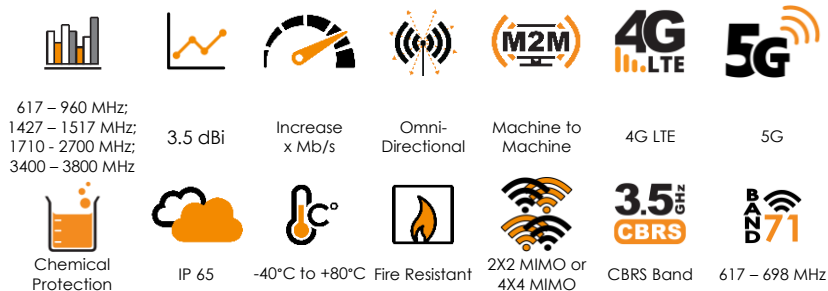


## ANTENNAS | XPOL-1-5G SERIES

# X-POLARISED, OMNI-DIRECTIONAL, LTE MIMO ANTENNA

617 - 3800 MHz, 3.5 dBi



- **Exceptional performance over the main 4G/5G bands**
- **High gain for the antenna size**
- **Wideband 2X2 or 4X4 MIMO 4G/5G antenna**
- **Backwards compatible 2G/3G/4G/LTE/5G antenna**
- **Weather, dust and vandal resistant enclosure (IP 65)**

APPLICATION AREAS

## Product Overview

The XPOL-1-5G is Poynting's second generation "V2" of this very popular Cross Polarised (XPOL), cellular band, 2x2 MIMO antenna. The addition of a 4X4 MIMO derivative is also available for user specific needs. The antenna has been completely redesigned from the previous generation with an all-new enclosure and antenna design. The antenna now includes the newer 3400 - 3800 MHz bands as well as the in demand lower 617 MHz band, which were not previously covered by our V1 and is suitable for 2G, 3G, 4G & 5G. This antenna performs exceptionally well in the following frequency bands: 698 – 960 MHz, 1427 – 1517 MHz, 1700 – 2700 MHz & 3400 – 3800 MHz, with a peak gain of 3.5 dBi across the frequency bands of operation.

The radiation patterns of this antenna are omni-directional and exceptionally well controlled, further adding to the performance of the antenna. This makes the antenna perfect for most application areas, such as urban and commercial to achieve the best possible coverage over a large area. The robust mechanical enclosure design makes the antenna weather, dust and vandal resistant and gives it an IP65 rating, suitable for harsh environments.

## Features

- New 3400 to 3800MHz, 5G band
- Broadband, including the latest 3.5GHz bands
- X-Polarised 2x2 or 4X4 MIMO Antenna
- Wall or pole mountable
- Lightweight & Rugged
- Weatherproof (IP65)
- High pattern consistency across bands for 4G/5G carrier aggregation

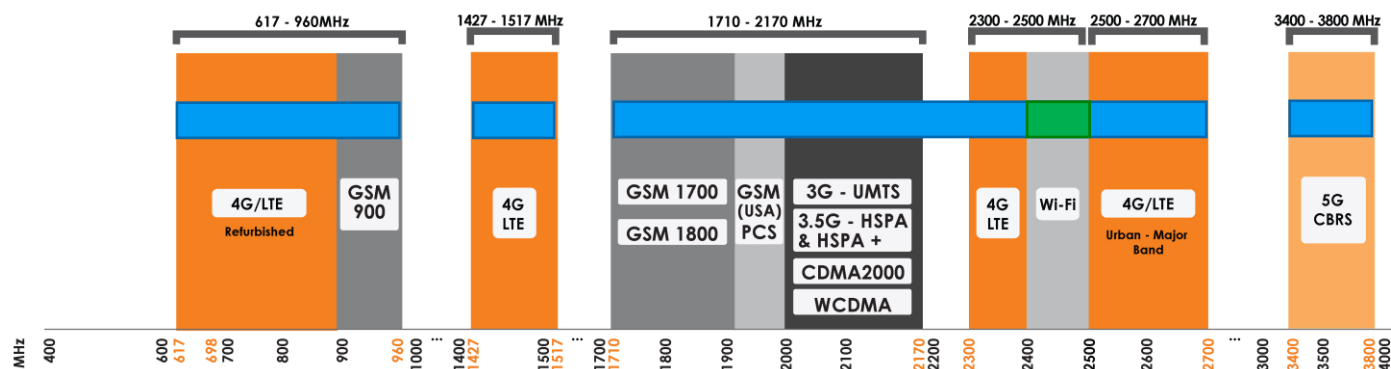
## Application Areas

- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer LTE/5G internet connectivity
- Industrial & Commercial LTE/5G deployments
- Urban household reception enhancement
- Power, Energy & Water telemetry access
- Oil & Gas communication systems
- Municipal & Government systems
- Repeaters & coverage enhancement amplifiers



## Frequency Bands

The XPOL-1-5G is an LTE MIMO antenna that works from 617 – 960 MHz | 1427 -1517 MHz | 1710 - 2700 MHz | 3400 – 3800 MHz



  Indicates the LTE/5G bands on which XPOL-1-5G works

  Indicates the Wi-Fi bands on which XPOL-1-5G works

## Antenna Derivatives

Product Order Code (SKU)	A-XPOL-0001-V2-21	A-XPOL-0001-V2-41
Ports	2	4
SISO / MIMO	2x2 MIMO	4x4 MIMO
Coax Cable Type	HDF 195	HDF 195
Coax Cable Length	5m	5m
Connector Type	SMA (M)	SMA (M)
Product Weight	0.95 kg	1.240 kg
Packaged Weight	1.05 kg	1.340 kg
EAN	6009710920763	6009710920886

*\*The coax cable & connector are factory mounted to the antenna*

## Electrical Specifications

<b>Frequency bands:</b>	617 – 960 MHz
	1427 – 1517 MHz
	1710 – 2700 MHz
	3400 – 3800 MHz
<b>Gain (peak):</b>	0.5 dBi @ 617 - 960 MHz
	2 dBi @ 1427 - 1517 MHz
	3 dBi @ 1710 - 2700 MHz
	3.5 dBi @ 3400 - 3800 MHz
<b>VSWR:</b>	≤2.5:1
	Over 90% of the band
<b>Feed power handling:</b>	20 W
<b>Input impedance:</b>	50 Ohm (nominal)
<b>Polarisation:</b>	Cross Polarised
<b>Coax cable loss:</b>	0.385 dB/m @ 900 MHz
	0.507 dB/m @ 1500 MHz
	0.565 dB/m @ 1800 MHz
	0.666 dB/m @ 2400 MHz
	0.788 dB/m @ 3000 MHz
<b>DC short:</b>	Yes, path to ground

## Product Box Contents

<b>Antenna:</b>	A-XPOL-0001-V2
<b>Mounting bracket:</b>	Pole/Wall mounting bracket and window suckers included

## Mechanical Specifications

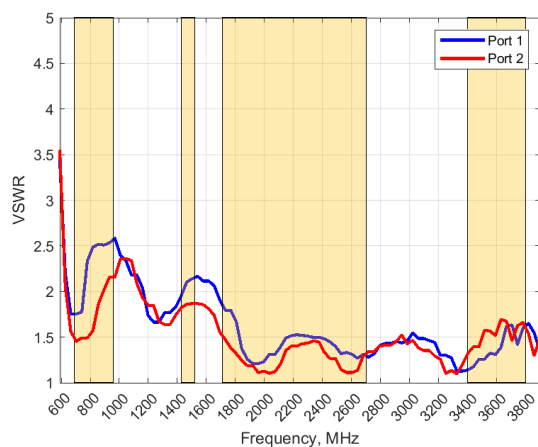
<b>Product dimensions</b>	247 mm x 157 mm x 88 mm
<b>Packaged dimensions:</b>	270 mm x 190 mm x 100 mm
<b>Radome material:</b>	UV Stable ASA
<b>Radome colour:</b>	Brilliant White Pantone P 179-1 C
<b>Mounting Type:</b>	Wall, pole, and window mount

## Environmental Specifications, Certification & Approvals

<b>Wind Survival:</b>	≤250 km/h <small>*Except for window mount configuration</small>
<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 810G/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 10
<b>Product Safety &amp; Environmental:</b>	Complies with CE and RoHS Standards



## Antenna Performance Plots

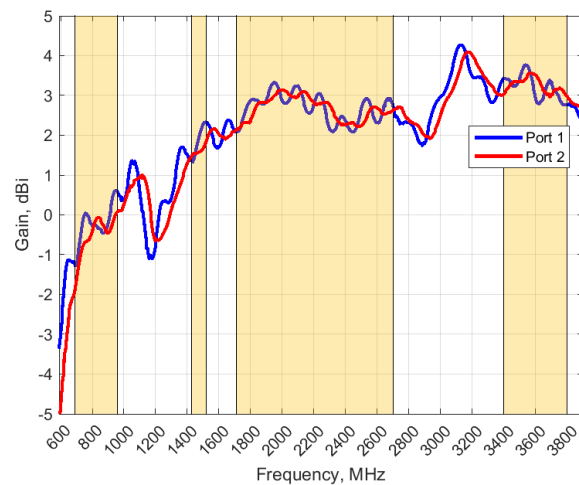


### Voltage Standing Wave Ratio (VSWR)\*

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-1-5G delivers superior performance across all bands with a VSWR of  $\leq 2.5:1$  across 90% of the band.

\*VSWR measured with 5m low loss cable



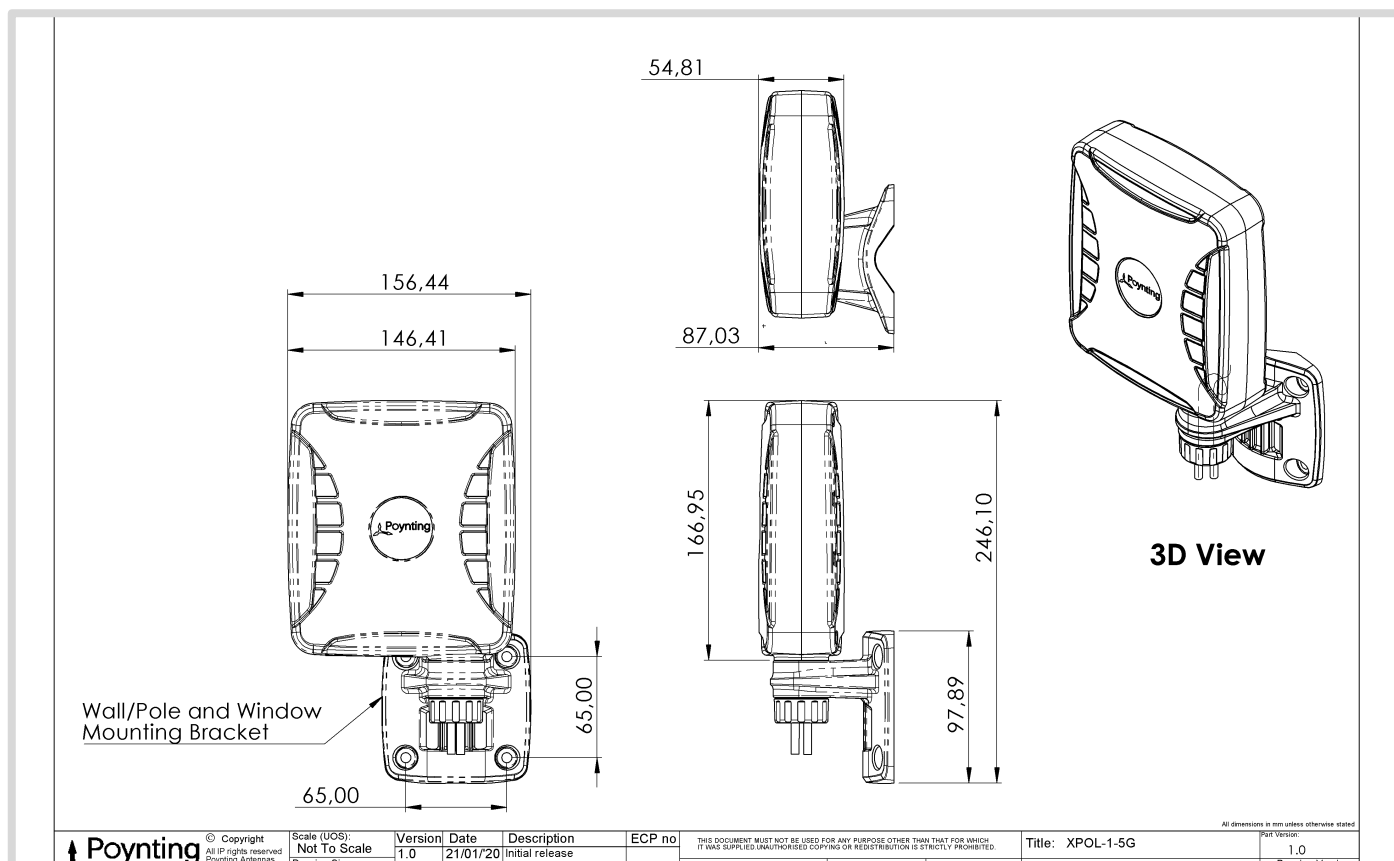
### Gain\* in dBi

3.5 dBi is the peak gain across all bands from 617 – 3800 MHz

Gain @ 617 - 960MHz:	0.5 dBi
Gain @ 1427 - 1517 MHz:	2 dBi
Gain @ 1710 - 2700MHz:	3 dBi
Gain @ 3400 - 3800MHz:	3.5 dBi

\*Antenna gain measured with polarisation aligned standard antenna

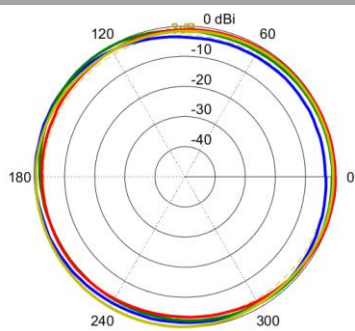
## Technical Drawings



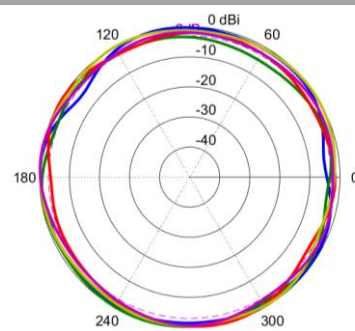
### XPOL-1-5G

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 Product Specifications may change without prior notice  
 Revised: January 2022

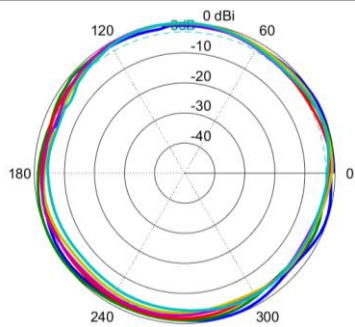
## Radiation Patterns



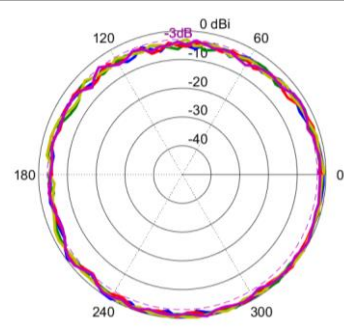
690 MHz  
760 MHz  
860 MHz  
960 MHz



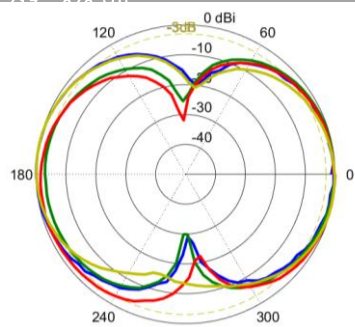
1710 MHz  
1850 MHz  
1950 MHz  
2050 MHz  
2170 MHz



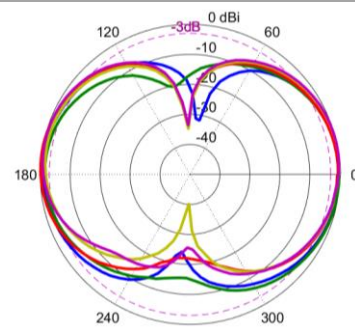
2170 MHz  
2300 MHz  
2400 MHz  
2500 MHz  
2600 MHz  
2700 MHz



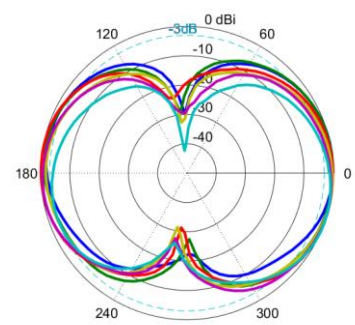
3400 MHz  
3500 MHz  
3600 MHz  
3700 MHz  
3800 MHz



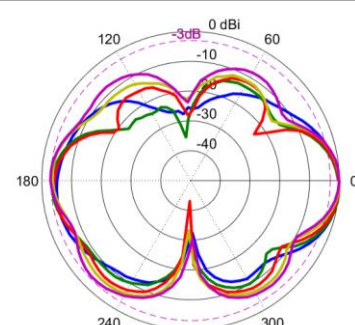
690 MHz  
780 MHz  
870 MHz  
960 MHz



1710 MHz  
1850 MHz  
1950 MHz  
2050 MHz  
2170 MHz

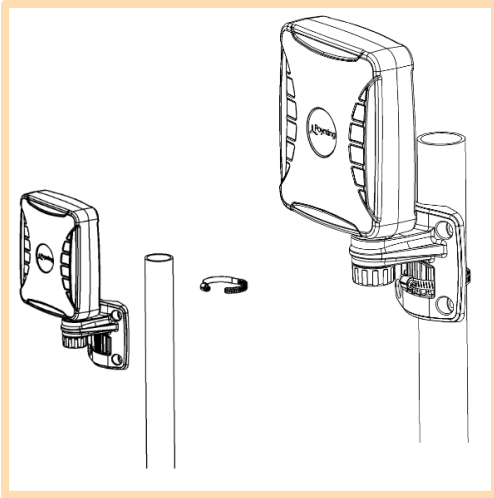


2170 MHz  
2300 MHz  
2400 MHz  
2500 MHz  
2600 MHz  
2700 MHz



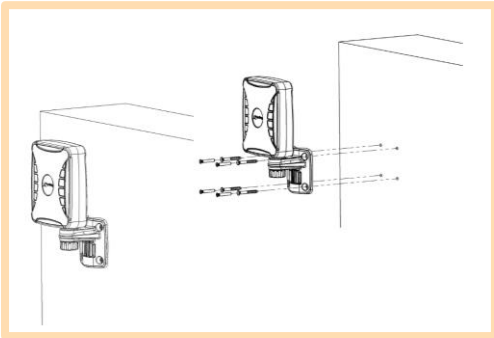
3400 MHz  
3500 MHz  
3600 MHz  
3700 MHz  
3800 MHz

## Mounting Options



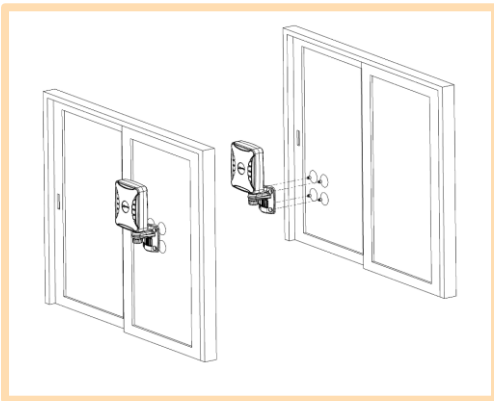
### Pole Mount

Pole/Wall mounting bracket used with pipe clamp (included)



### Wall Mount

Pole/Wall mounting bracket using knock-in screws (included)



### Window Mount

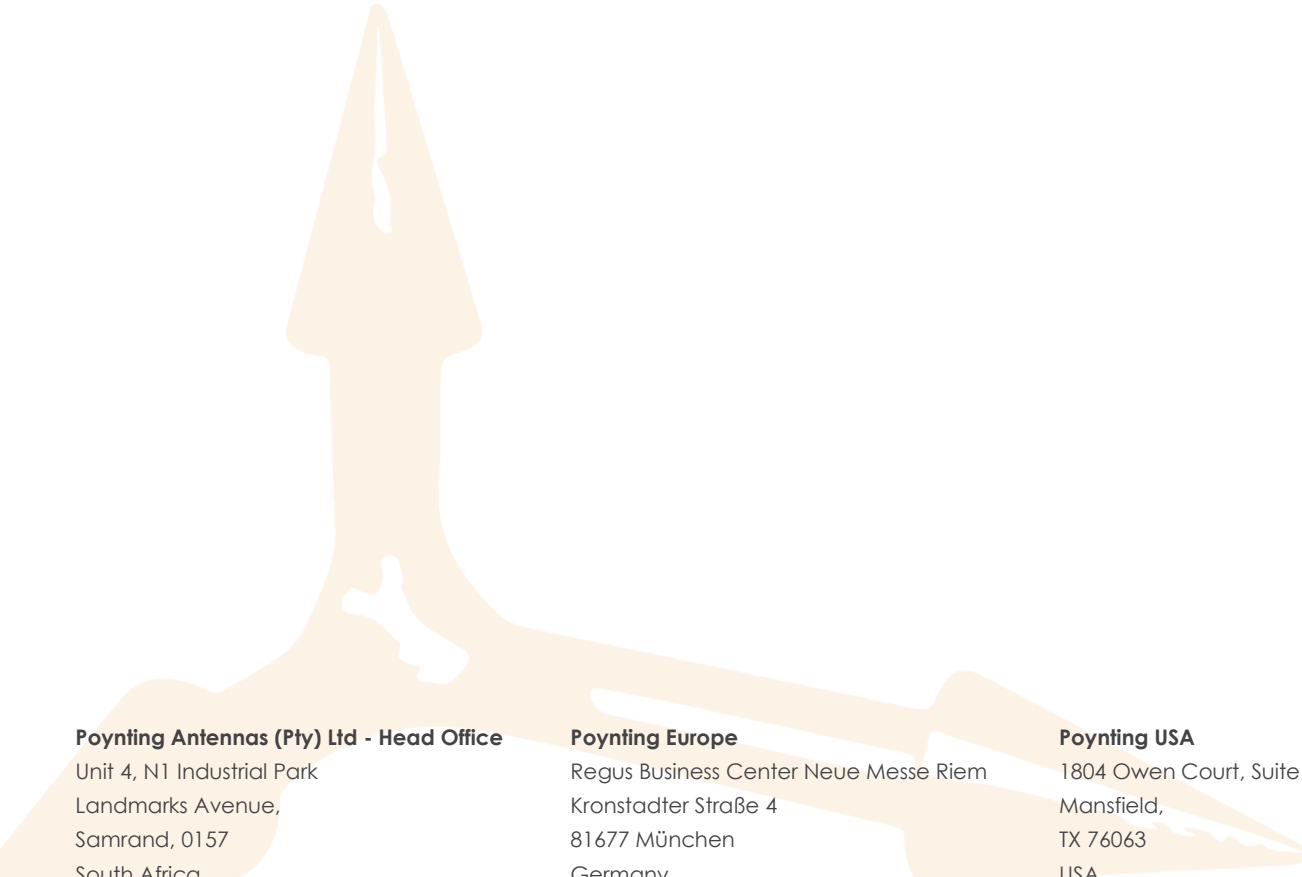
Pole/Wall mounting bracket used with window suckers (included)



### 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)



#### Poynting Antennas (Pty) Ltd - Head Office

Unit 4, N1 Industrial Park  
Landmarks Avenue,  
Samrand, 0157  
South Africa

**Phone:** +27 (0) 12 657 0050

**E-mail:** [sales@poynting.co.za](mailto:sales@poynting.co.za)

#### Poynting Europe

Regus Business Center Neue Messe Riem  
Kronstadter Straße 4  
81677 München  
Germany

**Phone:** +49 89 208026538

**E-mail:** [sales-europe@poynting.tech](mailto:sales-europe@poynting.tech)

#### Poynting USA

1804 Owen Court, Suite 104,  
Mansfield,  
TX 76063  
USA

**Phone:** +1 817 533-8130

**E-mail:** [sales-us@poynting.tech](mailto:sales-us@poynting.tech)