SN 2023/21 - Announcement APC4100

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Key Information

PG HMI would like to present his new industrial PC benchmark to you and your customers.

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Confidentiality	GLOBAL

Product presentation for customers

To serve customers and sales colleagues the best possible experience and service, we included a product presentation to this SN, incl. major details and features.

Power point:

APC4100 Product...n_2023_HAS.pptx

Product details

As the successor of the very popular and successful APC910, the APC4100 combines the well established concept known from the APC910 with state of the art technology.

The APC4100 uses Intels 11th gen Celeron, Core i and Xeon processors which enable a very attractive price / performance ratio to customers.

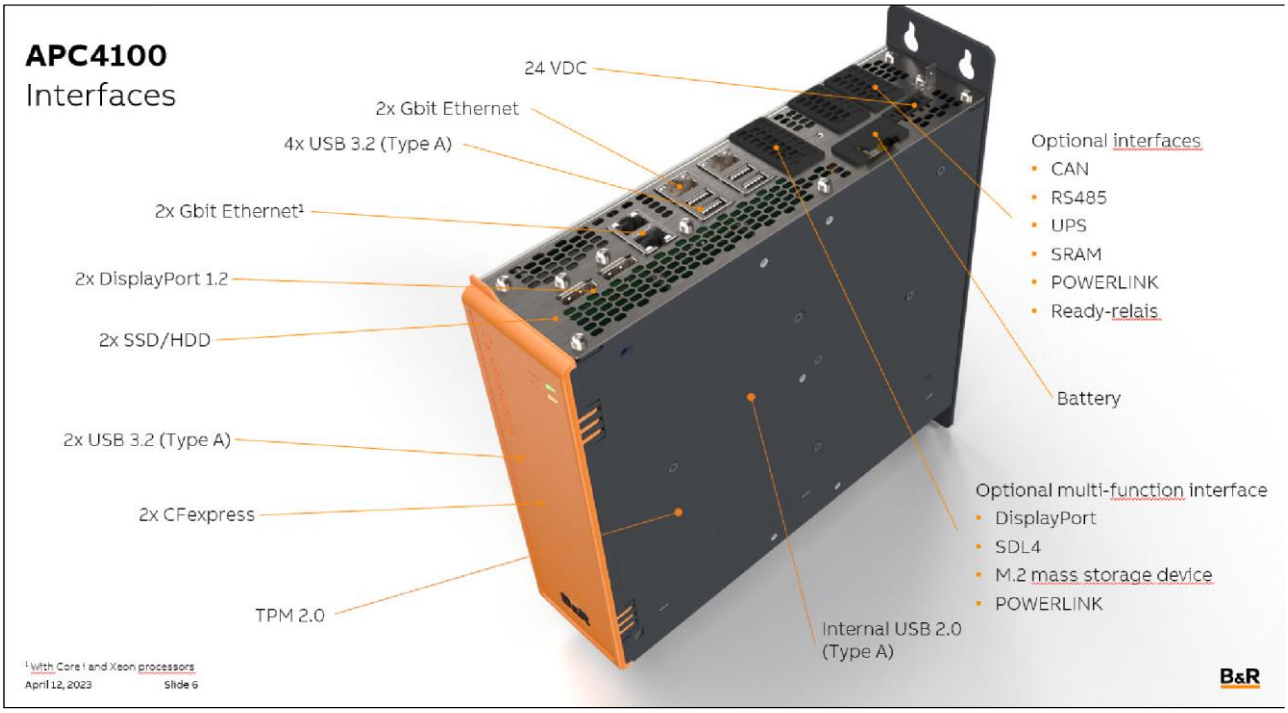
Manifold variants and a high grade of modularity, based on the concept of the APC910, offer the possibility to create the best fitting solution for almost every application.

In the course of the brand refresh and in order to ensure a consistent look in the B&R Automation PC product portfolio, the design was adapted to the current company standard.

The APC4100 now offers a modern look following in the style of the B&R industrial PC portfolio and the current clean design trend in the automation industry.

Major Highlights of the APC4100:

- Intel 11th gen Core i processors
- PCIexpress x16, gen 4
- Ultra fast CFexpress mass storage devices with PCIe connection
- Up to 64GB DRAM (incl. selected ECC options, depending on CPU)
- Up to 2,5GBit Ethernet (on selected Ethernet ports)
- Automatic BIOS update (see user manual)
- Passive cooling for Celeron, Core i3 and Xeon W-11155MRE
- Additional functions/features for individual BIOS configuration in IQ



Due to the modern CPU generation and mass storage option, the APC4100 offers a much higher performance in comparison to equal APC910 devices.

With look to the current release plan, we will offer AS/AR 6.0 support by end of 2023.

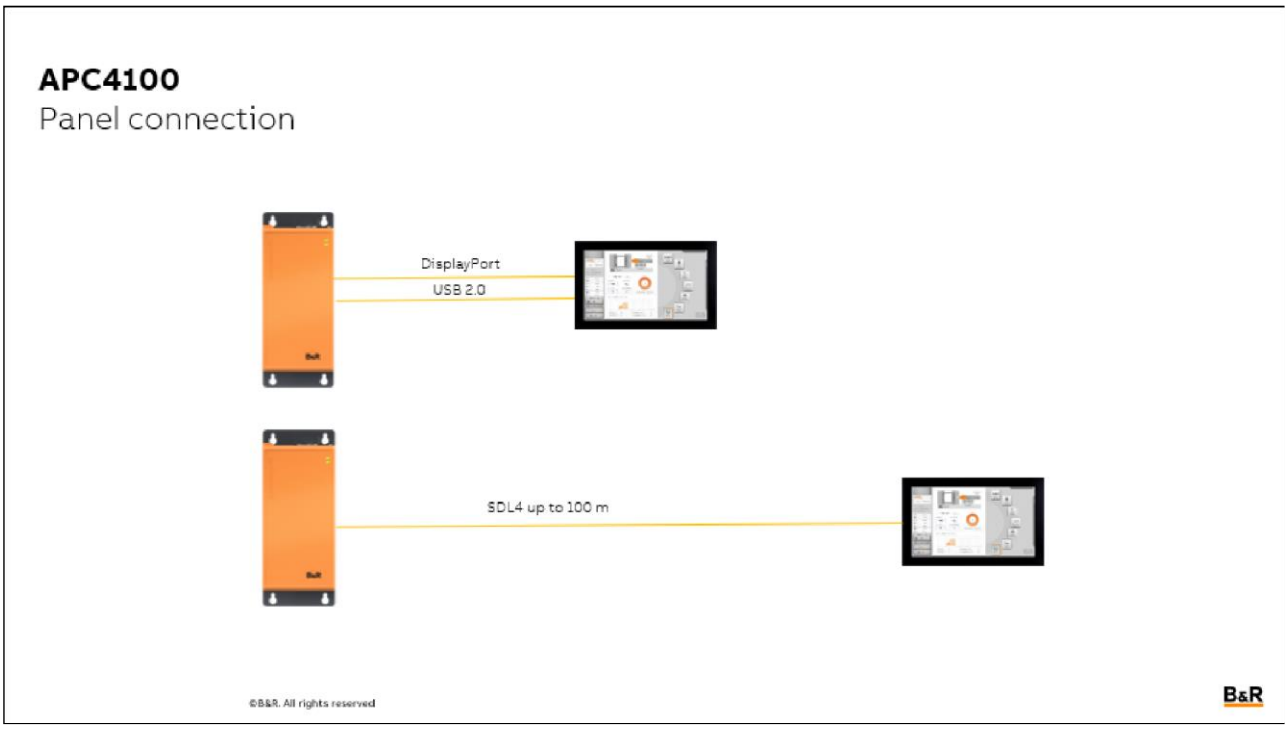
Panel connectivity:

We started SDL with the introduction of the APC620 more than 20 years ago and we were able to keep that interface for our products for a very long time.

Due to the long term availability of the components used for SDL, we need to change the standard panel onboard interface to DisplayPort. When we compare competitor products we see also there a strong trend in this direction.

Additional to DisplayPort we will offer also a modular SDL4 transmitter which is then fully compatible to the existing SDL4 receiver products (same functionality as in APC910).

- SDL4 supports all existing Automation Panels AP923/933, AP1000, AP5000 with a SDL4 receiver, with a maximum distance of 100 m. The SDL4 transmitter for APC4100 will be available in December 2023.
- DisplayPort supports all Automation Panels with projected capacitive touch screen (AP933, AP1130, AP5130), the touch functionality needs a separate USB cable connection, maximum distance 5 m. We will offer a DisplayPort receiver for the existing Automation Panels (AP933, AP1130, AP5130). Due to the necessary redesigns during the component shortage we unfortunately have to postpone the availability of the DisplayPort receiver until April 2024. As a temporary workaround in the first months Automation Panels can be connected via a DisplayPort to DVI converter cable plus USB cable using the SDL/DVI receiver 5DLSDL.1001-00 for Automation Panels.



Further information:

- As an information update around the APC4100 there is a wE-talk planned for 9th of May, kindly reserve the date.
- The IQ configurator will be available starting May 2023 including below pricing.
- A detailed benchmarking documentation for selected CPUs (Celeron, Core i3 and Xeon w-11865MRE) is expected in the second half of 2023.

Release plan

The APC4100 will be released to the market in waves, which will be titled as „Delivery Packages“.

Pricing information and the possibility for offering out of the IQ_configurator will be possible for ALL material expected with May.2023.

Kindly note that a release of configured devices within IQ, will only be possible according the availability dates of the delivery packages (depending on VTL status) as noted below:

Delivery Package 1: End of Q2 2023 / Beginning of Q3 2023 – Series availability

(May 2023 - ready for device configuration in IQ and offering)

(July 2023 - ready for device release in IQ and ordering)

- 0-Slot variant
- Several CPUs:
- C-6600HLE (Celeron) with HM570E chipset
- Core i3-11100HE with RM590E chipset
- Xeon W-11865MRE with RM590E chipset (ECC support)
- Active heat sink only
- Several RAM options
- 4GB DDR4 (dual channel possible)
- 8GB DDR4 (dual channel possible) with and without ECC option
- 16GB DDR (dual channel possible)
- 32GB DDR4 (dual channel possible)
- Several massstorage options
- CFexpress 60GB
- CFexpress 120GB • CFexpress 240GB
- CFexpress 480GB
- Several IF options
- RS232
- RS485
- Ethernet
- CAN
- Windows 10 IoT Enterprise LTSC 2021

Delivery Package 2: End of Q4 2023 – Series availability

(May 2023 - ready for device configuration in IQ and offering)

(December 2023 - ready for device release in IQ and ordering)

- 2-Slot/3-slot variant
- Additional passive heat sink
- Several bus variants (up to PCIe x16)
- 5APC4100.BX02-000 • 5APC4100.BX03-000
- Several additional massstorage options
- SSD 1TB
- HDD 1TB
- M.2 512GB
- M.2 1TB
- Linux for B&R 12

Delivery Package 3: End of Q1 2024 – Series availability

(May 2023 - ready for device configuration in IQ and offering)

(March 2024 - ready for device release in IQ and ordering)

- 1-Slot-slot variant
- Remaining CPUs
- Core i5-11500HE with RM590E chipset
- Xeon W-11155MRE with RM590E chipset (ECC support)
- Slot-Bus variants for 1-slot
- Remaining bus variants for 2-slot and 3-slot
- Remaining additional mass storage options
- SSD 128GB • SSD 256GB
- SSD 512GB
- Remaining IF options
- Powerlink
- Audio
- UPS
- Ready relay
- SRAM
- AS/AR 6.x support

Documentation and user manual

The user manual will be released and extended according to the availability (series release dates) of the delivery packages.

Content	Availability
Products delivery package 1*	July 2023
Products delivery package 2*	December 2023
Products delivery package 3*	March 2024

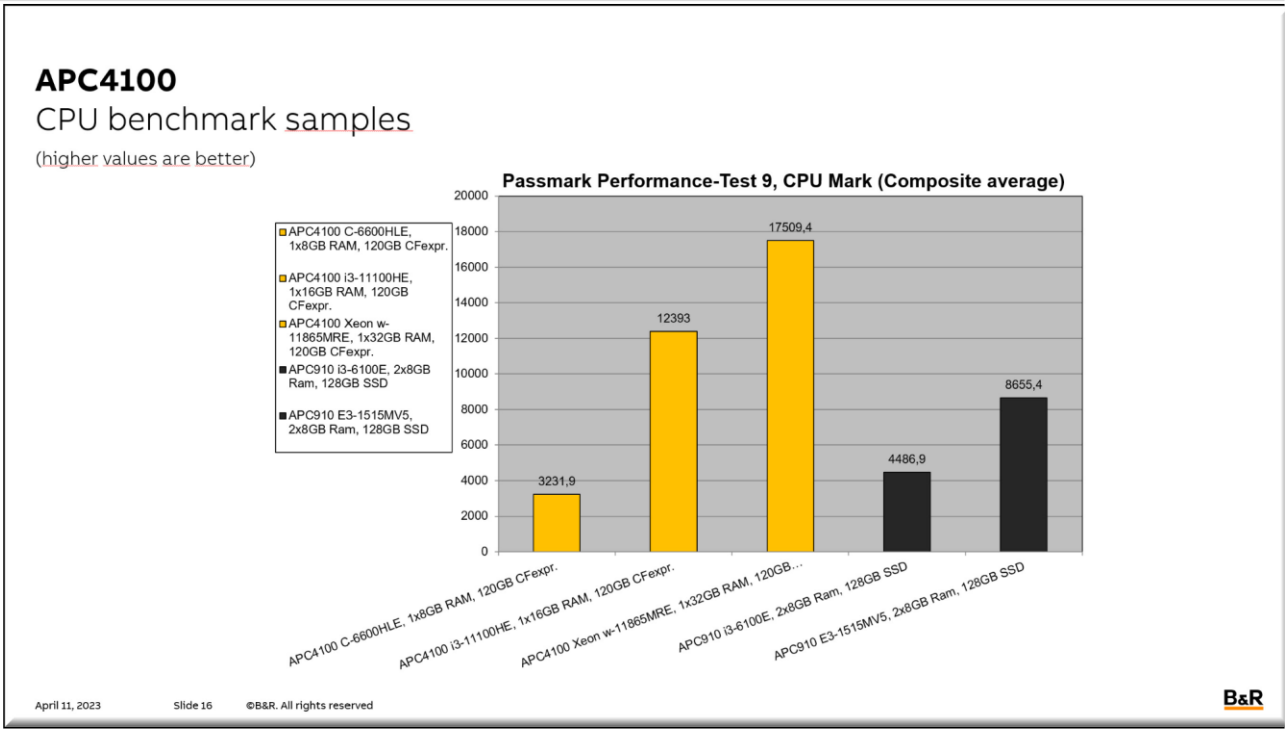
*Kindly note that deviations can occure, due to development and testing.

CPU benchmarks APC4100 vs. APC910

We are still working to create reliable documentation about CPU benchmarks based on the B&R software environment.

The table below shows first benchmark results of products from delivery package 1. More details and test results will follow until end of 2023.

Benchmarks	APC910		APC4100		
	Core i3-6100E 2x8GB RAM 128GB SSD	Xeon E3-1515mV5 2x8GB RAM 128GB SSD	Celeron 6600HLE 1x8GB RAM 120GB CFexpress	Core i3 11100HE 1x16GB RAM 120GB CFexpress	Xeon 11865MRE 1x32GB RAM 120GB CFexpress
CPU mark	4486,9	8655,4	3231,9	12393,0	17509,4
Passmark rating	2735,3	3786,5	2304,4	4313,2	5335,1



The values were determined based on the following settings:

APC910: max. NonTurbo Mode (CPU Turbo off)

APC4100: max. Performance Mode (CPU and GFX Turbo on) => BIOS Default setting

Remark: Results can differ depending on

- Environmental temperature
- Mass storage device
- BIOS configuration