



## DE-EPASS10 User Manual

### DUALi Inc.

Document Version: 1.0

Last Revised Date: 07.Dec. 2010

---

Copyright © 2010 DUALi Inc. All rights reserved. You are strictly prohibited to copy, disclose, distribute, or use this document in part or as a whole for any purposes other than those for which this document is disclosed. This document is copyrighted and contains confidential information and other intellectual property rights of DUALi Inc. Any unauthorized use, copy, disclosure or distribution constitutes infringement of DUALi's intellectual property rights.

DUALi Inc. reserves the right to make changes to its applications or services or to discontinue any application or service at any time without notice. DUALi provides customer assistance in various technical areas, but does not have full access to data concerning the use and applications of customer's products.

Therefore, DUALi assumes no liability and is not responsible for customer applications or software design or performance relating to systems or applications incorporating DUALi products. In addition, DUALi assumes no liability and is not responsible for infringement of patents and/or any other intellectual or industrial property rights of third parties, which may result from assistance provided by DUALi.

Composition of the information in this manual has been done to the best of our knowledge. DUALi does not guarantee the correctness and completeness of the details given in this manual and may not be held liable for damages ensuing from incorrect or incomplete information. Since, despite all our efforts, errors may not be completely avoided, we are always grateful for your useful tips.

We have our development center in South Korea to provide technical support. For any technical assistance can contact our technical support team as below;

Tel: +82 31 213 0074

e-mail : [mina@duali.com](mailto:mina@duali.com)

## Revision History

- 2010.12.07(Ver. 1.0) : First Release

## CONTENTS

1. Concept.....	5
2. Configuration.....	6
2.1 configuration of the DE-EPASS10 .....	6
2.2 System configuration.....	6
2.3 RF Main Block and Description .....	7
2.4 OCR Reader Module .....	7
3. Exterior Specification .....	8
3.1 exterior .....	8
3.2 size .....	8
4. Electric Specification .....	9
4.1 power .....	9
4.2 power consumption: .....	9
4.3 USB communication .....	9
5. Environmental Specification .....	9
5.1 operating temperature and humidity .....	9
5.2 storage temperature and humidity .....	9
6. Warning and Precaution .....	10

## 1. Concept

The Passport Reader issued a PC on the ICAO 9303 standard for passport information to be used for reading as a reader, ISO-14443 A / B-type card reader for reading and writing, and high-precision image and optical character reading is possible.

Communication with the USB interface to USB 2.0 are supported

Depending on your needs SAM / SIM support is available

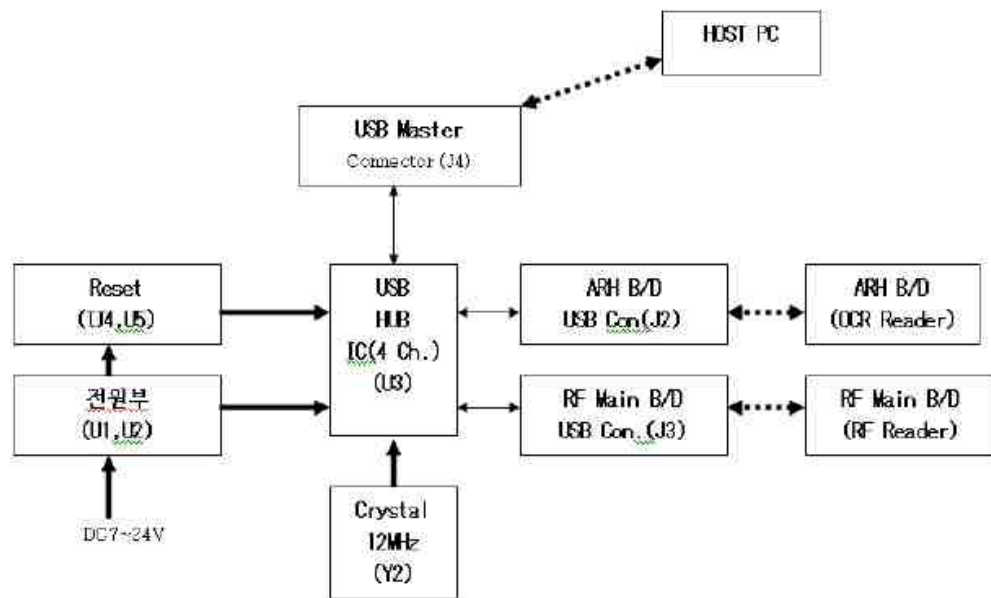
OCR Reader	Window Size	130 mm x 60 mm
	Window Glass	4 mm glass
	Image Resolution	350 dpi
	Color Depth	24 bits/pixel RGB
	Output Image format	BMP, JPEG, JPEG2000, PNG
	Illuminations	White light (default), IR (optional)
	OCR Reading Speed	Capture 0.1sec, Processing 0.9sec
	MRZ processing	Supporting (ISO 1073/1 OCR B1)
RF Reader	Readable ICs	ISO/IEC 14443 Type A & B (106,212,424,848kbps)
	Data structure and read protocol	Comply to ICAO 9303 Part 1
	Access/Authentication	BAC, PA supporting, (AA, EAC-Optional)
	Auto-detection Doc.	Supporting
Environment	Host Communication	USB 2.0 (Full Speed, 12M)
	Power	DC 12V/300mA
	Temperature	0~40°C (Operating), -20~50°C (Storage)
	Humidity	0~95 %
	Dimension	179 mm x 172 mm x 94 mm

## 2. Configuration

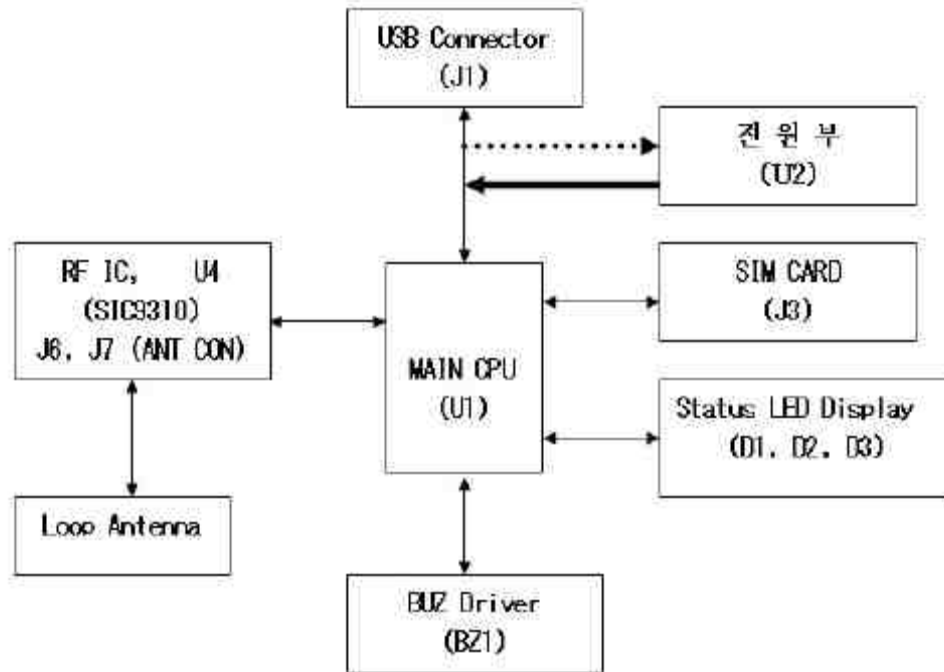
### 2.1 configuration of the DE-EPASS10

- RF card reader and antenna sub-board module
- ARH OCR reader module (mirror, sensor, light panel included)
- Power and Control Module, USB HUB
- Internal / External Cable

### 2.2 System configuration



## 2.3 RF Main Block and Description



- CPU: ARM 32-bit Cortex-M3 (48MHz) and the 128Kbytes Flash, 20Kbytes SRAM data memory has.
- RF IC: 14443 Type A, Type B, and Smartlabel ISO15693 card to support the use Silicon Craft's SIC9310 SUB PCB has with loop antenna.
- SIM CARD: contact card, or SIM TYPE SAM card and communicate.
- USB Communication: to communicate with the host PC and USB to the USB V2.0 supports the parts.
- LED: Displays the status of the module.
- Buzzer: The frequency is controlled by the pitch structure.

## 2.4 OCR Reader Module

350 dpi at least 24bit precision per pixel in the image output types are available  
 BMP/JPEG/JPEG2000/PNG

### 3. Exterior Specification

#### 3.1 exterior



#### 3.2 size

- 179 mm \* 172mm \* 94 mm



## **4. Electric Specification**

### **4.1 power**

- 12V/300mA

### **4.2 power consumption:**

- under 300 mA

### **4.3 USB communication**

- USB V2.0
- high speed : Max. 480Mbps

## **5. Environmental Specification**

### **5.1 operating temperature and humidity**

- Temperature : 0 ~ 40 °C
- Humidity : 0 ~ 95 %

### **5.2 storage temperature and humidity**

- Temperature: -20 ~ 50 °C
- Humidity : 0 ~ 95 %

## 6. Warning and Precaution

- This unit is the instrument designed for use indoors and outdoors in direct sunlight should be avoided at all costs.
- This unit provides us with an adapter to be used.
- Card reading in order to maximize the distance around the antenna should not metallic and Enclosures are assembled in the open or antenna outside the card reader may shorten the distance may be impossible.

### CE warning

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

EN Test Regulation Version

ETSI EN 300 330-1 V1.5.1

ETSI EN 300 330-2 V1.3.1

ETSI EN 301 489-1 V1.8.1

ETSI EN 301 489-3 V1.4.1

EN 60950-1:2006+A11:2009

## Federal Communications Commission

### FCC RF

- CAUTION: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- CAUTION : Exposure to Radio Frequency Radiation, Antenna shall be mounted in such a manner to minimize the potential for human contact during normal operation. The antenna should not be contacted during operation to avoid the possibility of exceeding the FCC radio frequency exposure limit.
- 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. for compliance could void the user's authority to operate the equipment.