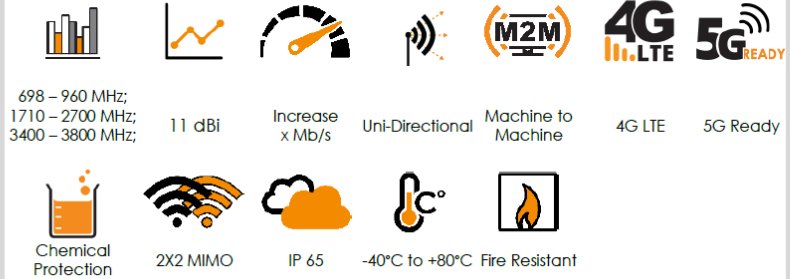


# USL-1006420 HIGH GAIN CROSS POLARISED 5G

## X-POLARISED, UNI-DIRECTIONAL LTE ANTENNA

698 MHz - 3800 MHz, 11 dBi; 2X2 MIMO

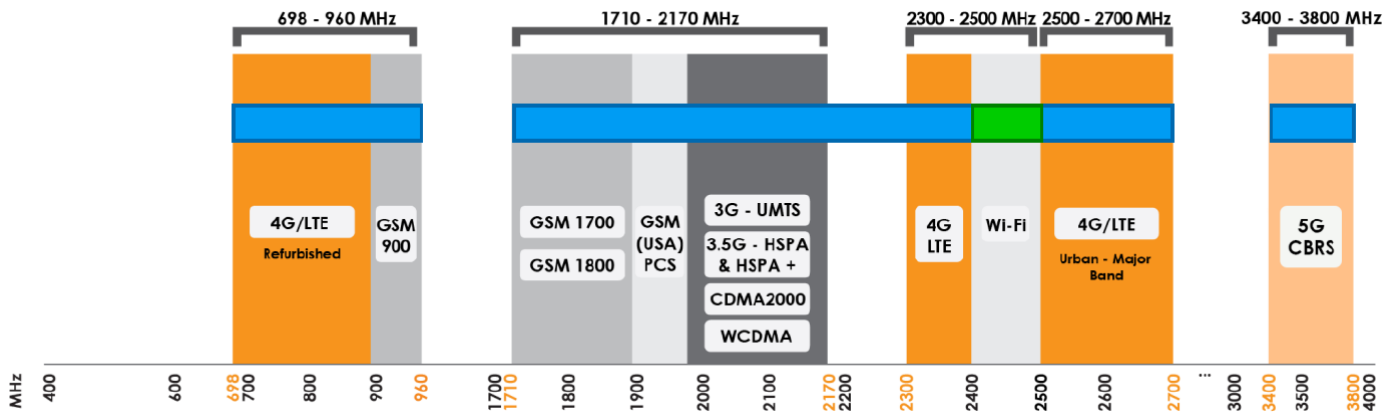


- New advanced metamaterial technology
- Exceptional high gain performance over the main 4G/5G bands
- Wideband 2X2 MIMO 4G/5G antenna
- Backwards compatible 2G/3G/4G/LTE antenna (5G Ready)
- Two cross polarised antennas in one enclosure for optimal LTE performance
- IP65 weather/dust and vandal resistant enclosure.

APPLICATION AREAS

Urban

Rural/Farm



# USL-1006420 HIGH GAIN CROSS POLARISED 5G

## Electrical Specifications - Cellular

|                        |   |
|------------------------|---|
| Frequency bands:       | 698-960 MHz<br>1710-2700 MHz<br>3400-3800 MHz   |
| Gain (max) Port 1 & 2: | 9 dBi @ 698-960 MHz<br>10 dBi @ 1710-2700 MHz<br>11 dBi @ 3400-3800 MHz                         |
| VSWR Port 1 & 2:       | ≤1.5:1<br>over 95% of the band  |
| Feed power handling:   | 20 W  |
| Input impedance:       | 50 Ohm (nominal)  |
| Polarisation:          | ±45°  |
| Coax cable loss:       | 0.362 dB/m @ 900 MHz<br>0.514 dB/m @ 1800 MHz<br>0.533 dB/m @ 2400 MHz<br>0.603 dB/m @ 3000 MHz |
| DC short:              | Path to ground  |

## Product Box Contents

|                   |                           |
|-------------------|---------------------------|
| Antenna:          | A-XPOL-0002-V3            |
| Mounting bracket: | Z-shaped mounting bracket |

## Mechanical Specifications

|                      |                                      |
|----------------------|--------------------------------------|
| Product dimensions:  | 290 mm x 265 mm x 155 mm             |
| Packaged dimensions: | 375 mm x 270 mm x 100 mm             |
| Radome material:     | UV Stable ASA                        |
| Radome colour:       | Brilliant White<br>Pantone P 179-1 C |
| Mounting Type:       | Wall and pole mount                  |

## Environmental Specifications, Certification & Approvals

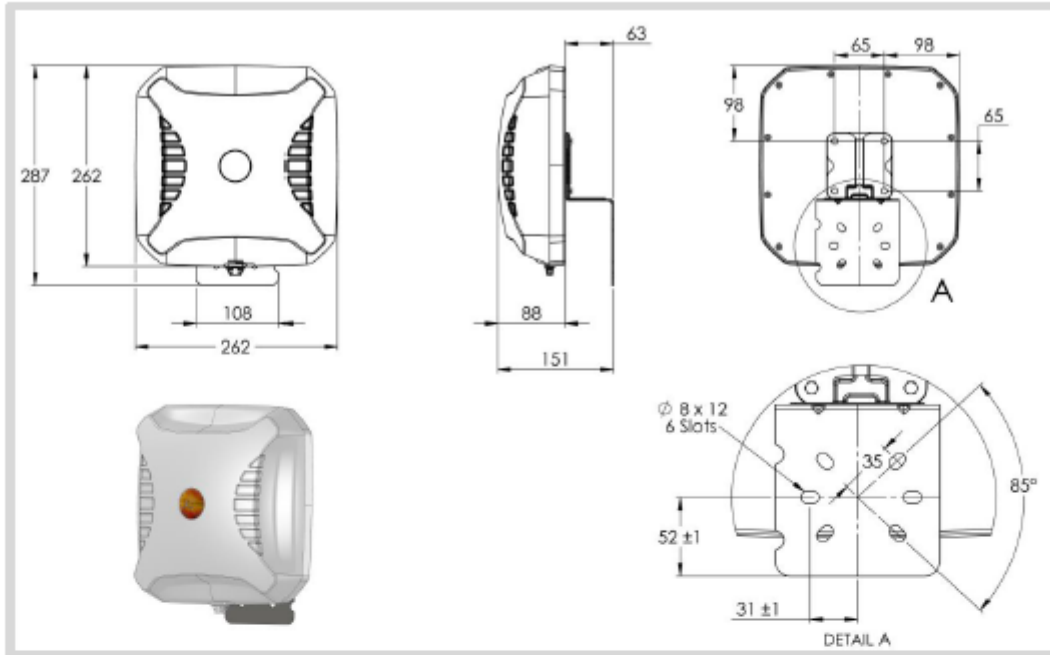
|  |  |
|--|--|
| Wind Survival:                           | Antenna wind survival: ≤ 250 km/h<br>Included Z-Bracket wind survival: ≤160km/h<br>Optional bracket BRKT-030* is required for wind speeds of ≤250 km/h |
| Temperature Range (Operating):           | -40°C to +80°C   |
| Environmental Conditions:                | Outdoor/Indoor   |
| Water ingress protection ratio/standard: | IP 65  |
| Salt Spray:                              | MIL-STD 810F/ASTM B117   |
| Operating Relative Humidity:             | Up to 98%  |
| Storage Humidity:                        | 5% to 95% - non-condensing   |
| Storage Temperature:                     | -40°C to +80°C   |
| Enclosure Flammability Rating:           | UL 94-HB   |
| Impact resistance:                       | IK 08  |
| Product Safety & Environmental:          | Complies with CE and RoHS standards  |

\* BRKT-030 is an optional accessory, which is required for high wind areas of up to 250km/h. The BRKT-030 requires 4 x M6 x 20mm bolts for installation, not included.



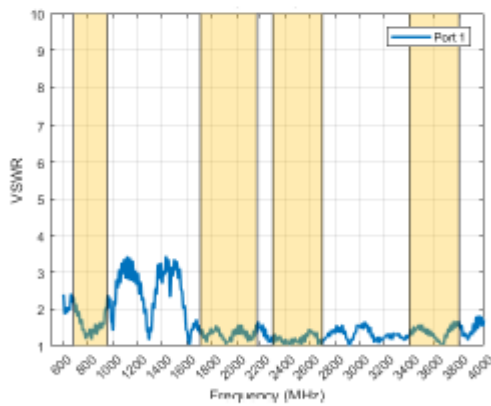
# USL-1006420 HIGH GAIN CROSS POLARISED 5G

## Technical Drawings



## Antenna Performance Plots

### VSWR: Cellular Antenna



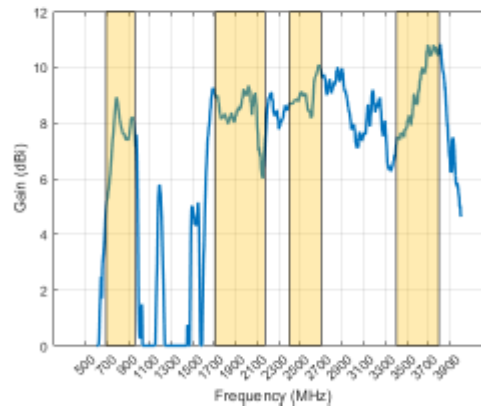
### Voltage Standing Wave Ratio (VSWR)\*

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The XPOL-2-5G delivers superior performance across all bands with a VSWR of  $\leq 1.5:1$  over 95% of the band

\*Measured with 5m low loss cable

### Gain: Cellular Antenna



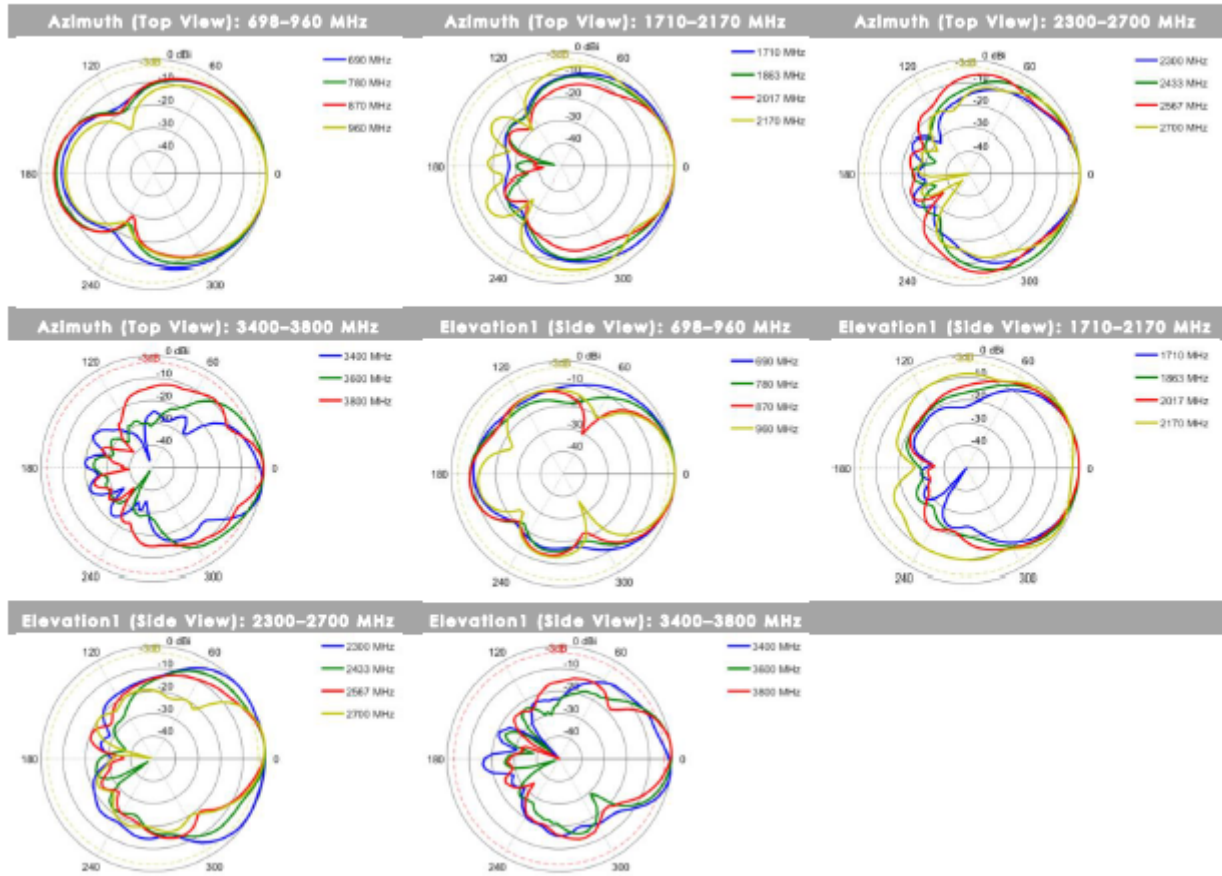
### Gain in dBi

11 dBi is the peak gain across all bands from 690-960, 1710-2700 & 3400-3800 MHz

|                              |                       |
|------------------------------|-----------------------|
| Peak Gain @ different bands: | 9 dBi @698-960MHz     |
| Peak Gain @ different bands: | 10 dBi @ 1710-2700MHz |
| Peak Gain @ different bands: | 11 dBi @3400-3800MHz  |

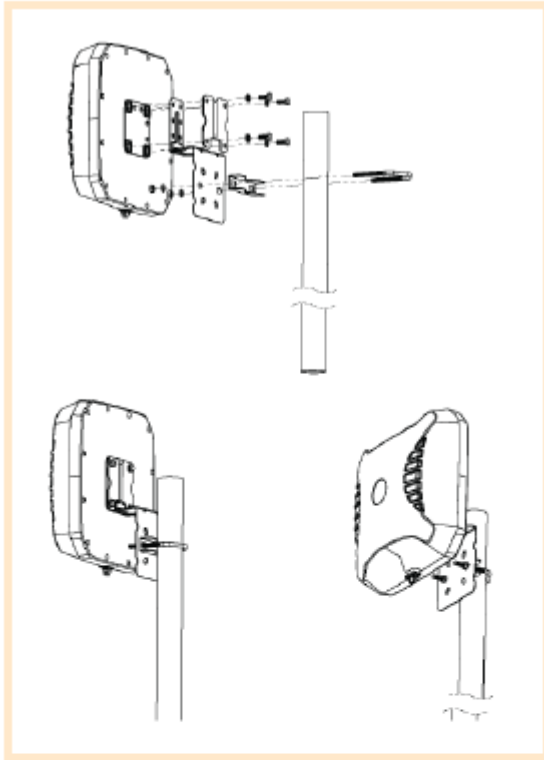
# USL-1006420 HIGH GAIN CROSS POLARISED 5G

## Radiation Patterns – Cellular



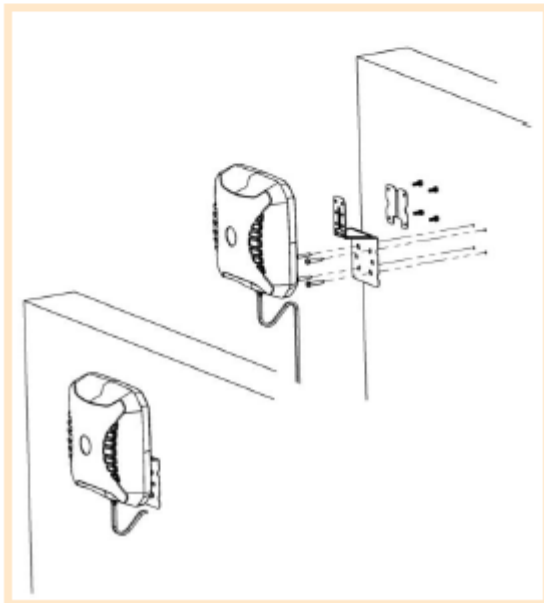
# USL-1006420 HIGH GAIN CROSS POLARISED 5G

## Mounting Options



### Pole Mount

Pole/Wall Mounting bracket (included)



### Wall Mount

Pole/Wall Mounting bracket (included)

# **USL-1006420 HIGH GAIN CROSS POLARISED 5G**

# **USL-1006420 HIGH GAIN CROSS POLARISED 5G**