FORTERRA

GOTENNA

goTenna PRO - X2
Data Sheet



One of the world's smallest, lightest, most cost-effective mesh networking devices 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. Made in USA.

KEY FEATURES

Long Range
Demonstrated Range Up To:

- Body Mounted: 1 mile in urban environments; up to 15 miles line-of-sight.
- Ground Relay: 55 miles line-of-sight with an elevated ground 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.

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.

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.

Expanded UHF Band Support
Expanded UHF band support for 406-450 MHz for NTIA operations in US Federal bands and other worldwide regulatory bands.

Available Antenna Options
Standard options include compact and performance antennas for 445-480 MHz (FCC Part90). Additional antennas for 406-450 MHz (NTIA) band support are also available.

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

goTenna Pro App
iOs & Android

ATAK
Android

prosales@gotenna.com

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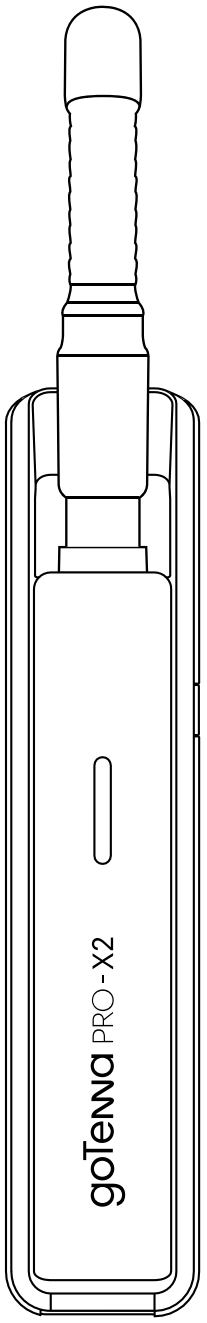
SPECIFICATIONS

General	
Radio Dimensions HxWxD	5.5 × 1.1 × 1.2 in / 13.86 × 2.90 × 2.93 cm
Weight	3.5 oz (100g)
FCC ID	2ABVK373372
IC ID	21842-373372
Emission Designators	7K41F1D / 7K34F1D / 11K9F1D
CE	Certified
Mesh Networking	
Mesh Networking Protocol	Aspen Grove™

Transceiver	
VHF Frequency connectors	142 to 175 MHz**
UHF Frequency ***	406 to 420 MHz (NTIA J/F-12), 420 to 450 MHz (NTIA J/F-12), 445 to 480 MHz (FCC Part 90)
Channel Bandwidth (User Selectable)	12.5 kHz Channel, 7.28 kHz Occupied 25 kHz Channel, 11.8 kHz Occupied
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, 474mAhr, 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.

*** Requires minimum Pro-X2 firmware Version v3.2.10 and ATAK Plug-In version v2.3. Expanded band support outside of NTIA requires in-country regulatory approval.

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

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