

INEXPENSIVE MICRO-COMPUTER DIGITIZER AND RESPONSE SPECTRUM ANALYZER

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ABSTRACT AND INTRODUCTION

Calculation of response spectra for blast induced vibrations is necessary to fully understand and in some instances comply with frequency or distance related safe blasting criteria. Fortunately, micro-computer systems costing less than \$5000 (such as that described herein) can be programmed to calculate response spectra. This system will calculate response spectra from paper as well as FM tape records. It both digitizes (prepares the record for computer calculation) as well as calculates. Programs for the calculation have been written in BASIC, an easy to understand language used with word processors. In addition to describing the equipment and operation of the micro computer the paper will discuss the process of and rules for digitization, use of the computer for record production and will present a simple physical model for understanding dynamic structural response.