

## 2JW0124-C868B

### CELLULAR / LTE Connector Mount

#### Key Features

CELLULAR / LTE

- 698-960 MHz

- 1710-2170 MHz

- 2500-2700 MHz

Connector Mount

Ultra Wide band Antenna

High Performance

Ground Plane Independent

Hinged Connector

Dimensions 171 × 38 × 13.8 mm



## 1. Antenna Description

### 2JW0124-C868B

#### Made for worldwide cellular applications

The 2JW0124 series is an ultra wideband performance connector mount antenna solution for worldwide cellular applications operating within the 4G, 3G and 2G standards. This series is compatible with GSM, CDMA, DCS, PCS, GPRS, WCDMA, UMTS, HSPA, EVDO and LTE technologies, covering all cellular bands ranging from 698-960, 1710-2170 and 2500-2700 MHz.

With a 75% high efficiency, 3.0dB average gain and omnidirectional properties, this antenna provides consistent and stable connectivity with high throughput data to access points, routers, small base stations, repeaters, boosters, fleet management devices and other telematics devices with cellular needs.

This antenna is ideal for major carrier approvals and certification process around the globe. The antenna can freely swivel up to 90 degrees, having flexibility in orientation with respect to the device for easier installation or multiple antenna mounting options.

#### Installation

There are two variations of mounting swivels allowing for multiple antennas on devices with MIMO systems. Connector types can be selected between SMA-Male, RP SMA-Male or N-Male.

See the different swivel orientation on 2JW0124a antenna.

#### Durability

The 2JW0124 series is intended for indoor and internal use only. As a protective measure, the housing is built out of UV Stable PC/ABS with a range for an operating temperature of -40C to +85C. All antennas are manufactured using RoHS, REACH compliance.

#### Typical applications

- Infotainment systems
- HD video transmission
- Dash cameras
- Connected cars
- Self-driving cars
- Fleet management
- Gateways
- Routers
- Public transportation
- Logistics
- And others

#### Compatibility Standards

##### LTE Connection

- CAT 1 2 3 4 5 6 8 9 10 11 12
- NB-IoT, LTE-NB1, CAT-M1, CAT-M2
- WCDMA, UMTS, HSPA, EDGE GRPS, GSM, CDMA

#### Key Features

- Variations with different swivel orientation, SMA-Male, RP SMA-Male or N-Male connectors
- Sustained High Efficiency and Performance
- NB-IoT and Portable Devices friendly
- Ground Plane Independent
- Ultra Wide band Antenna
- Easy Integration
- Hinged Connector
- Size smart and elegant
- Different colors available upon request

## 2. Antenna and electrical specifications

| Parameters                  | CELLULAR / LTE Antenna                                     |                     |           |
|-----------------------------|--|---------------------|-----------|
| <b>Standards</b>            | 2G,3G and 4G   |                     |           |
| <b>Technologies</b>         | GSM, CDMA, DCS, PCS, GPRS, WCDMA, UMTS, HSPA, EVDO and LTE |                     |           |
| <b>Band (MHz)</b>           | 700/850/900  | 1710/1800/1900/2100 | 2600      |
| <b>Frequency (MHz)</b>      | 698-960  | 1710-2170           | 2500-2700 |
| <b>Return Loss (dB)</b>     | ~-7.7  | ~-12.7              | ~-8.5     |
| <b>VSWR</b>                 | ~2.4:1   | ~1.6:1              | ~2.2:1    |
| <b>Efficiency (%)</b>       | ~62  | ~75                 | ~50       |
| <b>Peak Gain (dBi)</b>      | ~-0.4  | ~-2.6               | ~-1.3     |
| <b>Average Gain (dB)</b>    | ~-2.1  | ~-1.3               | ~-3.0     |
| <b>Impedance (Ohm)</b>      | 50   |                     |           |
| <b>Polarisation</b>         | Linear   |                     |           |
| <b>Radiation Pattern</b>    | Omni-Directional   |                     |           |
| <b>Max. Input Power (W)</b> | 25   |                     |           |
| <b>Connector Type</b>       | SMA-Male or RP SMA-Male                                    |                     |           |

### Antenna Measurement Conditions:

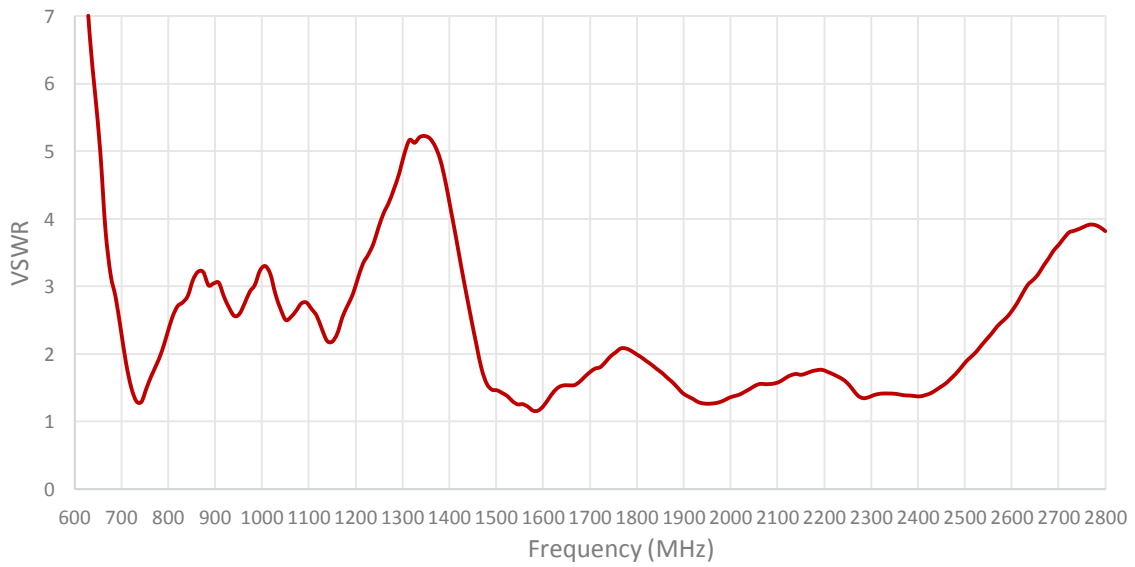
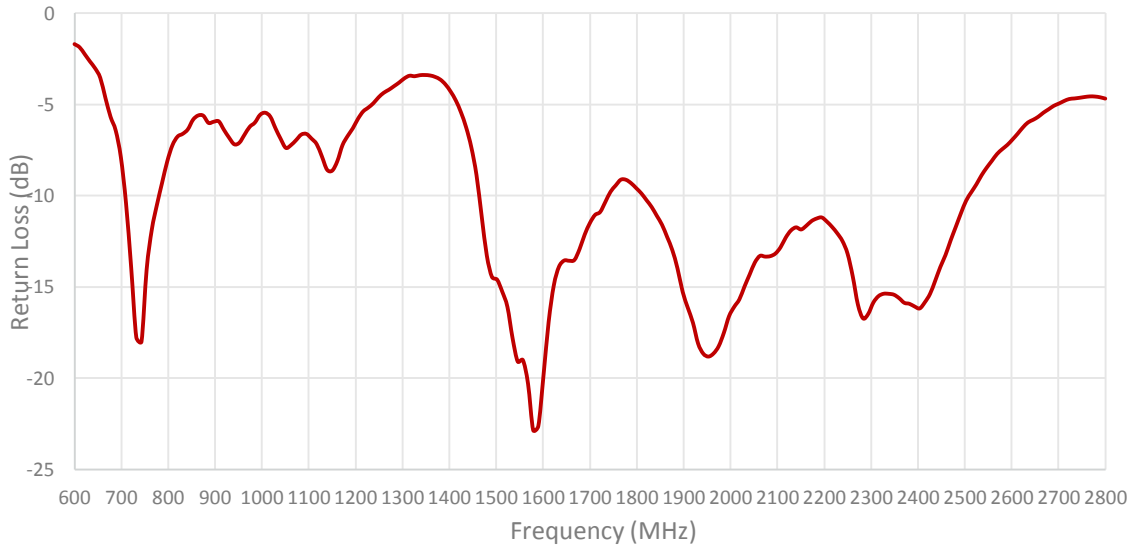
Free Space

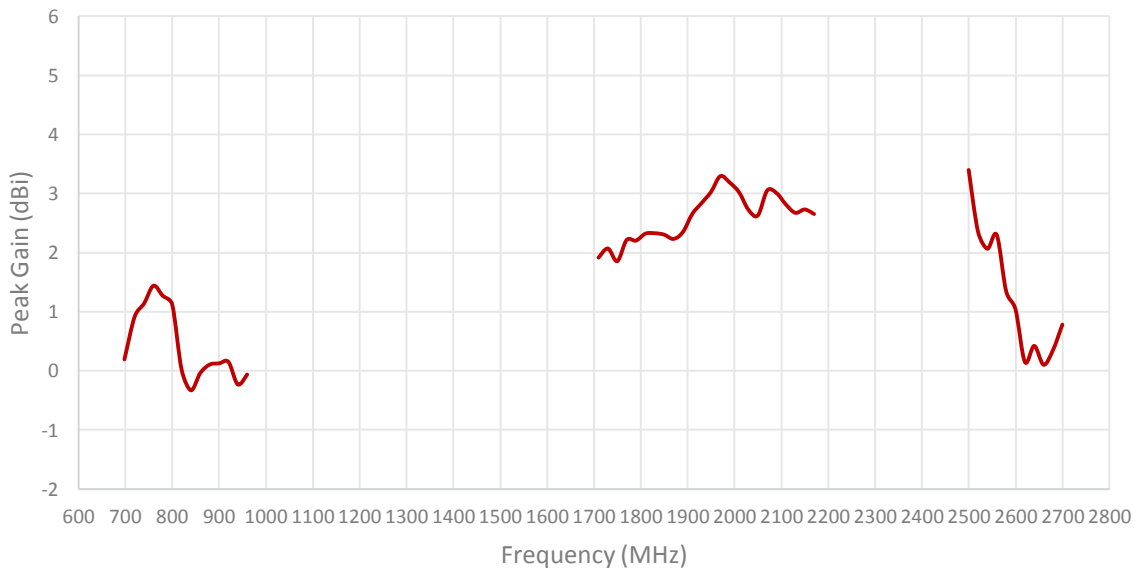
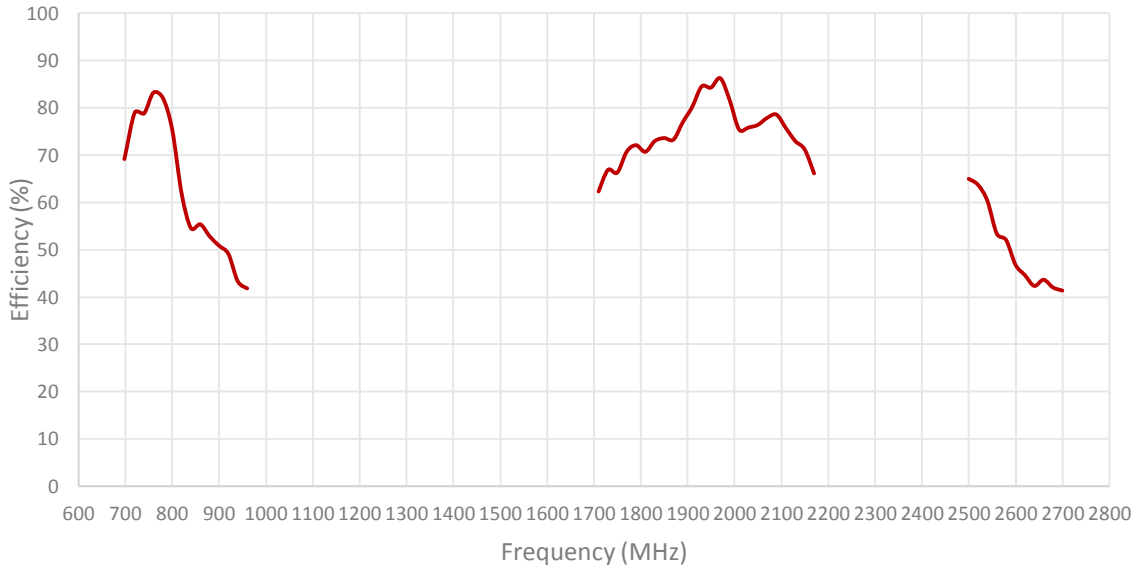
Measured in Certified CTIA 3D Anechoic Chamber

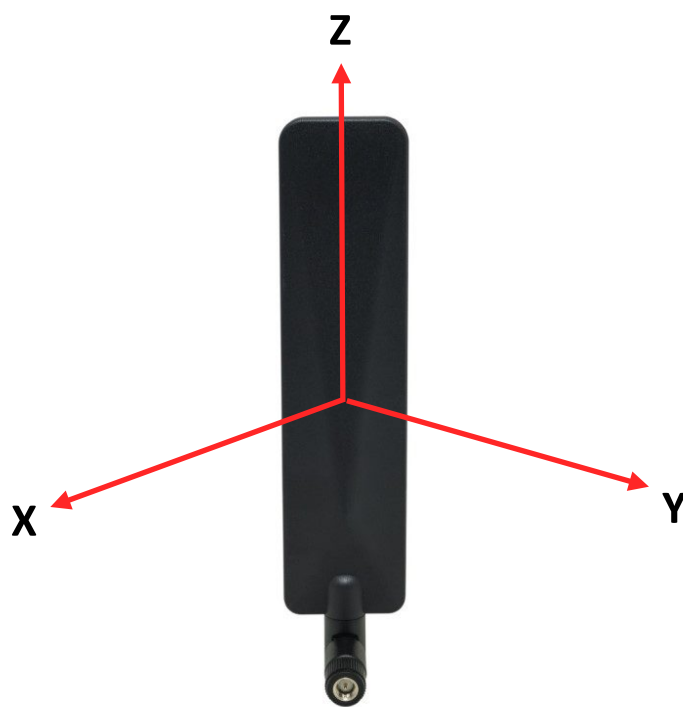
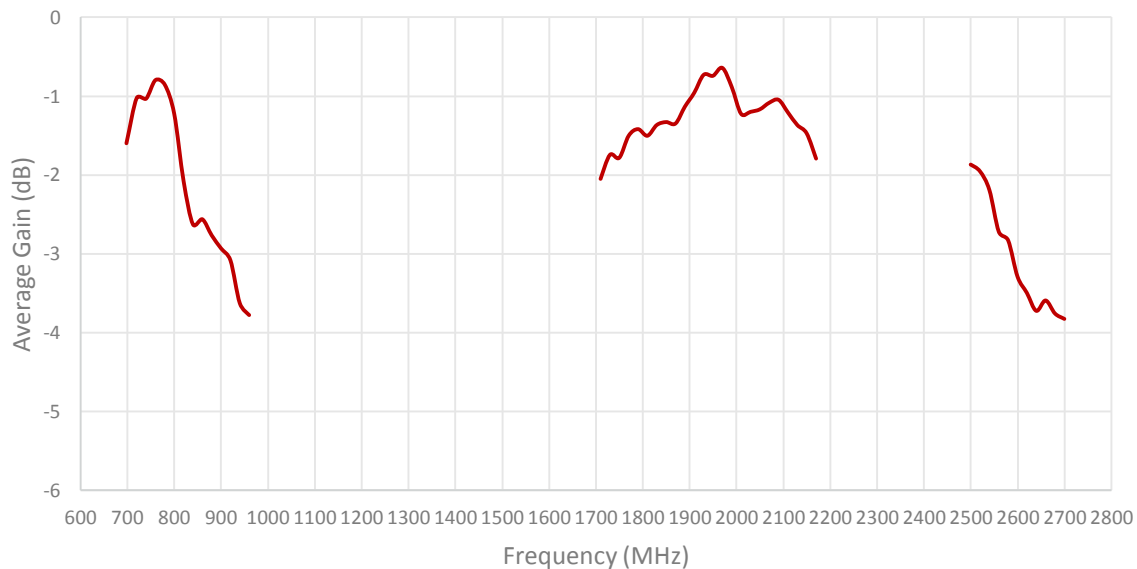
## 3. Mechanical and environmental specifications

| Specifications                   | 2JW0124-C868B    |
|----------------------------------|------------------|
| <b>Mounting Type</b>             | Connector Mount  |
| <b>Dimensions (mm)</b>           | 171 × 38 × 13.8  |
| <b>Radome</b>                    | PC/ABS UV Stable |
| <b>Radome color</b>              | Black or White   |
| <b>Connector Feature</b>         | Hinged           |
| <b>Operating Temperature (C)</b> | -40 to +85       |
| <b>Storage Temperature (C)</b>   | -40 to +85       |
| <b>Substance Compliance</b>      | RoHS, REACH      |

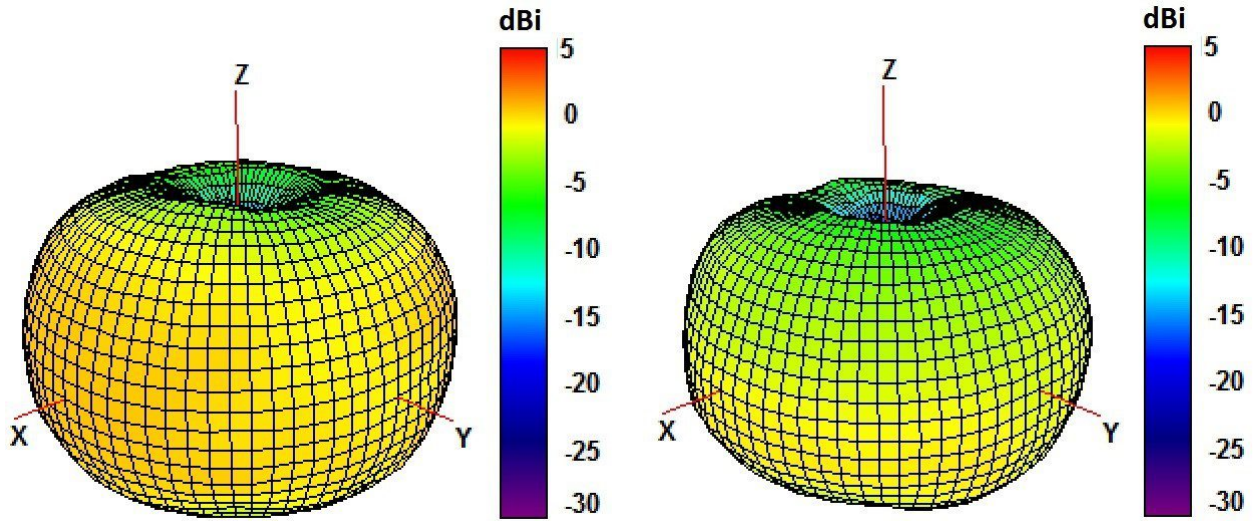
## 4. Antenna parameters



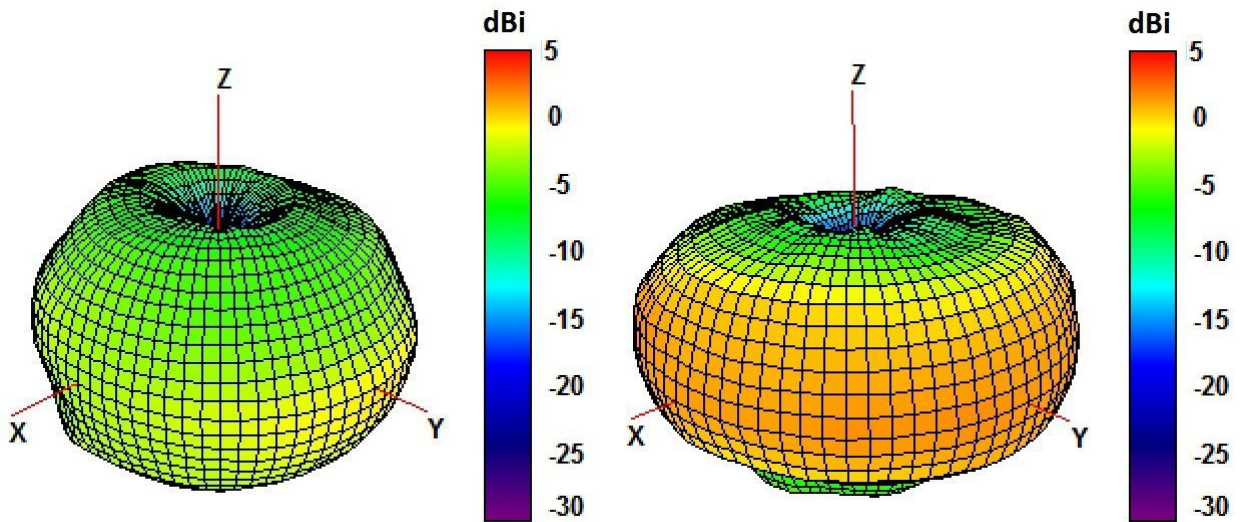




Radiation pattern reference

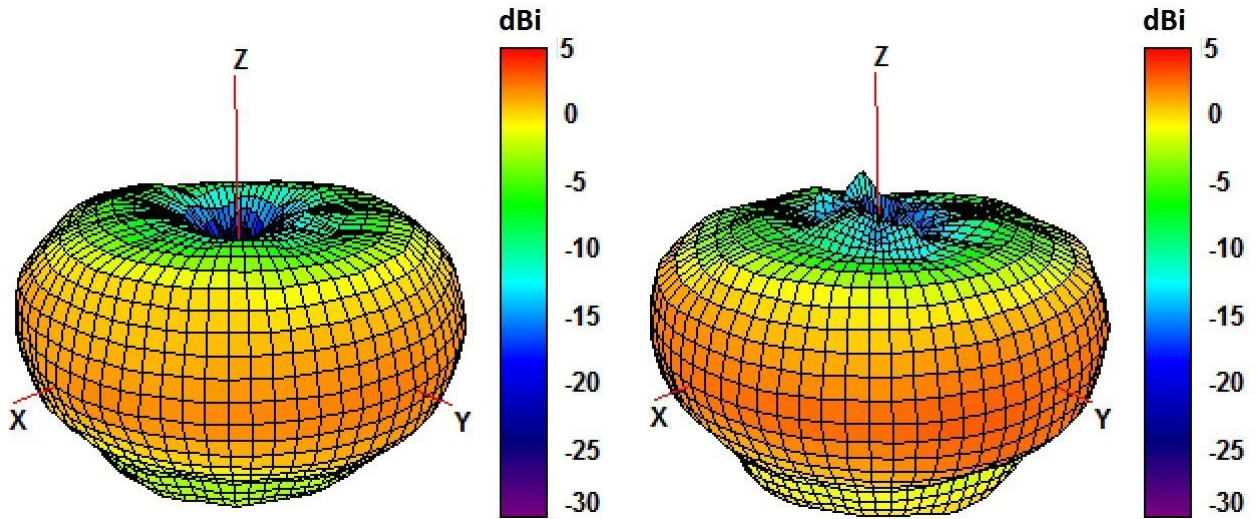


750 and 850 MHz Radiation pattern

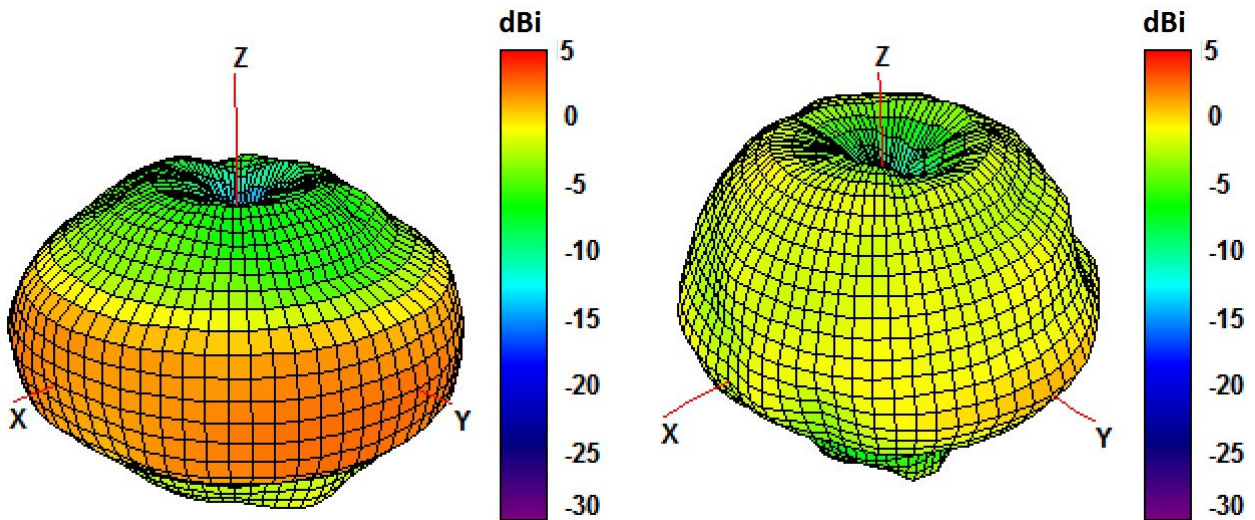


940 and 1750 MHz Radiation pattern





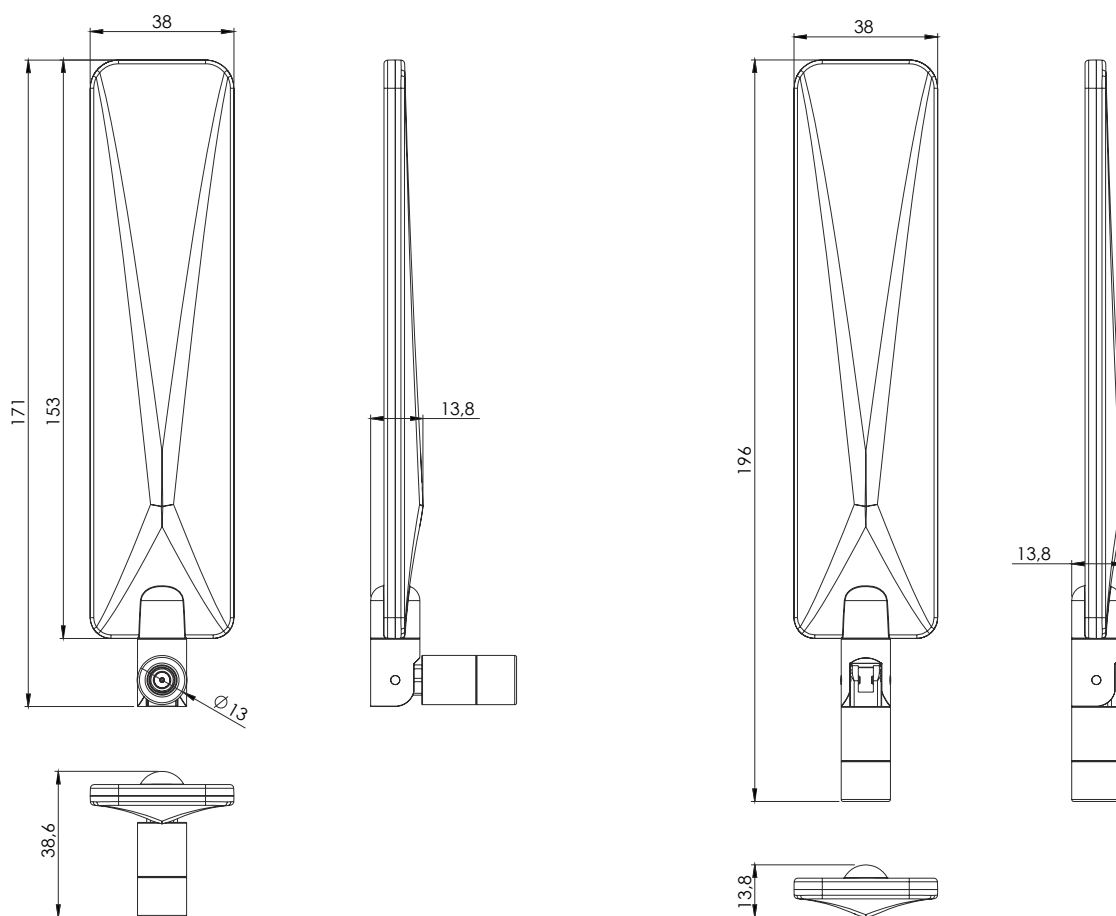
1850 and 1950 MHz Radiation pattern



2100 and 2600 MHz Radiation pattern



## 5. Antenna drawings



## 6. Antenna Images





## Макро Групп – это:

- дистрибьютор электронных компонентов с 1994 года
- контрактный производитель электроники с 2007 года с собственным производством в Санкт-Петербурге (компания Макро EMC, входит в ГК Макро Групп)
- поставщик полупроводниковых материалов
- комплексный поставщик электронных компонентов
- моделирование и производство полупроводниковых эпитаксиальных гетероструктур для задач оптоэлектроники

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- работа по тендерам с 2012 года
- оформление банковских гарантий
- отсрочки платежей
- поставка электронных компонентов по проектным ценам
- инженерная поддержка проектов заказчиков
- сертификат системы менеджмента качества ISO 9001-2015
- необходимые сертификаты и лицензии

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