



Time Sensitive Networking

Testing Services:

Time Sensitive Network (TSN) standards enable deterministic real-time communication over Ethernet, allowing solutions to provide precise, predictable timing and control across networks. By adding features to Ethernet such as time synchronization, ingress policing, seamless redundancy, frame preemption, scheduled traffic, and stream reservation, TSN ensures data is not delayed by the network.



UNH-IOL Test Programs:

- Automotive Single Pair Ethernet
 - 1000BASE-T1 PMA, PCS, PHY
 - 100BASE-T1 PMA, PCS, PHY
- Avnu Alliance Certification
- Automotive Networking
- Industrial Networking
- IEEE 1588/PTP

Tests Covering:

- **Physical Layer Conformance:** Single Pair Ethernet PHY validation
- **Avnu Alliance** recognized test facility, offering Certification for Automotive and ProAV devices today, and Industrial devices tomorrow
- **OPEN Alliance:** TC1, TC10, testing today, TC8 & TC11 soon.
- **IEEE Conformance:** Pre-emption (802.1Qbu/802.3br) available today, Time Aware Shaping, Ingress Policing, 802.1CB in development
- **Interoperability:** *Year-round* access to testbeds aiding implementers to identify problems with their devices in the lab, not in the field.



Test Tools:

- **QualiPhyer:** Physical Layer Conformance
- **BitPhyer:** Low-level ethernet tester
- **viOLett:** Protocol test automation framework, enabling Avnu Alliance Automotive and ProAV Certification
- **Industry tools:** Calnex, Keysight/Ixia, Rhode & Schwarz, Spirent + more'

Key Benefits

- Increased confidence in your product.
- Save money by reducing time to market.
- Use industry recognized test reports for sales and certifications.
- Access to custom test equipment and software saving you time and money.
- Ability to shape our roadmap to better serve industry needs.
- Ability to test multiple standards against globally recognized products all in one lab.
- Acts as an extension of in-house test labs providing debugging and technical expertise.

Learn More Today! www.iol.unh.edu

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