

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.

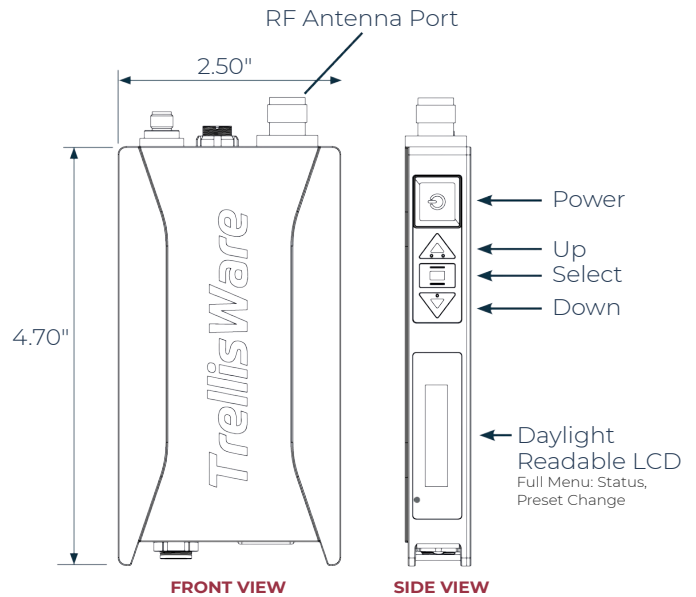
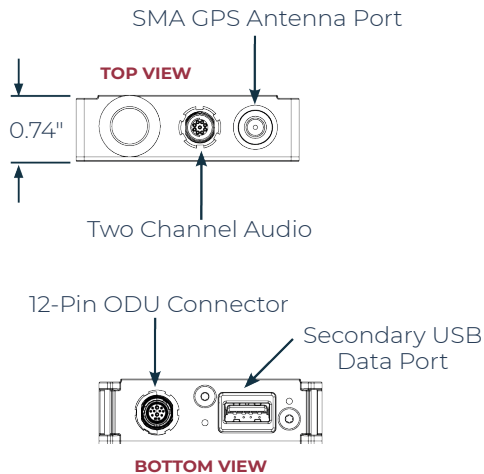


APPLICATIONS

- 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

TW-860 TSM SPIRIT™ RADIO

COMPONENTS



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

COMMERCIAL GPS SUPPORT

SMA CONNECTOR, U-BLOX
EVA-7M MODULE

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
- RANGE – 26 MILES (40 KM) IN A SINGLE HOP

COMMUNICATION SERVICES

- SIMULTANEOUS DATA AND PLI
- UP TO 32 VOICE TALK GROUPS WITH VOICE OPTION
- BUILT-IN GPS
- IP SUPPORT – IPV4, IPV6; UNICAST, M ULTICAST, 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.