TrellisWare® TECHNOLOGIES

TW-860 TSM SPIRIT™ RADIO

DESIGNED FOR NEXT-GENERATION SOLDIER SYSTEMS, PUBLIC SAFETY, AND FIRST RESPONDER REQUIREMENTS

Powered by the TrellisWare® TSM™ Mobile Ad-hoc Networking (MANET) waveform, the TW-860 TSM Spirit™ radio represents the most cost-effective TSM-enabled radio available, making it easier to expand tactical networks to everyone who needs to be connected.

The TSM Spirit radio offers industry leading size, weight, and power (SWaP) among body-worn mesh networking radios, delivering voice, data and real-time positional reporting. The radio is designed to be integrated with wearable power systems and body-worn antennas to further complement its slim, low profile form factor. The TSM Spirit radio provides spectrum support covering 225-450 MHz, 698-970 MHz, and 1250-2600 MHz, all in a single software defined radio (SDR).

Interoperable with all TSM-enabled radios, the TW-860 TSM Spirit radio supports a true flat network with massive scalability in a single radio frequency (RF) channel, while still delivering rapid position location information (PLI) updates for every radio.
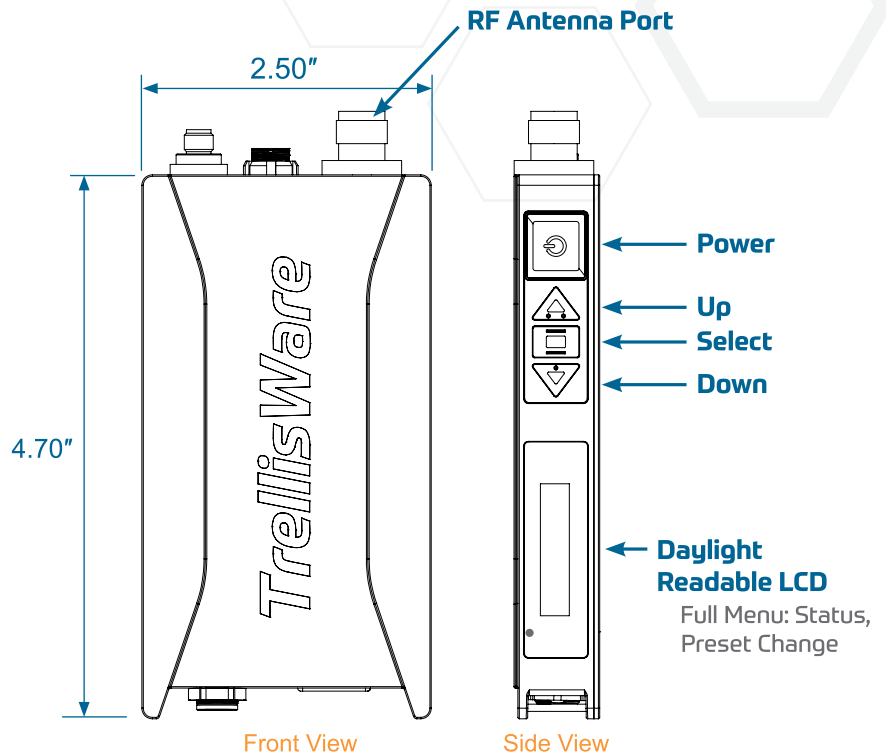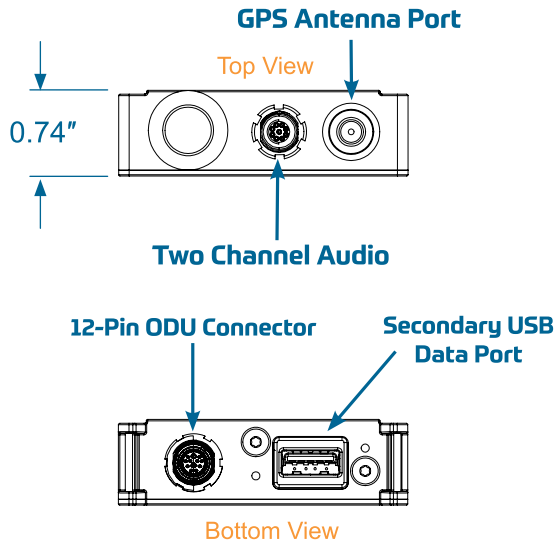
APPLICATIONS

- Global Frequency Coverage
- Interoperable with all TSM-enabled radios
- World-class scalability and spectrum efficiency
- Designed for next-generation soldier systems, public safety, and first responder requirements

When Nothing Else Works™

For more information, please email sales@trellisware.com

TW-860

COMPONENTS

GPS Antenna Port

Top View

0.74″

Two Channel Audio

12-Pin ODU Connector

Secondary USB Data Port

Bottom View

RF Antenna Port

2.50″

4.70″

TrellisWare

Front View

Power

Up

Select

Down

Daylight Readable LCD
Full Menu: Status, Preset Change

Side View

SPECIFICATIONS

Physical	
Overall Size	4.70 H x 2.50 W x 0.74 D in (11.93 x 6.35 x 1.88 cm)
Weight	7.5 oz (.21 kg)
Frequency Range	• L-UHF: 225–450 MHz • U-UHF: 698–970 MHz • L/S Bands: 1250–2600 MHz
Configurable Bandwidth	1.2, 3.6,10, 20, 40 MHz
Transmit Power	100mW, 250mW, 500mW, 1W, 2W
Operating Temperature Range	-20°C to +55°C (-4°F to +131°F)
Environmental	MIL-STD-810H
Water Resistant	IP67
RF Connector	TNC
GPS Connector	SMA
Headset Audio Port	9-Pin Connector – Supports Dual Push-To-Talk (PTT) and Two Simultaneous Talkgroups
Data/Power Port	12-Pin ODU Connector – Supports USB-C Power Delivery and Data
Secondary USB Port	USB-A Connector – Supports Data, Programming, WiFi, and BlueTooth Accessories
Input Power	5 V to 20 V
Data Rate	Pt. to Pt., up to 16 Mbps (1-hop)
Waveform	TSM Release 6

Networking	
Network Coverage	• Mobile Ad-hoc Networking • Multi-hop – Up to 8 Hops • 800 Nodes in a Single RF Channel • Robust in Harsh RF Environments
Communication Services	• Simultaneous Data and PLI • Up to 32 Voice Talk Groups with Voice Option • Built-in GPS • IP Support – IPv4, IPv6; Unicast, Multicast, Broadcast; TCP, UDP
Security	• AES-256
Application Support	• Built-in Web Applications • Over the Air Remote Control • APIs for 3rd Party Integration • PLI with CoT, KML, and JSON • Integration with Android™ applications

Specifications may change without notice.

The TW-860 standard color is black.
Other colors available by
special order.

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