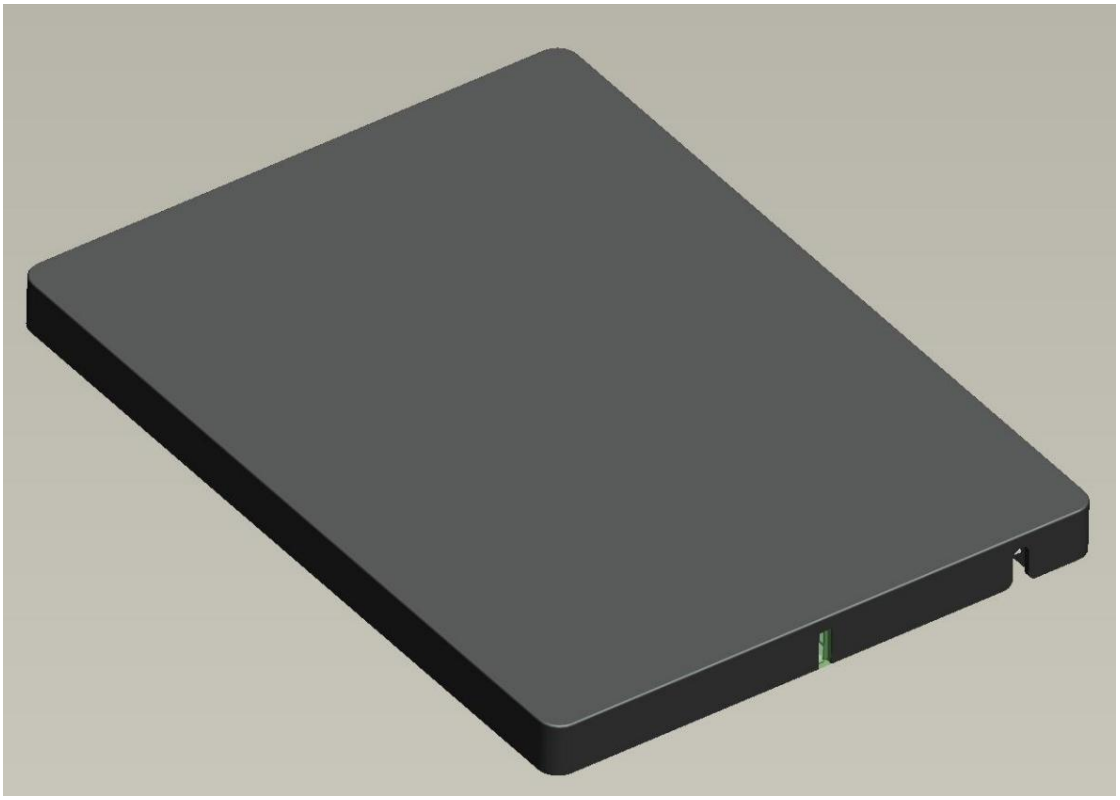


DeskTop RFID Reader

Model

RFID-READER-KIT PL DeskPad XR BL-U

User Guide

Revision 1.0

Contents

1. Product Description

RFID-READER-KIT PL DeskPad XR BL-U is a high performance ISO15693 protocol HF RFID reader. It is designed upon fully self-intellectual property. Based on proprietary efficient anti-collision algorithm, it supports fast tag read/write operation with high identification rate. It can be widely applied in many RFID application systems such as logistics, personnel identification, conference attendance system, access control, anti-counterfeit and industrial production process control system.

2. Features

- Self-intellectual property;
- Support mainstream ISO15693 protocol tag
- RF output power 1W;
- Advanced anti-collision algorithm.
- Integrated in 50ohm antenna, read distance up to 30cm (Depends on Tag chip);
- Support transparent command;
- Support tag data scan mode, stand-alone mode and EAS scan mode
- Support external input and command synchronization in scan mode;;
- Support USB2.0 and Ethernet
- Low power dissipation with single +12V DC needed
- Provide DLL and demonstration software to facilitate development

3. Specifications

Reference	**RFID-READER-KIT PL DeskPad XR BL-U**
Size	375 mm x 275 mm x 26 mm (14,8 inch x 10,9 inch x 1,1 inch)
Weight	Approx. 500g (1 Ibs)
DC Power	DC 12V
Operating Frequency	13.56MHz
Chip Compatibility	EM HF ISO Chips, Fujitsu HF ISO Chips, IDS Sensor Chips, Infineon my-d, KSW Sensor Chips, NXP I-Code, STM ISO Chips, TI Tag-it
Communication Interface	USB2.0/RJ-45 Ethernet
Power consumption	3.6W Max
Reading Range	Up to 30cm (Depends on Tag chip);
Operating Temperature	0° to +55°C

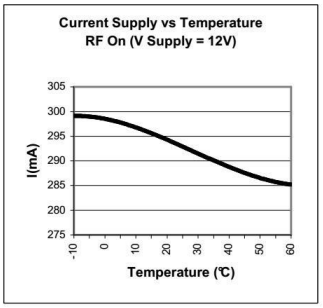
Storage Temperature	-20° to +70°C
Supported Transponders	ISO 15693 (ISO 18000-3 MODE 1)
Protection class	IP30
Relative air humidity	5…95 % (non-condensing)

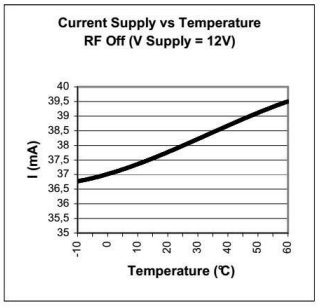
4. Absolute Maximum Ratings

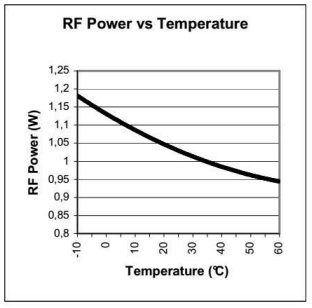
Parameter	Value
Ambient Operating Temperature	0℃ to +55℃
Storage Temperature	-20℃ to +70℃
Supply Voltage with respect to GND	25 V
Total Power Dissipation	3.6 W

5. DC Characteristics

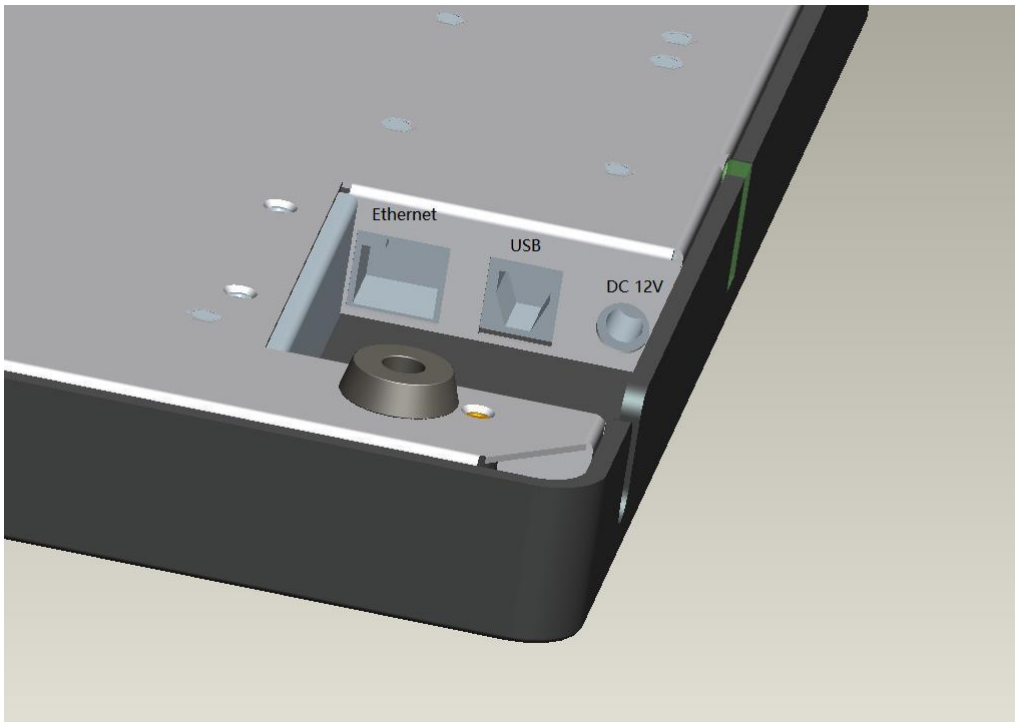
Value	Description		Max.	Typ.	Min.	Unit
V_{Supply}	Supply Voltage		13.2	12	10.8	V
I_{RFOff}	Supply Current – RFOff – USB Plugged (V_{Supply} = 12V)		44	39	35	mA
I_{RFOn}	Supply Current (RFOn, Dummy Load 50Ohm, V_{Supply} = 12V)		304	290	275	mA
I_{RFOn}	Supply Current (RFOn, V_{Supply} = 12V, Antenna connected)	AERO LI		271		mA
		LSA-2		290		mA
		LSA-3		276		mA
I_{Open}	Supply Current (RFOn, No connection on RF Connector)			202		MA
T_{Op}	Operating Tempature		0		55	℃
V_{USB}	Supply Voltage on USB cable		5.25	5	4.35	V
I_{Usb}	Supply Current on USB cable		25	20	-	mA
U_{VOH}	D+/D- Static Output high		3.6		2.8	V
U_{VOL}	D+/D- Static Output low		0.3		0	V
U_{VSE}	Single Ended Rx Threshold		2.0		0.8	V
U_{VCOM}	Differential Common Mode		2.5		0.8	V
U_{VDIF}	Differential Input sensitivity				0.2	V
Z_{DRV}	Driver Output impedance		44		29	Ohm







6. Connections



USB: Type-B Ethernet: RJ-45 DC 12V input: 5.5mm x 2.1mm

7. Installing the USB Drivers

At first connection to the PC USB port, Windows® will detect the RFID-READER-KIT PL DeskPad XR BL-U and will ask to install a driver. The USB drivers are located into the USB Drivers folder on the product CD-ROM or download the drivers in following address:
http://www.ftdichip.com/Drivers/VCP.htm

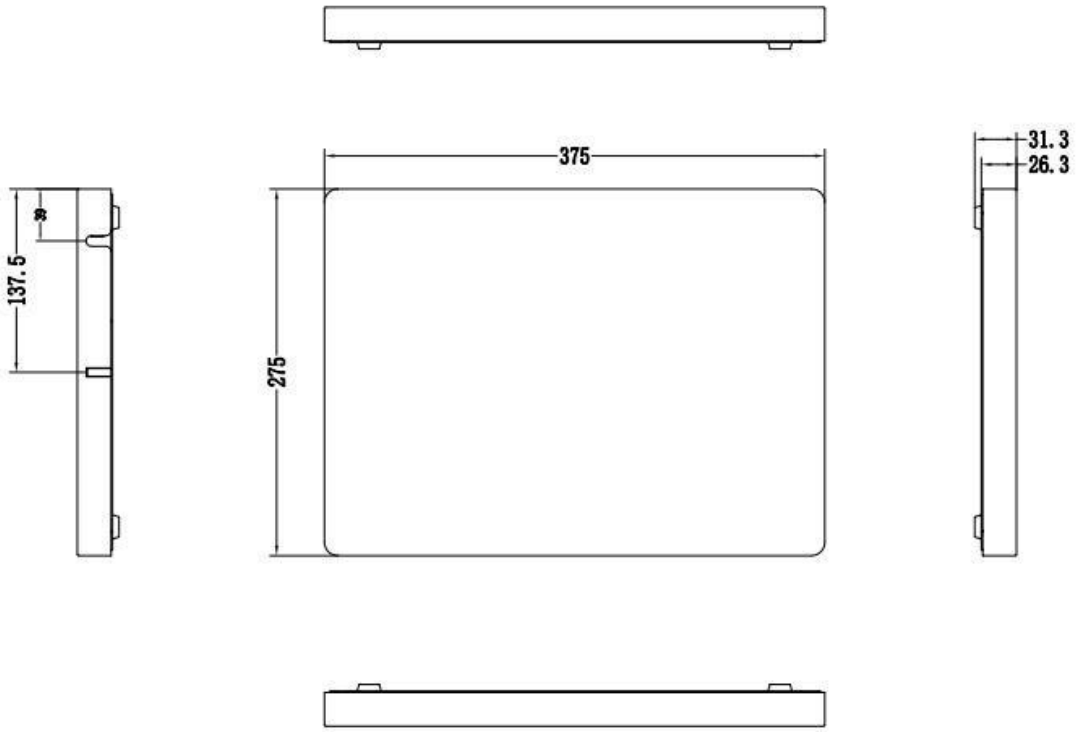
Two drivers will be installed:
- The USB device driver.
- The virtual COM port (VCP) driver. The VCP driver emulates a standard PC COM port.

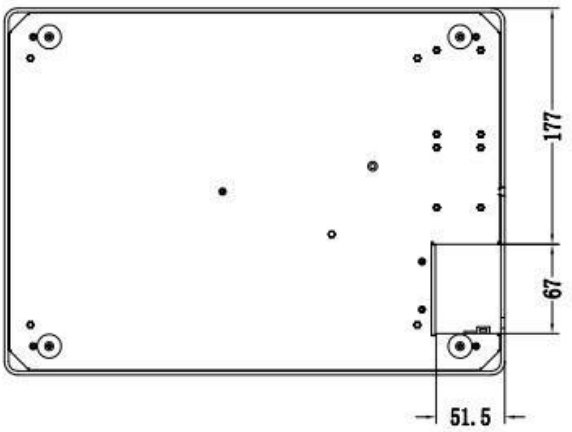
After installation of the drivers, power up and connect your RFID-READER-KIT PL DeskPad XR BL-U to a spare USB port on your PC to launch the Windows Found New hardware Wizard
- Select "No, not this time" and click next to proceed with the installation.
- Select "Install from a list or specific location (Advanced)" and then click "Next".
- Select "Search for the best driver in these locations" and click the Browse button to select the USB Drivers folder on the Product CD-Rom. Then click "Next" to proceed.
- Windows should then display a message indicating that the installation was successful.

Click Finish to complete the installation.

Repeat the procedure above when Windows® asks for drivers again (virtual com port).

8. Dimensions





FCC Statement

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

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

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.