JENLOGIX
INDUSTRIAL TECHNOLOGY PARTNER

Palert 220
High Sensitivity Accelerometer

WIND IMPACTING YOUR BUILDING?

NEED A CALIBRATION FREE SENSITIVE DEVICES?

ALL AT COST EFFECTIVE PRICE?

The ground breaking new crystal based sensor provides the answer.

Overview

When monitoring large structures for wind effects high sensitivity is required to ensure correct assessment. The **Palert 220** can provide this level of sensitivity at an affordable price. The **Palert 220** can be used in earthquake early warning, rapid structural health as well as these higher sensitive situations.

As one of the new generation of accelerometers using crystal technology, the **Palert 220** provides a simple solution.

The **Palert 220** is also an ideal unit for seismic research, since being a crystal sensor, it requires no ongoing calibration yet has the sensitivity required for detailed analysis.

Tall buildings require this extra sensitivity of a **Palert 220** to ensure that the wind vibration does not cause any issue with occupants.

Data is sent directly to the cloud for engineers to see remotely the issues and provide a plan of action accordingly.

Unlike an earthquake which transmits the vibrations from the ground up, the Palert 220 can effectively monitor the effect of even the smallest of breezes on a building. This information in turn can assist in providing a comfortable environment for the occupants.

Structural health monitor
Seismic measurements
Motion analysis and control

Key Benefits

IMMEDIATE Warning

Onsite：
  A. Realtime value display on LCD
  B. Connect to a Signal Tower to show warning
  C. Maintain a safe and comfortable working or living environment

Offsite：
  A. Reporting via web browser of details
  B. Palert 220 push message from app
  C. Enable engineer to alter work accordingly

Palert Benefits

- **Advanced Crystal Technology**
- No need for repeat calibration
- Tested and calibrated in an International Testing Facility
- Proven P-wave early warning algorithm included
- Simple direct Web access for instant display of graphs and data
- Comprehensive Cloud system to provide cost effective monitoring
- Backup storage of events in case of communications failure
- Instant data storage, locally and in cloud to ensure information is available even in the event of a major earthquake
- Used in Rapid Structural Health Diagnostics

Specifications

Accelerometer

Digital Tri-axial Crystal (Accelerometer) 24 bit,

- Range: ± 2 g
- Dynamic Range: >120dB
- Accuracy: ± 2 % (0.8 to 20 Hz)
- Resolution: 0.015 gal
- AD Resolution: 3 Channel, 24-bit data
- Sampling rate: 50sps、100sps、200sps、400sps
- The machine is equipped with three low-pass filters (10Hz, 20Hz and 40Hz.) to filter out high frequency signals from earthquakes.

System

- CPU: ARM - 700MHz
- Data Storage Type: 16GB MircroSD
- Ethernet Controller: 10/100 Base-TX - MODBUS/TCP
- LCD display: 2-line x 20 character
- Watchdog Timer: 10 seconds
- RTC Accuracy: ±60 seconds/year, adjustable by NTP and GPS (opt)
- File format: miniSeed and csv
- **Calibrated by International Test Lab**

Enviromental

- Operation Temperature: -20℃ ~ +70℃
- Operation Relative Humidity: 10 ~ 98% RH
- Dimension(mm):   205 x 160 x 80 Nominal
- Weight: 3KG
- Supply Voltage: 9~30 VDC
- System Power Consumption: 3 W @12 VDC
- Internal battery: 1.5 - 2 hours
- Waterproof Rating: IP67

Features

- Built-in web user interface, simple and convenient settings.
- AUX Port for Relay control (3 levels) and output audio
- Providing earthquake early warning audio output (Optional)
- Seismic event data recording function.
- Built-in standby power, with safe shutdown protection.
- Set-point Range: 1~1960 gal
- Contact Type: Normal Open
- Contact Capacity: 60V / 0.6A DC
- Hold-On Time: User defined

Earthquake Gauge

- Algorithm: Pd, PGA, STA/LTA
- STA Setting Range: 0.1~100 seconds
- LTA Setting Range: 0.1~200 seconds
- Event Duration Time: 1~200 seconds
- Waterproof Rating: IP67

Palert 220 System

Background

Palert 220 is one of a family of advanced earthquake P-wave alarm detector systems developed by San Lien in Taiwan, in conjunction with University Research departments, and represented by Jenlogix in Oceania and Americas.

Palert 220 is a highly sensitive P-wave sensor equipped with new advanced crystal accelerometers for 24 bit output resolution. When integrated into a network using SCADA or the dedicated controller, the **Palert 220** provides the ability to trigger digital outputs enabling warnings and other actions to occur before or during an earthquake.

With Modbus TCP/RTU capabilities, it is very easy to integrate **Palert 220** with industrial applications, such as PLC, HMI and SCADA. The **Palert 220** can stream to 2 hosts and connect to 5 Modbus clients at the same time.

See **www.earthquakeeearlywarning.systems** for more information.

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