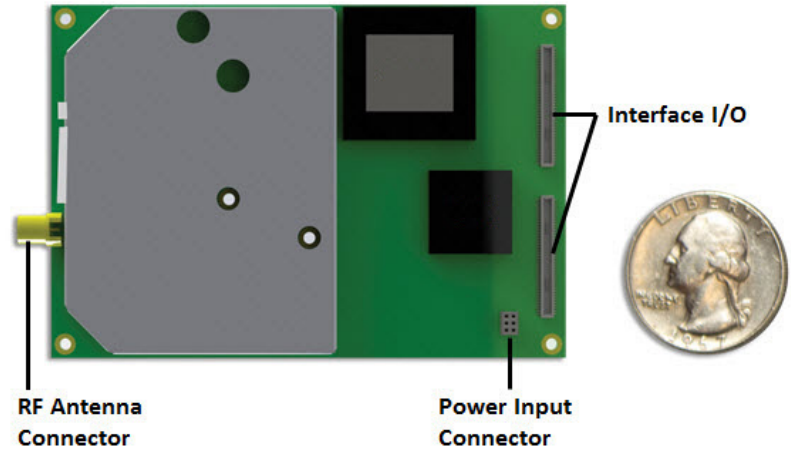


TW-650 TSM SHADOW[®] CORE BOARD MODULE



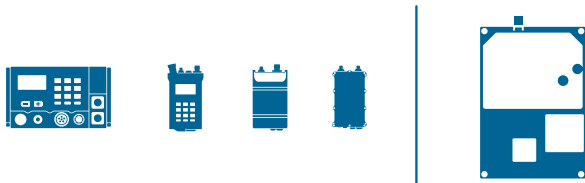
EMBEDDED INTEGRATION

The TW-650 TSM Shadow[®] Core Board Module is a Software-Defined Radio (SDR) architected for embedment into a wide range of systems, including tactical communications platforms, network devices, and unmanned systems. The radio module provides reliable connectivity for tactical mobile ad-hoc networking using TrellisWare's TSM[™] waveform. The TW-650 is designed for optimal size, weight, and power consumption (SWaP), allowing for embedment into small to large platforms.

Once the TW-650 TSM Shadow Core Board Module is successfully embedded into a custom platform, integrators will have access to interface control documents, reference designs, and a full set of Application Programming Interfaces (APIs).

EXTENSIVE FEATURE SET

- Built-in Advanced Encryption Standard (AES) security
- Built-in video encoding
- Full software API for status and control of the radio through an Internet Protocol (IP) interface
- Web applications hosted on the radio for end-user configuration and monitoring of the TSM network



TSM[™] WAVEFORM RELEASE 6

The TSM waveform supports simultaneous voice, Position Location Information (PLI), and data messaging for up to 250 users, all on a single RF channel.

RF SPECTRUM FLEXIBILITY

Combined with the TW-650 extended frequency coverage that includes UHF, L-band, and S-band spectrum, the TSM waveform is also configurable to support bandwidths ranging from 1.2 to 40 MHz.

INTEROPERABILITY

Running TrellisWare's TSM waveform Release 6, the TW-650 is fully interoperable with the TrellisWare[®] family of radios, and partner radios and devices that run the TSM-X[™] waveform (that interface to NSA-certified Type 1 security architectures).

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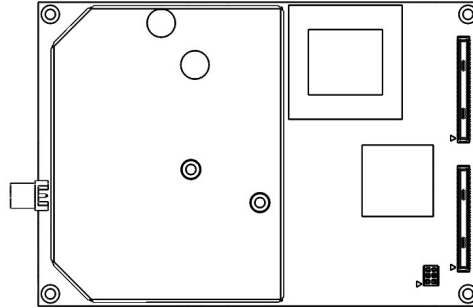
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DS-650-002r3

TW-650



TSM SHADOW® CORE BOARD MODULE SPECIFICATIONS

- Size:** 2.920" (H) x 2.0" (W) x 0.108" (D)
- Weight:** 1.12 oz (core board with shielding)
- 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:** 0.1–2 W
- Input Power:** 3.0–4.0 V DC, 9.8 W max
- Connectors:** Board Mount, Power and Control, PTT Audio, USB 2.0 Ports (USB-OTG, USB-H1), Serial UARTs, I2C, RF Antenna (SMP jack), GPS
- Data Rate:** Pt. to Pt., up to 16 Mbps (1-hop)
- Security:** Built in AES-256 COMSEC and TRANSEC
- Waveform:** TSM Release 6

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