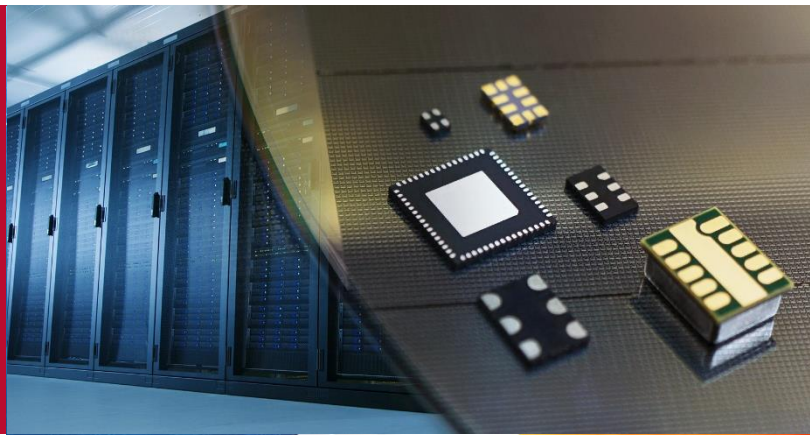
IEEE 1588
Timing Synchronization Software

Best-in-Class PTP Synchronization

IEEE 1588v2 Compliant

Meets Class D ITU-T G.8273.2



SiTime's proprietary IEEE 1588 Servo product, combined with SiTime's MEMS precision timing products, delivers a complete IEEE 1588 timing synchronization solution. SiTime's IEEE 1588 Servo is available in a complete IEEE 1588 software bundle for customers to implement an environmentally resilient, accurate timing synchronization solution. SiTime's IEEE 1588 timing synchronization offering is ideal for industrial applications operating in harsh environments, in addition to other applications such as 5G radio, data centers and next gen automotive. This platform agnostic, bundled software product offers a plug and play option for engineering teams, eliminating the need for costly software development and accelerating time to revenue.

Accurate and reliable time synchronization is vital for the smooth operation and security of infrastructure and industry. Even for teams with domain expertise, designing a custom solution from scratch is a complex and time-consuming process. SiTime's complete IEEE 1588 software product, backed by SiTime's commitment to customer support, is easy to integrate and will allow customers to quickly deliver a complete IEEE 1588 compliant timing synchronization solution.

Benefits

- Plug-and-Play software bundle to accelerate time-to-market
- Best in class IEEE 1588 Timing synchronization in harsh environments
- Full integration support for customers

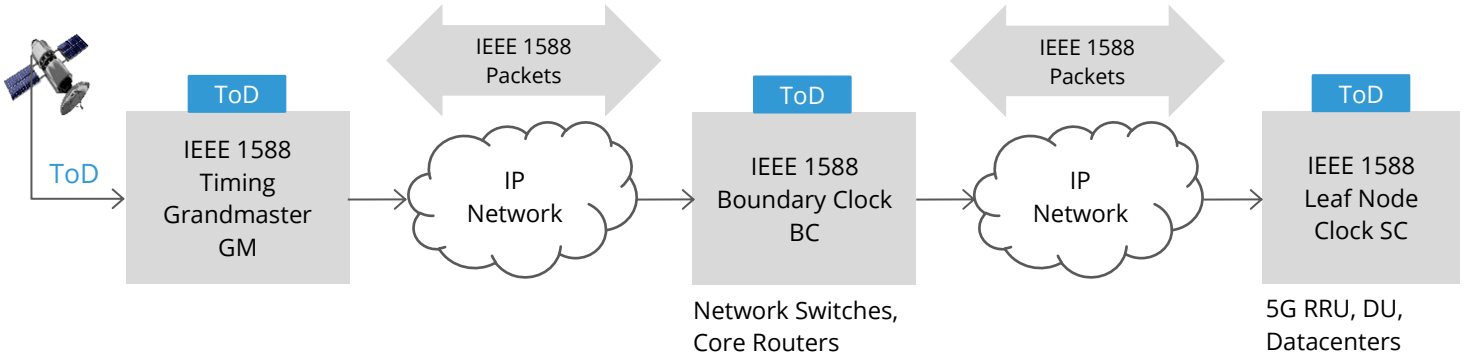
Applications

- 5G Networks
- Datacenters
- Automotive
- Financial Trading
- Power Distribution
- Industrial IoT

Product Features

- IEEE 1588v2 Compliant
- ITU-T G.8273.2 Compliant (FTS)
- ITU-T G.8273.4 Compliant (PTS)
- Supports T-BC and T-TSC
- Full timeTransmitter & timeReceiver capability
- HW Timestamping support
- IEEE 1588 Mgmt. Support

Contact SiTime for additional information



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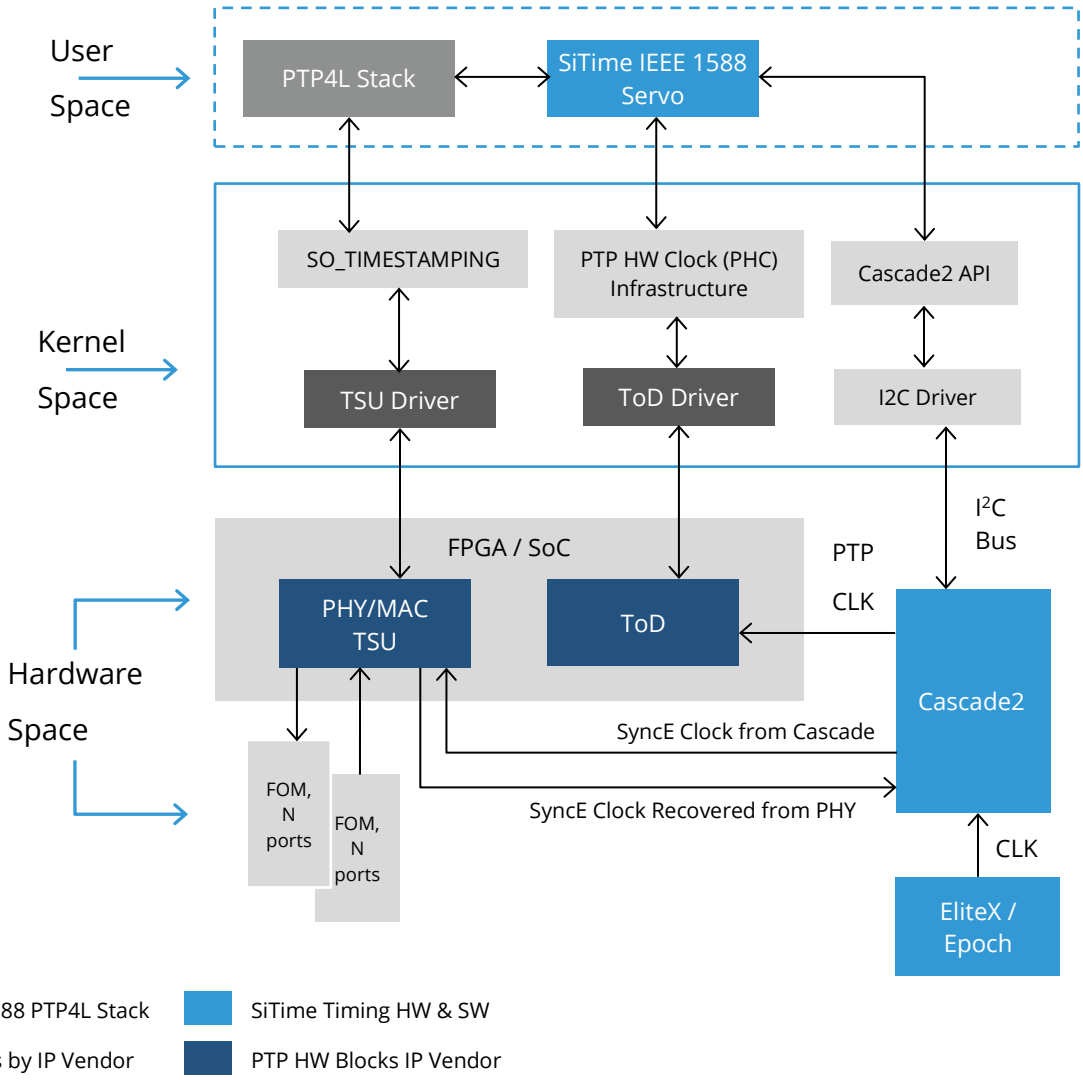
SiTime PTP Stack Architecture, Hardware Support, & Libraries



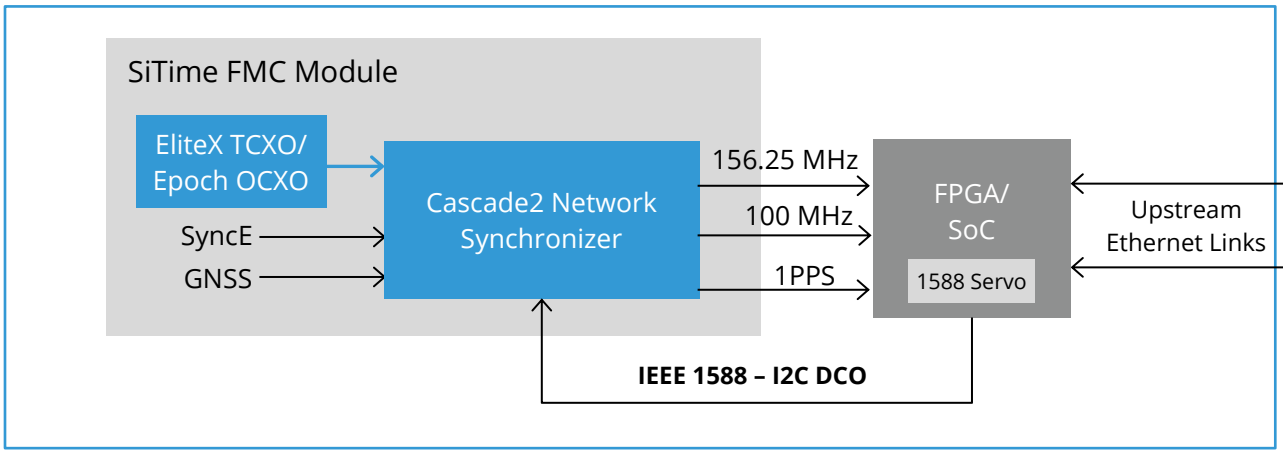
PTP Hardware Support

- Access to hardware time stamps
- Access to local clock
  - Adjustment
  - Read clock value
- Access to extended clock features (frequency generation, events)
- Dedicated / enhanced driver

ITU-T G.8372.2 Specifications

T-BC/T-TSC Class	Max | TE | (ns)	Notes
A	100 ns	
B	70 ns	
C	30 ns	
D	5 ns	SiTime Solution @ <5 ns (unfiltered)

FPGA-based Demo Platform



IEEE 1588 Servo | Hosted 0n AMD/Xilinx FPGA – ARM CPU

SiTime Collaboration Platform with Customer

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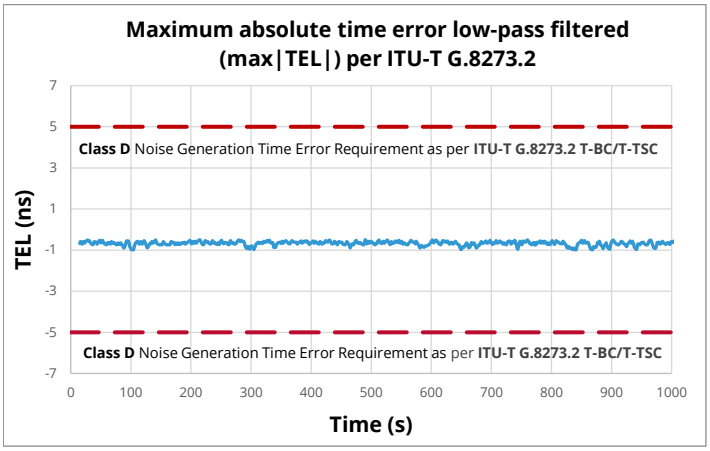
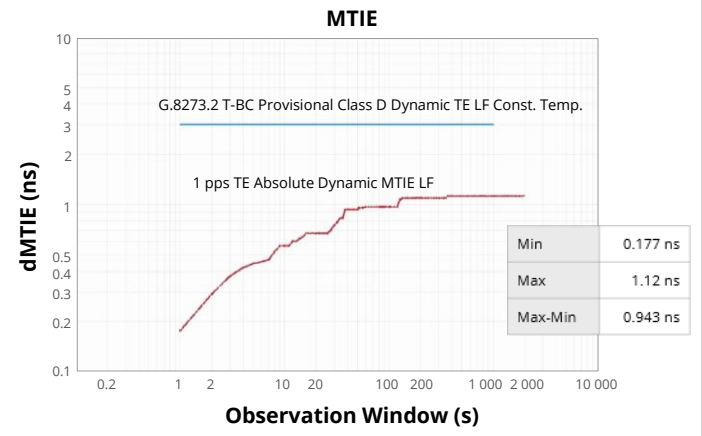
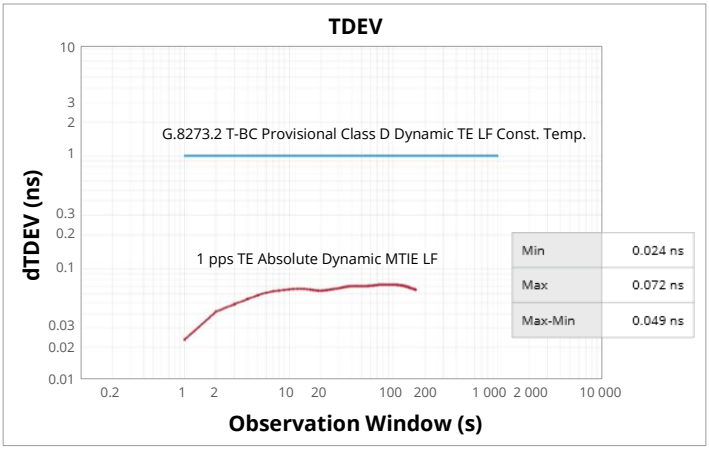
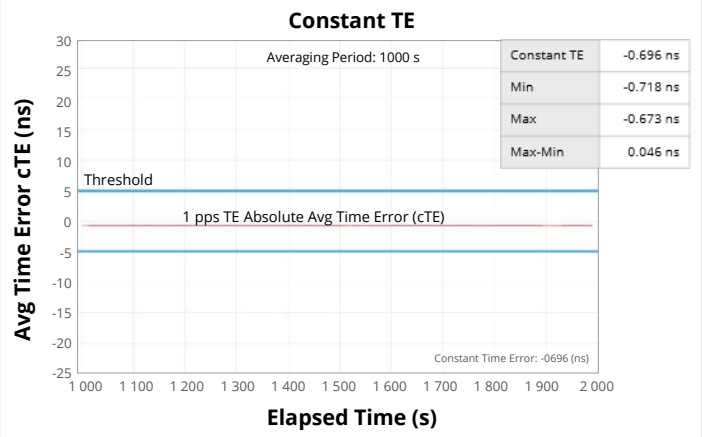
Timing Specification	Class A	Class B	Class C	Class D
Time Error Noise Generation (Wander-Free PTP & SyncE)	PASS			
Maximum absolute TE (max |TE|) – all unfiltered components	PASS	PASS	PASS	NA
Maximum absolute TE LPF (max |TEL|)	NA	NA	NA	PASS
Constant TE Noise Generation (cTE)	PASS	PASS	PASS	NA
Dynamic TE LPF Noise Generation (dTEL)	PASS	PASS	PASS	PASS
Noise Tolerance	PASS	PASS	PASS	NA
Noise Transfer	PASS			









SiTime is a leader in MEMS timing solutions. We combine innovative MEMS and programmable analog technologies with our systems expertise to deliver industry-best timing solutions that overcome the limitations of traditional quartz products. Our configurable products enable customers to differentiate their systems with higher performance, small size, and better reliability.