mmTR® Vibro   GNSS-based vibration monitoring system

FEATURES

GNSS signal tracking

544 hardware channels for simultaneous tracking of all visible supported satellite signals:
- GPS: L1C/A, L1C, L1PY, L2C, L2P, L5
- GLONASS: L1CA, L2CA, L2P, L3 CDMA
- Beidou: B1I, B1C, B2a, B2I, B3
- Galileo: E1, E5a, E5b, E5 AltBoc, E6
- QZSS: L1C/A, L1C, L2C, L5, L6
- Navic: L5
- SBAS: Egnos, WAAS, GAGAN, MSAS, SDCM (L1, L5)
- On module L-band

NavSys's proprietary technologies

- **Spectral Analyzer :** based on Lomb-Scargle Periodogram
  - Efficient computation of a Fourier-like power spectrum estimator
  - Detection of periodic signals in unevenly sampled GNSS data
  - A single GNSS antenna/receiver system to detect 3D vibrations (i.e., radial, horizontal, and vertical) simultaneously
- **Related Patents :** 10-2458817 (Korea)

mmTR® Vibro is a real-time, unique GNSS-based vibration monitoring system that detects vibration parameters (e.g., frequency, amplitude, 3D direction) from the infrastructures of interest.

mmTR® Vibro

PERFORMANCE

RTK performance

- Frequency detection   ≤ 50 Hz
- Amplitude detection   ≥ 2 mm
- Direction detection   Radial / horizontal / vertical

GNSS solution

- Position outputs   ≤ 100 Hz (optional)
- Vibration outputs   variable (user defined)

PHYSICAL & ENVIRONMENTAL

Electrical

- Input voltage   15.0 V
- Power consumption   60 W max

Environmental

- Operating temp   -40 to 85 ℃
- Storage temp   -55 to 85 ℃
- Humidity   5-95% (non-condensing)
- Vibration   MIL-STD-810G
- Certification   KC, CE, RoHS, WEEE
- Registration No.   R-R-Nmm-mmTR-SPlus

Package

- Size   156(W) × 80(H) × 240(L)mm
- Weight   1,450 g
- Main Storage   250 GB
- Back-up memory size   64 GB

PERIPHERAL

On-Board

- Processor   Intel Celeron N5105 (2.9 GHz)
- Memory   DDR4 SO-DIMM (8 GB)
- Networking   RJ45 (10/100/1000/2500 Mbps)