



## ShortLink Wide Band Antenna Family

Models: SLA150-SMA, SLA150-UFL

*Patent-pending omnidirectional antenna, based on a hybrid-design for market leading performance.*

*Excellent efficiency over a very wide frequency range, covering 700 to 3000 MHz.*

*Very suitable for Bluetooth, Wi-Fi, 2G, 3G, 4G/LTE, LPWAN, ZigBee, GPS, NB-IoT applications and more.*

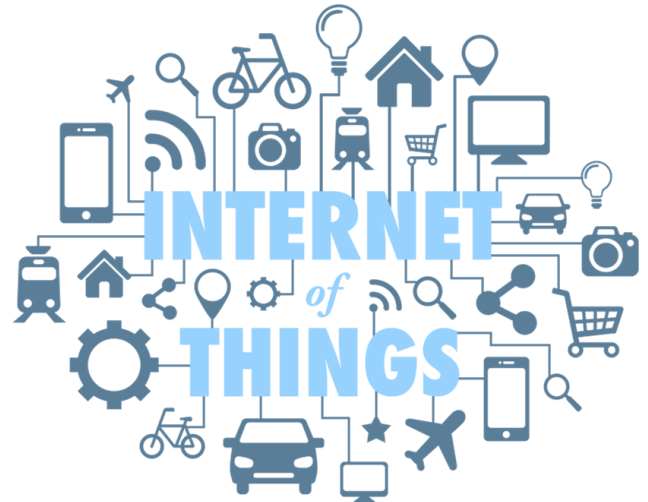
*Large range of applications – suitable for LTE, m2m and IoT applications and more.*

## Overview

### Full IoT Frequency Range

The SLA150 antennas from ShortLink are the first omnidirectional true wide band antennas on the market, specially designed for the entire range from 700 to 3000 MHz. This makes it easier to launch a product for the global market because the same antenna supports all frequency bands in this range.

That is, no matter which communication protocols you intend to use in your product, such as Bluetooth, ZigBee, LPWAN (LoRa, Sigfox, Weightless etc), Wi-Fi, 2G, 3G, 4G/LTE, NB-IoT and more, the SLA150 will work very well.

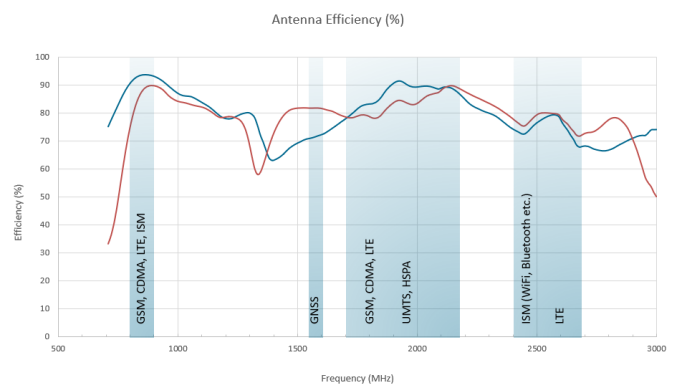


### High Efficiency

The high efficiency of the ShortLink wide band antenna family is based on a unique and patent-pending technology, providing market leading performance. This in terms of longer range, or lower power consumption, depending on what is most important in the current application.

Furthermore, the enhanced signal strength offered by these antennas also enables higher data rates and unrivaled coverage in harsh environments. These antennas are therefore ideal for most applications, especially within IoT.

The unique design of the patent-pending antenna enables it to operate independent of a separate ground-plane to achieve full performance. This can reduce the size of other components in a system and simplifies system design for the final product.



## Specification

### Antenna Characteristics

Model	SLA150-SMA	SLA150-UFL
Frequency Range*	700MHz to 3000MHz	700MHz to 3000MHz
Peak Gain at 2.4GHz	+3 dBi	+3 dBi
Impedance	50 ohms	50 ohms
Design	Omnidirectional	Omnidirectional
Type	Patent Pending Monopole / Dipole Hybrid	Patent Pending Monopole / Dipole Hybrid
Size	150x37x0.8 mm	150x37x0.8 mm
Antenna Colour **	Black	Black
Connector	SMA	UFL
Operating Temperature	-40 to +85°C	-40 to +85°C
Certifications	CE, RoHS	CE, RoHS

\* Detailed frequency response specified later in this document

\*\* Custom colours available on request

### Free Space Frequency Response SLA150-UFL

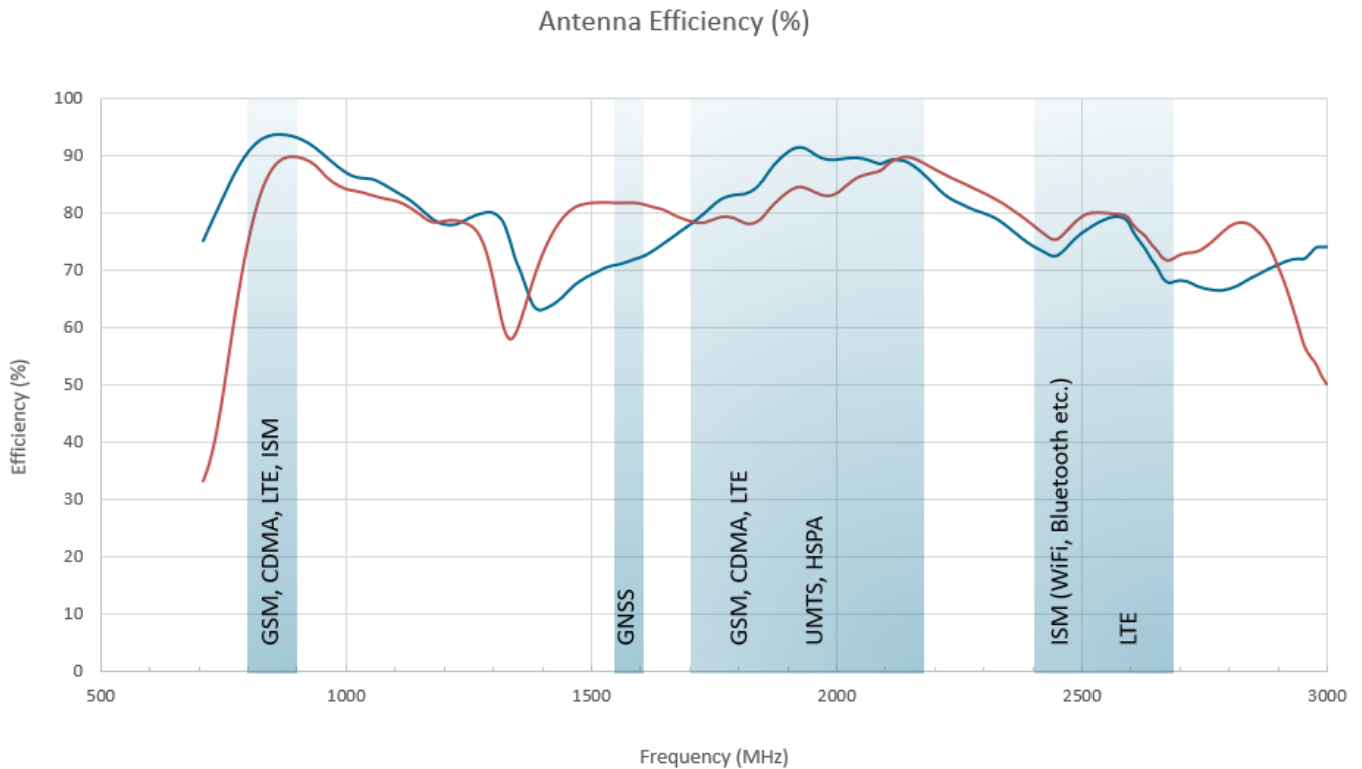
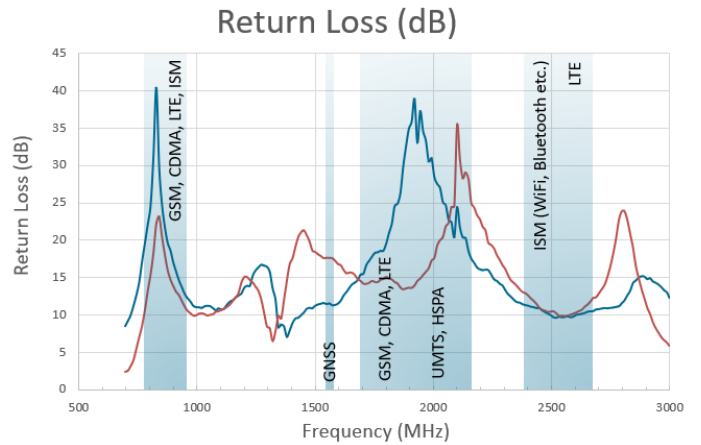
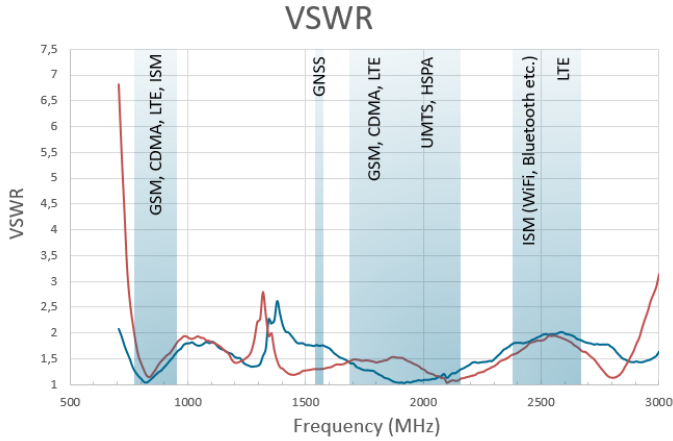
Band (MHz)	800-900	1500-1600	1700-1900	2100	2400	2600-2700
Standard	GSM, CDMA, LTE	GNSS	GSM, CDMA, LTE	UMTS, HSPA	ISM	LTE
Frequency (MHz)	791-960	1559-1610	1710-1990	1755-2170	2400-2500	2500-2690
Avg Efficiency (%)	92.3	92.2	92.0	91.7	91.3	90.8
Avg VSWR	1.3	1.3	1.4	1.4	1.5	1.5
Avg Return Loss (dB)	21.2	11.6	26.1	25.6	10.6	9.7

### Free Space Frequency Response SLA150-SMA

Band (MHz)	800-900	1500-1600	1700-1900	2100	2400	2600-2700
Standard	GSM, CDMA, LTE	GNSS	GSM, CDMA, LTE	UMTS, HSPA	ISM	LTE
Frequency (MHz)	791-960	1559-1610	1710-1990	1755-2170	2400-2500	2500-2690
Avg Efficiency (%)	85.9	86.8	87.4	87.6	87.6	87.4
Avg VSWR	1.5	1.5	1.5	1.6	1.6	1.7
Avg Return Loss (dB)	15.6	17.0	14.7	28.9	11.2	10.1

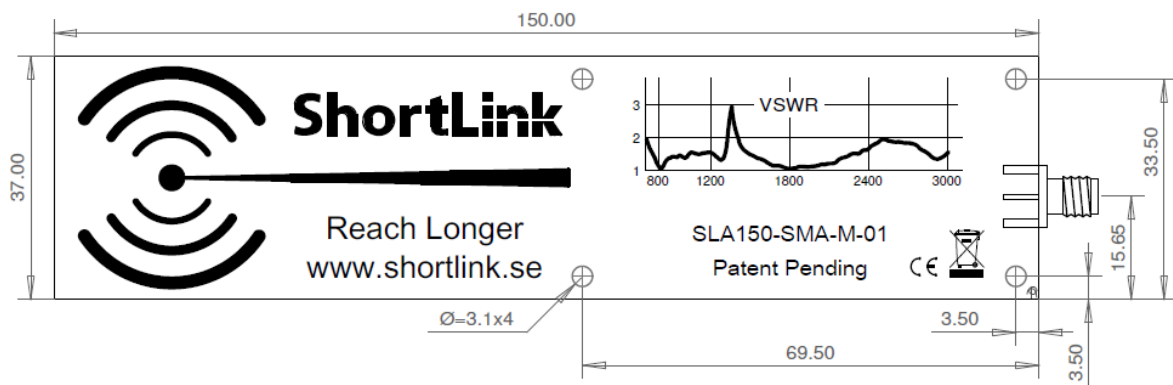
## Antenna Characteristics SLA150

The antenna characteristics below are based on a standard matching network in in free space. It is possible to tailor the matching network to specific usage scenarios if needed. Please contact ShortLink for more information. Blue line is SLA150-UFL, Red line is SLA150-SMA.

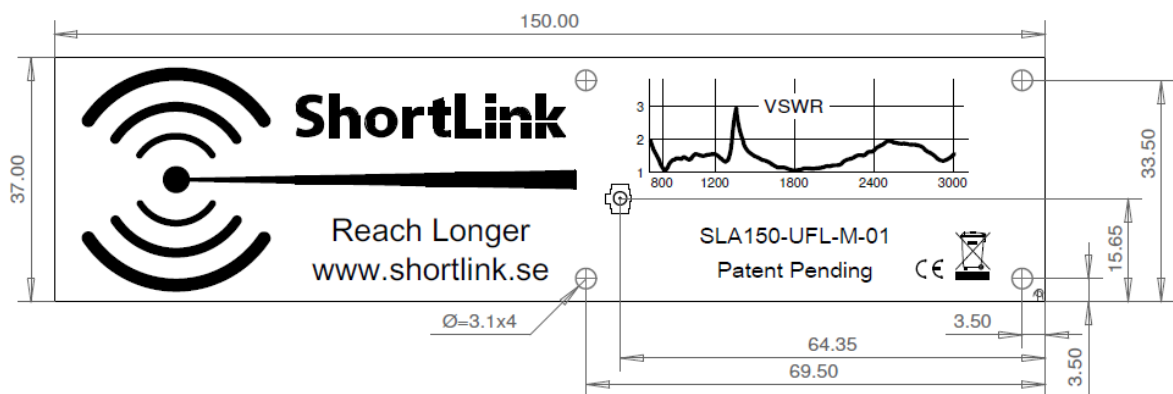


## Mechanical Drawings

### Mechanical Drawing, SLA150-SMA



### Mechanical Drawing, SLA150-UFL



## Ordering Codes

SLA150 - XXX - XX - 01

(1) (2) (3) (4)

### (1) Family

SLA150 = ShortLink 150mm Omnidirectional IoT Antenna

### (2) Connector

UFL = UFL Connector

SMA = SMA Connector

### (3) Matching Network

NM = No matching network on PCB

M = Matching network on PCB

### (4) Revision Number

01 = Revision Number 01

## Contacting ShortLink

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