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IMA

Septiembre - Diciembre 2020

Welcome

**Panorama y guia de
selección de computadoras
compactas BPC Box PC's**



Webinars

Agenda

- Panorama general
 - Lineas disponibles y accesorios.
 - Configuración en Internet
-



HMI & Industrial PCs - Overview

HMI



Visu+ Touch Panel



HTML5 Web Panel



Specialty &
Industry Ready



Industrial PC



Box PCs



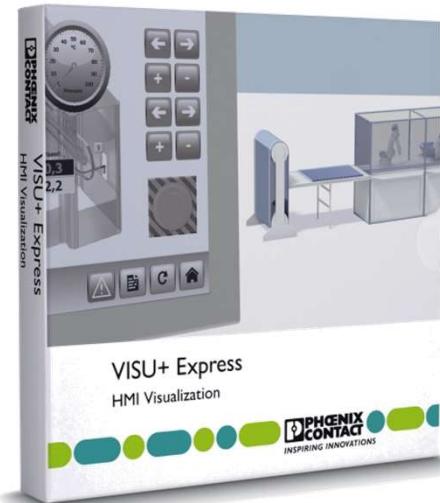
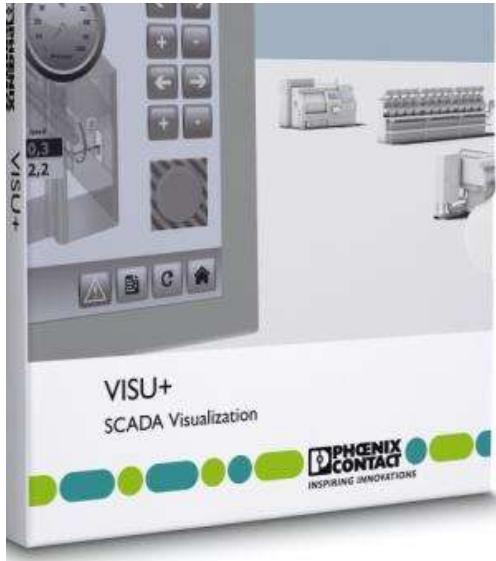
Panel PCs



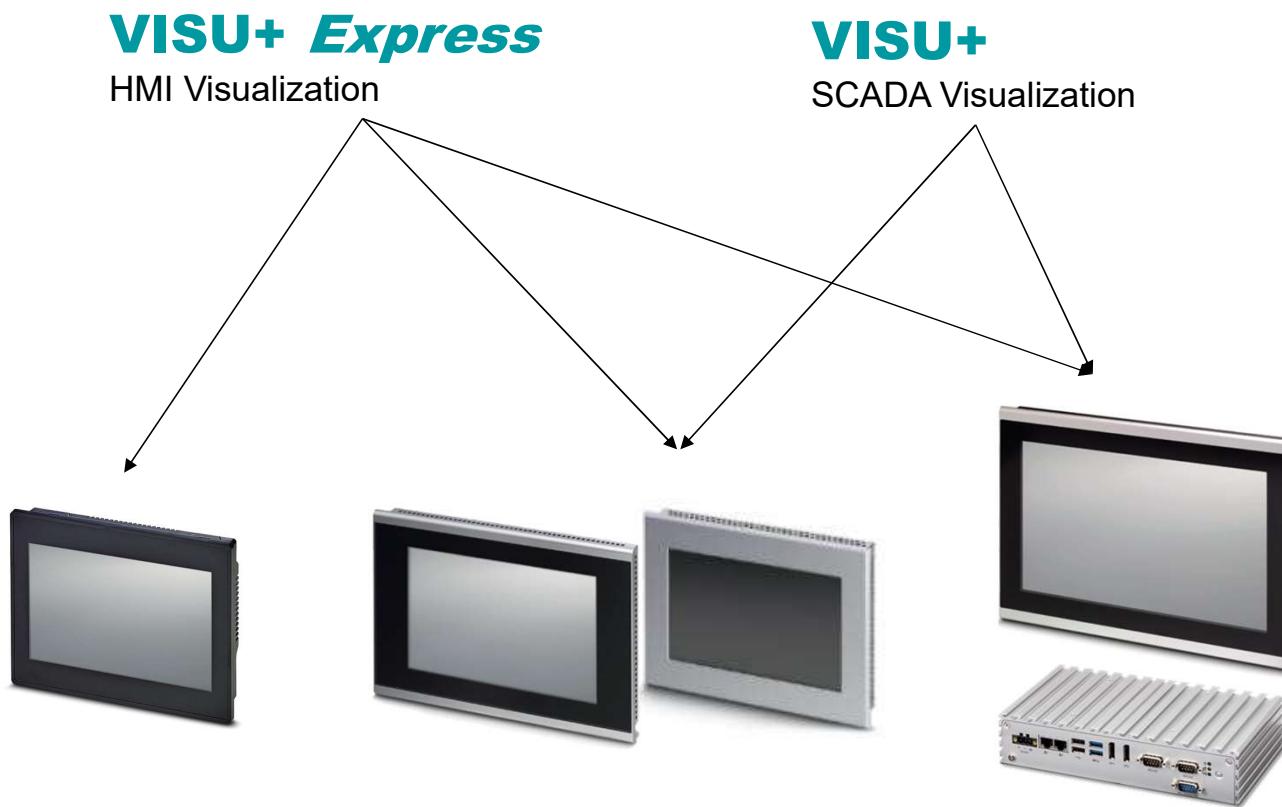
Stand-alone Panel PCs



Operation & Monitoring with HMI

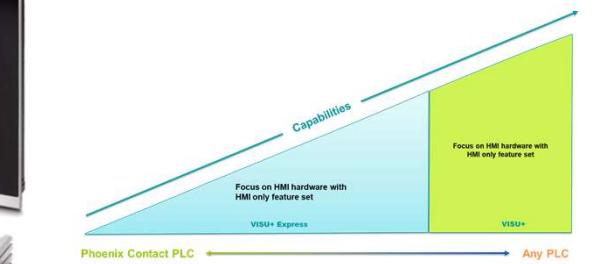


HMI/IPC | Visualization Software

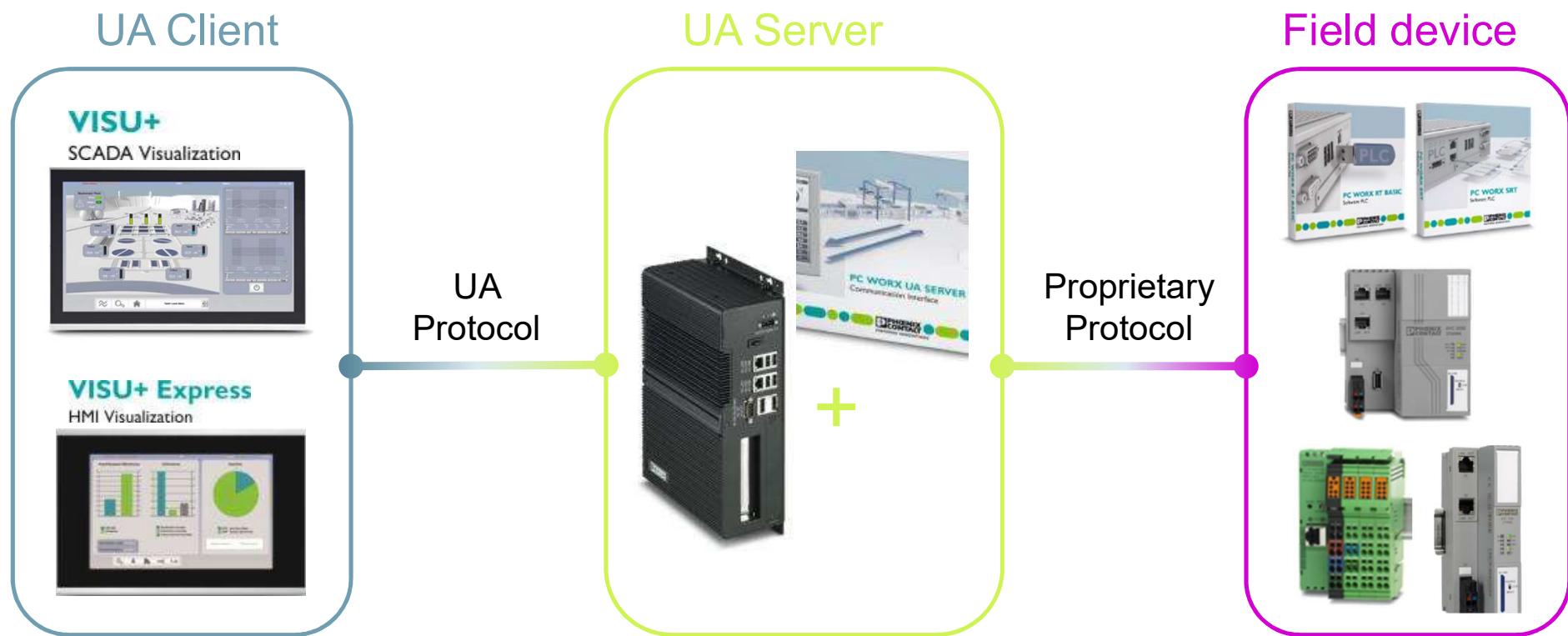


BENEFITS:

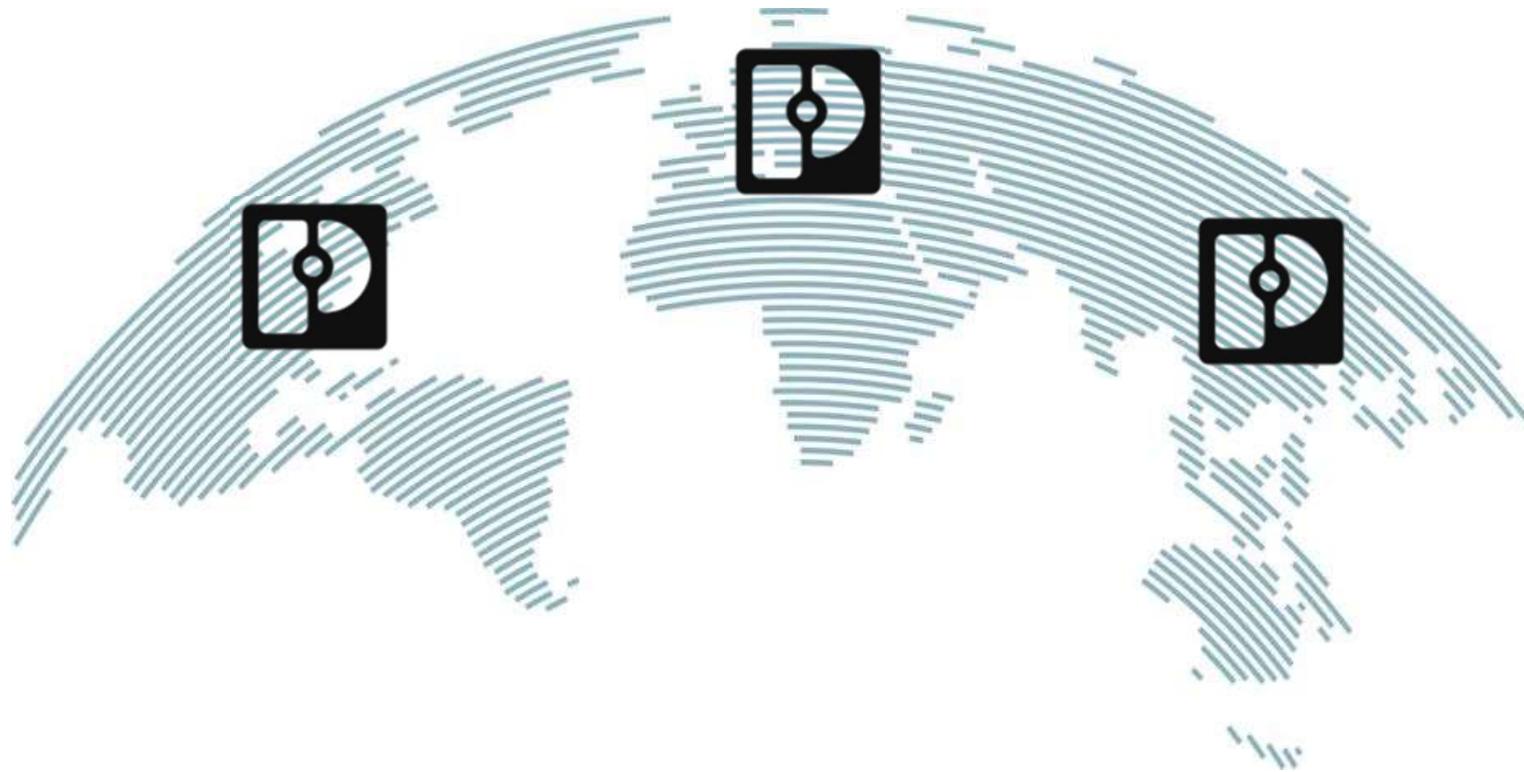
- Same engineering tool, same appearance and major functionality
- Scalability & reuse of projects and applications
- Hardware platform independence



OPC UA – Communication example



IPC Production network



Industrial PC Products



Box PC, Panel PC and Monitor



Box PC

- Intelligent component in Automation without a display to run any application like control system, MES, data acquisition tasks, etc.



Flat Panel Monitor

- Display unit to connect to
 - Box PC
 - Panel PC as additional (secondary) display



Panel PC

- Intelligent component in Automation with a display to run any application like control system, MES, data acquisition tasks, etc.
- Allows connection to additional displays (FPM)

BOX IPCs



Box PC Lineup

Feature / Cost

	VL2 BPC 1000 3rd gen. Atom	VL2 EX BPC 2000 3rd gen. Celeron	VL2 EX BPC 3000 4th gen. i3	VL2 EX BPC 7000 4th gen. i5	VL2 EX BPC 9000 7th gen. i7	
Small Form Factor						
	VL2 BPC 2000 3rd gen. Celeron	VL2 BPC 3000 4th gen. i3	VL2 BPC 7000 4th gen. i5	VL2 BPC 9000 7th gen. i7		
	VL 2000 BPC 3rd gen. Celeron	VL 3000 BPC 4th gen. i3				
1000 Class	BL2 BPC 1500 7th gen. Celeron	BL2 BPC 1100 7th gen. Celeron	BL2 BPC 2100 7th gen. Pentium	BL2 BPC 3100 6th gen. i3	BL2 BPC 7100 6th gen. i5	BL2 BPC 9100 6th gen. i7
2000 Class			BL2 BPC 2000 7th gen. Pentium		BL2 BPC 7000 7th gen. i5	
3000 Class						
7000 Class						
9000 Class						
Performance						

VL2 EX : Fully configurable

VL2 : Fully configurable

VL : Fully configurable

BL : Basic Configurability

Performance

PHOENIX CONTACT
INSPIRING INNOVATIONS

Small Frame Box PCs

- ✓ Fit into small junction boxes
- ✓ Passive cooled
- ✓ Robust metal construction
- ✓ No moving parts
- ✓ Connectivity to serial interfaces



VL2 BPC 1000

- Small form factor, Box PC

- ✓ Passive cooled
- ✓ Expansion option (CAN, COM)
- ✓ Easy serviceable
- ✓ Robust
- ✓ Bookshelf and Wall mount
- ✓ M.2 and 2.5" SATA mass storage

- 3rd gen. Intel E3845 CPU, 1.91 GHz (4 core)

- ✓ Passive cooled
- ✓ Easy serviceable
- ✓ Windows 7 & Windows 10 IoT



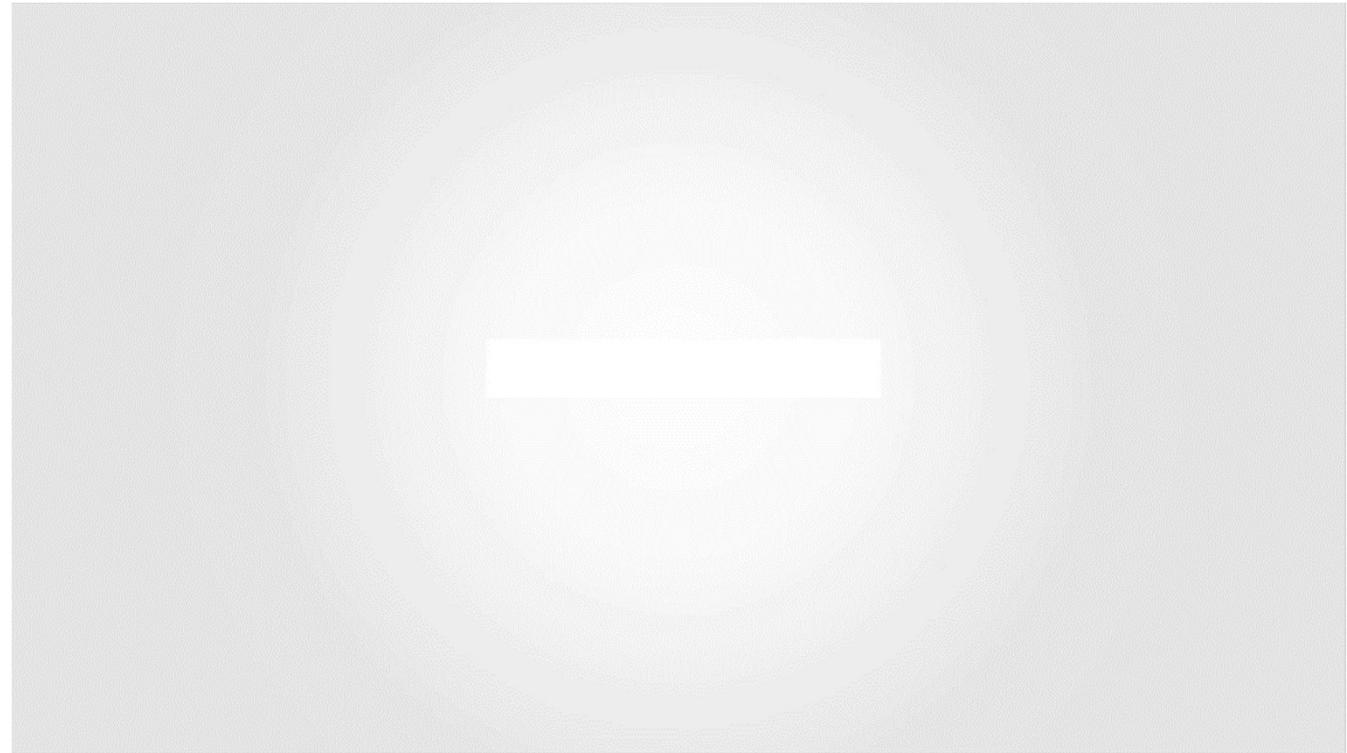
BL2 BPC x100

- Small form factor, Box PC family
 - ✓ Passive cooled
 - ✓ Compact
 - ✓ Windows 7 & Windows 10 IoT
 - ✓ Robust
 - ✓ DIN rail and wall mount
 - ✓ M.2 and 2.5" SATA mass storage
- 6th gen. Intel (Apollo Lake) CPU technology
 - ✓ BL2 BPC 1100 – Intel Celeron N3350 1.1/2.4 GHz (2 core)
 - ✓ BL2 BPC 2100 – Intel Pentium N4200 1.1/2.5 GHz (4 core)
 - ✓ BL2 BPC 3100 – Intel Core i3-6100U 2.3 GHz (2 core)
 - ✓ BL2 BPC 7100 – Intel Core i5-6300U 2.4 GHz (2 core)
 - ✓ BL2 BPC 9100 – Intel Core i7-6600U 2.6 GHz (2 core)



BPC Box PC's

BL2 PPC X000



BL2 BPC 1000 2000 7000



BL2 BPC x000

- Small form factor, Box PC family
 - ✓ Passive cooled
 - ✓ Expansion option (WIFI)
 - ✓ Windows 10 IoT
 - ✓ Robust
 - ✓ DIN rail and wall mount
 - ✓ M.2 SATA mass storage
- 7th gen. Intel (Apollo Lake) CPU technology
 - ✓ BL2 BPC 1000 – Intel Celeron N3350 1.1/2.4 GHz (2 core)
 - ✓ BL2 BPC 2000 – Intel Pentium N4200 1.1/2.5 GHz (4 core)
 - ✓ BL2 BPC 7000 – Intel Core i5-7442EQ 2.1/2.9 GHz (4 core)



BPC Box PC's

BL2 BPC X000



BL2 BPC 1000 2000 7000



BL2 BPC 1500 – Compact Box IPC

Overview

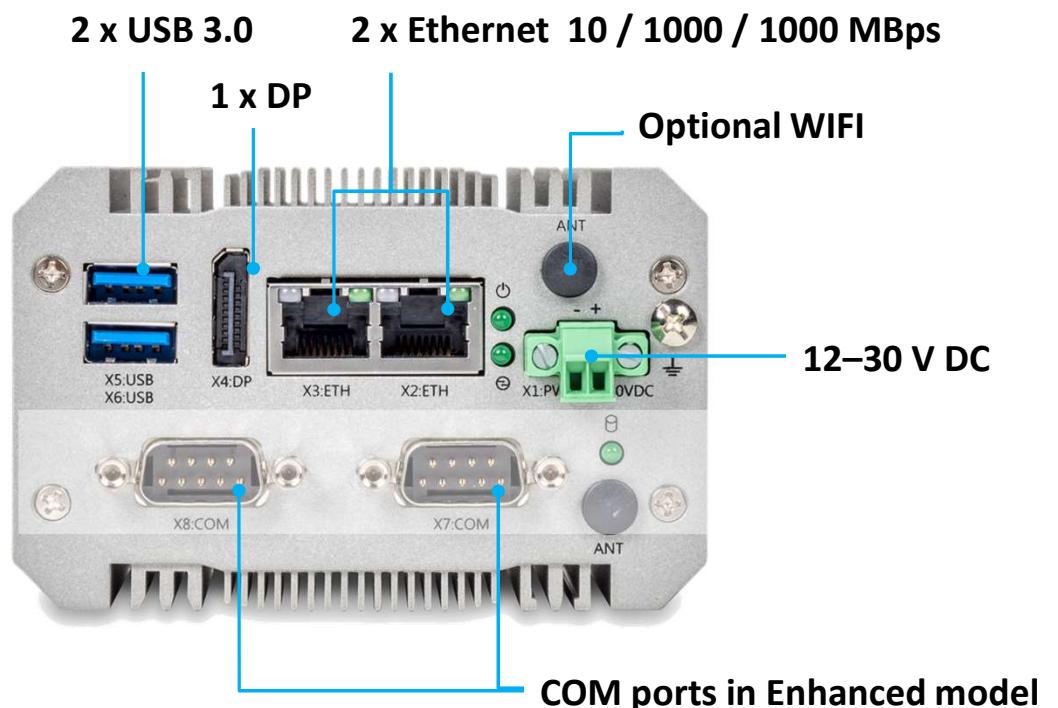
- Compact design to fit into small cabinet boxes
- Efficient performance with Intel Celeron N3350 CPU
- High reliability with passive cooling and solid-state mass storage media
- Available as Secure Hardware, equipped with TPM 2.0 module
- Flexible mounting options to compliment your application



BL2 BPC 1500 – Compact Box IPC

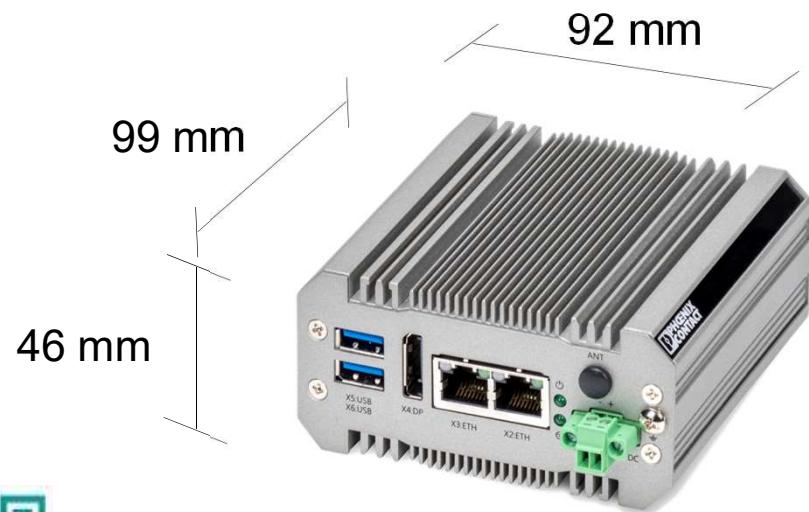
General technical data

- Intel Celeron N3350 CPU
- 32 GB on-board eMMC storage
- m.2 SSD mass storage options
- Windows 10 IoT and Linux support
- Serial port options
- WLAN 802.11 options
- Din-rail and wall mounting options



BL2 BPC 1500 – Compact Box IPC

Standard model – BL2 BPC 1501S



Volume 0.4 liter

Panorama y guía de selección BPC Box PC's

Mini Box de uso comercial

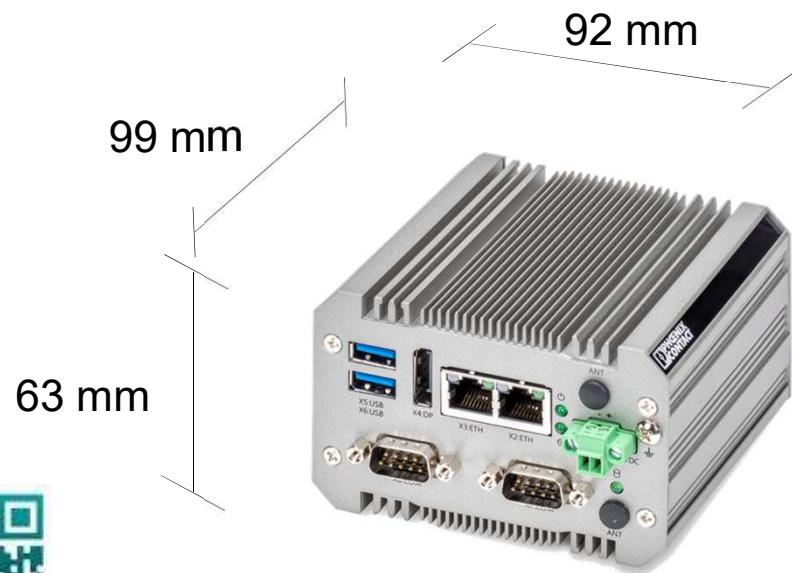


Link

https://www.youtube.com/watch?v=YxNvk4j_ICQ

BL2 BPC 1500 – Compact Box IPC

Extended model BL2 BPC 1501E



Volume 0.6 liter

BPC Box PC's

BL2 BPC 15XX

1141843	BL2 BPC 1501E-W
1141904	BL2 BPC 1501S-W
1158231	BL2 BPC 1501E-W-128-W10-T
1158235	BL2 BPC 1501E-128-W10
1158241	BL2 BPC 1501E-64-W10
1158243	BL2 BPC 1501E-128-W10-T
1158244	BL2 BPC 1501E-W-64-W10-T
1158245	BL2 BPC 1501E-W-128-W10
1158247	BL2 BPC 1501E-64-W10-T
1158252	BL2 BPC 1501E-W-64-W10



Standard Box PCs

- ✓ Passive cooled
- ✓ Robust metal construction
- ✓ Easy Service concept
- ✓ Wide environmental ratings



VL BPC x000

- Slim form factor Box PCs
 - ✓ Passive cooled
 - ✓ Expansion option (2 x PCI)
 - ✓ Windows 7 & Windows 10 IoT

- ✓ Robust
- ✓ Bookshelf and wall mount
- ✓ SSD and HDD SATA mass storage options



- Intel CPU technology
 - ✓ VL BPC 2000 – 3rd gen. (Bay Trail) N2930 1.6 GHz (4 core)
 - ✓ VL BPC 3000 – 4th gen. (Haswell) Core i3-4010U 1.7 GHz (2 core)



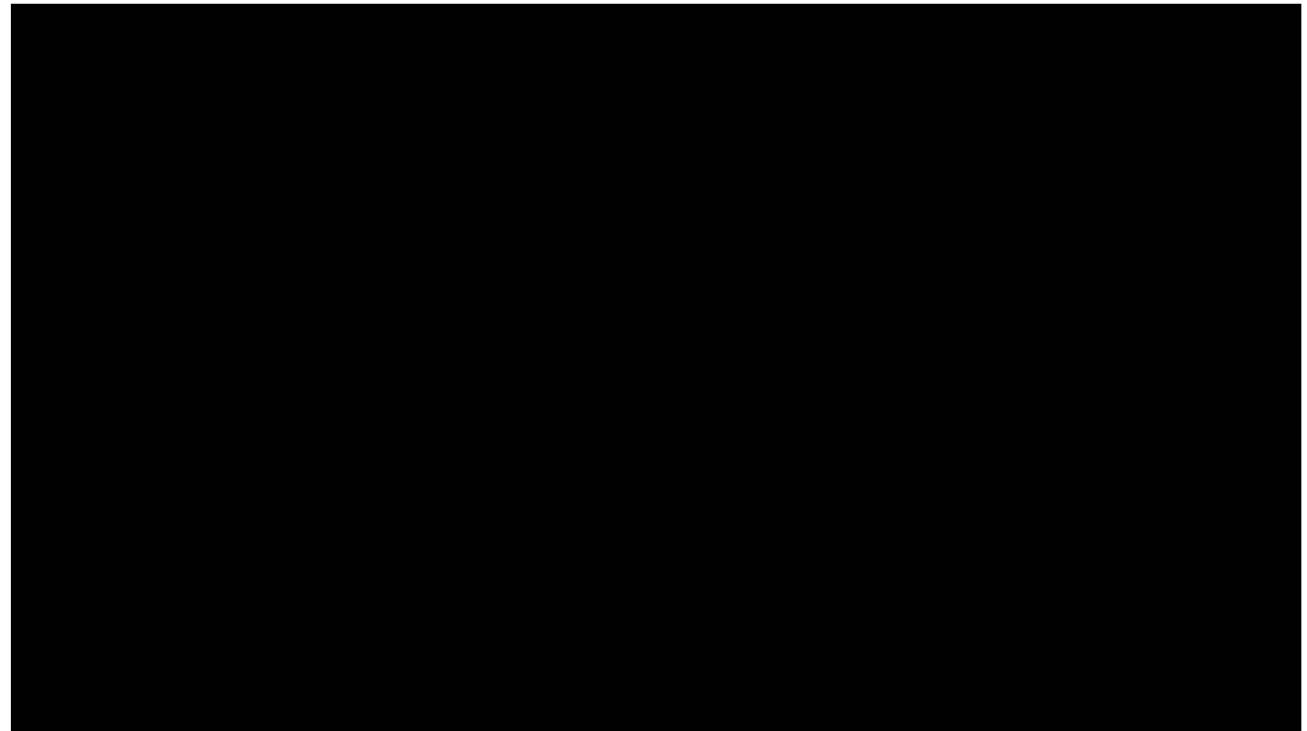
VL2 BPC x000

- Complete range of fully configurable Box PCs
 - ✓ Passive cooled
 - ✓ Windows 7 & Windows 10 IoT
 - ✓ Expansion option (PCI & option cards)
 - ✓ Thermal isolation barrier
 - ✓ Bookshelf and wall mount
 - ✓ SSD and HDD SATA mass storage options
- Intel CPU technology
 - ✓ VL2 BPC 1000 – 3rd gen. (Bay Trail) E3845 1.91 GHz (4 core)
 - ✓ VL2 BPC 2000 – 3rd gen. (Bay Trail) N2930 1.6 GHz (4 core)
 - ✓ VL2 BPC 3000 – 4th gen. (Haswell) Core i3-4010U 1.7 GHz (2 core)
 - ✓ VL2 BPC 7000 – 4th gen. (Haswell) Core i5-4300U 1.9 GHz (2 core)
 - ✓ VL2 BPC 9000 – 6th gen. (Sky Lake) Core i7-6822 EQ 2 GHz (4 core)



BPC Box PC's

VL2 BPC



VL2 BPC 2000 3000 7000



Quiz

What are the differences between HDD and SSD?



✓ HDD

- ✓ Rotating disk storage media
- ✓ Very large storage volumes possible
- ✓ „Unlimited“ write cycles
- ✓ Inexpensive media

✓ SSD

- ✓ Solid state media
- ✓ High shock / vibration tolerance
- ✓ Fast storage media
- ✓ Limited write cycles
- ✓ More expensive media



Hard Disk Drive vs. Solid State Drive

- If...

- ✓ You need lots of storage capacity, up to 2 TB
- ✓ Don't want to spend much money
- ✓ Don't care too much about how fast a computer boots up or opens programs
- ✓ You do a lot of writing to disk (i.e. Data Logging)



- If...

- ✓ You need to install it in a vibration or shock environment
- ✓ You are willing to pay for faster performance
- ✓ Don't mind limited storage capacity or can work around that



M.2 Storage

Another solid-state mass storage media

- ✓ Solid state solution with no moving parts
- ✓ Shock\vibration 2000G\20G (per MIL-STD810)
- ✓ SATA III 6 Gbit/s compliant
- ✓ High performance, high durability
- ✓ MTBF > 2M hours
- ✓ Cost per GB on par with 2.5" SSD



Software options

- Full range of Microsoft operating systems



Windows
Embedded
Standard 7



Windows 7™



Windows 10

- Phoenix Contact Software



Control



Visualization



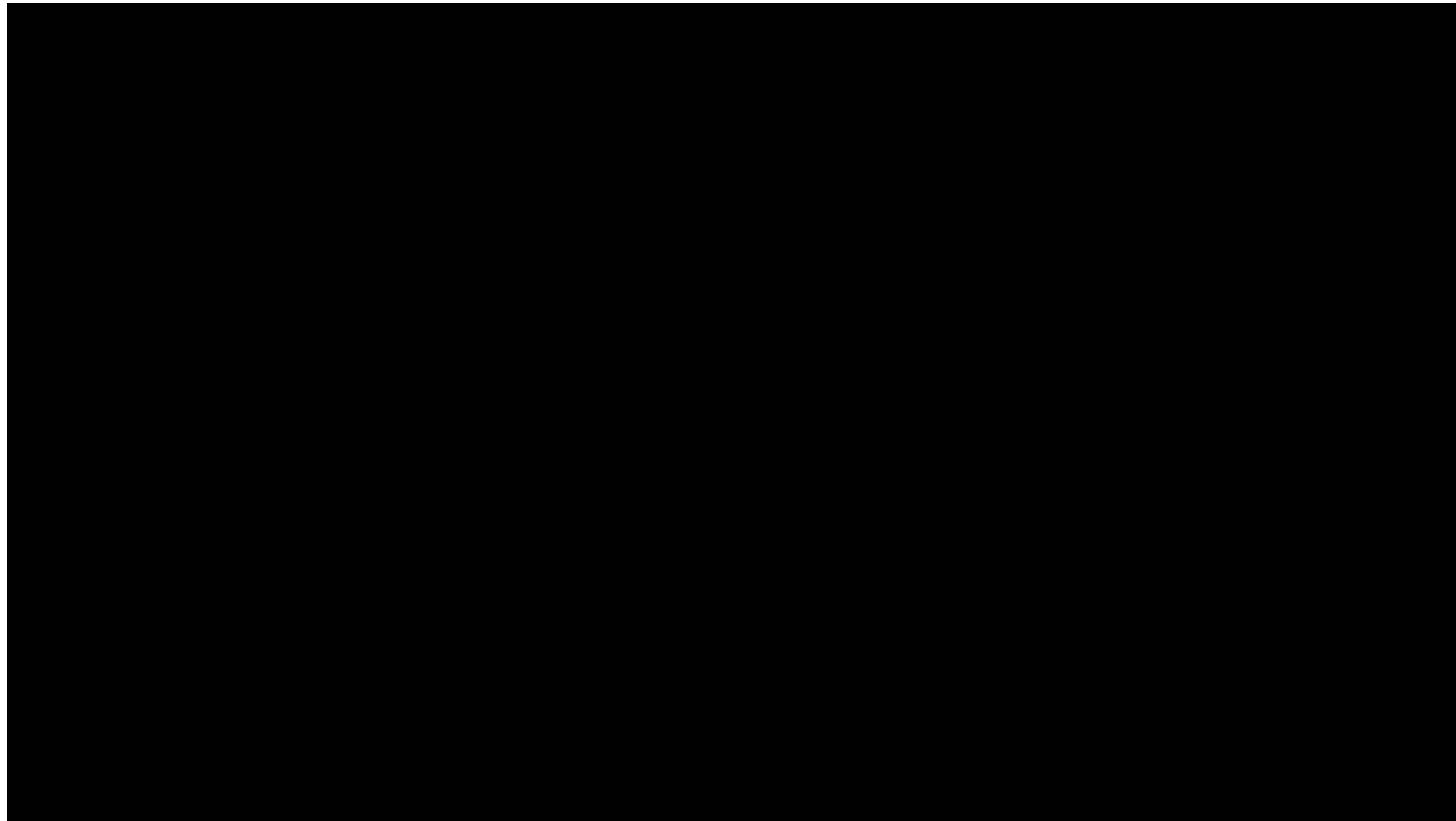
Networking

19“ Rack Mount Systems – BL RM Series

- ✓ 19" rack mount Box PCs
- ✓ Available in 2 height units and 4U
- ✓ 4th Generation Intel processors
- ✓ Easily customer expandable with PCI/PCIe slots
- ✓ High system availability and data security with RAID support (0/1/5)
- ✓ Easily maintenance with hot swappable drives
- ✓ Increased security with lockable front door



19“ Rack Mount Systems – BL RM Series



19“ Rack Mount Systems – BL RM Series

- 19" Rack Mount Box PCs
 - ✓ Two chassis sizes – 2U and 4U
 - ✓ PCI & PCIe Expansion Slots
 - ✓ High performance CPUs
 - ✓ Hot swappable 3.5" SATA drives
 - ✓ RAID support
 - ✓ Active cooling with filter cartridges
- Intel CPU technology
 - ✓ 4th gen. (Haswell) Core i3-4330T 3.0 GHz (2 core)
 - ✓ 4th gen. (Haswell) Core i7-4770T 2.5 GHz (4 core)



BOX PC's

RAID 0, 1 and 5



Video RAID concept



Touch Monitors & Display Solutions

- ✓ Industrial design
- ✓ True flat glass front
- ✓ Robust metal base construction
- ✓ Multiple display connectivity options
- ✓ 10 pt. PCAP Multi-Touch



BL FPM - Flat Panel Monitors

BL FPM 15.6

- 16:9 aspect ratio with 1366 x 768 resolution
- 1x VGA, 1x DVI-I, 1x DP++, 1x USB 1.1\2.0 Type A

BL FPM 18.5

- 16:9 aspect ratio with 1366 x 768 resolution
- 1x VGA, 1x DVI-I, 1x DP++, 1x USB 1.1\2.0 Type A

BL FPM 21.5

- 16:9 aspect ratio with 1920 x 1080 resolution
- 1x VGA, 1x DVI-I, 1x DP++, 1x USB 1.1\2.0 Type A



Box & Panel PC

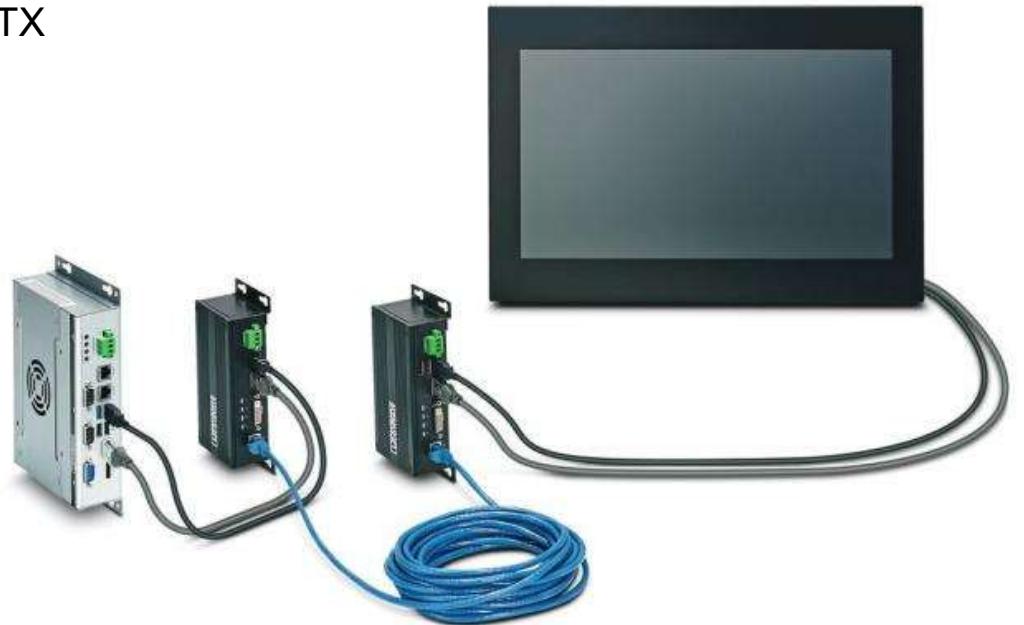


LIMITATIONS (max. cable length standards):

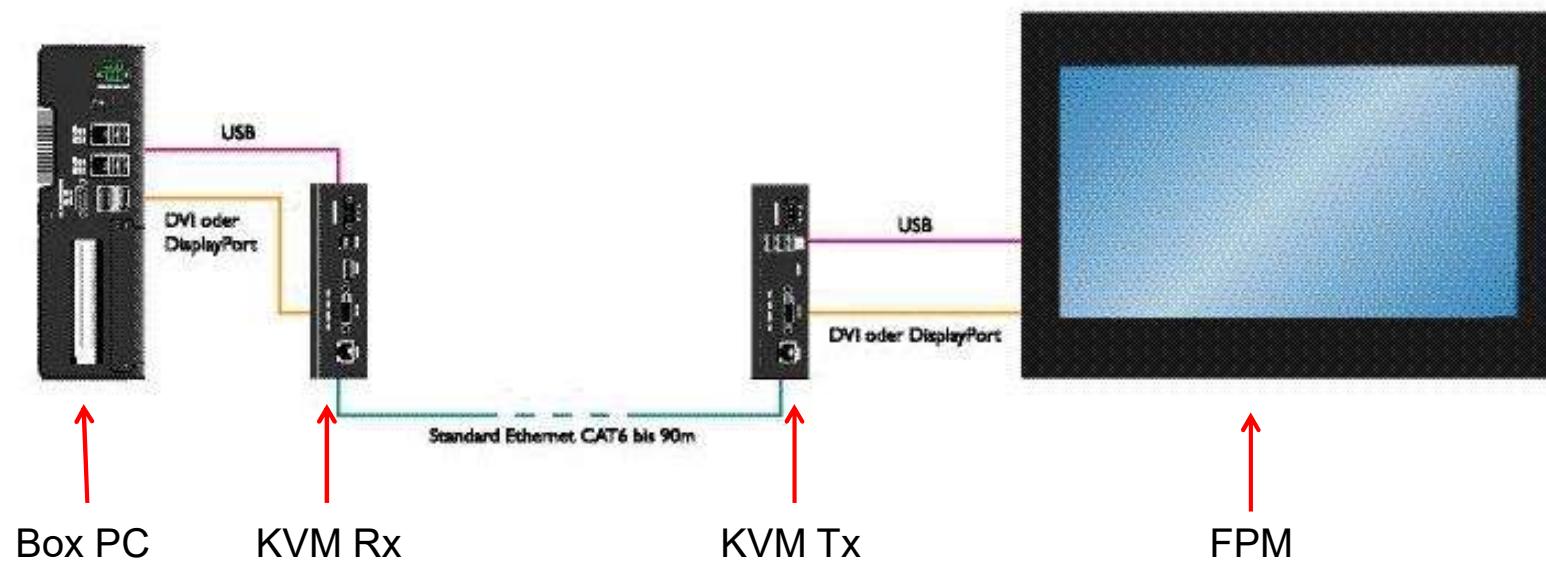
- USB cable: 5m
- VGA cable: 5m - 10m, resolution dependent
- DVI cable: 5m - 15m, resolution dependent
- Display Port cable: 5m

Keyboard Video Mouse Extender

- ✓ Flexible use of displays, up to 90 m away from PC
- ✓ Cost efficient wiring with single cable between TX and RX
- ✓ Increased application reliability with PC in safe location
- ✓ Industrial wide temperature design
- ✓ Fast setup with plug and play technology



BL KVM Extender 90 m solution



Remote Monitoring using Portico



BPC



Standard CAT 5 Ethernet

- ✓ Software based solution using standard ethernet cable
- ✓ Unlimited distance, bandwidth dependent
- ✓ Up to 16 simultaneously connected clients
- ✓ Client control arbitration, USB redirection features
- ✓ Portico can be used with all PxC IPC products



Specialty and Industry

- ✓ Suitable for outdoor applications with sunlight
readable display option
- ✓ UV and IR resistance
- ✓ Corrosion resistant materials (i.e. salt spray test)
- ✓ Rugged, passive cooled design with wide
operating temperature components
- ✓ Usable with work gloves



Box and panel PCs for hazardous locations - VL2 EX Series

- Complete range of fully configurable Box PCs

- ✓ Passive cooled
- ✓ Windows 7 & Windows 10 IoT
- ✓ Expansion options
- ✓ Box PC and PCAP panel PPCs
- ✓ Designed for O&G
- ✓ Unique part numbers
- ✓ Thicker front glass
- ✓ Triple HAZLOC

- Performance Classes

- ✓ VL2 BPC 1000 – Intel Atom E3845 1.91 GHz (4 core)
- ✓ VL2 BPC 2000 – Intel Celeron N2930 1.6 GHz (4 core)
- ✓ VL2 BPC 3000 – Intel Core i3-4010U 1.7 GHz (2 core)
- ✓ VL2 BPC 7000 – Intel Core i5-4300U 1.9 GHz (2 core)
- ✓ VL2 BPC 9000 – Intel Core i7-6822 EQ 2 GHz (4 core)



Box and panel PCs for hazardous locations - VL2 EX Series

- Enhanced approvals
 - ✓ BPC: Class I Div 2, ATEX Zone 2 and IECex Zone 2
 - ✓ PPC: Class I Div 2, ATEX Zone2/22 and IECex Zone2/22
 - ✓ NOTE: Not approved for C2D2 combustible dust!
- Changes from standard “VL2”
 - ✓ Unique “EX” part numbers
 - ✓ Component based system enhancements
 - ✓ Thicker front glass with higher impact resistance
 - ✓ Does not replace the “standard” VL2





Thank you