

## Technical Data Sheet: Embedded Flex Antenna

**Size:** 2 x 20x8.9mm

**Omni-directional Radiation**

**Working Frequency** 2402MHz to 2480MHz

**Bandwidth** 340 MHz(Typ.)

**Impedance** 50  $\Omega$  (Typ.)

**Maximum Power** 0.5 W

**Return Loss**  $\sim$  7.36 dB Max.

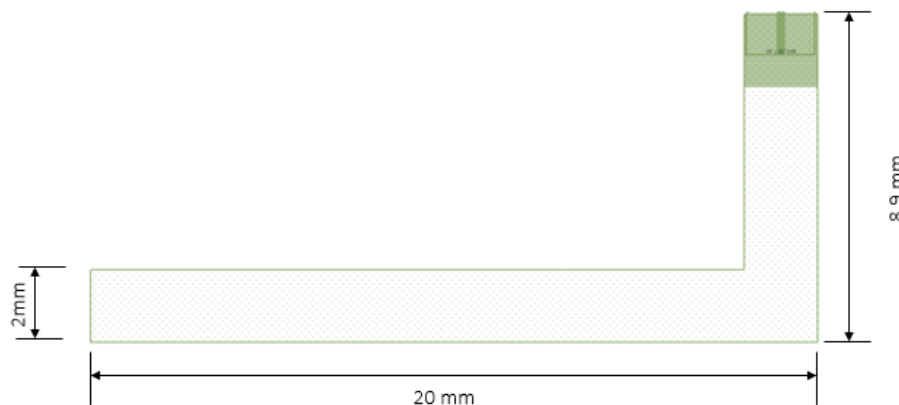
**Polarization** Linear

**Azimuth Beamwidth** Omni-directional

**Peak Gain** 0.27 dBi (Typ.)

**Operating Temperature** – 40  $\sim$  +85  $^{\circ}$ C

### MECHANICAL DRAWING



**Flex thickness:** 0.25mm

**Cu thickness:** 18u

### ELECTRICAL PERFORMANCES

**Antenna Radiation Power:**

| Orientation | Vertical Polarization |                           |                      | Horizontal Polarization |                           |                      |
|-------------|-----------------------|---------------------------|----------------------|-------------------------|---------------------------|----------------------|
|             | Frequency (MHz)       | Azimuth ( $^{\circ}$ deg) | Measured Power (dBm) | Frequency (MHz)         | Azimuth ( $^{\circ}$ deg) | Measured Power (dBm) |
| XY          | 2402                  | 140                       | -17.48               | 2402                    | 200                       | 0.27                 |
| YZ          | 2402                  | 220                       | -6.18                | 2402                    | 190                       | -4.03                |
| ZX          | 2402                  | 260                       | -1.98                | 2402                    | 140                       | -3.04                |
| XY          | 2440                  | 20                        | -17.89               | 2440                    | 200                       | -0.16                |
| YZ          | 2440                  | 340                       | -4.86                | 2440                    | 160                       | -2.53                |
| ZX          | 2440                  | 140                       | -2.82                | 2440                    | 210                       | -3.56                |
| XY          | 2480                  | 70                        | -17.55               | 2480                    | 200                       | -1.35                |
| YZ          | 2480                  | 310                       | -5.95                | 2480                    | 160                       | -4.32                |
| ZX          | 2480                  | 140                       | -4.03                | 2480                    | 210                       | -4.18                |

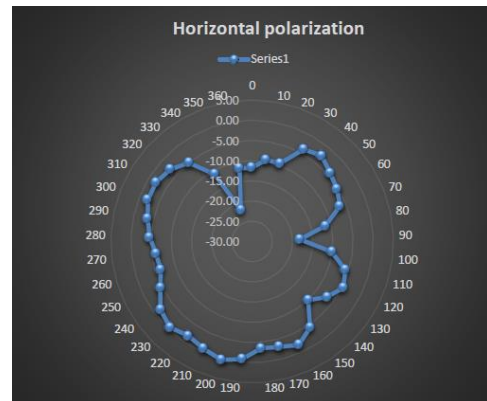
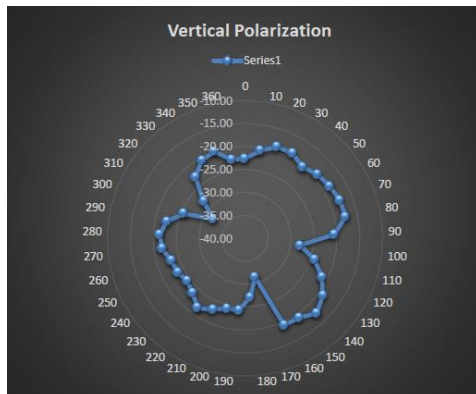
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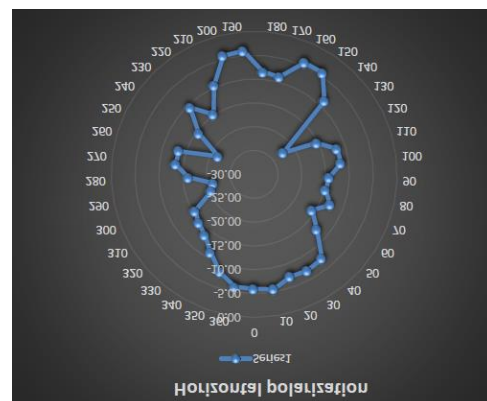
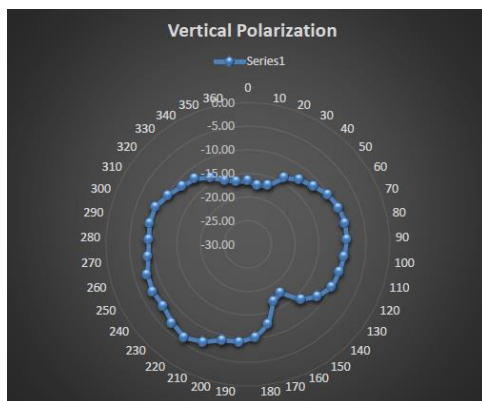
# Antenna Radiation Pattern Plots:

| Antenna Type | Antenna Polarization | Antenna Height (Mtr.) |
|--------------|----------------------|-----------------------|
| Horn Antenna | Vertical             | 1.5                   |
|              | Horizontal           | 1.5                   |
| Frequency    | 2402 Mhz.            | 2402 Mhz.             |

## Orientation: XY



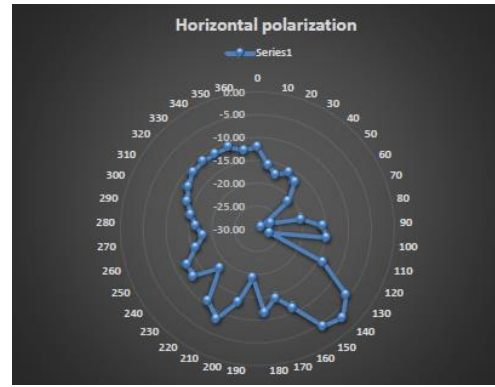
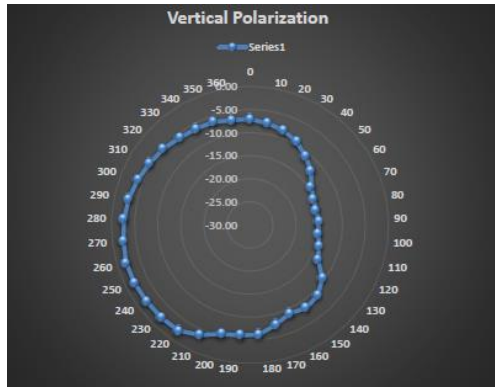
## Orientation: YZ



## Orientation: ZX

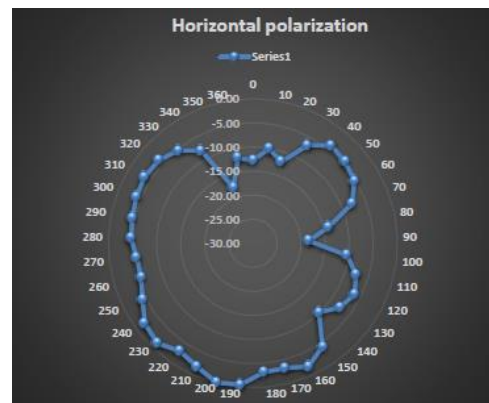
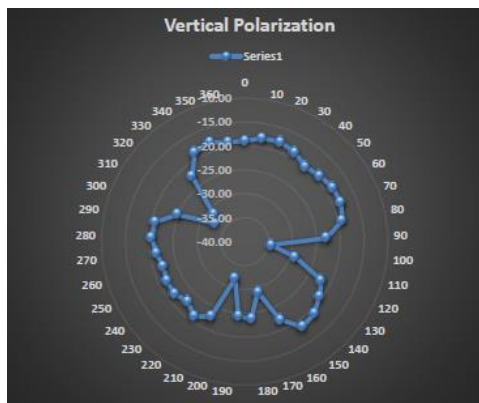
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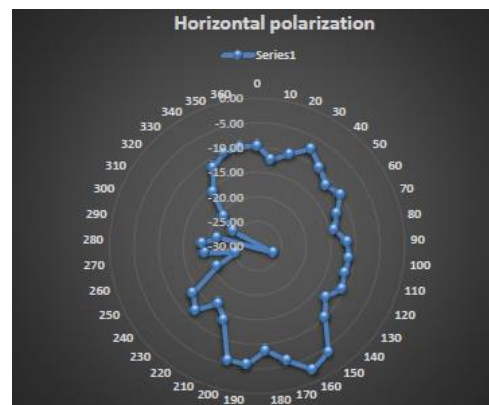
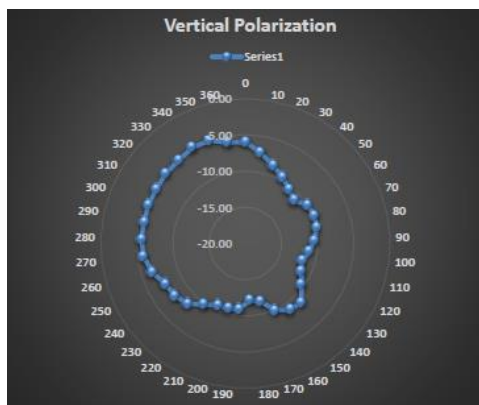


| Antenna Type | Antenna Polarization | Antenna Height (Mtr.) |
|--------------|----------------------|-----------------------|
| Horn Antenna | Vertical             | 1.5                   |
|              | Horizontal           | 1.5                   |
| Frequency    | 2440 Mhz.            | 2440 Mhz.             |

Orientation: XY



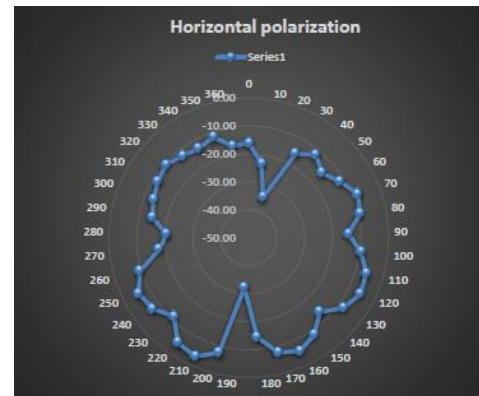
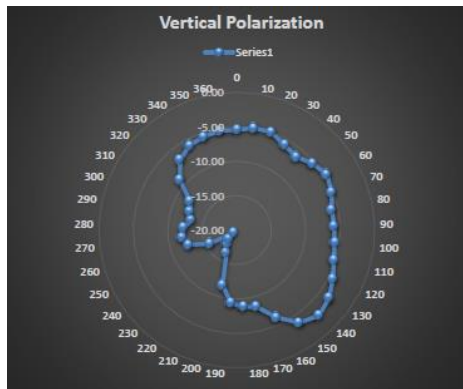
Orientation: YZ



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Orientation: ZX



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