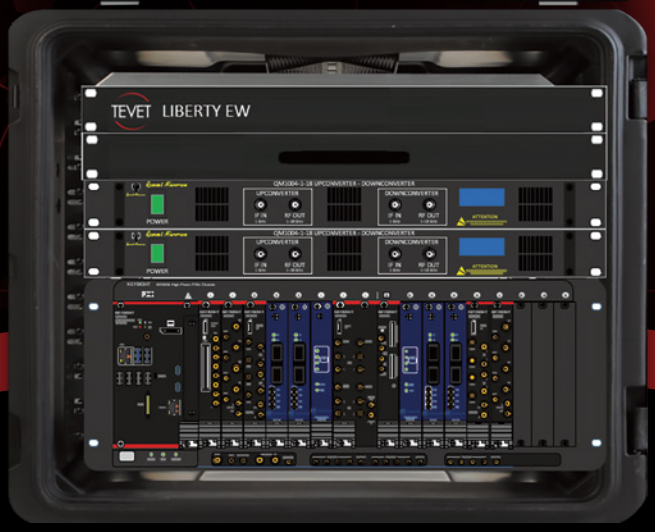
TEVET

LIBERTY Platform Solutions **LIBERTY EW**



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Maintain Spectrum Superiority

The electromagnetic spectrum is growing more congested, contested, and constrained across the domains.

Fast-paced advances in technology related to the electromagnetic spectrum represent new opportunities and challenges across the peer and near-peer competition continuum.

Leverage the capabilities of the TEVET LIBERTY EW software-defined instrument, in partnership with Keysight Technologies, to remain agile and adaptable to maintain spectrum superiority and protect our warfighters.

For Mission-Critical EMSO Applications

- Detecting, recording, and analyzing wideband frequency agile and small amplitude Low Probability of Intercept (LPI) signals via RTSA
- Synchronously recording wideband single and multi-channel signals of interest using gated triggers and/or GPS-based triggering for improved analysis throughput
- Playing back recorded, modified, and/or synthetic single and multi-channel synchronized wideband RF signals to test radars, jammers, receivers, navigation, 5G, and other EMSO and EW systems

LIBERTY EW

Real-time, multi-channel, wideband spectrum analyzers employ advanced FPGA-based processing to deliver the fastest real-time performance in the industry as well as a unique, channelized and synchronized architecture that elevates small-amplitude LPI signals above the noise floor. The LIBERTY EW supports customizable triggering and integrated wideband recording capabilities to ensure transient and intermittent signals are not missed when analyzing or validating jammers, emitters, countermeasures, or other RF sensors or transceivers.

The LIBERTY EW record, playback & analysis systems are optimized for wideband RF recording and playback, with multi-channel support for precision synchronized channels each of which may be equipped with its own FPGA-based signal analysis for gated triggering of record or playback based on detected signals.

LIBERTY EW channelized real-time spectrum analysis with independent capture and analysis bands can effectively lower the analysis noise floor to reveal previously undetectable small amplitude LPI signals.

The TEVET LIBERTY EW is built on a software-defined architecture, leveraging Keysight Technologies' high-performance modular hardware to create unprecedented performance, scalability, adaptability, and transportability. The LIBERTY EW platform solutions are customizable and configurable to your unique requirements. Its COTS modular architecture allows for adaptability as requirements increase, lowering the total cost of ownership and reducing downtime when advanced capabilities are required.

The scalability of the LIBERTY EW extends to its ability to scale to any system's testing requirements. Reconfiguring the LIBERTY EW happens at the software level, reducing the number of testers needed across a system portfolio - not only reducing costs, but also the footprint required to test.

LIBERTY EW
Specifications

Advanced real-time, multi-channel, wideband, and synchronous RF record and playback with real-time signal analysis available across multiple independent or phase coherent channels.

Upper Frequency Ranges	2 GHz, 6 GHz, 16 GHz, 18 GHz, 20 GHz & 40 GHz
Instantaneous Bandwidth	Over 1 GHz per channel across all channels (AXIe) Up to 250 MHz per channel across all channels (PXIe)
Channels Supported	Scalable
RF Record & Playback	Synchronized, phase-coherent, multi-channel RF record, RF playback with real-time signal analysis
Signal Analysis (per channel)	Real-time spectrum analysis (RTSA), RT-VSA, RT-VSG, RT-Correlation, spectrum analysis, analysis of recorded data, in-situ calibration
Channel-Channel Alignment	Sub-picosecond across all channels

LIBERTY EW

Software-defined architecture and modular hardware dramatically reduce the size compared to conventional box instrument systems by a factor of 2 to 10. At less weight than its competitors, the LIBERTY EW solutions are equipped to handle in-field testing across multiple domains.