



Deploy Your
MANET Quickly
and Easily

Robot By iROBOT

TW-870 TSM GHOST RADIO

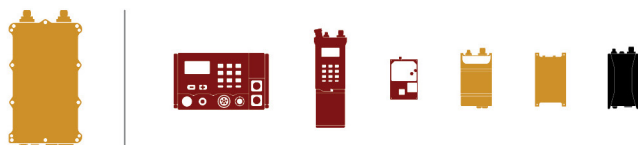
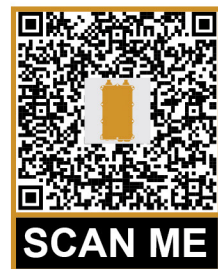
The TW-870 TSM Ghost radio is the smallest form factor TSM-enabled TrellisWare radio without having to integrate at the board level. It provides the simplest integration path for platforms and assets that do not require the full feature set of a dismounted user radio. Deploying and integrating the TW-870 is achieved by connecting RF and GPS antennas, data, and power. This saves significant upfront engineering time and cost for platform providers, and allows end users the ability to integrate the TSM waveform without specialized technical expertise.

KEY FEATURES

- Fully integrated, self-contained radio module for integration into third-party systems with minimal engineering effort
- Accepts outside power, has GPS and RF antenna connectors, and a data interface
- The radio covers the UHF, L-band, and S-band frequencies, and is ideal for fast-deployed Mobile Ad Hoc Networking (MANET) scenarios
- Designed for quick integration into uncrewed systems and other platforms where space and weight are factors
- Cost effective option when mission set only requires relay for data transfer and/or network extension
- FCC/IC-certified configuration available

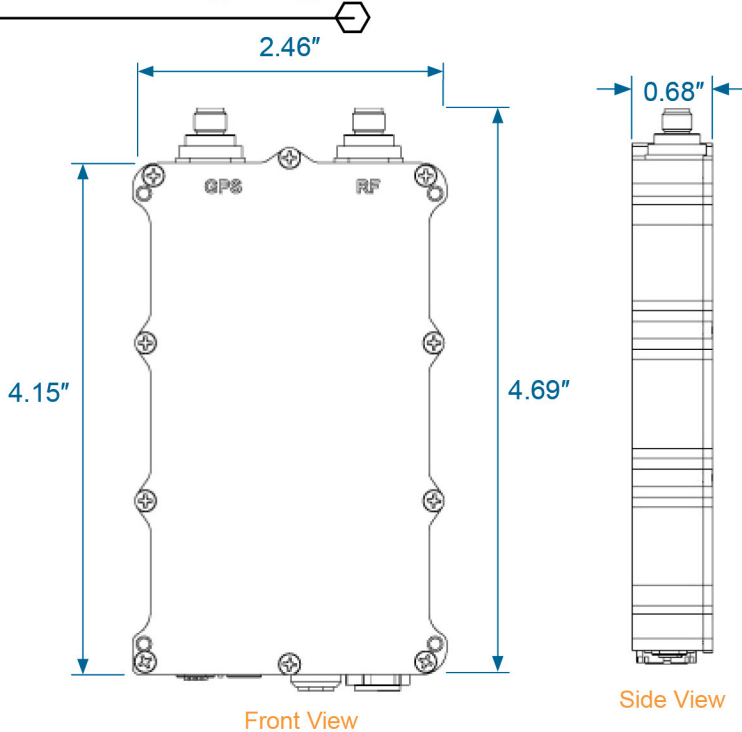
PROVEN SCALABILITY AND PERFORMANCE

TrellisWare's patented Barrage Relay networking eliminates the need for routing protocols and allows for massive network scalability with low overhead. The TrellisWare TSM waveform is a highly scalable and robust Mobile Ad Hoc Networking (MANET) waveform designed from the ground up to support over 800 nodes with simultaneous voice, data, video, and Position Location Information (PLI) operating in a single radio frequency channel. The TrellisWare Katana waveform combines resilient narrowband fast frequency hopping with tactical MANET, operating in highly contested radio frequency (RF) communication environments.

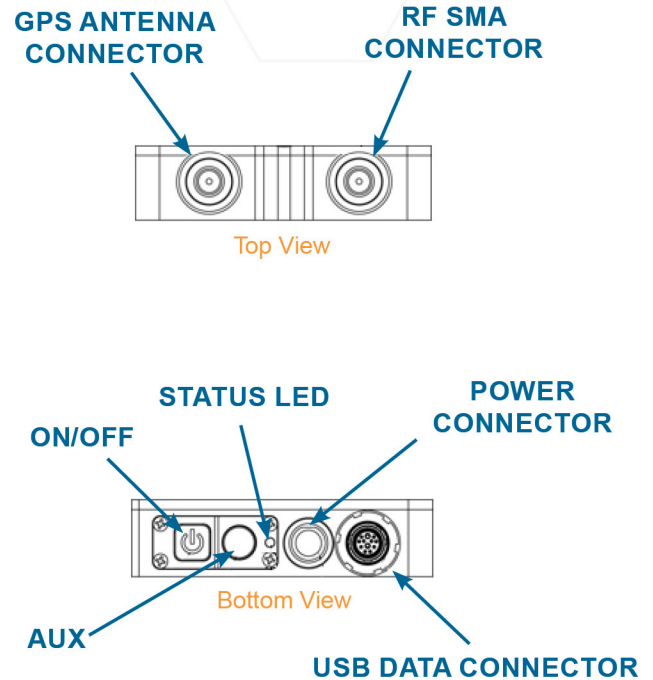




TW-870



COMPONENTS



SPECIFICATIONS

Physical	
Overall Size	4.69 L x 2.46 W x 0.68 H in (119.12 x 62.48 x 17.27 mm)
Weight	8.8 oz (249 g)
Frequency Range	<ul style="list-style-type: none"> • LUHF: 225–450 MHz • U-UHF: 698–970 MHz • L/S Bands: 1250–2600 MHz
Configurable Bandwidth	1.2, 3.6, 10, 20 MHz
Spectrum Pipelining Bandwidth	User-Selectable Spacing with 20 or 40 MHz Occupied Bandwidth
Transmit Power	100 mW, 250 mW, 500 mW, 1 W, 2 W
Input Power	8–20 VDC
Connectors	<ul style="list-style-type: none"> • USB On-the-Go • RF SMA • GPS SMA • 4-Pin ODU Power
Data Rate	Up to 32 Mbps Pt. to Pt.
Environmental	MIL-STD-810G
Operating Temperature Range	-20°C to +55°C (-4°F to +131°F)
Water Resistant	IP68
Security	<ul style="list-style-type: none"> • Built-in AES-256 COMSEC • TRANSEC
Net Entry Time	< 1 Second
Waveform	TSM, Katana (Optional)

Specifications subject to change without notice.

This TrellisWare product is under the jurisdiction of the Department of Commerce and is subject to Export Administration Regulations (EAR)

Networking	
Network Coverage	<ul style="list-style-type: none"> • Mobile Ad Hoc Networking • Multi-hop – Up to 8 Hops • 800 Nodes in a Single Network • Robust in Harsh RF Environments
Communication Services	<ul style="list-style-type: none"> • Relay node for all TSM services (Voice, Data, PLI) • Built-in or External GPS • IP Support – IPv4, IPv6; Unicast, Multicast, Broadcast; TCP, UDP
Security	<ul style="list-style-type: none"> • AES-256
Application Support	<ul style="list-style-type: none"> • Built-in Web Applications • Over the Air Remote Control • APIs for 3rd Party Integration • PLI with CoT, KML, and JSON • Integration with Android™ applications

Note: For Military and Public Safety Use. Please contact TrellisWare Customer Support at support@trellisware.com for FCC/IC radio options, or EU and UK declarations.



When Nothing Else Works

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To place an order, please contact your account manager.
For more information, email sales@trellisware.com

Please access the most recent digital version of this datasheet on the TrellisWare Customer Support Site (site registration required)