



# The Most Powerful Networking Radio



## TW SHADOW 135 HIGH POWER RADIO (HPR)

### HIGH POWER NETWORKING

TrellisWare's TW Shadow 135 HPR complements the TW Shadow 950 radio by providing greater transmission power and supports a wide range of configurations.

### KEY FEATURES

- Contains all of the features of the TW Shadow 950 radio
- Delivers 20 Watts of transmit power in UHF, L-band, and S-band to extend and strengthen MANET networks
  - Provides long-range transmissions as a backhaul in challenging environments
  - Capable of greater than 200 miles when Long Range Mode license feature is enabled
- Versatile form factor that supports vehicular, airborne, fixed-site, or manpack configurations
  - MIL-STD-1275 compliant power interface to support military vehicle installation
- Shares common accessories with the TW Shadow 900/950 handheld radio to maximize flexibility and save life cycle cost

### TRELLISWARE WAVEFORMS

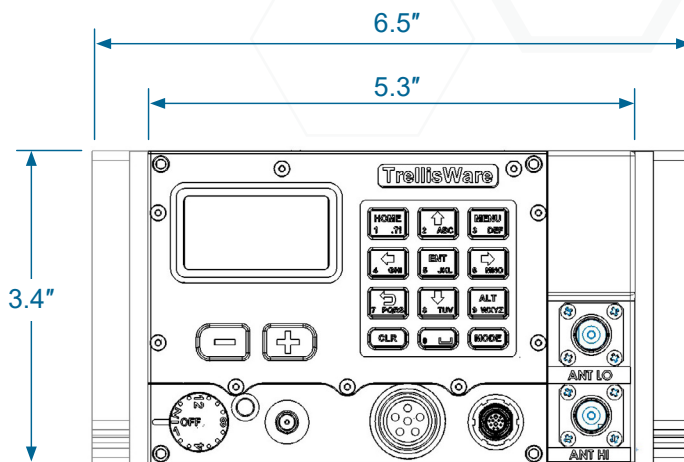
TrellisWare's Barrage Relay technology provides proven network scalability and performance without compromising quality of service. The TSM waveform is a highly scalable and robust MANET waveform that supports over 800 nodes with simultaneous voice, data, video, and PLI operating in a single radio frequency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



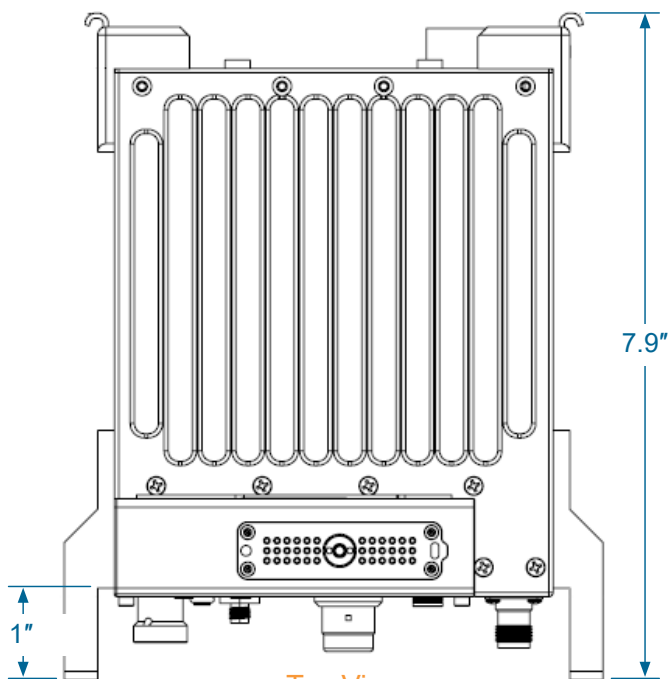


## SPECIFICATIONS

Physical	
Overall Size	7.9 L x 6.5 W x 3.4 D in (203 x 164 x 86 mm)
(Without Handles)	7.5 L x 5.3 W x 3.4 D in (189 x 135 x 86 mm)
Weight	6.4 lbs (181 g)
Frequency Range	<ul style="list-style-type: none"><li>• LUHF: 225–450 MHz</li><li>• U-UHF: 698–970 MHz</li><li>• L/S Bands: 1250–2600 MHz</li></ul>
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, .1 mW, 10 mW, 100 mW, 2 W, 5 W, 10 W, 20 W
Input Power	20–33 VDC
Rechargeable Battery	288 Wh TW-1451 BB-2590
Connectors	<ul style="list-style-type: none"><li>• ODU Data/Audio, 6-Pin Audio, TNC RF, SMA GPS</li><li>• 36-Pin Top Connector</li></ul>
Environmental	MIL-STD-810G, IP67
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"><li>• TSM</li><li>• NB LOS</li><li>• Katana (optional)</li></ul>
GNSS	GPS, Galileo, GLONASS, BeiDou



Front View



Top View

Networking Capabilities	
Network Coverage	<ul style="list-style-type: none"><li>• Mobile Ad Hoc Networking</li><li>• Multi-hop – Up to 8 Hops</li><li>• 800 Nodes in a Single RF Channel</li><li>• Robust in Harsh RF Environments</li><li>• Up to 32 Mbps</li></ul>
Communication Services	<ul style="list-style-type: none"><li>• Simultaneous Voice, Data, and PLI</li><li>• Up to 32 Voice Talk Groups</li><li>• Built-in or External GPS</li><li>• IP Support – IPv4, IPv6; Unicast, Multicast, Broadcast; TCP, UDP</li></ul>
Security	<ul style="list-style-type: none"><li>• AES-256</li></ul>
Application Support	<ul style="list-style-type: none"><li>• Built-in Web Applications</li><li>• Over the Air Remote Control</li><li>• TW Connect</li><li>• ATAK Support</li><li>• APIs for 3rd Party Integration</li></ul>

Specifications subject to change without notice.

**When Nothing Else Works**

**TRELLISWARE.COM**

To place an order, please contact your account manager.  
For more information, email [sales@trellisware.com](mailto:sales@trellisware.com)

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

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