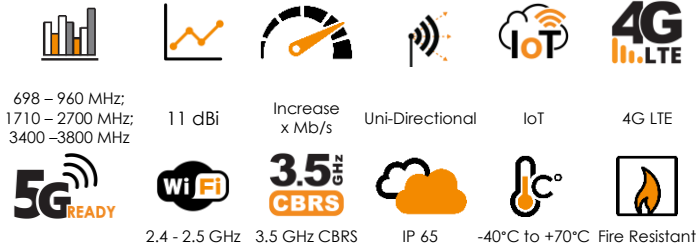


## ANTENNAS | LPDA-92 SERIES

# WIDEBAND LOG-PERIODIC DIPOLE ARRAY ANTENNA

698 - 3800 MHz, 11 dBi



- **Futureproof wideband LTE and Wi-Fi antenna covering 690 – 3800 MHz**
- **Compatible with 2G, 3G and 4G technologies**
- **5G Ready; includes 3.2 GHz to 3.8 GHz CBRS Band**
- **Improves mobile network subscriber's user experience**
- **Weather- and vandal resistant**
- **Used in extreme weather environment**

APPLICATION AREAS

Urban

Rural/Farm

## Product Overview

This high-gain, wideband, directional antenna covers all international cellular, mobile, and wireless data bands including GSM 900/ GSM1800/UMTS/LTE bands. It also covers the extended cellular and WiMAX bands such as European/USA "Digital Dividend bands" and 2.3- 2.7GHz licensed and unlicensed data bands. Its configuration is suitable for various wireless communications systems. This antenna is unique in its combination of ultra-wide-band operator with a consistent high-gain performance. It has been successfully used in extreme weather environments in Africa and Europe with close to zero failures. A firm favourite, in any area where operators are having signal challenges. It is ideal for any application using the GSM network (LTE/ HSPA/3G/EDGE/GPRS).

## Features

- High gain directional antenna
- Easy alignment with main beam around 50° wide
- Broadband covering multiple operational frequencies
- Pole mountable
- Lightweight
- Water and dust resistant
- Tremendous improvement in reliability of wireless data
- Four-year track record in all climate conditions from snow to desert to tropical

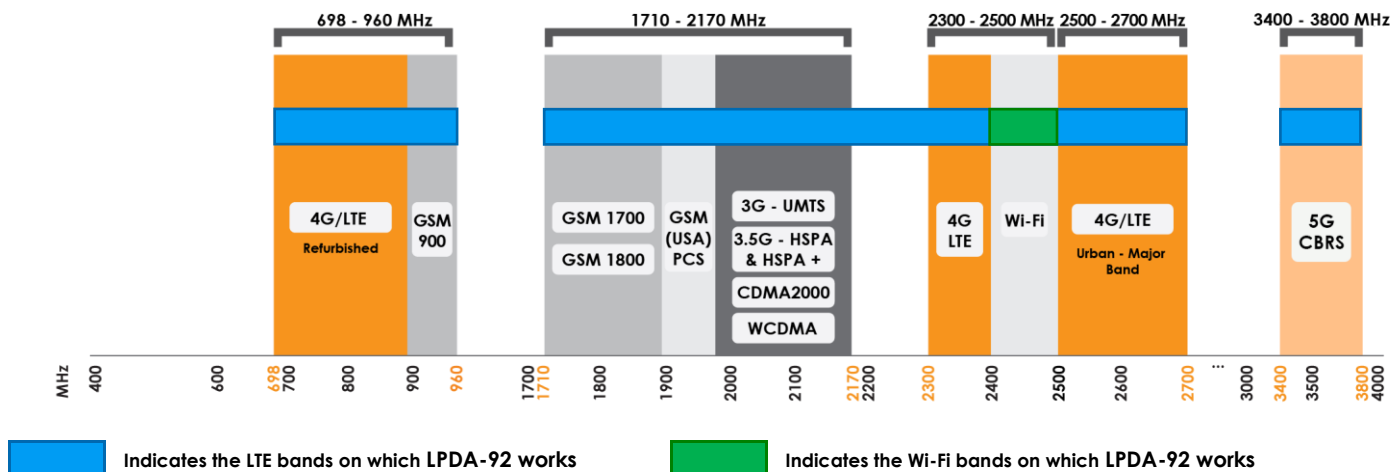
## Application Areas

- Urban and rural areas
- Antenna of choice for rural areas due to high gain
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increase system transmission reliability
- LTE fringe areas (close to an LTE area, but out of reach)
- Network operator flexibility – as the antennas are wideband, a new antenna is not needed per network operator – works on most networks



## Frequency Bands

The LPDA-92 is a directional antenna that works from 698 – 960 MHz | 1710 – 2700 MHz | 3400 – 3800 MHz



## Antenna Derivatives

| Product Order Code (SKU)  | A-LPDA-0092        | A-LPDA-0092-04     | A-LPDA-0092-LTE    | A-LPDA-0092-30-LTE |
|---------------------------|--------------------|--------------------|--------------------|--------------------|
| Ports/Antennas Included   | 1                  | 1                  | 2                  | 2                  |
| Coax Cable Type           | HDF 195            | HDF 195            | HDF 195            | HDF 195            |
| Coax Cable Length         | 7m                 | 0.3 m              | 7m                 | 7m                 |
| Connector Type            | SMA (M)            | N-Type (F)         | SMA (M)            | SMA (M)            |
| Included Mounting Bracket | N/A                | N/A                | A-BRKT-033         | A-BRKT-030         |
| Antenna Unit Weight       | 1.63 Kg            | 1.55 Kg            | 1.63 Kg            | 1.63 Kg            |
| Bracket Weight            | N/A                | N/A                | 990 g              | 293 g              |
| Antenna Dimensions        | 1112 x 200 x 47 mm | 1112 x 200 x 47 mm | 1112 x 200 x 47 mm | 1112 x 200 x 47 mm |
| Bracket Dimensions        | N/A                | N/A                | 414 x 166 x 120 mm | 127 x 100 x 97 mm  |
| Packaged Weight           | 2.02 Kg            | 1.94 Kg            | 5.01 Kg            | 4.46 Kg            |
| Packaged Dimensions       | 1120 x 210 x 60 mm | 1120 x 210 x 60 mm | Quantity Dependent | Quantity Dependent |
| EAN                       | 6009693810556      | 0707273469120      | 6009710921166      | 6009710921180      |

## Electrical Specifications

|                             |                                |
|-----------------------------|--------------------------------|
| <b>Frequency bands:</b>     | 698 – 960 MHz                  |
|                             | 1710 – 2700 MHz                |
|                             | 3400 – 3800 MHz                |
|                             | 10.8 dBi @ 698-960 MHz         |
| <b>Gain (max):</b>          | 11 dBi @ 1710-2700 MHz         |
|                             | 2.3 dBi @ 3400-3800 MHz        |
|                             |                                |
| <b>VSWR:</b>                | <1.5:1 across 95% of the bands |
| <b>Feed power handling:</b> | 10 W                           |
| <b>Input impedance:</b>     | 50 Ohm (nominal)               |
| <b>Polarisation:</b>        | directional Linear             |
| <b>Coax cable loss:</b>     | 0.385 dB/m @ 900 MHz           |
|                             | 0.565 dB/m @ 1800 MHz          |
|                             | 0.666 dB/m @ 2400 MHz          |
|                             | 0.788 dB/m @ 3000 MHz          |
| <b>DC short:</b>            | Yes                            |

## Product Box Contents

|                          |   |
|--------------------------|---|
| <b>Antenna:</b>          | A-LPDA-0092   |
| <b>Mounting bracket:</b> | Econo brackets, U-bolts, and fasteners suitable for pole mounting |

## Mechanical Specifications

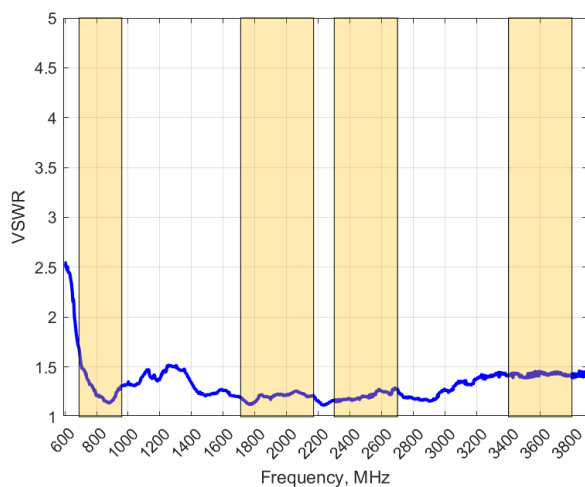
|                           |                  |
|---------------------------|------------------|
| <b>Plastics material:</b> | Nylon 6          |
| <b>Plastics colour:</b>   | Black            |
| <b>Frame material:</b>    | Passivated ADC12 |
| <b>Frame colour:</b>      | Aluminium grey   |
| <b>Mounting Type:</b>     | Pole Mount       |

## Environmental Specifications, Certification & Approvals

|   |                                     |
|---|-------------------------------------|
| <b>Wind Survival:</b>                           | ≤160 km/h                           |
| <b>Temperature Range (Operating):</b>           | -40°C to +70°C                      |
| <b>Environmental Conditions:</b>                | Outdoor/Indoor                      |
| <b>Water ingress protection ratio/standard:</b> | IP 65                               |
| <b>Salt Spray:</b>                              | MIL-STD 810F/ASTM B117              |
| <b>Operating Relative Humidity:</b>             | Up to 98%                           |
| <b>Storage Humidity:</b>                        | 5% to 95% - non-condensing          |
| <b>Storage Temperature:</b>                     | -40°C to +70°C                      |
| <b>Enclosure Flammability Rating:</b>           | UL 94-HB                            |
| <b>Impact resistance:</b>                       | IK 08                               |
| <b>Product Safety &amp; Environmental:</b>      | Complies with CE and RoHS standards |

## Antenna Performance Plots

VSWR

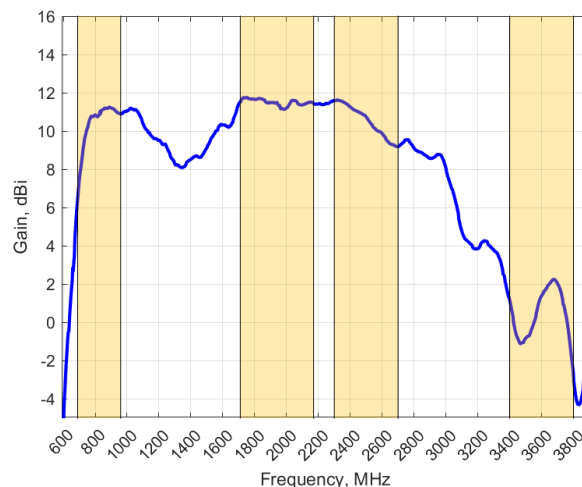


### Voltage Standing Wave Ratio (VSWR)

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 LPDA-92 delivers superior performance across all bands with a VSWR of <1.5:1 across 95% of the bands.

GAIN (EXCLUDING CABLE LOSS)



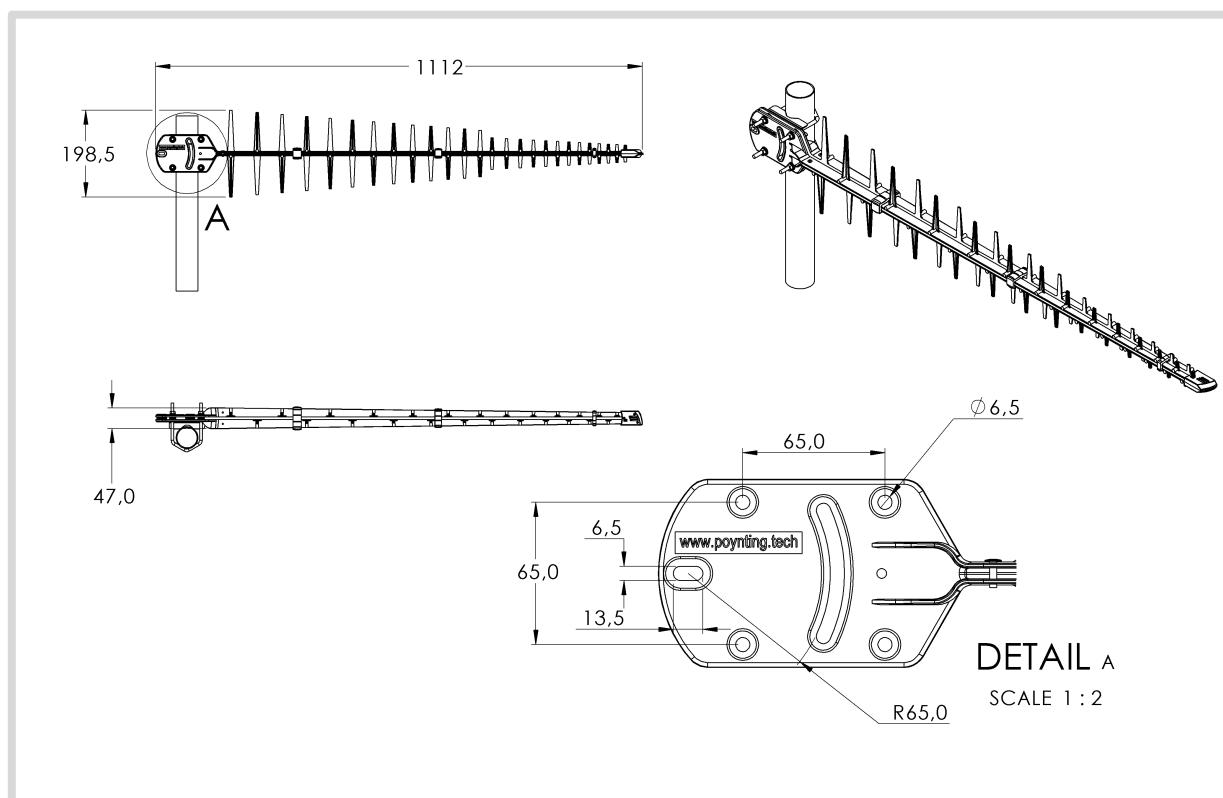
### Gain in dBi

11 dBi is the peak gain across all bands from 698 – 3800 MHz

|                         |          |
|-------------------------|----------|
| Gain @ 698 – 960 MHz:   | 10.8 dBi |
| Gain @ 1710 – 2700 MHz: | 11 dBi   |
| Gain @ 3400 – 3800 MHz: | 2.3 dBi  |

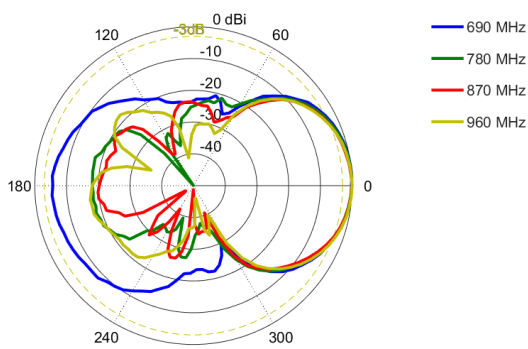
*\*\*Antenna gain measured with polarisation aligned standard antenna*

## Technical Drawings

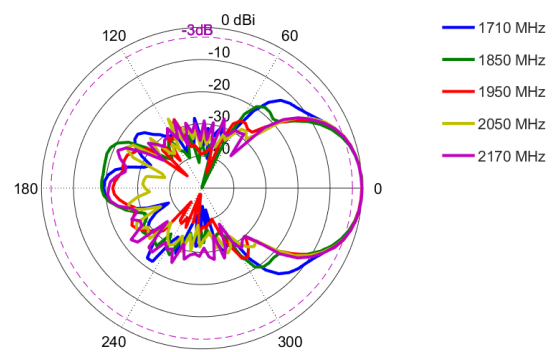


## Radiation Patterns

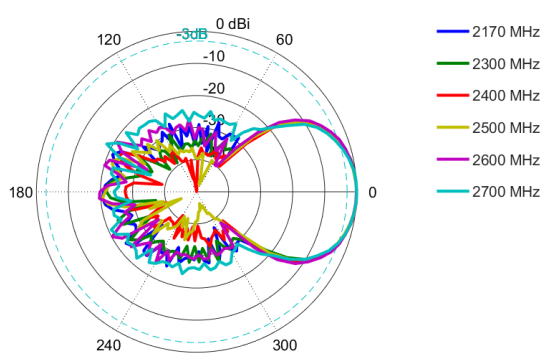
Azimuth: 690 – 960 MHz



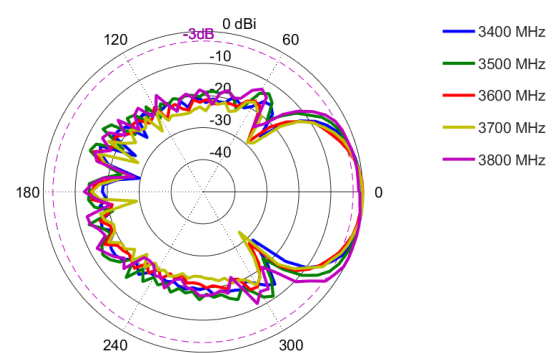
Azimuth: 1710 – 2170 MHz



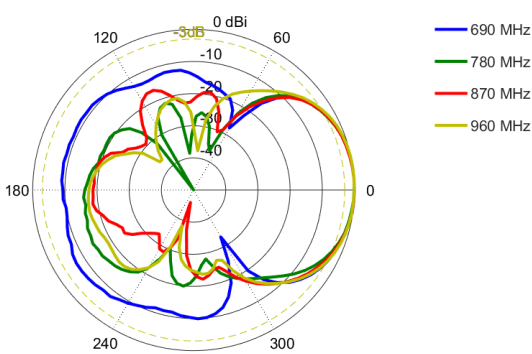
Azimuth: 2170 – 2700 MHz



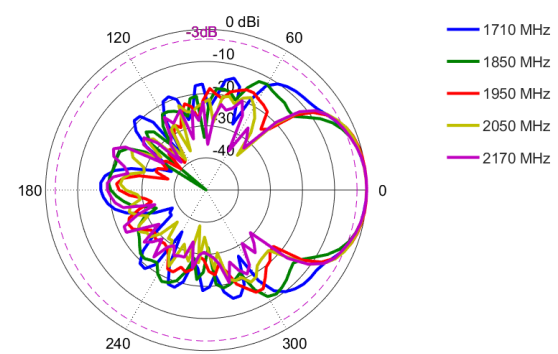
Azimuth: 3400 – 3800 MHz



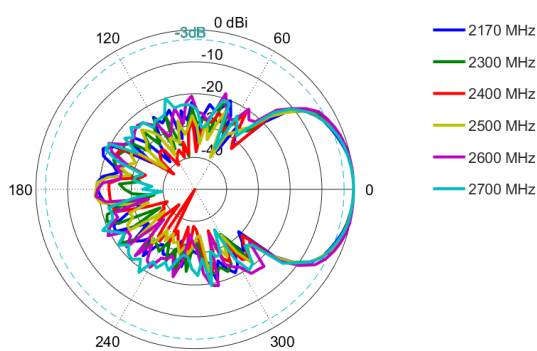
Elevation: 690 – 960 MHz



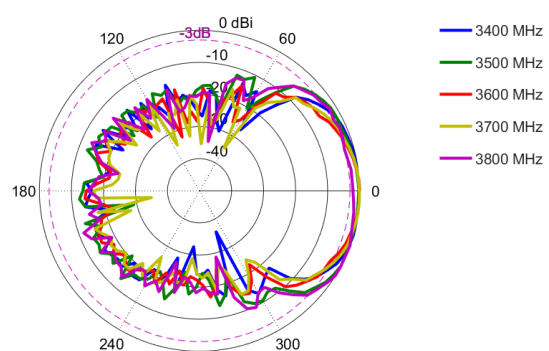
Elevation: 1710 – 2170 MHz



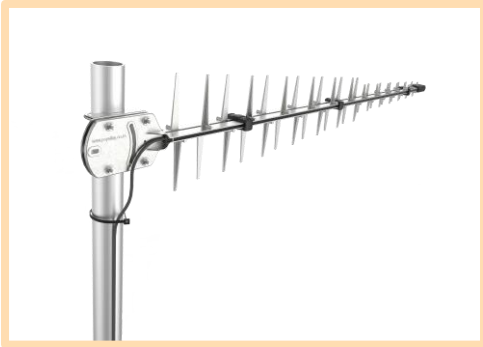
Elevation: 2170 – 2700 MHz



Elevation: 3400 – 3800 MHz



## Mounting Options



### Pole Mount

Pole mounted vertically using U-bolts



### A-LPDA-0092-30-LTE Mount

Pole mounted vertically and horizontally using U-bolts and a BRKT-030



### A-LPDA-0092-LTE Mount

Pole mounted at  $\pm 45^\circ$  using U-bolts and a BRKT-033

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**Additional Accessories**

Extension Cables: Up to 10m HDF 195  
Various connectors available  
Installation poles and brackets available

See accessories technical specifications on [www.poynting.tech](http://www.poynting.tech)



**MobileMustHave**  
MOBILE LIFESTYLE SOLUTIONS

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