

**ANTENNAS | LPDA-92**

# LPDA-92

## 698 - 3800 MHZ HIGH GAIN DIRECTIONAL LTE ANTENNA




- **Futureproof wideband LTE antenna and Wi-Fi operational frequencies**
- **Compatible with 4G, 3G and 2G technologies**
- **Improves mobile network subscriber's user experience**
- **Increased connectivity stability**
- **Weather- and vandal resistant**
- **Used in extreme weather environments**

### Product Overview

This high-gain wideband directional antenna covers all international cellular, mobile and wireless data bands including GSM 900/ GSM1800/UMTS/LTE bands as well as 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 favorite, 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 degrees wide
- Broadband covering multiple operational frequencies
- Pole mountable
- Lightweight
- Water-resistant
- Tremendous improvement on reliability of wireless data
- Four year track record in all climate conditions from Nordic to desert to tropical


### Application areas

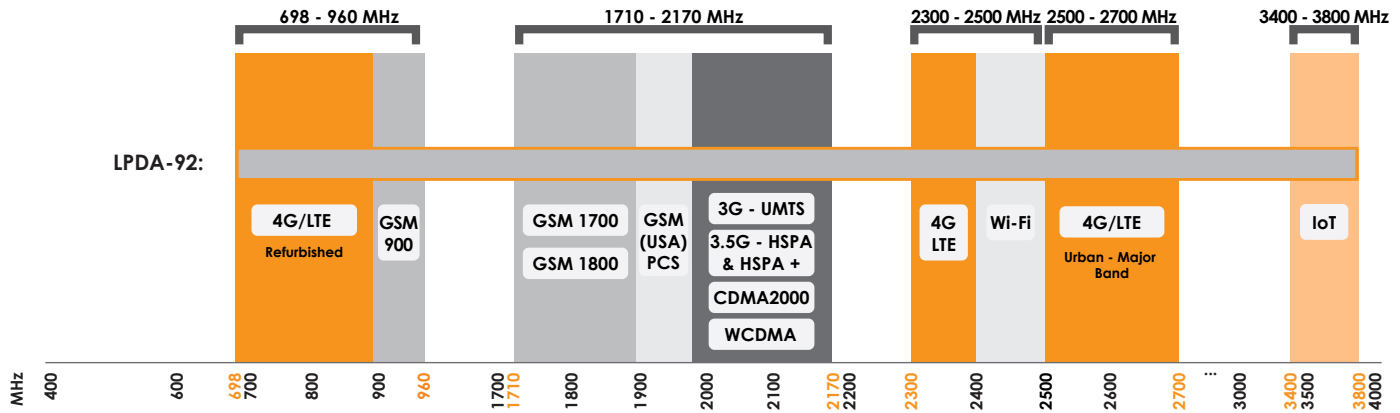
- Urban and rural areas
- Antenna of choice for rural areas due to high gain
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increase system transmission reliability
- LTE fringe areas (close to an LTE area, but just out of reach)
- Network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



## Frequency bands

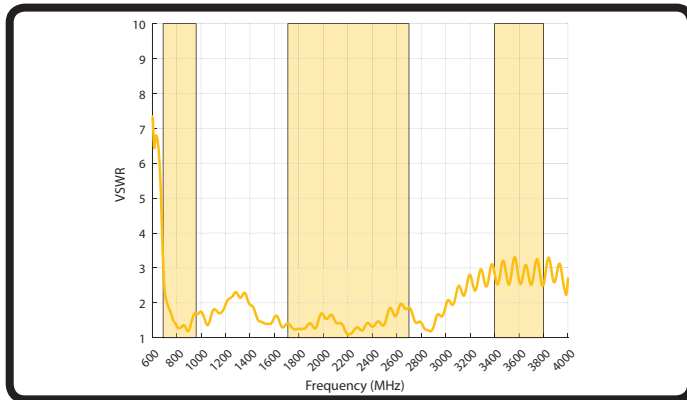
The LPDA-92 is a wide-band antenna that works from 698 - 3800 MHz

 Indicates the bands on which this antenna works



## Antenna Performance Plots

### VSWR:

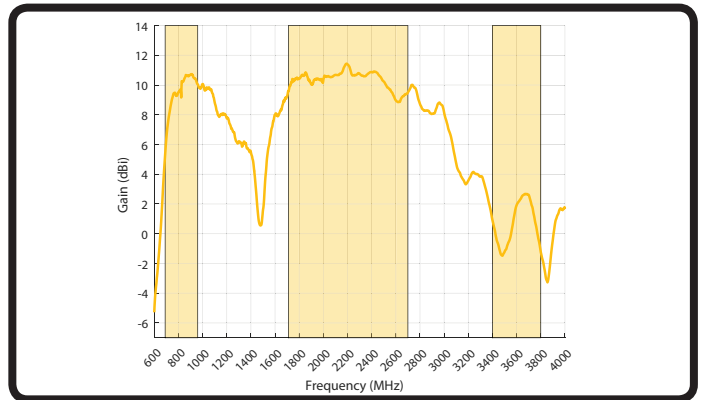


### Voltage Standing Wave Ratio (VSWR)

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 the following bands with a VSWR of:

698 - 960 MHz	VSWR < 2:1
1710 - 2700 MHz	VSWR < 2:1
3400 - 3800 MHz	VSWR < 3.2:1

### Gain: (excluding cable loss)



### Gain\* in dBi

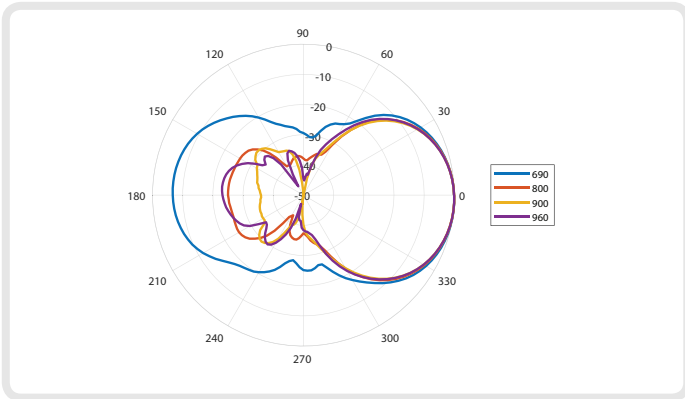
11 dBi is the peak gain across all bands from 698 - 3800 MHz

Gain @ 698 - 960 MHz:	11 dBi
Gain @ 1710 - 2700 MHz:	11 dBi
Gain @ 3400 - 3800 MHz:	3 dBi

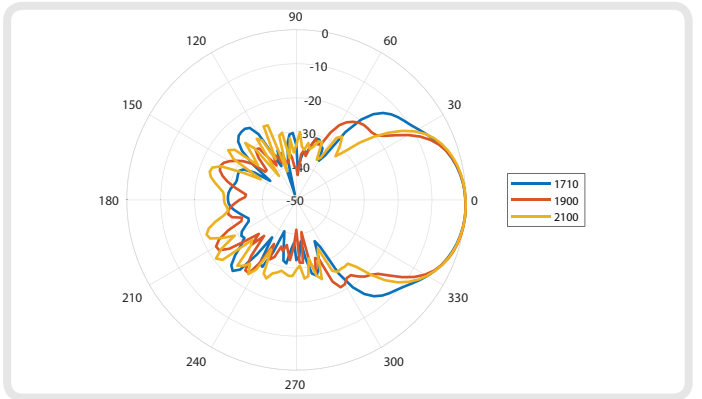
\*Antenna gain measured with polarisation aligned standard antenna

# Radiation Patterns

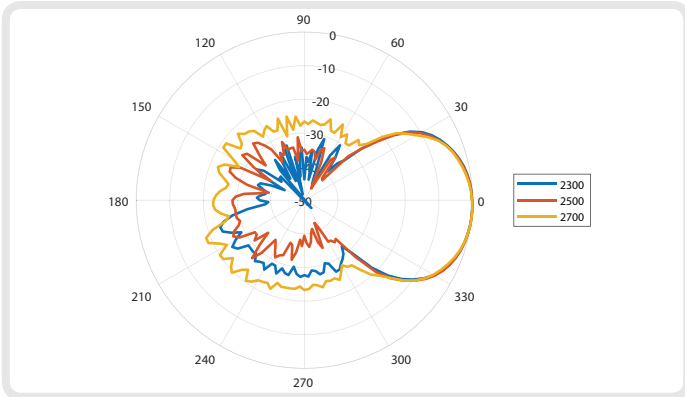
Elevation: 690 - 960 MHz



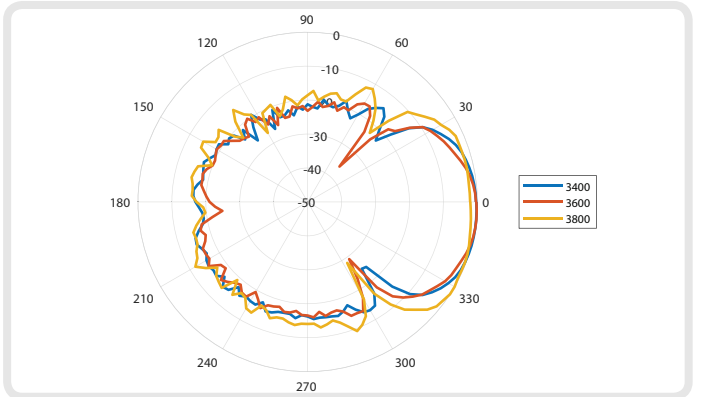
Elevation: 1710 - 2700 MHz



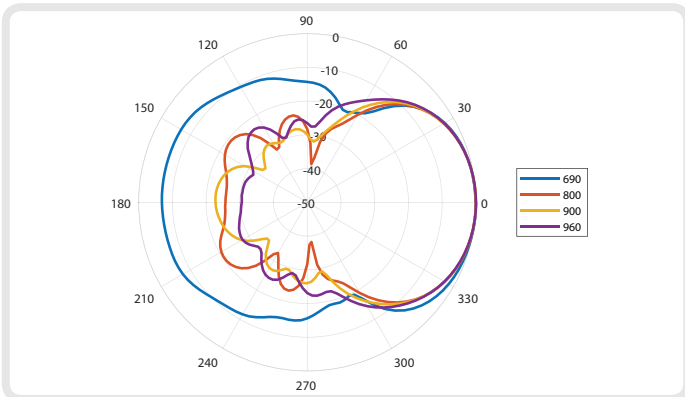
Elevation: 2300 - 2700 MHz



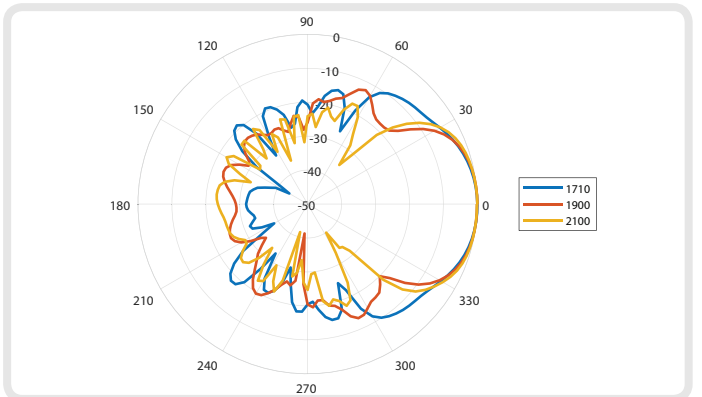
Elevation: 3400 - 3800 MHz



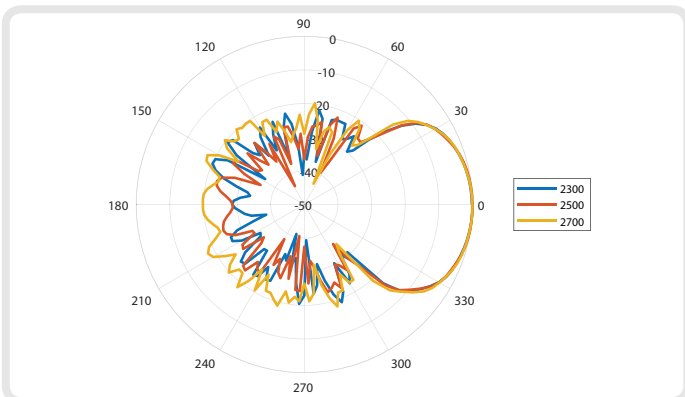
Azimuth: 690 - 960 MHz



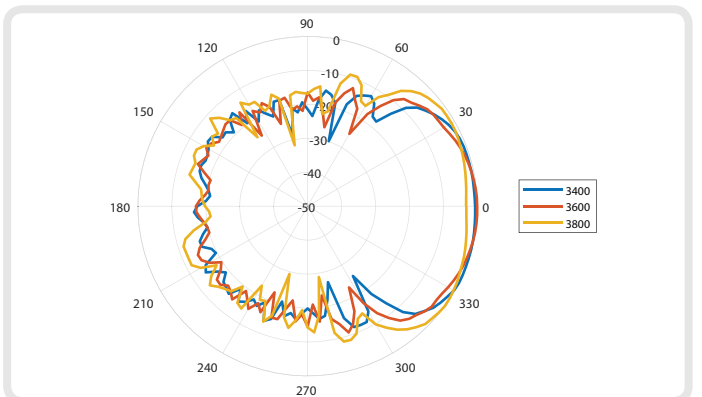
Azimuth: 1710 - 2700 MHz



Azimuth: 2300 - 2700 MHz



Azimuth: 3400 - 3800 MHz



## Electrical Specifications

Frequency Bands:	698 - 3800 MHz
Gain (Max):	11 dBi
VSWR:	< 2:1 @ 698 - 960 MHz < 2:1 @ 1710 - 2700 MHz < 3.2:1 @ 3400 - 3800 MHz
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear
Cable loss:	0.35dB/m @ 900 MHz 0.53dB/m @ 2000 MHz 0.6dB/m @ 2500 MHz 0.83dB/m @ 3500 MHz
DC Short:	Yes
Cable Length:	7m
Cable Type:	HDF 195
Connector:	SMA (m)

## Environmental Specifications

Wind Survival:	<160 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non condensing
Storage Temperature:	-40°C to +70°C

## Ordering Information

Commercial name:	LPDA-92
Order Product Code:	A-LPDA-0092
EAN number:	6009693810556

## Additional Accessories Available

Extension Cables:	Up to 10m HDF 195
-------------------	-------------------

Various connectors available  
Installation poles and brackets available

## Mechanical Specifications

Product Dimensions (L x W x D):	1100 mm x 180 mm x 60 mm
Packaged Dimensions:	1120 mm x 210 mm x 60 mm
Weight:	1.63 kg
Packaged Weight:	2.02 kg
Plastic Materials:	Nylon 6
Plastic Colour:	Pantone - Black RAL - Black
Frame Materials:	Passivated ADC12
Frame Colour:	Aluminium grey

## Product Box Contents

Antenna:	A-LPDA-0092
Mounting Bracket:	Econo brackets, U-Bolts and fasteners which are suitable for pole mounting up to 50mm

*The cables and connectors are factory mounted to the antenna*

## Certification Approvals and Standards

Flammability rating:	UL 94-HB
Water Ingress Protection Ratio/Standard:	IP 65 (NEMA 4X)
Impact resistance:	IK 08
Salt Spray:	MIL-STD 810F/ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards



**COMMUNICA**  
A World Of Electronics



[www.communica.co.za](http://www.communica.co.za)

### Pretoria

65 Francis Baard Street  
Pretoria, 0002, South Africa  
☎ +27 (0)12 328 7008  
☎ +27 (0)12 328 7018  
✉ [salespt@communicaco.za](mailto:salespt@communicaco.za)

### Head Office

53 Landmarks Avenue  
Samrand, 0157  
Centurion, South Africa  
☎ +27 (0)12 657 3500  
☎ +27 (0)12 657 3550  
✉ [sales@communicaco.za](mailto:sales@communicaco.za)

### Cape Town

36 Marine Drive  
Paarden Eiland, 7405  
Cape Town, South Africa  
☎ +27 (0)21 447 0949  
☎ +27 (0)21 447 0959  
✉ [salesct@communicaco.za](mailto:salesct@communicaco.za)