



HIRSCHMANN MOBILITY

Cellular/ GNSS Screw Antenna

GPS 1890 LP S/Series

Part Number 920-062-XXX

Features

- Low Profile antenna
- Reception antenna for GNSS satellite signals for processing in navigation systems, fleet management systems, traffic guidance systems and vehicle location. In combination with low profile cellular phone antenna
- Low body height ca. 21 mm
- Coverage of European and American cellular phone frequencies
- Mounting on several surfaces (e.g. glass, plastics, metal ...)

Technical Data

| | |
|-------------------|------------------------|
| Dimensions | 100 mm x 74 mm x 21 mm |
| Weight | 173 - 240 g |
| Temperature range | -40°C - +80°C |
| Protection class | IP66 (acc. ISO 60529) |
| Cable type | RG 174 |

Technical Data

| Cellular | |
|-----------------------|---|
| Frequency range | Low: 824 - 960 MHz High: 1710 - 2170 MHz |
| Services | 2G: GSM 850/900 MHz GSM 1800/1900 MHz 3G: UMTS |
| Gain | 0 dBi ²⁾ |
| Polarization | linear, vertical |
| Load capacity | max. 10 W pulsed acc. GSM standard |
| Diagnostic Resistor | 10 kOhm |
| GPS | |
| Frequency range | GPS: 1.57542 GHz \pm 1.023 MHz (L1-band) QZSS: 1563 - 1587 MHz (L1) Galileo: 1559 - 1591 MHz (E1) |
| Impedance | 50 Ohm |
| VSWR | \leq 2.0 |
| Gain | 2 dBic ¹⁾ |
| Polarization | RHCP |
| Amplification | 27 \pm 3 dB |
| Noise figure (50 Ohm) | < 2.5 dB |
| Voltage supply | 3 - 5.5 VDC (remotely fed) |
| Current consumption | < 25 mA at 5 V |

¹⁾ dBic: referenced to an isotropic radiator, circular polarization

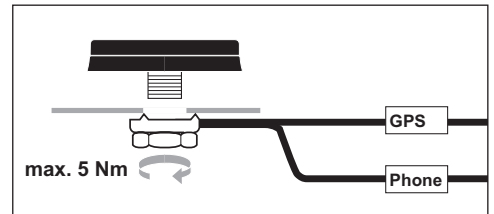
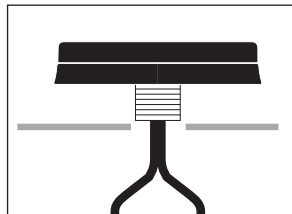
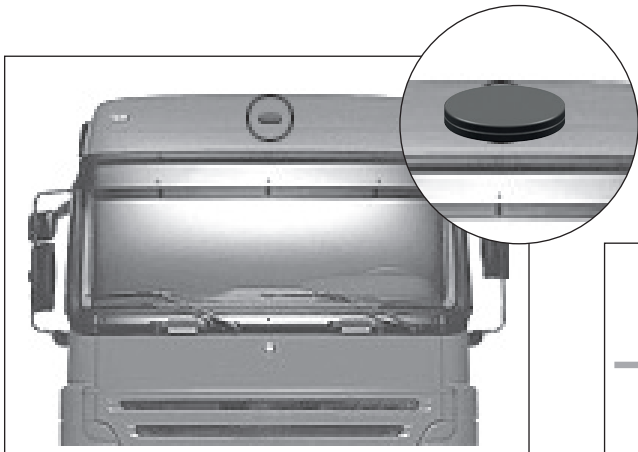
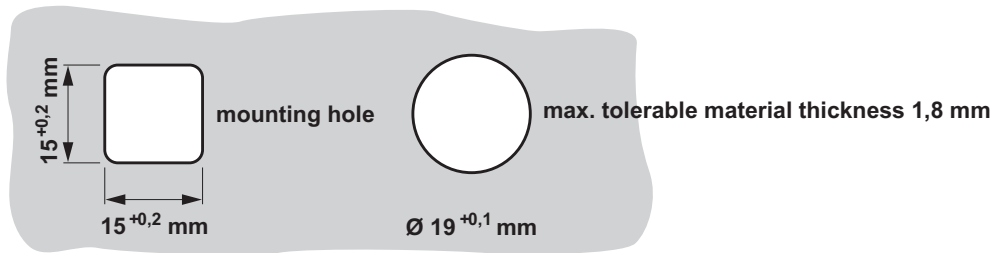
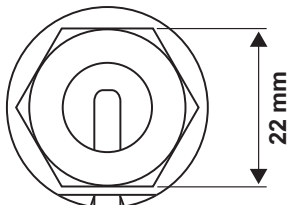
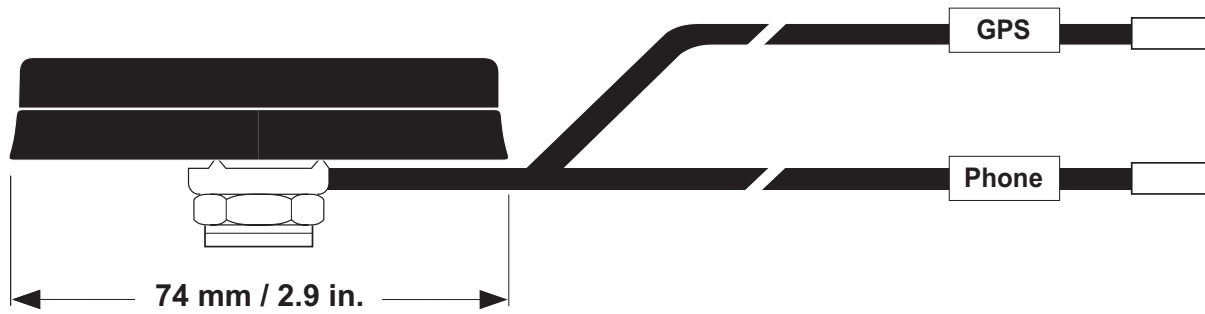
²⁾ dBi: referenced to an isotropic radiator

Versions

| PN | Description | CELL | GPS |
|-------------|---------------------------|--|--|
| 920-062-201 | GPS 1890 LP S/SMB/FME | 370 +30 mm FME _m | 310 +30 mm SMB _f |
| 920-062-202 | GPS 1890 LP S/SMA/SMA/3.0 | 3000 +30 mm SMA _m | 3000 +30 mm SMA _m |
| 920-062-207 | GPS 1890 LP S/FAKRA/3.0 | 3000 +30 mm FAKRA _f , D bordeaux | 3000 +30 mm FAKRA _f , C blue |

Other Cable lengths and Connectors on request

Installation

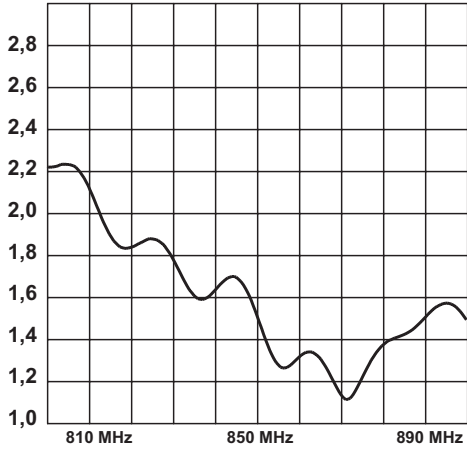


Installation on ground plane

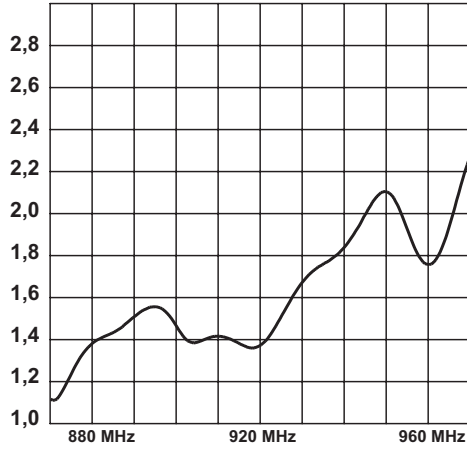
Antenna diagrams

Typ. VSWR

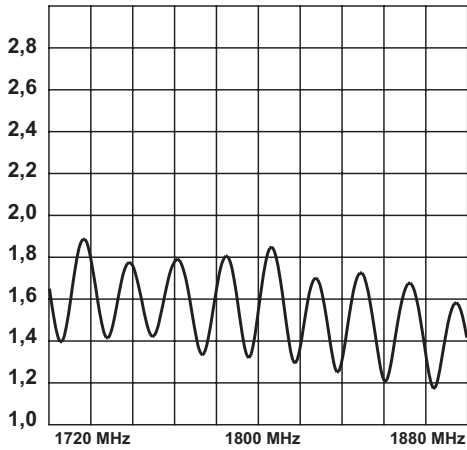
GSM 850



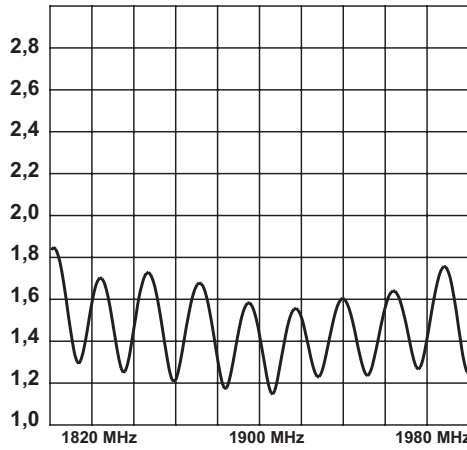
GSM 900



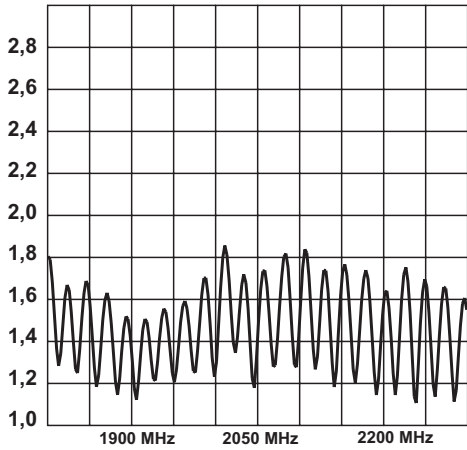
GSM 1800



GSM 1900



UMTS

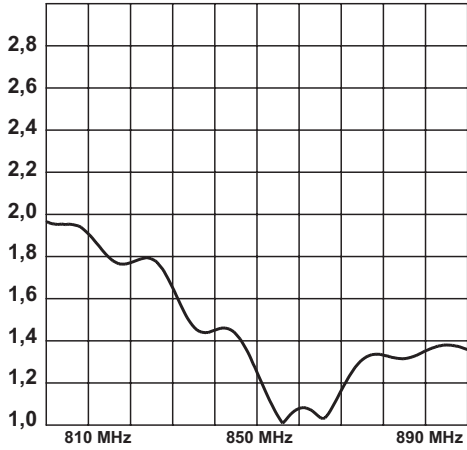


Installation on non-conductive plane

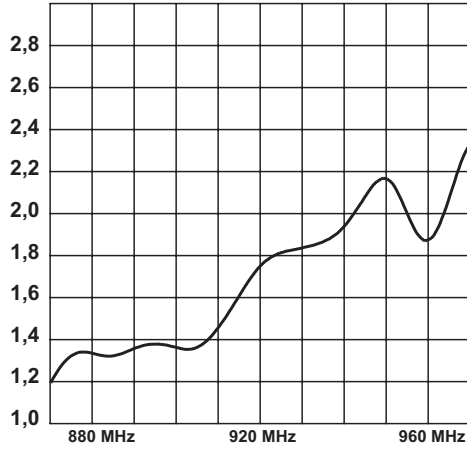
Antenna diagrams

Typ. VSWR

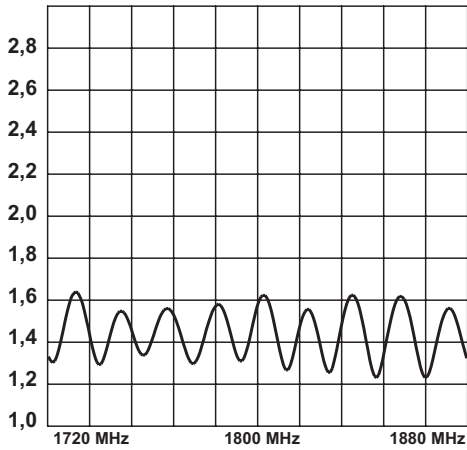
GSM 850



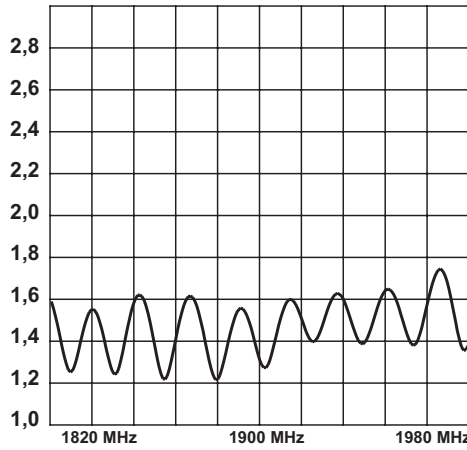
GSM 900



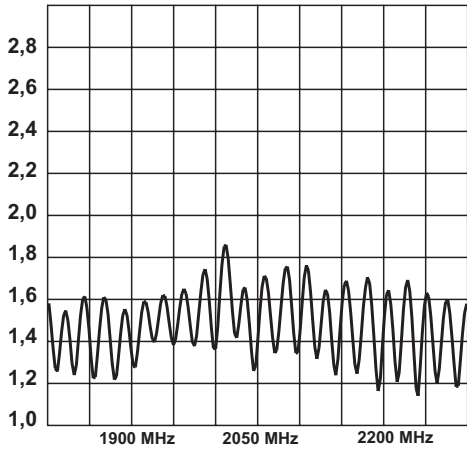
GSM 1800



GSM 1900



UMTS

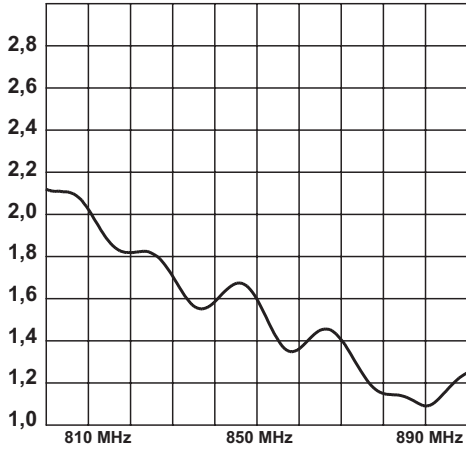


Installation between 2 metal bars

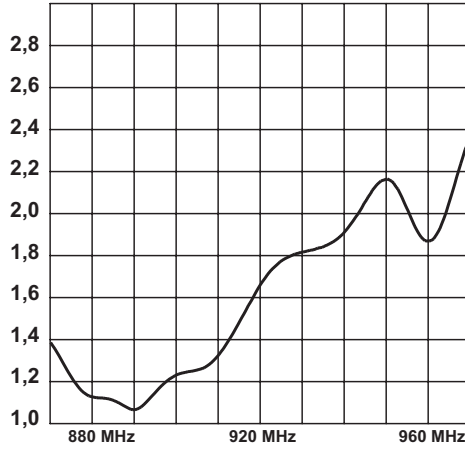
Antenna diagrams

Typ. VSWR

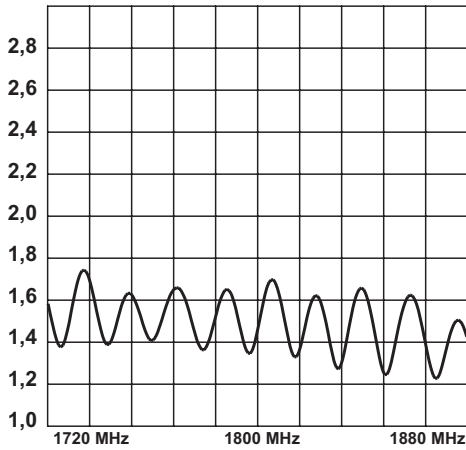
GSM 850



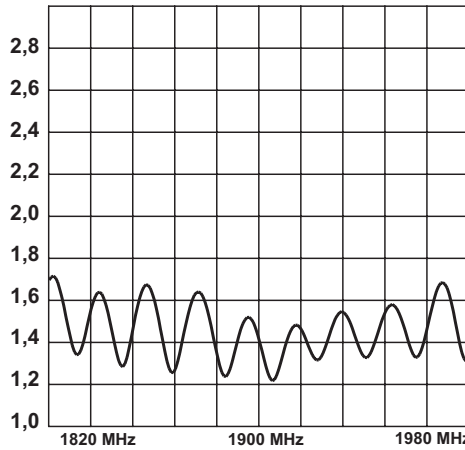
GSM 900



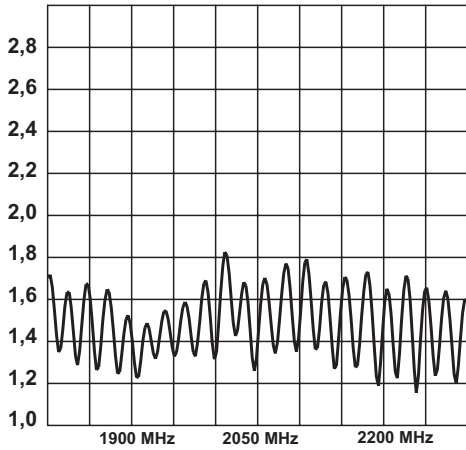
GSM 1800



GSM 1900



UMTS

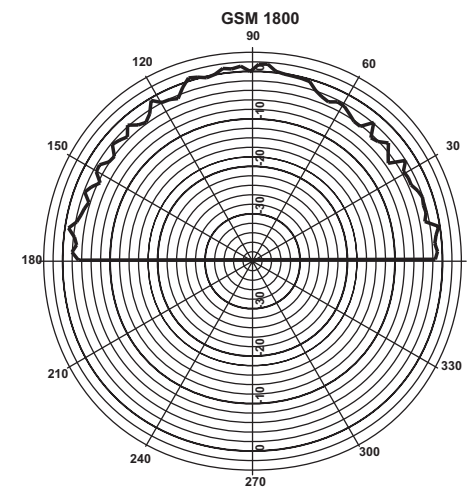
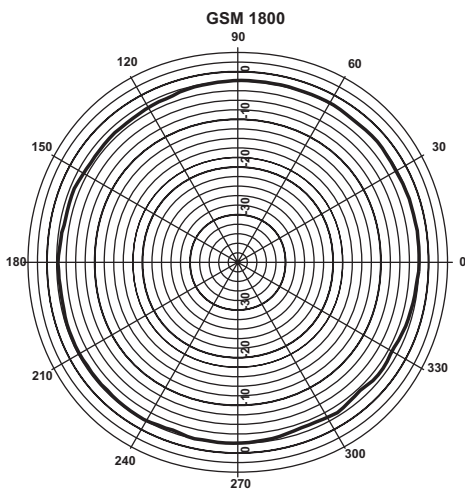
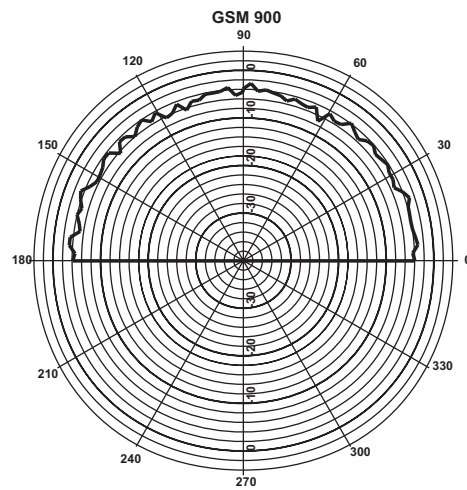
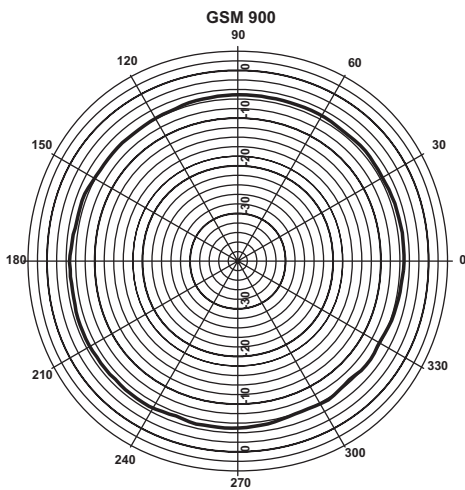
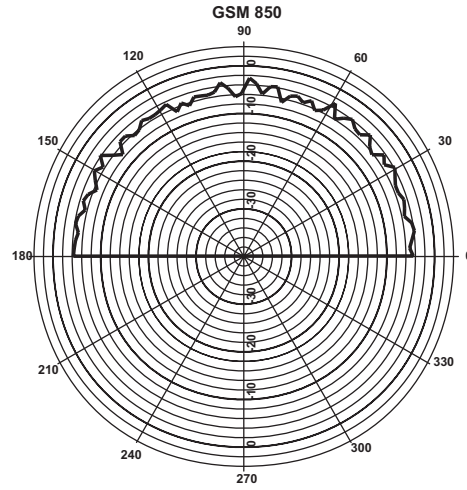
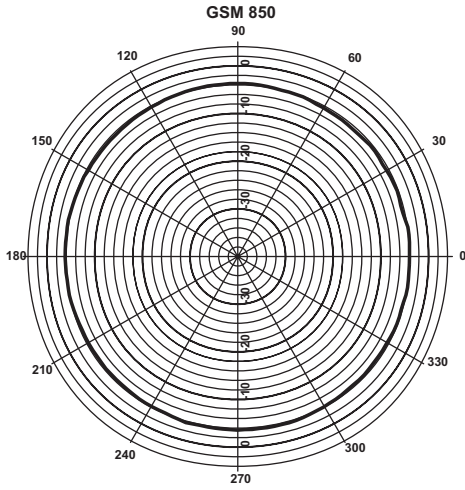


Antenna diagrams

Typ. Radiation pattern

Horizontal / Azimuth

Vertikal / Elevation

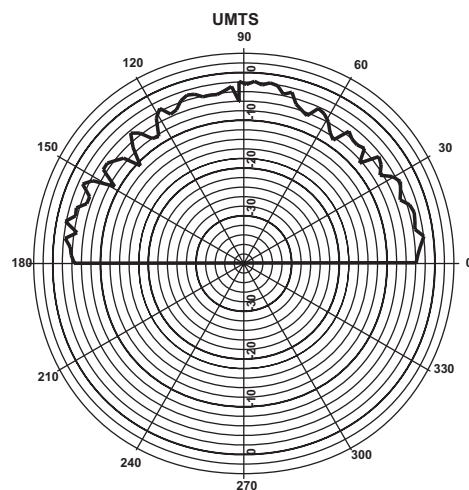
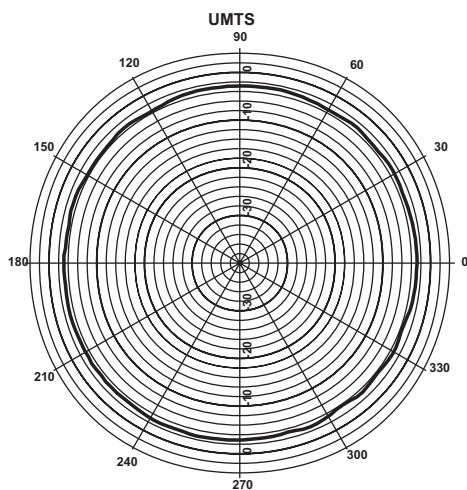
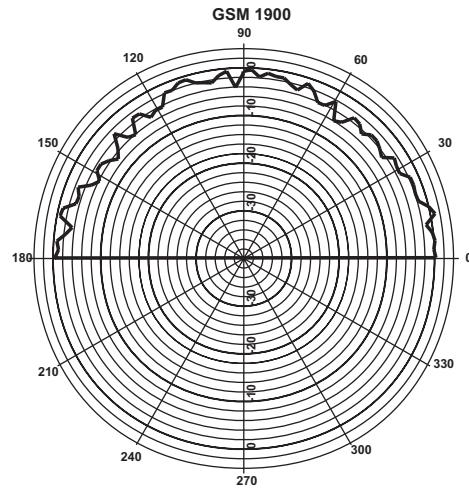
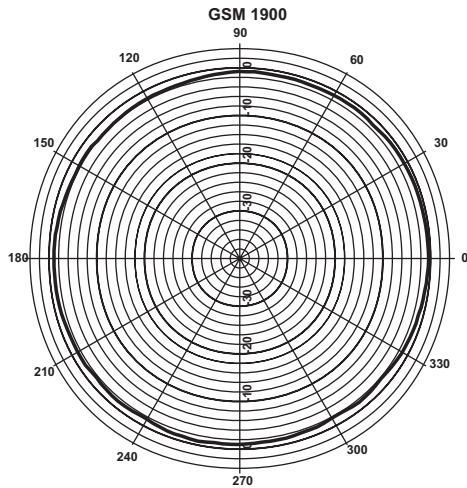


Antenna diagrams

Typ. Radiation pattern

Horizontal / Azimuth

Vertikal / Elevation



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