

xPlorer Ambient

PORTABLE CENTRAL
ACQUISITION UNIT

PORTABLE SYSTEM

Portable Power for Ambient Vibration

Self-contained Voyager® hub for short-term SHM campaigns—synchronized, battery-backed, and field-ready.

Why xPlorer Ambient

- Truly portable: rugged IP55 case with internal battery.
- Voyager® onboard—acquire, trigger, store, stream, report.
- Connects multiple xWave Ambient nodes; optional xNet extenders.
- Ring Buffer + Store&Forward® for continuity during drops.
- GPS/DigiSync® timing for sub-ms alignment across nodes.

What makes it different

- Eight Ethernet sensor ports + dedicated service port.
- Can charge connected nodes during AC operation.
- Automated PDF reports and web-based management.
- Local SSD retention (up to ~60 days) + optional FTP backup.
- Light enough to carry, tough enough for real sites.

Made for

Bridge/building modal tests • Post-event checks • Construction impact surveys • Periodic inspections • Mobile research & teaching.

How xPlorer Ambient fits your SHM

- Drop in for days or weeks: deploy nodes, power up, and stream live to clients (PC/tablet/phone).
- Keep teams aligned: synchronized channels, event logs, and instant reports—no permanent install required.



Configure your unit

Comms: 8× Ethernet (10/100) for sensors + service port; Wi-Fi/DigiMESH®/GSM optional.

Timing: GPS/DigiSync® sub-ms alignment.

Recording: Ring Buffer on SSD (up to ~60 days) + Store&Forward®.

Charging: 8 node-charging outputs when on AC power.

Management: Web UI, remote access, automated PDF reports.

Power/Case: Internal battery (up to ~24 h), 110/220 VAC; IP55 copolymer, ~9 kg.

Environment: -20...+40 °C, 0-90% RH (non-condensing).

Outcome snapshot

- Rapid mobilization and clean, time-aligned AVM data from day one.
- Continuous acquisition with local resilience and easy exports for OMA/FFT/PSD.
- One workspace for setup, viewing, alarms, and reporting.

Result: Survey-grade measurements without permanent works—faster campaigns, fewer site visits, and confident decisions.

Your workflow with Digitex

- **Instrument:** place the case, attach GPS, deploy xWave Ambient nodes; connect via Ethernet or wireless.
- **Acquire:** configure in Voyager®; verify sync; run Ring Buffer and live streaming.
- **Analyze:** preview waveforms/spectra, tag events, export for OMA.
- **Act:** set thresholds/notifications; generate automated PDF reports.
- **Scale:** add nodes or repeat campaigns across assets with the same kit.

CE • ISO • Calibration certificate

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

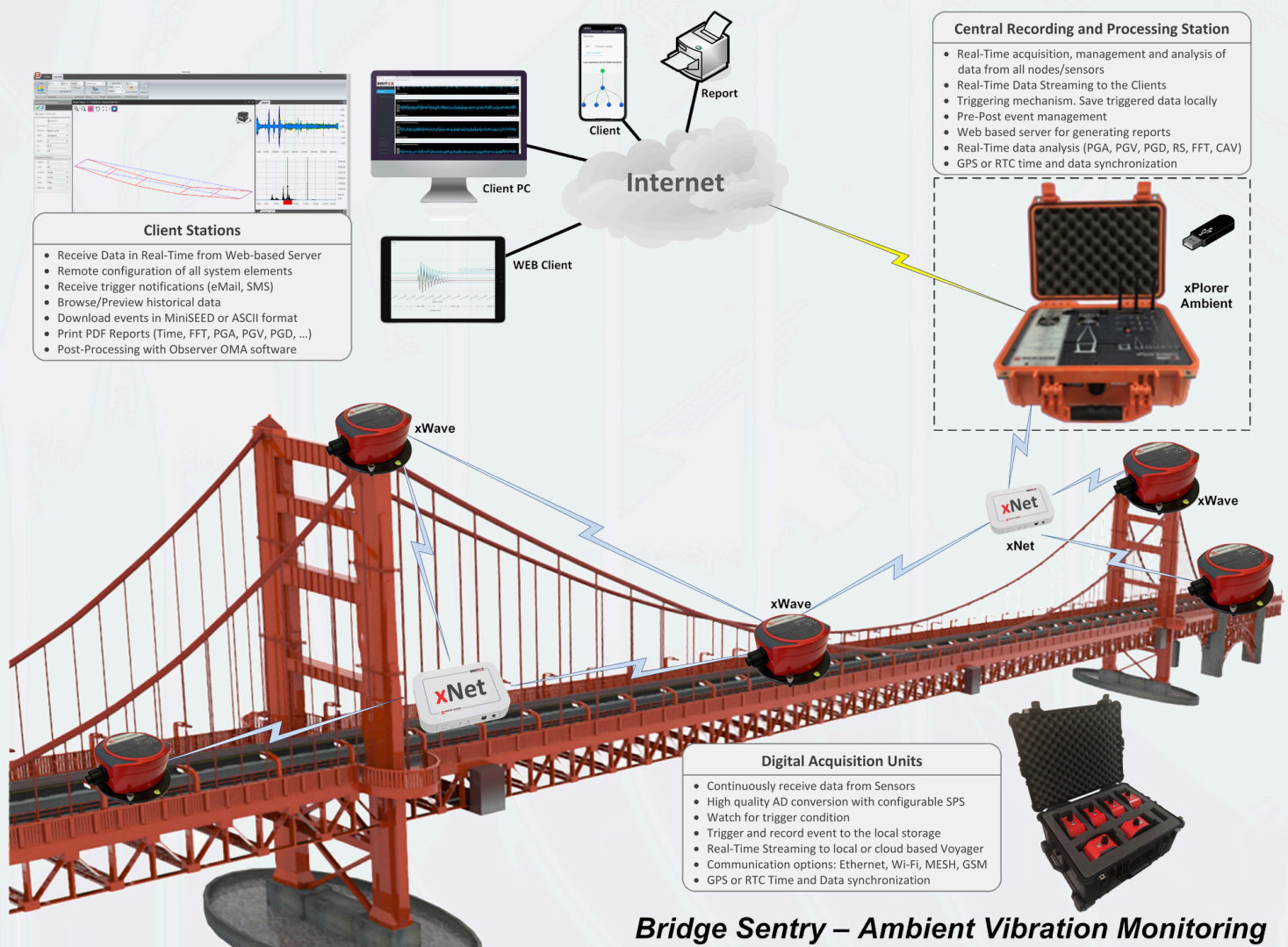
xDAS Ambient is Digitex Systems' portable SHM solution for Ambient Vibration Measurements (AVM). It combines battery-powered xWave® units with a portable xPlorer® running Voyager® to deliver synchronized, low-noise acceleration data, real-time viewing, automated PDF reports, and alerts—all deployable 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.



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.