

Article-No.: 128213

Calmo Panel-PC 21,5" for in-wall installation with extension

i5-9500, 8GB RAM, 120GB SSD, WLAN, RFID + 2D Barcodescanner

Technical data

Service

Service	2 years Bring-In Extension on request
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Housing industry (housing parts)Housing industry (housing parts)

Housing part - Industry

Hard disk

memory capacity	120 GB
type	SSD
frame size	2,5"
height	7 mm
interface	SATA3 with 6 Gb/s

Plug-in card communication

WiFi usage

Note for wifi usage	The range from 5150 MHz to 5350 MHz of the 5 GHz WLAN band is for indoor use only.
manufacturer	Intel®
interface	M.2
WLAN chipset	Intel® Wireless-AC 9260
WLAN transmission standard	IEEE 802.11 a/b/g/n/ac
WLAN transmission speed	1733 MBit
bluetooth class	5.0

Main storage

size	8 GB
technology	DDR4 SO-DIMM
form factor	SO-DIMM
speed	2666 MHz
tension	1,2 V
clock value	17

Processor

manufacturer	Intel®
marking	Core™ i5
type	9500
cpu socket	LGA1151
cores	6
threads	6
clock rate	3,00 GHz
max. clock frequency	4,40 GHz



Highlights

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with Intel® Turbo Boost technology

L3 Cache	9 MB
bit set	64 bit
max. TDP	65 Watt
processor graphic	Intel® UHD Graphics 630
Intel® Virtualization Technology (VT-x)	yes
hint	Windows 7/8 drivers are no longer provided for Intel® Coffee Lake processors

Mainboard Accessories

Slot bracket extension

slot bracket extension	1x serial (slot bracket with 9pin serial plug)
interface	internal 2mm COM

Mainboard Desktop

manufacturer	Kontron®
marking	D3674-B
form factor	Thin Mini-ITX
socket	LGA1151
chipset	Intel® H310
hint	supports 8th and 9th generaion CPUs
working memory max.	32 GB
memory slots	2
memory technology	DDR4L-SDRAM
graphic onboard	Intel® HD Graphics, DirectX12 support (with appropriate CPU)
max. resolution HDMI	4,096 x 2,160 pixels @30Hz / 2,560 x 1,600 pixels @60Hz (HDMI 1.4)
max. resolution DisplayPort	4,096 x 2,304 pixels @60Hz (DisplayPort 1.2)
graphic note	Intel® H310 chipset supports only the simultaneous operation of max. 2 monitors
network	
network chipset	Realtek RTL8111E
transmission rate	10/100/1000 Mbps
PXE support	yes
Wake on LAN (WOL) support	yes
audio	
audio chipset	Realtek ALC 255
sound mode	5.1-channel high definition
rear interfaces	
USB 3.2 Gen1	2



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(5Gbit/s)	
USB 2.0	2
PS/2	1
HDMI	1
DisplayPort	1
Note monitor interfaces	HDMI 1.4 DisplayPort 1.2
LAN (RJ-45)	1
audio	line-in, line-out
DC in	1
hint	Wide range input 19-24V DC-In
M.2 for SSD	1
hint	for M.2 SSD (2280 SATA/PCIe® x4, AHCI/NVMe®)
M.2 for WLAN	1
hint	for WLAN module
USB 3.2 Gen1 (5Gb/s) header	1
USB 2.0 header	2
hint	1x USB Header provides 2x USB Channel
serial	1
hint	RS-232 only internal, not accessible from outside
Trusted Platform Module (TPM) Header	yes
Trusted Platform Module (TPM)	Intel® TPM V2.0
SATA3 (6 Gb/s)	2
other	
24-hour continuous operation	yes
available until	Q1 2022
particularity	Recovery BIOS, System/BIOS Password, Boot Sequence Control, Serial/ Parallel/ USB-Port Access, Boot Sector Virus Warning, Write Protection for Flash BIOS, Erase Disk (BIOS Feature, license required!); Intel integrated TPM V2.0, optional Infineon TPM Module (TCG compliant, socket prepared)
Power supply	
manufacturer	EDACPOWER ELEC.
form factor	outboard
type	table power pack
power	120 Watt
input voltage range	100 - 240V AC V
current draw	2,0 A
efficiency level	VI
output voltage	19 V

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output voltage Ampere	6,31 A
polarization	DC
hollow plug Outer diameter	7,4 mm
hollow plug Depth	11,9 mm
hollow plug inner diameter	5,0 mm
plug for external power supply unit	Hollow plug 7,4mm x 5mm x 11,9mm
hollow plug Polarity	Plus inside
hollow plug angle	90°
current supply	IEC6 three-pin connector
power switches	no
width	60 mm
hight	35 mm
depth	140 mm
heart rate	50 - 60 Hz
CE	yes
CCC	yes
FCC	yes
cUL	yes
TÜV	TÜV SÜD
RoHS	yes
EAC	ja

System

WiFi usage

Note for wifi usage	The range from 5150 MHz to 5350 MHz of the 5 GHz WLAN band is for indoor use only.
maker	Calmo

Panel

display type	TFT
backlight	LCD
screen diagonal	21.5" (54.61 cm)
aspect ratio	16:9
light	250 cd/m²
Contrast (static)	5.000:1
reaction time	16
Viewing angle (h/v)	178°/178°
Number of colours	16.7 million.
Maximum resolution	1,920 x 1,080 pixels (FHD)

Touch

touch technology	Projected capacitive touch (P-cap)
pane	antireflective glass (non glare)

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usability	Multi-Touch (10 fingers)
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Usability with glove	Latex glove Work glove ESD-glove
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Processor

maker	Intel®
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label	Core™ i5
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bloke	9500
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plinth	LGA1151
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Number of cores	6
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Number of threads	6
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clock	3,00 GHz
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max. clock frequency with Intel® Turbo Boost technology	4,40 GHz
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L3 Cache	9 MB
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bit set	64
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max. TDP	35
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processor graphic	Intel® UHD Graphics 630
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Intel® vPro Technology	yes
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Operating system

installed operating system	no operating system included
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Main storage

quantum	1 x
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greatness	8 GB
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technology	DDR4 SO-DIMM
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form factor	SO-DIMM
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memory speed	2666 MHz
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Hard disk

installed hard disk	120 GB SSD 2.5" SATA3 with 6 GB/s
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Mainboard

mainboard	Powered by Kontron® - Made in Germany
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maker	Kontron®
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label	D3674-B
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form factor	Thin Mini-ITX
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plinth	LGA1151
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chipset	Intel® H310
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Memory max. size	32 GB
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Memory Slots	2
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main memory technology	DDR4-SDRAM
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form factor	SO-DIMM
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Graphic onBoard	Intel® HD Graphics (with corresponding CPU)
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Audio

Audio Chipset	Realtek ALC 255
sound mode	5.1-channel high definition

Rear interfaces

USB3.0	2
USB2.0	2
PS/2	1
HDMI	1
DisplayPort	1
LAN (RJ-45)	1
line-in	1
line out	1
RS-232	1
DC in	1
WLAN antenna connections	2

Internal interfaces

Internal interfaces	2x USB 3.2 Gen1, 2x USB 2.0, 1x SATA3 (6Gb/s), Audio Front Panel, Speaker, M.2 Key M
USB 3.0	2
USB 2.0	2
SATA3 (6Gb/s)	1

IO extension

slot bracket extension	1x serial (RS-232)
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Communicating

Network Chipset	Realtek RTL8111G
transmission rate	10/100/1000 Mbps
Wake on LAN (WOL) support	yes
PXE support	yes
Auto-Power-On function	yes
WLAN chipset	Intel® Wi-Fi 6 AX200
WLAN transmission speed	2.400 MBit
WLAN transmission standard	IEEE 802.11a/b/g/n/ac/ax
Bluetooth	5.2

Expansion slots

expansion slots	1x M.2 2280 M-key (PCIe® x4), 1x M.2 2230 E-key
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Expansion slots

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PCIe M.2 WLAN (2230)	1
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advice	occupied by WLAN module
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Power supply

Power supply (external)	120 Watt, external Input: 100-240V AC / 50-60Hz / 1,8A Output: 19V DC / 6,32A
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voltage input range	100 - 240V AC
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Voltage from	100
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Voltage up to	240
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polarization	AC
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Output voltage Volt	19 V
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Output voltage Ampere	6,32 A
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Devices Power supply

wide range input	19 - 24V DC
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advice	Wide range input usable via DC-In or Phoenix connector
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Surrounding area

operating temperature range	0°C to 45°C
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IP protection class (front side)	IP 65
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IP Protection class (rear)	IP 40
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Shell

amplitude	562,72 mm
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elevation	410,86 mm
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deep	68.50 mm
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ventilation	fanless
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installation option	Panel mounting, mounting via VESA 100 x100 possible, mounting material included in delivery
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advice	Extension with multi RFID reader (Legic, Mifare, NFC, Hitag) and 2D barcode scanner (up to 90 cm)
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Certifications

CE	yes
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24/7 continuous operation	yes
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grade	EXTRA Computer has a quality management system which is certified according to DIN ISO 9001
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Image stability

Available until	2024
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Service

guarantee	2 years Bring-In
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Extension on request