

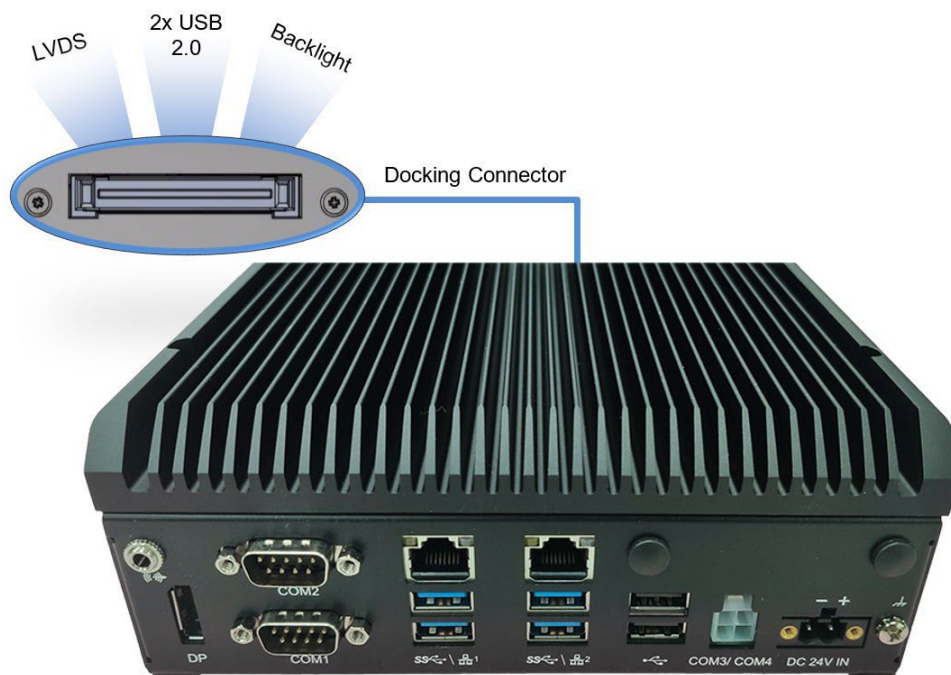
Datasheet

FORTEC Integrated

BoxPC-PRO NPA-1904

Fanless & Compact Embedded BOX PC with i5-7300U or i3-7100U and unique Docking Connector for easy control of external LVDS TFT Displays and e.g. USB Touch Controller/ Webcam

PC-60-994 (i5-7300U) or PC-61-040 (i3-7100U)



Version 1.3
09.09.2021



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1 Revision History

Date	Rev.No.	Description	Page
24.11.2020	1.0	First Revision	All
05.02.2021	1.1	Changes Accessories and RS485, Changed Pictures	2, 5, 7
20.08.2021	1.2	Added DIN Rail Mounting Kit; new document template	5, 8
09.09.2021	1.3	SSD changed	5

2 Description

The Embedded Box PC was developed especially for industrial and cost-effective applications and is designed for 24/7 usage. Inside the Box PC you will find a 7th Generation Intel® Core™ i5-7300U or i3-7300U Processor. Despite its Core™ i performance, the PC can be operated fanless. It has a large number of I/O interfaces such as 2x RS485 and 2x RS232, DisplayPort and 2x Gigabit Ethernet. The specially developed docking connector is particularly noteworthy, allowing for an LVDS display with e.g., touch and/or webcam to be operated externally.

3 Features

- 7th Gen. Intel® Core™ i5-7300U or i3-7100U Embedded processor
- Unique docking connector (LVDS, BL & USB 2.0)
- DisplayPort
- 2x Intel® Gigabit Ethernet
- Compact and fanless design
- 2x RS485
- 2x RS232
- 24V DC-in

4 Specification

Processor	CPU	7th Gen. Intel® Core™ i5-7300U or i3-7100U
	Frequency	2.6 GHz (7300U), up to 3.5 GHz 2.4 GHz (7100U)
	Cores / Threads	2 / 4
	Embedded Version	Yes
Memory	Capacity	8GB (2x 4GB) built-in
	Max. capacity	32GB
	Technology	DDR4-2133
	Socket	2x SO-DIMM
Graphics	Processor Graphics	Intel® HD 620
	LVDS	24-bit Dual Channel LVDS via Docking Connector
	DisplayPort++	Max. 4096x2304@ 60Hz
Ethernet	LAN 1	Intel® 10/100/1000 I211AT
	LAN 2	Intel® 10/100/1000 WGI219LM
Front I/O	USB	4x USB 3.0 (Type A) 2x USB 2.0 (Type A, via HUB)
	Serial Port	2x RS485 (2x2 P4.2mm MALE 90D) 2x RS232 (DB-9 male connector)
	DisplayPort	1x
	Audio	1x Audio out
	Power Supply	24V DC-in
Rear I/O	USB	2x USB 2.0 (Type A)
	Docking Connector	2x USB 2.0 1x 24-bit Dual Channel LVDS / Backlight
Storage/Extension	M.2	industrial 60GB, SATA, M.2 2280, 3D TLC built-in
Other	TPM	2.0
	Power on/off	Switch for on/off
	LED	for Power and SSD
	Watchdog Timer	Yes
General	Operating Temperature	0...+45°C
	Storage Temperature	-20...+70°C
	Operating humidity	10...90% (non-condensing)
	Storage humidity	5...95% (non-condensing)
	Dimensions	175 x 224,5 x 65 mm
	Housing	tbd.
	Power consumption	tbd.
	Weight	tbd.
Certifications	CE, FCC, EU-RoHS	

Ordering Information

Order Nr.	Description
PC-60-994	BoxPC Pro NPA-1904-7300 with i5-7300U, 8GB Memory, 60GB SSD
PC-61-040	BoxPC Pro NPA-1904-7100 with i3-7100U, 8GB Memory, 60GB SSD
ZU-02-502	IF433 Docking Board with LVDS/BL Connector and 2x USB 2.0 I/O Panel Voltage: +5V_LCD, LVDS_OPT_0: GND, LVDS_OPT_1: N.A., LVDS_OPT_2: N.A. LVDS_OPT_3: N.A, SBR_CTRL: Limited dimming range 10% to 100%
KI-90-033	DIN Rail Mounting Kit

5 Connectors / Interfaces

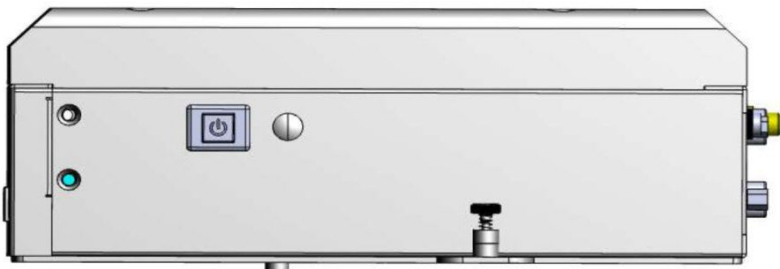
Front I/O



Rear I/O



Side view

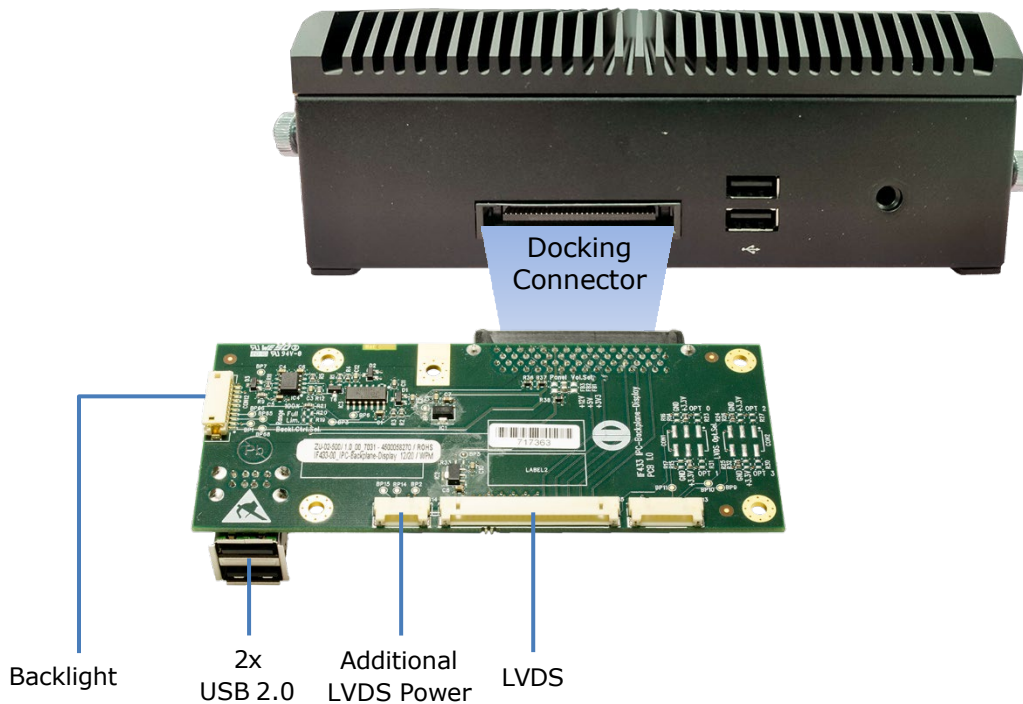


6 Operating System – Windows 10 IoT Enterprise

The Box PC comes optional with pre-installed “ready-to-use” Windows 10 IoT Enterprise 2019 LTSC Standard Image for worldwide use.

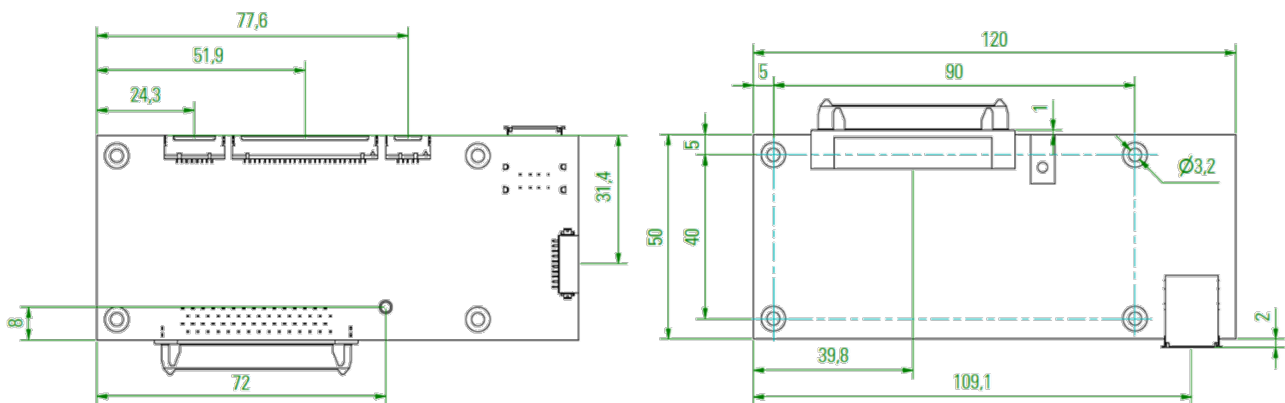
7 Docking Board

With the docking connector board, the internally used LVDS signal and further USB 2.0 can be easily led outside. With this unique standard feature, it is very easy to extend or add the Box PC to an LVDS TFT display and e.g. webcam / PCAP touch etc.

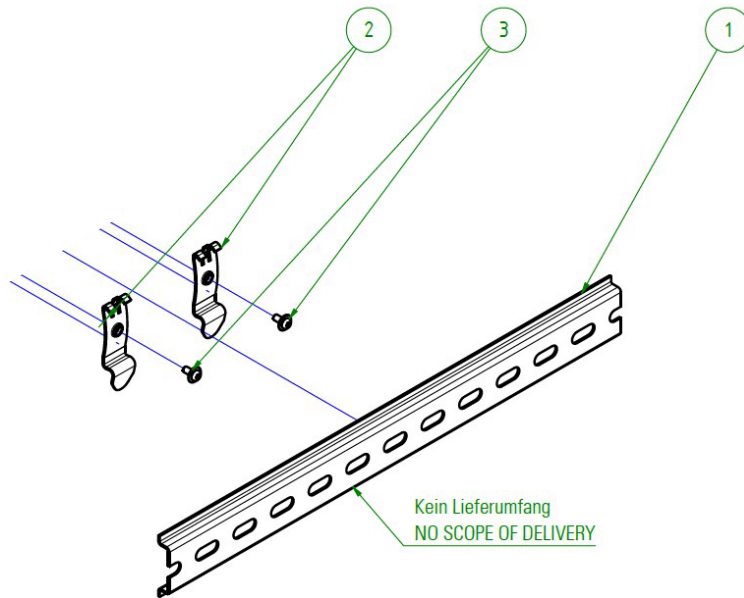


An easy exchange of the Prisma card by the docking board is possible one to one. The cables with the connectors are 100% compatible.

7.1 Docking Board Drawing



8 DIN Rail Mounting Kit (KI-90-033)



Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA.
For more information please contact:

Headquarters

Germany



FORTEC
GROUP

FORTEC Elektronik AG
Augsburger Str. 2b
82110 Germering

Phone: +49 89 894450-0
E-Mail: info@fortecag.de
Internet: www.fortecag.de

Fortec Group Members

Austria



FORTEC
INTEGRATED

FORTEC Integrated GmbH Office Vienna
Nuschinggasse 12
1230 Wien

Phone: +43 1 8673492-0
E-Mail: info@fortec-integrated.de
Internet: www.fortec-integrated.de

Germany



FORTEC
INTEGRATED

FORTEC Integrated GmbH
Augsburger Str. 2b
82110 Germering

Phone: +49 89 894363-0
E-Mail: info@fortec-integrated.de
Internet: www.fortec-integrated.de

Switzerland



FORTEC
SWITZERLAND

FORTEC Switzerland AG
Bahnhofstraße 3
5436 Würenlos

Phone: +41 44 7446111
E-Mail: info@fortec.ch
Internet: www.fortec.ch

United Kingdom



FORTEC
UNITED KINGDOM

FORTEC Technology UK Ltd.
Osprey House, 1 Osprey Court
Hinchingsbrooke Business Park
Huntingdon, Cambridgeshire, PE29 6FN

Phone: +44 1480 411600
E-Mail: info@fortec.uk
Internet: www.fortec.uk

USA



APOLLO DISPLAY
TECHNOLOGIES
A FORTEC GROUP MEMBER

Apollo Display Technologies, Corp.
87 Raynor Avenue, Unit 1
Ronkonkoma, NY 11779

Phone: +1 631 5804360
E-Mail: info@apolloDisplays.com
Internet: www.apolloDisplays.com