

pSHM®

PERSONAL / HANDHELD STRUCTURAL HEALTH MONITORING SYSTEM

Grab • Record • Share — a fully-fledged inspection!

Handheld digital probe with one-button capture; on-device digitization, tagging, and instant PDFs via phone/tablet.

What is pSHM

- Handheld SHM platform for quick assessments by a single engineer or small crew
- Battery-powered personal node with embedded digitizer and inertial/aux sensor options
- Companion app/web UI for start/stop, notes, tagging, GPS, and instant report export
- Automated PDF summaries for immediate sharing with clients and site managers

Why pSHM

- Noise-free by design: fully digital signal path from the probe
- Fast by default: single-button workflows, QR/asset tagging
- Accurate & repeatable: sub-ms time alignment;
- Field-ready: rugged pocket form factor; hours-long battery; USB-C quick charge
- Connected: Bluetooth® for extra TAGs, Wi-Fi for data offload

pSHM Applications

- Walk-by screening surveys of buildings, bridges, floors, stacks
- Pre-/post-event checks (earthquakes, blasts, impacts, heavy traffic)
- Commissioning and proof-of-performance snapshots during construction
- Maintenance rounds: trending of key points between full campaigns
- Education & research: rapid AVM/OMA demonstrations and lab exercises

System Snapshot

pSHM® is a compact, handheld SHM system that lets a single engineer capture **digitally synchronized vibration data** within minutes. The device digitizes at the probe for clean, noise-free measurements, supports one-button **start/stop**, and **tags records** with time, GPS, and notes. Data streams in real time to a phone, tablet, or laptop via **Bluetooth®/Wi-Fi**, or is offloaded by USB-C; **automated PDF reports** summarize each session on the spot. The robust battery design supports hours of operation, and the unit can also **act as a personal probe** within larger xDAS deployments when deeper investigations are required.



xPlorer Home



Pulse

Outcome

- Clear, defensible snapshots you can share in minutes (audit-ready PDFs)
- Faster triage of sites to prioritize full monitoring only where needed
- Lower field time and mobilization cost for routine checks
- Consistent, repeatable datasets to track trends between campaigns
- Better communication with stakeholders via standardized quick reports

Your workflow with Digitex

- **Instrument** – place/hold probe; select point ID; add notes/GPS in the app
- **Acquire** – one-button record; live preview; save locally with metadata
- **Analyze** – on-device/app spectra and OMA screening; export to Observer® if needed
- **Act** – auto-generate PDF; flag issues; schedule follow-up (portable/standalone/centralized)

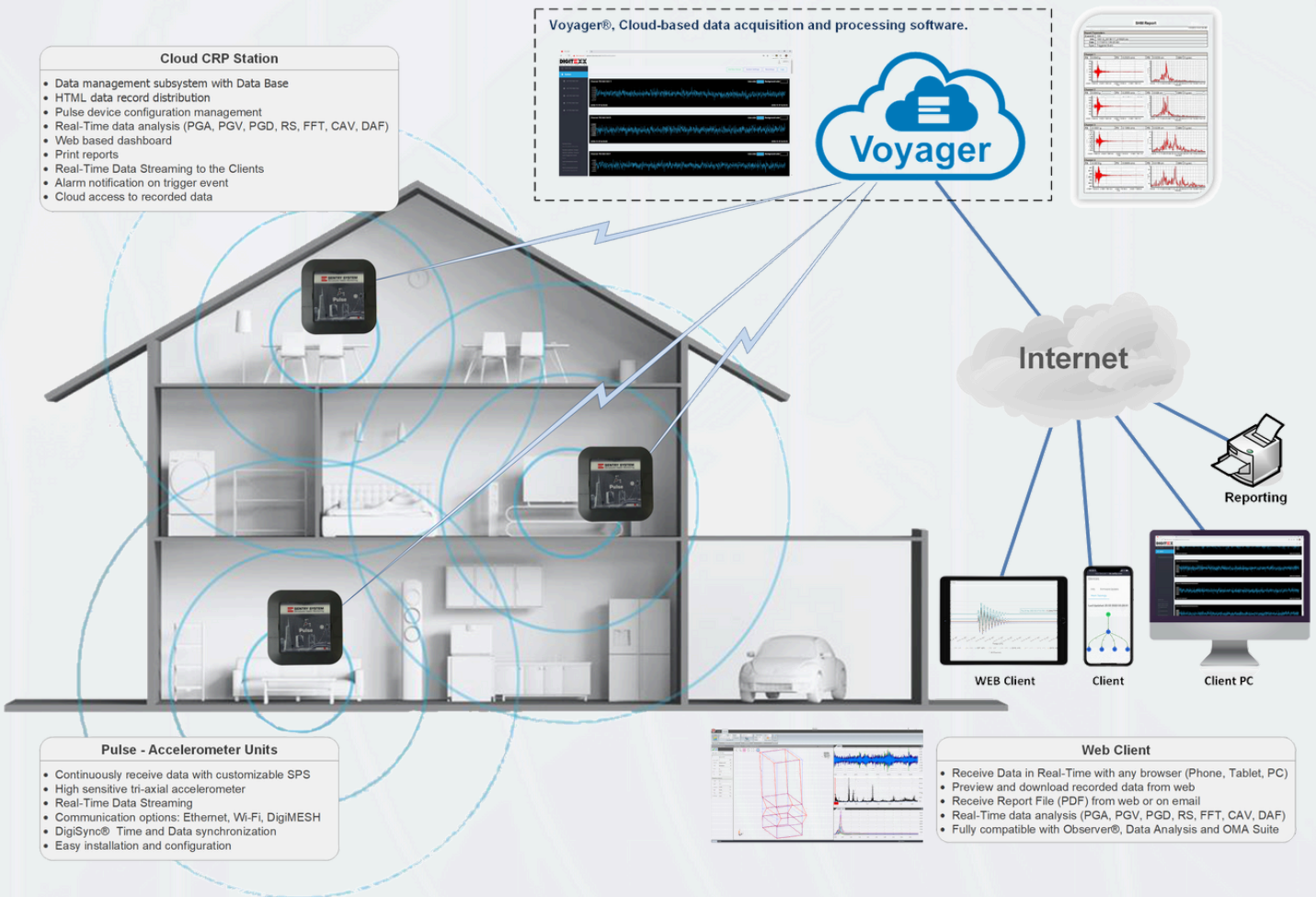
PERSONAL SYSTEM OVERVIEW

Personal SHM is Digitex Systems' home/small-building solution centred on xPlorer Home with Pulse sensors. The hub acquires, time-aligns (DigiSync®), and continuously records vibration from multiple rooms, buffering events with pre/post windows so nothing is missed. Setup is browser-based; live charts, notifications, and automated PDF reports keep you informed without a PC. Low-power, quiet hardware runs unattended for months, delivering clean, comparable data for routine monitoring, quick post-event checks, and learning/teaching use.

Designed as an entry-level yet professional SHM platform, pSHM pairs the xPlorer Home central station with Pulse accelerometers to offer a practical balance of functionality and cost. The system provides continuous recording with ring-buffer retention, event-based captures with pre/post time, and browser-based visualization and data download. Compared with enterprise Sentry System families (xDAS, xCAS), pSHM uses sensors with lower sensitivity and simplified environmental protection, and enables a curated subset of Voyager® functions that are most relevant to residential and light-commercial monitoring.

PERSONAL SYSTEM MEMBERS

The Personal Sentry System family consists of units that can be installed as standalone devices or as part of a complete Personal SHM deployment: **xPlorer Home** - central acquisition & processing unit; **Pulse** - personal digital accelerometer sensors placed around the home or small facility; **Client Apps** - web/mobile viewing, configuration, and reporting.



Sentry System with Pulse - Real-time Structural Health 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.