

PURCHASE SPECIFICATION FOR ACOUSTIC EMISSION SYSTEM

1.0 General Requirements:

- 1.1 The following specification describes the requirements for and Acoustic Emission data acquisition system. The system shall contain all components for data acquisition, and analysis. All components are to be new (no demonstration or used equipment will be acceptable). All responses shall be specific and detailed enough to allow full evaluation of the equipment and its capabilities and all descriptive literature shall be included with the bid. All components shall be covered by a comprehensive, one-year (minimum) warranty.
- 1.2 The analysis software shall be compatible with existing databases that have been generated using Digital Wave AE systems.

2.0 Specific Requirements

The system shall include, but not be limited to, the following features:

- At least 4 channels AE data acquisition: independent but synchronized A/D circuitry, at least 20 MHz, 16 bit, with independent trigger and data amplification and filtering paths.
- At least 4 channels of synchronized parametric signal acquisition capability
- Combined AE data acquisition and analysis software:
 - Modal analysis
 - Full waveform storage in open file format
 - Backward compatibility with all older Digital Wave file formats
 - Real-time energy calculation and plotting

3.0 Required components

- The data acquisition system shall include a PC and monitor with all of the required hardware and software to acquire Acoustic Emission signals and process signals to the listed requirements.
- Software licenses shall be supplied.
- Four - Broadband 100kHz-3Mz sensors measuring 0.2” in diameter and containing an integrated cable.
- Four – Cables to extend from sensor cable to D/A system, minimum 12 ft. cable required.