



TRELLISWARE™ RADIO KEY FEATURES

- Up to 16 Mbps
- Up to 32 simultaneous talk groups
- SD and HD H.264 video encoding
- UHF, L/S-band in a single radio



WIDE FREQUENCY RANGE, HIGH THROUGHPUT

TrellisWare's TSM Shadow® radio features unparalleled performance powered by the TSM™ waveform. The radio provides an expanded frequency range, higher throughputs for streaming multiple HD videos, and is interoperable with devices that run TSM-X™ waveform functionality. The TSM Shadow radio is redefining the edge of tactical networking.

RELIABLE IN THE HARSHTEST CONDITIONS

The TSM™ waveform provides the only Mobile Ad-Hoc Networking (MANET) solution with field-proven, cutting edge Barrage Relay™ technology. This innovative technology uses unique digital signal processing and cooperative combining techniques to take advantage of multipath reflections and relays in harsh RF environments. The end result is massive scalability and fast network adaptability.

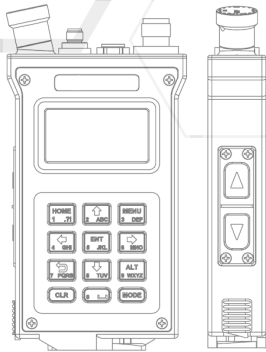
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Specifications may change without notice. DS-900-950-002r4

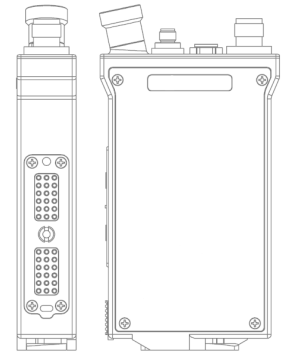
950



TSM™ NETWORK BENEFITS

- Infrastructure-less MANET
- High-speed wireless IP networking
- Self-forming, self-healing
- Scalable to 400+ nodes
- Fast, seamless network join/merge
- Instant adaptation to network topology changes

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TSM SHADOW® RADIO SPECIFICATIONS

Size	• 4.54" (H) x 2.76" (W) x 0.90" (D)
Weight (R/T only)	• 11.3 oz
Frequency Range	• L-UHF: 225–450 MHz • U-UHF: 698–970 MHz, • L/S bands: 1250–2600 MHz
Configurable Bandwidth	• 1.2, 4, 10, 20, 40 MHz
Transmit Power	• 100 mW, 250 mW, 500 mW, 1 W, 2 W
Battery Life	• 8 Hours with 32 Wh rechargeable battery
Environmental	• MIL-STD-810G
Operating Temperature Range	• -20C–55C
Water Resistant	• IP68
Connectors	• ODU data/audio, TNC RF, SMA GPS • 36-pin side connector
Data Rate	• Pt. to Pt., up to 16 Mbps (1-hop)
Audio Encoding	• AMR 5.9, MELPe, AAC audio
Video Encoding	• SD and HD H.264
Waveform	• TSM Release 6

TSM™ NETWORKING SPECIFICATIONS

Network Coverage	<ul style="list-style-type: none"> • Mobile Ad-Hoc Networking • Multi-hop – up to 8 hops • Customer validated to 400+ nodes in a single RF channel • Robust in harsh RF environments
Communication Services	<ul style="list-style-type: none"> • Simultaneous voice, video, data, and PLI • Up to 16 dedicated voice channels • Up to 32 simultaneous voice talk groups • Built-in GPS • IP support – IPv4, IPv6; unicast, multicast, broadcast; TCP, UDP
Security Application Support	<ul style="list-style-type: none"> • AES-256 • Built-in web applications • Over the air remote control • APIs for 3rd party integration • PLI with CoT, KML, and JSON • Integration with Android™

APPLICATIONS

- HD video in highly dynamic, mobile operations
- Flexible bandwidth supporting a broad range of network capacities and spectrum availability worldwide
- Versatile waveform to support ground communication and ground-to-air communications
- Supports indoor, shipboard, deep urban, tunnel, and other challenging environments
- Robust RF connectivity in highly dynamic environments
- Interoperable with other TSM networking products

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