



# Stadium Antennas

**Product Catalog**  
North America, 2023

# Message from our President



We at Nihon Dengyo Kosaku, Co., Ltd. (DENGYO) have strongly supported remarkable development of Japanese telecommunication and broadcast services in the course of their infrastructure constructions and have greatly contributed to the growth and development of these industries and the realization of rich social life, since the company was founded in 1947, for nearly 70 years, by inheriting the spirit of "Contributing to society through our unique radio-related technologies."

Nowadays, radio utilization is expected to provide an important basis for the creation of innovation, the growth of economy, and the realization of safe, reliable and sustainable society. Our country is headed to "the world's most advanced wireless technology nation".

Under such a business environment, based on our advanced technical know-how and proven track record accumulated in the development of state-of-the-art wireless equipment, we will pursue further sophistication and diversification of antennas and filters which are our core products, will extend our target market from domestic to global, and will positively accelerate the development and commercialization of new solutions for radio utilization fields which could help construct future infrastructures.

We will continue to meet customer expectation by developing creative technologies, evolve into a "wireless solution company" contributing to the infrastructure creation, and try to gain stakeholder satisfaction by ensuring risk management, environment management, and compliance.

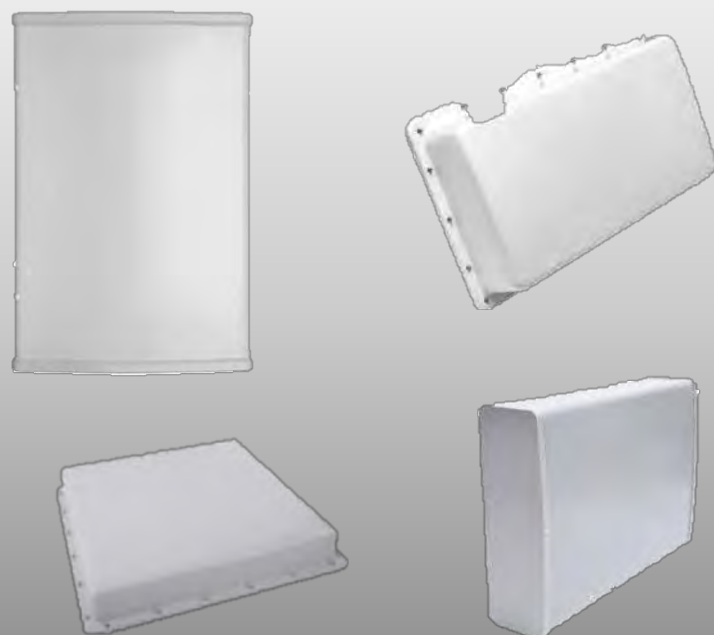


**Tsutomu Taguchi**

President, Representative

Nihon Dengyo Kosaku Co, Ltd.

# Stadium Antennas



Our stadium antennas are designed to meet the needs of your venues and stadiums:

- The frequency bands your need
- Custom number of ports per band
- Various HBW/VBW options
  - 60V60
  - 60V30
  - 30V30
- Custom sizes of 1-3 ft
- Various connector options
- Includes mounting hardware



# DENGYO Stadium Antennas

| Part number             | Ports | Frequency<br>MHz                            | Gain<br>dBi | HPBW<br>H V |
|-------------------------|-------|---------------------------------------------|-------------|-------------|
| <b>2-port antennas</b>  |       |                                             |             |             |
| DUA1-1B1J-0R60V60       | 2     | 698-960   1695-2700                         | 9           | 60° 60°     |
| DUA2-1A1J1R-0R60V30     | 2     | 617-960   1710-2700   3300-4200             | 11          | 60° 30°     |
| DUA2-1A1J1R-0R60V60     | 2     | 617-960   1710-2700   3300-4200             | 8           | 60° 60°     |
| DUA2-1B1J-0R30V60       | 2     | 617-960   1695-2700                         | 11          | 30° 60°     |
| DUA2-1B1J1Q-0R30V30     | 2     | 698-960   1695-2700   3300-3800             | 13          | 30° 30°     |
| DUA2-1B1J1Q-0R60V60     | 2     | 698-960   1695-2700   3300-3800             | 8           | 60° 60°     |
| DUA3-1B1J-0R30V30       | 2     | 698-960   1695-2700                         | 13          | 30° 30°     |
| DUA3-1B1J1Q-0R20V60     | 2     | 698-960   1695-2700   3300-3800             | 12          | 20° 60°     |
| DUA4-1B1J-0R20V60       | 2     | 698-960   1695-2700                         | 13          | 20° 60°     |
| <b>4-port antennas</b>  |       |                                             |             |             |
| QUA2-1A1J1Q1X-0R60V60   | 4     | 617-960   1710-2700   3300-3800   4900-5925 | 7.5         | 60° 60°     |
| QUA2-1B1J1Q-0R30V60     | 4     | 698-960   1695-2700   3300-3800             | 11          | 30° 60°     |
| QUA2-2J-0R30V60         | 4     | 1710-2700                                   | 11          | 30° 60°     |
| QUA2-2J2Q2X-0R30V30     | 4     | 1710-2700   3300-3800   4900-5900           | 12          | 30° 30°     |
| QUA2-2J2Q2X-0R30V60     | 4     | 1710-2700   3300-3800   4900-5900           | 11          | 30° 60°     |
| QUA2-2J2Q2X-0R60V60     | 4     | 1710-2700   3300-3800   4900-5900           | 9           | 60° 60°     |
| QUA3-1A1J1Q1X-0R30V60   | 4     | 617-960   1710-2700   3300-3800   4900-5925 | 11          | 30° 60°     |
| QUA3-1B1J1R-0R30V30     | 4     | 698-960   1695-2700   3300-4000             | 14          | 30° 30°     |
| QUA3-2J2Q-0R30V30       | 4     | 1695-2700   3300-3800                       | 13          | 30° 30°     |
| <b>6-port antennas</b>  |       |                                             |             |             |
| HEX2-2J1Q-0R30V60       | 6     | 1710-2700   3300-3800                       | 11          | 30° 60°     |
| <b>8-port antennas</b>  |       |                                             |             |             |
| OCT1-3J1R-0R60V60       | 8     | 1695-2700   3300-3800                       | 9           | 60° 60°     |
| OCT2-1J2R1V-0R20V60     | 8     | 1695-2700   3300-4200   5125-5925           | 13.5        | 30° 60°     |
| OCT2-3J1R-0R30V30       | 8     | 1695-2700   3300-4200                       | 15          | 30° 30°     |
| OCT2-3J1R-0R30V60       | 8     | 1695-2700   3300-4200                       | 13          | 30° 60°     |
| OCT2-3J1R-0R60V60       | 8     | 1695-2700   3300-4200                       | 9           | 60° 60°     |
| <b>10-port antennas</b> |       |                                             |             |             |
| DEC2-1A1J2R1V-0R60V60   | 10    | 617-960   1695-2700   3300-4200   5150-5925 | 9           | 60° 60°     |
| DEC2-2J2R1V-0R30V30     | 10    | 1695-2700   3300-4200   5150-5925           | 16          | 30° 30°     |
| DEC2-2J2R1V-0R30V60     | 10    | 1695-2700   3300-4200   5150-5925           | 12          | 30° 60°     |
| DEC2-2J2R1V-0R60V60     | 10    | 1695-2700   3300-4200   5150-5925           | 9           | 60° 60°     |
| DEC3-1A1J2R1V-0R30V60   | 10    | 617-960   1695-2700   3300-4200   5150-5925 | 15          | 30° 60°     |

# Table of Contents

## 2-port antennas

|                     |    |
|---------------------|----|
| DUA1-1B1J-0R60V60   | 1  |
| DUA2-1A1J1R-0R60V30 | 3  |
| DUA2-1A1J1R-0R60V60 | 5  |
| DUA2-1B1J-0R30V60   | 7  |
| DUA2-1B1J1Q-0R30V30 | 9  |
| DUA2-1B1J1Q-0R60V60 | 11 |
| DUA3-1B1J-0R30V30   | 13 |
| DUA3-1B1J1Q-0R20V60 | 15 |
| DUA4-1B1J-0R20V60   | 17 |

## 4-port antennas

|                       |    |
|-----------------------|----|
| QUA2-1A1J1Q1X-0R60V60 | 19 |
| QUA2-1B1J1Q-0R30V60   | 21 |
| QUA2-2J-0R30V60       | 23 |
| QUA2-2J2Q2X-0R30V30   | 25 |
| QUA2-2J2Q2X-0R30V60   | 27 |
| QUA2-2J2Q2X-0R60V60   | 29 |
| QUA3-1A1J1Q1X-0R30V60 | 31 |
| QUA3-1B1J1R-0R30V30   | 33 |
| QUA3-2J2Q-0R30V30     | 35 |

## 6-port antennas

|                   |    |
|-------------------|----|
| HEX2-2J1Q-0R30V60 | 37 |
|-------------------|----|

## 8-port antennas

|                     |    |
|---------------------|----|
| OCT1-3J1R-0R60V60   | 39 |
| OCT2-1J2R1V-0R20V60 | 41 |
| OCT2-3J1R-0R30V30   | 43 |
| OCT2-3J1R-0R30V60   | 45 |
| OCT2-3J1R-0R60V60   | 47 |

## 10-port antennas

|                       |    |
|-----------------------|----|
| DEC2-1A1J2R1V-0R60V60 | 49 |
| DEC2-2J2R1V-0R30V30   | 51 |
| DEC2-2J2R1V-0R30V60   | 53 |
| DEC2-2J2R1V-0R60V60   | 55 |
| DEC3-1A1J2R1V-0R30V60 | 57 |

|                      |                      |
|----------------------|----------------------|
| Frequency Range      | 698-960<br>1695-2700 |
| Polarization         | ±45°                 |
| Half-Power BeamWidth | 60°x60°              |
| Electrical Downtilt  | 0°                   |

## Stadium Antenna

2-ports 698-2700 MHz ,60°x60°, 9 dBi, 0°Tilt Antenna.

### Electrical Specifications

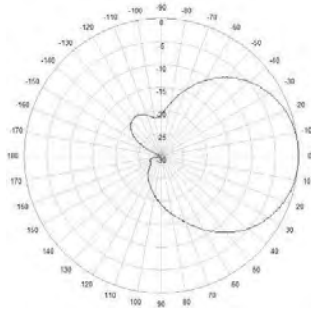
| Frequency Range(MHz)          | 698–800  | 800–960 | 1695–2180 | 2180-2700 |
|-------------------------------|----------|---------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 61       | 59      | 55        | 68        |
| Vertical 3dB Beamwidth(°)     | 62       | 59      | 55        | 66        |
| Gain(dBi)                     | 8        | 9       | 9         | 9         |
| Boresight CPR, dB             | 23       | 23      | 20        | 20        |
| Isolation, dB                 | 30       | 29      | 29        | 28        |
| Maxim Input Power(w)          | 200      |         |           |           |
| Polarization                  | ±45°     |         |           |           |
| VSWR                          | 1.5/14.0 |         |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc  |         |           |           |
| Impedance                     | 50 ohm   |         |           |           |



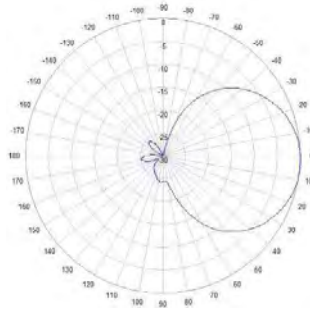
### Mechanical Specifications

|                                |                      |
|--------------------------------|----------------------|
| Number of Ports, all types     | 4.3-10 x 2           |
| Package Quantity               | 1                    |
| Radome Color                   | White                |
| Radome Material                | ABS+ASA              |
| Dimensions                     | 370mm × 370mm ×130mm |
| Net Weight                     | ~3.8Kg               |
| Operating Temperature          | -40 °C to +60 °C     |
| Ingress Protection Test Method | IP65                 |
| Relative Humidity              | Up to 100%           |
| RoHS                           | Compliant            |

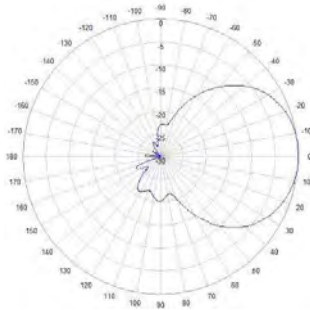
## Patterns



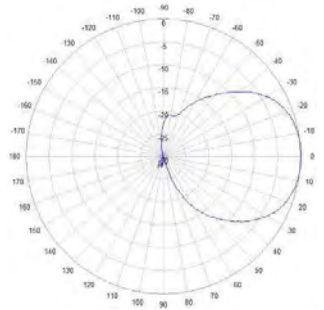
700MHz



960MHz

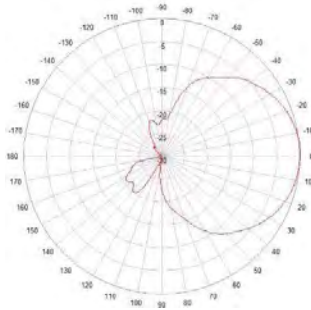


1710MHz

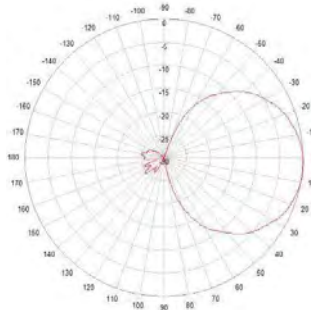


2600MHz

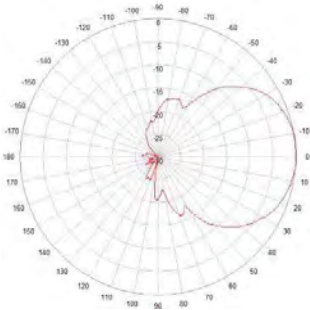
### Horizontal



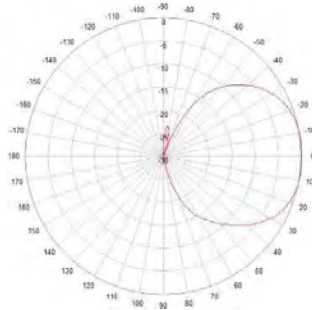
700MHz



960MHz



1710MHz



2600MHz

### Vertical

Type DUA2-1A1J1R-0R60V30

## Stadium Antenna

2-ports 617-4200 MHz , $60^\circ \times 30^\circ$ , 10.5 dBi,  $0^\circ$ Tilt Antenna.

### Electrical Specifications

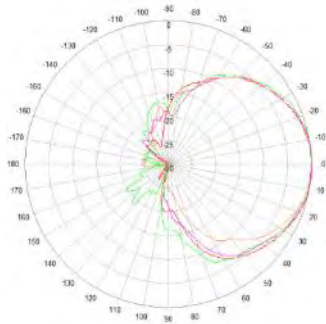
| Frequency Range(MHz)                 | 617 - 960      | 1710 - 2700 | 3300-4200 |
|--------------------------------------|----------------|-------------|-----------|
| Horizontal 3dB Beamwidth( $^\circ$ ) | 69             | 64          | 64        |
| Vertical 3dB Beamwidth( $^\circ$ )   | 34             | 28          | 26        |
| Gain(dBi)                            | 10.2           | 10.9        | 11.2      |
| Isolation(dB)                        | 21             | 23          | 24        |
| F/B Ratio(dB)                        | 27             | 25          | 23        |
| Maxim Input Power(w)                 | 150            |             | 100       |
| Polarization                         | $\pm 45^\circ$ |             |           |
| VSWR                                 | 1.7            |             |           |
| Intermodulation IM3 @ 2x43dBm        | -150dBc        |             | N/A       |
| Impedance                            | 50 ohm         |             |           |



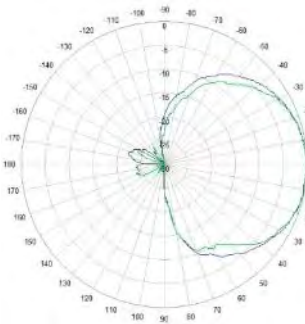
### Mechanical Specifications

|                                |                                   |
|--------------------------------|-----------------------------------|
| Number of Ports, all types     | 2 ports: 2x4.3-10 for 617-4200MHz |
| Package Quantity               | 1                                 |
| Radome Color                   | Grey                              |
| Radome Material                | PVC                               |
| Dimensions                     | 630mm × 415mm × 140mm             |
| Net Weight                     | ~7.5Kg                            |
| Operating Temperature          | -40 °C to +60 °C                  |
| Ingress Protection Test Method | IP65                              |
| Relative Humidity              | Up to 100%                        |
| RoHS                           | Compliant                         |

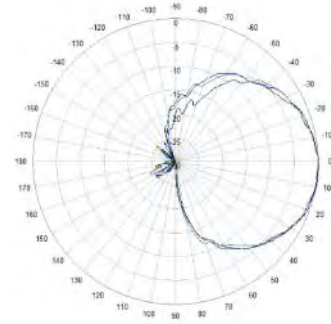
## Patterns



617-960MHz

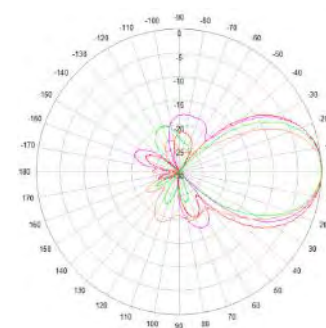


1710-2700MHz

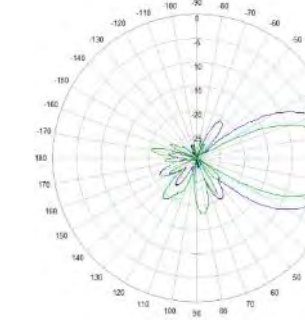


3300-4200MHz

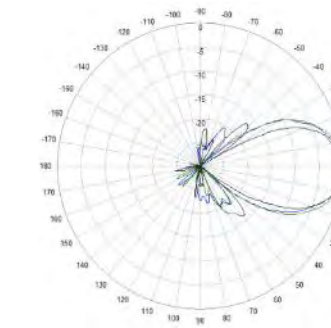
### Horizontal



617-960MHz



1710-2700MHz



3300-4200MHz

### Vertical

Type DUA2-1A1J1R-0R60V60

## Stadium Antenna

2-ports 617-4200 MHz , $60^\circ \times 60^\circ$ , 8 dBi,  $0^\circ$ Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 617 - 960 | 1710 - 2700 | 3300 - 4200 |
|-------------------------------|-----------|-------------|-------------|
| Horizontal 3dB Beamwidth(°)   | 76        | 65          | 62          |
| Vertical 3dB Beamwidth(°)     | 75        | 66          | 60          |
| Gain(dBi)                     | 7.6       | 8.2         | 8.3         |
| Sidelobe( dB)                 | N/A       |             |             |
| Isolation(dB)                 | 21        | 25          |             |
| F/B Ratio(dB)                 | 18        |             |             |
| Maxim Input Power(w)          | 200       |             | 100         |
| Polarization                  | ±45°      |             |             |
| VSWR                          | 1.8       |             |             |
| Intermodulation IM3 @ 2×43dBm | -150dBc   |             | N/A         |
| Impedance                     | 50 ohm    |             |             |

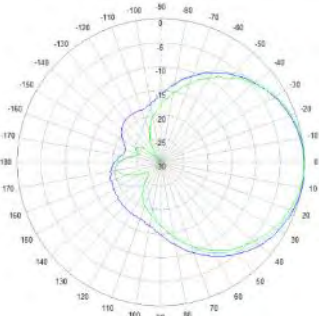


### Mechanical Specifications

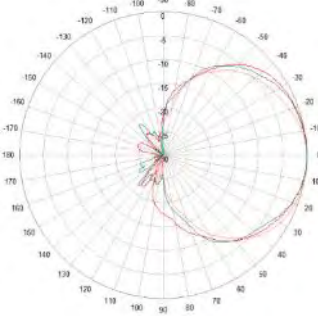
|                                |                                   |
|--------------------------------|-----------------------------------|
| Number of Ports, all types     | 2 ports: 2x4.3-10 for 617-4200MHz |
| Package Quantity               | 1                                 |
| Radome Color                   | Grey                              |
| Radome Material                | PVC                               |
| Dimensions                     | 430mm × 290mm × 120mm             |
| Net Weight                     | ~7Kg                              |
| Operating Temperature          | -40 °C to +60 °C                  |
| Ingress Protection Test Method | IP65                              |
| Relative Humidity              | Up to 100%                        |
| RoHS                           | Compliant                         |

Type DUA2-1A1J1R-0R60V60

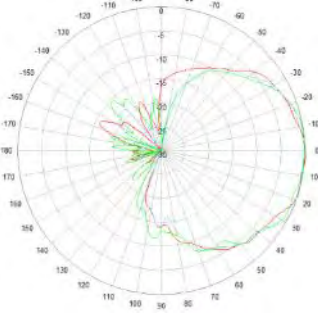
## Patterns



617-960MHz

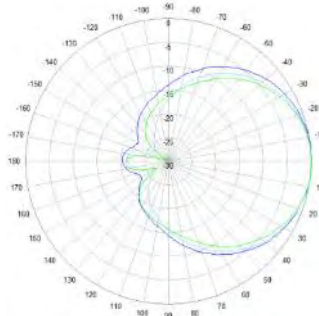


1695-2700MHz

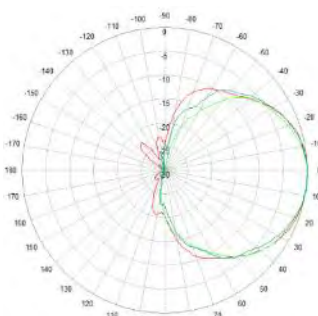


3300-4200MHz

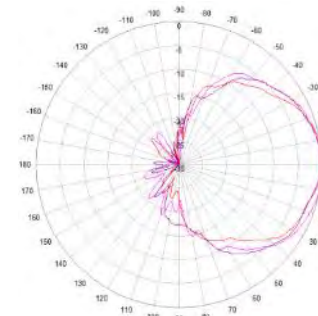
### Horizontal



617-960MHz



1695-2700MHz



3300-4200MHz

### Vertical

|                      |                      |
|----------------------|----------------------|
| Frequency Range      | 698-960<br>1695-2700 |
| Polarization         | ±45°                 |
| Half-Power BeamWidth | 30°x60°              |
| Electrical Downtilt  | 0°                   |

Type DUA2-1B1J-0R30V60

## Stadium Antenna

2-ports 698-2700 MHz ,30°x60° , 11 dBi, 0°Tilt Antenna.

### Electrical Specifications

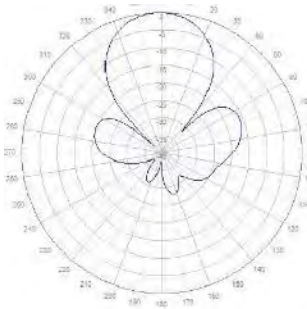
| Frequency Range(MHz)          | 698–800  | 800–960 | 1695–2180 | 2180-2700 |
|-------------------------------|----------|---------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 34       | 30      | 35        | 26        |
| Vertical 3dB Beamwidth(°)     | 68       | 61      | 68        | 65        |
| Gain(dBi)                     | 11       | 11      | 11        | 11        |
| F/B Ratio, 180° ± 30°(dB)     | ≥20      |         | ≥25       |           |
| Boresight CPR(dB)             | 19       | 19      | 17        | 18        |
| Isolation(dB)                 | 24       |         |           |           |
| Maxim Input Power(w)          | 200      |         |           |           |
| Polarization                  | ±45°     |         |           |           |
| VSWR                          | 1.5/14.0 |         |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc  |         |           |           |
| Impedance                     | 50 ohm   |         |           |           |



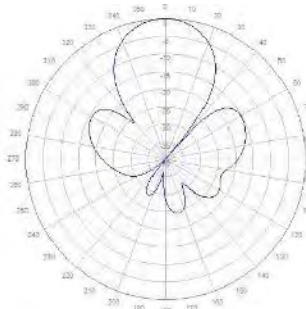
### Mechanical Specifications

|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4.3-10 x 2            |
| Package Quantity               | 1                     |
| Radome Color                   | White                 |
| Radome Material                | ABS+ASA               |
| Dimensions                     | 670mm × 400mm × 130mm |
| Net Weight                     | 8.5Kg                 |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

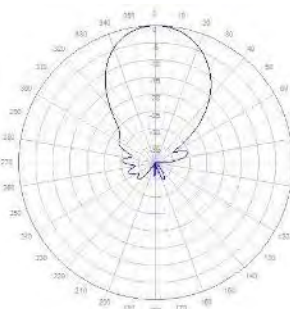
## Patterns



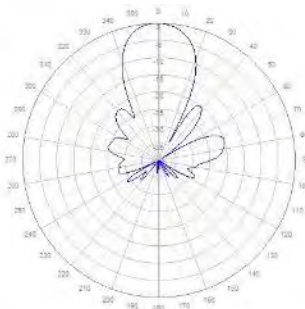
700MHz



960MHz

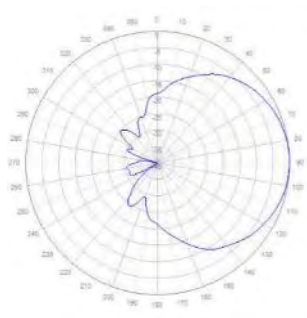


1710MHz

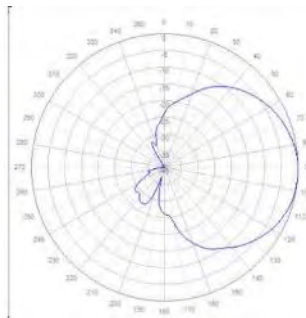


2600MHz

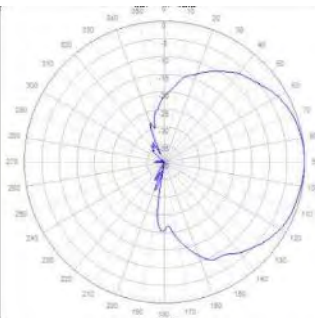
Horizontal



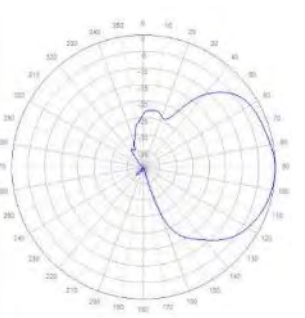
700MHz



960MHz



1710MHz



2600MHz

Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x30°   |
| Electrical Downtilt  | 0°        |

Type DUA2-1B1J1Q-0R30V30

## Stadium Antenna

2-ports 698-3800 MHz ,30°x30°, 13.5dBi, 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 698–800                        | 800–960 | 1695–2180 | 2180-2700 | 3300-3800 |
|-------------------------------|--------------------------------|---------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 35                             | 31      | 34        | 29        | 30        |
| Vertical 3dB Beamwidth(°)     | 35                             | 31      | 34        | 29        | 30        |
| Gain(dBi)                     | 11.5                           | 12      | 13        | 13.5      | 13.5      |
| Horizontal Sidelobe( dB)      | 18(typical) / 16(worst case)   |         |           |           |           |
| Vertical Sidelobe( dB)        | 18(typical) / 15(worst case)   |         |           |           |           |
| Isolation(dB)                 | 26                             | 26      | 26        | 26        | 29        |
| F/B Ratio(dB)                 | 25                             | 25      | 25        | 25        | 28        |
| Maxim Input Power(w)          | 200                            |         |           |           | 100       |
| Polarization                  | H+V                            |         |           |           |           |
| VSWR                          | 1.5(typical) / 1.6(worst case) |         |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc                        |         |           |           | N/A       |
| Impedance                     | 50 ohm                         |         |           |           |           |

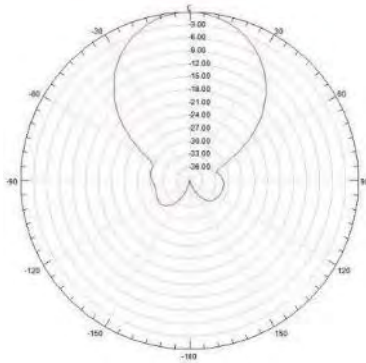


### Mechanical Specifications

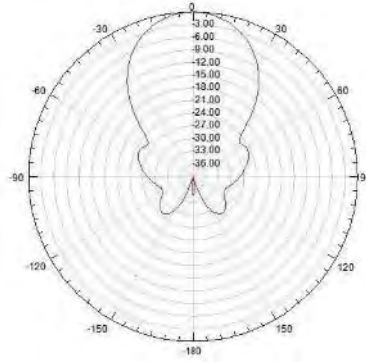
|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 2x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | White                 |
| Radome Material                | ABS+ASA, UV resistant |
| Dimensions                     | 695mm × 695mm × 95mm  |
| Net Weight                     | ~11Kg                 |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x30°   |
| Electrical Downtilt  | 0°        |

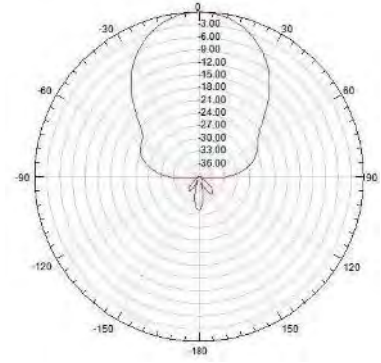
## Patterns



698-960MHz

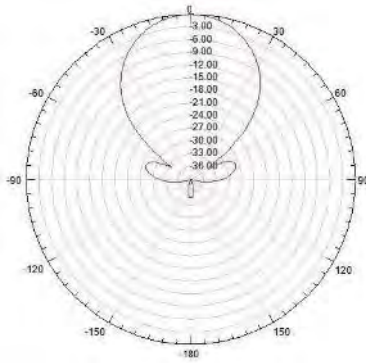


1695-2700MHz

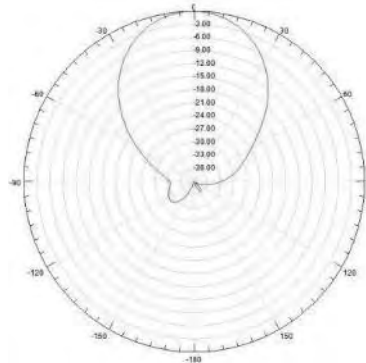


3300-4000MHz

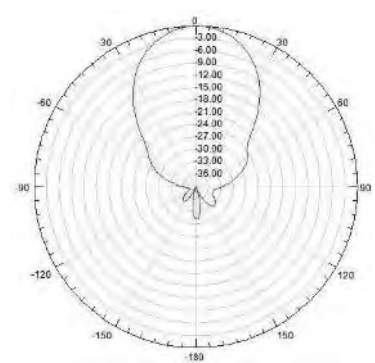
### Horizontal



698-960MHz



1695-2700MHz



3300-4000MHz

### Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 60°x60°   |
| Electrical Downtilt  | 0°        |

Type DUA2-1B1J1Q-0R60V60

## Stadium Antenna

2-ports 698-3800 MHz ,60°x60°, 8dBi, 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 698–800    | 800–960 | 1695–2180 | 2180-2700 | 3300-3800 |
|-------------------------------|------------|---------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 73         | 68      | 67        | 58        | 63        |
| Vertical 3dB Beamwidth(°)     | 73         | 66      | 71        | 66        | 59        |
| Gain(dBi)                     | 7.5        | 7.9     | 7.5       | 8         | 8.3       |
| Isolation(dB)                 | 25         |         |           |           |           |
| F/B Ratio(dB)                 | 20         |         |           |           |           |
| Maxim Input Power(w)          | 150        |         |           |           | 100       |
| Polarization                  | ±45°       |         |           |           |           |
| VSWR                          | 1.7 / 11.7 |         |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc    |         |           |           |           |
| Impedance                     | 50 ohm     |         |           |           |           |

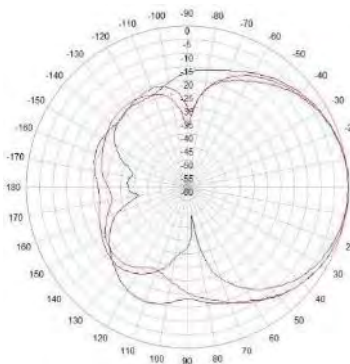


### Mechanical Specifications

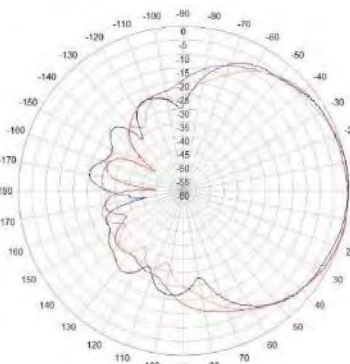
|                              |                  |
|------------------------------|------------------|
| Mounting Type                | Mounting Bracket |
| Number of Ports, all types   | 2 x 4.3-10(f)    |
| Radome Color                 | Grey             |
| Radome Material              | UPVC             |
| Net size, Length*Width*Depth | 400*295*125mm    |
| Maximum Wind-loading         | 216 km/h         |
| Net Weight                   | 4.5Kg            |
| Operating Temperature        | -40 °C to +70 °C |
| Relative Humidity            | 0 to 100%        |

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 60°x60°   |
| Electrical Downtilt  | 0°        |

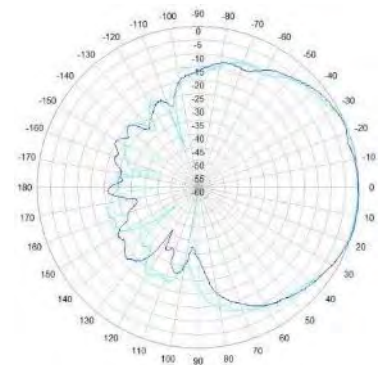
## Patterns



698-960MHz

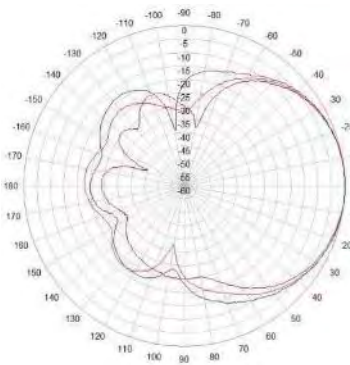


1695-2700MHz

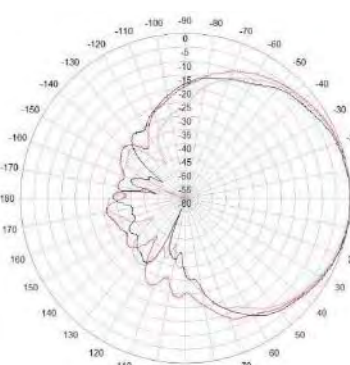


3300-3800MHz

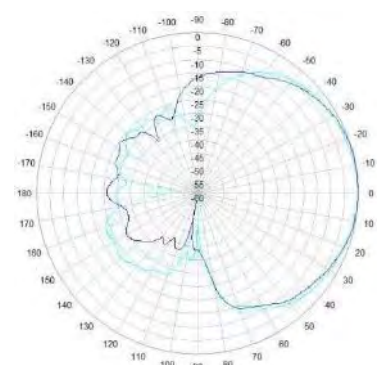
### Horizontal



698-960MHz



1695-2700MHz



3300-3800MHz

### Vertical

|                      |                      |
|----------------------|----------------------|
| Frequency Range      | 698-960<br>1695-2700 |
| Polarization         | ±45°                 |
| Half-Power BeamWidth | 30°x30°              |
| Electrical Downtilt  | 0°                   |

## Stadium Antenna

2-ports 698-2700 MHz ,30°x30°, 14 dBi, 0°Tilt Antenna.

### Electrical Specifications

|                               |                                |         |           |           |
|-------------------------------|--------------------------------|---------|-----------|-----------|
| Frequency Range(MHz)          | 698–800                        | 800-960 | 1695-2180 | 2180-2700 |
| Horizontal 3dB Beamwidth(°)   | 34                             | 32      | 35        | 30        |
| Vertical 3dB Beamwidth(°)     | 35                             | 33      | 35        | 29        |
| Gain(dBi)                     | 13                             | 13.5    | 13        | 14        |
| Horizontal Sidelobe( dB)      | 18(typical) / 16(worst case)   |         |           |           |
| Vertical Sidelobe(dB)         | 18(typical) / 16(worst case)   |         |           |           |
| Isolation(dB)                 | 30                             |         |           |           |
| F/B Ratio(dB)                 | 27                             | 30      | 30        | 30        |
| Maxim Input Power(w)          | 200                            |         |           |           |
| Polarization                  | ±45°                           |         |           |           |
| VSWR                          | 1.5(typical) / 1.6(worst case) |         |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dB<br>c                    |         |           |           |
| Impedance                     | 50<br>ohm                      |         |           |           |

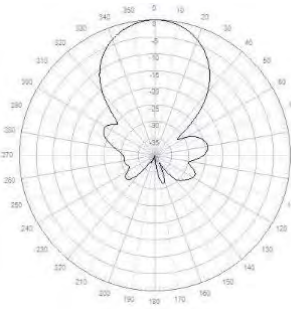


### Mechanical Specifications

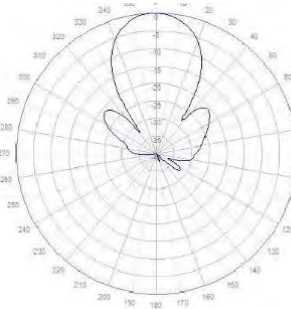
|                                |                          |
|--------------------------------|--------------------------|
| Number of Ports, all types     | 4.3-10 x 2               |
| Package Quantity               | 1                        |
| Radome Color                   | Grey                     |
| Radome Material                | Fiberglass, UV resistant |
| Dimensions                     | 820mm × 820mm × 120mm    |
| Net Weight                     | 14.5Kg                   |
| Operating Temperature          | -40 °C to +60 °C         |
| Ingress Protection Test Method | IP65                     |
| Relative Humidity              | Up to 100%               |
| RoHS                           | Compliant                |

Type DUA3-1B1J-0R30V30

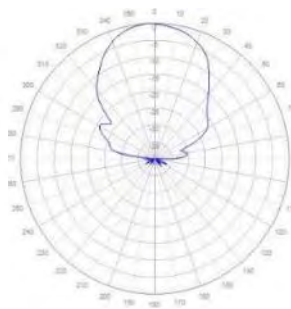
## Patterns



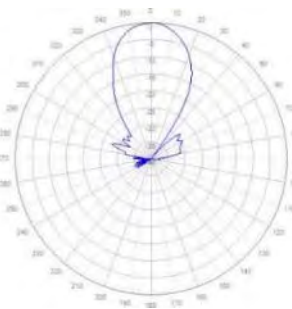
700MHz



960MHz

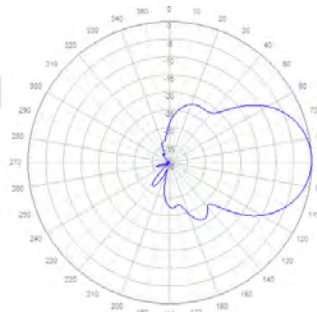


1710MHz

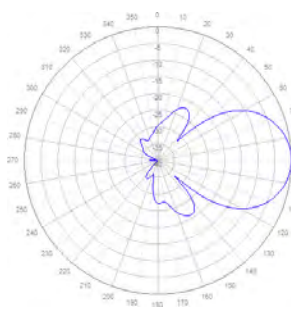


2600MHz

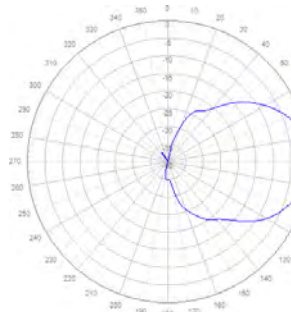
Horizontal



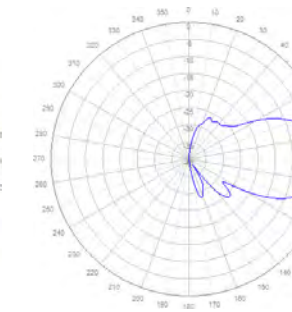
700MHz



960MHz



1710MHz



2600MHz

Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 20°x60°   |
| Electrical Downtilt  | 0°        |

Type DUA3-1B1J1Q-0R20V60

## Stadium Antenna

2-ports 698-3800 MHz ,20°x60°, 12dBi, 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 698–800    | 800–960 | 1695–2180 | 2180-2700 | 3300-3800 |
|-------------------------------|------------|---------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 25         | 22      | 24        | 20        | 20        |
| Vertical 3dB Beamwidth(°)     | 69         | 65      | 68        | 59        | 57        |
| Gain(dBi)                     | 11.5       | 12      | 11        | 12        | 12.5      |
| Horizontal Sidelobe( dB)      | 16         |         |           |           |           |
| Isolation(dB)                 | 24         |         | 22        |           |           |
| F/B Ratio(dB)                 | 24         |         |           |           |           |
| Maxim Input Power(w)          | 150        |         |           |           | 100       |
| Polarization                  | ±45°       |         |           |           |           |
| VSWR                          | 1.7 / 11.7 |         |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc    |         |           |           |           |
| Impedance                     | 50 ohm     |         |           |           |           |

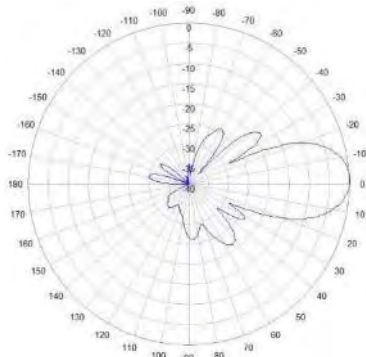


### Mechanical Specifications

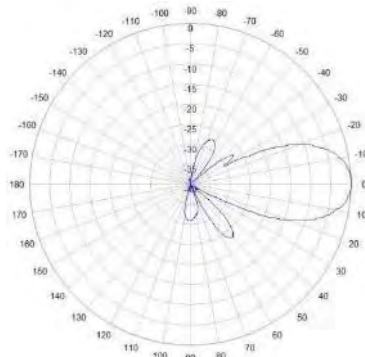
| Mounting Type                | Mounting Bracket  |
|------------------------------|-------------------|
| Number of Ports, all types   | 2 x 4.3-10(f)     |
| Radome Color                 | Off-white         |
| Radome Material              | ASA, UV resistant |
| Net size, Length*Width*Depth | 970*425*120mm     |
| Maximum Wind-loading         | 216 km/h          |
| Net Weight                   | 11.8Kg            |
| Operating Temperature        | -40 °C to +70 °C  |
| Relative Humidity            | 0 to 100%         |
| IP Level                     | IP65              |

|                      |                                   |
|----------------------|-----------------------------------|
| Frequency Range      | 698-960<br>1695-2700<br>3300-3800 |
| Polarization         | $\pm 45^\circ$                    |
| Half-Power BeamWidth | $20^\circ \times 60^\circ$        |
| Electrical Downtilt  | $0^\circ$                         |

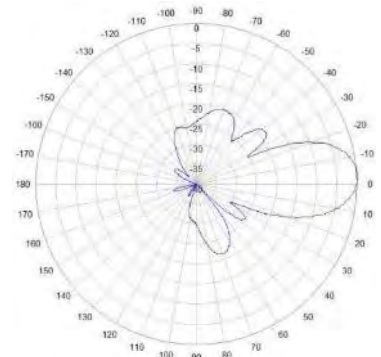
## Patterns



900MHz

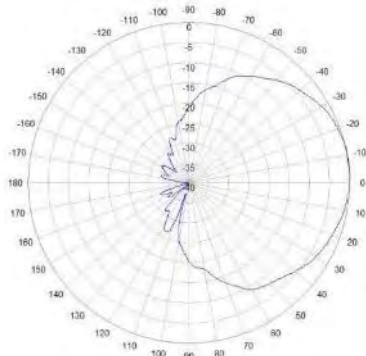


2300MHz

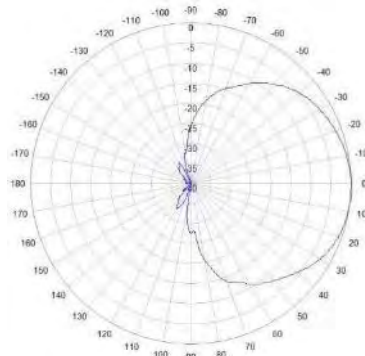


3500MHz

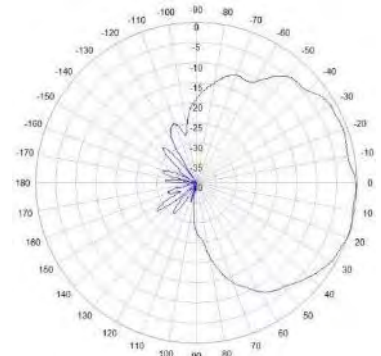
Horizontal



900MHz



2300MHz



3500MHz

Vertical

|                      |                          |
|----------------------|--------------------------|
| Frequency Range      | 698-960x2<br>1695-2700x2 |
| Polarization         | ±45°                     |
| Half-Power BeamWidth | 20°x60°                  |
| Electrical Downtilt  | 0°                       |

Type DUA4-1B1J-0R20V60

## Stadium Antenna

2-ports 698-2700 MHz ,20°x60°, 13 dBi, 0°Tilt Antenna.

### Electrical Specifications

|                               |                              |         |           |           |
|-------------------------------|------------------------------|---------|-----------|-----------|
| Frequency Range(MHz)          | 698–800                      | 800–960 | 1695–2180 | 2180-2700 |
| Horizontal 3dB Beamwidth(°)   | 25                           | 22      | 25        | 20        |
| Vertical 3dB Beamwidth(°)     | 68                           | 65      | 68        | 64        |
| Gain(dBi)                     | 11                           | 12.5    | 12        | 13        |
| Horizontal Sidelobe( dB)      | 18(typical) / 16(worst case) |         |           |           |
| Boresight CPR(dB)             | 20                           | 20      | 17        | 17        |
| Isolation(dB)                 | 25                           | 24      | 23        | 23        |
| Maxim Input Power(w)          | 200                          |         |           |           |
| Polarization                  | ±45°                         |         |           |           |
| VSWR                          | 1.5/14.0                     |         |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc                      |         |           |           |
| Impedance                     | 50 ohm                       |         |           |           |

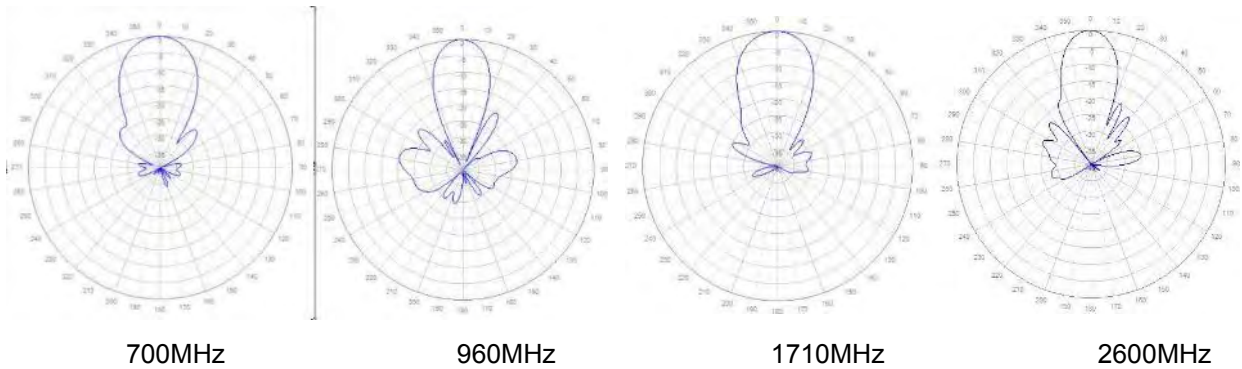


### Mechanical Specifications

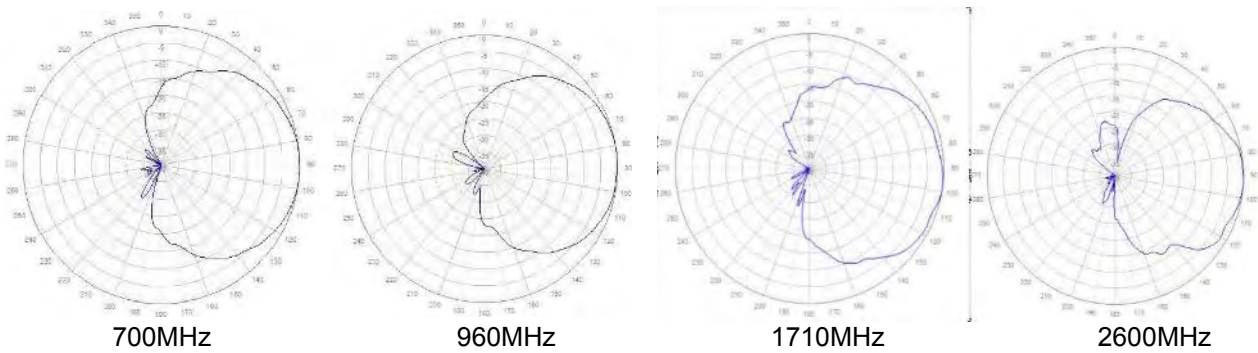
|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4.3-10 x2             |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | ABS+ASA               |
| Dimensions                     | 970mm × 425mm × 120mm |
| Net Weight                     | 8.8Kg                 |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

|                      |                          |
|----------------------|--------------------------|
| Frequency Range      | 698-960x2<br>1695-2700x2 |
| Polarization         | ±45°                     |
| Half-Power BeamWidth | 20°x60°                  |
| Electrical Downtilt  | 0°                       |

## Patterns



Horizontal



Vertical

Type **QUA2-1A1J1Q1X-0R60V60**

## Stadium Antenna

4-ports 617-2700/3300-5925 MHz , $60^\circ \times 60^\circ$  , 8 /8dBi,  $0^\circ$  /  $0^\circ$  Tilt Antenna.

### Electrical Specifications

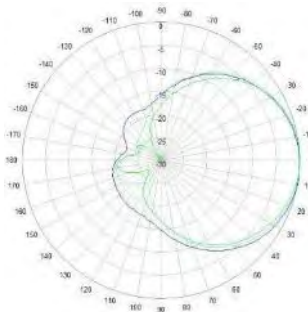
|                               |           |             |           |           |
|-------------------------------|-----------|-------------|-----------|-----------|
| Frequency Range(MHz)          | 617 - 960 | 1710 - 2700 | 3300-3800 | 4900-5925 |
| Horizontal 3dB Beamwidth(°)   | 70        | 61.8        | 64.1      | 58.6      |
| Vertical 3dB Beamwidth(°)     | 68.9      | 61.7        | 62.3      | 61.5      |
| Gain(dBi)                     | 7.9       | 7.9         | 7.7       | 7.5       |
| Sidelobe( dB)                 | N/A       |             |           |           |
| Isolation(dB)                 | 21        | 23          |           |           |
| F/B Ratio(dB)                 | 18        |             |           | 16        |
| Maxim Input Power(w)          | 200       |             | 100       | 50        |
| Polarization                  | ±45°      |             |           |           |
| VSWR                          | 1.7       |             |           |           |
| Intermodulation IM3 @ 2×43dBm | -150dBc   |             | N/A       |           |
| Impedance                     | 50 ohm    |             |           |           |



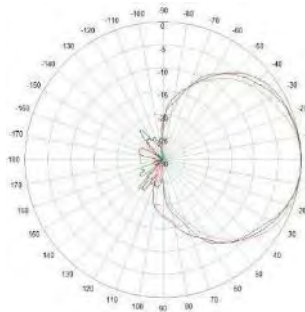
### Mechanical Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Number of Ports, all types     | 4 ports: 2x4.3-10 for 617-2700MHz and 2x4.3-10 for 3300-5925MHz |
| Package Quantity               | 1                                                               |
| Radome Color                   | Grey                                                            |
| Radome Material                | PVC                                                             |
| Dimensions                     | 465mm × 325mm × 115mm                                           |
| Net Weight                     | ~7.5Kg                                                          |
| Operating Temperature          | -40 °C to +60 °C                                                |
| Ingress Protection Test Method | IP65                                                            |
| Relative Humidity              | Up to 100%                                                      |
| RoHS                           | Compliant                                                       |

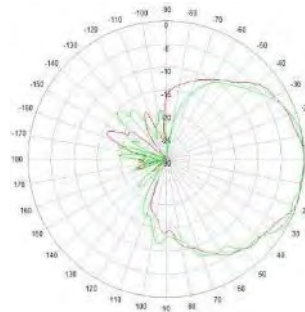
## Patterns



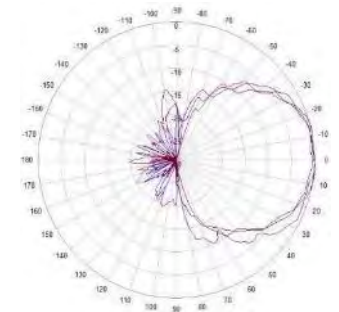
617-960MHz



1695-2700MHz

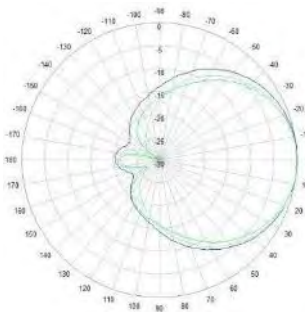


3300-3800MHz

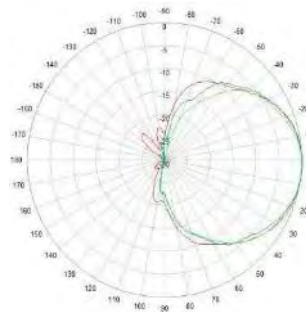


4900-5925MHz

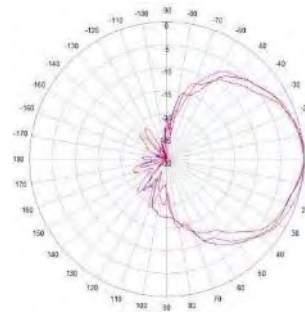
### Horizontal



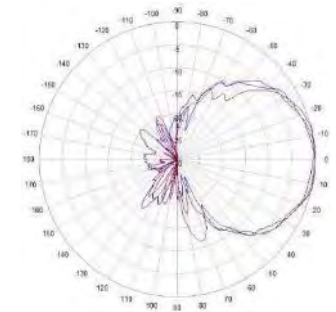
617-960MHz



1695-2700MHz



3300-3800MHz



4900-5925MHz

### Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-3800 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x60°   |
| Electrical Downtilt  | 0°        |

Type QUA2-1B1J1Q-0R30V60

## Stadium Antenna

4-ports 698-2700/3300-3800 MHz ,30°x60°, 12 /11dBi, 0°/0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 698–800               | 800–960 | 1695–2180 | 2180-2700 | 3300-3800 |
|-------------------------------|-----------------------|---------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 35                    | 29      | 30        | 26        | 29        |
| Vertical 3dB Beamwidth(°)     | 64                    | 63      | 64        | 62        | 61        |
| Gain(dBi)                     | 10.4                  | 11.2    | 11.1      | 11.8      | 11.0      |
| Isolation(dB)                 | 24                    | 24      | 24        | 24        | 24        |
| F/B Ratio(dB)                 | 22                    | 22      | 27        | 27        | 27        |
| Maxim Input Power(w)          | 120                   |         |           |           |           |
| Polarization                  | ±45°                  |         |           |           |           |
| VSWR                          | 1.5(typ.) / 1.6(Max.) |         |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -153dBc               |         |           |           |           |
| Impedance                     | 50 ohm                |         |           |           |           |



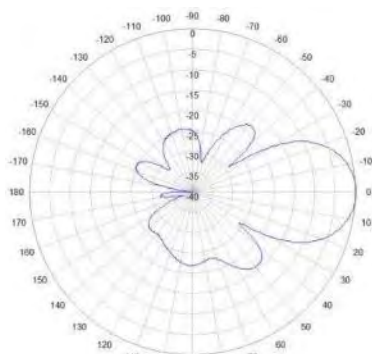
### Mechanical Specifications

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Mounting Type                    | Mounting Bracket                                            |
| Number of Ports, all types       | 4 ports: 2x4.3-10 for 698-2700MHz, 2x4.3-10for 3300-3800MHz |
| Radome Color                     | Off-white                                                   |
| Radome Material                  | ASA, UV resistant                                           |
| Net size, Length*Width*Depth, mm | 663*393*134                                                 |
| Maximum Wind-loading             | 216 km/h                                                    |
| Net Weight, Kg                   | ~ 7.1                                                       |
| Operating Temperature            | -40 °C to +70 °C                                            |
| Relative Humidity                | 0 to 100%                                                   |
| IP Level                         | IP65                                                        |

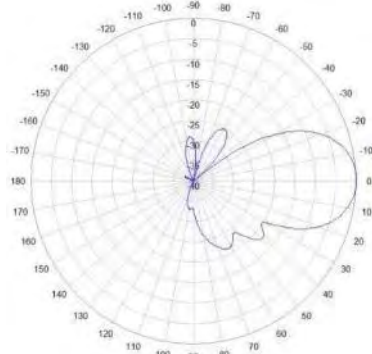
|                      |                                   |
|----------------------|-----------------------------------|
| Frequency Range      | 698-960<br>1695-2700<br>3300-3800 |
| Polarization         | $\pm 45^\circ$                    |
| Half-Power BeamWidth | $30^\circ \times 60^\circ$        |
| Electrical Downtilt  | $0^\circ$                         |

Type QUA2-1B1J1Q-0R30V60

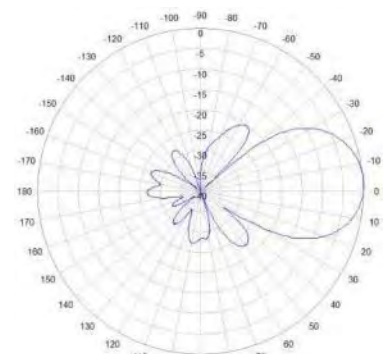
## Patterns



698-960MHz

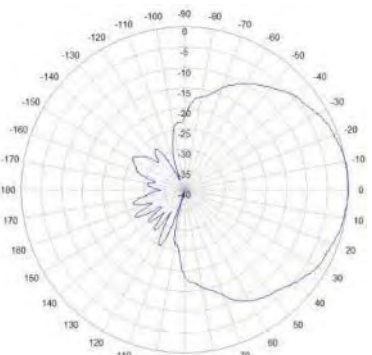


1695-2700MHz

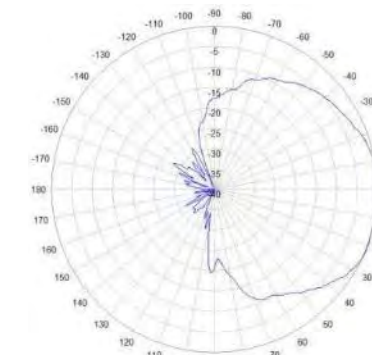


3300-4000MHz

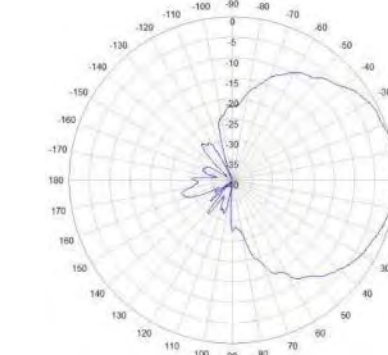
### Horizontal



698-960MHz



1695-2700MHz



3300-4000MHz

### Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 1710-2700 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x60°   |
| Electrical Downtilt  | 0°        |

Type QUA2-2J-0R30V60

## Stadium Antenna

4-ports 1710-2700/1710-2700 MHz ,30°x60° , 11.5 /11.5dBi, 0° / 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1710–2200                    | 2200-2700 |
|-------------------------------|------------------------------|-----------|
| Horizontal 3dB Beamwidth(°)   | 35                           | 31        |
| Vertical 3dB Beamwidth(°)     | 67                           | 65        |
| Gain(dBi)                     | 10.8                         | 11.5      |
| Horizontal Sidelobe( dB)      | 20(typical) / 17(worst case) |           |
| Vertical Sidelobe( dB)        | 20(typical) / 17(worst case) |           |
| Isolation(dB)                 | 24                           |           |
| F/B Ratio(dB)                 | 25                           |           |
| Maxim Input Power(w)          | 200                          |           |
| Polarization                  | ±45°                         |           |
| VSWR                          | 1.5                          |           |
| Intermodulation IM3 @ 2×43dBm | -150dBc                      |           |
| Impedance                     | 50 ohm                       |           |

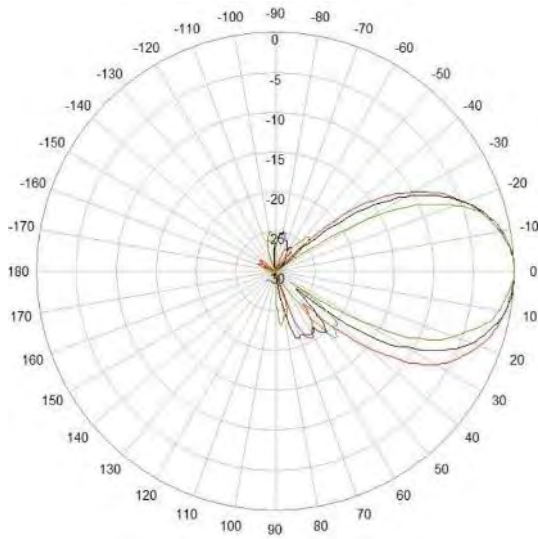


### Mechanical Specifications

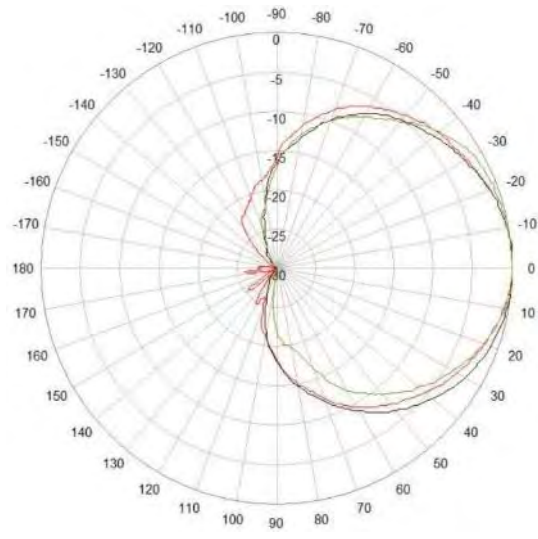
|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | PVC                   |
| Dimensions                     | 415mm × 285mm × 130mm |
| Net Weight                     | ~3.5Kg                |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 1710-2700                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 60^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

## Patterns



1710-2700MHz  
Horizontal



1710-2700MHz  
Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 1710-2700 |
|                      | 3300-3800 |
|                      | 4900-5900 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x30°   |
| Electrical Downtilt  | 0°        |

Type QUA2-2J2Q2X-0R30V30

## Stadium Antenna

4-ports 1710-5900/1710-5900 MHz ,30°x30°, 12/12dBi, 0° / 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1710 - 2700                  | 3300 - 3800 | 4900-5900 |
|-------------------------------|------------------------------|-------------|-----------|
| Horizontal 3dB Beamwidth(°)   | 30                           | 30          | 30        |
| Vertical 3dB Beamwidth(°)     | 30                           | 30          | 30        |
| Gain(dBi)                     | 13                           | 12          | 11.8      |
| Horizontal Sidelobe( dB)      | 17(typical) / 15(worst case) |             |           |
| Vertical Sidelobe( dB)        | 17(typical) / 15(worst case) |             |           |
| Isolation(dB)                 | 25                           | 25          | 25        |
| F/B Ratio(dB)                 | 20                           | 20          | 20        |
| Maxim Input Power(w)          | 200                          |             | 100       |
| Polarization                  | ±45°                         |             |           |
| VSWR                          | 1.8                          |             |           |
| Intermodulation IM3 @ 2×43dBm | -150Bc                       | N/A         | N/A       |
| Impedance                     | 50 ohm                       |             |           |



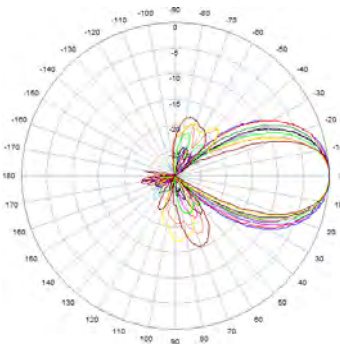
### Mechanical Specifications

|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | PVC                   |
| Dimensions                     | 605mm × 415mm × 140mm |
| Net Weight                     | ~6Kg                  |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

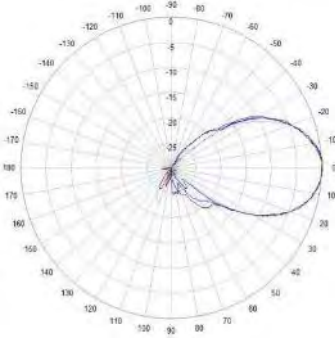
|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 1710-2700                  |
|                      | 3300-3800                  |
|                      | 4900-5900                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 30^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

Type QUA2-2J2Q2X-0R30V30

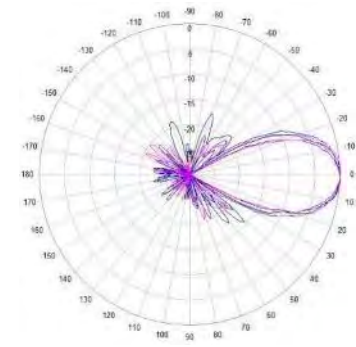
## Patterns



1695-2700MHz

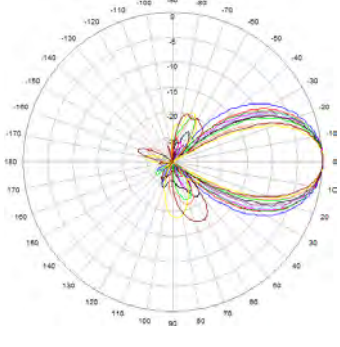


3300-3800MHz

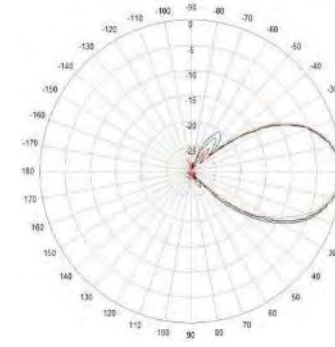


4900-5900MHz

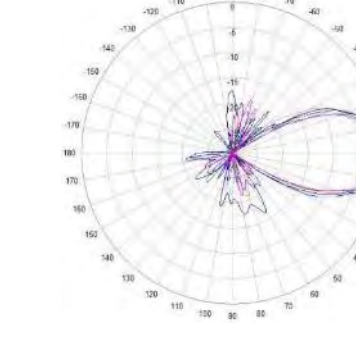
Horizontal



1695-2700MHz



3300-3800MHz



4900-5900MHz

Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 1710-2700 |
|                      | 3300-3800 |
|                      | 4900-5900 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x60°   |
| Electrical Downtilt  | 0°        |

Type **QUA2-2J2Q2X-0R30V60**

## Stadium Antenna

4-ports 1710-5900/1710-5900 MHz ,30°x60° , 11/11dBi, 0° / 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1710 - 2700                  | 3300 - 3800 | 4900-5900 |
|-------------------------------|------------------------------|-------------|-----------|
| Horizontal 3dB Beamwidth(°)   | 31                           | 32          | 29        |
| Vertical 3dB Beamwidth(°)     | 65                           | 62          | 64        |
| Gain(dBi)                     | 11                           | 10.5        | 10.2      |
| Horizontal Sidelobe( dB)      | 17(typical) / 15(worst case) |             |           |
| Isolation(dB)                 | 20                           | 20          | 20        |
| F/B Ratio(dB)                 | 20                           | 20          | 20        |
| Maxim Input Power(w)          | 200                          |             | 100       |
| Polarization                  | ±45°                         |             |           |
| VSWR                          | 1.8                          |             |           |
| Intermodulation IM3 @ 2×43dBm | -150Bc                       | N/A         | N/A       |
| Impedance                     | 50 ohm                       |             |           |



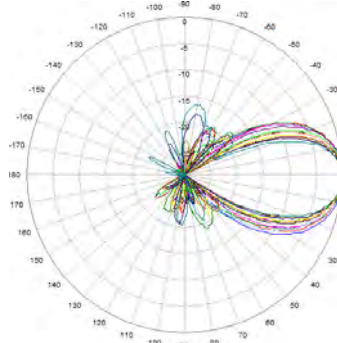
### Mechanical Specifications

|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | PVC                   |
| Dimensions                     | 500mm × 325mm × 115mm |
| Net Weight                     | ~5Kg                  |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

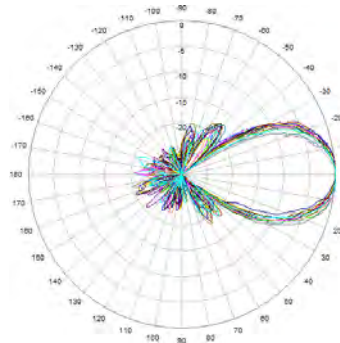
|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 1710-2700                  |
|                      | 3300-3800                  |
|                      | 4900-5900                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 60^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

Type QUA2-2J2Q2X-0R30V60

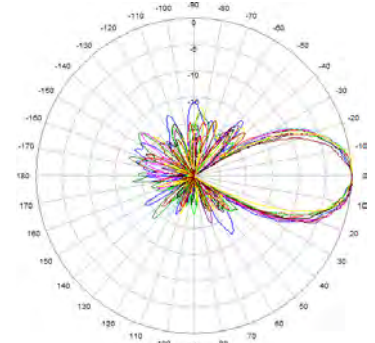
## Patterns



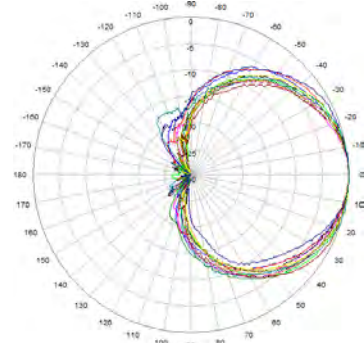
1695-2700MHz



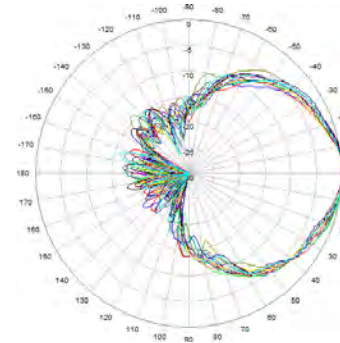
3300-3800MHz  
Horizontal



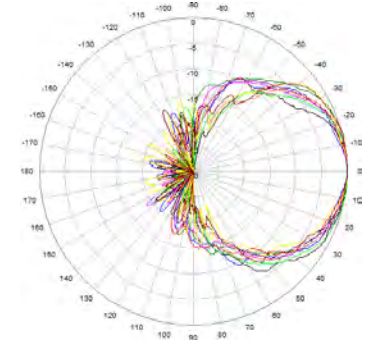
4900-5900MHz



1695-2700MHz



3300-3800MHz  
Vertical



4900-5900MHz

|                      |           |
|----------------------|-----------|
| Frequency Range      | 1710-2700 |
|                      | 3300-3800 |
|                      | 4900-5925 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 60°x60°   |
| Electrical Downtilt  | 0°        |

Type **QUA2-2J2Q2X-0R60V60**

## Stadium Antenna

4-ports 1710-5925/1710-5925 MHz ,60°x60° , 9/9dBi, 0° / 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1710 - 2700 | 3300 - 3800 | 4900-5900 |
|-------------------------------|-------------|-------------|-----------|
| Horizontal 3dB Beamwidth(°)   | 62          | 64          | 61        |
| Vertical 3dB Beamwidth(°)     | 61          | 62          | 59        |
| Gain(dBi)                     | 9           | 9.5         | 8         |
| Isolation(dB)                 | 25          | 27          | 27        |
| F/B Ratio(dB)                 | 15          |             |           |
| Maxim Input Power(w)          | 200         | 100         | 100       |
| Polarization                  | ±45°        |             |           |
| VSWR                          | 1.8         |             |           |
| Intermodulation IM3 @ 2×43dBm | -150Bc      | N/A         | N/A       |
| Impedance                     | 50 ohm      |             |           |

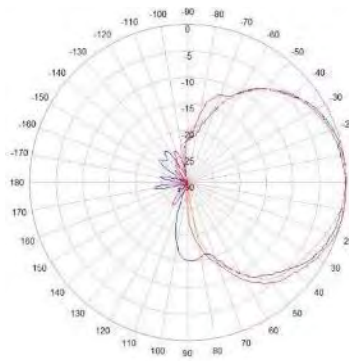


### Mechanical Specifications

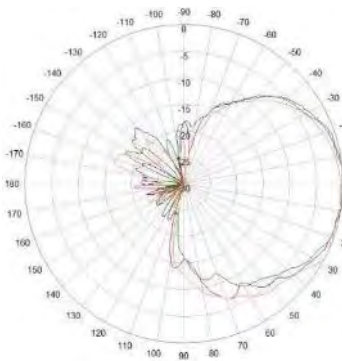
|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | PVC                   |
| Dimensions                     | 430mm × 165mm × 115mm |
| Net Weight                     | ~5Kg                  |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 1710-2700                  |
|                      | 3300-3800                  |
|                      | 4900-5925                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $60^\circ \times 60^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

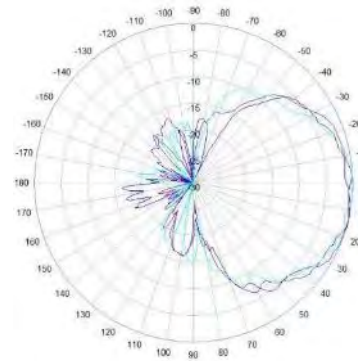
## Patterns



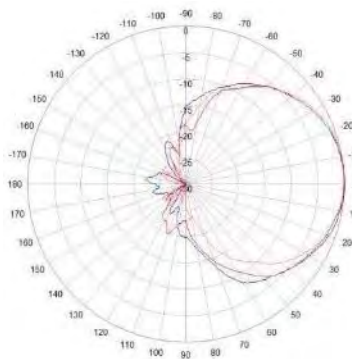
1695-2700MHz



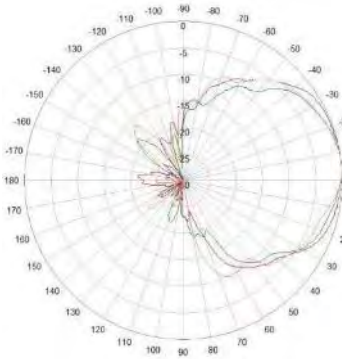
3300-3800MHz  
Horizontal



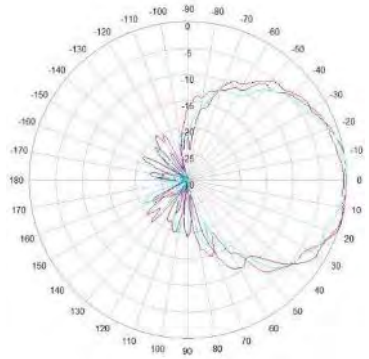
4900-5925MHz



1695-2700MHz



3300-3800MHz  
Vertical



4900-5925MHz

Type **QUA3-1A1J1Q1X-0R30V60**

## Stadium Antenna

4-ports 617-2700/3300-5925 MHz , $30^\circ \times 60^\circ$  , 11 /11dBi,  $0^\circ / 0^\circ$ Tilt Antenna.

### Electrical Specifications

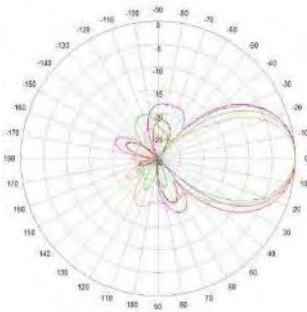
|                               |                              |             |           |           |
|-------------------------------|------------------------------|-------------|-----------|-----------|
| Frequency Range(MHz)          | 617 - 960                    | 1710 - 2700 | 3300-3800 | 4900-5925 |
| Horizontal 3dB Beamwidth(°)   | 35.5                         | 29.1        | 30.6      | 27.1      |
| Vertical 3dB Beamwidth(°)     | 64.9                         | 66.3        | 60.3      | 63.5      |
| Gain(dBi)                     | 10                           | 11          | 10.8      | 10.4      |
| Sidelobe( dB)                 | 17(typical) / 14(worst case) |             |           |           |
| Isolation(dB)                 | 21                           | 23          | 24        |           |
| F/B Ratio(dB)                 | 20                           |             |           |           |
| Maxim Input Power(w)          | 200                          |             | 100       | 50        |
| Polarization                  | ±45°                         |             |           |           |
| VSWR                          | 1.7                          |             |           |           |
| Intermodulation IM3 @ 2×43dBm | -150dBc                      |             | N/A       |           |
| Impedance                     | 50 ohm                       |             |           |           |



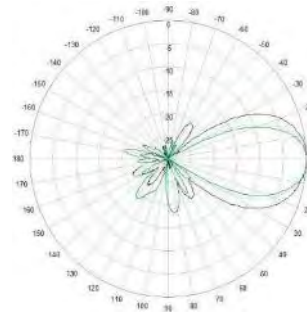
### Mechanical Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Number of Ports, all types     | 4 ports: 2x4.3-10 for 617-2700MHz and 2x4.3-10 for 3300-5925MHz |
| Package Quantity               | 1                                                               |
| Radome Color                   | Grey                                                            |
| Radome Material                | PVC                                                             |
| Dimensions                     | 710mm $\times$ 415mm $\times$ 140mm                             |
| Net Weight                     | ~8.1Kg                                                          |
| Operating Temperature          | -40 $^\circ$ C to +60 $^\circ$ C                                |
| Ingress Protection Test Method | IP65                                                            |
| Relative Humidity              | Up to 100%                                                      |
| RoHS                           | Compliant                                                       |

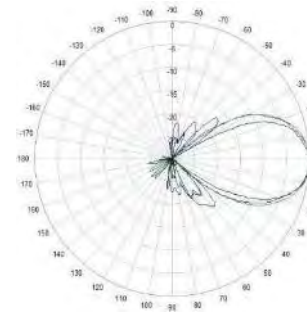
## Patterns



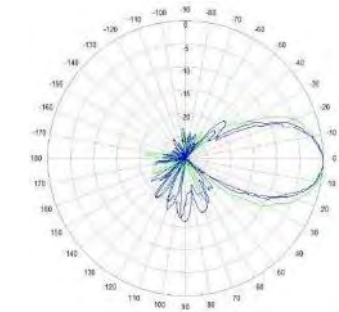
617-960MHz



1710-2700MHz

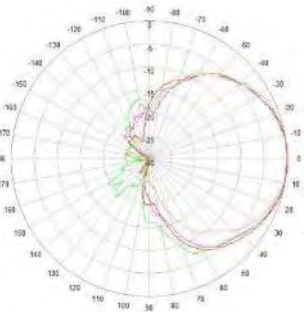


3300-3800MHz

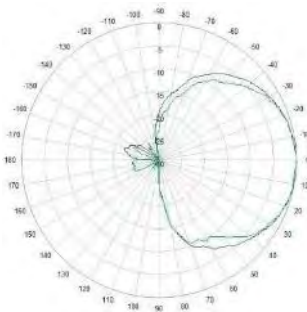


4900-5925MHz

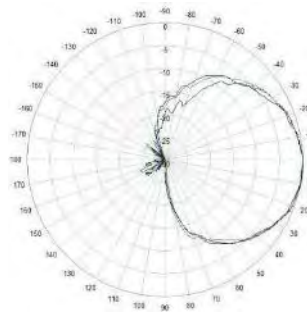
### Horizontal



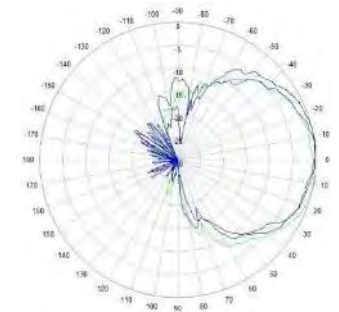
617-960MHz



1710-2700MHz



3300-3800MHz



4900-5925MHz

### Vertical

|                      |           |
|----------------------|-----------|
| Frequency Range      | 698-960   |
|                      | 1695-2700 |
|                      | 3300-4000 |
| Polarization         | ±45°      |
| Half-Power BeamWidth | 30°x30°   |
| Electrical Downtilt  | 0°        |

Type QUA3-1B1J1R-0R30V30

## Stadium Antenna

4-ports 698-2700/3300-4000 MHz ,30°x30° , 14 /14dBi, 0°/ 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 698-800                        | 800-960 | 1695-2180 | 2180-2700 | 3300-4000 |
|-------------------------------|--------------------------------|---------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 36                             | 33      | 36        | 29        | 29        |
| Vertical 3dB Beamwidth(°)     | 37                             | 32      | 36        | 30        | 29        |
| Gain(dBi)                     | 13                             | 13.5    | 13        | 14        | 14        |
| Sidelobe( dB)                 | 18(typical) / 16(worst case)   |         |           |           |           |
| Isolation(dB)                 | 27                             |         |           |           |           |
| F/B Ratio(dB)                 | 27                             |         | 30        |           |           |
| Maxim Input Power(w)          | 200                            |         |           |           | 100       |
| Polarization                  | ±45°                           |         |           |           |           |
| VSWR                          | 1.5(typical) / 1.6(worst case) |         |           |           |           |
| Intermodulation IM3 @ 2x43dBm | -153dBc                        |         |           |           | N/A       |
| Impedance                     | 50 ohm                         |         |           |           |           |



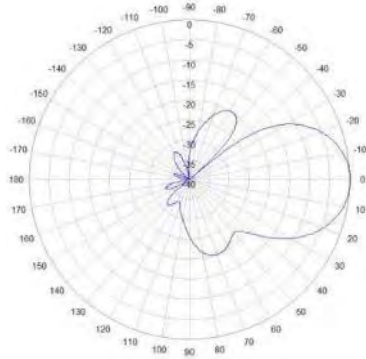
### Mechanical Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Number of Ports, all types     | 4 ports: 2x4.3-10 for 698-2700MHz and 2x4.3-10 for 3300-4000MHz |
| Package Quantity               | 1                                                               |
| Radome Color                   | Grey                                                            |
| Radome Material                | Fiberglass, UV resistant                                        |
| Dimensions                     | 820mm × 820mm × 120mm                                           |
| Net Weight                     | ~15.5Kg                                                         |
| Operating Temperature          | -40 °C to +60 °C                                                |
| Ingress Protection Test Method | IP65                                                            |
| Relative Humidity              | Up to 100%                                                      |
| RoHS                           | Compliant                                                       |

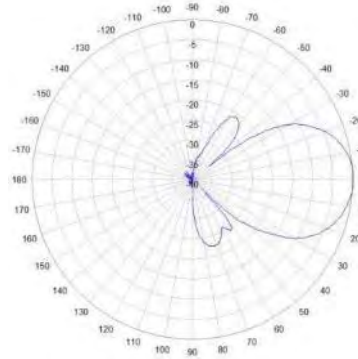
|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 698-960                    |
|                      | 1695-2700                  |
|                      | 3300-4000                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 30^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

Type QUA3-1B1J1R-0R30V30

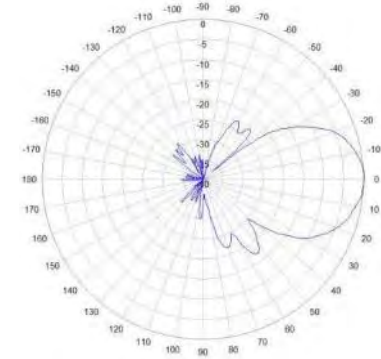
## Patterns



698-960MHz

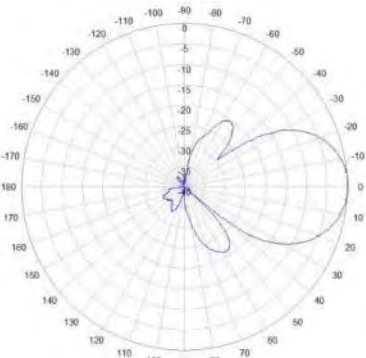


1695-2700MHz

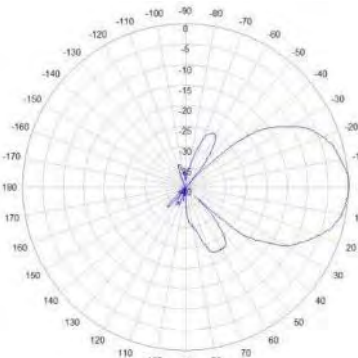


3300-4000MHz

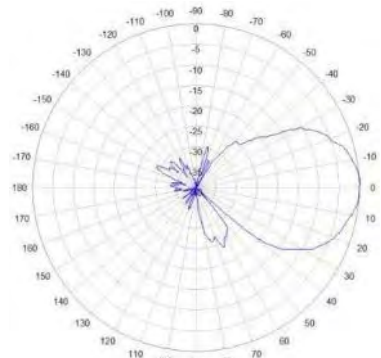
Horizontal



698-960MHz



1695-2700MHz



3300-4000MHz

Vertical

|                      |                        |
|----------------------|------------------------|
| Frequency Range      | 1695-2700<br>3300-3800 |
| Polarization         | ±45°                   |
| Half-Power BeamWidth | 30°x30°                |
| Electrical Downtilt  | 0°                     |

Type QUA3-2J2Q-0R30V30

## Stadium Antenna

4-ports 1695-3800/1695-3800 MHz ,30°x30° , 13.5 /13dBi, 0° / 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1695–2200                    | 2200-2700 | 3300-3800 |
|-------------------------------|------------------------------|-----------|-----------|
| Horizontal 3dB Beamwidth(°)   | 33                           | 28        | 31        |
| Vertical 3dB Beamwidth(°)     | 33                           | 29        | 31        |
| Gain(dBi)                     | 13                           | 13.5      | 13        |
| Horizontal Sidelobe( dB)      | 20(typical) / 17(worst case) |           |           |
| Vertical Sidelobe( dB)        | 20(typical) / 17(worst case) |           |           |
| Isolation(dB)                 | 28                           | 28        | 25        |
| F/B Ratio(dB)                 | 25                           | 25        | 25        |
| Maxim Input Power(w)          | 200                          |           | 100       |
| Polarization                  | ±45°                         |           |           |
| VSWR                          | 1.7                          |           |           |
| Intermodulation IM3 @ 2×43dBm | -150Bc                       |           | N/A       |
| Impedance                     | 50 ohm                       |           |           |

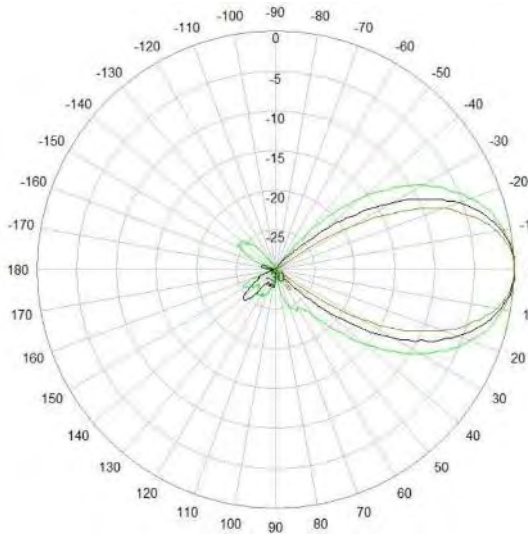


### Mechanical Specifications

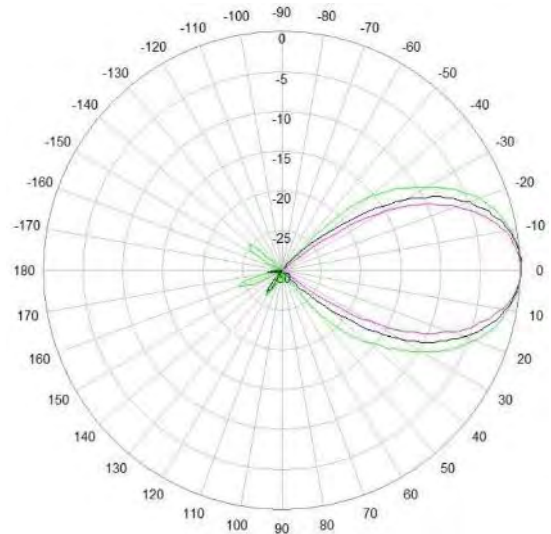
|                                |                       |
|--------------------------------|-----------------------|
| Number of Ports, all types     | 4x4.3-10              |
| Package Quantity               | 1                     |
| Radome Color                   | Grey                  |
| Radome Material                | PVC                   |
| Dimensions                     | 795mm × 328mm × 112mm |
| Net Weight                     | ~6.8Kg                |
| Operating Temperature          | -40 °C to +60 °C      |
| Ingress Protection Test Method | IP65                  |
| Relative Humidity              | Up to 100%            |
| RoHS                           | Compliant             |

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 1695-2700                  |
|                      | 3300-3800                  |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 30^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

## Patterns



1695-2700MHz  
Horizontal



3300-3800MHz  
Vertical

|                      |                          |
|----------------------|--------------------------|
| Frequency Range      | 2x1695-2700<br>3300-3800 |
| Polarization         | ±45°                     |
| Half-Power BeamWidth | 30°x60°                  |
| Electrical Downtilt  | 0°                       |

Type **HEX2-2J1Q-0R30V60**

## Stadium Antenna

6-ports 1710-2700/1710-2700/3300-3800 MHz ,30°x60° , 11 /11/11dBi, 0° / 0° / 0°Tilt Antenna.

### Electrical Specifications

|                               |                              |           |
|-------------------------------|------------------------------|-----------|
| Frequency Range(MHz)          | 1710-2700                    | 3300-3800 |
| Horizontal 3dB Beamwidth(°)   | 29                           | 30        |
| Vertical 3dB Beamwidth(°)     | 61                           | 64        |
| Gain(dBi)                     | 11                           | 11        |
| Horizontal Sidelobe( dB)      | 20(typical) / 17(worst case) |           |
| Isolation(dB)                 | 24                           | 25        |
| F/B Ratio(dB)                 | 28                           |           |
| Maxim Input Power(w)          | 200                          | 100       |
| Polarization                  | ±45°                         |           |
| VSWR                          | 1.5                          |           |
| Intermodulation IM3 @ 2×43dBm | -150Bc                       | N/A       |
| Impedance                     | 50 ohm                       |           |

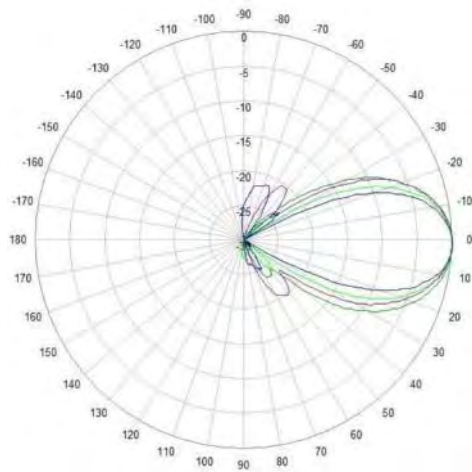


### Mechanical Specifications

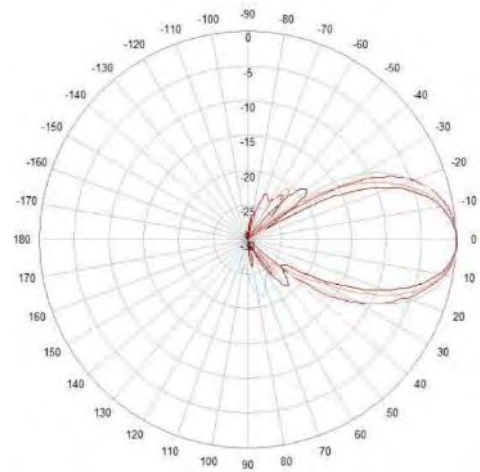
|                                |                                                               |
|--------------------------------|---------------------------------------------------------------|
| Number of Ports, all types     | 6 ports: 4x4.3-10 for 1710-2700MHz, 2x4.3-10 for 3300-3800MHz |
| Package Quantity               | 1                                                             |
| Radome Color                   | White                                                         |
| Radome Material                | ABS+ASA                                                       |
| Dimensions                     | 400mm × 250mm × 83mm                                          |
| Net Weight                     | ~2.5Kg                                                        |
| Operating Temperature          | -40 °C to +60 °C                                              |
| Ingress Protection Test Method | IP65                                                          |
| Relative Humidity              | Up to 100%                                                    |
| RoHS                           | Compliant                                                     |

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 2x1695-2700<br>3300-3800   |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 60^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

## Patterns

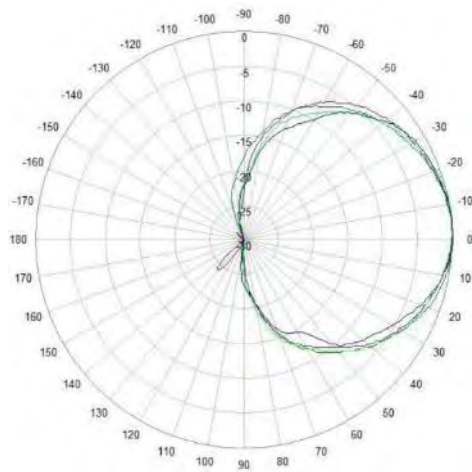


1710-2700MHz

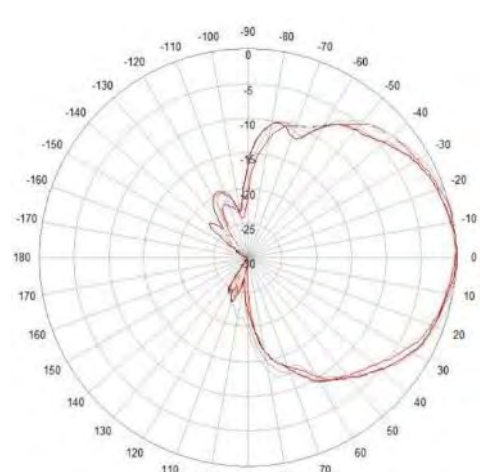


3300-3800MHz

Horizontal



1710-2700MHz



3300-3800MHz

Vertical

|                      |                          |
|----------------------|--------------------------|
| Frequency Range      | 2x1695-2700<br>3300-4200 |
| Polarization         | ±45°                     |
| Half-Power BeamWidth | 30°x60°                  |
| Electrical Downtilt  | 0°                       |

Type OCT1-3J1R-0R60V60

## Stadium Antenna

8-ports 3x1695-2700 / 1x3300-4200 MHz ,60°x60° , 9.0/9.0 dBi, 0°Tilt Antenna.

### Electrical Specifications

|                        |           |           |
|------------------------|-----------|-----------|
| Frequency Band, MHz    | 1695-2700 | 3300-4200 |
| HBW, Ave., degrees     | 63        | 61        |
| VBW, Ave., degrees     | 60        | 58        |
| Gain, Ave., dBi        | 9.0       | 8.6       |
| VSWR, Maximum          | 1.5       | 1.5       |
| Isolation, dB          | 25        | 25        |
| 3rd Order IMD @2×43dBm | -153      |           |
| Maximum Input Power, W | 50        |           |
| Impedance, Ohms        | 50        |           |
| Polarization           | ±45°      |           |

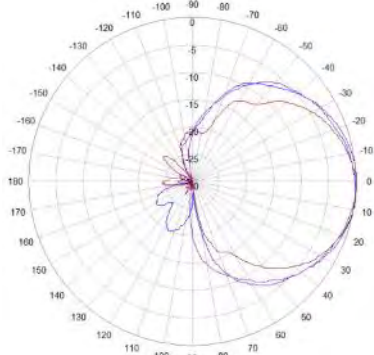


### Mechanical Specifications

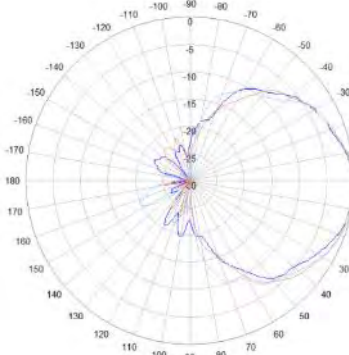
|                            |                                                           |
|----------------------------|-----------------------------------------------------------|
| Application                | Indoor / Outdoor                                          |
| Mounting Type              | Wall mount / Pole mount                                   |
| Number of Ports, all types | 8 x 4.3-10 Female: 6 for 1695-2700MHz, 2 for 3300-4200MHz |
| Radom Color                | Light grey                                                |
| Radom material             | PVC                                                       |
| Dimensions, L x W x D, mm  | 320 * 295 * 125                                           |
| Operating Temperature      | -40 °C to +60 °C                                          |
| Relative Humidity          | Up to100%                                                 |
| RoHS                       | Compliant                                                 |

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 2x1695-2700<br>3300-4200   |
| Polarization         | $\pm 45^\circ$             |
| Half-Power BeamWidth | $30^\circ \times 60^\circ$ |
| Electrical Downtilt  | $0^\circ$                  |

## Patterns

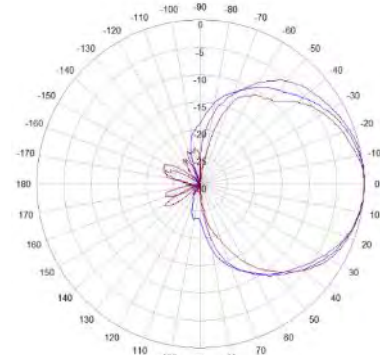


1695-2700MHz

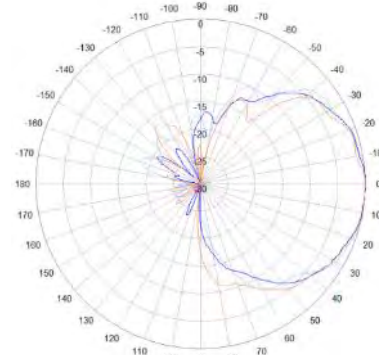


3300-4200MHz

Horizontal



1695-2700MHz



3300-4200MHz

Vertical

|                      |             |
|----------------------|-------------|
| Frequency Range      | 1x1695-2700 |
|                      | 2x3300-4200 |
|                      | 1x3300-4200 |
| Polarization         | ±45°        |
| Half-Power BeamWidth | 20°x60°     |
| Electrical Downtilt  | 0°          |

Type OCT2-1J2R1V-0R30V60

## Stadium Antenna

8-ports 1695-2700/3300-4200/3300-4200/5150-5925 MHz ,20°x60°, 13.5/ 13.5/ 13.5/ Meet the UNII dBi, 0°/ 0°/ 0°/ 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1695-2700 | 3300 - 4200 | 5150-5925     |
|-------------------------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth(°)   | 22        | 20          | 20            |
| Vertical 3dB Beamwidth(°)     | 63        | 62          | Meet the UNII |
| Gain(dBi)                     | 13.5      | 13.8        | Meet the UNII |
| Horizontal Sidelobe( dB)      | 16        |             |               |
| Isolation(dB)                 | 20        |             |               |
| F/B Ratio(dB)                 | 25        | 30          | 25            |
| Polarization                  | ±45°      |             |               |
| VSWR                          | 1.5 / 14  |             |               |
| Intermodulation IM3 @ 2×43dBm | -153dBc   |             | N/A           |
| Impedance                     | 50 ohm    |             |               |



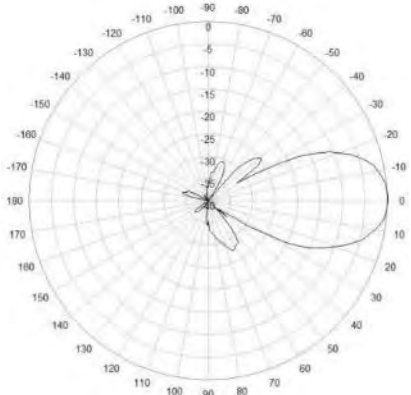
### Mechanical Specifications

|                                  |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                          |
| Number of Ports, all types       | 8 Ports: 2 for 1695-2700, 4 for 3300-4200 and 2 for 5150-5925MHz |
| Radome Color                     | Grey                                                             |
| Radome Material                  | ASA                                                              |
| Net size, Length*Width*Depth, mm | 480*350*130                                                      |
| Maximum Wind-loading             | 216 kph                                                          |
| IP protection                    | IP65                                                             |
| Net weight, Kg                   | ~ 4.0                                                            |
| Operating Temperature            | -40 °C to +60 °C (-40 °F to +140 °F)                             |
| Relative Humidity                | 0 to100%                                                         |

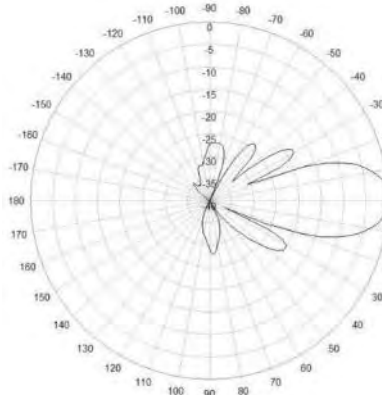
|                      |             |
|----------------------|-------------|
| Frequency Range      | 1x1695-2700 |
|                      | 2x3300-4200 |
|                      | 1x3300-4200 |
| Polarization         | ±45°        |
| Half-Power BeamWidth | 20°x60°     |
| Electrical Downtilt  | 0°          |

Type OCT2-1J2R1V-0R30V60

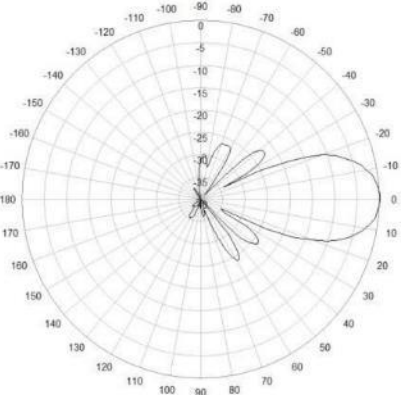
## Patterns



1695-2700MHz

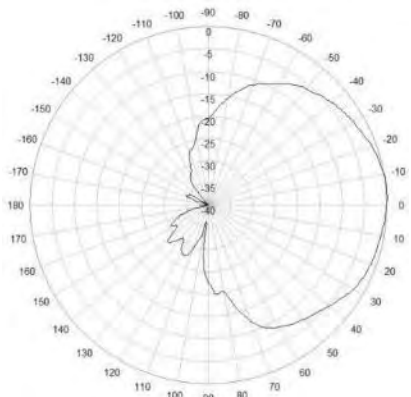


3300-4200MHz

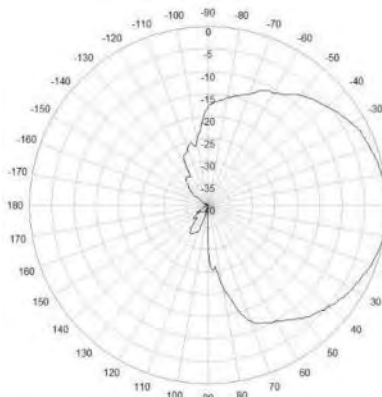


5150-5925MHz

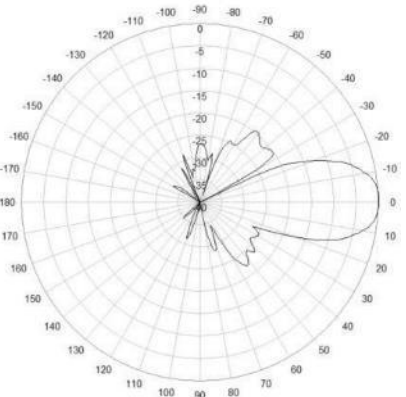
Horizontal



1695-2700MHz



3300-4200MHz



5150-5925MHz

Vertical

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 3x1695-2700<br>1x3300-4200 |
| Polarization         | ±45°                       |
| Half-Power BeamWidth | 30°x30°                    |
| Electrical Downtilt  | 0°                         |

Type **OCT2-3J1R-0R30V30**

## Stadium Antenna

8-ports 3x1695-4200 / 1x3300-4200 MHz ,30°x30°, 15.5/15.5 dBi, 0°Tilt Antenna.

### Electrical Specifications

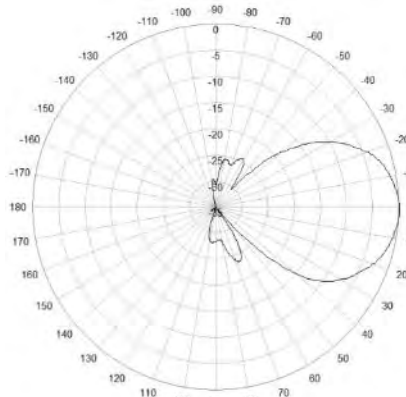
|                               |                              |           |           |           |
|-------------------------------|------------------------------|-----------|-----------|-----------|
| Frequency Range(MHz)          | 1695-2200                    | 2200-2700 | 3300-3800 | 3801-4200 |
| Horizontal 3dB Beamwidth(°)   | 34.0                         | 26.0      | 30.0      | 27.0      |
| Vertical 3dB Beamwidth(°)     | 33.0                         | 25.0      | 31.0      | 27.0      |
| Gain(dBi)                     | 14.5                         | 15.4      | 14.5      | 15.3      |
| Horizontal sidelobes, dB      | 18(typical) / 15(worst case) |           |           |           |
| Vertical sidelobes, dB        | 18(typical) / 15(worst case) |           |           |           |
| Isolation(dB)                 | 25                           |           |           |           |
| F/B Ratio(dB)                 | 32                           |           |           |           |
| Maxim Input Power(w)          | 100                          |           |           | 50        |
| Polarization                  | ±45°                         |           |           |           |
| VSWR                          | 1.5                          |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -150dBc                      |           |           |           |
| Impedance                     | 50 ohm                       |           |           |           |



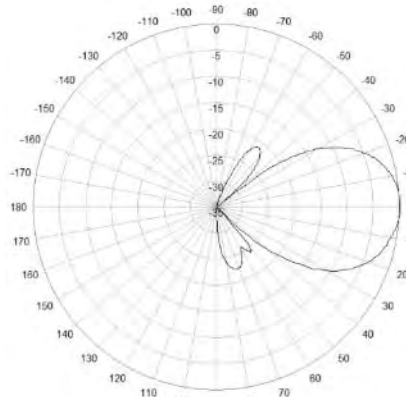
### Mechanical Specifications

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Number of Ports, all types     | 6 ports: 2x4.3-10 for 1695-2700MHz<br>2 ports: 2x4.3-10 for 3300-4200MHz |
| Radome Color                   | Grey                                                                     |
| Radome Material                | Fiberglass, UV resistant                                                 |
| Dimensions                     | 755 * 755 * 118                                                          |
| Net Weight                     | ~13.5kg                                                                  |
| Operating Temperature          | -40 °C to +70 °C                                                         |
| Ingress Protection Test Method | IP65                                                                     |
| Relative Humidity              | Up to 100%                                                               |
| Application                    | Indoor and Outdoor                                                       |
| RoHS                           | Compliant                                                                |

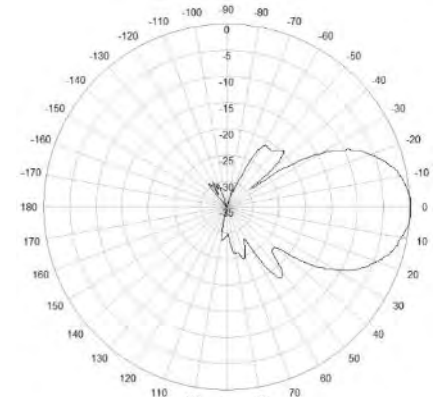
## Patterns



1800MHz

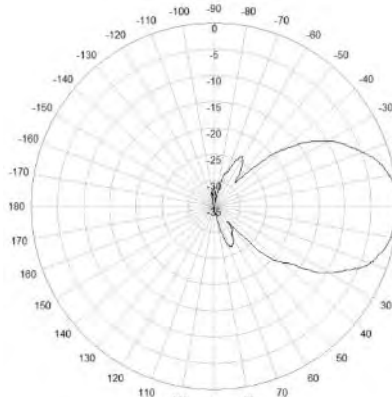


2350MHz

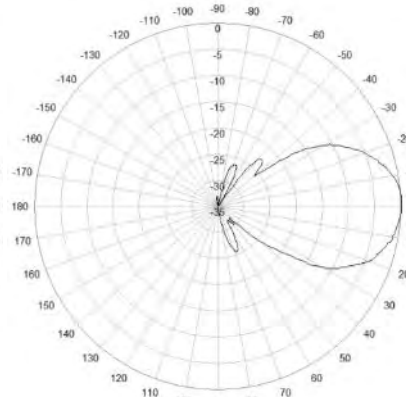


3500MHz

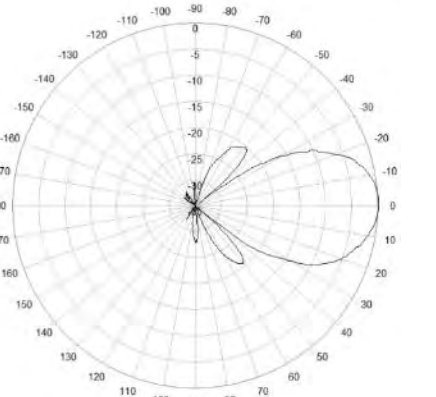
Horizontal



1800MHz



2350MHz



3500MHz

Vertical

|                      |                            |
|----------------------|----------------------------|
| Frequency Range      | 3x1695-2700<br>1x3300-4200 |
| Polarization         | ±45°                       |
| Half-Power BeamWidth | 30°x60°                    |
| Electrical Downtilt  | 0°                         |

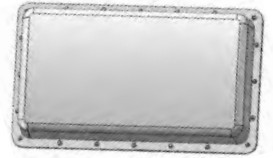
Type OCT2-3J1R-0R30V60

## Stadium Antenna

8-ports 3x1695-4200 / 1x3300-4200 MHz ,30°x60° , 13/12.5 dBi, 0°Tilt Antenna.

### Electrical Specifications

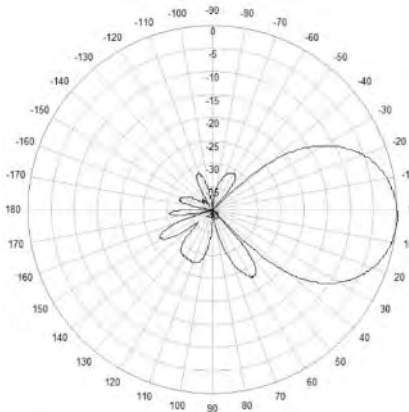
|                               |                              |           |           |           |
|-------------------------------|------------------------------|-----------|-----------|-----------|
| Frequency Range(MHz)          | 1695-2200                    | 2200-2700 | 3300-3800 | 3801-4200 |
| Horizontal 3dB Beamwidth(°)   | 29                           | 23        | 29        | 25        |
| Vertical 3dB Beamwidth(°)     | 64                           | 61        | 63        | 61        |
| Gain(dBi)                     | 12.3                         | 13.1      | 11.8      | 12.3      |
| Horizontal sidelobes, dB      | 18(typical) / 15(worst case) |           |           |           |
| Vertical sidelobes, dB        | N/A                          |           |           |           |
| Isolation(dB)                 | 22                           |           |           |           |
| F/B Ratio(dB)                 | 25                           |           |           |           |
| Maxim Input Power(w)          | 100                          |           |           | 50        |
| Polarization                  | ±45°                         |           |           |           |
| VSWR                          | 1.5                          |           |           |           |
| Intermodulation IM3 @ 2×43dBm | -150dBc                      |           |           |           |
| Impedance                     | 50 ohm                       |           |           |           |



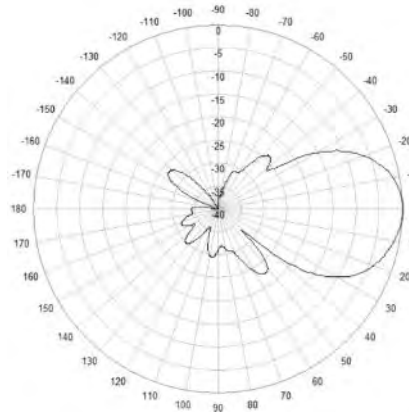
### Mechanical Specifications

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Number of Ports, all types     | 6 ports: 2x4.3-10 for 1695-2700MHz<br>2 ports: 2x4.3-10 for 3300-4200MHz |
| Radome Color                   | White                                                                    |
| Radome Material                | ASA, UV resistant                                                        |
| Dimensions                     | 663 * 393 * 134                                                          |
| Net Weight                     | ~6.0kg                                                                   |
| Operating Temperature          | -40 °C to +70 °C                                                         |
| Ingress Protection Test Method | IP65                                                                     |
| Relative Humidity              | Up to 100%                                                               |
| Application                    | Indoor and Outdoor                                                       |
| RoHS                           | Compliant                                                                |

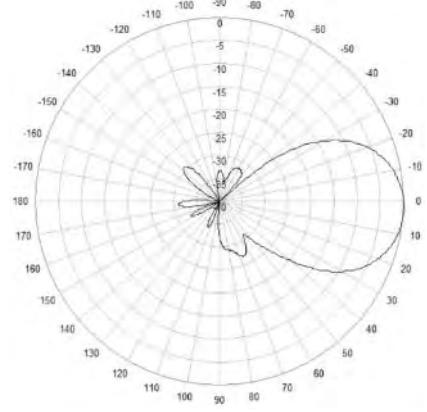
## Patterns



1800MHz

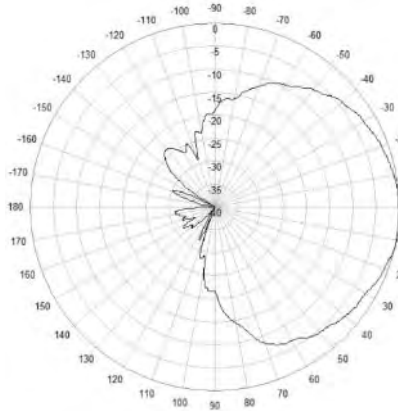


2350MHz

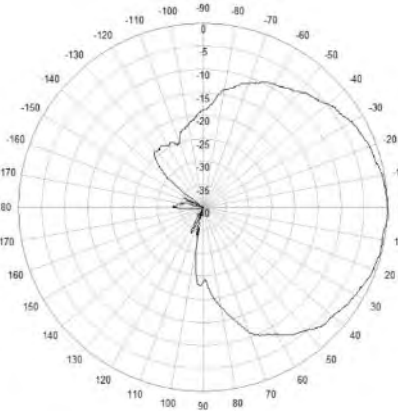


3500MHz

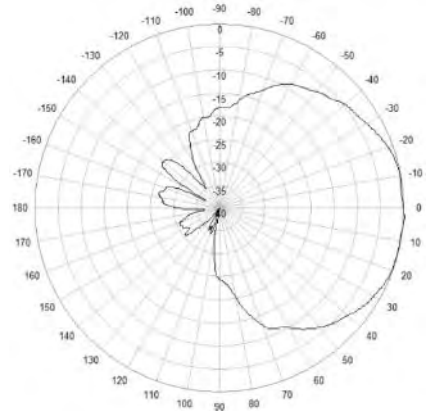
### Horizontal



1800MHz



2350MHz



3500MHz

### Vertical

Type **OCT2-3J1R-0R60V60**

## Stadium Antenna

8-ports 3x1695-4200 / 1x3300-4200 MHz , $60^\circ \times 60^\circ$  , 9.0/9.0 dBi,  $0^\circ$  Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)                 | 1695-2200      | 2200-2700 | 3300-3800 | 3801-4200 |
|--------------------------------------|----------------|-----------|-----------|-----------|
| Horizontal 3dB Beamwidth( $^\circ$ ) | 65             | 61        | 62        | 58        |
| Vertical 3dB Beamwidth( $^\circ$ )   | 62             | 58        | 60        | 56        |
| Gain(dBi)                            | 8.7            | 9.3       | 8.8       | 9.3       |
| Horizontal sidelobes, dB             | N/A            |           |           |           |
| Vertical sidelobes, dB               | N/A            |           |           |           |
| Isolation(dB)                        | 22             |           |           |           |
| F/B Ratio(dB)                        | 25             |           |           |           |
| Maxim Input Power(w)                 | 100            |           |           | 50        |
| Polarization                         | $\pm 45^\circ$ |           |           |           |
| VSWR                                 | 1.5            |           |           |           |
| Intermodulation IM3 @ 2x43dBm        | -150dBc        |           |           |           |
| Impedance                            | 50 ohm         |           |           |           |

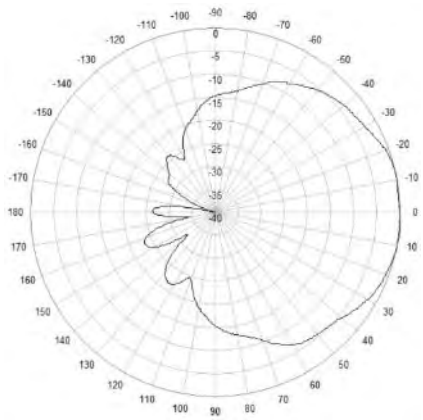


### Mechanical Specifications

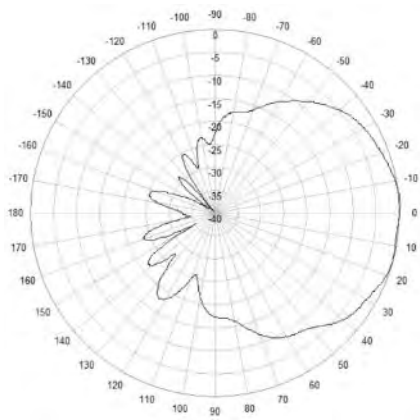
|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Number of Ports, all types     | 6 ports: 2x4.3-10 for 1695-2700MHz<br>2 ports: 2x4.3-10 for 3300-4200MHz |
| Radome Color                   | White                                                                    |
| Radome Material                | ASA, UV resistant                                                        |
| Dimensions                     | 443 * 308 * 118                                                          |
| Net Weight                     | ~6.0kg                                                                   |
| Operating Temperature          | -40 $^\circ$ C to +70 $^\circ$ C                                         |
| Ingress Protection Test Method | IP65                                                                     |
| Relative Humidity              | Up to 100%                                                               |
| Application                    | Indoor and Outdoor                                                       |
| RoHS                           | Compliant                                                                |

Type OCT2-3J1R-0R60V60

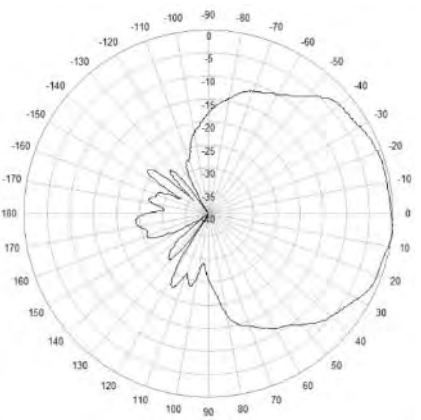
## Patterns



1800MHz

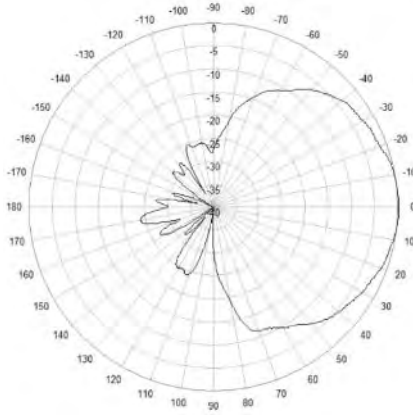


2350MHz

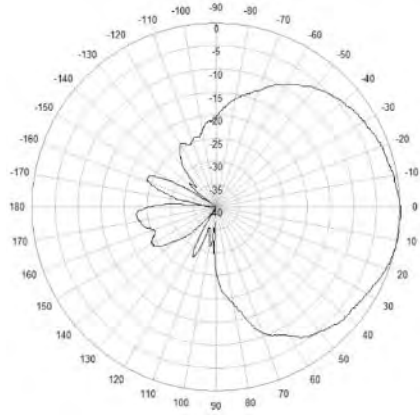


3500MHz

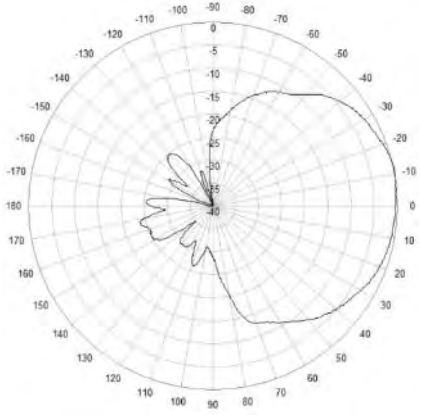
### Horizontal



1800MHz



2350MHz



3500MHz

### Vertical

Type DEC2-1A1J2R1V-0R60V60

## Stadium Antenna

10-ports 617-960/1695-2700/3300-4200/3300-4200/5150-5925 MHz , $60^\circ \times 60^\circ$  , 8 / 9/ 9/ 9/ Meet the UNII dBi,  $0^\circ / 0^\circ / 0^\circ / 0^\circ$  Tilt Antenna.

### Electrical Specifications

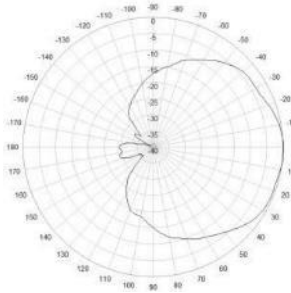
| Frequency Range(MHz)                 | 617 – 960      | 1695-2700 | 3300 - 4200 | 5150-5925     |
|--------------------------------------|----------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth( $^\circ$ ) | 69             | 71        | 61          | 60            |
| Vertical 3dB Beamwidth( $^\circ$ )   | 75             | 66        | 59          | Meet the UNII |
| Gain(dBi)                            | 8.2            | 9.1       | 9.1         | Meet the UNII |
| Sidelobe( dB)                        | N/A            |           |             |               |
| Isolation(dB)                        | 22             |           |             | 25            |
| F/B Ratio(dB)                        | 22             |           |             |               |
| Polarization                         | $\pm 45^\circ$ |           |             |               |
| VSWR                                 | 1.5 / 14       |           |             |               |
| Intermodulation IM3 @ 2x43dBm        | -153dBc        |           |             | N/A           |
| Impedance                            | 50 ohm         |           |             |               |



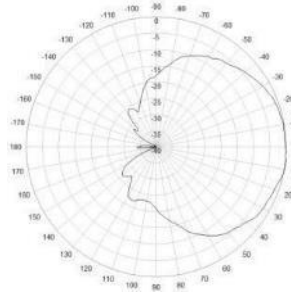
### Mechanical Specifications

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                                     |
| Number of Ports, all types       | 10 Ports:<br>2 x 617-960, 2 x 1695-2700, 4 x 3300-4200 and 2 x 5150-5925MHz |
| Radome Color                     | Grey                                                                        |
| Radome Material                  | ASA                                                                         |
| Net size, Length*Width*Depth, mm | 550 * 350 * 130                                                             |
| Maximum Wind-loading             | 216 kph                                                                     |
| IP protection                    | IP65                                                                        |
| Net weight, Kg                   | ~ 4.6                                                                       |
| Operating Temperature            | -40 $^\circ$ C to +60 $^\circ$ C (-40 $^\circ$ F to +140 $^\circ$ F)        |
| Relative Humidity                | 0 to100%                                                                    |

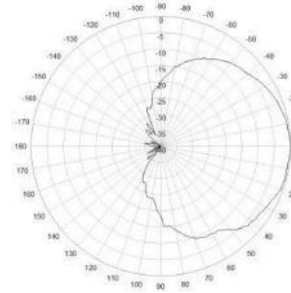
## Patterns



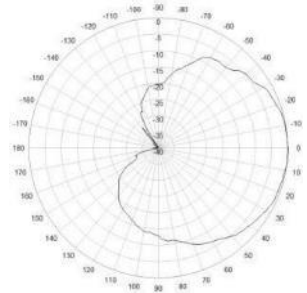
617-960MHz



1695-2700MHz

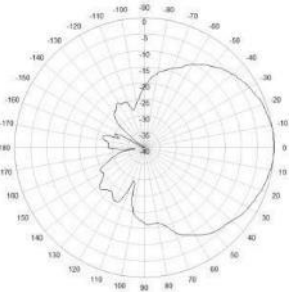


3300-4200MHz

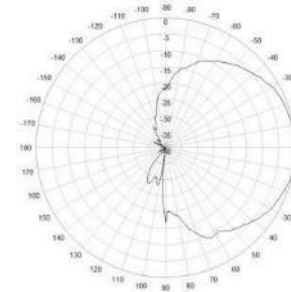


5150-5925MHz

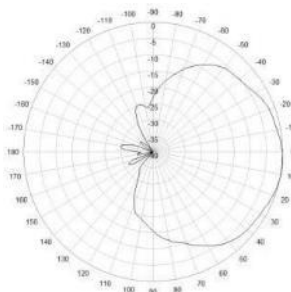
### Horizontal



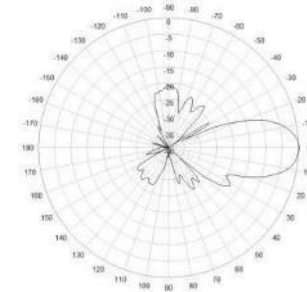
617-960MHz



1695-2700MHz



3300-4200MHz



5150-5925MHz

### Vertical

|                      |                                     |
|----------------------|-------------------------------------|
| Frequency Range      | 1695-2700<br>3300-4200<br>5150-5925 |
| Polarization         | ±45°                                |
| Half-Power BeamWidth | 30°x30°                             |
| Electrical Downtilt  | 0°                                  |

## Stadium Antenna

10-ports 1695-2700/1695-2700/3300-4200/3300-4200/5150-5925 MHz ,30°x30°, 15/ 15/ 16/ 16/ Meet the UNII dBi, 0°/ 0°/ 0°/ 0°/ 0°Tilt Antenna.

### Electrical Specifications

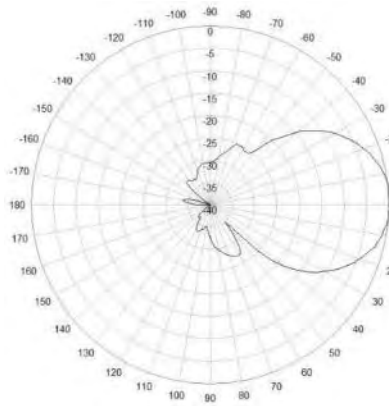
| Frequency Range(MHz)          | 1695-2700 | 3300 - 4200 | 5150-5925     |
|-------------------------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth(°)   | 30        | 30          | 26            |
| Vertical 3dB Beamwidth(°)     | 30        | 27          | Meet the UNII |
| Gain(dBi)                     | 15        | 16          | Meet the UNII |
| Horizontal Sidelobe( dB)      | 15        |             |               |
| Vertical Sidelobe( dB)        | 15        |             |               |
| Isolation(dB)                 | 25        | 22          | 25            |
| F/B Ratio(dB)                 | 25        | 32          | 30            |
| Polarization                  | ±45°      |             |               |
| VSWR                          | 1.5 / 14  |             |               |
| Intermodulation IM3 @ 2×43dBm | -153dBc   |             | N/A           |
| Impedance                     | 50 ohm    |             |               |



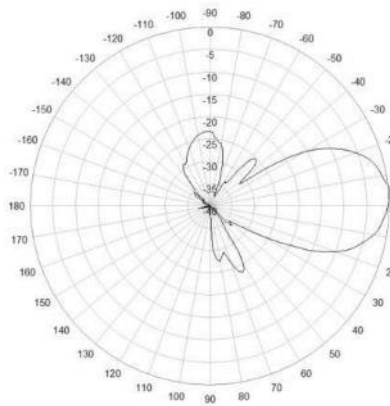
### Mechanical Specifications

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                         |
| Number of Ports, all types       | 10 ports: 4 for 1695-2700, 4 for 3300-4200, 2 for 5150-5925 MHz |
| Radome Color                     | Grey                                                            |
| Radome Material                  | ASA                                                             |
| Net size, Length*Width*Depth, mm | 683*516*125                                                     |
| Maximum Wind-loading             | 216 kph                                                         |
| IP protection                    | IP65                                                            |
| Net weight, Kg                   | ~ 6.1                                                           |
| Operating Temperature            | -40 °C to +60 °C (-40 °F to +140 °F)                            |
| Relative Humidity                | 0 to100%                                                        |

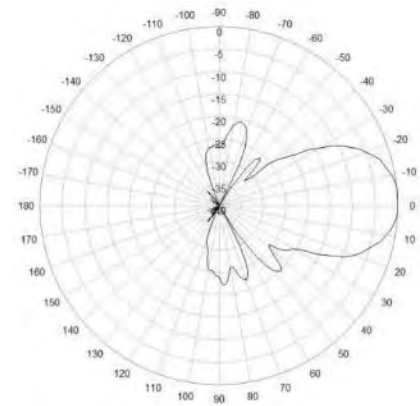
## Patterns



1695-2700MHz

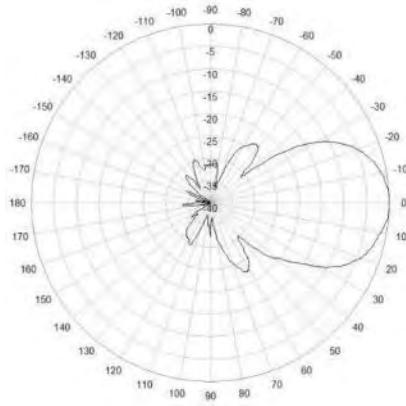


3300-4200MHz

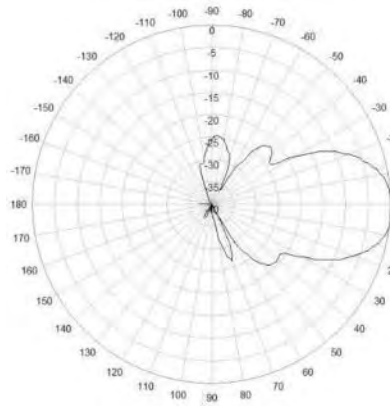


5150-5925MHz

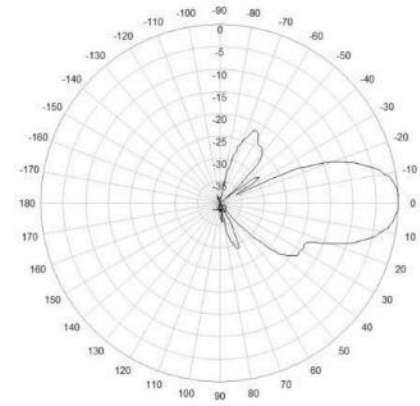
### Horizontal



1695-2700MHz



3300-4200MHz



5150-5925MHz

### Vertical

|                      |                                     |
|----------------------|-------------------------------------|
| Frequency Range      | 1695-2700<br>3300-4200<br>5150-5925 |
| Polarization         | ±45°                                |
| Half-Power BeamWidth | 30°x60°                             |
| Electrical Downtilt  | 0°                                  |

## Stadium Antenna

10-ports 1695-2700/1695-2700/3300-4200/3300-4200/5150-5925 MHz ,30°x60° , 12/ 12/ 12.5/ 12.5/ Meet the UNII dBi, 0°/ 0°/ 0°/ 0°/ 0°Tilt Antenna.

### Electrical Specifications

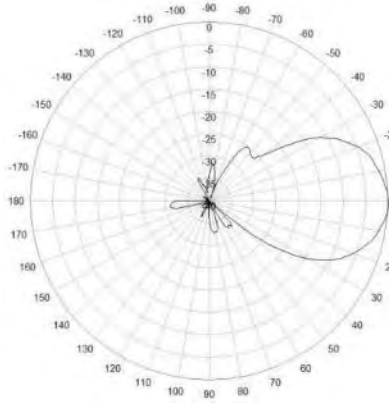
| Frequency Range(MHz)          | 1695-2700 | 3300 - 4200 | 5150-5925     |
|-------------------------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth(°)   | 30        | 30          | 25            |
| Vertical 3dB Beamwidth(°)     | 60        | 60          | Meet the UNII |
| Gain(dBi)                     | 12        | 12.6        | Meet the UNII |
| Horizontal Sidelobe( dB)      | 15        |             |               |
| Isolation(dB)                 | 20        |             |               |
| F/B Ratio(dB)                 | 25        |             |               |
| Polarization                  | ±45°      |             |               |
| VSWR                          | 1.5 / 14  |             |               |
| Intermodulation IM3 @ 2×43dBm | -153dBc   |             | N/A           |
| Impedance                     | 50 ohm    |             |               |



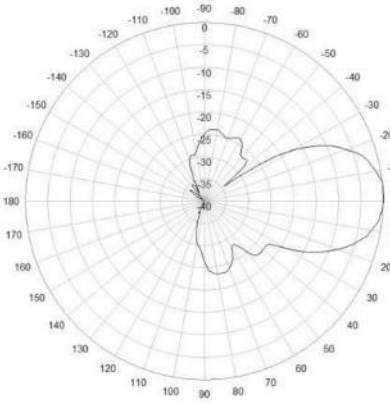
### Mechanical Specifications

|                                  |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                           |
| Number of Ports, all types       | 10 Ports: 4 for 1695-2700, 4 for 3300-4200 and 2 for 5150-5925MHz |
| Radome Color                     | Grey                                                              |
| Radome Material                  | ASA                                                               |
| Net size, Length*Width*Depth, mm | 605*355*119                                                       |
| Maximum Wind-loading             | 216 kph                                                           |
| IP protection                    | IP65                                                              |
| Net weight, Kg                   | ~ 4.0                                                             |
| Operating Temperature            | -40 °C to +60 °C (-40 °F to +140 °F)                              |
| Relative Humidity                | 0 to100%                                                          |

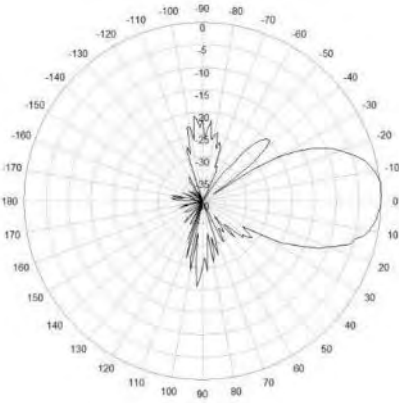
## Patterns



1695-2700MHz

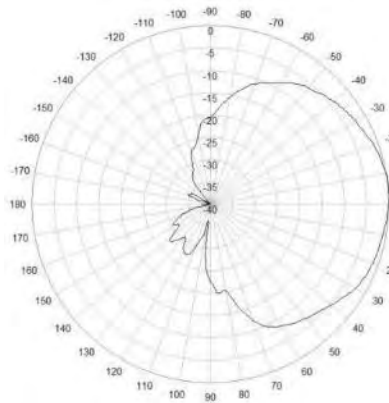


3300-4200MHz

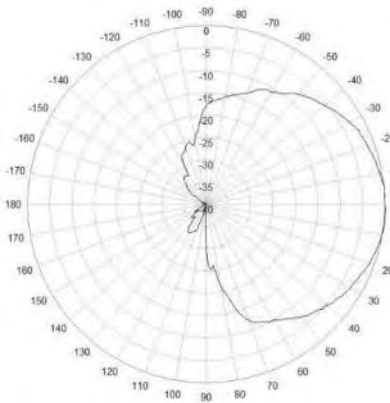


5150-5925MHz

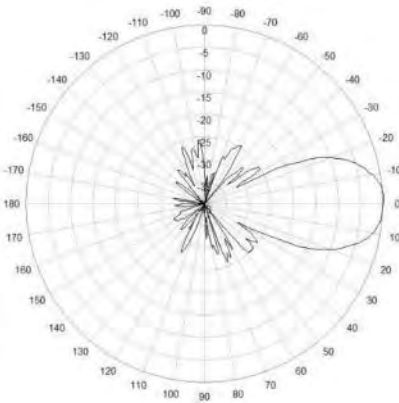
Horizontal



1695-2700MHz



3300-4200MHz



5150-5925MHz

Vertical

|                      |                                     |
|----------------------|-------------------------------------|
| Frequency Range      | 1695-2700<br>3300-4200<br>5150-5925 |
| Polarization         | ±45°                                |
| Half-Power BeamWidth | 60°x60°                             |
| Electrical Downtilt  | 0°                                  |

Type DEC2-2J2R1V-0R60V60

## Stadium Antenna

10-ports 1695-2700/1695-2700/3300-4200/3300-4200/5150-5925 MHz ,60°x60° , 9.0/ 9.0/ 9.0/ 9.0/ Meet the UNII dBi, 0°/ 0°/ 0°/ 0°/ 0°Tilt Antenna.

### Electrical Specifications

| Frequency Range(MHz)          | 1695-2700 | 3300 - 4200 | 5150-5925     |
|-------------------------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth(°)   | 60        | 60          | 59            |
| Vertical 3dB Beamwidth(°)     | 62        | 61          | Meet the UNII |
| Gain(dBi)                     | 9.0       | 9.1         | Meet the UNII |
| Horizontal Sidelobe( dB)      | n/a       |             |               |
| Isolation(dB)                 | 21        |             | 30            |
| F/B Ratio(dB)                 | 25        |             |               |
| Polarization                  | ±45°      |             |               |
| VSWR                          | 1.5 / 14  |             |               |
| Intermodulation IM3 @ 2×43dBm | -153dBc   |             | N/A           |
| Impedance                     | 50 ohm    |             |               |



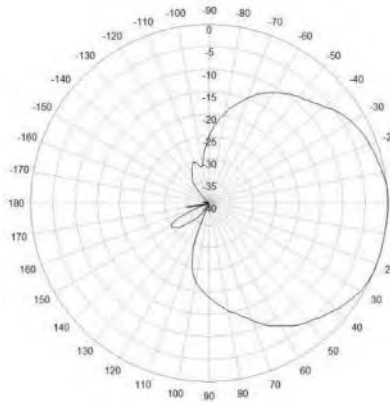
### Mechanical Specifications

|                                  |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                           |
| Number of Ports, all types       | 10 Ports: 4 for 1695-2700, 4 for 3300-4200 and 2 for 5150-5925MHz |
| Radome Color                     | Grey                                                              |
| Radome Material                  | ASA                                                               |
| Net size, Length*Width*Depth, mm | 450*315*120                                                       |
| Maximum Wind-loading             | 216 kph                                                           |
| IP protection                    | IP65                                                              |
| Net weight, Kg                   | ~ 4.5                                                             |
| Operating Temperature            | -40 °C to +60 °C (-40 °F to +140 °F)                              |
| Relative Humidity                | 0 to100%                                                          |

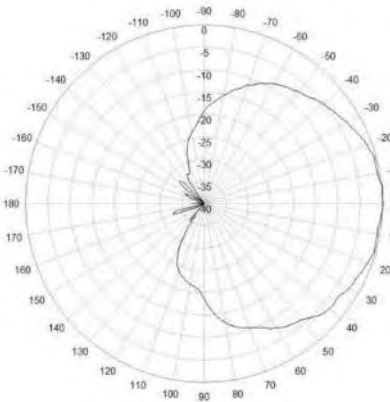
|                      |                                     |
|----------------------|-------------------------------------|
| Frequency Range      | 1695-2700<br>3300-4200<br>5150-5925 |
| Polarization         | $\pm 45^\circ$                      |
| Half-Power BeamWidth | $60^\circ \times 60^\circ$          |
| Electrical Downtilt  | $0^\circ$                           |

Type DEC2-2J2R1V-0R60V60

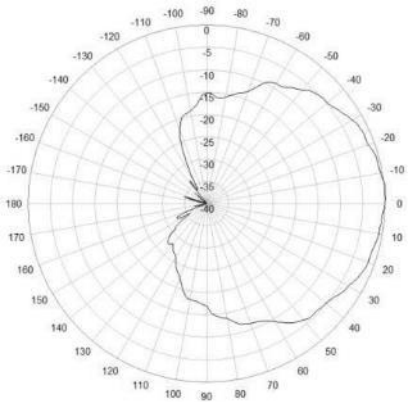
## Patterns



1695-2700MHz

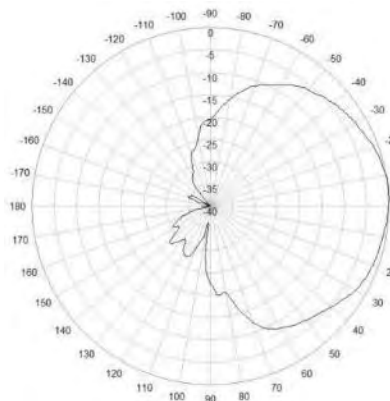


3300-4200MHz

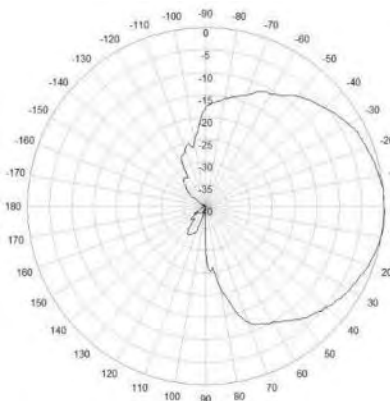


5150-5925MHz

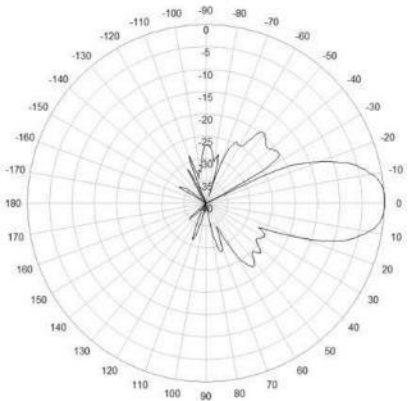
Horizontal



1695-2700MHz



3300-4200MHz



5150-5925MHz

Vertical

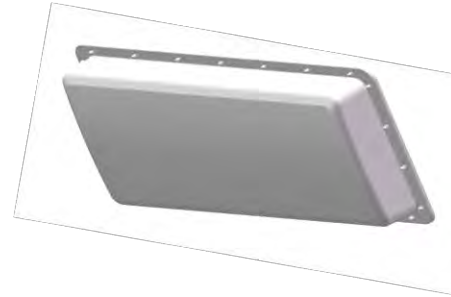
Type DEC3-1A1J2R1V-0R30V60

## Stadium Antenna

10-ports 617-960/1695-2700/3300-4200/3300-4200/5150-5925 MHz , $30^\circ \times 60^\circ$ , 12 / 12.5/ 12.5/ 12.5/ Meet the UNII dBi,  $0^\circ$  /  $0^\circ$  /  $0^\circ$  /  $0^\circ$  /  $0^\circ$  Tilt Antenna.

### Electrical Specifications

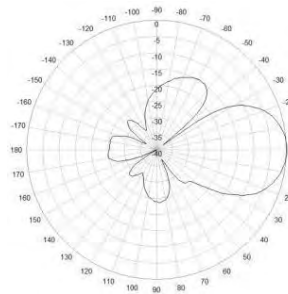
| Frequency Range(MHz)                 | 617 – 960      | 1695-2700 | 3300 - 4200 | 5150-5925     |
|--------------------------------------|----------------|-----------|-------------|---------------|
| Horizontal 3dB Beamwidth( $^\circ$ ) | 31             | 27        | 27          | 26            |
| Vertical 3dB Beamwidth( $^\circ$ )   | 61             | 61        | 62          | Meet the UNII |
| Gain(dBi)                            | 11.9           | 12.7      | 12.3        | Meet the UNII |
| Horizontal Sidelobe( dB)             | 13             | 15        | 15          | 15            |
| Isolation(dB)                        | 20             |           |             | 25            |
| F/B Ratio(dB)                        | 23             | 23        | 28          | 28            |
| Polarization                         | $\pm 45^\circ$ |           |             |               |
| VSWR                                 | 1.5 / 14       |           |             |               |
| Intermodulation IM3 @ 2x43dBm        | -153dBc        |           |             | N/A           |
| Impedance                            | 50 ohm         |           |             |               |



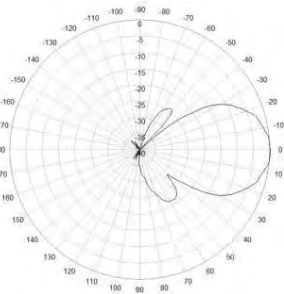
### Mechanical Specifications

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Mounting Type                    | Wall mount / Pole mount                                                  |
| Number of Ports, all types       | 10 Ports: 2 x 617-960, 2 x 1695-2700, 4 x 3300-4200 and 2 x 5150-5925MHz |
| Radome Color                     | Grey                                                                     |
| Radome Material                  | ASA                                                                      |
| Net size, Length*Width*Depth, mm | 930*450*130                                                              |
| Maximum Wind-loading             | 216 kph                                                                  |
| IP protection                    | IP65                                                                     |
| Net weight, Kg                   | ~ 10.6                                                                   |
| Operating Temperature            | -40 $^\circ$ C to +60 $^\circ$ C (-40 $^\circ$ F to +140 $^\circ$ F)     |
| Relative Humidity                | 0 to 100%                                                                |

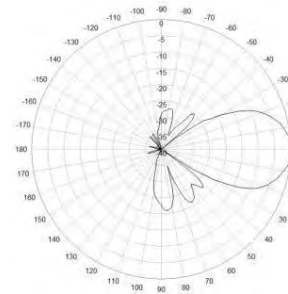
## Patterns



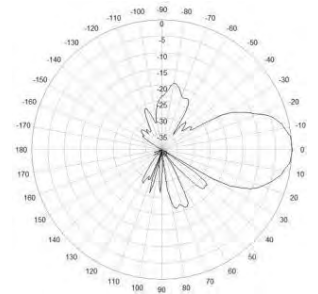
617-960MHz



1695-2700MHz

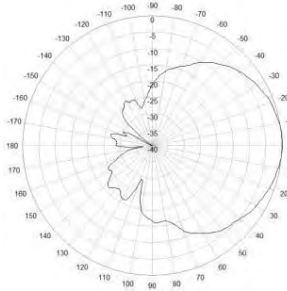


3300-4200MHz

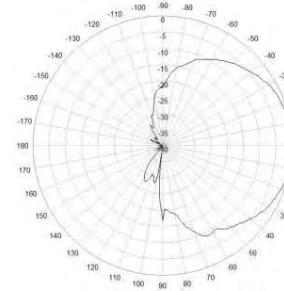


5150-5925MHz

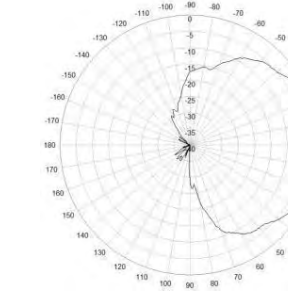
### Horizontal



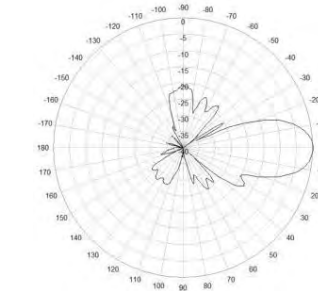
617-960MHz



1695-2700MHz



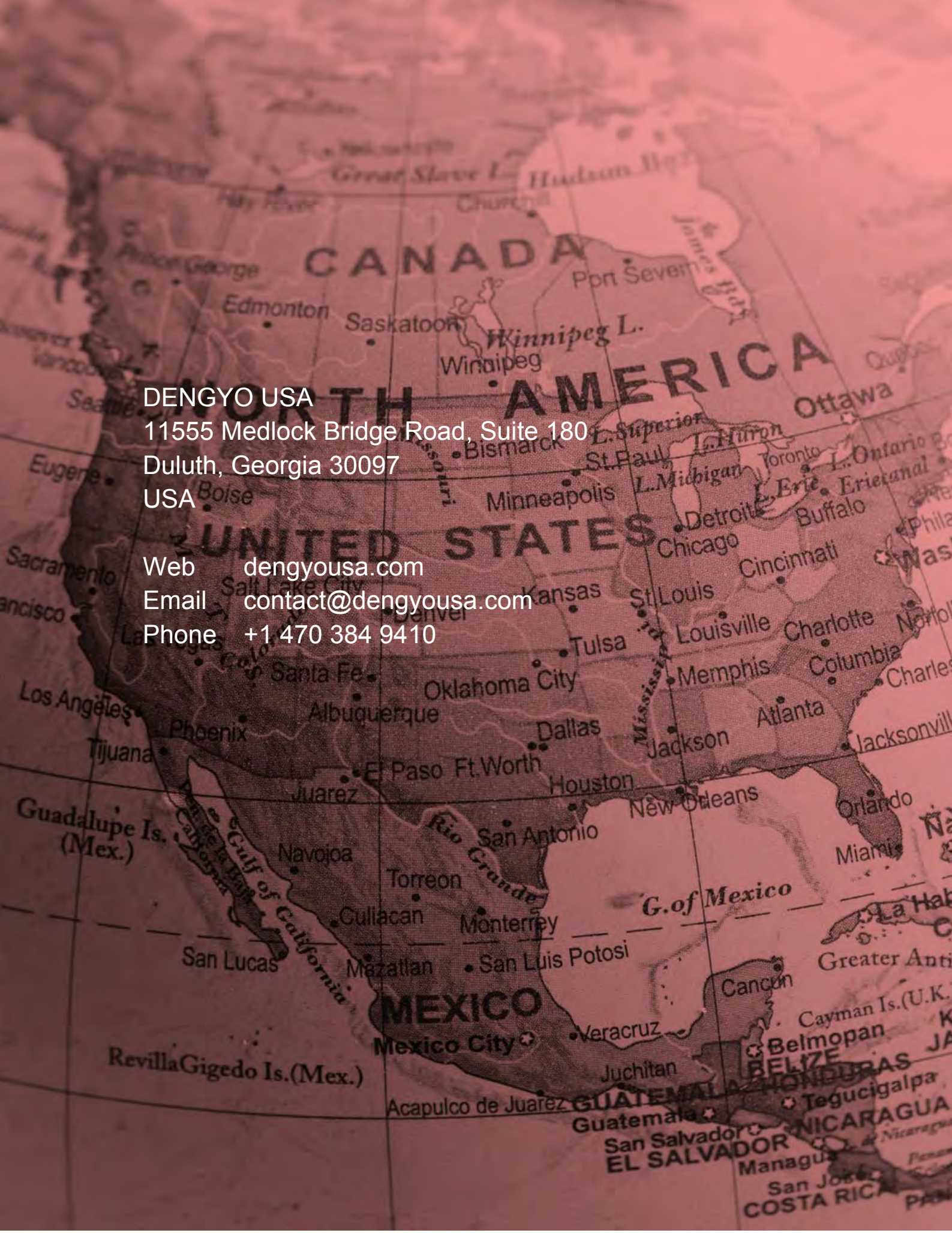
3300-4200MHz



5150-5925MHz

### Vertical

The design and sizes are subject to change without notice.



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