goTenna PRO - X2

Spec Sheet

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

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 GroveTM 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.

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.

goTenna Pro App
iOS & Android

ATAK
Android
**goTenna Pro X2 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**: 3.5 oz (100g)
- **FCC ID**: 2ABVK373372
- **IC ID**: 21842-3733772
- **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

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* 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.