xNet Ambient

PORTABLE NETWORK UNIT

PORTABLE SYSTEM

Extend Coverage. Keep Sync.

Battery-powered DigiMESH® repeater that widens wireless reach for xPlorer Ambient + xWave Ambient campaigns.

Why xNet Ambient

- Expands portable deployments where line-of-sight is limited.
- Self-healing DigiMESH® keeps nodes connected even if a link drops.
- Compact, field-ready, and simple to configure via web UI.
- Optional Ethernet variant bridges wired and wireless segments.
- 12 h autonomy from the internal rechargeable battery.

What makes it different

- Purpose-built for AVM/portable SHM—drop in, power on, extend the mesh.
- Flexible topologies: pure wireless or hybrid (Ethernet + wireless).
- Quick status via LED indicators; USB-C charging; rugged IP55 enclosure.
- Add multiple xNets to scale range and redundancy as needed.

Made for

Large bridges and dams • High-rises with blocked paths • Temporary campaigns with moving nodes • Rapid post-event surveys

CE • ISO • Calibration certificate

How xNet Ambient fits your SHM

- Place xNets between far nodes and the xPlorer Ambient hub to bypass obstacles and increase range.
- Mesh auto-routes around failures, maintaining synchronized streaming and triggers during campaigns.

Configure your unit

Comms: DigiMESH® wireless; optional Ethernet (10/100).
Timing: DigiSync® sub-ms across the portable mesh.
Power: Internal Li-ion (>12 h); USB-C 5 V charging.
Enclosure/Size: IP55 ABS; ~100×100×40 mm; ~200 g.
I/O & Status: Web UI setup; LED indicators; push-button on/off; reed-switch reset.
Mounting: Horizontal/vertical; pole/screw options.

Outcome snapshot

- Wider, more reliable coverage with fewer cables.
- Faster setup and redeployments across complex sites.
- Stable live streaming and triggers even when paths change.

Result: Portable campaigns that stay connected—clean data, fewer gaps, and confident decisions.

Your workflow with Digitex

- **Instrument**: position xNets to bridge distance/obstacles; power on; set Mesh ID/password.
- **Acquire**: nodes auto-join; verify sync in Voyager® on xPlorer Ambient.
- **Analyze**: run AVM, preview live charts, tag events, export data.
- **Act**: keep alarms/notifications active across the extended mesh.
- **Scale**: add more xNets or switch a unit to Ethernet bridge when the site grows.

DIGITEX INNOVATIVE SYSTEMS

USA Office: 9 Wildwood Trail, Ormond Beach, FL 32174, USA

Europe Office: 23 Prashka, 1000 Skopje, Macedonia

www.digitexsystems.com
+389.72.213.782 | +389.2.3109.262

PORTABLE SYSTEM OVERVIEW

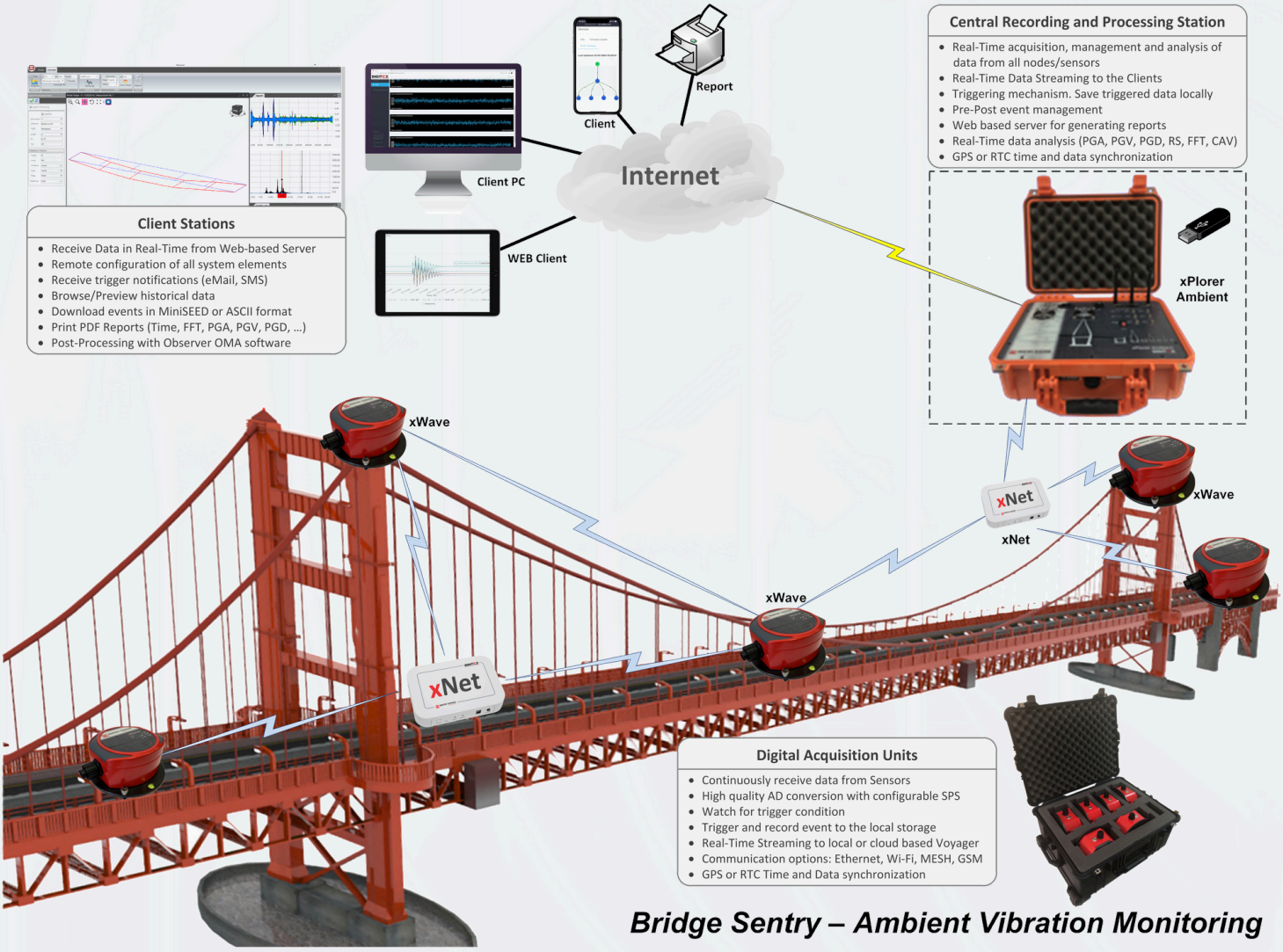
xDAS Ambient is Digitex Systems' portable SHM solution for Ambient Vibration Measurements (AVM). It combines battery-powered xWave® units with a portable xPlorer® running Voyager® to deliver synchronized, low-noise acceleration data, real-time viewing, automated PDF reports, and alerts—all deployable in hours for short-term surveys or rapid condition checks. Wireless links (or low-cost CAT5) and one-button field operation make it ideal for quick mobilization after events, construction impacts, or routine inspections.

The system streams data live to client stations (PC/tablet/phone), with up to ~24 h battery life per node, Ring Buffer + Store&Forward® continuity, and easy data export for OMA/FFT/PSD analysis. Weather-resistant enclosures and optional wireless coverage extension keep campaigns reliable in tough outdoor environments.

Measurements are fully digital, avoiding noise issues common with analog cabling. Units communicate via Ethernet, Wi-Fi, or DigiMESH®, enabling flexible setup in complex environments. The system is designed for autonomy, with rechargeable batteries powering all devices.

PORTABLE SYSTEM MEMBERS

The Portable Sentry System is a battery-powered SHM kit that rapidly deploys in the field, forms its own wireless mesh, and delivers ready-to-analyze results with minimal setup. Portable Sentry System family of products consists of several units: **xPlorer Ambient**, a portable central recording and processing unit; **xWave Ambient**, a digital accelerometer unit; **xNet Ambient**, a wireless MESH network extender; and the **Carry Box**, a portable equipment transition solution.



Bridge Sentry – Ambient Vibration Monitoring

ABOUT DIGITEX

Digitex is a company specialized in design and development of real structural health monitoring systems for a variety of industries and applications including: bridges, tall buildings, campuses, windmills, oil rigs and more. Digitex's innovative solution for ambient vibration measurements and quick health assessment of structures is jointly developed and validated with our partners and advisors from the Universities. When properly configured, the Digitex system is capable of measuring and responding to both natural and man- made events such as: earthquakes, wind, explosions and accidental heavy impacts.

DIGITEX INNOVATIVE SYSTEMS

USA Office: 9 Wildwood Trail, Ormond Beach, FL 32174, USA

Europe Office: 23 Prashka, 1000 Skopje, Macedonia

www.digitexsystems.com
+389.72.213.782 | +389.2.3109.262