

WINCOR

NIXDORF



BEETLE /Fusion

Operating Manual

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BEETLE /Fusion

Operating Manual

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Contents

Manufacturer’s Certification	1
Tested Safety	1
FCC-Class A Declaration	2
BSMI (EMC for Taiwan)	2
Technical & Regulatory Information on Wireless	3
Wireless Interoperability	3
Safety Instructions	3
Regulatory Information	4
Local Restriction of 802.11a, 802.11b, 802.11g, and 802.11n Radio Usage	4
Europe-EU Declaration of Conformity	5
France	6
Symbols used in this guide.....	7
Important Safety Precautions	8
Overview.....	10
Components	10
Front view – wall mount version	12
Front view – desktop version.....	12
Front view – desktop version.....	13
Rear View	14

- Turning on BEETLE /Fusion15**
 - Turning off BEETLE /Fusion.....17
 - Brightness adjustment.....17

- Touch screen18**
 - How to Operate18
 - Cleaning Instructions.....19

- Camera20**
 - Operation.....20

- Barcode reader21**
 - Notes on the laser21

- Proximity Sensor22**

- Appendix23**
 - Technical Data for BEETLE /Fusion 12.....23
 - Technical data for BEETLE /Fusion 1524
 - Technical data for BEETLE /Fusion 1925
 - AC Power Adapter.....26
 - Power Cord Selection.....27
 - System specification.....28
 - I/O connection ports31
 - Total Available Power of External I/O Ports32
 - Approved Printer List.....34

Manufacturer's Certification



The device complies with the requirements of the EEC directive 2004/108/EC with regard to “Electromagnetic compatibility” and 2006/95/EC “Low Voltage Directive”.

Tested Safety



The BEETLE /Fusion has been provided with the symbol for “Tested Safety”.



In addition, the device has received the UL symbol and cUL symbol.

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications not authorized by the manufacturer may void user's authority to operate this device.

This class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

BSMI (EMC for Taiwan)



The device complies with the requirements of the BSMI (Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs) directive CNS13438 with regard to "Electromagnetic compatibility" with the limits for a Class B product.

Technical & Regulatory Information on Wireless

Wireless Interoperability

The WLAN adapter integrated in the BEETLE /Fusion is designed to be interoperable with any wireless LAN product that is based on direct sequence spread spectrum (DSSS) and to comply with the following standards:

- IEEE Std 802.11b Standard on 2.4 GHz Wireless LAN
- IEEE Std 802.11g Standard on 2.4 GHz Wireless LAN
- IEEE Std 802.11a Standard on 5 GHz Wireless LAN
- IEEE Std 802.11 Draft-N on 5 GHz Wireless LAN

Safety Instructions

The WLAN adapter, like other radio devices, emits radio frequency electromagnetic energy. The level of energy emitted by the adapter, however, is less than the electromagnetic energy emitted by other wireless devices such as mobile phones. The adapter operates within the guidelines found in radio frequency safety standards and recommendations. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature. In some situations or environments, the use of the adapter may be restricted by the proprietor of the building or responsible representatives of the applicable organization. Examples of such situations may include:

- Hospital
- Any other environment where the risk of interference with other devices or services is perceived or identified as being harmful.

If you are uncertain of the policy that applies to the use of wireless devices in a specific organization or environment (a hospital, for example), you are encouraged to ask for authorization to use the adapter before you turn it on.

Regulatory Information

The WLAN adapter must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the WLAN adapter kit, or the substitution or attachment of connecting cables and equipment other than that specified by the Manufacturer. The correction of interference caused by such unauthorized modification, substitution or attachment is the responsibility of the user. The manufacturer and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from the user failing to comply with these guidelines.

Local Restriction of 802.11a, 802.11b, 802.11g, and 802.11n Radio Usage

CAUTION: Due to the fact that the frequencies used by 802.11a, 802.11b, 802.11g and 802.11n wireless LAN devices may not yet be harmonized in all countries, 802.11a, 802.11b, 802.11g and 802.11n products are designed for use only in specific countries, and are not allowed to be operated in countries other than those of designated use. As a user of these products, you are responsible for ensuring that the products are used only in the countries for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country of use. Any deviation from permissible settings and restrictions in the country of use could be an infringement of national law and may be punished as such.

Europe-EU Declaration of Conformity



This equipment complies with the essential requirements of the European Union directive R&TTE 1999/5/EC.

Cet équipement est conforme aux principales caractéristiques définies dans la Directive européenne R&TTE 1999/5/CE.

Die Geräte erfüllen die grundlegenden Anforderungen der R&TTE-Richtlinie 1999/5/EG.

Questa apparecchiatura è conforme ai requisiti essenziali della Direttiva Europea R&TTE 1999/5/CE.

Este equipo cumple los requisitos principales de la Directiva R&TTE 1999/5/CE de la UE, "Equipos de Terminales de Radio y Telecomunicaciones".

Este equipamento cumpre os requisitos essenciais da Directiva R&TTE 1999/5/CE do Parlamento Europeu e do Conselho.

O exoplismos autos plhroi tis basikes apaits ths koinotikhs odhghias EU R&TTE 1999/5/E

Deze apparatuur voldoet aan de noodzakelijke vereisten van EU-richtlijn betreffende radioapparatuur en telecommunicatie-eindapparatuur R&TTE 1999/5/EG.

Dette udstyr opfylder de Væsentlige krav i EU's direktiv R&TTE 1999/5/EC om Radio- og teleterminaludstyr.

Dette utstyret er i overensstemmelse med hovedkravene i R&TTE-direktivet (1999/5/EC) fra EU.

Utrustningen uppfyller kraven för EU-direktivet 1999/5/EC om ansluten teleutrustning och ömsesidigt erkännande av utrustningens överensstämmelse (R&TTE).

Tämä laite vastaa EU:n radio- ja telepäätelaitedirektiivin (EU R&TTE Directive 1999/5/EC) vaatimuksia.

This product is intended to be used in all countries of the European Economic Area when operating in IEEE 802.11b and/or IEEE 802.11g mode at 2.4 GHz (see France below). When operating in the IEEE 802.11a mode at 5 GHz, however, the product is restricted further.

France

In all Metropolitan départements, wireless LAN frequencies can be used under the following conditions, either for public or private use:

- Indoor use: maximum power (EIRP) of 100 mW for the entire 2400-2483.5 MHz frequency band.
- Outdoor use: maximum power (EIRP) of 100 mW for the 2400-2454 MHz band and with maximum power (EIRP) of 10 mW for the 2454-2483.5 MHz band.

Introduction

This operating manual provides all the information required for the operation of Fusion system.

Having studied the operating manual, you will be able to properly operate the system.

Symbols used in this guide

- Text following this mark represents an item in a list.
- “ “ Text in quotation marks contains references to other chapters or sections in this document.
- Paragraphs following this symbol are actions to be performed in the specific order.



Texts following this symbol are actions to be performed in order to avoid damage or injury.



This symbol identifies paragraphs which contain general notes to facilitate use of the device and help avoid operating errors.

Important Safety Precautions



Please read the following notes carefully before doing any work on the device.

This device complies with the relevant safety regulations for information processing equipment.

- Note the warning and information labels on the device.
- The device is equipped with a safety-tested power cable, which must be connected only to a grounded outlet.
- Ensure that the correct power cord with safety approval is used (see chapter “Appendix”, is as specified in the “Power Cord Selection”).
- Always hold the plug when removing the power cable. Never pull the cable itself.
- Install cables in such a way that they will not be damaged or crushed in any way.
- Have damaged power cables replaced immediately.
- The lithium battery must be disposed of in accordance with local regulations for special waste.
- If the display element is damaged and the liquid crystal solution leaks out onto your hands or clothing, please wash your hands or clothing immediately under running water for at least 15 minutes, using soap or alcohol. If the liquid comes into contact with your eyes, consult a medical doctor immediately.
- Make sure that there is always free access to sockets used or to the electrical circuit-breakers of the house installation.

- In case of an emergency (e.g. damaged cabinets, control or power cables, liquids or foreign objects in the device), switch off the device immediately and inform the customer service responsible for you.
- During the thunderstorm, data transmission lines must not be connected or disconnected.
- Only use accessories and extension components that have been approved by us. Nonobservance can result in damage to the system or violations of regulations concerning safety, radio interference and agronomical requirements.
- To clean the device only use cleaning agents approved by Wincor Nixdorf International GmbH.

Repairs



Repair work may only be carried out by authorized personnel.

Unauthorized opening of the device or repair work carried out improperly not only could result in considerable danger to the user but also cancel all the warranty and liability agreements.

In case of noncompliance, Wincor Nixdorf International GmbH excludes all liability.

Overview

The BEETLE /Fusion is a family of POS terminal that is configurable for wall mount or desktop application. It is designed for indoor installation.

Components

The configuration of the Fusion may comprise of the following components:

- Processor options:

Category A

- o Celeron M 1.0GHz
- o Celeron M 1.5GHz

Category B

- o Celeron Dual Core, T3100 1.9GHz
- o Core 2 Duo, P8400 2.26GHz

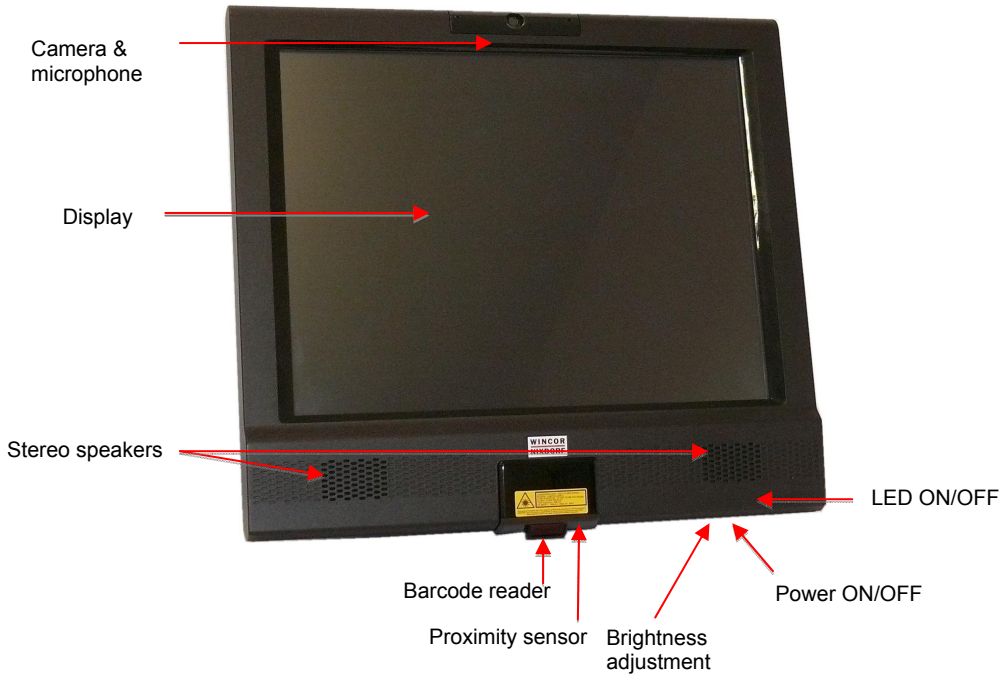
Category C

- o Atom D425 1.8GHz
- o Atom D525 1.8GHz, dual-core

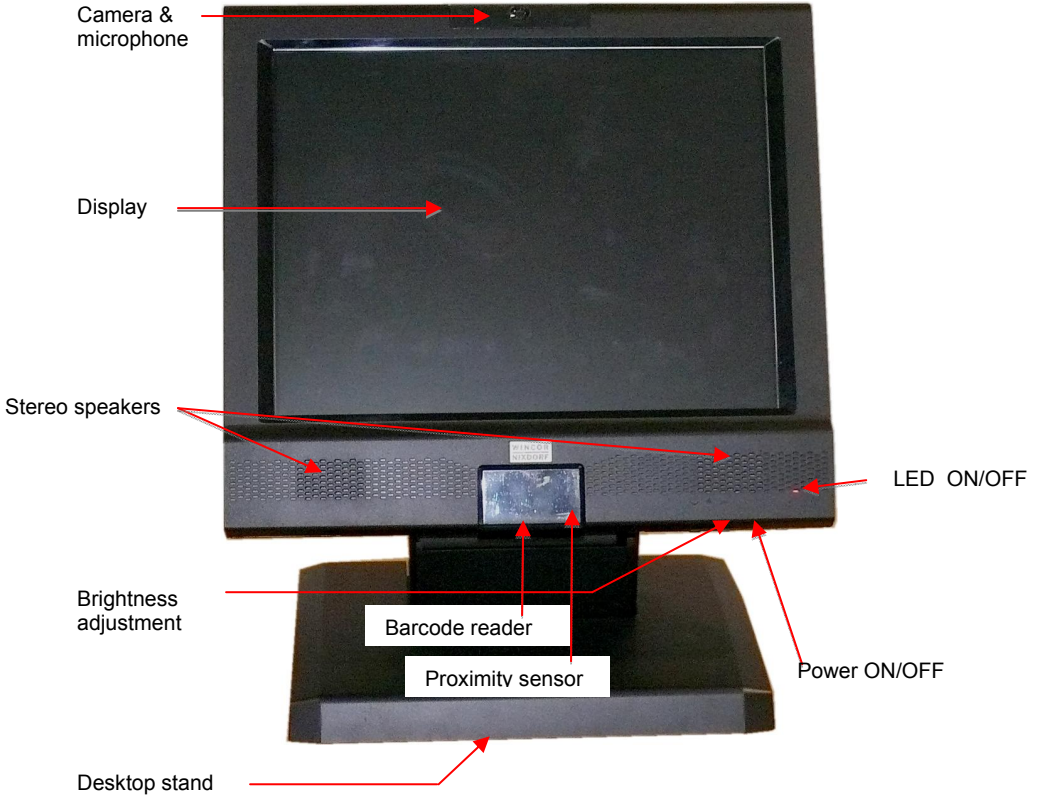
- Min. 512MB RAM (up to 2GB RAM)
- Mass storage options:
 - 160GB 2.5" hard disk (min.)
 - 8GB, 16GB, 32GB, 64GB SSD
- Display options:
 - 15" or 12.1" (4:3)
 - o Non Touch
 - o Capacitive Touch
 - o Resistive Touch
 - 18.5" wide (16:9)
 - o Infra-Red Touch
- Cash drawer and NVRAM (optional)

- Mounting options:
 - wall mount version
 - desktop version

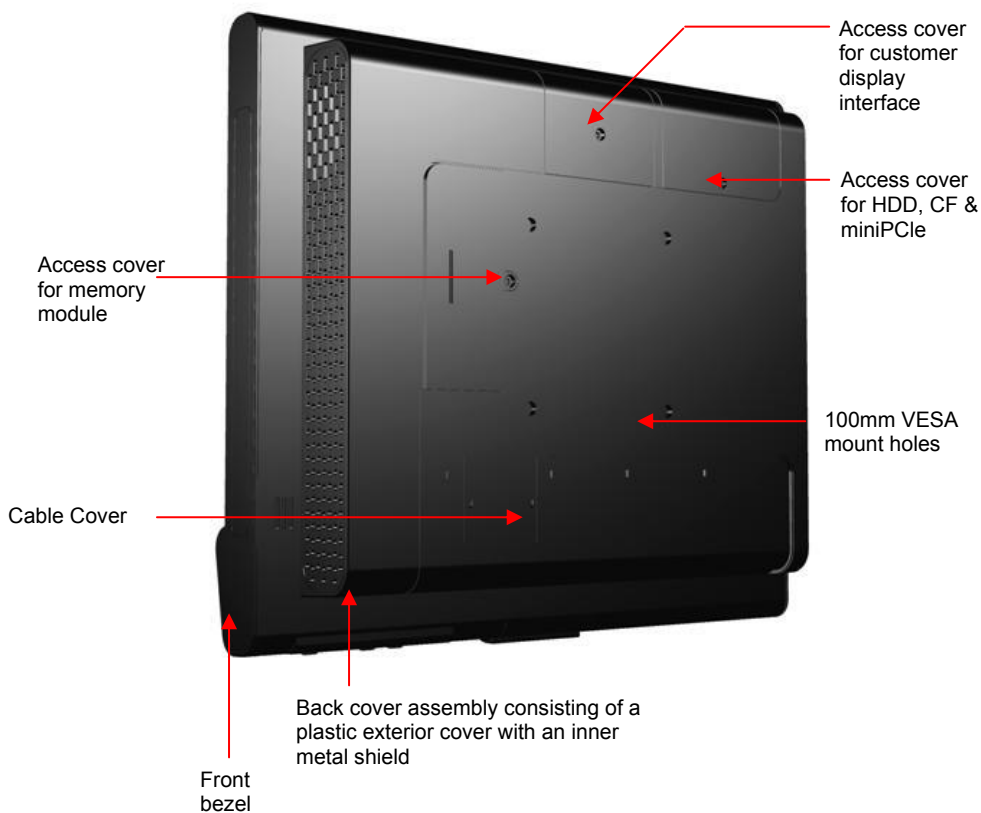
Front view – wall mount version



Front view – desktop version



Rear View



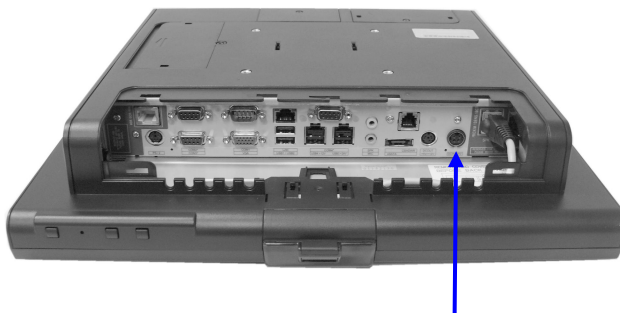
Turning on BEETLE /Fusion

To put the system in operation, observe the following:

- Remove the cable cover.

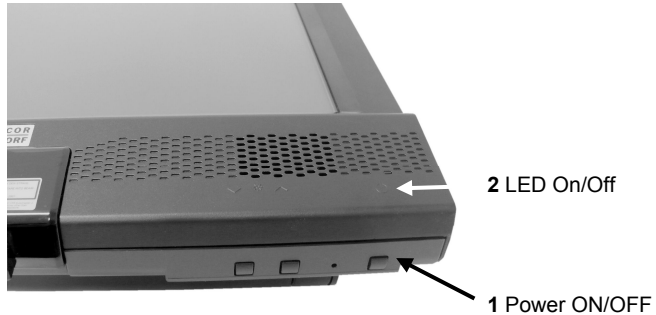


- Inset the IEC connector of the cable into power supply.
- Plug the 24V plug into the jack on the BEETLE / FUSION (see arrow below).
- Put the safety plug in the socket of the building installation.



Plug in the 24V power supply plug here

- Turn on the unit by pressing the power button (1) at the bottom right of the screen unit (1). The LED on / off lights should be visible (2)



- Once the application is started, the system is ready.

Should the system not running up, turn off the unit again. To do this, press the power button about 5 seconds.

Check all connections on a fixed and correct position and turn the power back on.

If the problem persists, turn the unit off again and pull the plug. Inform the Technical Support, Wincor Nixdorf.

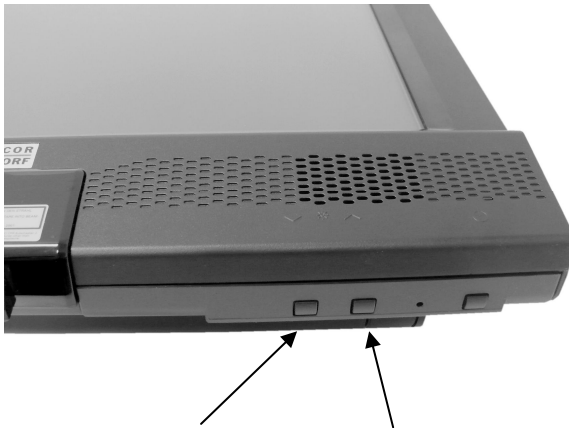
Turning off BEETLE /Fusion

To turn off the system, shut down the operating system. Press the power button for about 5 seconds and observe the LED light to be off.

If possible, disconnect the power cord to completely disconnect the unit from the mains.

Brightness adjustment

- The key for this setting are at the lower right side of the display unit (see figure below).



- Press the 'Arrow Up' or 'Arrow Down' buttons to adjust the brightness until the appropriate adjustment is acceptable by the user.

Touch screen

How to Operate

Touching the touch screen has the same effect as clicking the left mouse button. Depending on the selected touch screen option, the user experience with touch is different.

For capacitive touch it responds to very light touch, and only touch using bare finger is possible.

As for resistive touch it requires slightly harder touch to get a response, and touch with glove is possible.

IR touch responds to very light touch, or even effective when there is no physical touch on the touch screen as it detect the touch whenever fingers or any objects that has responded to its IR ray. Due to its sensitivity, always make sure that the IR touch screen is dust free to obtain optimum touch performance.

Cleaning Instructions

Always **turn off the system** before cleaning!

The glass surface of your Touch Screen should be cleaned with a mild, abrasive free, commercially available glass cleaning product. All pH neutral materials (pH 6 to 8) are good for cleaning. Cleaners with pH values 9 to 10 are not recommended. Cleaning with water and isopropyl alcohol is possible as well. Do not use solvents containing acetic acid. Use a soft, fine-meshed cloth to clean the surface. Dampen the cloth slightly and then clean the screen.

A wrong maintenance may cause damages to the screen, which are not covered by guarantee or warranty.

Camera

Operation

The digital camera with integrated digital microphone is located near the top edge of the BEETLE /Fusion. Picture or video can be taken under the control of the software application.



The range of focus for the digital camera is from 60cm onward.

NOTE

Camera option is NOT available for BEETLE /Fusion 12.

Barcode reader

Hold the barcode in a landscape format underneath the barcode reader. The laser beam will start automatically. The laser beam must cover the whole width of the barcode.

A successful reading of the barcode will be quit with a beep.

Notes on the laser



Proximity Sensor

With the proximity sensor persons as well as objects of comparable size, moving within the detection area of the sensor, are detected and are signalled to the application program via evaluation electronics.

The application can react to this message e. g. by sending out acoustic signals or by changing the content on the monitor.

Appendix

Technical Data for BEETLE /Fusion 12

	<u>Wall mount</u>	<u>Desktop</u>
Dimensions		
Height	296 mm	420 mm
Depth	96 mm	265 mm
Width	320 mm	320 mm
Weight of device	6.3 kg	9.0 kg
Climatic category		
Operating	IEC 721-3-3 class 3K3+ 5° to +40°C	
Transport	IEC 721-3-2 class 2K2 -25° to +60°C	
Storage	IEC 721-3-1 class 1K2 +5° to +40°C	
	<u>Cat A & B</u>	<u>Cat C</u>
Rated Input voltage	24V DC (nominal)	24V DC (nominal)
Rated Input current	7.5A	4.16A
Certifications	CE, FCC, CB, UL, TUV-GS, CCC, BSMI	CE, CB, CCC, BSMI
Remarks		Resistive touch only

Technical data for BEETLE /Fusion 15

	<u>Wall mount</u>	<u>Desktop</u>
Dimensions		
Height	336 mm	430 mm
Depth	96 mm	265 mm
Width	370 mm	370 mm
Weight of device	6.8 kg	9.5 kg
Climatic category		
Operating	IEC 721-3-3 class 3K3+ 5° to +40°C	
Transport	IEC 721-3-2 class 2K2 -25° to +60°C	
Storage	IEC 721-3-1 class 1K2 +5° to +40°C	
	<u>Cat A & B</u>	<u>Cat C</u>
Rated Input voltage	24V DC (nominal)	24V DC (nominal)
Rated Input current	5.0A / 7.5A	4.16A
Certifications	CE, FCC, CB, UL, TUV-GS, CCC, BSMI R&TTE (Cat A only) <small>note1</small>	CE, FCC, CB, UL, TUV-GS, CCC, BSMI

note1: Certification applicable to Intel 512AN-MMW module only

Technical data for BEETLE /Fusion 19

	<u>Wall mount</u>	<u>Desktop</u>
Dimensions		
Height	342 mm	434 mm
Depth	96 mm	265 mm
Width	476 mm	476 mm
Weight of device	8.0 kg	10.7 kg
Climatic category		
Operating	IEC 721-3-3 class 3K3+ 5° to +40°C	
Transport	IEC 721-3-2 class 2K2 -25° to +60°C	
Storage	IEC 721-3-1 class 1K2 +5° to +40°C	
Cat B		
Rated Input voltage	24V DC (nominal)	
Rated Input current	7.5A	
Certifications	CE, FCC, CB, UL, TUV-GS, CCC, BSMI R&TTE (Cat B only) <small>note1</small>	

note1: Certification applicable to Intel 512AN-MMW module only

AC Power Adapter

The AC power adapter used must be Wincor Nixdorf's qualified and has to meet the following minimum requirements and industry standards:

Rated Input voltage	100 - 240 Vac
Input Voltage range	90 to 264Vac
Input Frequency range	47 to 63 Hz
Rated Output voltage	24V \pm 5%,
Rated Output current	4.16A (mini if BEETLE /Fusion rating is 4.16A 5.0A (min) if BEETLE /Fusion rating is 5.0A 7.5A (min) if BEETLE /Fusion rating is 7.5A
Approvals & Certification	UL Listed, TUV-GS, BSMI, CCC, CE

Power Cord Selection

If the power cord is not provided with the system, the user has to ensure that a certified power cord is used as required by the Safety Regulation of the country.

Countries	Safety Approvals
USA	UL
Canada	CSA
Germany	VDE
Japan	PSE
Taiwan	BSMI
China	CCC

For other countries not mentioned in the above list, please check with the local authority.

System specification

	<u>Entry-Level</u>		<u>High-End</u>
Processors	Celeron M 1.0GHz <i>or</i> Celeron M 1.5GHz	Atom D425 1.8GHz <i>or</i> Atom D525 1.8GHz	Celeron T3100 1.9GHz <i>or</i> Core 2 Duo P8400 2.26GHz
Chipset	Intel 910GMLE, ICH6M	Intel Atom, ICH8M	Intel GM45, ICH9M-E
Memory	Two memory slot, each support up to 1GB 400MHz DDR2 un-buffered SODIMM	One memory slot, support up to 2GB 1067MHz DDR3 un- buffered SODIMM.	One memory slot, support up to 4GB 1067MHz DDR3 un-buffered SODIMM.
Video	Integrated Graphic controller, dual-independent display		
Audio	AC97 codec sound On-board 2 x 2W power amplifier Integrated speakers		

Network	On-board 10/100/1000 LAN (Ethernet) Optional Wireless LAN 802.11 a/b/g/Draft-n with embedded antenna via mini-PCIe
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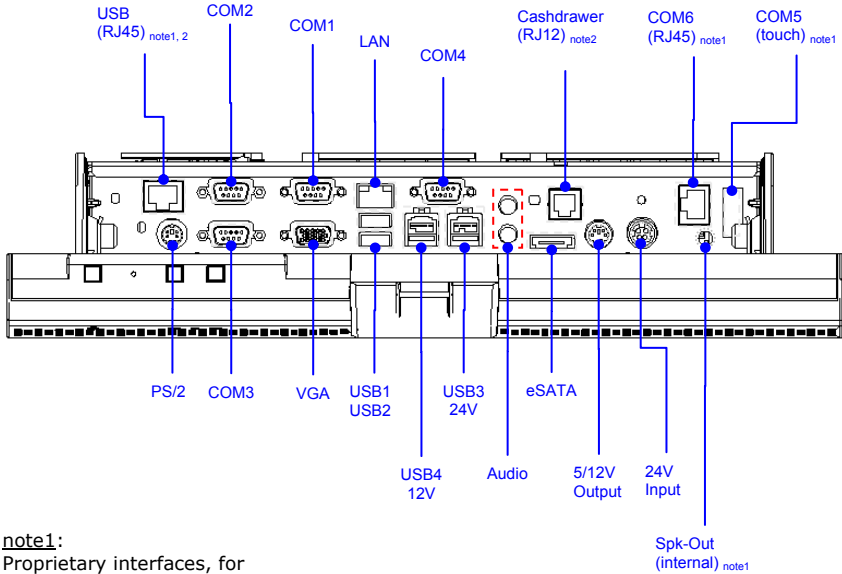
External Interfaces (User accessible)	1 x Keyboard/Mouse, PS/2 1 x CRT 2 x Standard USB (Type A) 1 x 24V Powered USB 1 x 12V Powered USB 1 x Standard RS232C 3 x Powered RS232C 1 x eSATA (<u>not</u> hot-pluggable) 1 x 10/100/1000 LAN 1 x Line-out/Speaker 1 x Line-in/Mic-in 1 x Cashdrawer (optional) 1 x 5/12VDC Output
--	--

Expansion Ports	1 x mini PCI Express 1 x Compact Flash (Type I & II)
------------------------	---

Power connectors	1 x 24V DC, 4-pin (input) 1 x 5/12V DC, 5-pin mini-DIN (output)
-------------------------	--

NVRAM	4K bits (optional)		
Mass storage	2.5" Hard disk, 160GB minimum 8GB, 16GB, 32GB & 64GB SSD (MLC type)		
	Fusion 12	Fusion 15	Fusion 19
Primary Display	12.1" SVGA	15" XGA	18.5" WXGA
Resolution	800 x 600	1024 x 768	1366 x 768
Brightness	370 cd/m ²	250 cd/m ²	250 cd/m ²
Contrast ratio	450	300	1000
Touch screen option	Capacitive <u>or</u> Resistive		Infra-Red
Camera option – integrated camera with microphone	X	✓	✓

I/O connection ports



note1:
Proprietary interfaces, for Wincor specific devices only.

note2:
Externally accessible port is optional.

Total Available Power of External I/O Ports

The total power available for the external IO ports depends on the choice of AC power adapter used. Below is the Wincor Nixdorf's approved AC power adapter for BEETLE /Fusion.

Wincor P/N	Model Name	Output Power Rating of AC Power Adapter	Total power available for External I/O Ports
01750167073	FSP120-ACA	120W	40W
01750171156	FSP180-AAAN1	180W	100W
01750205088	ADP-1002-24V	100W	65W

IMPORTANT NOTE:

Table below shows a list of free external I/O ports and the corresponding power ratings. Before connecting additional peripherals to these ports, service engineer or trained technician must check and ensure that the power consumptions of the peripherals do not exceed the maximum output powers of the ports and that the total power consumption does not exceed the total available power of the selected of AC power adapter, especially when using the output connector USB3(24V) or USB4(12V).

I/O Port Name	Rated Voltage (V)	Max Current (A)	Max Power (W)	Max Total Power consumption (W)
COM2&3 (combined)	12	1	12	<i>Depends on the power adapter used. See above table for the applicable total available power</i>
	5	1	5	
COM4	12	1	12	
	5	0.5	2.5	
USB1	5	0.5	2.5	
USB2	5	0.5	2.5	
USB3 (+24Vdc powered)	5	0.5	2.5	
	24	3	72	
USB4 (+12Vdc powered)	5	0.5	2.5	
	12	3	36	
USB5 (mini-PCle)	5	0.5	2.5	
5/12V Output	12	1.5	18	
	5	1.5	7.5	

Other Notes:

1. *To avoid damage to the system, installation of additional peripherals should be done by service engineer or trained technician.*
2. *For Cat A & B processor options, only use 180W power adapter or of higher rating if a printer is to be connected to the +24Vdc powered USB port.*
3. *See the Approved Printer List in the following section if printer is used with the +24Vdc Powered USB port*
4. *For model BEETLE /Fusion 19, the USB3 24V powered USB output and the USB4 12V powered USB output are not Limited Power Source according to IEC 60950. The intended peripherals are UL Listed product. Please consult Wincor Nixdorf if in doubt.*

Approved Printer List

The following are the approved printers that are allowed to be connected to the BEETLE /Fusion's **+24Vdc Powered USB port**:

	Model	Manufacturer
1	TH230	Wincor Nixdorf
2	TH320	Wincor Nixdorf
3	TH420	Wincor Nixdorf
4	ND210	Wincor Nixdorf
5	ND77	Wincor Nixdorf
6	TH200 series	Wincor Nixdorf



Connecting printer that are not in the above approved list to the **+24Vdc Powered USB port** may cause safety hazard and endanger the user and the nearby people. Please consult Wincor Nixdorf if in doubt.

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2, Kallang Sector
Singapore 349277

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