## Product Use

The 3M™ CR5400 Double-sided ID1 Reader inspects and images government issued identity documents ID1 sized (85 x 54mm) in a variety of market segments like Retail, Financial and Hospitality.

Optional functions include:
- Docking cradle supporting non-optical reading requirements
- Support for biometrically enabled travel documents containing contactless integrated circuit chips (eIDs)
- ISO 7810 and ISO 7811 3-Track magnetic stripe reader

## Key Standard Features & Functionality

- Double-sided document imaging for ID1 size documents in 24-bit color
- Configurable image resolution up to 630 DPI
- Multiple wavelength illumination – visible, near infrared, and UV
- Anti-Glare technology eliminates image artifacts due to laminate or OVDs
- Automatic card detection and processing
- Automatic card eject when reading is complete or when power is turned off
- Windows® 7 or Windows® 8 compatible
- USB 2.0 high speed compatible interface
- Portrait position when inserting into the ID1 Reader
- Elegant industrial design look and feel
- Rugged and durable design
- Industry standard ¼ x 20 threaded fittings to hold the ID1 Reader to a mounting device (tripod, kiosk, etc.; cradle option only)

## Comprehensive Software Features

- Flexible software interface allows host application to select which illumination sources to use, image type, image compression, image resolution, photo extraction, reflection or ambient light elimination, colour enhancement, which date groups to read, etc.
- Enables images to be accessed as BMP, PNG or JPEG format
- Simple high level API for quick program development or detailed low level API for fine control of all reader functions
- Contactless IC reading for ePassports (LDS 1.7) including Active and Passive authentication, Basic Access Control, Extended Access Control (PKI 1.11) and Supplemental Access Control. The SDK provides writing capability using APDUs.
- Full SDK including DLLs, code examples, utilities documentation and demonstration programs. Can be used with Visual C++®, Java® and Microsoft® .NET Framework for Visual Basic® .NET and Visual C#
### Reading Capability
The 3M™ CR5400 Double-sided ID1 Reader reads the following:
- ICAO compliant ID1 size in near infrared (IR) per ICAO 9303 specification
- ISO 14443 Type A and B contactless ICs at 13.56 MHz (optional)
- ISO 7811 and ISO 7811 AAMVA 3-Track Mag (optional)
- 1D barcodes (2 of 5 interleaved, Code 128, and Code 39)
- 2D barcodes (PDF 417, QR®, DataMatrix™ and Aztec formats)
- Non ICAO OCR with variable font types and size that displays biographical data found on global government issued IDs (optional)

### Illumination
The reader illuminates documents in multiple wavelengths and lighting orientations:
- Near IR B900, 880nm, +/-5%
- White visible, 430-700nm
- Ultraviolet A (UVA): 360-370nm

### Resolution
- Sensor: 10 Megapixels, CMOS, RGB 24 bit color system
- Configurable image resolution, up to 630 DPI
- High quality images suitable for reading barcodes and OCR

### eID (RFID) Option
- Contactless IC reading and writing capability according to:
  - ISO 14443 Type-A and Type-B using a PC/SC interface
  - ICAO recommendations in ICAO Doc 9303 supplement, LDS 1.7
  - PKI 1.11
- All standardized rates, up to 848 Kbps, read-out times depend on RFID tag, operating system and amount of data stored in the chip.
- PC/SC interface provides support to other card types such as MIFARE™ and MIFARE™ DESFire™

### Firmware Upgrade
- Upgradeable firmware via USB 2.0 interface
- Non-volatile configuration and calibration accessed via USB 2.0 interface
- Configuration can be saved to a file for backup or maintenance

### Regulatory
- FCC Part 15 Class A
- UL, UL-C
- CE, CB
- WEEE/RoHS Directive 2011/65/EU

### Operating Environment
- Humidity: 20 to 95% (R.H. non-condensing)
- Temperature: 0º to 40º C operating; -20º to 50º C storage

### Minimum PC Specification
Software must be installed on a customer-supplied PC. The following minimum configuration is recommended:
- 2 GHz Pentium® 4 CPU (Intel Core 2 Duo recommended)
- 1GB DRAM
- USB 2.0
- 50 Mb of Hard Drive space for software
- Windows® 8, Windows® 7 or Windows Vista® operating systems, 32 or 64 bit
### 3M™ CR5400 Double-Sided ID1 Reader

<table>
<thead>
<tr>
<th>Standard Dimensions</th>
<th>Imager Only</th>
<th>Imager and Cradle</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Length: 15.5 cm</td>
<td>17.7 cm</td>
<td></td>
</tr>
<tr>
<td>• Width: 10.8 cm</td>
<td>10.8 cm</td>
<td></td>
</tr>
<tr>
<td>• Height: 10.2 cm</td>
<td>11.5 cm</td>
<td></td>
</tr>
<tr>
<td>• Weight: &lt; 1 kg or 2.2 lbs</td>
<td>2.4 lbs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status Indicators</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• The 3M™ CR5400 Double-sided ID1 Reader has an illuminated card slot to enhance ease of use and provide user feedback for optical, RFID and MSR processes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The readers perform a power-up self-test and indicate failure using status LEDs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Programmable via software SDK</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Imager – USB Powered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Imager and Cradle – 1.2A, 5V, Universal input wall-mount external power supply</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Contact 3M**

www.3M.com/IdentityManagement  
3M Traffic Safety and Security Division  
3M Center, Building 225-4N-14  
St. Paul, MN 55144-1000  

Telephone numbers:  
US and Latin America: 1-800-581-2631  
Canada: 1-613-722-2070  
EMEA: +44 (0) 8705 360036  
APAC: +65-64507506

Important Notice to Purchaser: 3M Identity Management offers complete solutions and a range of security products to protect against article and/or document identity counterfeit, alteration, diversion, duplication, simulation and substitution. However, no security products can guarantee absolute protection against attempts to successfully accomplish these illegal activities. For specific 3M product and solution warranties please see 3M.com/IdentityManagement.

Warranty, Limited Remedy and Limited Liability: THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. 3M warrants that its 3M Traffic Safety and Security Division products will meet 3M’s written specifications at the time of shipment. 3M’s obligation and your exclusive remedy shall be, at 3M’s option, to replace or repair the 3M product or refund the purchase price of the 3M product. IN NO EVENT WILL 3M BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user’s application. Warranties, remedies and limitations may vary by product and jurisdiction. Please consult 3M product quote or agreement, or contact 3M for specific information about individual products.

3M is a trademark of 3M Company. Microsoft, Windows, Vista, Visual C++, Visual C# and Visual Basic are registered trademarks of Microsoft Corporation in the United States and other countries. Java is a registered trademark of Oracle and/or its affiliates. Intel is a trademark of Intel Corporation in the U.S. and/or other countries. Data Matrix is a trademark of Robotic Vision Systems, Inc. (RVSI). QR Code is a registered trademark of DENSO WAVE INCORPORATED. MIFARE and DESFire are trademarks of NXP B.V.