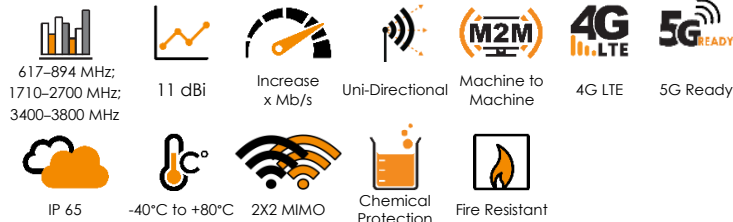


XPOL-2-5G-US



ANTENNAS | XPOL-2-5G-US

X-POLARISED, HIGH GAIN, UNI-DIRECTIONAL LTE/5G ANTENNA 617–894 MHz & 1710–3800 MHz, 11 dBi; 2X2 MIMO (US Specific)



- **New advanced metamaterial technology**
- **Exceptional high gain performance over the main 4G/5G bands**
- **Includes the 617–894 MHz frequency band for US applications**
- **Wideband 2x2 MIMO 4G/5G antenna**
- **Backwards compatible 2G/3G/4G/LTE antenna (5G Ready)**
- **Two cross polarised antennas in one enclosure for optimal LTE performance**
- **IP65 weather/dust and vandal resistant enclosure.**



Product Overview

The XPOL-2-5G-US is Poynting's third generation "V3" of this very popular Cross Polarised (XPOL), cellular band, 2X2 MIMO antenna. The antenna enclosure effectively looks the same as the second generation "V2" but has been completely redesigned on the inside. We have used advanced metamaterial technology, making use of Artificial Magnetic Conductors (AMC) and new registered/patent pending radiator configuration, which is proving to yield exceptional improvements in bandwidth and gain. Radiation patterns of this antenna are exceptionally well controlled, further adding to the performance of the antenna.

The XPOL-2-5G-US antenna includes the 617 to 894 MHz band and the newer 3400 - 3800 MHz bands, which were not previously covered by our V2 and is suitable for 2G, 3G, 4G & 5G. This antenna performs exceptionally well in the following frequency bands: 617–894 MHz, 1710–2170 MHz, 2300–2700 MHz & 3400–3800 MHz. In addition to the new bands, the gain in 1700 MHz and 2.7 GHz is around 3 dB higher than the "V2" over the same frequency bands! Our "V2" antenna already outperformed most competitors over these bands, so this substantial improvement in gain shows the benefits of the new advanced materials and novel radiator design.

So, if it were a car, we installed an entirely new technology engine producing twice the power under the hood—it may look the same, but just wait until you turn the ignition on!

Features

- 2–3 dB higher gain over all the bands compared to "V2"
- Includes 617–894 MHz and 1710–2700 MHz for US bands
- New 3400–3800 MHz 5G bands with 11 dBi gain
- Consistent broadband performance
- X-polarized 2X2 MIMO antenna
- Wall or pole mountable
- Lightweight & rugged
- Weatherproof & waterproof (IP65)
- High pattern consistency across bands for 4G/5G carrier aggregation

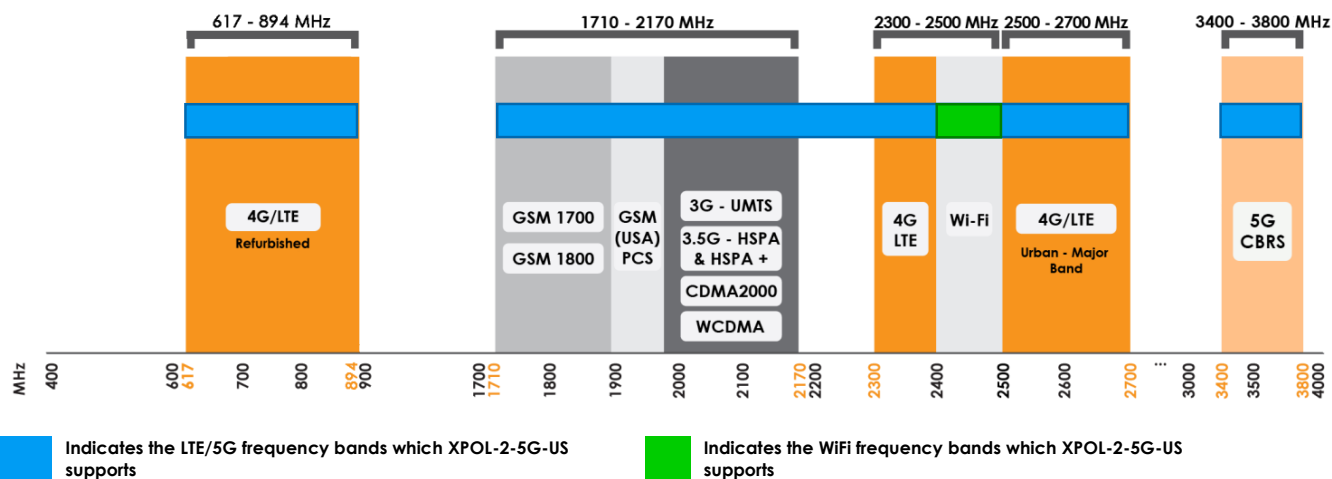
Application Areas

- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer LTE/5G internet connectivity
- Industrial & commercial LTE/5G deployments
- Urban and rural household reception enhancement
- Agricultural & farming LTE/5G data distribution
- Power, energy & water telemetry access
- Oil & gas communication systems
- Municipal & government systems
- Repeaters & coverage enhancement amplifiers



Frequency Bands – Cellular & Wi-Fi

The XPOL-2-5G-US is suitable for the following cellular frequency bands: 617–894 MHz | 1710–2700 MHz | 3400–3800 MHz | and the following WiFi frequency bands: 2400–2500 MHz |



Antenna Derivatives

| Product Order Code (SKU) | A-XPOL-0002-V3-11 | A-XPOL-0002-V3-12 |
|--------------------------|--------------------------|--------------------------|
| Coax Cable Type | Twin HDF 195 | N/A |
| Coax Cable Length | 5m | N/A |
| Connector Type | SMA (M) | N-Type (F) |
| Product Weight | 1,55 kg | 1.43 kg |
| Packaged Weight | 1.98 kg | 1.86 kg |
| Packaged Dimensions | 375 mm x 270 mm x 100 mm | 380 mm x 270 mm x 120 mm |
| EAN | 6009710921609 | 6009710920862 |

*The cable and connector are factory mounted to the antenna

Electrical Specifications—Cellular

| | |
|------------------------|---|
| Frequency bands: | 617-894 MHz 1710-2700 MHz 3400-3800 MHz |
| Gain (max) port 1 & 2: | 9 dBi @ 617-894 MHz 10 dBi @ 1710-2700 MHz 11 dBi @ 3400-3800 MHz |
| VSWR port 1 & 2: | ≤1.5:1 over 90% of the band |
| Feed power handling: | 20 W |
| Input impedance: | 50 Ohm (nominal) |
| Polarization: | ±45° |
| Coax cable loss: | 0.362 dB/m @ 900 MHz 0.514 dB/m @ 1800 MHz 0.533 dB/m @ 2400 MHz 0.603 dB/m @ 3000 MHz |
| DC short: | Path to ground |

Product Box Contents

| | |
|-------------------|---------------------------|
| Antenna: | A-XPOL-0002-V3 |
| Mounting bracket: | Z-shaped mounting bracket |

Mechanical Specifications

| | |
|--------------------|--------------------------------------|
| Product dimensions | 265 mm x 265 mm x 90 mm |
| Radome material: | UV Stable ASA |
| Radome color: | Brilliant white Pantone P 179-1 C |
| Mounting type: | Wall and pole mount |

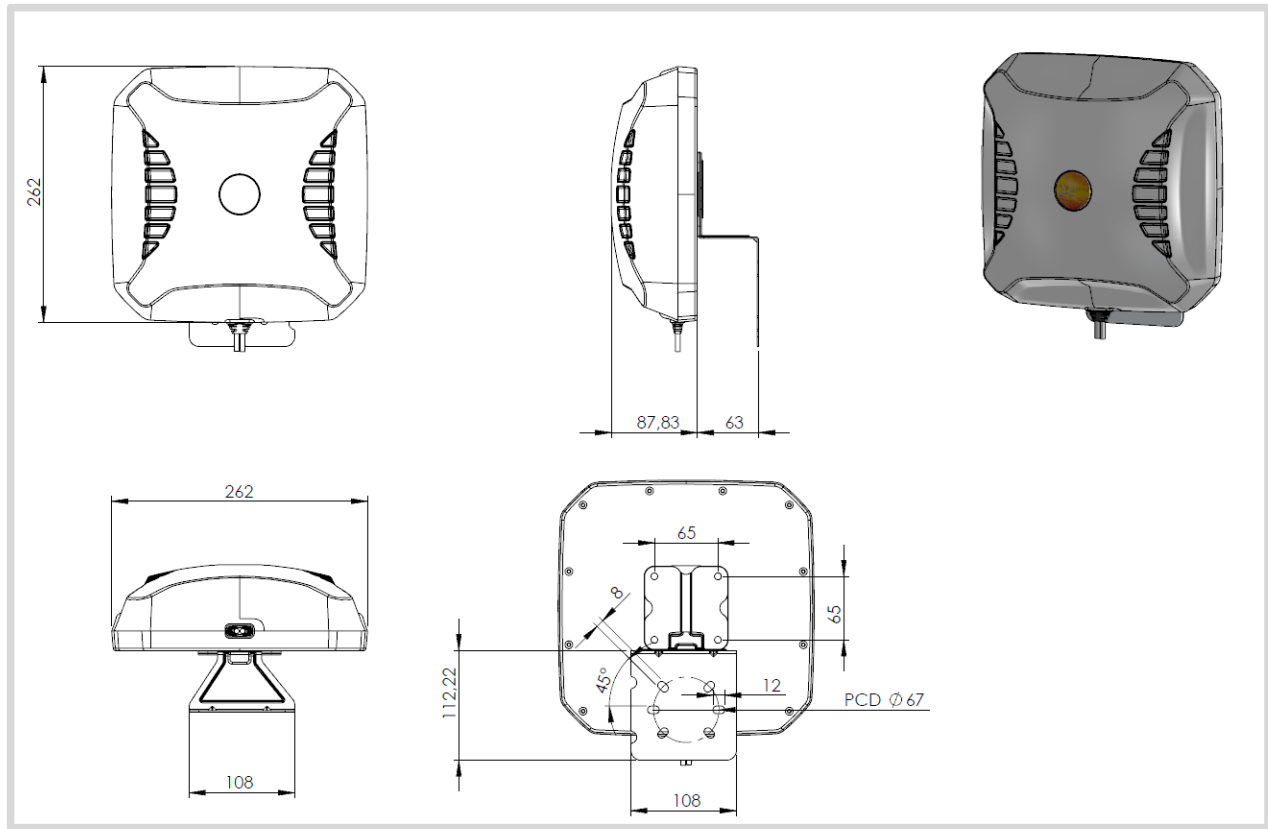
Environmental Specifications, Certification & Approvals

| | |
|--|---|
| Wind survival: | Antenna wind survival: <250 km/h Included Z-bracket wind survival: <160km/h Optional bracket BRKT-030* is required for wind speeds of <250 km/h |
| Temperature range (operating): | -40°C to +80°C |
| Environmental conditions: | Outdoor/Indoor |
| Water ingress protection ratio/standard: | IP 65 |
| Salt spray: | MIL-STD 810F/ASTM B117 |
| Operating relative humidity: | Up to 98% |
| Storage humidity: | 5% to 95% — non-condensing |
| Storage temperature: | -40°C to +80°C |
| Enclosure flammability rating: | UL 94-HB, ECE-R118.02 certified cables |
| Impact resistance: | IK 08 |
| Product safety & environmental: | Complies with CE and RoHS standards |

* BRKT-030 is an optional accessory, which is required for high wind areas of up to 250km/h. The BRKT-030 requires 4 x M6 x 20mm bolts for installation, not included.

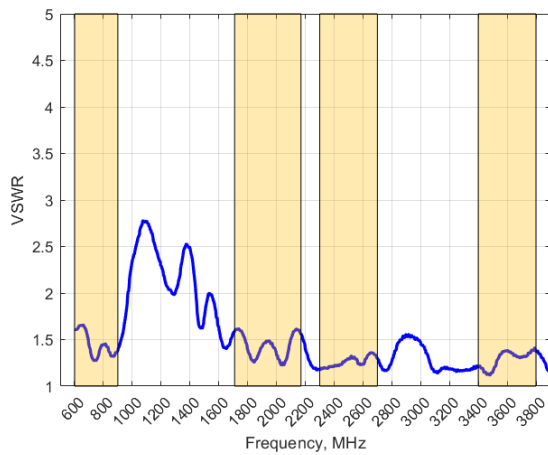


Technical Drawings

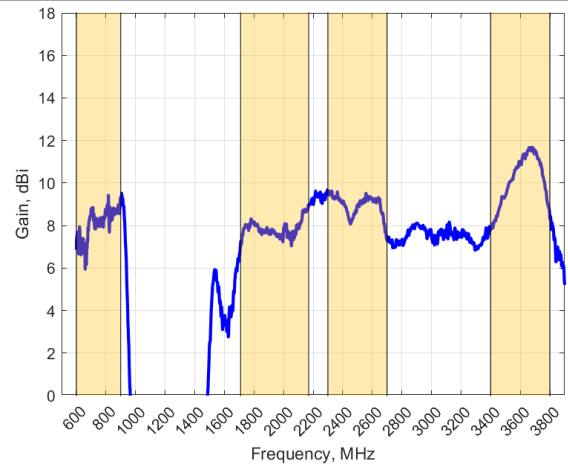


Antenna Performance Plots

VSWR: Cellular Antenna



Gain: Cellular Antenna



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-2-5G-US delivers superior performance across all bands with a VSWR of $\leq 1.5:1$ over 90% of the band

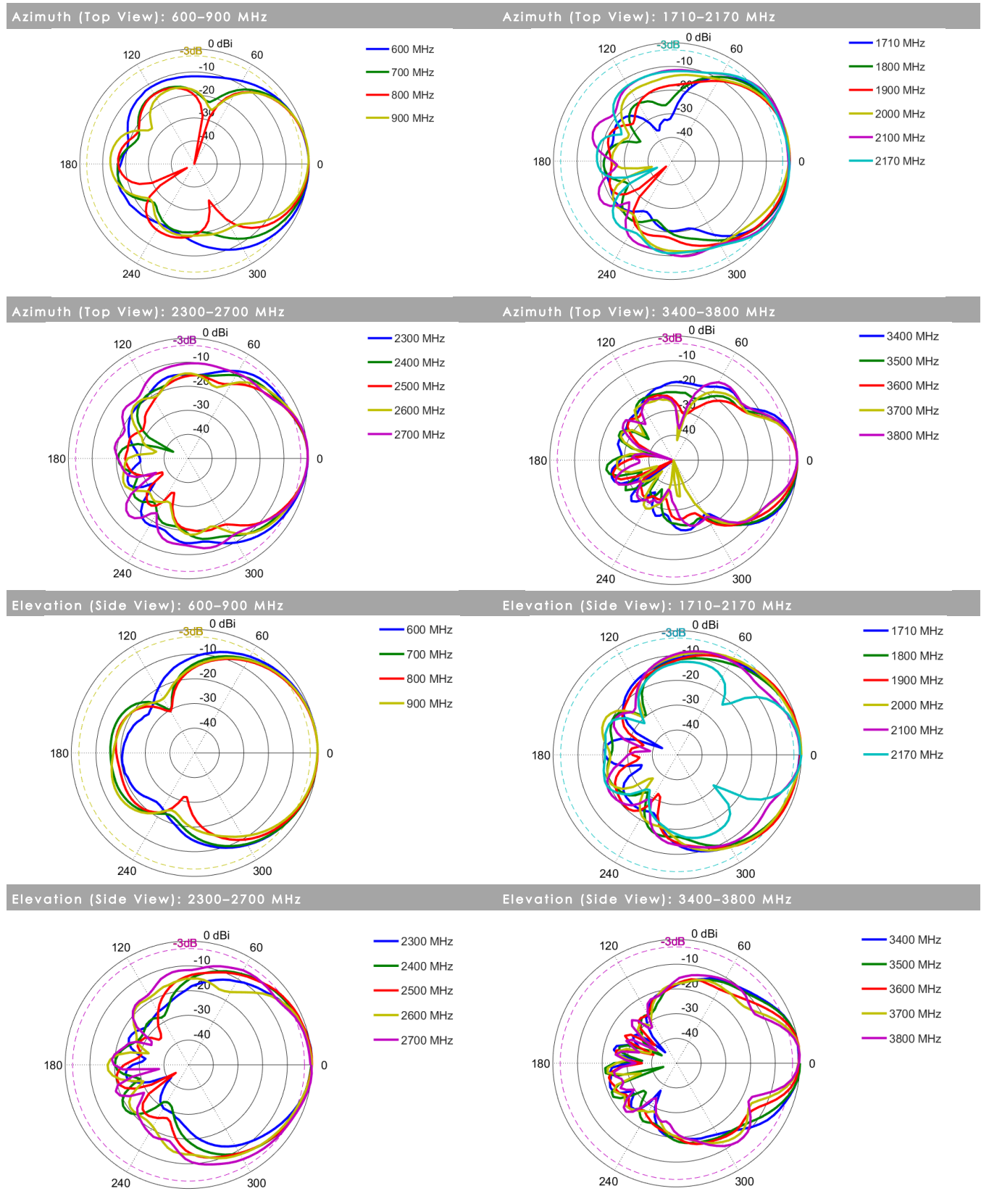
*Measured with 5m low loss cable

Gain in dBi

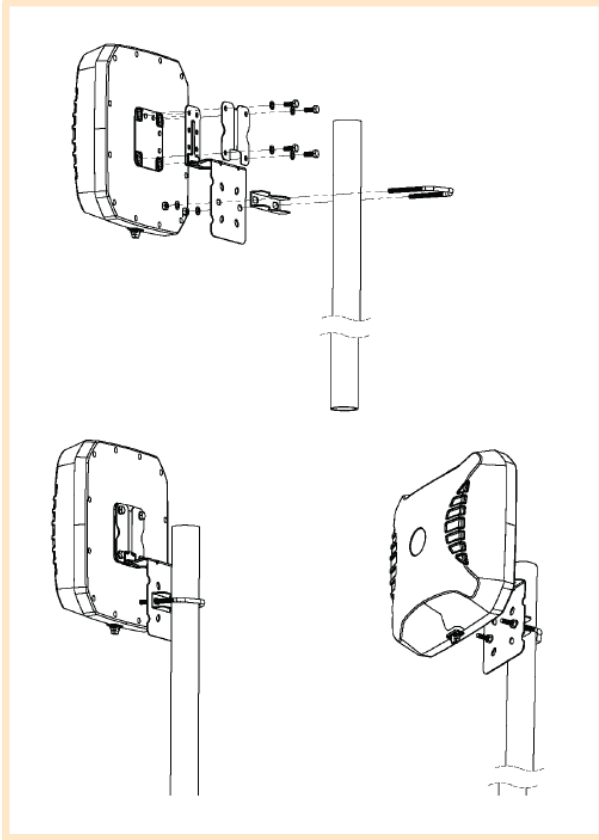
11 dBi is the peak gain across all bands from 617–894, 1710–2700 & 3400–3800 MHz

Peak Gain @ different bands: 9 dBi @617–894MHz
 Peak Gain @ different bands: 10 dBi @ 1710–2700MHz
 Peak Gain @ different bands: 11 dBi @3400–3800MHz

Radiation Patterns—Cellular

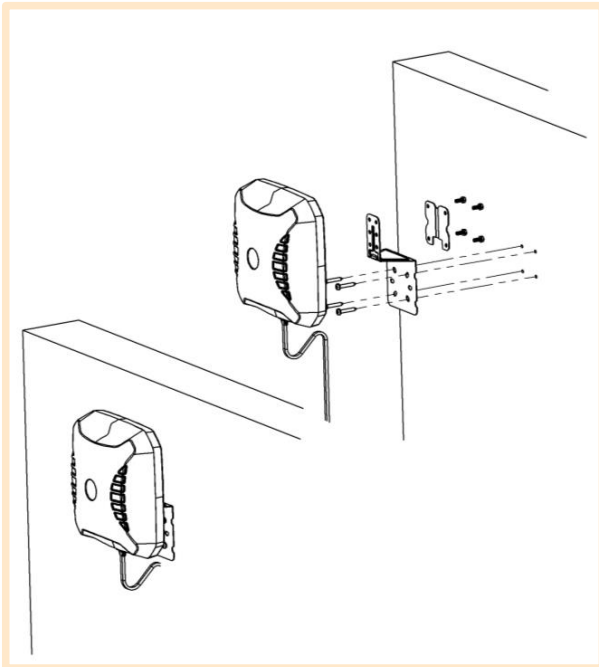


Mounting Options



Pole Mount

Pole/Wall Mounting bracket (included)



Wall Mount

Pole/Wall Mounting bracket (included)



Contact Poynting

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

Poynting Europe

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

Phone: +49 89 208026538

E-mail: sales-europe@poynting.tech