Venezuelan Single-Mode Fiber Vibration

This work deals with the design and development of an SMF28-based vibration detector including the fiber segment, the data acquisition via an NI-USB-6212 card, the data processing code in Visual ...

The bend SMS fiber structure detects vibrations with frequencies from 1 Hz to 12 kHz. Experimental results validate the sensor"s capability for high sensitivity and low distortion. The proposed sensor ...

Based on a 41-km 4-mode fiber link, a proof-of-concept experiment is carried out, with LP 01, LP 02 modes for communication and LP 11, LP 21 modes for sensing. Experimental results show ...

Optical fiber cables are widely not only in FTTH and other optical communication applications, but also in vibration sensing. Two-mode (TM) vibration sensor using the TM region of a ...

Most fiber optic cables in buildings are mounted in ceilings, walls, or under floors. As a result, these are exposed to vibrations c ntation into existing fiber-optic infrastructures. It is common practice to ...

This work presents the design and test of a fiber optic-based one-axes accelerometer. This device is a reflexive-optical accelerometer and implements a membrane for the seismic mass.

The design of a dual plastic optical fiber (POF) vibration sensor using different fiber pair combinations reported along with necessary theory and experimental results.

Work on control of environmental noise in optical fiber has pre- viously been implemented in systems where either a portion of the system undergoes vibration or a stable reference is available to ...

To simulate a vibrating structure we used a loudspeaker to vibrate a wooden table. By using a digital oscilloscope, we recorded and analysed the vibrating signals obtained from the SMS fiber structure ...

In this paper, we propose a novel vibration sensing method that is based on inter-modal interference using the two-mode region of conventional SMFs. The proposed method forms an interferometer with ...

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