

Datasheet

CELLULAR(2G/3G/4G) / GNSS(GPS/GLONASS) / WLAN(2.4GHz/5.8GHz) Antenna

CGNW 702659 LP S

Pt no.

920 630-001

- Combination antenna for positioning, data-services and short range radio services
- Terrestrial based transmission and satellite based positioning
- Embedded high performance LNA with dualfeed 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.

Subject to alterations

Technical data

Dimensions		124 x 80 x 31 mm
Weight	ca.	178 g
Temperature range		-40 °C - +85 °C / -40 °F to + 185 °F
Protection class		IP 6k9K (acc. ISO 20653)
Cable type		RG 174
Cable length		200 +30 mm
CELLULAR/2G/3G/4G)		
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
VSWR		≤ 2,0
Gain		0 dBi ²⁾
Load capacity	max.	10 W pulsed acc. GSM standard
Diagnostic Resistor		10 kOhm
Connector		FAKRA male, Code D bordeaux
GNSS (GPS/GLONASS)		
Frequency range	GPS:	1,57542 GHz ± 1,023 MHz, (L1-band)
	GLONASS:	1602,0 - 1614,94 MHz
Impedance		50 Ohm
VSWR		≤ 2,0
Gain		1 dBi ¹⁾
Amplification		27 ± 1 dB
Noise figure (50 Ohm)		≤ 2,2 dB
Voltage supply		3,0 - 5,5 VDC (remotely fed)
Current consumption		24 ±1 mA @ 5 V
Connector		FAKRA male, Code C blue

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Technical data

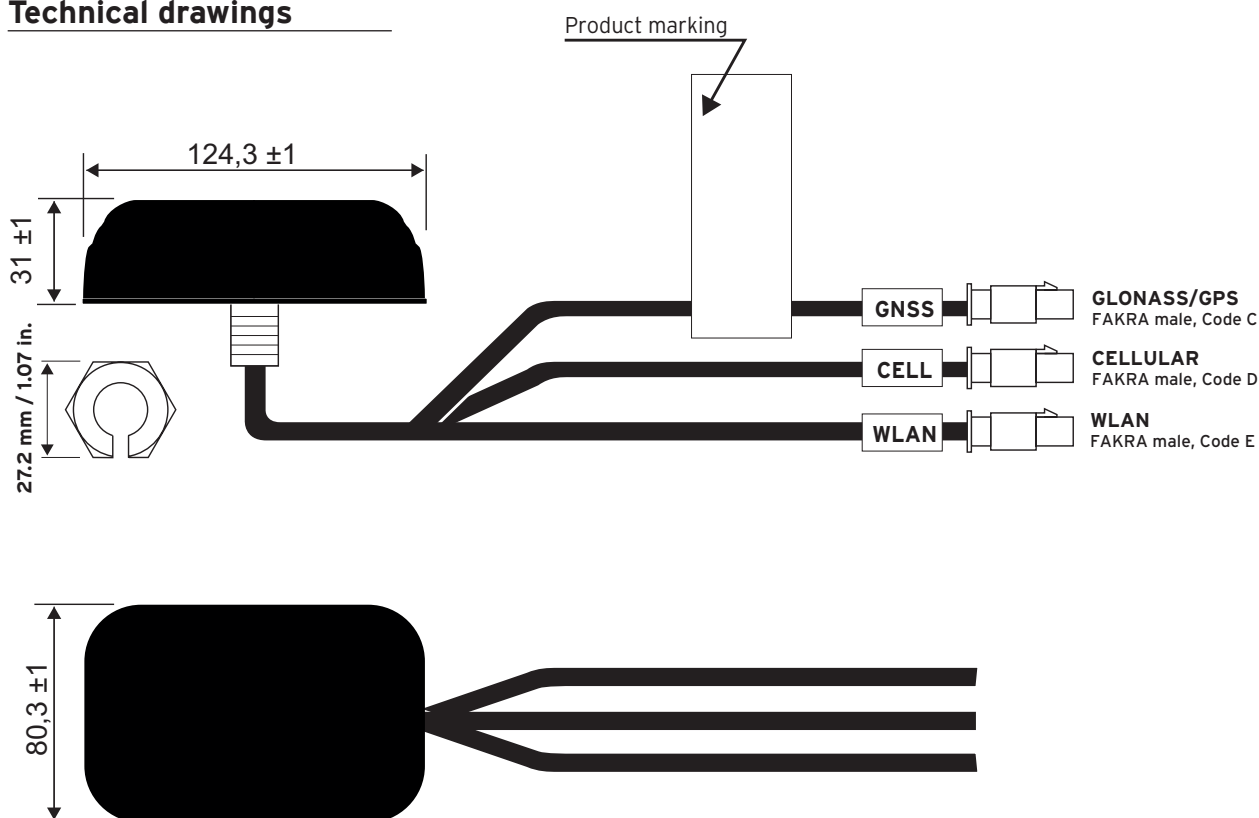
WLAN(2.4GHz/5.8GHz)

Frequency range	IEEE 802.11 b, g: IEEE 802.11 a,h: IEEE 802.11 n: IEEE 802.11 p:	2400 - 2484 MHz 5150 to 5725 MHz 2400 to 2484 MHz and 5150 to 5725 MHz 5755 - 5925 MHz
Polarization		linear
Gain		0 dB
Isolation WLAN to GNSS	2400 to 2500 MHz	30 dB
Return loss (SWR)		≤ 2,0
Load capacity	IEEE 802.11 b, g: IEEE 802.11 a,h: IEEE 802.11 n: IEEE 802.11 p:	≤ 200 mW ≤ 1000 mW ≤ 200 (2,4-2,84 GHz) ≤ 1000 (5,1-5,72 GHz) ≤ 8 W EIRP (5,79 - 5,81 GHz) ≤ 2 W EIRP (5,85 - 5,92 GHz)
Diagnostic resistor		10 kOhms
Connector		FAKRA male, Code E green

*dBi: referenced to an isotropic radiator

*dBic: referenced to an isotropic radiator, circular polarization

Technical drawings



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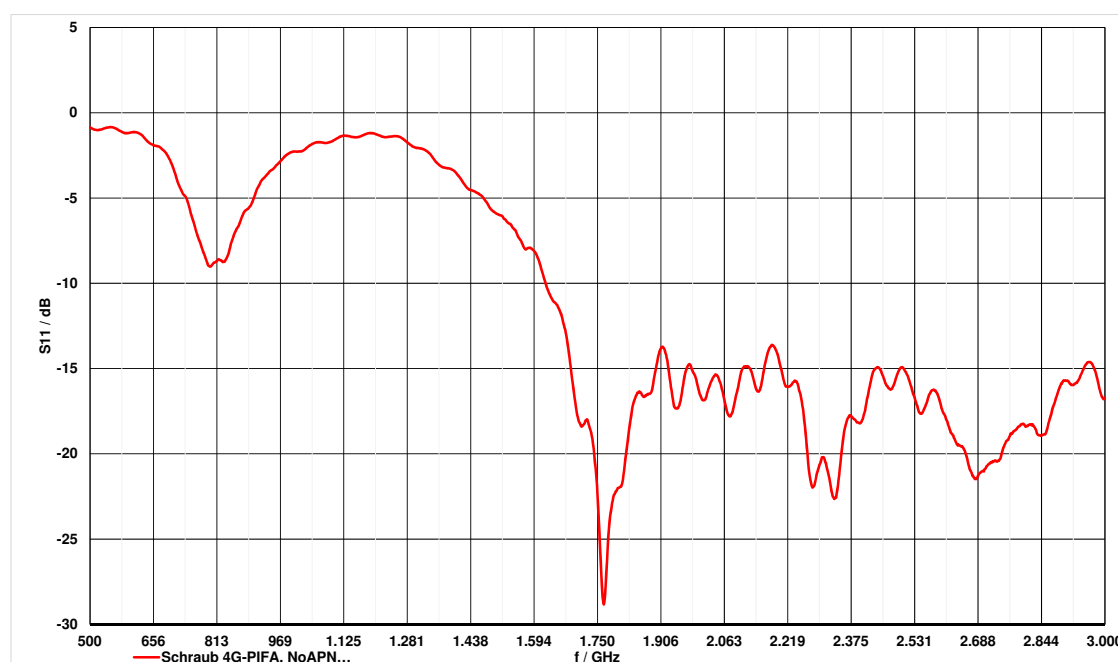
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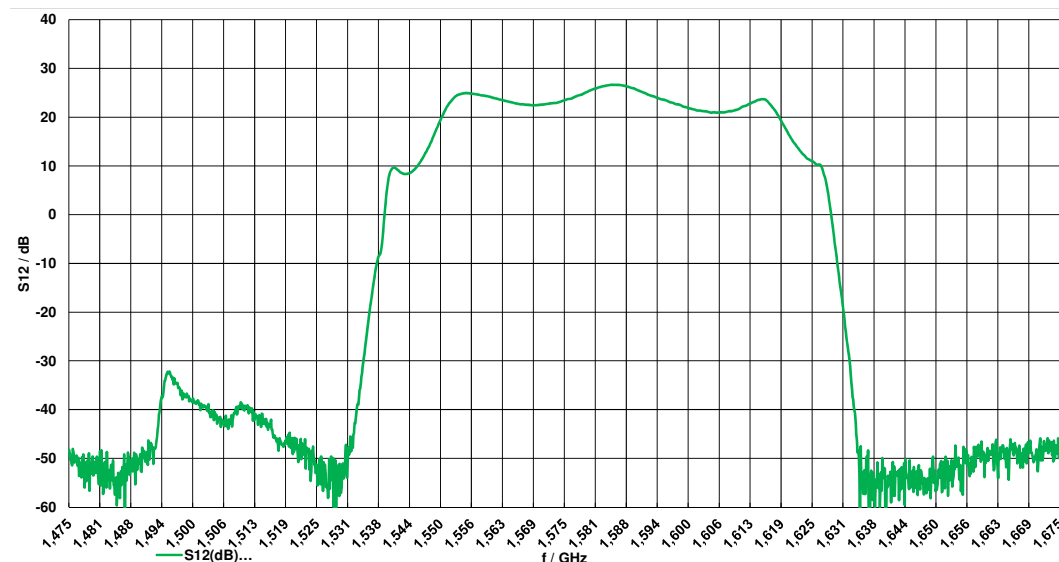
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Antenna diagrams

Typ. VSWR (S_{11}) CELLULAR bands



Typ. gain (S_{12}) GNSS-LNA



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Installation

