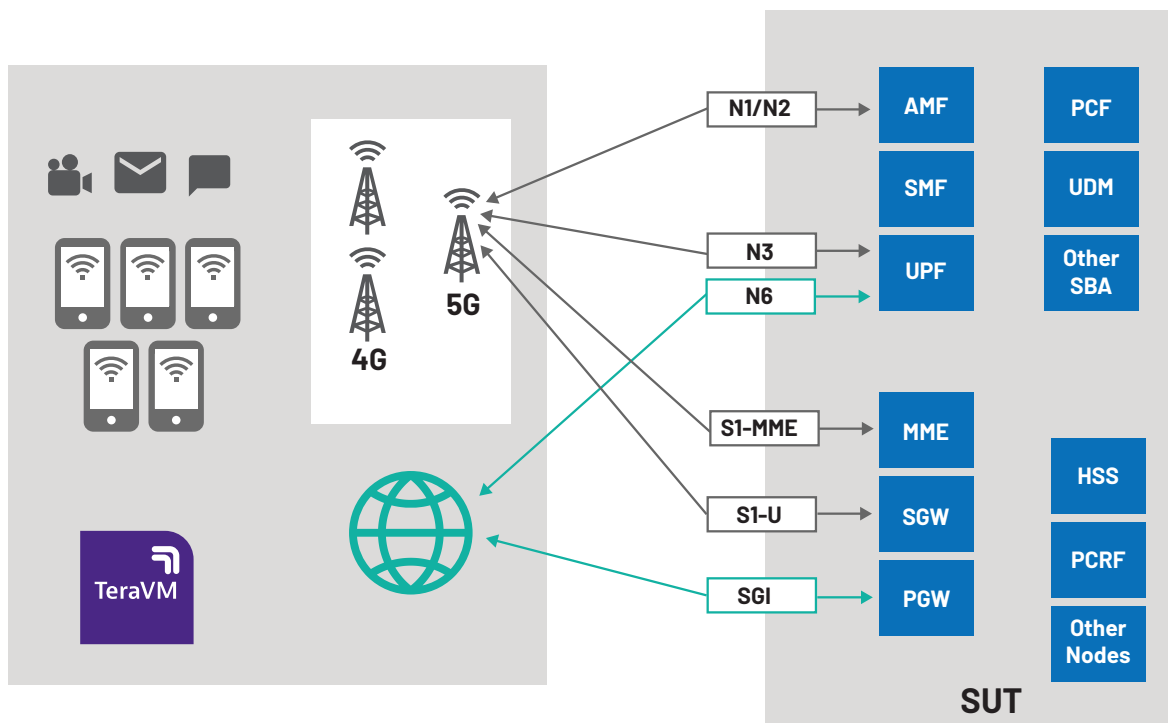


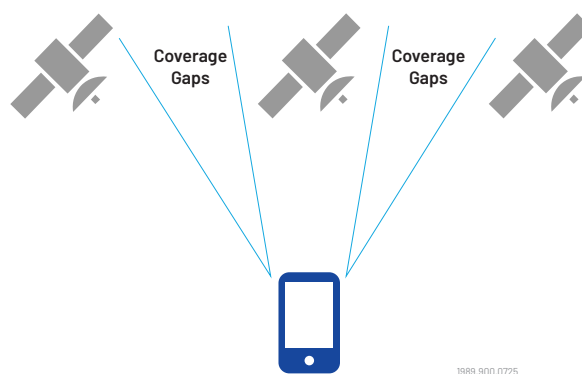
TeraVM Core Test NTN

The **VIAVI Core Test** offers a comprehensive testing solution designed for the full wrap-around testing of a 5G SA/NSA/4G/3G/2G Core Network. As Network Equipment Manufacturers (NEMs) and mobile operators work to bring 5G capabilities to market, they face a complex challenge in developing products aligned with the continually evolving 3GPP standards. VIAVI's Core Test solution is built to address this challenge by providing a robust, controlled, and repeatable test environment that streamlines the development, validation, and deployment of core networks. **TeraVM Core Test supports NTN enabling the ability to simulate Satellite Backhaul to test 4G or 5G Satellite Core Networks.**

- **3GPP Standards Alignment:** Early compliance with latest 3GPP standards for quick market entry
- **Lightweight VM Deployment:** Runs efficiently on x86 hardware.
- **Cloud Compatibility:** Supports GCP, Azure, AWS
- **Containerization:** Kubernetes and container-ready
- **CI/CD Integration:** Seamless automation with VAMOS
- **Voice Testing:** Supports voice testing across 4G and 5G
- **Core Network Testing:** Includes 4G+5G NTN and IPsec backhaul tests
- **6G Ready:** Protect investment
- **Robust Security:** Fuzzing and negative testing on 3GPP interfaces
- **Legacy Support:** Compatibility with 2G/3G for all-in-one testing



- 3GPP Compliance: Compliant with 3GPP Release 18 NTN (Non-Terrestrial Networks) specifications.
- NTN new RAT Types: 3GPP NTN introduces unique Radio Access Technology (RAT) types to support satellite and aerial communications in the 5G ecosystem. Key RAT types include:
 - Satellite-Based RATs
 - GEO-nrGEP – Geostationary Orbit
 - MEO-nrMEO – Medium Earth Orbit
 - LEO-nrLEO – Low Earth Orbit
 - nr-OTHER – Other Satellites/High-Altitude Platform Stations (HAPS)
 - nb-IoT – Narrowband Internet of Things for NTN
- NTN Extended NAS Timers: Enhanced NAS timers to account for higher latency and longer propagation delays in satellite communication.
- Tracking Area Updates
 - Extended TAU Timer and Periodicity
 - NTN-Specific TAI (Tracking Area Identity) Handling
 - Context Preservation during temporary coverage gaps
 - Use of Mobility Restriction Lists or TAI Lists optimized for satellite mobility patterns
 - Support for 5G NTN Unavailability IE and corresponding timers
 - TAU Triggering Adjustments tailored for satellite environments
- Simulation of Non-Terrestrial Network (NTN) environments—especially GEO, MEO, and LEO satellite communications—using software-based tools that emulate User Equipment (UE) and base station behavior over satellite links.
- 3GPP Interface Support: With full support for interfaces such as N1/N2/N3/N6 or 4G interfaces.



Order Codes

Part Number	Description
TVM3142	TeraVM Core Test NTN Extension



Contact Us: +1 844 GO VIAVI | (+1 844 468 4284). To reach the VIAVI office nearest you, visit viasolutions.com/contact

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30194545 900 0725

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