



HIRSCHMANN MOBILITY

Cellular/ GNSS

Screw Antenna

CGN 7026 LP S/Series

Part Number 920-626-XXX

Features

- Combination antenna for positioning and data-services
- Terrestrial based transmission and satellite-based positioning
- Embedded high performance LNA with dual feed ceramic patch antenna and phase shift network for optimized cross polarization discrimination(XPD)
- Screw mounting on metallic and non metallic ground
- Designed for installation in harsh environment

Some technical optimization with minor effect to the overall performance of this product are still pending. This document will be updated according the finalization of the optimization measures without prior information.

Technical Data

| | |
|-------------------|----------------------|
| Dimensions | 124mm x 80mm x 31 mm |
| Weight | ca. 280 g |
| Temperature range | -40°C - +85°C |
| Protection class | IP6k6 |
| Cable type | RG 174 |

Technical Data

| Cellular | |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency range | Low: 698 - 960 MHz High: 1710 - 2690 MHz |
| Services | 2G: GSM 850/900 MHz GSM 1800/1900 MHz 3G: UMTS 4G: LTE-bands (1 - 10; 12 - 20; 23, 25; 26 - 30; 33 - 41; 44) |
| Impedance | 50 Ohm |
| Load capacity | max. 10 W pulsed acc. GSM standard |
| VSWR | ≤ 2.0 |
| Gain | 0 dBi ¹⁾ |
| Load capacity | max. 10 W pulsed acc. GSM standard |
| Diagnostic resistor | 10 kOhms |
| GNSS | |
| Frequency range | GPS: 1563 - 1587 MHz (L1) QZSS: 1563 - 1587 MHz (L1) Galileo: 1559 - 1591 MHz (E1) BeiDou: 1559 - 1591 MHz (B1C) GLONASS: 1593 - 1610 MHz (G1) |
| Impedance | 50 Ohm |
| VSWR | ≤ 2.0 |
| Gain | 1 dBic ²⁾ |
| Amplification | 27 \pm 1 dB |
| Noise figure (50 Ohm) | ≤ 2.2 dB |
| Voltage supply | 3.0 - 5.5 VDC (remotely fed) |
| Current consumption | 24 \pm 1 mA @ 5 V |

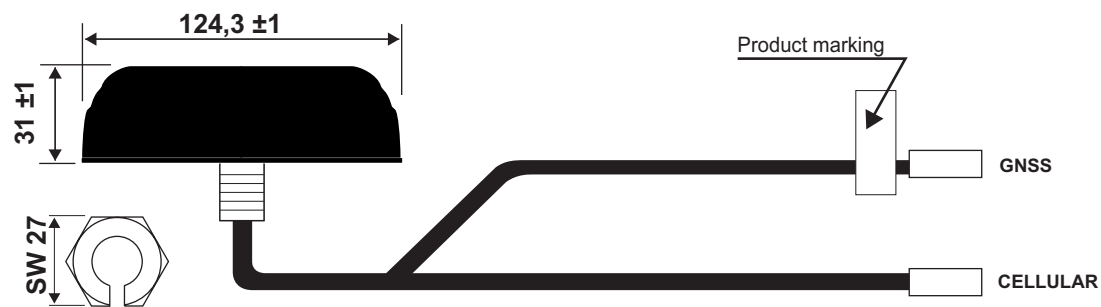
¹⁾ dBi: referenced to an isotropic radiator

²⁾ dBic: referenced to an isotropic radiator, circular polarization

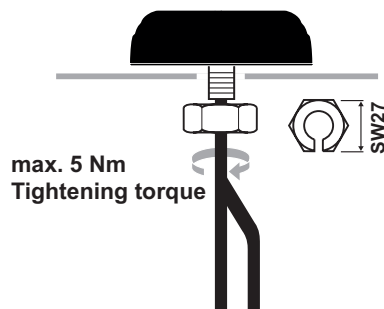
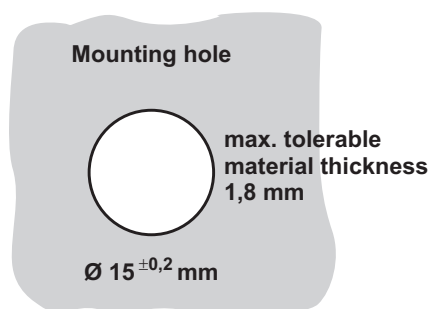
Versions

| PN | Description | CELL | GNSS |
|-------------|--------------------------|-------------------------------|---------------------------|
| 920-626-001 | CGN 7026 LP S/0.2 | 200 mm FAKRAM, D bordeaux | 200 mm FAKRAM, C blue |
| 920-626-002 | CGN 7026 LP S/FAKRAF/3.0 | 3000 mm FAKRAF, D bordeaux | 3000 mm FAKRAF, C blue |

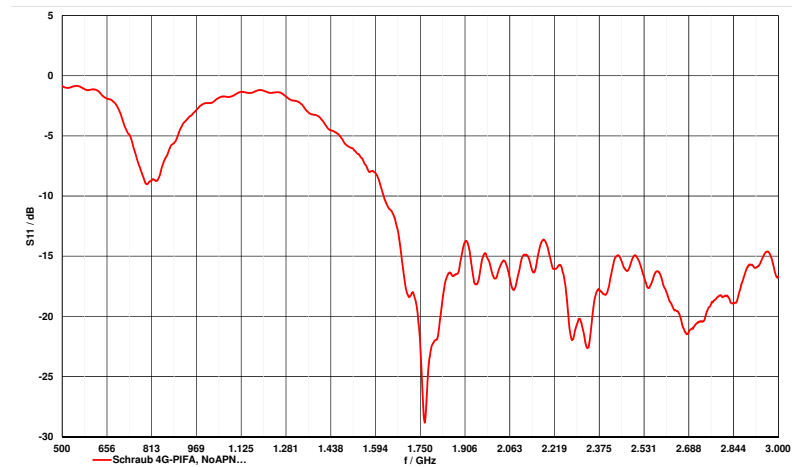
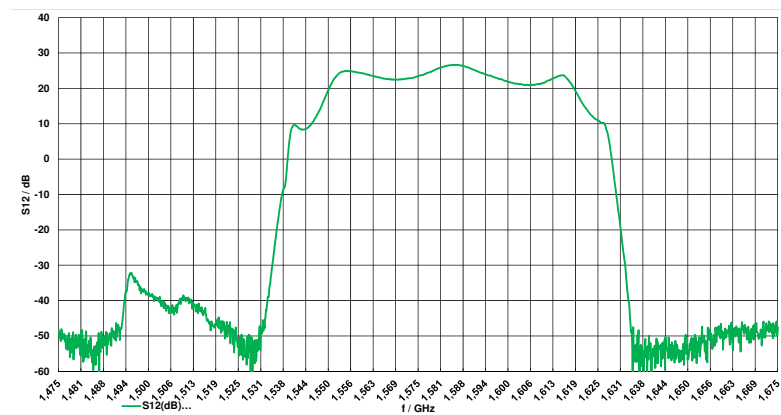
Technical Drawing



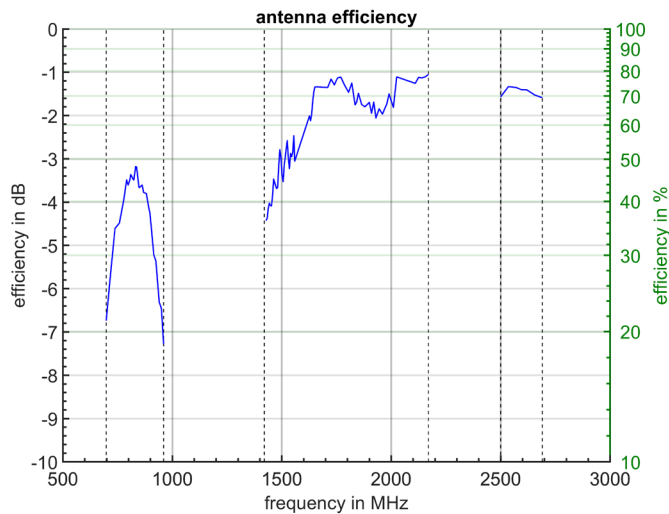
Installation



Antenna diagrams

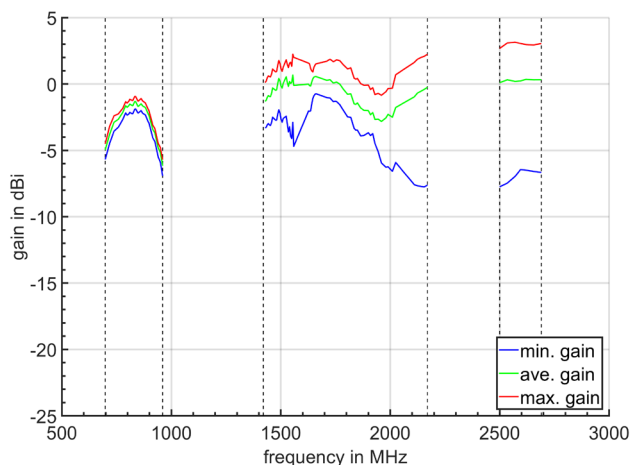
Typ. VSWR (S_{11}) Cellular bandsTyp. Gain (S_{12}) GNSS-LNA

Efficiency CELL Conductive Ground plane



Gain CELL Conductive Ground plane

partial average antenna gain (Theta=[60.00 - 90.00]° ; Phi=[0.00 - 360.00]°)
E_Total, Theta - linear w. spherical area consideration, Phi - linear



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