

goTenna PRO - X2

Data Sheet

One of the world's smallest, lightest, most cost-effective mesh networking devices with proven performance for tactical operations. Made in USA.



Key Benefits

Used as a standalone relay or paired with a mobile phone, the mobile mesh network delivers mission-critical situational awareness beyond the edge of traditional connectivity. The goTenna Pro X2 is interoperable with the goTenna Pro X.

Long-range

Tested up to:

- 15 miles line-of-sight with standard, body-mounted configuration.
- 55 miles line-of-sight with an elevated ground relay.
- 164.8 miles ridgeline-to-ridgeline.
- 130.5 miles air-to-ground using an aerial relay with a coverage of 14,412 square miles.
- 597 square miles - complete island coverage of Oahu, HI.

Low Profile

Proven to be difficult to detect. Utilizes short burst transmission, frequency hopping, and Aspen Grove™ Mesh Network protocols.

ATAK Compatible

Directly share location, messages, and more with the goTenna-ATAK plugin.

Longer mission endurance

9 hours per charge for standard missions.

Secure

Secure broadcast, private, and group messaging using AES 256-bit encryption.

Ruggedized

MIL-STD-810 compliant.



goTenna Pro App
iOS & Android



ATAK
Android

Lightweight

Significantly lighter than standard radio options at 3.5 oz (100g).

Rapidly Deployable

100% off-grid network setup for teams in minutes.

Advanced Power Management

Seamless operation in power-limited configurations for solar relays, device tethering, and more.

Configurable Antennas

Standard options include compact and performance antenna options, along with ability to integrate with vehicle-mount and directional antennas for extended range.

Scalable

More than 60 nodes demonstrated in a single network in routine operation.



Specifications

General	
Radio Dimensions HxWxD	5.5 x 1.2 x 0.75 in / 13.46 x 2.75 x 1.78 cm
Weight	3.5 oz (100g)
FCC ID	2ABVK373372
IC ID	21842-373372
CE	Certified
Mesh Networking	
Mesh Networking Protocol	Aspen Grove™
Recommended Hop Count	6*
Transceiver	
VHF Frequency	142 to 175 MHz**
UHF Frequency	445 to 480 MHz
Channel Bandwidth	12.5 kHz, 25 kHz (User Selectable)
Frequency Stability (-30°C, +60°C, +25°C Ref)	2.5ppm
Sensitivity (1% BER, 12.5 kHz)	-111 dBm
Sensitivity (1% BER, 25 kHz)	-107 dBm
Power Output Settings	0.5W, 1.0W, 2.0W, 5.0W (27dBm, 30dBm, 33dBm, 37dBm)
Modulation	4GFSK
Environmental	
Operating Temperature	-20 to 60 C
Storage Temperature	0 to 45 C
Ruggedization	MIL-STD-810
Ingress Protection	IP68 (10 meters for 30 minutes)
Intrinsic Safety	Class I and II, Division 2 Class III, Divisions 1 and 2
Power	
Battery Life (Standby)	Up to 30 hours
Battery Life (Nominal)	Up to 9 hours***
Battery Capacity	Li-Ion, 474mAh, 3.51Whr
Power Management	Auto Power-On (Solar Mode) Charge Control (Tether Mode)
Interfaces	
Antenna Port	SMA
Bluetooth	BLE 5.0 & BLE 4.0+
USB Port	Micro USB 2.0

Mil Std 810G/H	Method	Procedure
High Temperature Storage	501.5	I
High Temperature -Tactical Standby	501.7	III
Low Temperature Storage	502.5	I
Low Temperature Operation	502.7	II
Thermal Shock	503.5	I
Rain	506.5	I
Humidity	507.5	II
Salt Fog	509.5	I
Sand and Dust	510.5	I&II
Immersion	512.6	I
Vibration	514.8	I
Shock	516.5	VI

* User configurable to higher hop counts based on use case and mission.

** VHF is intended for fixed and mobile antenna mounting configurations. For other configurations, including portable, please contact goTenna.

*** Performance may vary based on node count, number of hops, power output, and transmission rate.

