



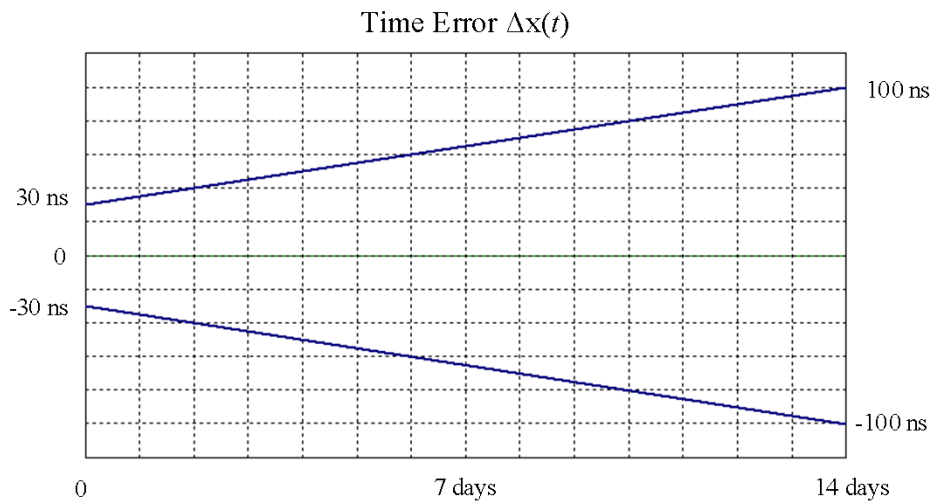
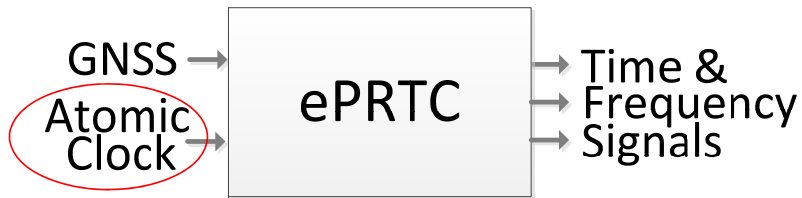
Assuring a Precision Time Reference

Lee Cosart

lee.cosart@microsemi.com

ATIS Time & Money II

ePRTC: GNSS + Atomic Clock

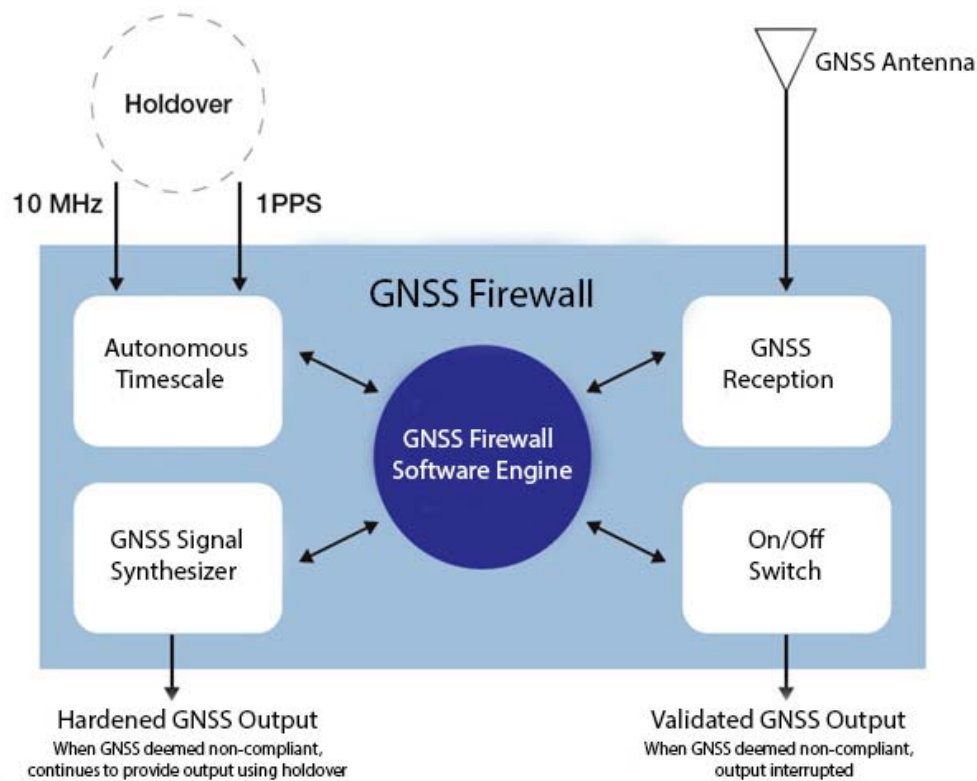


ePRTC: “enhanced primary reference time clock”

ePRTC: Hold better than 100ns for 14 days of holdover “Class A”

ePRTC: With better atomic clock, longer holdover (“Class B” 100ns for 80 days under discussion)

GNSS Firewall



- Identifies spoofing and jamming and protects GNSS systems using autonomous timescale and analysis of incoming GNSS signal power
- 1PPS and 10 MHz timing reference inputs can be used for extended holdover and enhanced detection capabilities
- In the event of anomalous conditions, validated GNSS output turned off but hardened GNSS output can be used
- Hardened GNSS output is the most secure by providing a synthesized, fixed position, GNSS signal isolated from the live-sky environment