

NTN TESTING & MONITORING

Non-Terrestrial Networks (NTN) can extend wireless network coverage across the globe. But integrating NTN satellite transmissions with terrestrial 4G and 5G networks poses unique challenges. High performance measuring and monitoring solutions help to ensure that satellite signals provide the Direct-to-Device coverage that's needed, while avoiding interference with terrestrial networks and ensuring international regulatory compliance.

PCTEL's Solutions

- **High performance** portable and fixed measurement devices
- **Dual antenna system** for horizon-to-horizon coverage
- **Accurate signal quality (SINR)** measurements to evaluate KPIs and detect adjacent channel interference
- **Simultaneous testing** of NTN and 4G/5G cellular networks



MONITOR

3GPP KPIs and adjacent channel interference



VALIDATE

combined terrestrial & non-terrestrial coverage



VERIFY

approved NTN transmissions



ENSURE

regulatory and SLA compliance

THE PCTEL NTN MEASUREMENT DIFFERENCE

PCTEL's NTN testing and monitoring solutions are designed to ensure complete low horizon to zenith coverage and accurate measurements, using a dual antenna system combined with advanced doppler shift compensation.

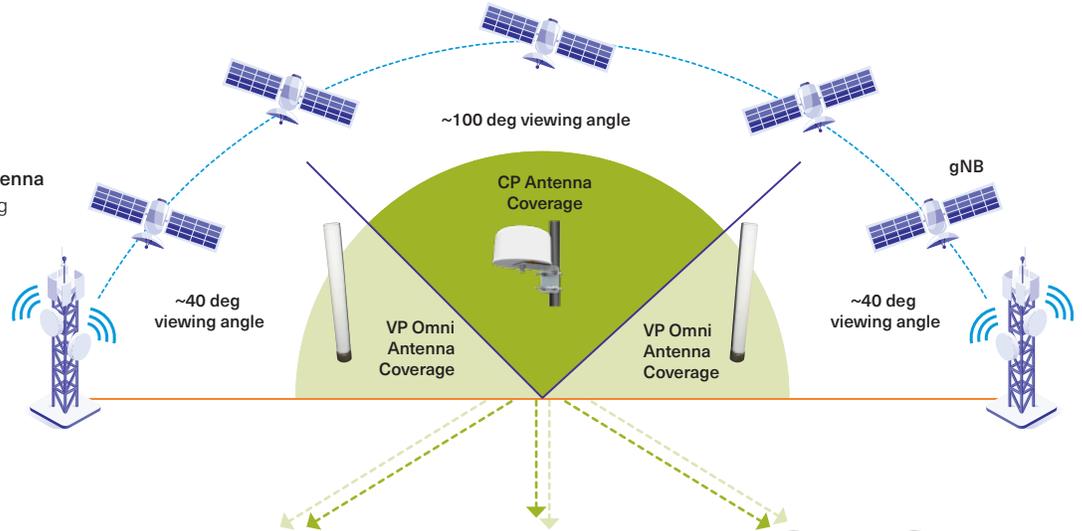
PCTEL Dual Antenna System Covers the Full Horizon

Vertically Polarized (VP) Omni Antenna

- Coverage from horizon to ~40 deg
- Effective gain 3.5 dBi for linearly polarized signals
- 3 dB attenuation of circularly polarized (CP) signals

Circular Polarized (CP) Antenna

- Coverage >40 deg from horizon
- 0-5 dBi gain in 100 deg view angle for CP satellite signals
- 3 dB attenuation of linearly polarized satellite signals



Advanced Measurement Devices for Portable or Fixed Applications



NTN KPIs	SeeHawk [®] Monitor	IBflex [®] Portable Scanning Receiver	Gflex [®] Portable Scanning Receiver
NTN KPIs	✓	✓	✓
Doppler shift compensation	✓	✓	✓
Frequency offset KPI	✓	✓	✓
Detect adjacent channel interference	✓	✓	✓
Remote monitoring from 1+ RTUs	✓		
Event notification & playback	✓		
Terrestrial 4G/5G KPIs	✓	✓	✓
5G mmWave KPIs			✓
Hot-swappable battery		✓	✓
Simultaneous terrestrial & NTN testing	2 RF ports	2 RF ports	2 RF ports & multi-core processing

Accurate Data for Monitoring and Analysis



For more information, contact your sales representative or visit pctel.com



MADE IN THE USA
of U.S. and imported parts

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