



DOCUMENT READER REGULA 7027F

## **User's Guide**

RGVI.195.00.00-01 UG

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC ID: 2AOFE-7027F

#### **FCC Compliance Statement:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation

## **EU Declaration of Conformity CE:**

Hereby, Regula Baltija Ltd. declares that Document Reader 7027F is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU with reference to Directives 2014/30/EU, 2014/35/EU.



This symbol means the product must not be as household waste, and should be delivered to an appreciate collection facility for recycling. For more information on disposal and recycling of this product, contact your local municipality service, or the shop where you bought this product.

#### **OPERATING RESTRICTIONS**

1. **ATTENTION!** CONSULT THIS USER'S GUIDE AT ALL STAGES OF DEVICE OPERATION.

2. When operating the device, do not remove any seals set by the manufacturer during the whole warranty period.

3. DO NOT SWITCH ON THE DEVICE IN CASE OF ITS MALFUNCTION!

4. DO NOT PLACE ANY FOREIGN OBJECTS ON THE OBJECT GLASS OF THE DEVICE!

5. DO NOT USE THE DEVICE WHEN THE USB CABLE IS DAMAGED!

6. DO NOT DISMANTLE THE DEVICE AND ELIMINATE ANY MALFUNCTIONS OCCURRED DURING DEVICE OPERATION WITHOUT QUALIFIED ASSISTANCE.

7. Do not operate the reader if the object glass is dirty (see paragraph 3.3 of this User's Guide).

8. DO NOT OPERATE THE DEVICE AT A DISTANCE CLOSER THAN 20 CM TO OTHER RADIO-TAIL DEVICES INCLUDING SIMILAR DEVICES.



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## ABBREVIATIONS

SDK	—	software development kit
DR SDK	—	Document Reader SDK
USB	_	Universal Serial Bus
OCR	—	optical character recognition
MRZ	_	Machine Readable Zone
VIZ	_	Visual Inspection Zone
ISO	_	International Organization for Standardization
PPI	_	pixels per inch — parameter which characterizes the resolution of an image
OS	—	operating system of the PC (Windows)

The **User's Guide** (hereinafter referred to as «the Guide») applies to all models of the document reader Regula 7027F (hereinafter referred to as «the reader» or «the device»). The Guide contains the description of the device design, principles of operation and operating rules.

Only PC users familiar with this Guide are allowed to use the reader provided that safety measures and reader operating rules are observed.

Operations with PC software components (installing, deleting, changing the settings, etc.) are carried out by the user with administrator rights.

The safety measures given in the Guide must be strictly observed during reader operation.

The device operates together with the software and is controlled by the User's application and performs the functions described in «Programmer's Guide. Document Reader. RGVI.01.01.00 MZ».

A PC which meets minimum requirements given in paragraph 1.2.7 is required for proper functioning of the reader. The PC is not included in the delivery set.

The User's application intended for controlling the reader is to be based on the libraries of Software Development Kit (SDK) RGVI.01.15.00 and SDK RGVI.54.10.00 in accordance with the mentioned Programmer's Guide.

The test application Readerdemo.exe (see the document «Test application (Readerdemo. exe). User's Guide RGVI.17.01.00 D») is an example of the User's application intended for

testing the above mentioned functions. The test application is supplied as a part of SDK.

The customer is responsible for developing the User's application and organizing its interaction with SDK components and reader hardware. These procedures are not described in the Guide.

# **1 DESCRIPTION AND OPERATION**

#### 1.1 Reader function

The reader is a multipurpose product which is intended for capturing document images of ID, ID2 or ID3 formats produced in accordance with ISO 7810 standard. The device allows reading text and graphic data from documents, transmitting the obtained data into the PC for recognizing, processing, verifying, archiving and comparing the obtained data with the help of special software algorithms.

**1.1.1** The device together with the supplied software allows the following:

a) capturing colorful images of a document with up to 470 ppi resolution;

Supported image formats: BMP, JPEG, JPEG 2000, PNG, TIFF.

b) reading text data from the machine readable zone (hereinafter referred to as «the MRZ») of a document in compliance with Doc 9303 ICAO and ISO 7501 standards: 2 lines with 44 symbols each, 2 lines with 36 symbols each, 3 lines with 30 symbols each; c) analyzing MRZ checksums and MRZ completion accuracy in compliance with «ePassport Conformity Testing (v 1.0 04.04.2008)»;

d) defining the issuing state and the document type;

e) correct cropping of the holder's portrait and signature from the document for all document types recognized by the system;

f) reading data from an RFID chip (contactless smart card) in accordance with the ICAO specification «Machine readable travel documents. Technical report. Logical data structure (LDS)».

Supported data access modes: direct, BAC, EAC. Identification: passive and active.

RFID-chip types: ISO 14443 A and B types.

Data exchange rate: 106, 212, 424 or 848 Kbaud (support of asymmetric rates).

**1.1.2** The device together with the supplied software may perform the following functions (optionally):

a) reading text data (OCR) from the visual inspection zone (VIZ) including non-ICAO standard documents;

b) automatic authenticity verification of a document according to the following IR features (for Regula 7027F.100 and 7027F.110):

1) MRZ printing contrast (IR B900 ink);

- 2) photo embedding type;
- 3) IR visibility or invisibility of:

- image elements,

text data,

holder's portrait;

c) automatic authenticity verification of a document by crosschecking of text data obtained from the MRZ, VIZ, RFID chip, a barcode, as well as data read from a visa;

d) verifying authenticity and quality of MRZ printing in accordance with Doc 9303 ICAO, ISO 7501, ISO 1831 and ISO 1073–2;

e) reading 1D and 2D barcodes from the document image;

Barcode types available for decoding: PDF-417, Codabar, Code 128, Code 39, Code 39 extended, Code 93, EAN-13, EAN-8, Interleaved 2 of 5 (ITF), Standard 2 of 5 (Industrial), Matrix 2 of 5, IATA 2 of 5 (Airline), UPC-A, UPC-E, etc.

To purchase the device or enable its optional functions, contact the manufacturer's marketing and sales department (for more information visit the website www.regulaforensics.com).

## 1.2 Technical specifications

**1.2.1** The device corresponds to Class III by IEC 60950–1 regarding protection against electric shock.

**1.2.2** According to EMC, the device complies with EN 55022 (class B) and CISPR 24 standards.

**1.2.3** The device is designed for indoor use in heated rooms in the following climatic conditions:

- air temperature from +5 to +40 °C;
- relative air humidity from 35 % to 85 % at the temperature of 25 °C;
- atmospheric pressure from 630 to 800 mm Hg.

**1.2.4** According to EIC, the device should not be used in fire risk and explosive conditions.

**1.2.5** The main technical specifications of the device are given in Table 1.

Table 1

Parameters and Specifications	Value
IR light source peak wavelength (for Regula 7027F.100 and 7027F.110), $nm^{\rm 1)}$	870±20
UV light source peak wavelength (for Regula 7027F.110), nm <sup>1)</sup>	365±2
Color of the visible light sources <sup>1)</sup>	white
Field of view (horizontal x vertical), mm	128×87
Frame size, dots(pixels) <sup>1)</sup>	2592×1944 (5 Mp)
Connection interface	USB 2.0
Power supply voltage (via the USB port of the PC), V	5±0,2
Rated current consumption, A, max	0,9
Device weight, kg, max	0,8
Device dimensions, mm, max	148×208×95
RFID Frequency band, kHz	13 553-13 567
Max power	< 60 dBuA/m@10mt

1) — Light source and camera parameters correspond to manufacturer's specifications.

**1.2.6** Minimum system requirements for the PC (recommended):

– CPU	Intel Core 2 Duo (Intel Core I3);
– RAM	2 (8) Gb;
– video RAM	512 (1024) Mb;
<ul> <li>interface</li> </ul>	2 available USB 2.0 ports;
– OS	Windows 7 (Windows 8.1);

- hard drive 32 (120) Gb.

#### 1.3 Delivery set

**1.3.1** The delivery set of the device is given in Table 2<sup>1</sup>).

#### Table 2

Name	Quantity, psc.
Document reader Regula 7027F	1
USB cable 2A-mini B	1
Test object RGVI.195.01.05	1
Test object RGVI.195.01.05-01	1
Regula Document Reader SDK RGVI.01.15.00 (on DVD) <sup>2)</sup>	1
User's guide RGVI.195.00.00-01 UG	1
Packaging RGVI.195.30.00	1

1) — The delivery set can be changed at the customer's request.

 May be supplied on other data media. If one customer is supplied with more than one device, one DVD is provided with the batch unless otherwise agreed with the customer.

## 1.4 Configuration and operation

## 1.4.1 Principle of operation

The operating principle of the reader is based on transformation of document images obtained in special illumination conditions into digital data. The obtained data is transferred into the PC for further processing (transformation, recognition, etc.) and making a decision about document authenticity with the help of special software algorithms and databases supplied in the delivery set.

## 1.4.2 Device design

The reader (see Figures 1 and 2) is produced in a plastic body and consists of the following components.

In the upper part of the reader (see Figure 1):

1 — device body;

2 — object glass of the reader;

**3** — reader state indicator;

On the side panels (see Figures 1):

 $\mathbf{4}-\mathrm{USB}$  mini B port for connecting the reader to the PC;

**5** — antenna element.

On the bottom panel of the device body (see Figure 2):

6 — device marking;

**7** — elements for fixing the device to the working surface (if available) (see Figure 3).





**1.4.3** The reader state indicator **3** has two operating modes:

- standby mode;
- reading mode.

After the reader is connected to the PC, the indicator **3** should light up yellow or orange

(provided that the reader driver is already installed, see paragraphs 2.2.3.1 and 2.2.4). If the driver has not been installed, the indicator will light up red. After initialization of the device and SDK libraries is complete (see paragraph 2.2.5), the reader switches to the standby mode and the indicator **3** turns green.

When the examined document is placed on the reader object glass **2**, the device switches to the reading mode. In the reading mode the device captures document images under specified illumination conditions and transfers the obtained data to the PC. Further data processing is performed by software components of DR SDK and depends on the functions specified by the User's application (see Programmer's Guide to DR SDK, section 6). When the document processing is complete, the obtained results will appear in the application window. The examined document can be removed from the object glass and replaced by another document.

Reading data from the inserted document can also be initiated via the User's application.

## 1.5 Marking and sealing

**1.5.1** Marking of the reader meets the requirements of IEC 60950–1. It is located on the bottom panel of the reader (see Figure 2) and contains the following information:

- CE marking;
- manufacturer's name and/or trade mark;
- manufacturer's model identification;
- manufacturer name and address;

- serial number of the device according to the manufacturer's numbering system;
- FCC ID: 2AOFE-7027F;
- symbol for nature of supply;
- rated power supply voltage, V;
- rated current consumption, A;
- «Made in Latvia» inscription;
- The WEEE symbol.

**1.5.2** The following shipping marks are applied on the package:«Fragile. Handle with care», «Keep dry», «This way up».

# 1.6 Packaging

**1.6.1** Packaging ensures device safety during its transportation and storage.

**1.6.2** The device should be transported in the manufacturer's packaging.

**1.6.3** Initial packaging is carried out by the manufacturer.

**1.6.4** Further packaging is to be done by the customer in accordance with the requirements given in the current paragraph.

**1.6.5** Before packing the device, wipe its external surfaces.

**1.6.6** Dry the device by storing it for at least 2 hours indoors at the relative humidity not more than 80 % and the temperature ranging from +15 to +25 °C. Other ways of drying the device are allowed if they do not affect the device functionality.

**1.6.7** Packaging meets the requirements of EAC.

## 2 INTENDED USE

## 2.1 Operating restrictions

**2.1.1** The reader should be operated in accordance with the requirements given in paragraph 1.1 of the current document.

**2.1.2** To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all nearby persons.

**2.1.3** DO NOT PLACE ANY FOREIGN OBJECTS ON THE OBJECT GLASS OF THE DEVICE!

**2.1.4** DO NOT SWITCH ON THE DEVICE IN CASE OF ITS MALFUNCTION.

**2.1.5** DO NOT DISMANTLE THE DEVICE AND ELIMINATE ANY MALFUNCTIONS OCCURRED DURING DEVICE OPERATION WITHOUT QUALIFIED ASSISTANCE.

**2.1.6** ONLY THE USB CABLE PROVIDED IN THE DELIVERY SET IS ALLOWED. DO NOT CONNECT THE READER USING ANY OTHER USB CABLES.

**2.1.7** Strictly observe electric safety rules when operating the device.

**2.1.8** When operating the device, do not remove any seals set by the manufacturer during the whole warranty period.

**2.1.9** Inspection and repairs of the device should be carried out only after it is disconnected from the USB port.

**2.1.10** Do not operate the device if the object glass is dirty **2** (Figure 1) – see paragraph 3 of this User's Guide.

**2.1.11** When scanning documents, avoid direct sunlight or direct light from any light source (see Figure 4) getting on the object glass **2** of the device (see Figure 1).





**2.1.12** DO NOT OPERATE THE DEVICE AT A DISTANCE CLOSER THAN 20 CM TO OTHER RADIO-TAIL DEVICES INCLUDING SIMILAR DEVICES.

**2.1.13** When operating the device, avoid condensation appearing on the object glass and mirror of the optical path. If the device is moved to a warmer place, store it in that place for 2–3 hours before operating.

#### 2.2 Preparation for use

# **2.2.1 Safety measures when preparing the device**

2.2.1.1 DO NOT SWITCH ON THE DEVICE IN CASE OF ITS MALFUNCTION!

2.2.1.2 Do not use the device when the USB cable is damaged. If damaged, replace the USB cable before using the device.

## 2.2.2 Putting the device into operation

1. Unpack the device.

2. Take out device components.

3. Check the delivery set in accordance with paragraph 1.3.

4. Inspect the device components visually and make sure they are not damaged.

5. Dry the reader by storing it for at least 3 hours indoors at the relative humidity not more than 80 % and temperature ranging from +15 to +25 °C.

6. Make sure the device has no mechanical damage and the object glass **2** (see Figure 1) is clean.

**Note:** *Keep the packaging for further repacking of the device.* 

## 2.2.3 Preparing the device for operation

2.2.3.1 Preparing the PC for operating the device

1. Switch on the PC according to its manufacturer's manual.

2. Load the OS and log in as a user with administrator rights.

3. Make sure that PC hardware and software configuration meets the requirements given in paragraph 1.2.6 of the Guide.

4. Launch the application **Regula Document Reader SDK.exe** from the DVD disc which is provided in the delivery set (\**DR\_RFID SDK\EXE** directory) or from the installation file downloaded from the website www.regulaforensics.com (in case there is no installation disc). Follow the instructions of the wizard to install the device software (the camera driver and DR SDK).

#### 2.2.4 Preparing the reader

1. Follow the steps described in paragraphs 2.2.2 and 2.2.3.

2. Connect the reader to the PC with the USB cable from the delivery set. Connect both type-A plugs of the cable to two available USB ports of the PC first, and then connect the mini B plug of the same cable to the device. A pop-up message will appear on the PC monitor saying that new USB devices are found. The OS will start automatic driver installation.

3. When the driver installation is complete, the reader state indicator **3** should light up yellow or orange. It means that the camera driver of the device was successfully installed.

#### 2.2.5 Checking device operation

1. Launch the application **Readerdemo.exe** from the shortcut on the PC desktop.

All operations with the test application should be carried out in accordance with the document «Test application (Readerdemo. exe). User's Guide» (see **\Documents \ Test Application (en).pdf** on the DVD disc from the delivery set or download it from the website www.regulaforensics.com).

2. Initialize the reader. The reader state indicator  $\boldsymbol{3}$  should turn green in 5–10 sec. It means that the initialization has been successful.

3. To scan the document, place it facedown on the object glass **2**. The device will switch to the reading mode. The reading process takes 1-3 sec. As a result a document image and the data read from the MRZ will be displayed in the application window.

4. If color rendering is incorrect, carry out monitor color calibration according to the instructions of the monitor manufacturer.

## 2.3 Reader use

**2.3.1** The reader is controlled by special software, either by the test application **Readerdemo.exe** or by the User's application. The User's application is developed on the basis of the libraries of Document Reader SDK in accordance with the instructions given in the Programmer's Guide (see **Documents\Programmer's Guide (en).pdf** on the DVD provided in the delivery set).

**2.3.2** Development of the User's application and its interaction with SDK components is completely the responsibility of the customer.

#### 2.3.3 The order of reader use

1. Prepare the device for operation in accordance with paragraphs 2.2.2–2.2.4.

2. Launch the User's application and initialize the reader.

3. In the application settings, select (if necessary) the required illumination parameters in accordance with the device model;

4. Select a scanning startup mode: automatic (scanning starts automatically when a document covers the photo sensor) or manual (scanning starts via the User's application).

5. Set the appropriate scanning modes, as it is described in the document **Test Application** (Readerdemo.exe). User's Guide.

6. To scan the document, place it facedown on the object glass **2**.

# ATTENTION!

MAKE SURE THAT THE DOCUMENT IS IMMOBILE ON THE OBJECT GLASS DURING THE WHOLE SCANNING PROCESS, I. E. UNTILL THE OBTAINED INFORMATION APPEARS ON THE PC MONITOR.

# 2.3.4 Scanning documents containing RFID chips

As a rule, documents containing integrated RFID chips are marked with the symbol  $\bigcirc$ . In order to read data from an RFID chip, place the document

on the device as shown in Figure 5 (in case the location of the chip is unknown).



# 2.3.5 Finishing reader operation

1. Close the User's application.

2. Switch off the PC or disconnect the reader from it if necessary.

## **3 DEVICE MAINTENANCE**

**3.1** Device maintenance and repairs are carried out by manufacturer's specialists or specialists of an authorized organization.

**3.2** DO NOT DISMANTLE THE DEVICE OR ELIMINATE ANY DEFECTS OCCURRED DURING THE DEVICE OPERATION WITHOUT QUALIFIED ASSISTANCE.

## 3.3 Device service

**3.3.1** Regular service should be carried out by the customer.

**3.3.2** Service frequency: as soon as the device body or object glass becomes dirty.

3.3.3 Service

- Clean the external surfaces of the reader from dust and dirt using a soft cloth damped with spirit or special wipes for cleaning monitors (wet and dry)<sup>1)</sup>. The cloth should not leave fluff.
- Clean the object glass with sprays with compressed air used for cleaning optics<sup>1)</sup> (Defender CLN 30802, Fellows FS-99795, FIS F-1007S MICRO DUSTER or analogous) or with special wipes for cleaning optics (OptiClean)<sup>1)</sup>.

1) — not included in the delivery set.

**3.3.4** Apply 2 g of spirits or 2 wipes per day for cleaning the reader.

**3.3.5** DO NOT WIPE PLASTIC PARTS OF THE DEVICE WITH ACETONE OR OTHER SOLVENTS NOT MENTIONED IN PARAGRAPHS 3.3.3 AND 3.3.4.

**3.4** The device does not require regular calibration as it is calibrated by the manufacturer. The calibration data is stored in non-volatile device memory.

# 3.5 Possible malfunctions and repairing methods

#### Table 3

Malfunction	Possible reasons	Repairs
The reader state indicator does not light up.	No power supply.	Check the connection of the reader to the PC via the USB cable.
The reader cannot be connected to the application (the reader state indicator is red).	The USB cable is out of order.	Make sure that the USB cable is serviceable: connect any other USB device to the PC via this cable.
	The USB port of the PC is out of order.	<ol> <li>Connect the reader to another USB port of the PC or to another PC (if available).</li> <li>Make sure that the USB port is serviceable: connect any other USB device to the USB port.</li> </ol>
	The device drivers are not installed.	Make sure that the device is registered in the OS device manager.

#### Table 3 (continued)

Malfunction	Possible reasons	Repairs
The MRZ cannot be recognized.	The object glass of the reader is dirty.	Clean the object glass in accordance with the instructions given in paragraph 3.3.3.
	The document page is creased in the MRZ area.	Press the document page in the MRZ area to the reader object glass as close as possible.
	Application settings have not been adjusted.	Adjust the application settings as it is specified in paragraph 2.3.3 (4).
	The MRZ in the document is covered by specific laminated plastic.	<ol> <li>Press the document page in the MRZ area to the reader object glass as close as possible.</li> <li>Place the MRZ area of the document in the middle of the object glass (do not push the document page forward to the end of the object glass).</li> </ol>
	The reader is exposed to an external light source.	Avoid direct sunlight or direct light from any light source getting on the object glass.

#### Table 3 (continued)

Malfunction	Possible reasons	Repairs
RFID chip data cannot be read	The option of RFID chip reading is not enabled in the application.	Select the application settings required for RFID chip reading as specified in the «Programmer's Guide. Document Reader. RGVI.01.01.00 MZ» supplied with the Regula Document Reader SDK.
	The MRZ has not been recognized.	See the possible repair methods above.

#### 4 TRANSPORTATION, STORAGE AND RECYCLING

#### 4.1 Transportation

**4.1.1** The reader is transported in the manufacturer's packaging by any covered vehicles to any distance provided that transportation rules for this specific mode of transport are observed. In case the device is transported by air, it must be kept in hermetically sealed and heated compartments. Fasten the packed device to avoid its displacement. The requirements of shipping marks applied on the packaging must be strictly observed during device transportation.

**4.1.2** If the device is used before transportation, it must be packed in compliance with paragraph 1.6 of this Guide.

## 4.2 Storage

**4.2.1** The device should be stored in the manufacturer's packaging on shelves in heated rooms with the air temperature of +5...40 °C and relative air humidity of maximum 80 % provided that the fire safety rules are observed. The distance between walls, floor and the device should not be less than 0.1 m. The distance between heating equipment and the device should not be less than 0.5 m. The air in storage premises must not contain corrosive substances (acid and alkali fumes) which can damage the device.

**4.2.2** Storage warranty period makes 6 months from the date of production.

## 4.3 Recycling

**4.3.1** When the device lifetime expires and operational capability is lost, it must be recycled in compliance with the rules adopted at the customer's enterprise provided that safety measures are observed.

**4.3.2** Only qualified personnel (after passing the briefing on industrial safety) are allowed to recycle the device.

**4.3.3** Industrial waste obtained as a result of device recycling is considered nonhazardous.

#### **5 MANUFACTURER'S WARRANTY**

**5.1** The manufacturer guarantees operability of the device provided that the terms of operation, storage and transportation are observed.

**5.2** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**5.3** The warranty period of the device makes 24 months from the date of sale provided that all the conditions mentioned in the User's Guide are observed.

**5.4** The manufacturer's warranty cannot be applied to the following reader accessories if they are replaceable due to reader design and do not require dismantling the device. For all modifications:

- connection cables and adapters, storage devices of different types (DVDs with software and drivers);
- test object, assembly kit, tools, object glass of the reader, device documentation.

**5.5** The warranty is not applied to the malfunctions occurred as a result of the violation of operating rules, reader storage and transportation conditions, actions of third parties or force majeure including but not limited to the following cases:

 If the reader malfunction is a result of negligent use, misuse or violation of the rules and instructions given in the User's Guide, including the influence of high or low temperatures, high humidity and dust, noncompliance of mains, telecommunication and cable networks with state standards, liquids, insects or other foreign objects or substances getting inside the reader body.

- If the device malfunction is a result of unauthorized testing or attempts to change the device design or software, including reader repairs or service provided by an unauthorized organization.
- If the reader malfunction is a result of the use of nonstandard and/or low-quality accessories, spare parts, power supply elements, storage devices of different types or non-standard data formats.
- If the device malfunction is a result of reader use together with additional equipment (accessories) which differs from the ones recommended by the manufacturer.

The manufacturer is not responsible for the quality of the additional equipment (accessories) produced by third parties, for the quality of the device operation together with such kind of equipment and for the quality of operation of additional equipment produced by Regula together with the devices of other manufacturers.

**5.6** Any malfunctions occurred during device lifetime are to be eliminated by authorized organizations (authorized service centers). Troubleshooting is free of charge during the warranty period if the customer provides the original of the completed warranty card.

In case the customer cannot provide the completed warranty card, the warranty period is counted from the date of reader manufacture. **5.7** Device installation and setup (assembling, connection, etc.) described in the supplied documentation can be carried out either by the user or by specialists of authorized service centers (paid services).

**5.8** Maintenance of the device (cleaning, replacement of consumables, etc.) requires payment.

**5.9** The manufacturer is not responsible for any direct or indirect harm caused to people, animals or property by his products in case the rules of device operation, storage, transportation or installation were not observed or in case of negligent actions of the customer or third parties.

**5.10** Under no circumstances is the manufacturer responsible for any particular, accidental, direct or indirect harm or loss including, but not limited to the following: the loss of profit, the loss or inability to use data, data recovery expenses, the loss caused by the intervals in commercial, industrial or any other activity caused by the use or inability to use the device.

5.11 The reader mean lifetime makes 5 years.

**5.12** The use of the device after its lifetime expiry

**5.12.1** The device lifetime determined by the manufacturer is true only if the terms of use, operation, storage and transportation of the device are observed by the customer. The device actual lifetime may exceed the lifetime determined by the manufacturer provided that the device is used in accordance with the rules of operation.

**5.12.2** By the device lifetime expiry contact an authorized service center for carrying out preventive

maintenance and defining device operational capability. Preventive maintenance and diagnostics are carried out by service centers for a fee.

**5.12.3** The manufacturer does not recommend using the device after its lifetime expiry without preventive maintenance at an authorized service center, as in this case the device may be hazardous to life, health or property of the customer.

**5.13** Address for mailing claims with regard to the quality of the device:

97, A.Pumpura Street, Daugavpils, Republic of Latvia, LV-5404, Phone: +371 654 31 299 Fax: + 371 654 31 290 E-mail: regula@regula.lv Web: www.regulaforensics.com

#### **6 ACCEPTANCE CERTIFICATE**

(to be completed by the manufacturer)

Document reader Regula 7027F.\_\_\_\_

(serial number)

Seal

Address for mailing claims with regard to the quality of the device:

97, A.Pumpura Street, Daugavpils, Republic of Latvia, LV-5404, Phone: +371 654 31 299 Fax: + 371 654 31 290 E-mail: regula@regula.lv Web: www.regulaforensics.com

## **7 SALE CERTIFICATE**

(to be completed by the seller)

Document reader Regula 7027F.\_\_\_\_

(serial number)

Seal

#### **APPENDIX A**

## **CALIBRATION OF THE READER**

**A.1** Device calibration provides both accurate color rendering of the object in obtained images and correction of document illumination unevenness. The reader is calibrated by the manufacturer.

In case of illumination and color unevenness in obtained images, it is recommended to calibrate the device in order to compensate for possible changes in conditions of object illumination caused by light source degradation or software changes.

A.2 Calibration procedure

1. Prepare the device for operation according to paragraphs 2.2.3–2.2.4.

2. Execute the **DR SDK command RPRM\_ Command\_Calibration** (see the Programmer's Guide, paragraph 6.5) in the User's application or execute the Test Application **Readerdemo.exe** menu command **«File\ Device\ Calibrate...»** (see «Test Application (Readerdemo.exe). User's Guide»).

**Note:** If the reader has never been calibrated, DR SDK will automatically display a request for calibration.

3. When the DR SDK dialog window is displayed,



place the white test object RGVI.195.01.05 with its white side downwards on the object glass. Cover the test object with opaque material and click «OK».

4. When the corresponding application notification is displayed, place the test object RGVI. 195.01.05–01 with the chessboard pattern downwards on the object glass. Cover the test object with opaque material and click «OK».

#### **APPENDIX B**

#### SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Regula Baltija Ltd. declares that the radio equipment type Document Reader Regula 7027F is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <u>http://pasts.regula.lv/info/</u> cert/7027/7027F\_declaration.pdf

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