

# Matrix Monitor

Industrial Strength Verification

Matrix Monitor verification software monitors and reports the quality of direct marked and label printed bar codes.

Using AIM-DPM 2006 and ISO 15416/15 this system adheres to Automotive OEM requirements for 100% part marking verification.

All quality results including image are stored for look up and printing.

Ford and GM approved



**Poor Quality**  
Data: LB012345 070809 070811  
Failure: Contrast  
Problem: Contrast is too low  
Cause: Laser power is low. Increase 5%

**Statistics**  
For Today: Good Quality Rate: 0%, Poor Quality Rate: 90%, Bad Quality Rate: 10%, Read Rate: 100%, Read Attempts: 10  
For the Last 10 Parts: Good Quality Rate: 0%, Poor Quality Rate: 90%, Bad Quality Rate: 10%, Read Rate: 100%

**Results**

Characteristic	Value	Result
Cell Size	8.9	Good
Center Offset	2	Good
Size Offset	6.4	Good
On Cell Modulation	76	Poor
Off Cell Modulation	72	Poor
Border Match	98	Good
Contrast	17	Poor
Axial Nonuniformity	0.02	Good
Print Growth X	-2	Good
Print Growth Y	-3	Good
Error Correction	0.86	Good
Distortion Angle	-1	Good

**Limits**

Characteristic	Poor	Fail	Type	Priority
Cell Size	5	3	Low	T2
Center Offset	12	22	High	T1
Size Offset	7	8	High	T0
On Cell Modulation	80	80	Low	3
Off Cell Modulation	80	80	Low	3
Border Match	80	70	Low	7
Contrast	35	12	Low	1
Axial Nonuniformity	0.08	0.1	High	5
Positive Print Growth	21	26	Low	1
Negative Print Growth	-21	-26	High	1
Error Correction	0.5	0.37	Low	2
Distortion Angle	20	30	High	1

Camera Connected



## Features

- User Definable Limits
- Data Logging
- Alarming: Realtime/Historical
- Data Search Tool
- Daily & Hourly Statistics Reporting
- Printable reports



HTE, Inc. has been helping end-users, OEM's and line builders meet the 99.9x reading results required by their customers. The ramifications of a "no read", in systems that rely on a mark, are serious. HTE, Inc. is currently helping Ford, GM, Cummins and many other large users attain 99.9x read rates as well as showing them how to maintain them. HTE, Inc. has experience and relationships with all styles of markers from all the major vendors as well as the control knowledge to help improve the mark, reduce cycle time and stop finger-pointing.