goTenna PRO - X2
Spec Sheet

goTenna Pro X2 is the world's smallest, lightest, most cost-effective mesh networking device with proven performance for tactical operations. 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.

Key Benefits

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.
- Over 100 miles using an aerial relay.

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.

Long-lasting
9 hours per charge for standard missions.

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

Lightweight
Significantly lighter than standard radio options at 100g.

Rapidly Deployable
100% off-grid setup for teams in minutes.

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

Configurable Antennas
Base 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.

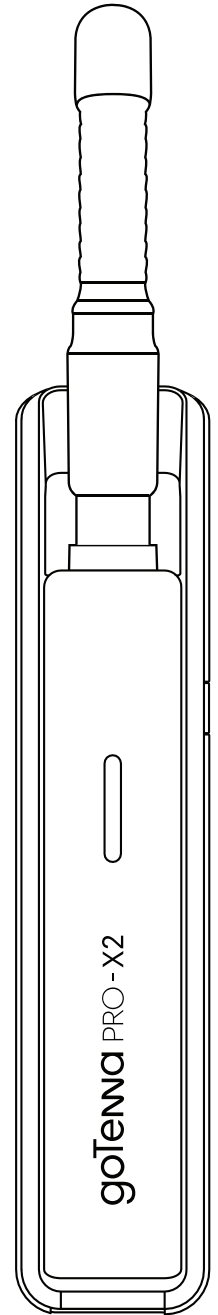# Compatible apps

goTenna Pro App
iOs & Android

ATAK
Android

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Spec Sheet

General	
Radio Dimensions HxWxD	5.5 x 1.2 x 0.75 in / 13.46 x 2.75 x 1.78 cm
Weight	100 g
FCC ID	Pending
IC ID	Pending
CE	Pending

Mesh Networking	
Mesh Networking Protocol	Aspen Grove™
Recommended Hop Count	6*
Payload Size	235 Bytes

Transceiver	
VHF Frequency	142 to 175 MHz**
UHF Frequency	445 to 480 MHz
Channel Bandwidth	6.25 kHz, 12.5 kHz, 25 kHz (User Selectable)
Frequency Stability (-30°C, +60°C, +25°C Ref)	2.5ppm
Sensitivity (1% BER, 6.25 kHz)	-116 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
Charging Temperature	0 to 45 C
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)	30 + hours
Battery Life (Nominal)	Up to 9 hours***
Battery Capacity	LiPo, 474mAhr, 3.51Whr
Charge Time	3.5 Hours
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

  * 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.

*** Dependent on the number of units in the network, number of hops, and
   how often transmission occurs.