

HIRSCHMANN MOBILITY

GNSS (GPS/GLONASS)/ WLAN (2.4GHz/5.8GHz) Screw Antenna



WGN 2458 LP S/series

Pt no.

951-003-...

Subject to alterations

- Low Profile antenna
- Mount on any surfaces (e.g. plastics, metal...)
- For WLAN networks (2.4 GHz or/and 5.8 GHz)
- For GPS and GLONASS satellites
- Public transport or M2M application - telemarketing, remote,

Technical data

Electrical Specification GNSS

Frequency range	GPS, Galileo: GLONASS: Center frequency:	1575.42 ± 1.023 MHz 1602.0 – 1614.94 MHz 1595.0 ± 5 MHz
Impedance		50 Ohm
VSWR		≤ 1,5
Polarization		right hand circular
Gain (linear gain, vertical polarization)		4,5 dBic *
Voltage supply		3 – 5,5 VDC
Current consumption		typ. 29 mA@ 3,3± 0,3 V
Amplification (LNA)		20± 2 dB@ 3,3± 0,3 V
Bandwidth (LNA)		100 MHz
Noise figure (LNA)		≤ 3,0 dB

Electrical Specification WLAN

Frequency range	Bluetooth: IEEE 802.11 b, g, n, ax: IEEE 802.11 a, h, n, ac, ax: IEEE 802.11 n: IEEE 802.11 p:	2400 - 2484 MHz 2412 - 2484 MHz 5150 - 5725 MHz 2400 - 2484 MHz 5150 - 5725 MHz 5755 - 5925 MHz
Impedance		50 Ohm
VSWR		≤ 1,5
Polarization		linear, vertical
Gain (linear gain, vertical polarization)		> 3 dBi*
Load capacity	IEEE 802.11 b, g, n, ax: IEEE 802.11 a, h, n, ac, ax: IEEE 802.11 n: IEEE 802.11 p:	≤ 200 mW ≤ 1000 mW ≤ 200 mW (2,4 - 2,84 GHz) ≤ 1000 mW (5,1 - 5,72 GHz) ≤ 8 W EIRP (5,79 - 5,81 GHz) ≤ 2 W EIRP (5,85 - 5,92 GHz)

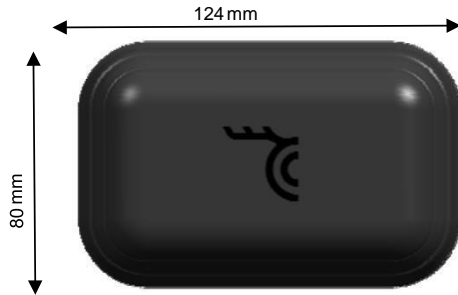
Mechanical

Dimensions		ca. 124 mm x 80 mm x 31 mm
Housing Materials		ASA-PC
Weight		250 g
Operations temperature range		- 40 + 85° C
Storage temperature range		- 40 + 85° C

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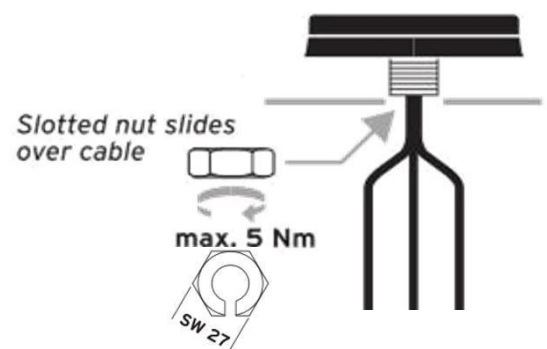
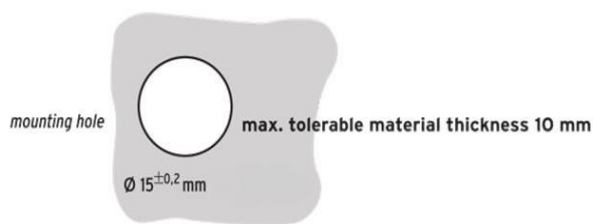
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Housing protection class	IP66 (acc. IEC 60529)		
Cable type	RG174 Low Loss (long dimensions not adapted to WLAN >5 GHz)		
Versions			
951-003-001	WGN 2458 LP S SMAm 0,15	140/170 +30mm	SMA male straight



Installation

- Take the necessary electrostatic precautions for a connection of electronic components (Potential ESD < 1 KV)
- Surface must be flat (maximum radius 1mm per meter), max thickness 10 mm
- No metallic (conductive) surface above the antenna
- Connectors are not waterproof, so area below the antenna must be dry
- Drill a hole (diameter 15 +4/-0,5mm) (clean with isopropyl alcohol or similar)
- Screw the nut on the grounding plate (Torque 5 Nm +0-20%)
- No adjunction of any material (silicones, glue, ...)
- Check that the coaxial cable is not electrically charged (Potential ESD < 1 KV)
- Connect the coaxial cable connector by hand without forcing (Torque 1 +/- 0,15 Nm = handmade)
- Check that the wires respect the appropriate way, not pulled / stressed / bended < 25mm radius / touching aggressive parts



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