller Ant

2023-07-15

Revision history

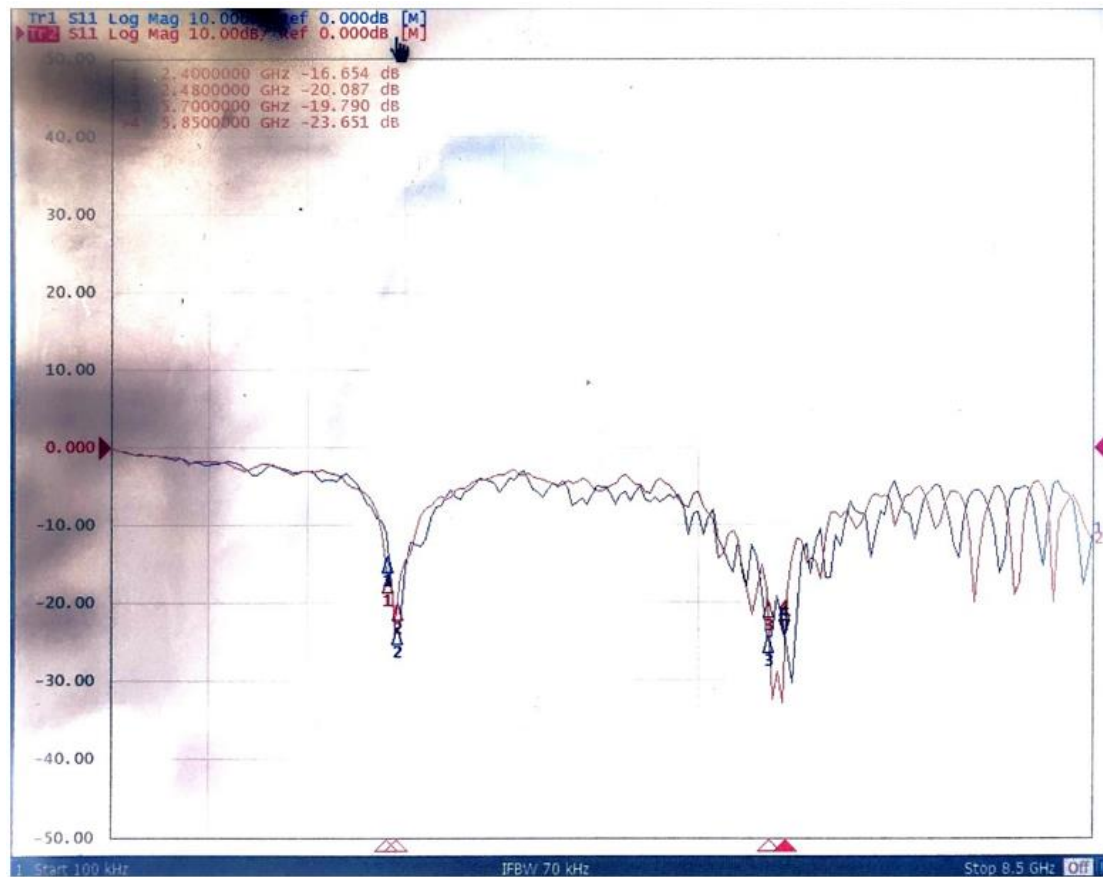
| Version | Change notes | Modifier | Date       |
|---------|--------------|----------|------------|
| V1.0    | First draft. | Dave.li  | 2023.07.15 |
|         |              |          |            |
|         |              |          |            |
|         |              |          |            |

# Antenna Datasheet

## 1、 Basic Specifications

| No. | Specification          | Descriptions                                                                                                               | Notes |  |
|-----|------------------------|----------------------------------------------------------------------------------------------------------------------------|-------|--|
| 1   | Antenna Name           | <i>WA1616 Controller Ant</i>                                                                                               |       |  |
| 2   | Brand                  | <i>SPECTA</i>                                                                                                              |       |  |
| 3   | Operation<br>Frequency | <i>2.4~2.483GHz;<br/>5.725~5.875GHz</i>                                                                                    |       |  |
| 4   | Connector Type         | <i>Ipex-1</i>                                                                                                              |       |  |
| 5   | Impedance              | <i>50ohm</i>                                                                                                               |       |  |
| 6   | Gain                   | <i>3dBi@2.4~2.483GHz<br/>4dBi@5.725~5.875GHz</i>                                                                           |       |  |
| 7   | Efficiency             | <i>≥45%</i>                                                                                                                |       |  |
| 8   | VSWR                   | <i>≤2</i>                                                                                                                  |       |  |
| 9   | Polarization<br>type   | <i>Linear</i>                                                                                                              |       |  |
| 10  | 3dB Beamwidth          | <i>Omnidirectional horizon</i>                                                                                             |       |  |
| 11  | Weight                 | <i>/</i>                                                                                                                   |       |  |
| 12  | Antenna type           | <i>Integral Antenna</i>                                                                                                    |       |  |
| 13  | Manufacturer           | <i>Shenzhen ZTX Communication<br/>Technology Co., LTD.<br/>Kunshan Innowave<br/>Communication Technology<br/>Co., Ltd.</i> |       |  |

## 2、 Antenna efficiency/Return Loss/VSWR



| Frequency | Gain(dBi)R | Efficiency(%)R | Gain(dBi)L | Efficiency(%)L |
|-----------|------------|----------------|------------|----------------|
| 2400MHz   | 2.05       | 65%            | 2.05       | 65%            |
| 2420MHz   | 3.00       | 67%            | 2.98       | 67%            |
| 2440 MHz  | 2.46       | 68%            | 2.46       | 68%            |
| 2450 MHz  | 2.25       | 68%            | 2.25       | 68%            |
| 2460 MHz  | 2.12       | 68%            | 2.12       | 68%            |
| 2480 MHz  | 2.00       | 66%            | 2.00       | 66%            |
| 5700 MHz  | 3.52       | 59%            | 3.52       | 59%            |
| 5750 MHz  | 3.47       | 59%            | 3.47       | 59%            |
| 5800 MHz  | 3.78       | 61%            | 3.78       | 61%            |

|          |      |     |      |     |
|----------|------|-----|------|-----|
| 5850 MHz | 4.00 | 63% | 3.93 | 63% |
|----------|------|-----|------|-----|

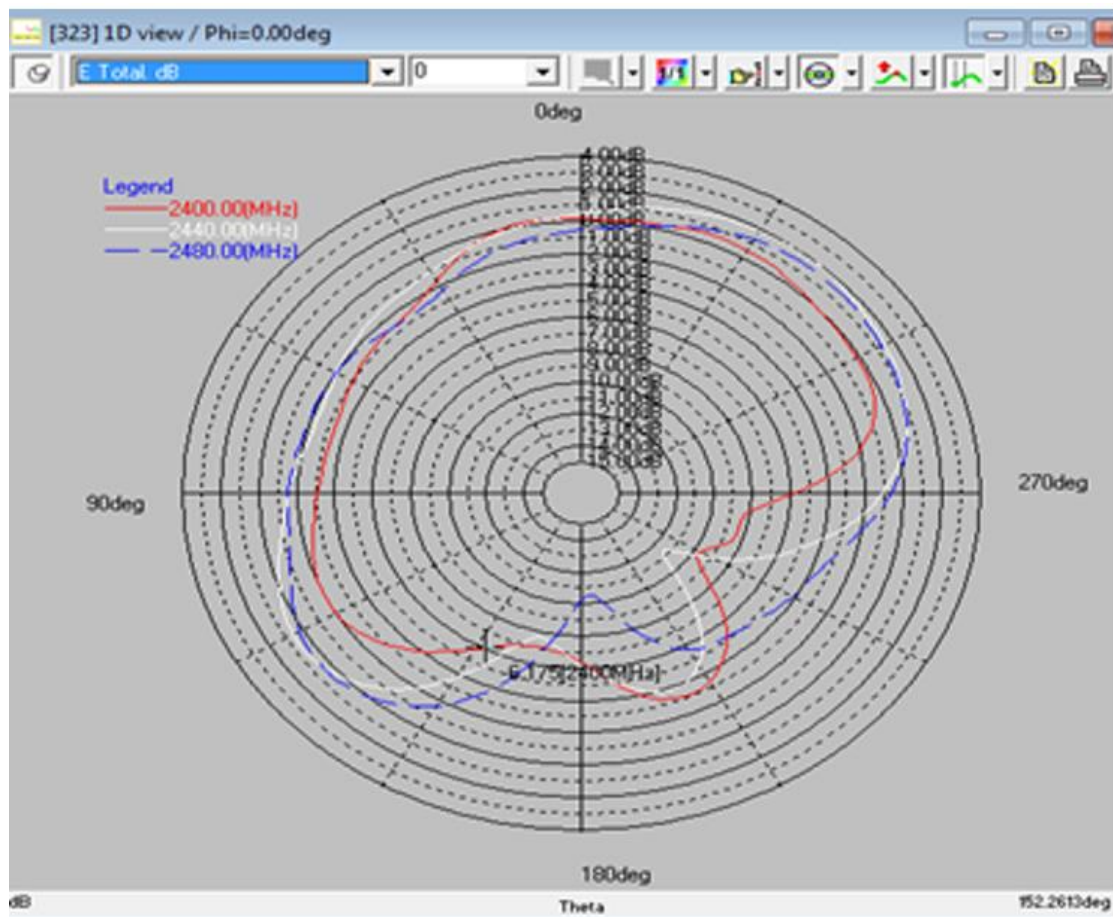
### 3、 Radiation Pattern

Test lab: Satimo SG24

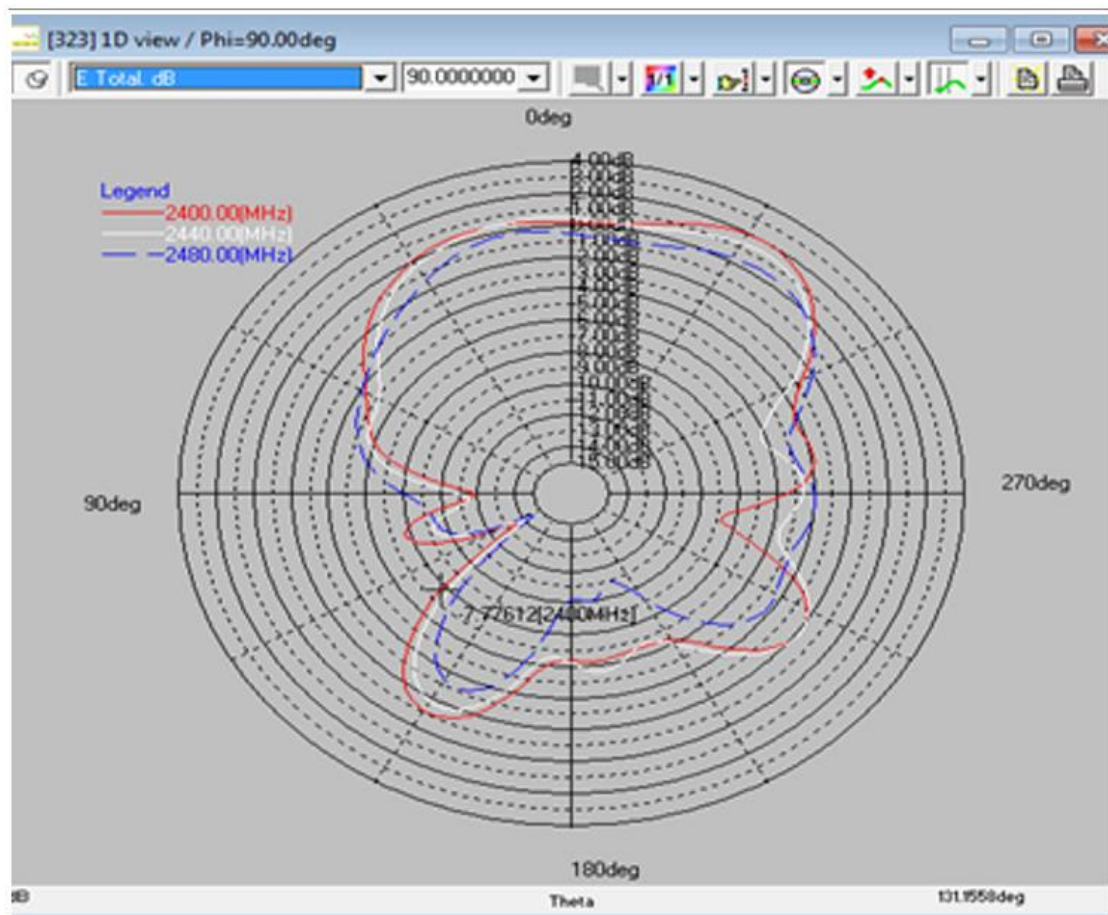
Test date: 2023/06/10

#### 3.1 2.4G radiation pattern

Phi=0

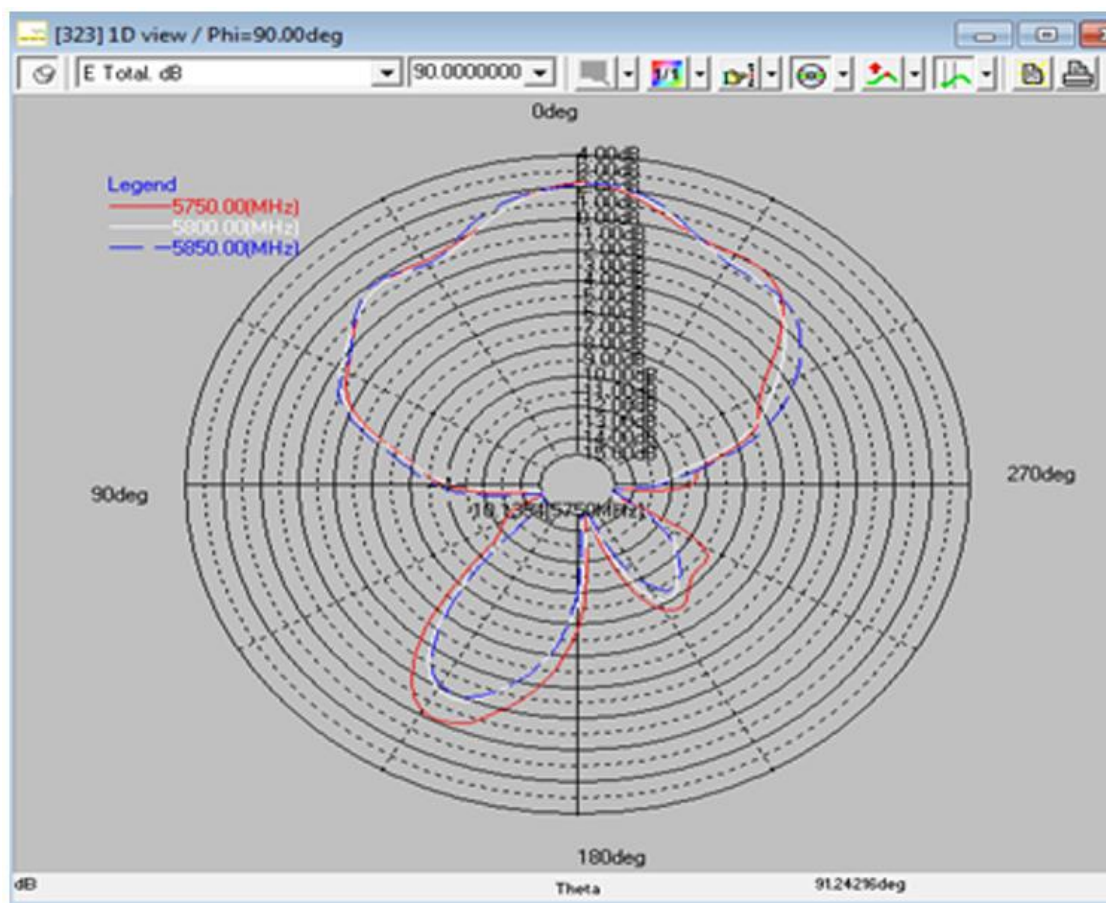


Phi=90

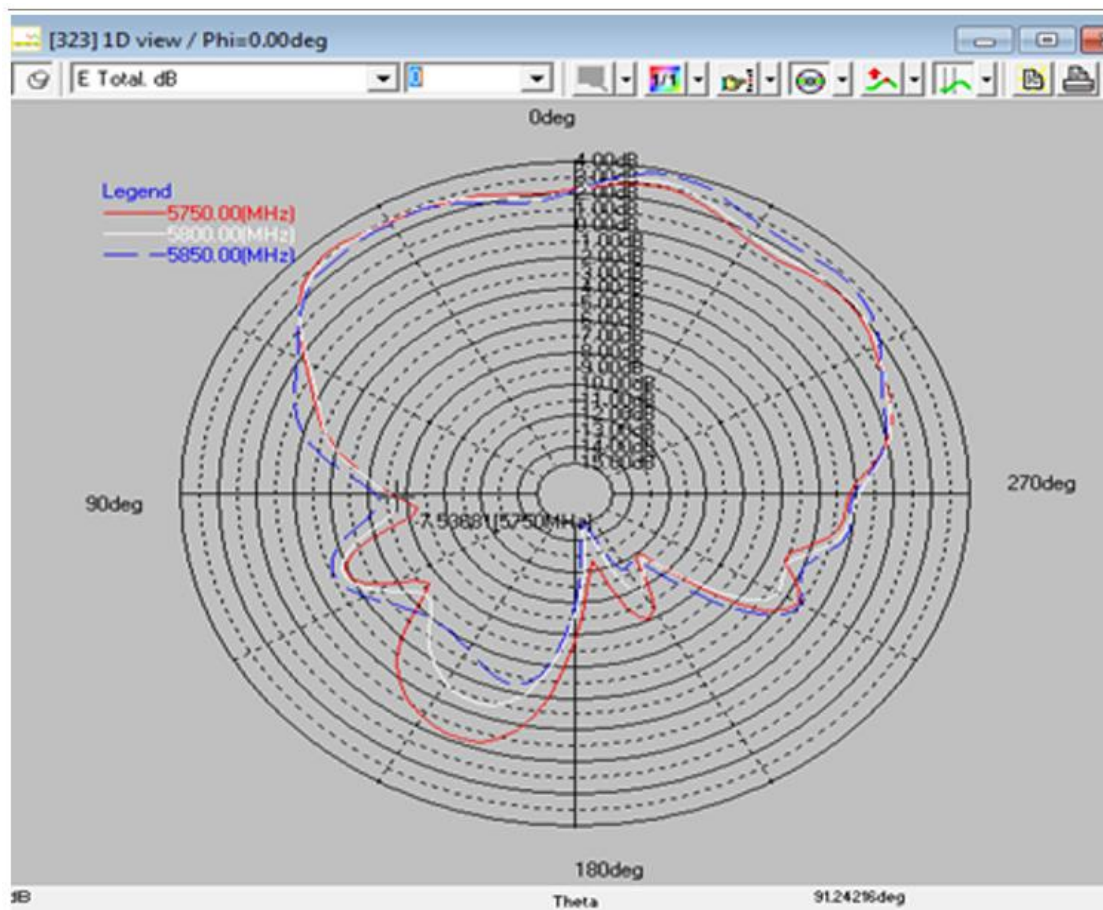


3.2 5.8G radiation pattern

Phi=0



$\Phi=90$



#### 4、 Structure drawing

Please refer to antenna photo.