



TrellisWare
TECHNOLOGIES

Product Specification Sheet
TW SHADOW 900/950 RADIO

Pioneering The Edge Of Tactical Networking



TW SHADOW 900/950 RADIO

The TW Shadow 900/950 radio features unparalleled performance powered by the TSM and Katana waveforms. TrellisWare's signature radio provides an expanded frequency range, high throughput for streaming multiple high definition (HD) videos, and offers the most flexible data interface options in its class.

KEY FEATURES

- FCC/IC-certified configuration available for the TSM waveform
- Industry-leading size, weight, and power (SWaP) among tactical networking radios that lightens the load for users
- Support for SD, HDMI, and H.264 video and multicast streaming
 - Cellular-quality prioritized voice slots with support of up to 32 talk-groups enabling large-scale networks
 - Ability to ingest analog SD video or encoded high definition (HD) video for multi-cast streaming
- Built-in Multi-Net Bridge (MNB) capability can be used to connect geographically disparate networks or RF-separated networks over any IP link and allow them to act like a single larger network, bridging voice, PLI and data
- Accessory offering enables a wide range of use cases with multiple power options, data interfaces, and audio ancillaries

TRELLISWARE WAVEFORMS

TrellisWare's Barrage Relay technology provides proven network scalability and performance without compromising quality of service. The TSM waveform is a highly scalable and robust MANET waveform that supports over 800 nodes with simultaneous voice, data, video, and PLI operating in a single radio frequency channel. The optional Katana waveform combines resilient narrowband fast frequency hopping with tactical MANET, operating in highly contested radio frequency (RF) communication environments.

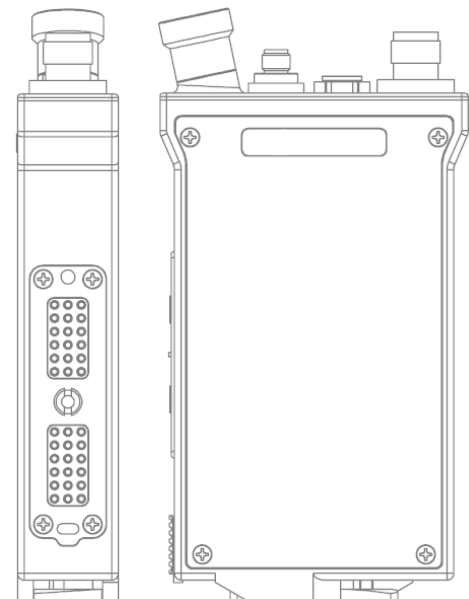
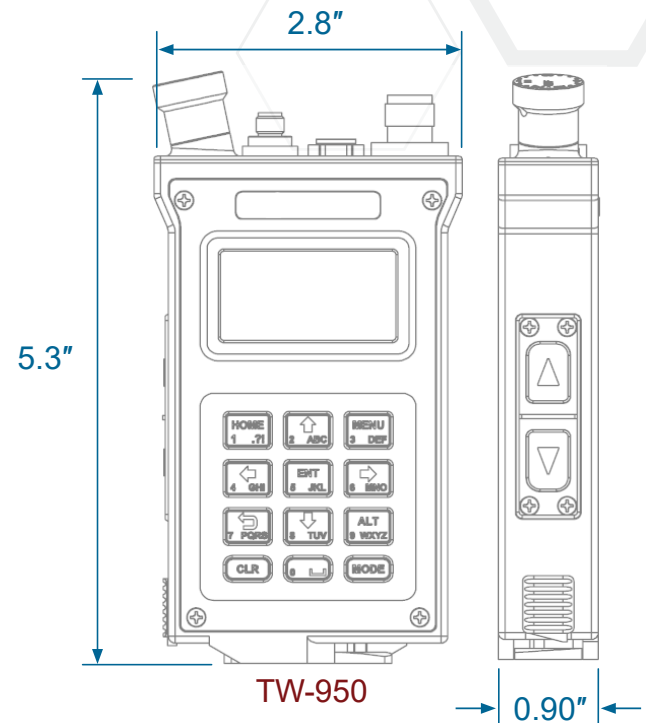


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SPECIFICATIONS

Physical	
Overall Size	5.3 L x 2.8 W x 0.90 H in (135 x 70 x 23 mm)
Weight	Without Battery 0.6 lbs (265 g) With Battery 1.0 lbs (471 g)
Frequency Range	<ul style="list-style-type: none">• L-UHF: 225–450 MHz• U-UHF: 698–970 MHz• L/S Bands: 1250–2600 MHz
Bandwidth/Channel Spacing	Wideband: 1.2, 3.6, 10, 20 MHz Narrowband: 6.25, 8.33, 12.5, 20, 25, 50 kHz
Transmit Power	.001 mW, .01 mW, .1mW, 10 mW, 100 mW, 250 mW, 500 mW, 1W, 2W
Rechargeable Battery	32 Wh
Connectors	<ul style="list-style-type: none">• ODU Data/Audio, TNC RF, SMA GPS• 36-Pin Side Connector
Environmental	MIL-STD-810G, IP68
Operating Temperature Range	-20°C to +55°C (-4°F to +131°F)
Audio Encoding	AMR 5.9, MELPe, AAC Audio
Video Encoding	SD and HD H.264
Waveforms	<ul style="list-style-type: none">• TSM• NB LOS• Katana (optional)
GNSS	GPS



Networking Capabilities	
Network Coverage	<ul style="list-style-type: none">• Barrage Relay• Multi-hop – Up to 8 Hops• 800 Nodes in a Single RF Channel• Robust in Harsh RF Environments• Up to 32 Mbps
Communication Services	<ul style="list-style-type: none">• Simultaneous Voice, Data, and PLI• Up to 32 Voice Talk Groups• 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• TW Connect• ATAK support• APIs for 3rd Party Integration

Specifications subject to change without notice.

Note: For military and public safety/security use. Please contact TrellisWare Customer Support at support@trellisware.com for FCC/IC radio options, or EU and UK declarations.



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

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).