

Suitable for LVDS

Area Scan Cameras



Linux Available

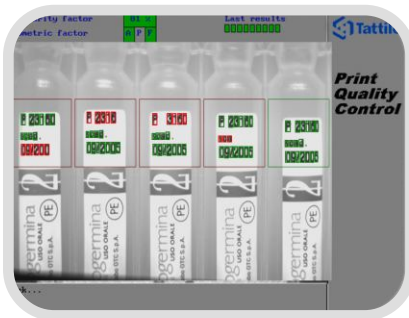
High performance Embedded Vision System

## FEATURES

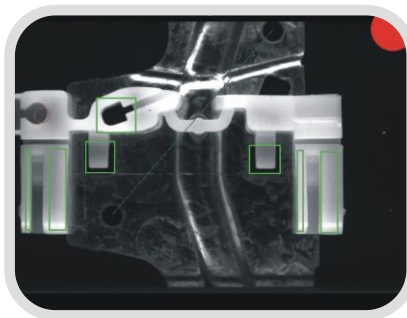
- Stand alone complete vision system
- Performance equivalent to 4 GHz. Pentium
- Fully IP addressable, Fast Ethernet interface
- Up to 4 LVDS independent channels
- Camera resolution up to 1024 x 768 pixels
- Optimized vision library TIL
- Open system to port your own C Application
- Intuitive graphical development environment
- Available in 3 models: base, w/encoder
- Secure Digital removable storage media
- Very low power consumption

## Typical Applications

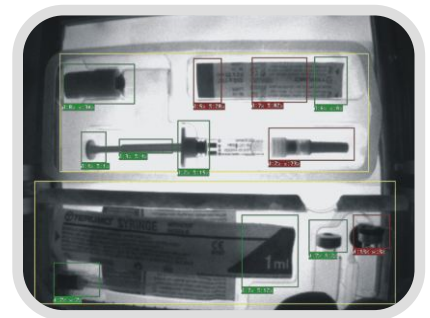
### OCR/OCV



### Inspection



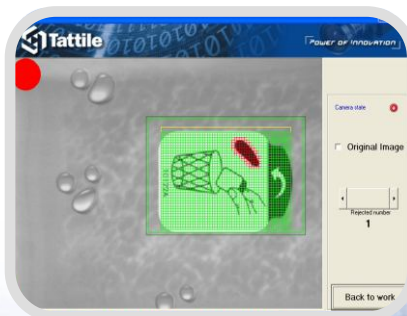
### Blob Analysis



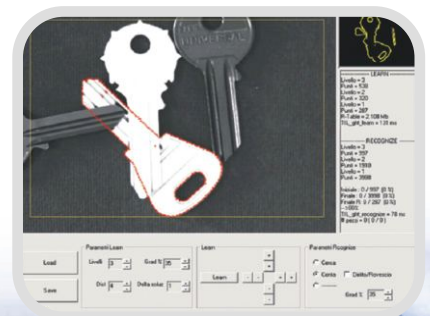
### Color Analysis



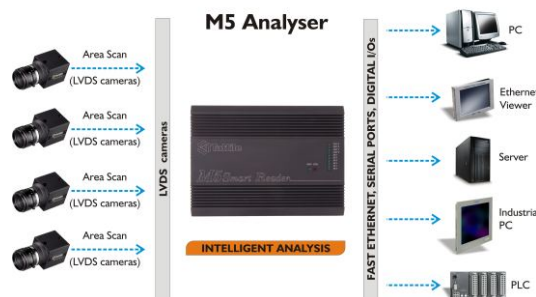
### Surface Inspections



### Pattern Recognition



### SMART READER



| SOFTWARE FEATURES              |   |
|--------------------------------|---|
| <b>OPERATING SYSTEM</b>        |   |
| Proprietary Tattile O.S. - TOS | Multitask Operating System for custom application   |
| Linux                          | Real time Linux embedded  |
| <b>PROGRAMMING LANGUAGES</b>   |   |
| Antares Explorer               | Intuitive graphical development environment with optimized vision library   |
| Ansi C                         | Standard C environment  |
| ARM Assembler                  | ARM Assembler environment   |
| <b>COMMUNICATION</b>           |   |
| Firmware Update                | Updatable via Ethernet or serial ports  |
| Data Exchange                  | TCP/IP, UDP/IP, RS-232 or RS-485  |
| <b>CUSTOMIZING TOOLS</b>       |   |
| Custom Tool                    | Ability to add custom C functions to the standard Antares development environment with direct access to TIL (Tattile Image Library) |
| Custom Program                 | You can write a complete new C application program  |
| Software Porting               | Software team to support the porting of your new or existing applications   |

| TECHNICAL FEATURES               |   |
|----------------------------------|---|
| <b>SYSTEM</b>                    |   |
| Microprocessor                   | Intel® XScale® @ 733 MHz.   |
| Analysis                         | Up to 60 Fps  |
| Synchronization                  | External trigger without delay  |
| Software                         | Antares engine, PQC – Print Quality Control or custom C program   |
| <b>DIGITAL CAMERA</b>            |   |
| Input Camera                     | 4 LVDS standard ports   |
| Sensor/Acquisition               | BW or Color CCD, Progressive scan   |
| Resolution                       | 640 x 480 (VGA) or 1024 x 768 (XVGA) pixels   |
| Frame rate                       | 60fps @ VGA ; 24fps @ XVGA  |
| <b>DIGITAL I/O</b>               |   |
| Input                            | 6 PNP optoisolated inputs 24 Vdc 20 mA  |
| Output                           | 4 PNP optoisolated outputs 24 Vdc 500 mA  |
| Strobe Output                    | 2 Outputs open collector, strobe timing max 10 ms.  |
| Encoder Inputs (only for M5 w/e) | 1 encoder + 1 optional (A,B,Z) line Driver 5Vdc<br>Zero Reference: Optional   |
| M5 w/expansion                   | 8 optoisolated outputs PNP 24 Vdc 500 mA<br>8 optoisolated power digital outputs PNP 24 Vdc 1 A   |
| M5 w/expansion v2                | 12 optoisolated outputs PNP 24 Vdc 500 mA<br>10 optoisolated power digital outputs PNP 24 Vdc 1 A   |
| <b>COMMUNICATION</b>             |   |
| Ethernet 10/100 Mbps             | TCP, UDP, FTP, HTTP   |
| RS 232                           | 1 line baud rate 1200:115200  |
| RS 485                           | 1 line half duplex baud rate 1200:115200  |
| SD Interface                     | Supports all mass memories (transfer rate 1 MB/s)   |
| <b>ENVIRONMENTAL</b>             |   |
| Operating Temp.                  | -10° to 50° C   |
| Operating Humid.                 | 10 to 90% non cond.   |
| Storage Temp.                    | -20° to 65° C   |
| Storage Humidity                 | 10 to 90% non cond.   |
| Power Supply                     | 12 to 35 Vdc ± 5% 8,5 W   |
| Package body                     | Anodized aluminum   |
| Size / Weight                    | M5: 156 x 34 x 215 mm (L x H x W) - 1200g<br>M5w exp. : 156 x 53 x 215 mm (L x H x W) - 1300g<br>M5w exp. v2: 156 x 53 x 215 mm (L x H x W) - 1500g |
| Protection level                 | IP 42   |



Smart Reader M5 with extension - Connectors side



Multitasking  
O.S. On Board



Programming  
Language



Smart Reader M5 standard - Camera LVDS connectors