

## OVERVIEW

xPlorer Home® is the central acquisition hub of the Personal SHM (pSHM) family. It delivers reliable, always-on monitoring for houses, small buildings, and compact structures—bringing core Sentry System capabilities to cost-sensitive projects in a simple, permanent setup.

## DESCRIPTION

Designed for permanent installations, xPlorer Home manages real-time acquisition, storage, and basic analysis from up to 20 Pulse accelerometer units. Voyager® core functions are included for browser-based configuration, live charts, ring-buffer recording, event capture with pre/post time, and automated reporting. Data can be streamed to web clients, exported for post-processing, or optionally backed up to a remote FTP site. DigiSync® ensures consistent time alignment across all connected Pulse sensors using the built-in RTC.

xPlorer Home acts as the central hub for Pulse devices, supporting both local and remote configurations. It acquires and manages data from large number of channels simultaneously, with continuous Ring Buffer recording that ensures no event is missed. Data can be stored locally for up to 60 days and exported in proprietary compressed formats, MiniSEED, or ASCII for interoperability.

xPlorer Home includes a GPS module and Digitex's proprietary DigiSync® protocol, ensuring sub-millisecond accuracy in time and data synchronization across all connected devices – critical for advanced modal and vibration analysis. Even in GPS-denied environments, DigiSync maintains reliable synchronization, aligning every sensor with the central station clock.

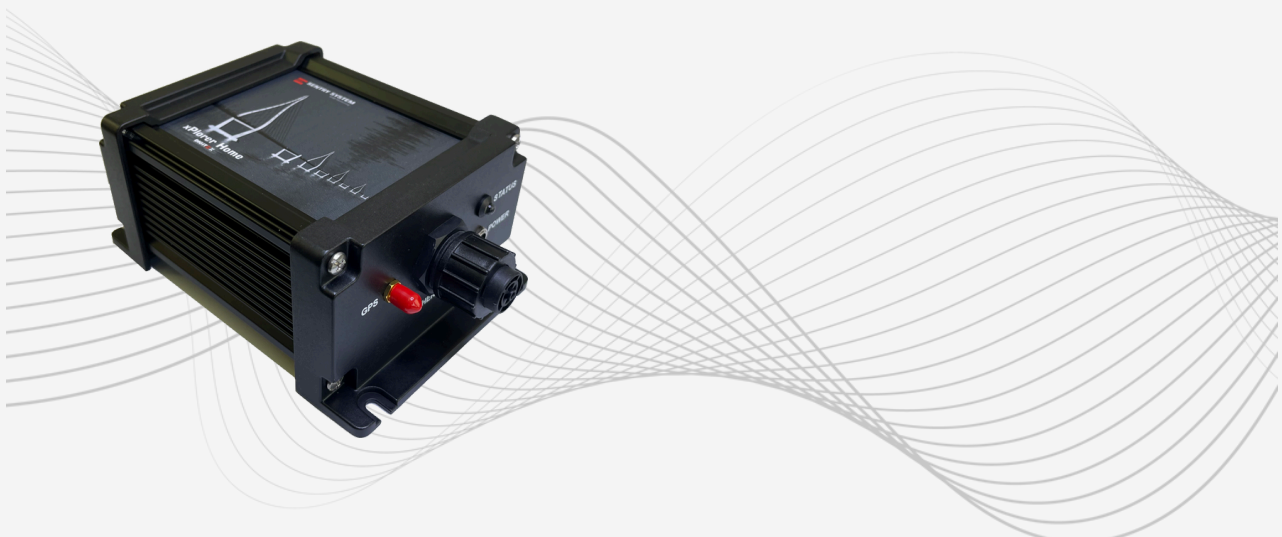
Users can access data directly through a web browser, preview and analyze recordings, generate automated PDF reports, or stream live data to client applications. Alarming features include email notifications

## KEY FEATURES

- Central Hub for up to 20 Sensors: Manages acquisition and control for up to twenty Pulse units.
- Voyager® Inside (Core Functions): Web configuration, live charts, ring-buffer storage, basic reports.
- Event Triggering: Level-based, STA/LTA, Above Max, Below Min; configurable pre/post event windows.
- Reliable Storage: Continuous Ring Buffer (user-configurable retention, up to ~60 days) to avoid missing events.
- Data Access & Streaming: Real-time streaming to web clients; optional secure FTP uploads for backup.
- Formats & Interoperability: Supports Digitex compression and MiniSEED with embedded SeedLink server.
- Connectivity: Ethernet for flexible site networking.
- Time Synchronization: DigiSync® with integrated RTC for consistent timestamps across all nodes.
- Low-Power, Permanent Install: Designed for continuous, unattended operation.

## APPLICATIONS

- Residential and low-rise buildings
- Small public facilities (schools, clinics, municipal buildings)
- Light-industrial structures and equipment rooms
- Community/campus pilot monitoring programs



## SPECIFICATIONS

### Function

**Type:** Central acquisition and processing unit of the Personal SHM (pSHM) family, designed for permanent installations on houses, small buildings, and compact structures. Combines rugged hardware with the full Voyager® software suite to provide continuous real-time acquisition, storage, synchronization, alarming, and reporting—bringing the core Sentry System capabilities to affordable, cost-effective, always-on monitoring solutions.

**Supported units:** Up to 10 Pulse accelerometer units.

### Interface

**Connectivity:** Single Ethernet (10/100 Base-T) interfaces - operating in DHCP mode for external access and sensor network array.

**Led Interface:** Single LED Indicator for synchronization state.

**GPS:** SMA connector for external GPS antenna connection.

**DC Input:** Barrel-type connector providing regulated 5 V DC operating power from an external adapter.

**Cooling:** Two internal fans with opposing airflow design for efficient heat dissipation, equipped with protective fan guards.

### Power

**Supply Voltage:** 5 VDC input from external power adapter (supplied)

**Power Consumption:** 5-10 W (average)

**Backup:** Not supported

### Synchronization

**Time Base:** GPS-disciplined timing and DigiSync® network synchronization for distributed arrays, utilizing proprietary hardware for precise time alignment across all connected devices.

**Accuracy:** Sub-microsecond for timing precision across distributed networks.

### Environmental

**Operating Temp.:** -20 °C to +60 °C

**Humidity:** 0 - 90 % RH (non-condensing) (using sealed USB-C cap)

### Software Updates

**Firmware:** Updated by Digtex Support team through secure internal procedure.

### Physical

**Dimensions:** 140 × 120 × 70 mm (5.51 x 4.72 × 2.76 in)

**Weight:** 900 g

**Enclosure:** Extruded aluminum enclosure, IP65 rated (indoor use recommended)

**Mounting:** Horizontal or vertical installation using flanged mounting holes and screws.

### Certification & Calibration

**Standards:** CE, RoHS, ISO9001, ISO14001

## BENEFITS

- Delivers professional SHM capability at an accessible price point
- Simplifies deployment with integrated browser UI and curated feature set
- Reduces data-loss risk with continuous Ring Buffer recording
- Improves post-event assessment via automated event capture and reports
- Scales modestly by adding Pulse sensors as needs evolve
- Provides an upgrade path to higher-end Sentry families if project scope grows