

Laser Event Recorder Enhancement

The goal of this SBIR enhancement program was to improve the performance of the Laser Event Recorder (LER). The envisioned end result is a networked system of remote laser event measurement heads linked to a central processor to provide full hemispherical coverage. The main accomplishments of the program were:

1. A detailed optical design (Triplet lens) that improves the radiometric accuracy of the system
2. A new processor (TI DM6446 Digital Multimedia DSP) for both remote head and standalone applications
3. A prototype remote head LER system comprised of two independent sensors and modified processing electronics

Shown below is a completed assembled remote head along with an electronics board. The size of the remote head is 1 inch wide by about 1.75 inches long and 0.75 inches thick.

