



HIRSCHMANN MOBILITY

**Cellular (2G/3G/4G)/
GNSS (GPS/GLONASS)/
WLAN (2.4GHz/5.8GHz) Screw Antenna**

CGNW 702659 SF S/Series

Part Number 955-181-XXX

Features

- Combination antenna for positioning, data-services and short range radio services
- Terrestrial based transmission and satellite-based positioning
- Embedded high performance LNA with ceramic patch antenna
- Screw mounting on metallic ground
- Street vehicle roof mount installation

Technical Data

Dimensions	95 mm x 57 mm x 72 mm
Housing materials	PA 6
Weight	ca. 178 g
Tightening torque	max. 7 Nm
Temperature range	-40 °C - +85 °C
Protection class	IP 6k9K (acc. ISO 20653)
Cable type	RG 174

Technical Data

Cellular	
Frequency range	LTE-LB: 698 - 862 MHz GSM 850: 824 - 894 MHz GSM 900: 880 - 960 MHz GSM 1800: 1710 - 1880 MHz GSM 1900: 1850 - 1990 MHz UMTS: 1920 - 2170 MHz LTE-HB: 2305 - 2690 MHz
Impedance	50 Ohm
Return loss	> 12 dB
Decoupling	> 40 dB
Load capacity	max. 8 W pulsed acc. GSM standard
VSWR	< 3:1
Gain	2.5 dBi ¹⁾

GNSS	
Frequency range	GPS: 1.57542 GHz ± 1.023 MHz (L1-band) GLONASS: 1602.0 - 1614.94 MHz
Impedance	50 Ohm
Return loss	> 12 dB
Gain	typ. 2 dBic ²⁾
Amplification	typ. 27 ±3 dB
Noise figure	< 1.9 ±0.3 dB
Voltage supply	2.9 - 5.5 VDC
Current consumption	≤ 12 mA ± 3 mA at 3.3 V

WLAN	
Frequency range	IEEE 802.11 b, g: 2400 - 2484 MHz IEEE 802.11 a, h: 5150 - 5725 MHz IEEE 802.11 n: 2400 - 2484 MHz 5150 - 5725 MHz IEEE 802.11 p: 5755 - 5925 MHz
Impedance	50 Ohm
Load capacity	IEEE 802.11 b, g: max. 200 mW (1 W only USA) IEEE 802.11 p: 8 W EIRP (5.79 - 5.81 GHz) 2 W EIRP (5.85 - 5.92 GHz)

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WLAN	
VSWR	< 2.5:1
Gain	2.5 dBi ¹⁾ @ 2.4 GHz; +3 dBi ¹⁾ @ 5.8 GHz
Diagnostic resistor	10 kOhms

¹⁾ dBi: referenced to an isotropic radiator

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

Versions

PN	Description	CELL	GNSS	WLAN
955-181-001	CGNW 702659 SF S/SMA/0.15	150 mm SMAM	150 mm SMAM	150 mm SMAM
955-181-002	CGNW 702659 SF S/FAKRA/D/C/E/0.3	325 mm FAKRAF, D	305 mm FAKRAF, C	315 mm FAKRAF, E
955-181-003	CGNW 702659 SF S/FME/3.0	3000 mm FMEf	3000 mm FMEf	3000 mm FMEf
925-181-004	CGNW 702659 SF S/SMA/5.0	5000 mm SMAM	5000 mm SMAM	5000 mm SMAM
955-181-005	CGNW 702659 SF S/FAKRA/D/C/E/5.0	5000 mm FAKRAF, D	5000 mm FAKRAF, C	5000 mm FAKRAF, E
955-181-006	CGNW 702659 SF S/FME/SMA/FME/5.0	5000 mm FMEf	5000 mm SMAM	5000 mm FMEf
955-181-007	CGNW 702659 SF S/FME/SMB/SMA/0.25	250 mm FMEf	250 mm SMBf	250 mm SMAM
955-181-008	CGNW 702659 SF S/FAKRA/D/C/K/2.0	2000 mm FAKRAF, D	2000 mm FAKRAF, C	2000 mm FAKRAF, K
955-181-009	CGNW 702659 SF S/SMA/3.0	3000 mm SMAM	3000 mm SMAM	3000 mm SMAM
955-181-010	CGNW 702659 SF S/FAKRA/D/C/K/5.0	5000 mm FAKRAF, D	5000 mm FAKRAF, C	5000 mm FAKRAF, K
955-181-011	CGNW 702659 SF S/FAKRA/D/C/B/0.3	325 mm FAKRAF, D	325 mm FAKRAF, C	325 mm FAKRAF, B
955-181-012	CGNW 702659 SF S/FAKRA/D/C/I/0.3	300 mm FAKRAF, D	300 mm FAKRAF, C	300 mm FAKRAF, I