USER MANUAL

ASCENT Windows

CUSTOM®

CUSTOM S.p.A.
Via Berettine 2/B
43010 Fontevivo (PARMA) - Italy
Tel. : +39 0521-680111
Fax : +39 0521-610701
http: www.custom.biz

Customer Service Department:
www.custom4u.it

THE IMAGES USED IN THIS MANUAL ARE USED AS AN ILLUSTRATIVE EXAMPLES. THEY COULDN'T REPRODUCE THE DESCRIBED MODEL FAITHFULLY.

UNLESS OTHERWISE SPECIFIED, THE INFORMATION GIVEN IN THIS MANUAL ARE REFERRED TO ALL MODELS IN PRODUCTION AT THE ISSUE DATE OF THIS DOCUMENT.

GENERAL INSTRUCTIONS

CUSTOM S.p.A. declines all responsibility for accidents or damage to persons or property occurring as a result of tampering, structural or functional modifications, unsuitable or incorrect installations, environments not in keeping with the equipment's protection degree or with the required temperature and humidity conditions, failure to carry out maintenance and periodical inspections and poor repair work.

GENERAL SAFETY INFORMATION

Your attention is drawn to the following actions that could compromise the characteristics of the product:

- Read and retain the instructions which follow.
- Follow all indications and instructions given on the device.
- Make sure that the surface on which the device rests is stable. If it is not, the device could fall, seriously damaging it.
- Make sure that the device rests on a hard (non-padded) surface and that there is sufficient ventilation.
- Do not fix indissolubly the device or its accessories such as power supplies unless specifically provided in this manual.
- When positioning the device, make sure cables do not get damaged.
- [Only OEM equipment] The equipment must be installed in a kiosk or system that provides mechanical, electrical and fire protection.
- The mains power supply must comply with the rules in force in the Country where you intend to install the equipment.
- Make sure that there is an easily-accessible outlet with a capacity of no less than 10A closely to where the device is to be installed.
- Make sure the power cable provided with the appliance, or that you intend to use is suitable with the wall socket available in the system.
- Make sure the electrical system that supplies power to the device is equipped with a ground wire and is protected by a differential switch.
- Before any type of work is done on the machine, disconnect the power supply.
- Use the type of electrical power supply indicated on the device label.
- These devices are intended to be powered by a separately certified power module having an SELV, non-energy hazardous output. (IEC60950-1 second edition).
- [Only POS equipment] The energy to the equipment must be provided by power supply approved by CUSTOM S.p.A.
- Take care the operating temperature range of equipment and its ancillary components.
- Do not block the ventilation openings.
- Do not insert objects inside the device as this could cause short-circuiting or damage components that could jeopardize printer functioning.
- Do not carry out repairs on the device yourself, except for the normal maintenance operations given in the user manual.
- The equipment must be accessible on these components only to trained, authorized personnel.
- Periodically perform scheduled maintenance on the device to avoid dirt build-up that could compromise the correct, safe operation of the unit.
- Do not touch the head heating line with bare hands or metal objects. Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.
- Use consumables approved by CUSTOM S.p.A.

THE CE MARK AFFIXED TO THE PRODUCT CERTIFY THAT THE PRODUCT SATISFIES THE BASIC SAFETY REQUIREMENTS.

The device is in conformity with the essential Electromagnetic Compatibility and Electric Safety requirements laid down in Directives 2014/30/EU and 2014/35/EU inasmuch as it was designed in conformity with the provisions laid down in the following Standards:

- EN 55032 *(Electromagnetic compatibility of multimedia equipment - Emission Requirements)*
- EN EN55024/EN55035 *(Electromagnetic compatibility of multimedia equipment - Immunity requirements)*
- EN IEC/EN62368-1 *(Audio/video, information and communication technology equipment)*

The device is in conformity with the essential requirements laid down in Directives 2014/53/EU about devices equipped with intentional radiators. The Declaration of Conformity and other available certifications can be downloaded from the site www.custom4u.it.

GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

The crossed-out rubbish bin logo means that used electrical and electronic products shall NOT be mixed with unsorted municipal waste. For more detailed information about recycling of this product, refer to the instructions of your country for the disposal of these products.

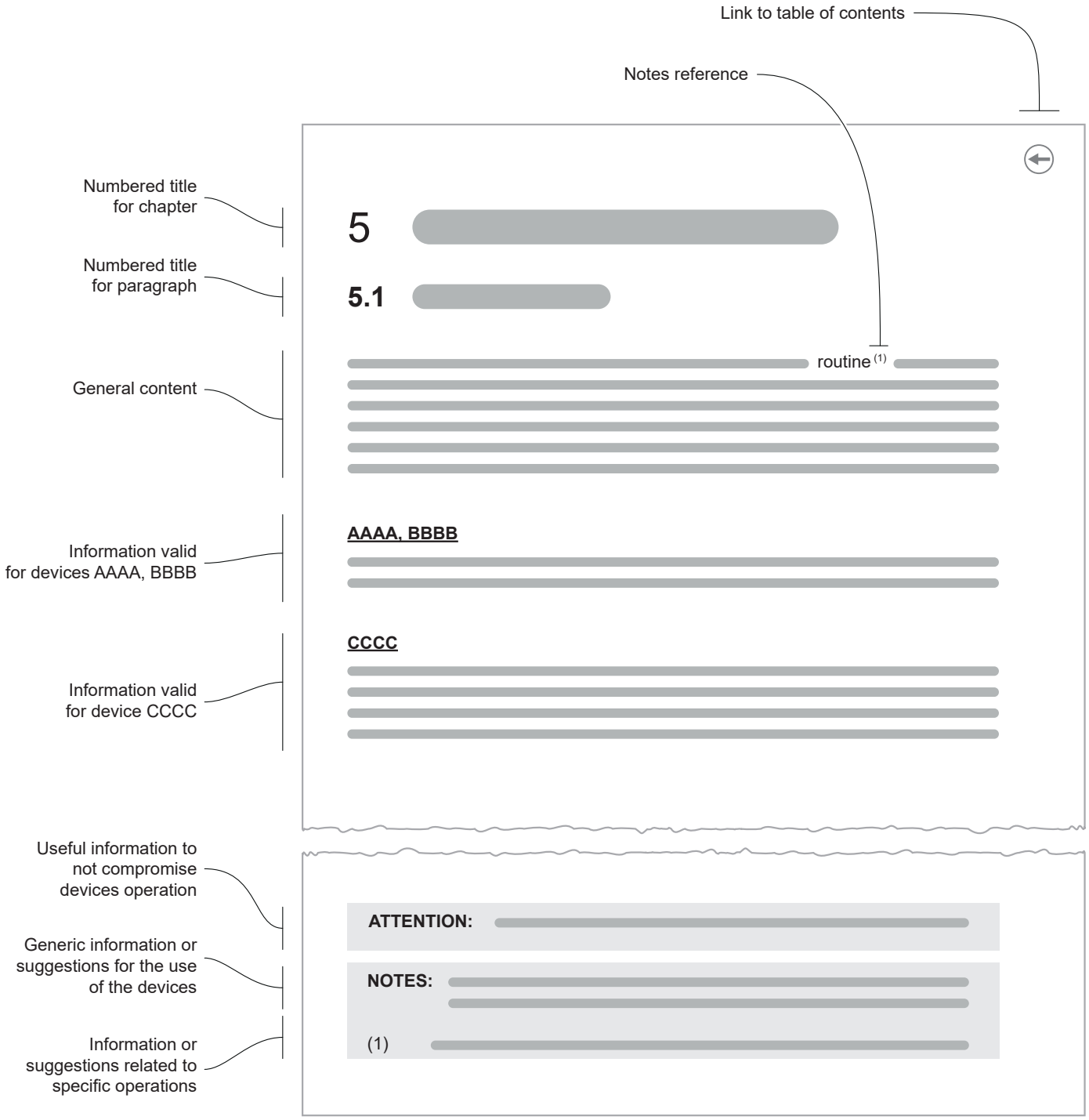
- Do not dispose of this equipment as miscellaneous solid municipal waste, but arrange to have it collected separately.
- The re-use or correct recycling of the electronic and electrical equipment (EEE) is important in order to protect the environment and the wellbeing of humans.
- In accordance with European Directive WEEE 2012/19/EU, special collection points are available to which to deliver waste electrical and electronic equipment and the equipment can also be handed over to a distributor at the moment of purchasing a new equivalent type.
- The public administration and producers of electrical and electronic equipment are involved in facilitating the processes of the re-use and recovery of waste electrical and electronic equipment through the organisation of collection activities and the use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with the appropriate penalties.
- For the waste sorting of the packaging materials, please check the local waste disposal laws.

The format used for this manual improves use of natural resources reducing the quantity of necessary paper to print this copy.

TABLE OF CONTENTS

1 INTRODUCTION

This document is divided into sections and chapters. Each chapter can be reached by the index at the beginning of this document. The index can be reached by the button on each page as shown in the diagram below.



2 IDENTIFICATION OF THE MODELS

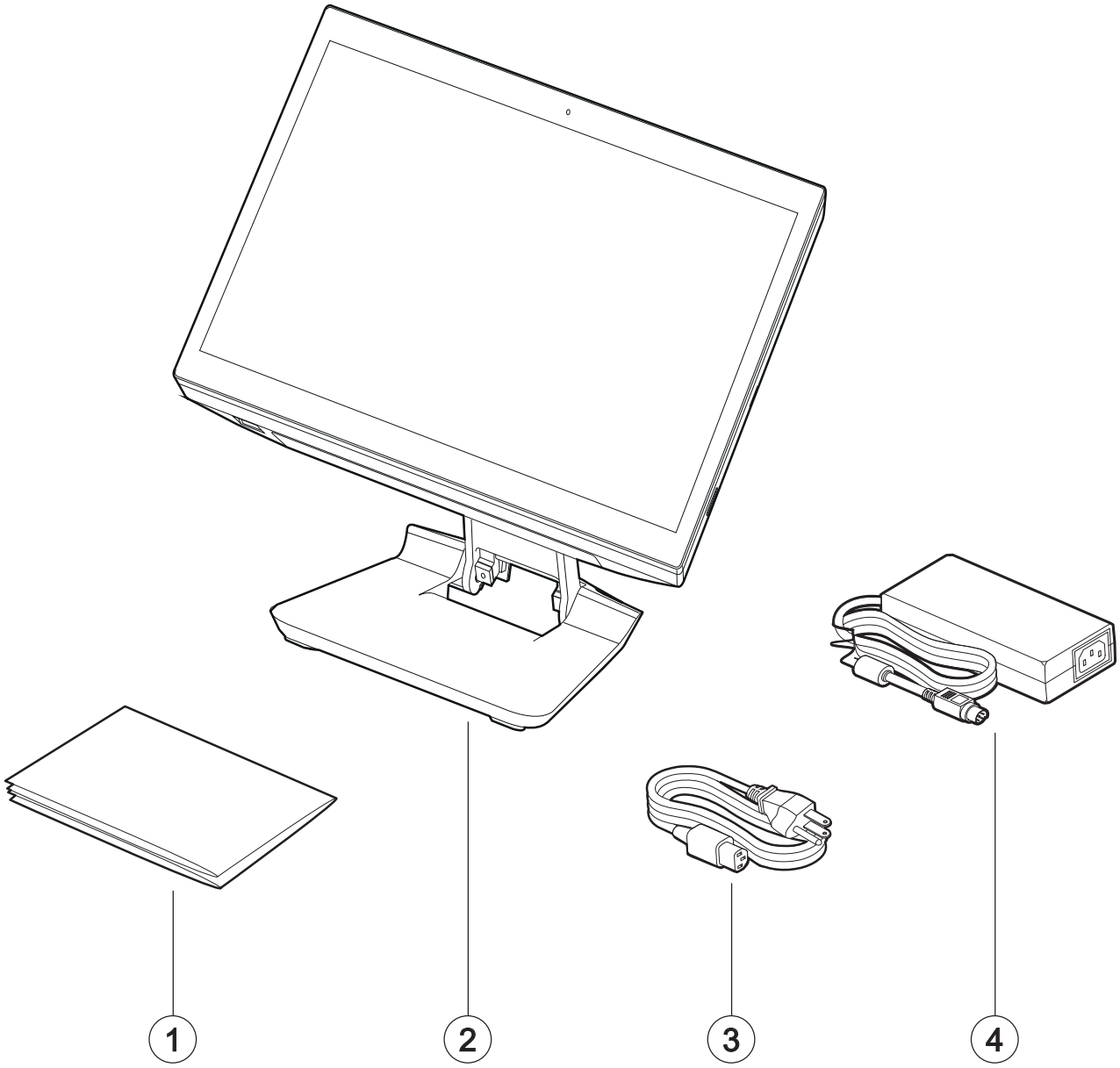
NOMENCLATURE	DESCRIPTION
15.6” Intel Celeron J6412 VALUE	8 GB DDR4 SODIMM x 1, 3200 MHz, 128 GB M.2 SATA SSD
15.6” Intel Celeron J6412 STANDARD	8 GB DDR4 SODIMM x 1, 3200 MHz, 128 GB M.2 SATA SSD, Wi-Fi 6 (802.11ax) 2.4 GHz/5 GHz + Bluetooth 5.2
15.6” Intel Celeron J6412 PREMIUM	8 GB DDR4 SODIMM x 1, 3200 MHz, 128 GB M.2 SATA SSD, Wi-Fi 6 (802.11ax) 2.4 GHz/5 GHz + Bluetooth 5.2, front camera
15.6” Intel Core i5-1145G7E VALUE	8 GB DDR4 SODIMM x 1, 3200 MHz, 256 GB M.2 SATA SSD
15.6” Intel Core i5-1145G7E STANDARD	8 GB DDR4 SODIMM x 1, 3200 MHz, 256 GB M.2 SATA SSD, Wi-Fi 6 (802.11ax) 2.4 GHz/5 GHz + Bluetooth 5.2
15.6” Intel Core i5-1145G7E PREMIUM	16 GB DDR4 SODIMM x 1, 3200 MHz, 256 GB M.2 SATA SSD, Wi-Fi 6 (802.11ax) 2.4 GHz/5 GHz + Bluetooth 5.2, front camera

3 DESCRIPTION

3.1 Box contents

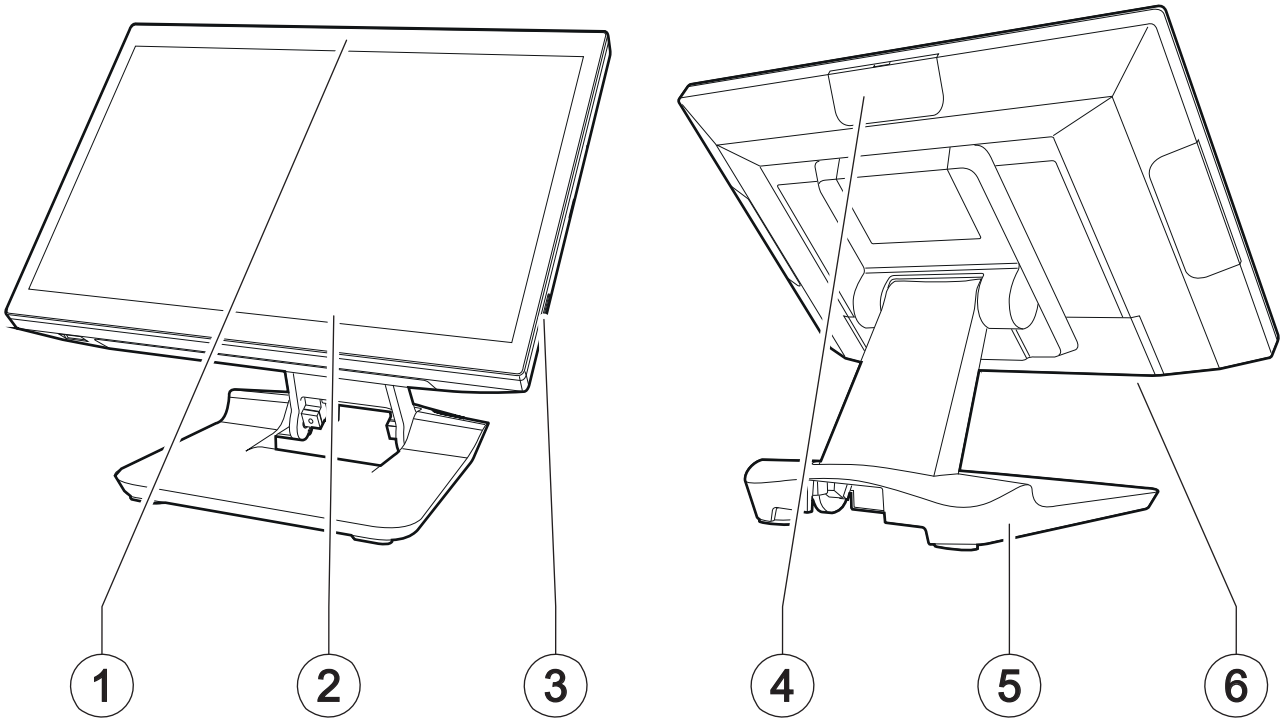
Remove the device from its carton being careful not to damage the packing material so that it may be re-used if the device is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact customer service.

1. Documentation (Short guide)
2. Device
3. Power supply cable
4. Power supply



3.2 Device components

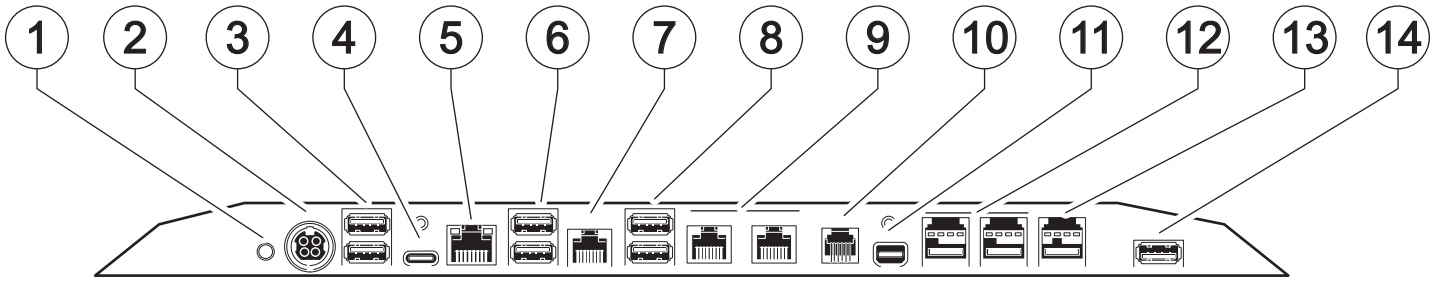
1. Front Camera
2. Touch screen display
3. ON/OFF Button
4. Accessory compartment cover.
5. Terminal base
6. Connector panel



3.3 Connector panel

1. On/OFF button
2. Power port
3. USB Type A port (x2)
4. USB Type C port
5. Ethernet Port
6. USB Type A port (x2)
7. RJ48 COM port
8. USB Type A Port (x2)
9. RJ48 COM port (x2)
10. Cash drawer port
11. Second display connection*
12. Powered USB Type A, 12 V port (x2) (optional)
13. Powered USB Type A, 24 V port (optional)
14. USB Type A port

*Proprietary second display connection is only for approved devices. Connecting unapproved devices may result in damage not covered under warranty.



3.4 Product label

The main data used to identify the machine are shown on the label attached to the bottom of the device.
In particular, it shows the electrical data for the connection to a power source. It also shows the product code, the serial number and the hardware revision (R).

3.5 Status LEDs

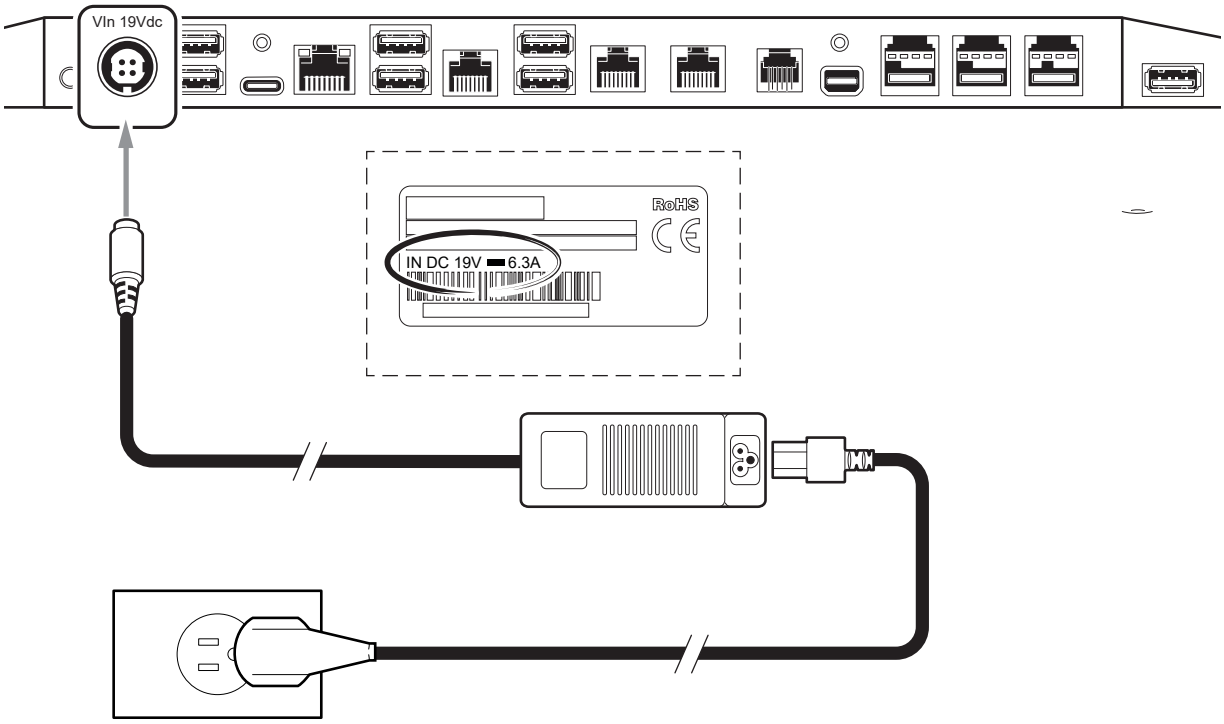
The status LEDs display the hardware status of the device.

STATUS LED		DESCRIPTION
	ON	DEVICE ON
	OFF	DEVICE OFF

4 INSTALLATION

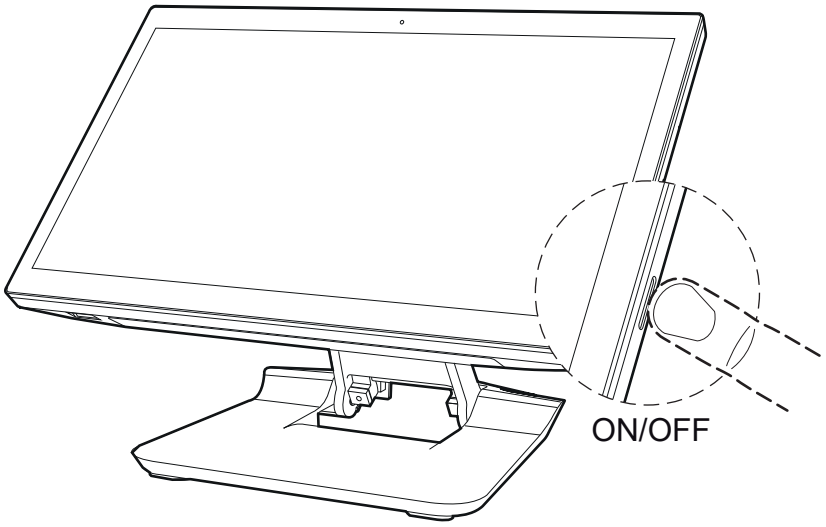
4.1 Switch the device ON/OFF

1



Connect the power adapter (supplied) to the device and the mains outlet.
Use the type of electrical power supply indicated on the label.

2



Switch the device on by pressing the ON/OFF button, the indicator light will switch on and the device will power on.
Switch device Off pressing key ON/OFF.

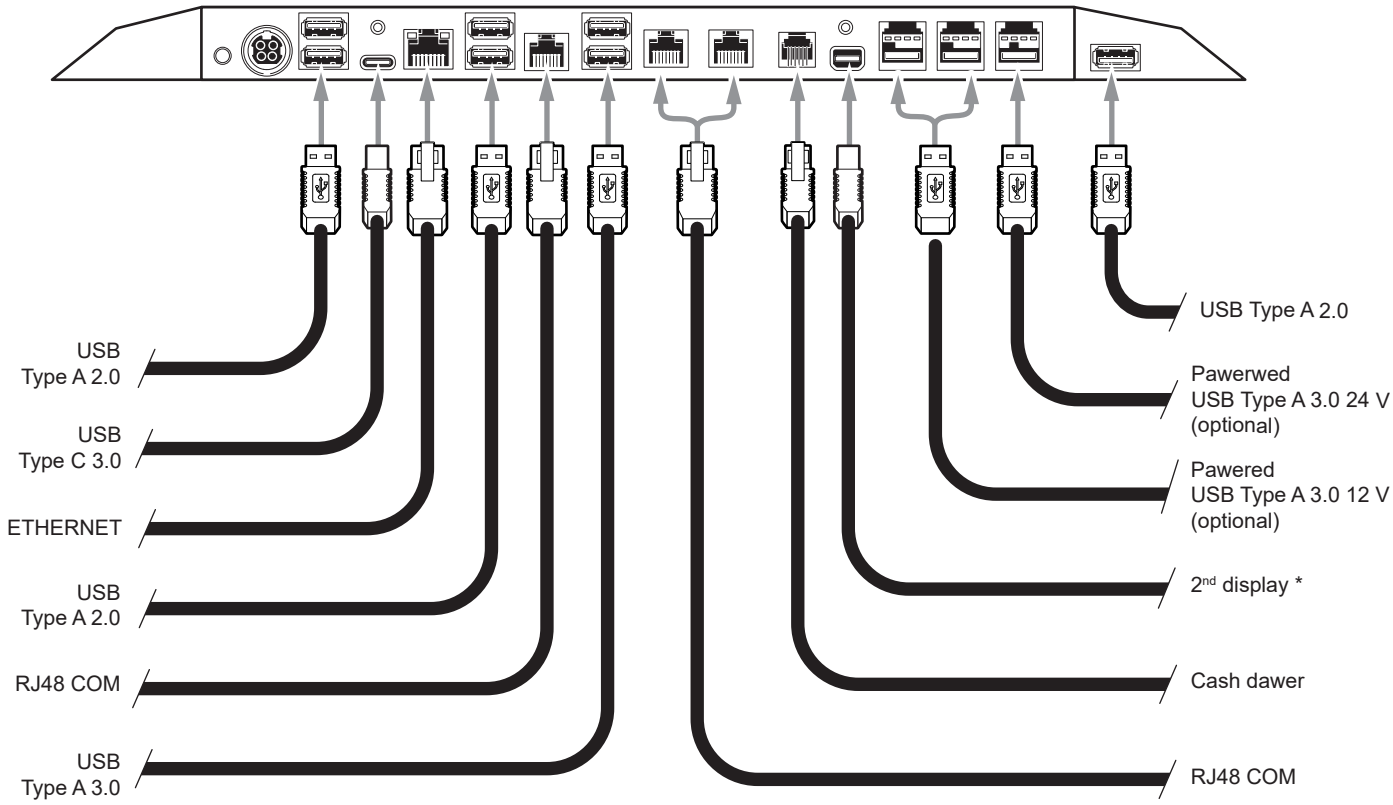
4.2 Connections

The following figure shows the possible connections for the device.
ATTENTION: In some using conditions, we recommend the installation of a ferrite core on the power supply cable.

15.6” Intel Celeron J6412 VALUE

15.6” Intel Celeron J6412 STANDARD

15.6” Intel Celeron J6412 PREMIUM

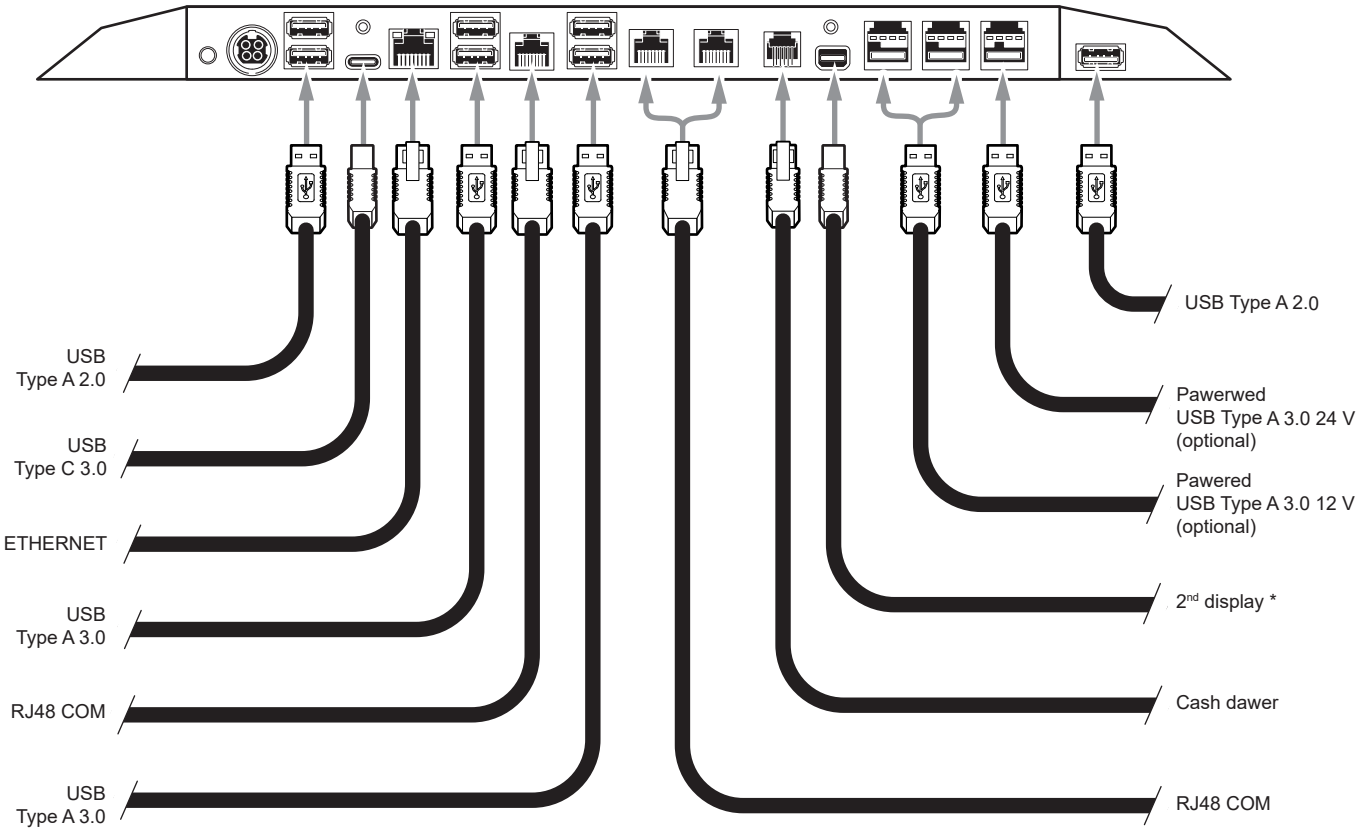


*Proprietary FeDP Display Connection for approved devices only.

15.6” Intel Core i5-1145G7E VALUE

15.6” Intel Core i5-1145G7E STANDARD

15.6” Intel Core i5-1145G7E premium



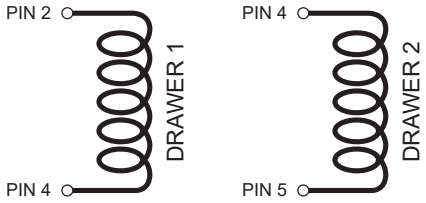
*Proprietary FeDP Display Connection for approved devices only.

4.3 Cash drawer connector pinout

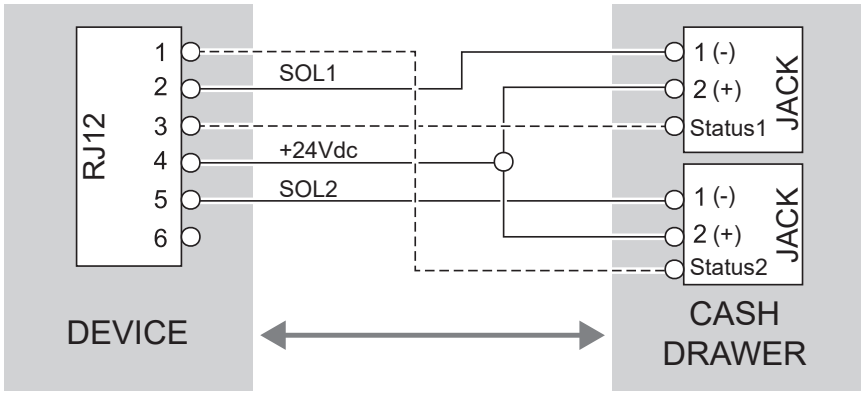
DRAWER CONNECTOR
Female RJ12 connector

1	Cash drawer 2	In
2	Cash drawer 1	Out
3	Cash drawer 1	n
4	12V / 19V	
5	Cash drawer 2	Out
6	GND	

The solenoid of the drawer 1 must be connected from Pin 2 to Pin 4 on the drawer connector.
The solenoid of the drawer 2 must be connected from Pin 4 to Pin 5 on the drawer connector.



Use an adapter cable RJ12-Jack to connect the device to a cash drawer.
Refer to the picture below for the connector pin signals



4.4 Change drawer command

Register Location: 0x482h
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute		Reserved		CD1 Out	CD1 In		Reserved	

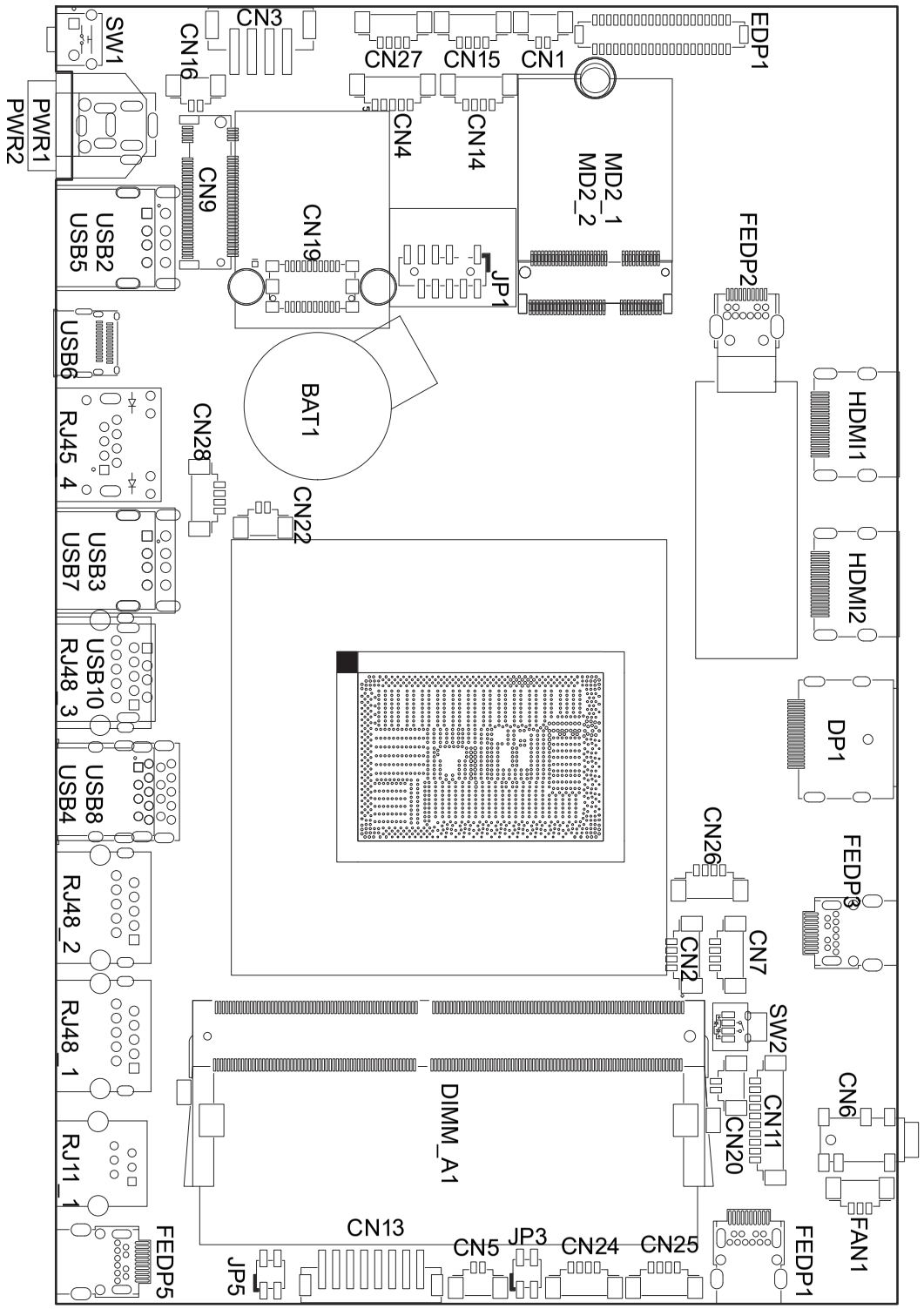
BIT	OFF/ON	n	FUNCTION
0	-	-	Reserved
1	-	-	Reserved
2	-	-	Reserved
3	Off	0x00	Cash drawer closed
	On	0x01	Cash drawer opened or not exist
4	Off	0x00	Cash drawer opening
	On	0x10	Cash drawer closure
5	-	-	Reserved
6	-	-	Reserved
7	-	-	Reserved

4.5 Control board layout

15.6” Intel Celeron J6412 VALUE

15.6” Intel Celeron J6412 STANDARD

15.6” Intel Celeron J6412 PREMIUM

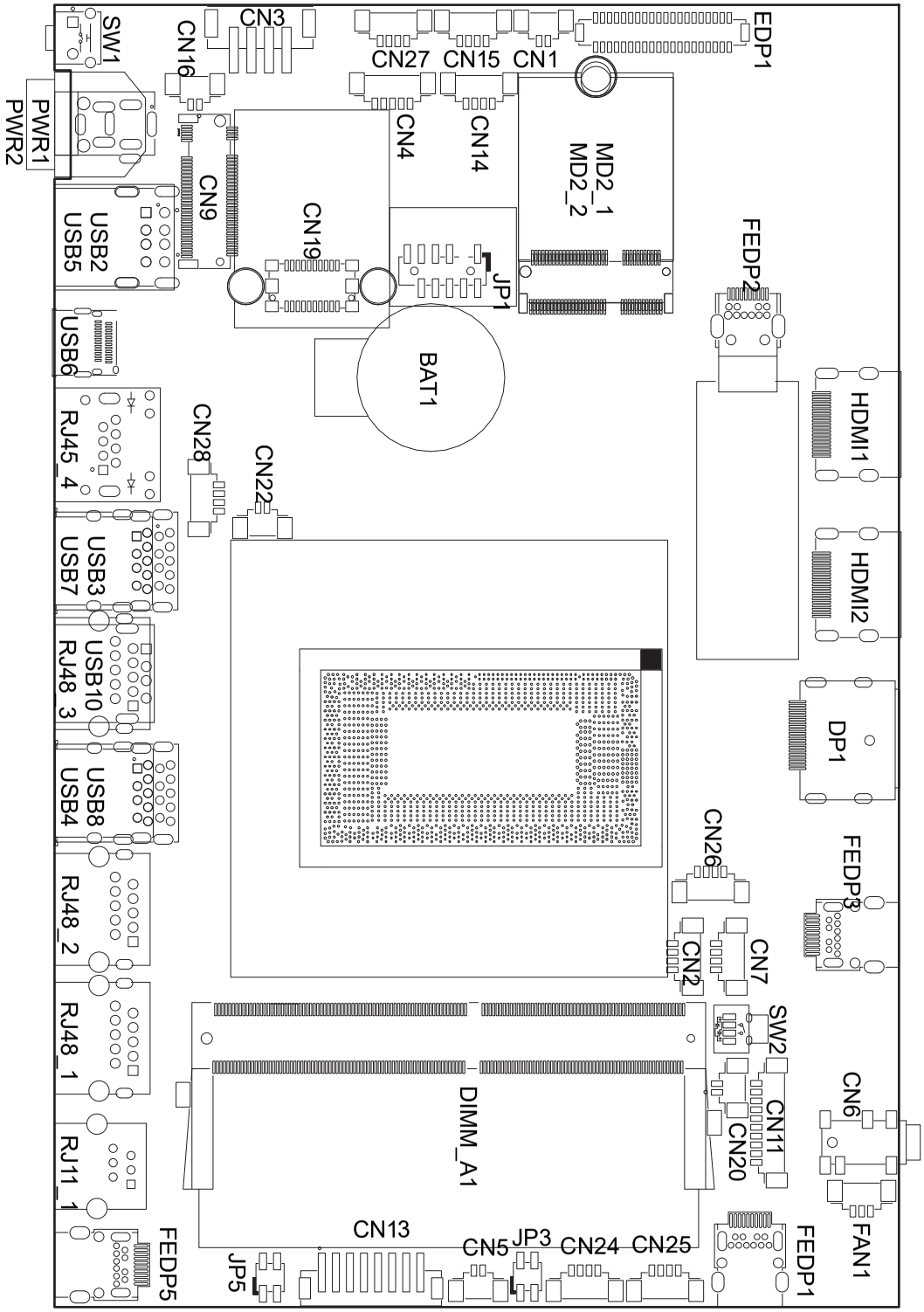


CONNECTOR	FUNCTION
CN1	Speaker R connector
CN2	4 pin power button w/2 LED connector
CN3	SATA power connector
CN4	EC debug connector
CN5	Speaker L connector
CN6	Audio jack
CN7	Line-out connector
CN8	Power LED connector
CN9	M.2 slot, M-Key for storage
CN11	COM4 connector
CN13	Wide range power connector
CN14/CN15/CN24/CN25/CN26/CN27/CN28	Int USB 2.0 connector
CN16	HDD LED connector
CN19	OOB connector
CN20	Mic-in connector
CN22	RTC battery connector
DIMM_A1	SO-DIMM socket
BZ1	Buzzer
FAN1	FAN connector
MD2_1	M.2 slot, E-Key for wireless card
EDP1	40 pin eDP Connector
DP1	DP connector
FEDP1	Main FeDP connector
FEDP2/FEPD3/FEDP5	2nd FeDP connector
HDMI1/HDMI2	HDMI connector
SW1	Power button
SW2	Power button w/LED connector
PWR1/PWR2	DC-in connector
RJ11_1	Cash drawer connector
RJ45_4	LAN connector
RJ48_1	COM1 connector
RJ48_2	COM2 connector
RJ48_3	COM3 connector
USB	USB Type-C connector (DP/USB3.0)
USB2/USB3/USB5/USB7/USB10	USB 2.0 connector
USB4/USB8	USB 3.0 connector
JP1	TPM connector
JP2	Speaker selection jumper
JP3	Audio Line-out setting jumper
JP5	Cash drawer power setting jumper

15.6” Intel Core i5-1145G7E VALUE

15.6” Intel Core i5-1145G7E STANDARD

15.6” Intel Core i5-1145G7E PREMIUM



CONNECTOR	FUNCTION
CN1	Speaker R connector
CN2	4 pin power button w/2 LED connector
CN3	SATA power connector
CN4	EC debug connector
CN5	Speaker L connector
CN6	Audio jack
CN7	Line-out connector
CN8	Power LED connector
CN9	M.2 slot, M-Key for storage
CN11	COM4 connector
CN13	Wide range power connector
CN14/CN15/CN24/CN25/CN26/CN27/CN28	Int USB 2.0 connector
CN16	HDD LED connector
CN19	OOB connector
CN20	Mic-in connector
CN22	RTC battery connector
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BZ1	Buzzer
FAN1	FAN connector
MD2_1	M.2 slot, E-Key for wireless card
EDP1	40 pin eDP Connector
DP1	DP connector
FEDP1	Main FeDP connector
FEDP2/FEPD3/FEDP5	2nd FeDP connector
HDMI1/HDMI2	HDMI connector
SW1	Power button
SW2	Power button w/LED connector
PWR1/PWR2	DC-in connector
RJ11_1	Cash drawer connector
RJ45_4	LAN connector
RJ48_1	COM1 connector
RJ48_2	COM2 connector
RJ48_3	COM3 connector
USB	USB Type-C connector (DP/USB3.0)
USB2/USB5/USB10	USB 2.0 connector
USB3/USB4/USB7/USB8	USB 3.0 connector
JP1	TPM connector
JP2	Speaker selection jumper
JP5	Cash drawer power setting jumper

4.6 Audio output jumper configuration

For a detailed description of the device operating parameters see the following paragraphs.
To configure the device by software, proceed as follows:

JUMPER	FUNCTION
	Jumper closed
	Jumper open

15.6” Intel Celeron J6412 VALUE

15.6” Intel Celeron J6412 STANDARD

15.6” Intel Celeron J6412 PREMIUM

PJ3	FUNCTION
	Mono [D]
	Stereo

15.6” Intel Core i5-1145G7E VALUE

15.6” Intel Core i5-1145G7E STANDARD

15.6” Intel Core i5-1145G7E PREMIUM

PJ3	FUNCTION
	Stereo [D]
	Reserved (line-out)

4.7 Cash drawer power jumper configuration

For a detailed description of the device operating parameters see the following paragraphs.
To configure the device by software, proceed as follows:

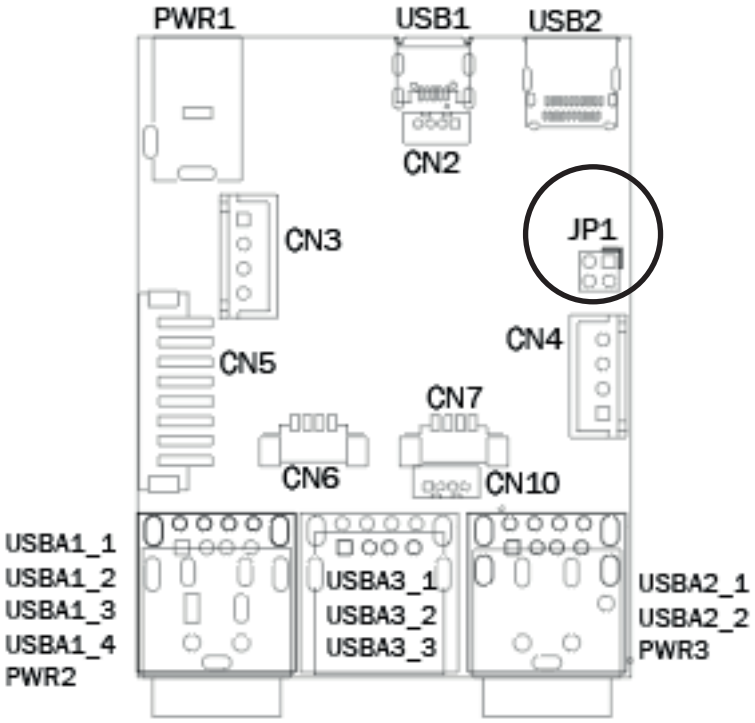
JUMPER	FUNCTION
	Jumper closed
	Jumper open

PJ5	FUNCTION
	+19 V [D]
	+12 V

4.8 Powered USB card jumper configuration

For a detailed description of the device operating parameters see the following paragraphs.
To configure the device by software, proceed as follows:

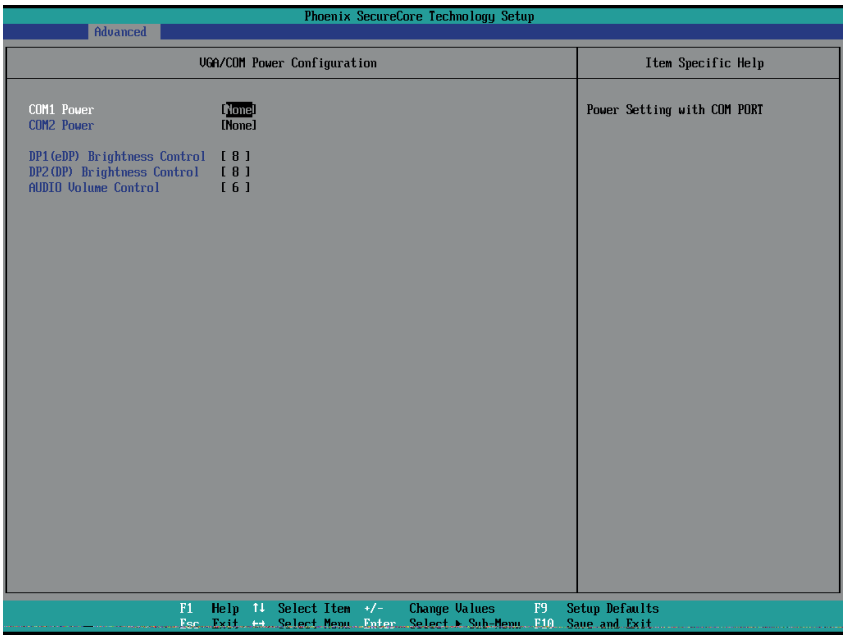
JUMPER	FUNCTION
1 2	Jumper closed
1 2	Jumper open



PJ1	FUNCTION
1 3 2 4	180 W
1 3 2 4	120 W [D]

4.9 COM1/COM2/COM3 power setting

COM1, COM2 and COM3 can be set to provide power to your serial device.
The voltage can be set to +5V or +12V in the BIOS.

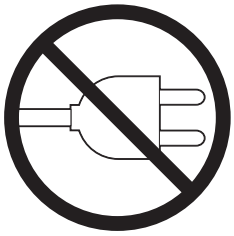


- Power on the system, and press the DEL key when the system is booting up toenter the BIOS Setup utility.
- Select the Advanced tab.
- Select VGA/COM Power Configuration Ports and press v to go to displaythe available options.
- To enable the power, select COM1 ,COM2, and COM3 Power setting and press ENTER.
- Select POWER and press ENTER.
- Save the change by pressing F10.

5 MAINTENANCE

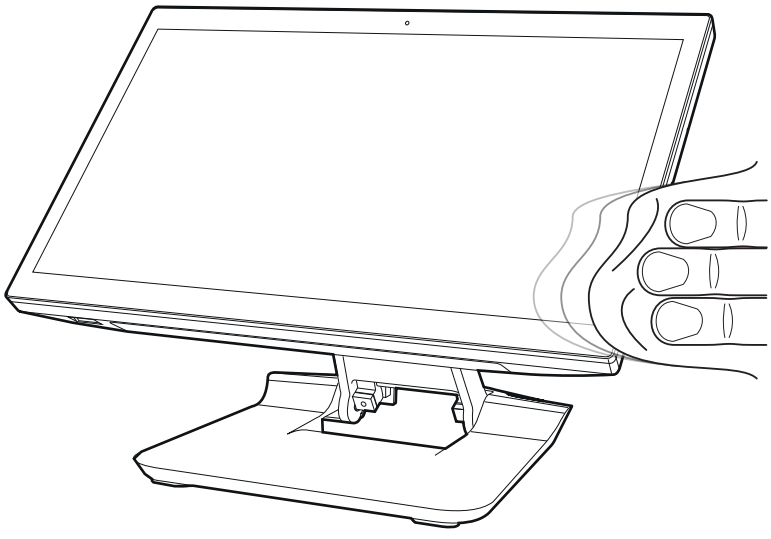
5.1 Cleaning

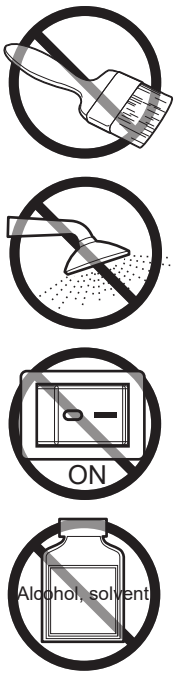
1



Disconnect the power supply cable and
wait a few minutes to allow the screen to get to room temperature.

2





To clean the device use compressed air or a soft cloth.
Gently wipe the screen with a soft cloth.

6 SPECIFICATIONS

6.1 Hardware specifications

GENERAL	
CPU	
15.6” Intel Celeron J6412	Intel Celeron J6412
15.6” Intel Core i5-1145G7E	Intel Core i5-1145G7E
Chipset	CPU Integrated
Memory	
15.6” Intel Celeron J6412 VALUE	8 GB DDR4 SODIMM x1, 3200 MHz
15.6” Intel Celeron J6412 STANDARD	
15.6” Intel Celeron J6412 PREMIUM	
15.6” Intel Core i5-1145G7E VALUE	
15.6” Intel Core i5-1145G7E STANDARD	
15.6” Intel Core i5-1145G7E PREMIUM	16 GB DDR4 SODIMM x1, 3200 MHz
Storage	
15.6” Intel Celeron J6412	128 GB M.2 SATA SSD
15.6” Intel Core i5-1145G7E	256 GB M.2 SATA SSD
Graphic memory	
15.6” Intel Celeron J6412	Intel Graphic (Gen 9) DX12, defined on CPU
15.6” Intel Core i5-1145G7E	Intel Iris Xegraphics 80EU 4x4k or 2x8k Displays 2 VDBOX
Operating system support	Windows 10 IoT, Windows 11 Pro, Linux
TPM (on-board)	TPM 2.0
Peripherals (optional)	MSR, fingerprint reader, iButton, 11.6" touch customer display (VESA), LCM customer display, LCM customer display (VESA)
LCD/TOUCH PANEL	
Brightness	500 nits
Maximal resolution	
15.6” Intel Celeron J6412 15.6” Intel Core i5-1145G7E	1920 x 1080 (full HD)

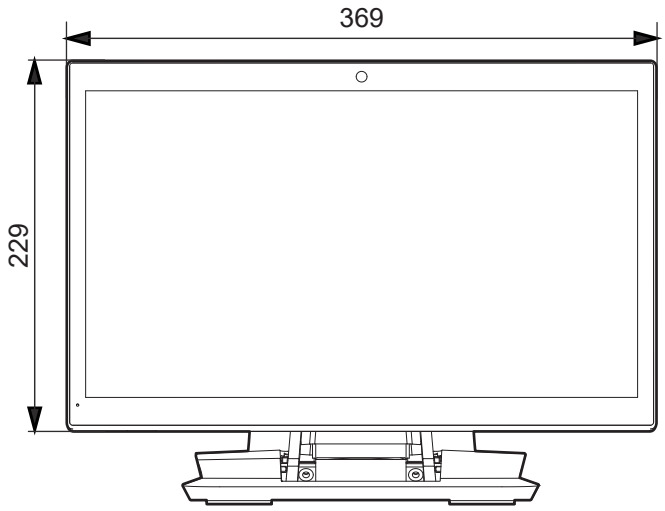
Touch screen type		true flat PCAP multi touch
INTERFACE		
USB Type A port		
15.6” Intel Celeron J6412		USB 2.0 (front) 2 x USB 3.0 4 x USB 2.0
15.6” Intel Core i5-1145G7E		USB 2.0 (front) 4 x USB 3.0 2 x USB 2.0
USB Type C port		USB 3.0 (DP/PD 5 V/3 A, 12 V/3 A, 19 V/5 A)
Serial port		3 x RJ48 (w/ 2 x RJ48 to DB9 cable) (default: 0 V; COM1/COM2: 0 V, 5 V, 12 V)
Ethernet port		RJ45 10/100/1000 Mbit/s
Drawer port		RJ11 (12 V / 24 V)
2nd display port		FeDP (Proprietary FeDP connection for approved devices only)
Powered USB ports (optional)		
15.6” Intel Celeron J6412 PREMIUM		2 x powered USB 12 V, 1 x powered USB 24 V
15.6” Intel Core i5-1145G7E PREMIUM		
DC jack		4 pin DIN
COMMUNICATION		
15.6” Intel Celeron J6412 STANDARD		Wi-Fi 6 (802.11ax) 2.4 GHz/5 GHz + Bluetooth 5.2
15.6” Intel Celeron J6412 PREMIUM		
15.6” Intel Core i5-1145G7E STANDARD		
15.6” Intel Core i5-1145G7E PREMIUM		
FRONT CAMERA		
15.6” Intel Celeron J6412 PREMIUM		5 MP (USB)
15.6” Intel Core i5-1145G7E PREMIUM		
POWER SUPPLY ELECTRICAL SPECIFICATIONS		
65 W power supply		
15.6” Intel Celeron J6412 (without powered USB ports)	Power supply voltage	from 100 Vac to 240 Vac
	Frequence	from 50 Hz to 60 Hz
	Output	19 V, 3.4 A
	Power	65 W

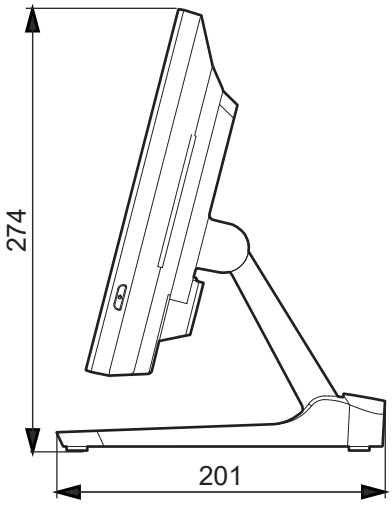
120 W power supply		
15.6” Intel Celeron J6412 PREMIUM (with powered USB ports)	Power supply voltage	from 100 Vac to 240 Vac
	Frequence	from 50 Hz to 60 Hz
	Output	19 V, 6.3 A
	Power	120 W
120 W power supply		
15.6” Intel Core i5-1145G7E	Power supply voltage	from 100 Vac to 240 Vac
	Frequence	from 50 Hz to 60 Hz
	Output	19 V, 6.3 A
	Power	120 W
ENVIRONMENTAL CONDITIONS		
Operating temperature		from 0 °C to +35 °C
Relative humidity (RH)		from 20% to 85% (non condensing)
Storage temperature		from -20 °C to +60 °C
Storage relative humidity (RH)		from 20% to 90% (non condensing)

6.2 Device dimensions

All the dimensions shown in following figures are in millimetres.

Length	369 mm
Width	201 mm
Height	274 mm
Weight	4000 g
VESA	100 x 100 mm



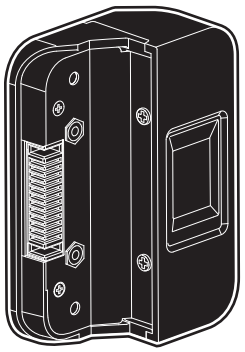


7 ACCESSORIES

The following table shows the list of available accessories for device.

938KY460000001

FINGERPRINT READERI

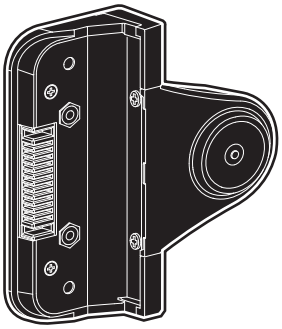


938KY460000002

MAGNETIC CARD READER

938KY460000003

IBUTTON



932AD050100002

11.6 SECOND DISPLAY TOUCH

932AD050100003

LCM CUSTOMER DISPLAY

932AD050100004

LCM -VESA- CUSTOMER DISPLAY

Code : 0576200M000155 Rev. 1.00

CUSTOM S.p.A.
World Headquarters
Via Berettine, 2/B - 43010 Fontevivo, Parma ITALY
Tel. +39 0521 680111 - Fax +39 0521 610701
info@custom.biz - www.custom.biz