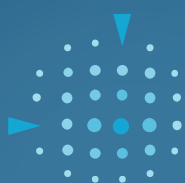
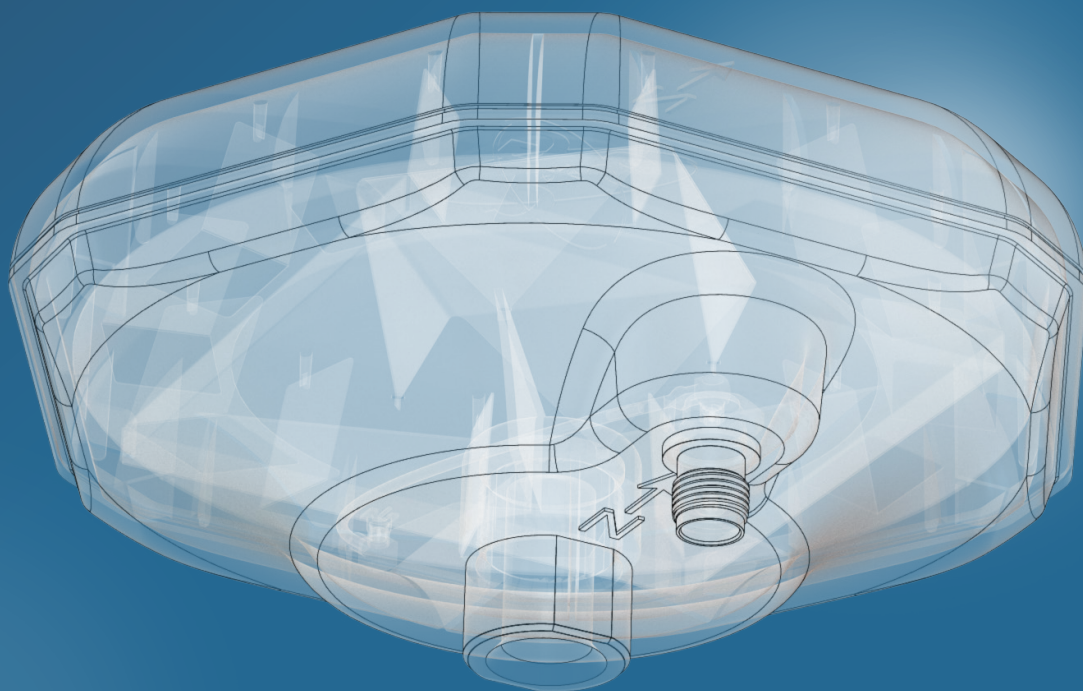


EN



navXperience

next generation GNSS antennas

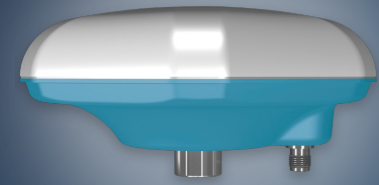
3G+C series

mobile | maritime | control | reference | defense

Innovative Engineering - Made in Germany

Our precise GNSS antennas

3G+C series



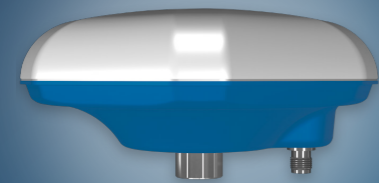
3G+C mobile

Typical applications of the 3G+C mobile are surveying installations on vehicles, mobile applications for high accuracy and stationary installations with short cable lengths. The 3G+C mobile antenna is suitable for all GNSS receivers with a cable length of up to 10 m and a gain of 29 db. For recipients, who expect a higher amplification (few older models), another antenna from the 3G+C series should be used.

Like all antennas from the 3G+C series, it receives all signals from all satellite navigation systems (Galileo, GPS, GLONASS and Beidou) and signals from all L-band correction data services.

The 3G+C mobile is the standard antenna for all dynamic, mobile and high-precision GNSS applications.

Order number: navX-007

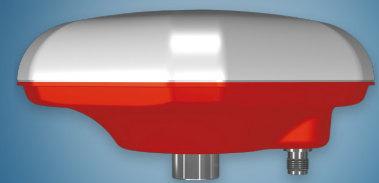


3G+C maritime

The 3G+C maritime is designed for use on all types of watercrafts. the gain of 42 dB allows the use of cable lengths up to 60m and still has an excellent reception of all GNSS signals (Galileo, GPS, GLONASS and Beidou).

Neither heat nor cold, storms, ice and salt water can harm this antenna. Many years on the high seas without failure, wear and tear and without corrosion (V4A thread) have proven that the 3G+C maritime can withstand the extreme conditions. The 3G+C maritime can be used at all latitudes.

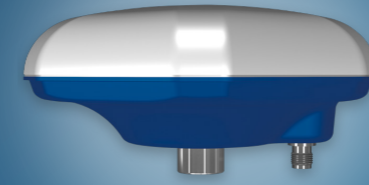
Order number: navX-027



3G+C control

The 3G+C control is designed for machine control applications. The 3G+C control is valued by our customers both in construction and in agriculture. There are no moving parts in the 3 G+C control, which means it is absolutely insensitive to large accelerations and strong vibrations. The 3G+C control withstands the toughest conditions on the heaviest machines for many years. The housing has the highest IP class and is 100% waterproof and dustproof.

Order number: navX-047

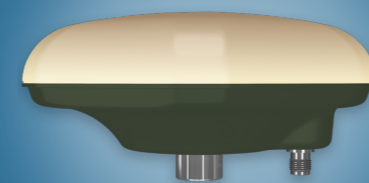


3G+C reference

The 3G+C reference is built for use in GNSS networks for all satellite navigation systems (Galileo, GPS, GLONASS and Beidou) and all L-band correction data services. A gain of 48 dB enables the reception of satellites with a very low elevation. This makes the 3G+C reference superior to all other reference station antennas, of course you can also use the 3G+C reference on the go. With this antenna, low-loss cables with a length of up to 100 m can be used without significant loss of signal quality.

With the 3G+C reference, we placed great value on high-quality components. This allows us to guarantee a long service life. When using the 3G+C reference stationary, we give you a guarantee of 5 years.

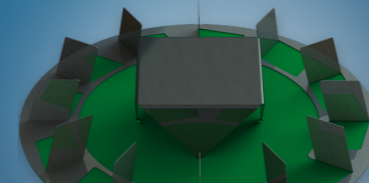
Order number: navX-037



3G+C defense

The 3G+C defense was developed for military applications and for use in difficult environments (interference). The 3G+C defense has successfully passed all tests and requirements of the MIL-Std 810g. The use of special RF filters makes this antenna less sensitive to jammers and the reception properties of M-code and PRS signals are particularly good. Of course, the 3G+C defense can also receive all civil signals from Galileo, GPS, GLONASS and Beidou.

Order number: navX-027



3G+C OEM mobile

You can also get our 3G+C antenna elements without a housing. The 3G+C OEM is an active antenna with 29, 42 or 48 dB gain. It can be connected to any precise GNSS receiver and anyone who wants to build their own GNSS application can use the 3G+C OEM antenna elements. The standard MMCX connection allows a connection to any commercially available receiver.

Order number: navX-003

Precise positioning for all GNSS applications

One of the numerous advantages of the 3G+C series is excellent reception of satellites with low elevation, i.e. weak GNSS signals. This is an outstanding feature as reception characteristics for these satellites are generally poor due to a longer path through the atmosphere.

The 3G+C antenna series enables signal tracking from GNSS satellites up to the horizon (0° elevation) with sufficient quality. While other high-precision antennas typically lose track at 7° elevation or deliver such poor signal quality that the GNSS receiver cannot evaluate these signals.

This unique attribute of the 3G+C antenna series leads to improved productivity for the user as it allows more satellites to be tracked and faster positioning with better signal quality (S/N ratio) is possible.

In applications where roll and pitch occur, such as machine control or on board ships, low elevation satellite tracking enables good signal quality for all GNSS receivers to determine position more accurately and with less noise.

Neither air, dust nor water can get inside the antenna

The production of the 3G+C series meets the highest quality standards in terms of processes and materials used. The housing material is extremely durable, UV-resistant and colourfast. Even after years of use, the 3G+C series antennas look like new. The upper and lower housing is laser welded. This makes the 3G+C series unique and distinguishes us from all other GNSS antenna manufacturers in terms of quality and durability. Neither air, dust nor water can penetrate the interior of the 3G+C antenna housing, even at pressure differences of up to 2.5 bar (36psi).

This also applies to the standard TNC connector, because it is permanently integrated in the housing and specially designed for this housing. Thus, all antennas of the 3G+C series meet the IP69k standard and the requirements of MIL-Std 810g.



The Bumper

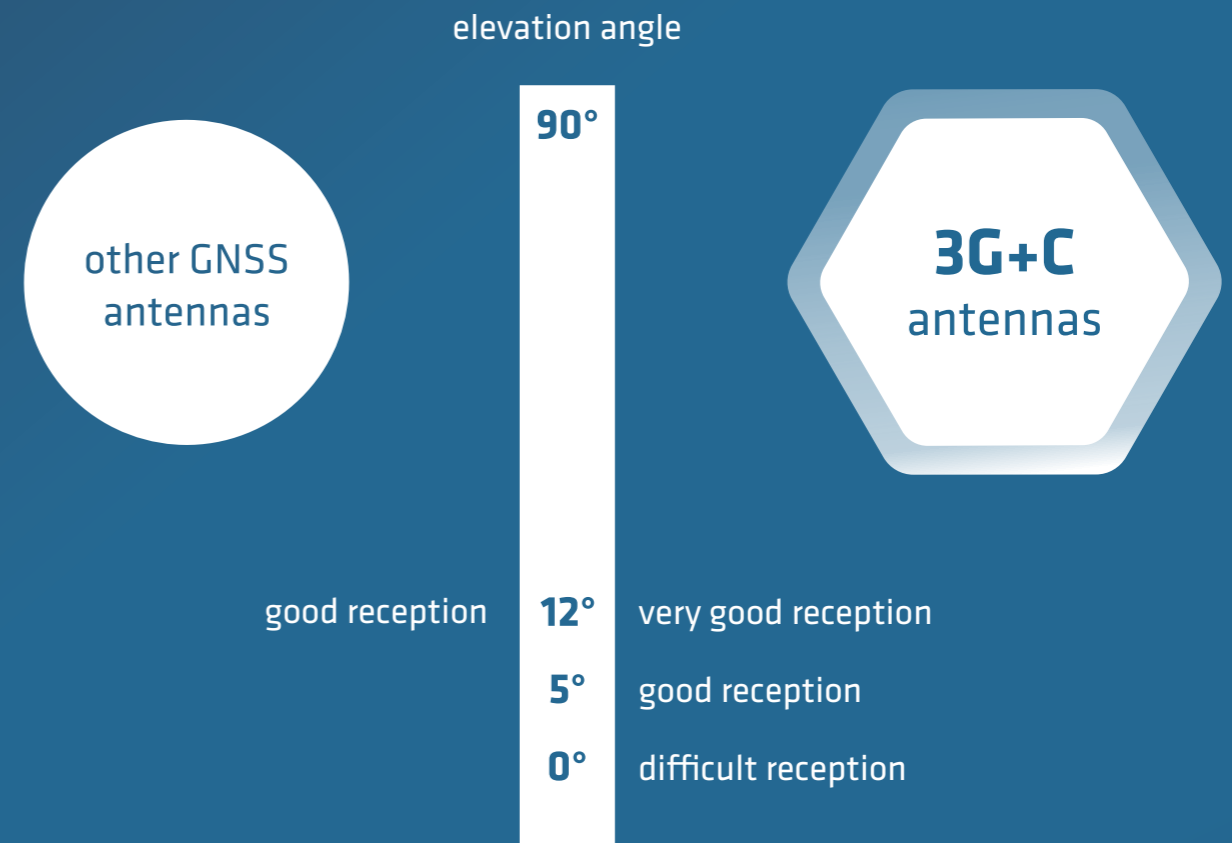
With the shock absorber, our antennas from the 3G+C series easily withstand a fall from 10m onto concrete without being damaged. Depending on your taste, the shock absorber can be supplied in black or green.



Technical Data

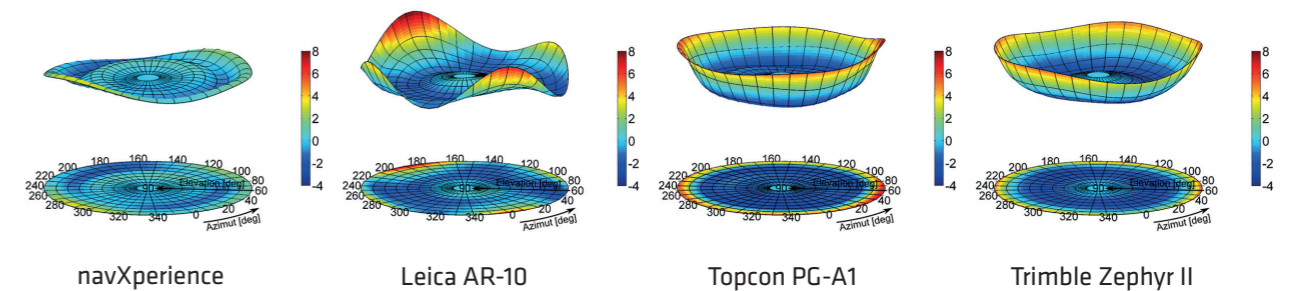
	defense & mobile	control & maritime	reference
Bandwidth	1150 - 1300 MHz 1525 - 1610 MHz	1525 - 1610 MHz 1150 - 1300 MHz	1150 - 1300 MHz 1525 - 1610 MHz
Galileo Frequences	all	all	all
GPS Frequencen	all	all	all
GLONASS Frequencen	all	all	all
BeiDou Frequencen	all	all	all
L-Band Correction Data Signals	all	all	all
Active Gain	29 dB	42 dB	48 dB
Passive Gain	3,8 dbic	4,2 dbic	4,5 dbic
Polarisation	RHCP	RHCP	RHCP
VSWR (max)	1,5:1	1,5:1	1,5:1
VRV	> 13 dB	> 13 dB	> 13 dB
XPD	> 15 dB	> 15 dB	> 15 dB
10 dB Beamwidth	160° to 180°	170° to 180°	170° to 180°
Axial Ratio	3 dB (max)	3 dB (max)	3 dB (max)
LNA Noise factor	< 2 dB	< 2 dB	< 2 dB
Power	3,3 - 20 Volt	3,3 - 20 Volt	3,3 - 20 Volt
Current draw	< 50 mA	< 50 mA	< 50 mA
Operating temperature	-45° to 85° C	-45° to 85° C	-45° to 85° C
Connector type	TNC	TNC	TNC
Dimensions (mm)	Diameter: 172 Height: 72	Diameter: 172 Height: 72	Diameter: 172 Height: 121
Weight	380 g	380 g	385 g
100% Water- and Dustproof	IP69K MIL-STD 810g	IP69K MIL-STD 810g	IP69K MIL-STD 810g

The 3G+C series in comparison

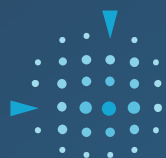


phase center variance

All antennas of the 3G+C series belong to the antennas with the lowest phase center variations on the market. The graphic below shows a true-to-scale comparison with the competition. Not only do we have the smallest variations, we also have the highest phase center stability. With less than a millimeter, it is outside the measurable range.



Antenna calibration readings from the website: <https://www.ngs.noaa.gov/aNtCaL>



navXperience

next generation GNSS technology

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