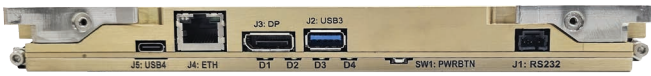


PRODUCT DESCRIPTION

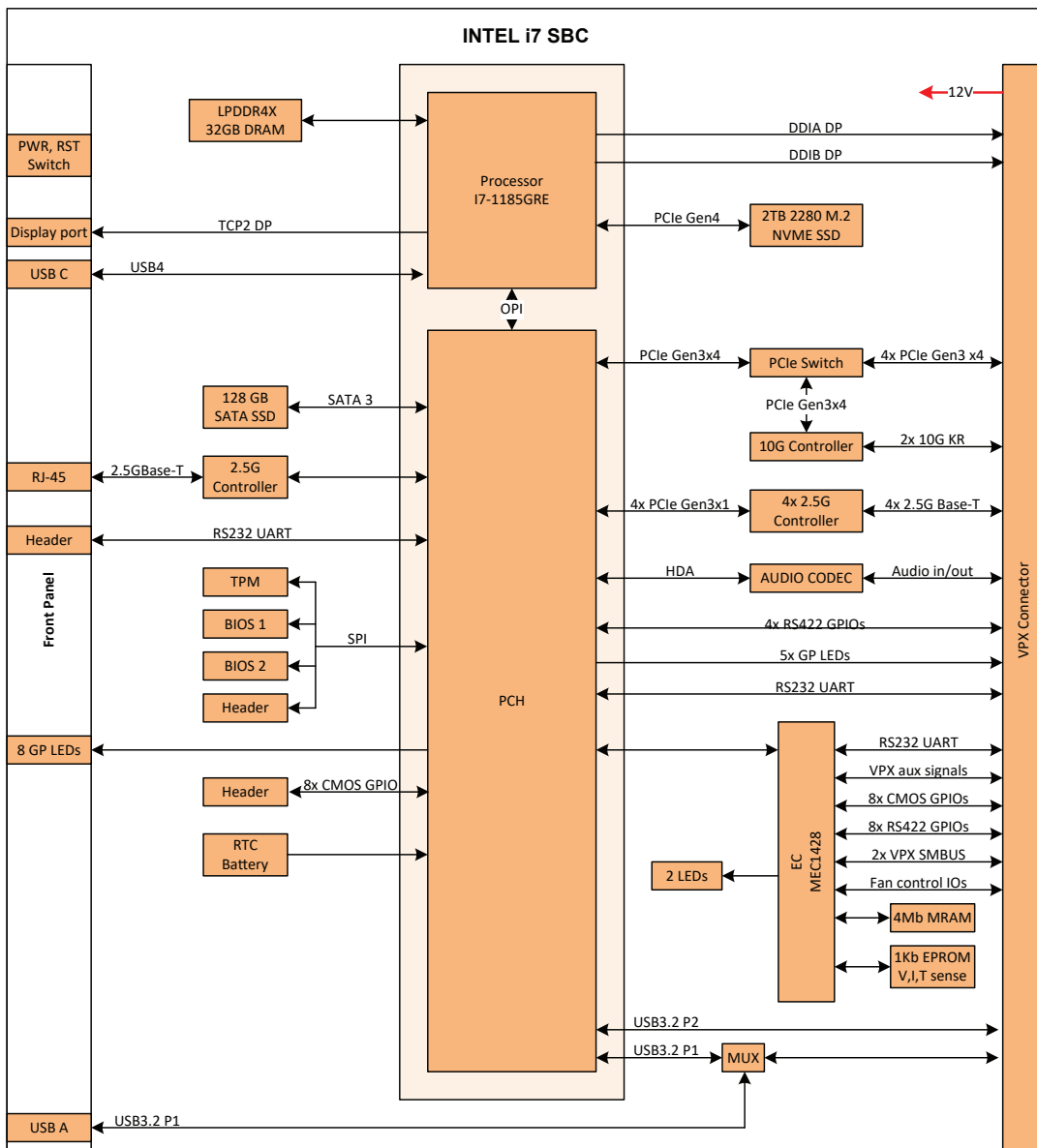
The VPX6U-Intel-i7-SBC is an indigenously developed single-board computer with integrated BIOS and embedded software, optimized for power-efficient solutions in digital signal processing (DSP), artificial intelligence (AI), and computer vision/image processing (CVGIP) applications.

It is highly configurable and can be tailored to meet the specific requirements of different applications. It is available in several variants:

- **i7-1185GRE:** 4 core 8 thread. 1.8GHz base and 4.4GHz boost frequency
- **i5-1145GRE:** 4 core 8 thread. 1.5GHz base and 4.1GHz boost frequency
- **i3-1115GRE:** 2 core 4 thread. 2.2GHz base and 3.9GHz boost frequency



BLOCK DIAGRAM



SPECIFICATIONS

CPU	Intel Core i7 1185GRE, 4 cores/8 threads 1.80 GHz/4.40 GHz Turbo, 12 MB Intel® Smart Cache 15W TDP Enhanced AI, AVX-512
System Memory	2 Channels of LPDDR4x (4266MTPS) 32GB Soldered DRAM (16GB each channel)
Storage	128GB SATA SLC SSD NVMe M.2 2280 SSD Slot
Network Connectivity	Dual 10G Base KR x5 2.5G Base-T Ethernet (1 Port on the Front Fascia)
Data Connectivity	4 x4 PCIe Gen3 on the backplane
IOs	1x Display port to the Front Fascia 2x DisplayPort's to VPX connector 2x UART 8 RS422 GPIOs 8 CMOS GPIOs Dual USB 3.2 SMBus
Software / Operating System	UEFI BIOS Linux BSP (Validated on Ubuntu & RHEL), VxWorks Windows
MISC	2x 64MB boot FLASH, with recovery image Current, Voltage, and Temperature sensors TPM BMC RTC Audio Codec
Input Voltage	12V
Power Consumption	Peak power – 120W Thermal power – 70W
Mechanical	6U VPX
Environmental	Operating temperature: -10°C to +55°C
Cooling	Air & Conduction Cooled

PART NUMBER

CT7016-FP01	Conduction-cooled Intel SBC based on i7-1185GRE
CT7016-FP08	Air-cooled Intel SBC based on i7-1185GRE

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