# Veryx ATTEST PTP
Conformance Test Suite DATASHEET

Veryx ATTEST Conformance Test Suite (CTS) Precision Time Protocol (PTP) is ideal for equipment manufacturers who desire an easy and efficient solution for verification of **PTP (IEEE Std 1588™-2008), ITU-T-REC-G.8275.1/Y.1369.1 and ITU-T-REC-G.8275.2/Y.1369.2** implementation in their Ethernet devices, deployable in automation and control systems, measurement systems and power distribution systems. **PTP** allows synchronization of distributed clocks with an accuracy of less than 1 microsecond via Ethernet devices, with relatively low demands on the local clocks and the network and computing capacity

Veryx has defined test cases that comprehensively test for PTP conformance to IEEE Std 1588™-2008, ITU-T G.8275.1/Y.1369.1 and ITU-T G.8275.2/Y.1369.2 These test cases are grouped into convenient test groups for each category of functions.
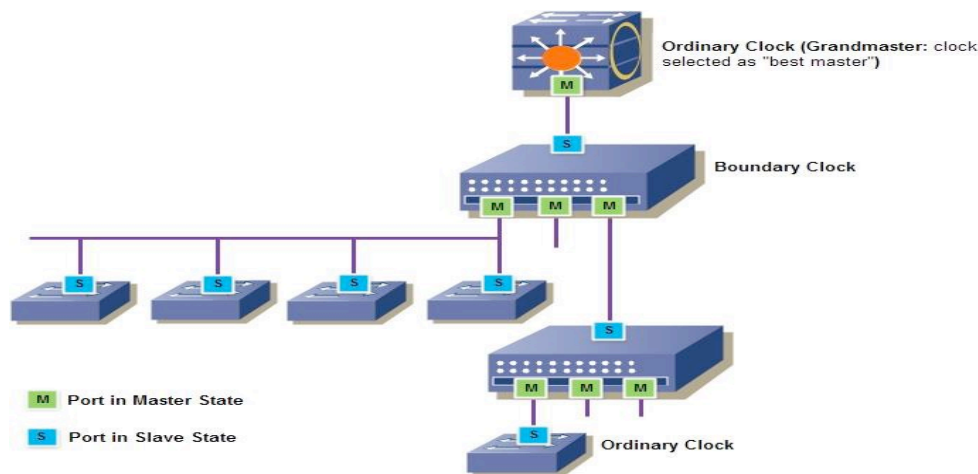
Sample Topology with PTP Devices

HIGHLIGHTS

- Verifies PTP implementations – Boundary, Ordinary, Transparent, Telecom Boundary, Telecom Grandmaster, Telecom time Slave clocks
- Validates control and signalling messages
- Validates Configuration check for boundary, intermediate and out of range values
- Verifies PTP state machine
- Validates BMC algorithm with different data sets and Alternate BMCA

BENEFITS

- Enables significant speeding up of testing cycles and reduces the "time-to-market
- Test suites written in industry standard TCL scripts. Well defined APIs provide the flexibility to customize the test cases for specific requirements
- Built in Automation and Reporting Capabilities

SPECIFICATIONS

- ★ IEEE Std 1588TM-2008
- ★ ITU-T G.8275.1/Y.1369.1
- ★ ITU-T G.8275.2/Y.1369.2

KEY TESTS

- ★ Ordinary clock , Telecom time slave clock
- ★ Boundary clock , Telecom Boundary clock
- ★ Telecom grand master
- ★ Transparent clock
- ★ Power profile
- ★ BMC & Alternate BMCA algorithm
- ★ Delay Request-Response mechanism
- ★ Peer Delay mechanism
- ★ Message format
- ★ Timers
- ★ Multicast and Unicast communication
- ★ IEEE 802.3 and UDP/IPv4 transport types
- ★ Unicast Message negotiation

PLATFORM REQUIREMENTS

- ★ COTS (x86) / Xena Compact/ Xena Bay

Veryx ATTEST PTP is designed for conformance testing of PTP functions in Ethernet switches.

ATTEST Test Suites are written in industry standard Tcl scripts. Well defined APIs and source files provide the flexibility to add, customize, or modify the test cases for specific requirements.

Veryx ATTEST PTP test solution relies on ATTEST – a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources

Veryx ATTEST Framework helps customers to easily integrate

PTP (Total test cases – 232)

- Message format verification
- State Machine verification
- Best Master Clock Election verification
- Timer verification
- Configuration support
- Link Failure
- PTP Clocks
    - Ordinary
    - Boundary
    - Telecom Boundary
    - Telecom Grand Master
    - Telecom Time Slave
- Test is performed for different PTP mechanisms – Delay Request-Response mechanism and Peer Delay mechanism
- Configuration check
- Reception of messages on the transmitted port
- PTP profiles
    - Default
    - Power profile
    - Telecom Profile IUT-T G.8275.1/Y.1369.1, Telecom Profile IUT-T G.8275.2/Y.1369.2

ORDERING INFORMATION

PRODUCT	PART NUMBER
ATTEST-CTS PTP Bundle (Boundary, Ordinary, and Transparent clock)	CTS-PTP-B-B
ATTEST-CTS PTP Boundary Clock	CTS-PTP-BC-B
ATTEST-CTS PTP Ordinary Clock	CTS-PTP-OC-B
ATTEST-CTS PTP Transparent Clock	CTS-PTP-TC-B

About Veryx Technologies

Veryx Technologies (formerly Net-O₂ Technologies) provides innovative Verification and Measurement Solutions for the global communications industry. ATTEST solutions verify networking equipment being used for Access, Carrier Ethernet, Data Center, Edge, Enterprise, Industrial and Security. The unique offerings from Veryx enable customers to reduce the "time-required-to-test" and enhance their "time-to-market".

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