



Welcome

Panorama y guía de selección de computadoras compactas BPC Box PC's

Webinars

Agenda

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



HMI & Industrial PCs - Overview

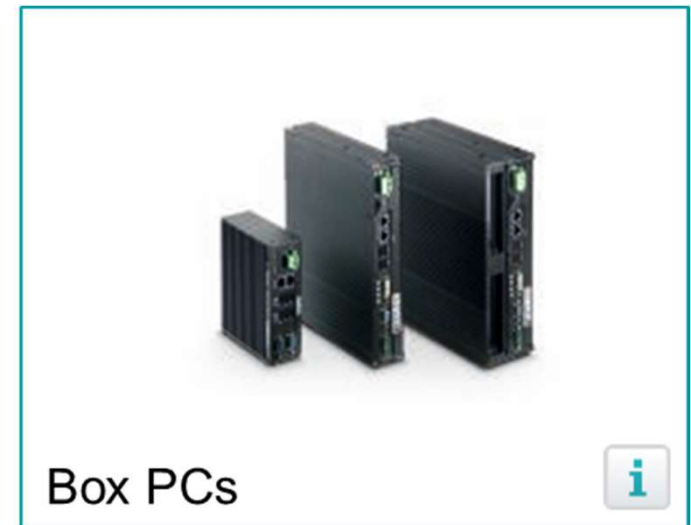
HMI



Industrial PC



Operation & Monitoring with HMI



Box PCs

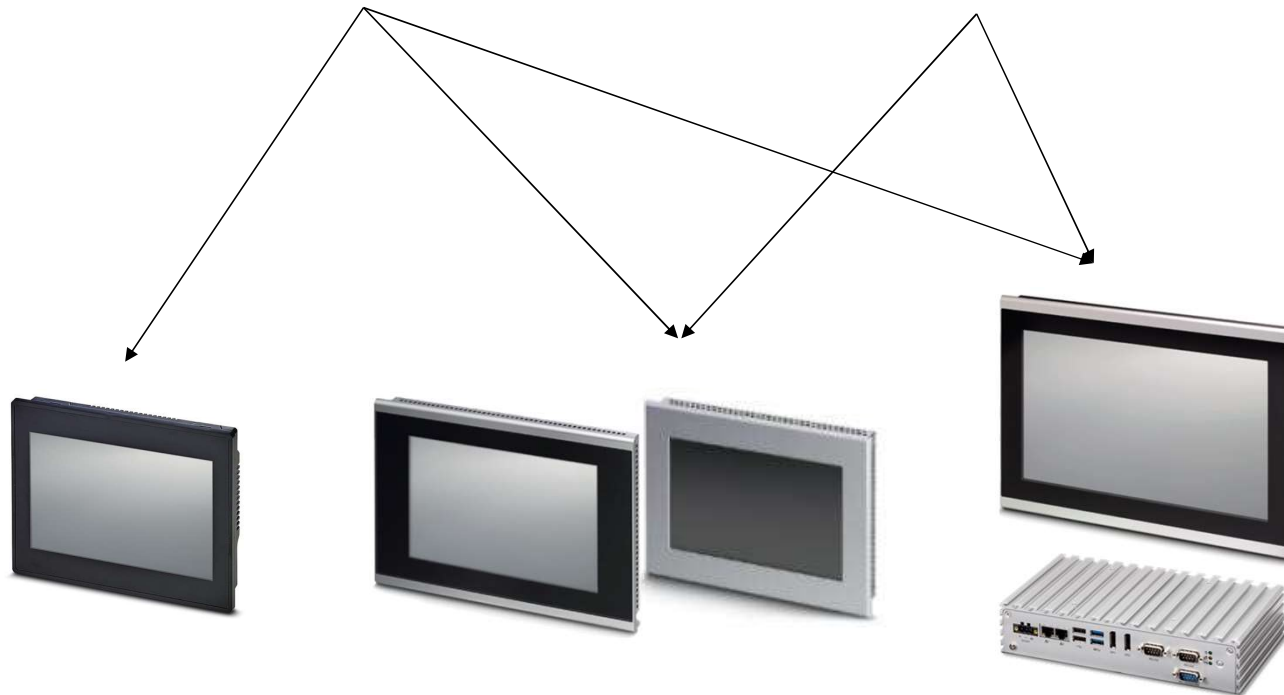
HMI/IPC | Visualization Software

VISU+ Express

HMI Visualization

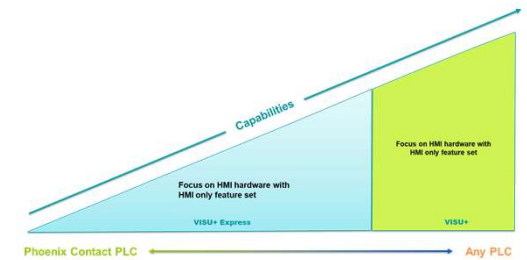
VISU+

SCADA Visualization

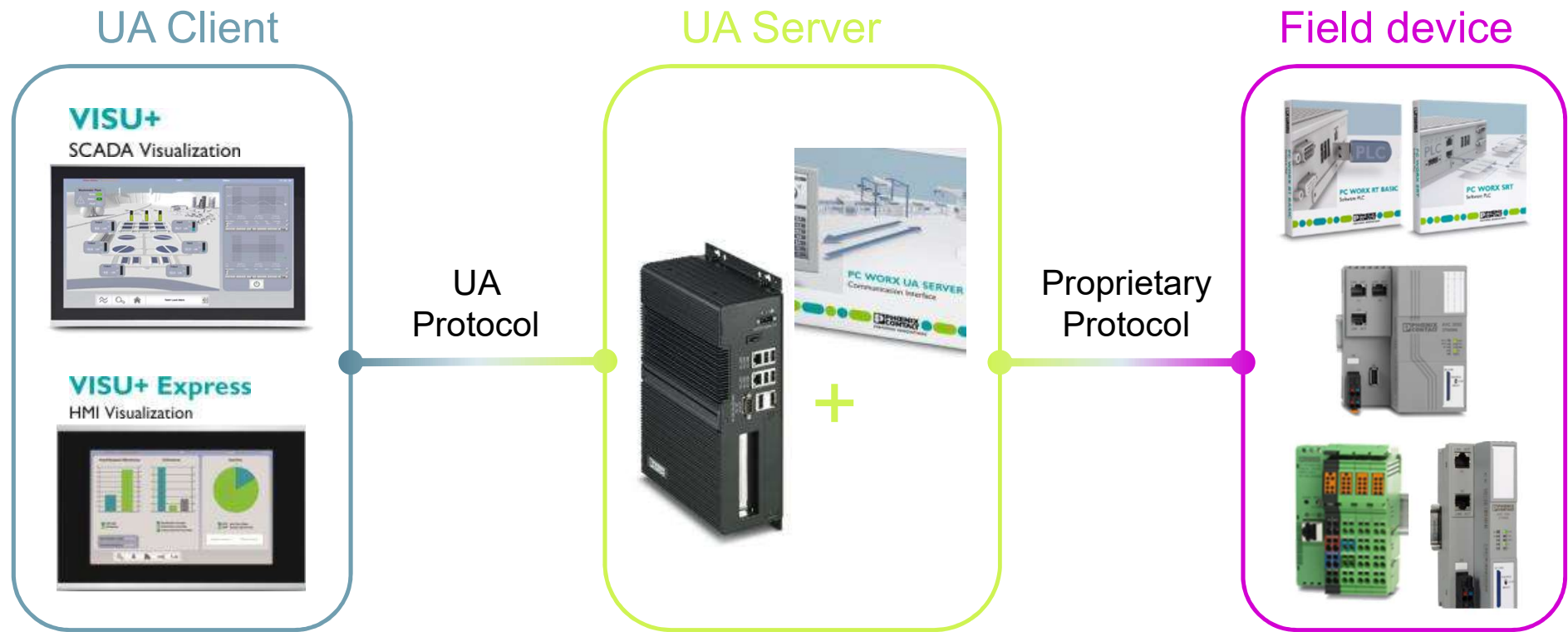


BENEFITS:

- 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



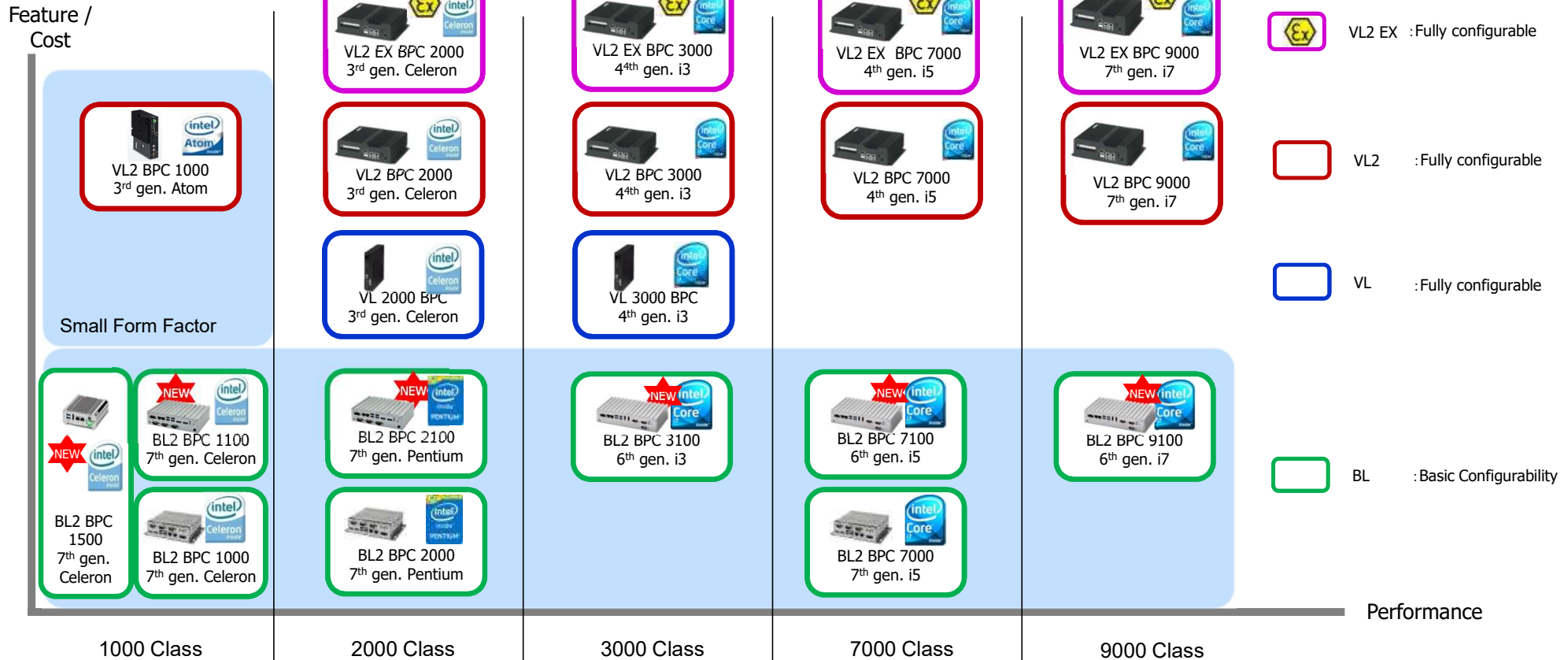
Panel PC

- 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



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

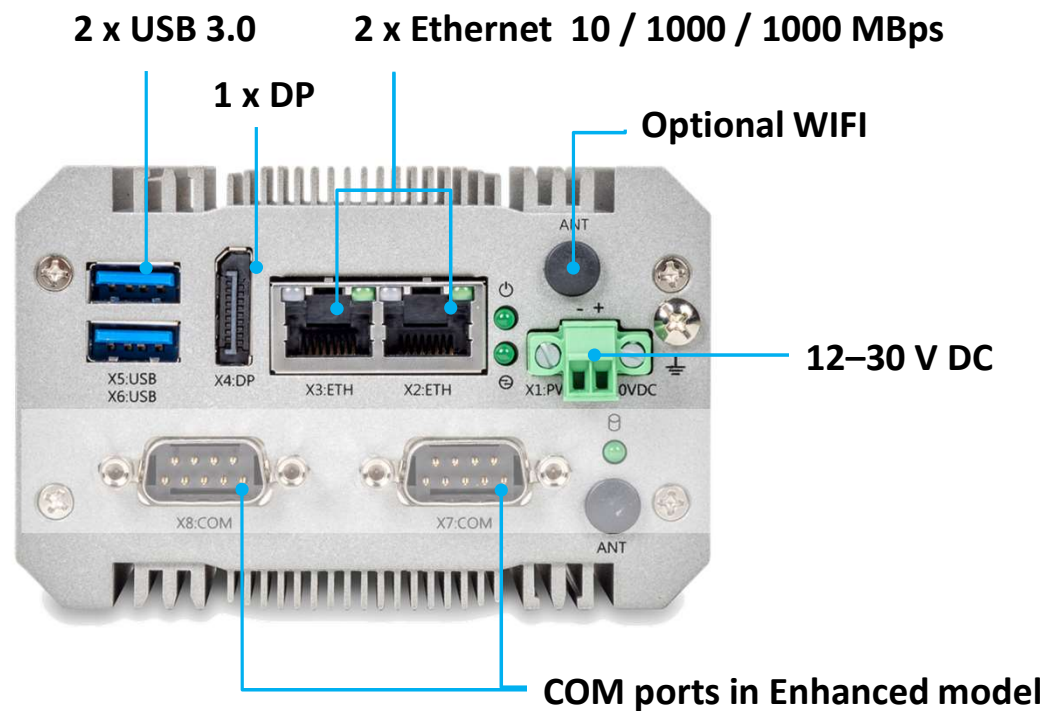
- Compact design to fit into small cabinet boxes
- Efficient performance with Intel Celeron N3350 CPU
- High reliability with passive cooling and solid-state mass storage media
- Available as Secure Hardware, equipped with TPM 2.0 module
- Flexible mounting options to compliment your application



BL2 BPC 1500 – Compact Box IPC

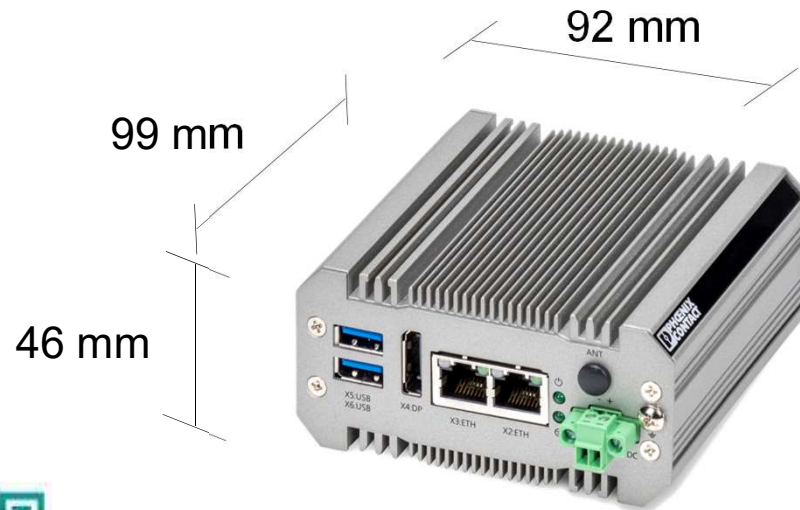
General technical data

- 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



Los mejores Mini-PCs del mercado: Barebones y profesionales

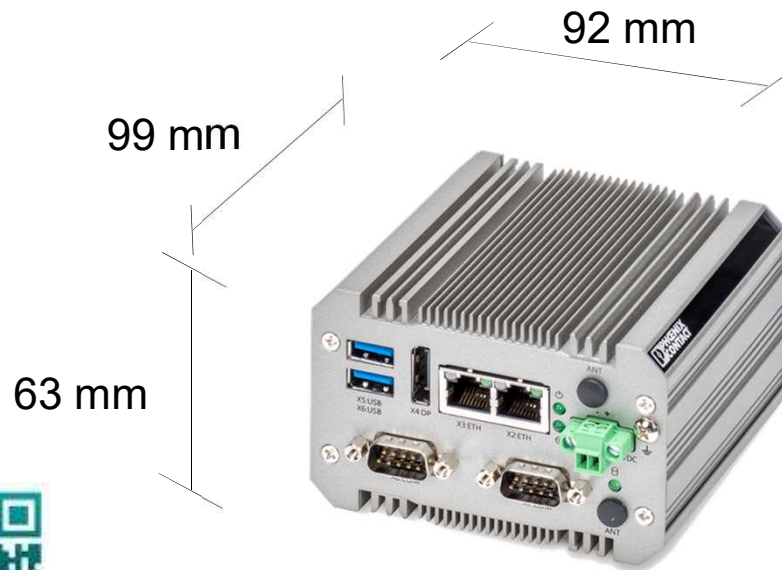
Link

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
- ✓ Thermal isolation barrier
- ✓ Windows 7 & Windows 10 IoT
- ✓ Bookshelf and wall mount
- ✓ Expansion option (PCI & option cards)
- ✓ 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



- Phoenix Contact Software



Control



Visualization



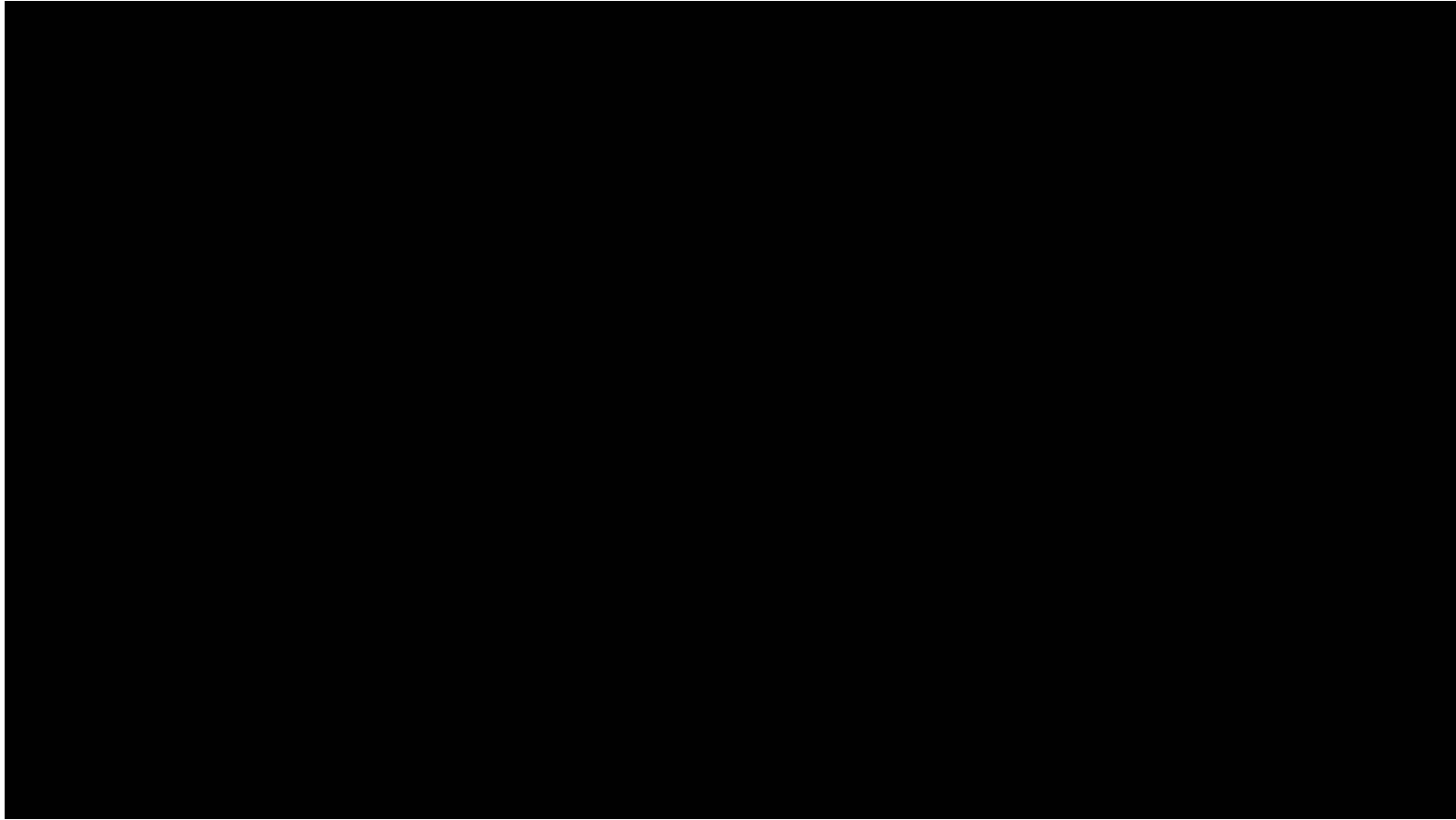
Networking

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

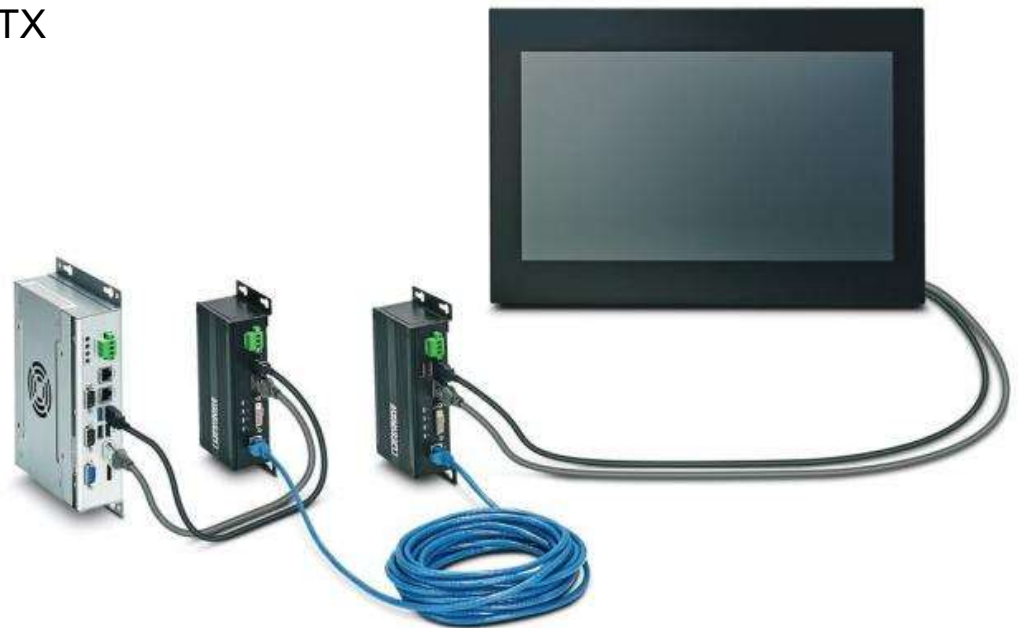


LIMITATIONS (max. cable length standards):

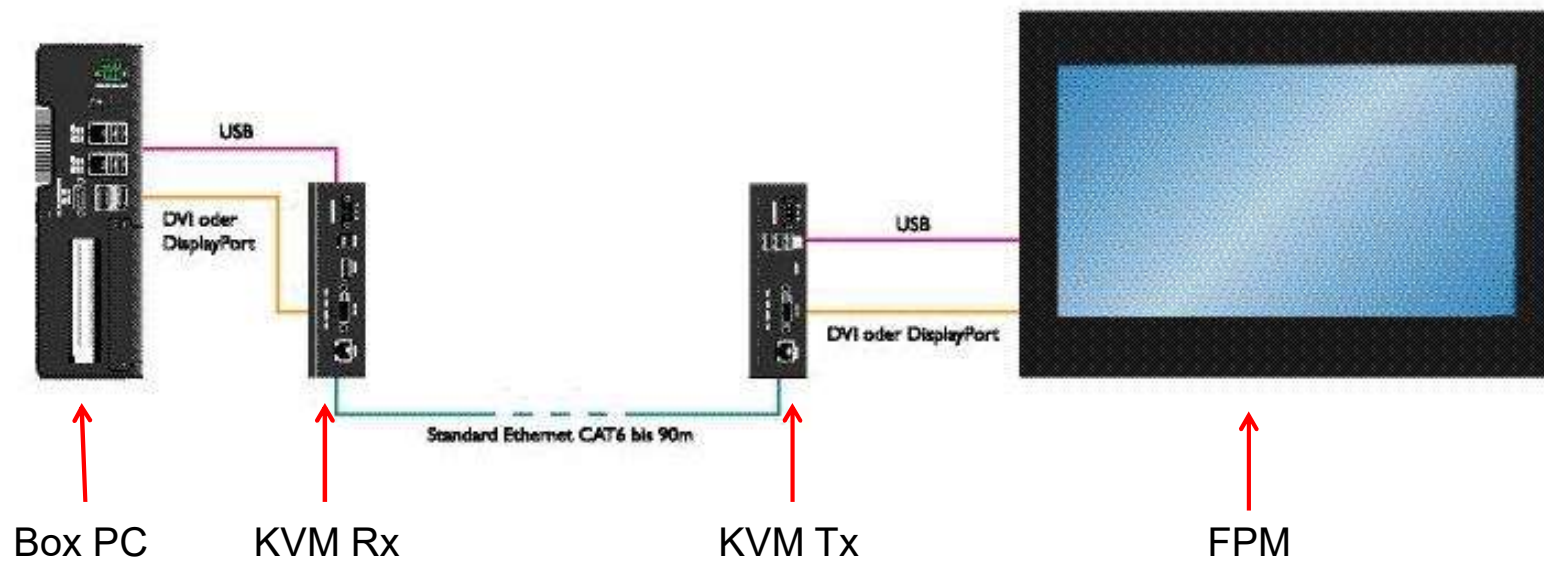
- USB cable: 5m
- VGA cable: 5m - 10m, resolution dependent
- DVI cable: 5m - 15m, resolution dependent
- Display Port cable: 5m

Keyboard Video Mouse Extender

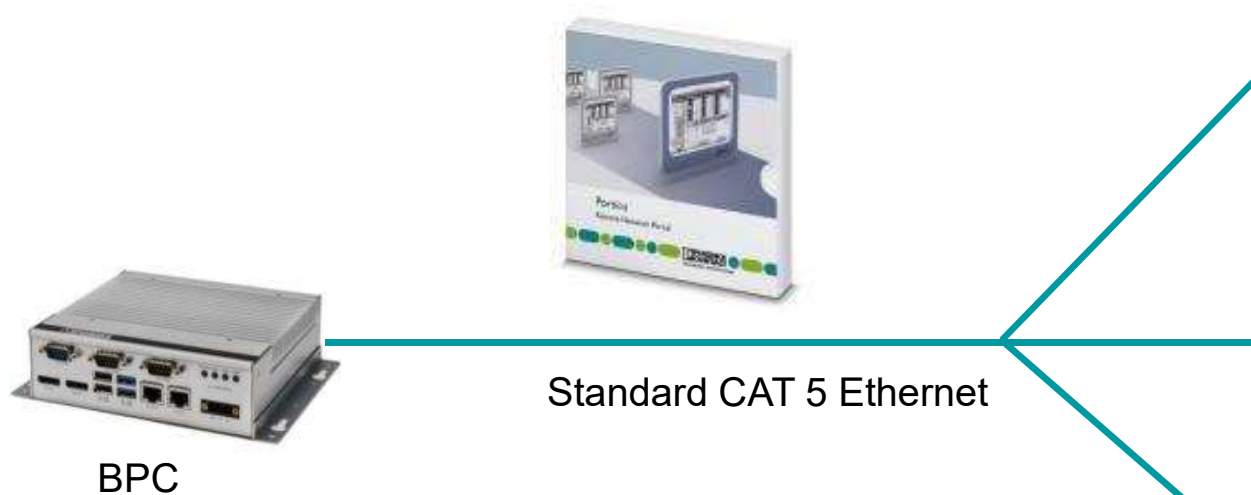
- ✓ Flexible use of displays, up to 90 m away from PC
- ✓ Cost efficient wiring with single cable between TX and RX
- ✓ Increased application reliability with PC in safe location
- ✓ Industrial wide temperature design
- ✓ Fast setup with plug and play technology



BL KVM Extender 90 m solution



Remote Monitoring using Portico



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