



**TrellisWare**  
TECHNOLOGIES

## THE INTEROPERABILITY STANDARD FOR RESILIENT COMMUNICATIONS

J O I N     T H E   
T R E L L I S // S P H E R E



TrellisWare Technologies, Inc. launched in 2000 with an innovative culture striving to push technological boundaries in the area of resilient communications for commercial, government, and military end users. Our algorithms, waveforms, and communications systems range from small form factor radio products to fully integrated solutions. TrellisWare is delivering the next generation of communications ***When Nothing Else Works***.

### THE INTEROPERABILITY STANDARD FOR RESILIENT COMMUNICATIONS

TrellisWare's technology facilitates mission critical voice and data delivery in the most severe conditions. The result is an exceptionally robust, flat network that provides unprecedented scalability and supports hundreds of nodes while using less spectrum than any other Mobile Ad Hoc Networking (MANET) technology. TrellisWare's TSM waveforms are incorporated into a wide range of systems, including TrellisWare radios and trusted industry partner radios, as well as multiple government and commercial solutions.

In true collaboration, we are working with an ever-growing community of integrators, end users, and government stakeholders to develop the most capable networking solutions enabled by TrellisWare technology.

We call this the **Trellis//Sphere**.

### PROVEN SCALABILITY AND PERFORMANCE WITH THE TSM WAVEFORM

The TrellisWare TSM waveform is the leading MANET solution to support uninterrupted communications in real dynamic environments. TrellisWare's proprietary Barrage Relay technology eliminates routing, minimizes network overhead, and provides unrivaled scalability. TSM can support more than 800 nodes in a single channel, enabling a truly scalable network that is easy to use and deploy.

The TSM waveform provides mission critical voice, situational awareness, and data sharing without depending on infrastructure or pre-deploying equipment. As a true Software Defined Radio (SDR) waveform, the TSM waveform can be implemented on many different SDRs.

The TSM waveform is also available in low SWaP SDRs that are embeddable into platforms ranging from commercial micro unmanned aerial systems to tactical radios. The result is an ecosystem that forms the most powerful network, enabling interoperability between partner platforms, sensors, and systems.

**Come join us in the Trellis//Sphere and see what we can accomplish together.**



***When Nothing Else Works***

**TRELLISWARE.COM**



## TRELLISWARE'S BARRAGE RELAY TECHNOLOGY, TSM WAVEFORM, AND TACTICAL RADIO SOLUTIONS ARE USED BY THE MILITARY, PUBLIC SAFETY, UNCREWED MARKETS, AND OTHER COMMERCIAL INDUSTRIES WHERE RESILIENT WIRELESS COMMUNICATIONS ARE REQUIRED

- Global frequency support covering the UHF, L-band, and S-band (225-400 MHz, 698-970 MHz, and 1250-2600 MHz) in a single radio, maximizing effectiveness and minimizing complexity
- Software Defined Radio (SDR) technology with multi-waveform support capable of operating the TSM and Katana waveforms, for an all-in-one resilient networking solution that supports dynamic mission environments.
- Built-in Advanced Encryption Standard (AES) security protects voice, Position Location Information (PLI), data, and networking traffic
- Interoperable with all TSM-enabled devices within the Trellis//Sphere, including Type 1 encrypted partner radios operating TSM-X.

Product Name	Radio	Size and Weight	Description
<b>TW-900/950</b> TSM Shadow Radio		4.54 L x 2.76 W x 0.87 D in (115.32 x 70.10 x 22.10 mm) 11.3 oz (320 g)	Provides an expanded frequency range, higher throughputs for streaming multiple HD videos, and offers the most flexible data interface options in its class.
<b>TW-135</b> TSM Shadow High Power Radio		Without Handles 3.40 H x 5.25 W x 7.26 D in (88.36 x 133.35 x 184.40 mm) With Handles 7.98 L x 5.25 W x 3.40 H in (202.69 x 133.35 x 184.40 mm) Weight (R/T only) 6.40 lbs (181.44 g)	Complements the TW-950 TSM Shadow by providing greater transmission power and supports a wide range of configurations.
<b>TW-860</b> TSM Spirit Radio		4.70 L x 2.50 W x 0.74 H in (119.38 x 63.50 x 18.79 mm) 8.81 oz (249 g)	Ideal for deployment at the edge of the network, designed for next-generation soldier systems, public safety, and first responder requirements.
<b>TW-880</b> TSM Ghost Embedded Module		4.12 H x 2.30 W x 0.68 D in (104.7 x 58.4 x 17.2 mm) 4.64 oz (132 g)	Smallest, lightest, and most capable product for plug and play integration of the TrellisWare TSM waveform.
<b>TW-875</b> TSM Ghost Radio		4.06 L x 2.50 W x 1.46 H in (103.12 x 63.50 x 37.08 mm) 16 oz (450 g)	Provides flexibility in deploying and enhancing TSM networks with a simplified radio design and built-in battery.
<b>TW-870</b> TSM Ghost Radio		4.69 H x 2.46 W x 0.68 D in (11.91 x 6.25 x 1.73 cm) 8.8 oz (249 g)	Fully integrated, self-contained radio module for fast integration into third-party systems with little to no engineering effort.
<b>TW-650</b> TSM Shadow Module		2.92 L x 2.0 W x 0.11 H in (74.17 x 50.80 x 2.79 mm) 1.2 oz (34.09 g) (core board with shielding)	SDR architected for embedment into a wide range of systems, including tactical communications platforms, network devices, and uncrewed systems.

UK CA CE Note: For Military and Public Safety Use. Please contact Trellisware Customer Support at [support@trellisware.com](mailto:support@trellisware.com) for FCC/IC radio options, or EU and UK declarations.

The above TrellisWare radio products are under the jurisdiction of the Department of Commerce and are subject to the Export Administration Regulations ("EAR").

## PARTNER RADIOS OFFERING TRELLISWARE TSM WAVEFORMS

