# Disc Manufacturing, Inc.

A QUIXOTE COMPANY

## OPTICAL DISC ANALYZERS

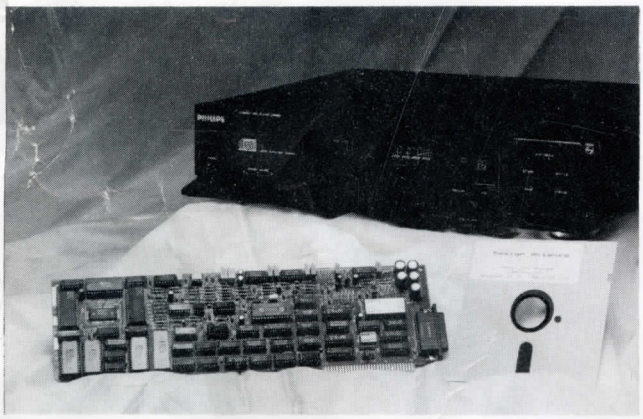


Photo: Mark Fleming

### Description

The DMI Optical Disc Analyzers are versatile tools for the evaluation of Compact Discs, CD-ROM, and LaserDiscs with digital audio. The system can be used for production line quality assurance, incoming inspection, or in-house certification of CD-ROMs.

This PC-based system measures several relevant signal parameters and error rates, which can then be displayed or printed in graphic form showing performance over the whole disc. This information is saved on floppy disk for archival storage, so comparisons can be made between many discs of one production run. This comparison data is used to plot performance trends during a production run. The system produces various alarms to the operator to signal bad discs, or trends of degrading performance.

Two models are available: The CD Analyzer which tests compact audio discs and CD-ROM, and the CD-V Analyzer which tests CD-Video and LaserDiscs in addition to CD-Audio and CD-ROM discs.

### Features

* Analyze CD, CD-ROM, CD-V, CAV & CLV LaserDiscs with digital audio
* Runs on any IBM PC/XT/AT or compatible
* Graphical display of all data; shows four parameters at once
* Measures and plots:
  - Block Error Rate
  - All error syndromes (E11, E12, E13, E21, E22, E23)
  - $I_{11}$ & $I_3$ signals
  - EFM asymmetry
  - Burst Error Rate with definable burst length
  - Radial Noise
* Measures push-pull amplitude
* Displays total uncorrectable errors
* Reads & displays Q-code control bits:
  - disc type (2ch, 4ch, CD-ROM)
  - copy permit flag
  - pre-emphasis flag
* Displays averages of $I_{11}$, ASYM, and BLER for the whole disc
* Displays 1-second BLER and 1-second peak BLER
* Real-time display of ATIME
* Statistical analysis of production run up to 100 discs
* Analyze lead-in area of disc
* Reads and displays TOC
* Out-of-range alarms with user definable limits
* Listing of errors to the printer
* Automatic remote control of player
* Priced from $12,000 to $35,000

## Additional Features

Certain items can also be listed to the printer, such as:

- interpolation errors (E22,E23)
- burst errors
- out-of-spec errors (any parameter)
- video dropouts (CD-V version only)
- table of contents

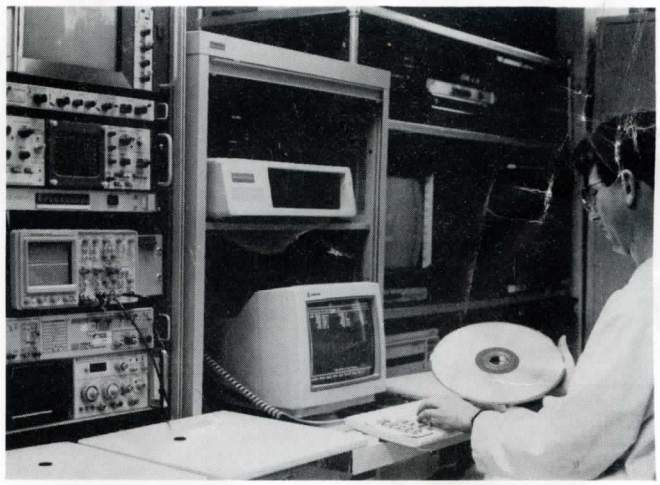
On demand, a trend report is generated which shows comparative performance for *all* discs since the beginning of a particular run. In addition, this data can be output as a Lotus 1-2-3 worksheet file, to facilitate further analysis.

Visual and audible alarms are generated if any parameter goes outside of specified limits.

## CD-V/LaserDisc Features

In addition to the above features, the videodisc system will also:

* Measure video dropouts to user specified duration in micro-seconds
* Plot focus and tracking error signals
* Display timecode or frame numbers
* Plot dropout statistics as a function of disc radius:
  - number of dropouts
  - average duration
  - peak duration
  - histogram



## System Requirements

-IBM PC/XT/ATwith keyboard, two DSDD floppy disks, 640k RAM, PC-DOS v3.x
- CGA graphics adapter with color monitor, or Hercules graphics adapter with monochrome monitor
- printer adapter
- dot matrix printer with IBM compatible graphics
- 80x87 floating-point math co-processor

## Other Services

Software can be customized to meet your requirements, or complete custom systems can be developed.

Contact:
Disc Manufacturing, Inc.
1120 Cosby Way
Anaheim, CA 92806
TEL: (714)630-6700
FAX: (714)630-1025