VIAVI Solutions

Data Sheet

VIAVI
SecurePNT 6200 with SecureTime altGNSS/eGNSS Services

Resilient PNT Clock for Secure Critical Infrastructure

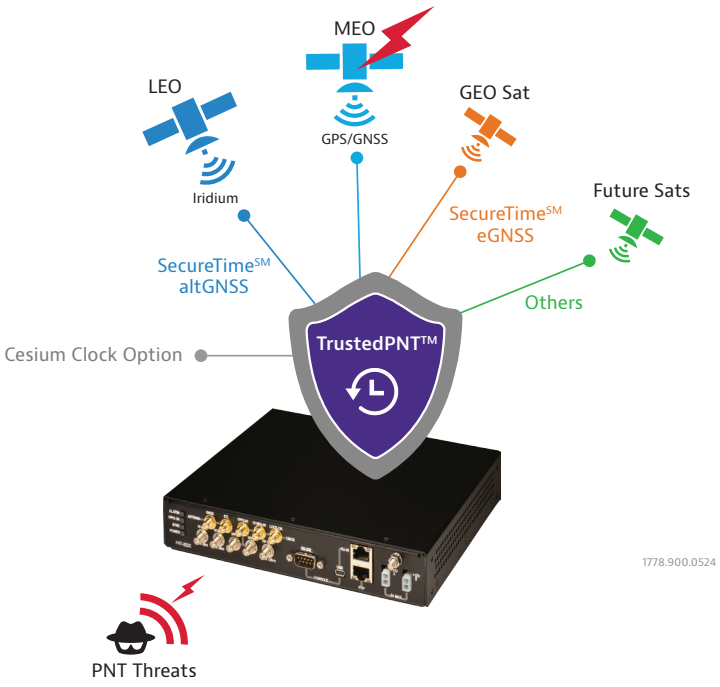
Defense | 5G Communications | Transportation | Data Center | Energy | Financial

Solving Industry Challenges

Secure and resilient Position, Navigation and Timing (PNT) services are vital to support at-risk critical infrastructure from rising PNT disruptions such as intricate jamming/spoofing cyberattacks on GPS/GNSS antennas and malicious hacking attacks on network timing targeting NTP/PTP protocols and GPS/GNSS receivers.

Secure and Resilient PNT Clock Solution

The upgraded SecurePNT™ 6200 series is a next-gen resilient timing clock solution powered by innovative TrustedPNT™ technology and an intelligent zero-trust multisource platform.



SecurePNT 6200 powered with SecureTime Services

Features

- L1/2/3/5/6+RTK GNSS receiver, supporting GEO Sat Signals, and optional LEO STL receiver
- Holdover options: DOCXO or Rb oscillator (internal)
- Inputs: 10 MHz and 1 PPS for external Cesium clock holdover
- Outputs: 10 MHz/1 PPS
- System: meets PRTC-A ITU-T G.8272 spec, NEBS certified, half 19" width, rack-mountable

Benefits

- Secure and resilient PNT clock solution with new SecureTime℠ Services, integrating these alternative and enhanced sources on top of GPS/GNSS:
  - altGNSS℠ LEO — enhanced, encrypted GNSS-independent source, <65 ns RMS accuracy traceable to UTC/NIST, powered with Satelles STL
  - eGNSS℠ — enhanced GNSS source, with authenticated spoofing detection/mitigation and <2.5 ns RMS ultrahigh accuracy traceable to UTC, powered with GEO Sat Signals
- Augmented PNT clock for GPS/GNSS-denied or indoor environments
- Retrofitting legacy GPS/GNSS equipment by placing the SecurePNT 6200 (integrating the VIAVI Solutions patented µPNTranscoder™) inline between the GPS/GNNS antenna and its receiver, rapidly transforming legacy clocks into resilient PNT clocks at scale

Typical Specifications

SecurePNT 6200 Series with SecureTime altGNSS/eGNSS Services		
1 PPS stability with GNSS and multisource SecureTime Services	<5 ns[1] rms GPS/GNSS locked	
	<65 ns[1] rms altGNSS STL LEO locked	
	<2.5 ns[1] rms eGNSS GEO Sat locked	
Holdover performance (over 24 hours @ 25°C, no airflow, no motion)		
Model	**6250/6250S[2]**	**6260/6260S[2]**
	<2 us[3] with DOCXO	<250 ns[3] with Rb
µPNTranscoder (patented multisource-to-GPS transcoder)	GPS L1 C/A RF output signal to retrofit legacy GPS/GNSS clock equipment	
NMEA messages		
GPS/GNSS receiver		
Multifrequency	L1, L2, L3, L5, L6	
Constellations	GPS/Galileo/GLONASS/BeiDou/QZSS/SBAS/NAVIC	
Tracking Performance (C/NO Threshold)		
Acquisition	20 dB-Hz	
Tracking	33 dB-Hz	
TTF		
Cold Start	<45 sec	
Warm Start	<20 sec	
Reacquisition	1 sec	
GEO Sat Signals	Integrated GEO receiver	
STL LEO receiver	A VIAVI Solution leading-edge design	
Sensitivity	-100 dBm tracking	
Intelligent zero-trust multisource switchover	GNSS (4 frequencies), STL LEO, GEO Sat, 10 MHz, 1 PPS	
Inputs		
External reference inputs for Cesium holdover clock	10 MHz Sine Wave (0 dBm to +15 dBm), 1 PPS CMOS options	
Outputs		
10 MHz	2x +13 dBm 10 MHz sine wave, low phase noise option	
Accuracy	<±0.2E-010 after 20 min with GNSS	
1 PPS	2x CMOS 3.3V 1 PPS, 50 Ω coax (>1 K Ω termination)	
Frequency	10MHz, DOCXO or Rb oscillator option	
Stability over temperature (holdover mode)	-10° to +75°C: ±0.2E-09 DOCXO option, ±5E-011 Rb option	
Spurs	<-110 dBc/Hz	

Typical Specifications continued

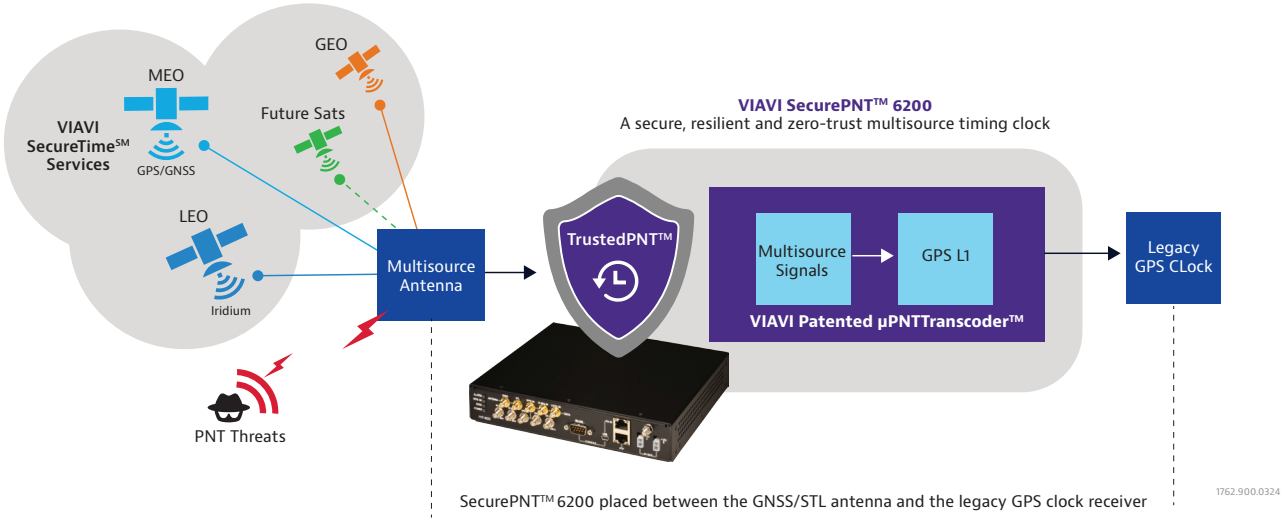
Power and Consumption	
Supply Voltage (Vdd)	
Power Consumption	Single or Dual redundant +12 V DC inputs
	<10 W (DOCXO variant)
Environmental	
Temperature Range	-25°C to +75°C, forced air environment
Operating Storage	-45°C to +85°C
Mechanical	
Size	Half 19" width, 1.64" x 8.53" x 8" (H x W x D)
Weight	1.5 lbs
Connections	
RF antenna (one for STL, one for GNSS)	SMA (antenna power enable controls on both ports)
10 MHz in/out, 1 PPS in/out, TTL status	SMA
In Situ firmware updates	Fully field upgradeable through USB or RS-232 serial ports

[1]Traceable to UTC/NIST
[2]With LEO STL receiver
[3]After 7 days with GNSS reference

Typical Use Case

Quickly retrofit legacy GPS/GNSS clocks, at-risk of rising jamming and spoofing cyberattacks, with a secure, resilient, and zero-trust multisource PNT clock at a fraction of the cost of replacing legacy clocks.

Request your SecurePNT 6200 demo unit today by clicking here to start your successful POC and to safeguard your network against rising GPS cyberthreats.



Solution to retrofit GPS/GNSS clocks

VIAVI Solutions

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