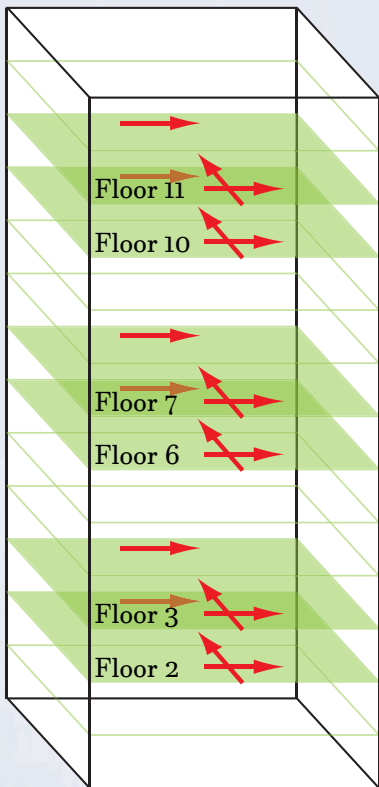


# D-Series

## Analog Accelerometers

### Key Features:

- Rugged aluminum enclosure with IP67 protection
- Wide range of accelerometers with different sensitivity almost for any type of application
- Most models are available in both uni-axial or tri-axial variant
- Easily mount to most surfaces
- Special designed leveling plate for easy and accurate installation



### Overview

The Digitex D-Series Accelerometers are Force-balanced Micro electro-mechanical (MEMS) Capacitive accelerometers and feature a wide dynamic range, excellent bandwidth and an ultra-low noise floor. They provide high resolution and precise measurements at an excellent value making them ideal for Structural Health Monitoring (SHM) installations



General Characteristics	
Packaging	Watertight aluminum
Power Supply	9 - 24V
Protection	IP66/IP67
Operating Temp.	-20°C to 80°C
Weight	560g
Dimensions	95x55x55mm
Leveling Plate	125mm (H=12mm)

Accelerometer D230-T		
Full-scale Acceleration	±3	g
Noise (In Band)	0.7	µg/√Hz
Noise (0.1Hz to 100Hz)	8	µg
Dynamic Range	108.5	dB
Scale Factor Sensitivity	900	mV/g
Bandwidth (±3dB)	550	Hz
Power Consumption	90	mW

Accelerometer D225-T		
Full-scale Acceleration	±3	g
Frequency Range	0 - 200	Hz
Zero Bias Stability	0.03	mg
Noise (In Band)	1	µg/√Hz
Scale Factor Sensitivity	1200	mV/g
Bias Temp. Coefficient	±0.2	mg/°C
Power Consumption	110	mW

Accelerometer D220-T		
Full-scale Acceleration	±2	g
Frequency Range	0 - 700	Hz
Non-linearity (Full Scale)	0.1	%
Noise (In Band)	7	µg/√Hz
Scale Factor Sensitivity	1350	mV/g
Bias Temp. Coefficient	±0.2	mg/°C
Power Consumption	72	mW

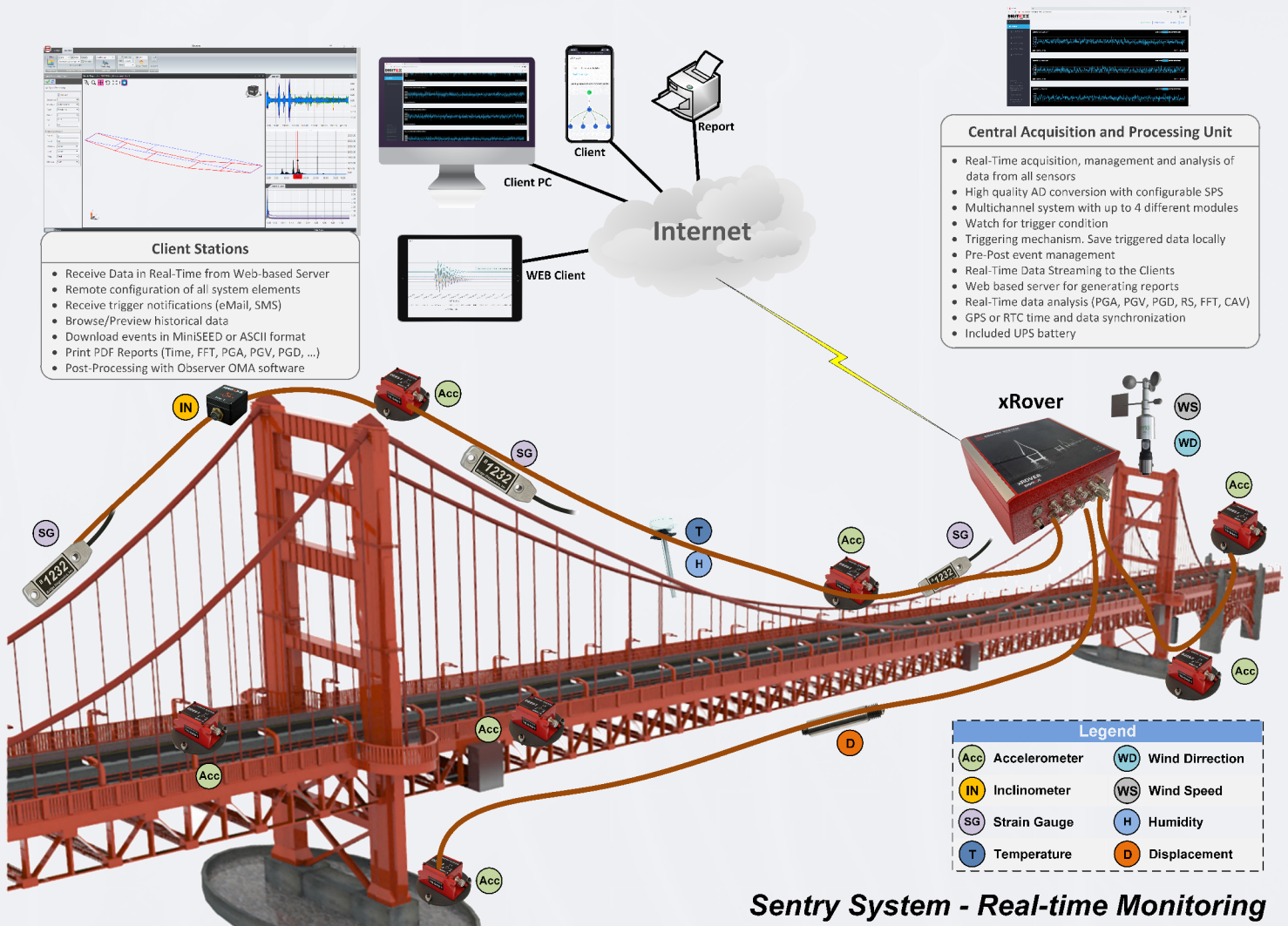
Accelerometer D211-T		
Full-scale Acceleration	±2, ±4	g
Non-linearity (Full Scale)	0.1	%
Noise (In Band)	22.5	µg/√Hz
Scale Factor Sensitivity	400	mV/g
Cross Axis Sensitivity	1	%
Sensitivity due to Temp.	±0.01	%/°C
Power Consumption	45	mW

## Real Time Monitoring System Architecture

The Digitex monitoring system is based on a highly efficient, multithreaded software design that allows the system to acquire data from a large number of xDAS units, monitor and condition this data, and distribute it, in real time, over the Internet to multiple remote locations.

Sensors on the structure continuously send out data to the system. If an event such as an earthquake occurs, pre-assigned thresholds of drift are exceeded in one or multiple locations, thus triggering the recording and analyzing of data (including pre-event memory). Once an event is recorded, the system notifies a list of users (via e-mail) and uploads the event via FTP to another site.

Using the "quick analysis" capability of the Digitex system, various measures of the monitored system's response can be distributed to multiple locations and displayed in real time. The system can cross correlate data, plotting useful information about the interaction between the dynamic loads on the structure and its modal characteristics. It can be used for a rapid (rough) estimation of the dominant structure mode being observed in the selected time window, as well as an estimator of the corresponding structure damping parameters.



**Sentry System - Real-time Monitoring**

## About Digitex

Digitex is a company specialized in design and development of real time 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.

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