

CPC1304

COM Express Basic CPU Module



Features

- CPU: Intel Xeon E-2276ME 2.2GHz / XeonE-2254ML 1.7GHz;
- RAM: DDR4-2666 SDRAM, up to 32 GB, with ECC support;
- FLASH BIOS: 2x128 Mb SPI-Flash;
- Real Time Clock (power is supplied from the “RTC battery” port);
- SATA Solid-State Drive 32 GB iSLC or NVMe PCIe Gen3 x 4 80 GB pSLC;
- Operating temperature range: from - 40° C to +85°;
- Power supply: +12 V from COM Express, +5 V_STBY from COM Express (option);
- Module weight with heatsink – max. 0.4 kg;
- MTBF: min. 100,000 hours.

Overview

The CPC1304 CPU Module, designed in the standard COM Express Basic format, provides embedded system developers with such features as compatibility with the x86 family, an up-to-date set of functionalities based on the PCI Express 3.0, SATA 3.0, USB 3.1, DisplayPort 1.2 interfaces, and high performance of Intel Xeon E3 CoffeLake Refresh processors of the latest generation with an integrated graphics core.

Technical Specifications

Processor Intel Xeon E-2276ME 2.2 GHz 37W

- 6x or 4x cores Intel x64
- 3x GPU cores
- 12 MB cache

Processor Xeon E-2254ML 1.7 GHz 25W

- 4x cores Intel x64
- 3x GPU cores
- 8 MB cache

RAM

- DDR4-2666 SDRAM up to 32 GB, with ECC support
- 64-bit data bus

Flash BIOS

- 2 x 128 Mb SPI-Flash
- Modifiable within the system

FRAM 32 Kbyte (SPI port) for storing user data

COM Express Type 6 connector

- 1 x port PCIe x16 GEN3, 8 GT/s
- 8 x ports PCIe x1 GEN3, 8 GT/s
- 8 x ports USB 2.0
- 4 x ports USB 3.1
- 4 x ports SATA III 6 Gbps
- Port "LAN 0": Gbit Ethernet Intel 210
- Port SPI (External Boot)
- Port "LVDS Channel": LVDS Dual Channel 24 bit 1920x1200@60 Hz or port eDP 4096x2304@60 Hz
- 3 x ports DDI 4096x2304@60 Hz
- 1 x port VGA CRT 1920x1200@60 Hz
- Port LPC (Specification Rev. 1.1)
- SMBus port
- I2C port
- HD Audio port
- Speaker Out
- 4 x GPIO ports
- 2 x RS-232 ports

Real Time Clock (powered from the “RTC battery” port)

SSD

- SATA SSD 32 GB iSLC or NVMe PCIe Gen3 x4 80 GB pSLC

Watchdog Timer

Monitor of 7 power supply voltages, monitor of PCB temperature

Console I/O via serial ports (COM1 / COM2)

Power supply

- +12 V from the COM Express connector
- +5 V_STBY from the COM Express connector (as option)

Operating temperature range

- from -40 to +85°C

Module's weight with heatsink

- Max. 0.4 kg

Resistance to sinusoidal vibration

- from 2 to 500 Hz, with acceleration of 5 g

Resistance to single shocks

- 100 g

Resistance to multiple shocks

- 50 g

Resistance to electromagnetic interference in accordance with the GOST R 50839- 2000 standard (II group) (BS EN 61000-6-2:2001) requirements

Level of the radio interference caused does not exceed the values, set by the GOST R 51318.22-99 standard, class A (CISPR 22-97)

Software compatibility

- Linux Debian 9
- Microsoft Windows 10 IoT Enterprise 64bit

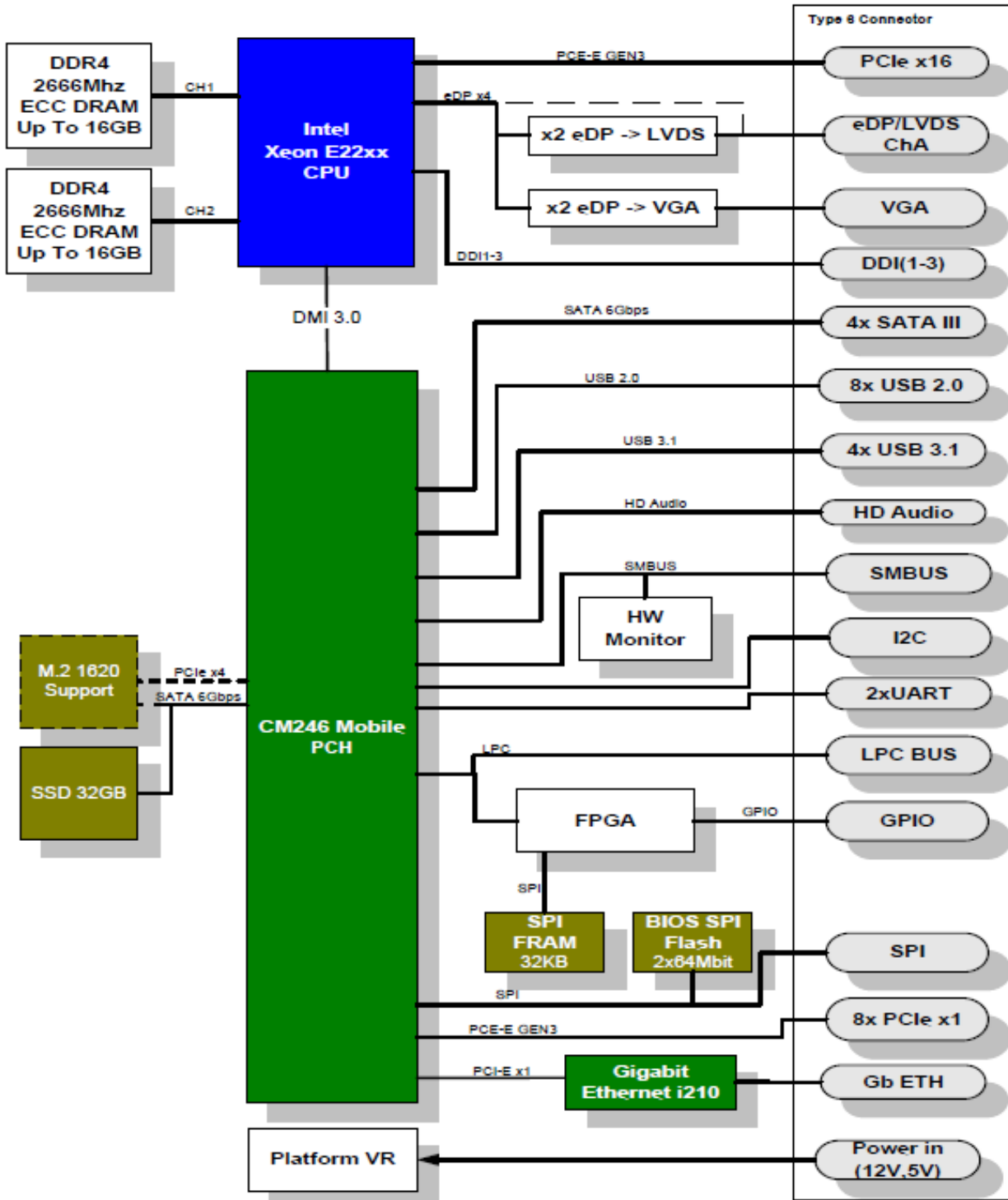
MTBF

- Min. 100,000 hours

CPC1304

COM Express Basic CPU Module

Block Diagram



Fastwel



Fastwel



Fastwel

CPC1304

COM Express Basic CPU Module

Ordering Information

CPC1304 Configuration

CPC1304 \ Options

Configurations

- CPC1304-01** CPC1304 CPU Module, Intel Xeon E-2276ME 37W, 6x Cores, 32 GB DDR4 SDRAM, onboard nVME 80 GB, -40...+85 °C
- CPC1304-02** CPC1304 CPU Module, Intel Xeon E-2254ML 25W, 4x Cores, 16 GB DDR4 SDRAM, onboard SSD iSLC 32 GB, -40...+85 °C;
- CPC1304-03** CPC1304 CPU Module, Intel Xeon E-2276ME 37W, 6 x Cores, 32 GB DDR4 SDRAM, onboard nVME 80 GB, 0...+70 °C;
- CPC1304-04** CPC1304 CPU Module, Intel Xeon E-2254ML 25W, 4 x Cores, 16 GB DDR4 SDRAM, onboard SSD iSLC 32 GB, 0...+70 °C;

Conformal coating is available (\COATED option)

Additional accessories

- **ACS30076-03** Heatsink;
- **ACS30076-04** Heatsink with a fan;

Delivery checklist

CPC1304 delivery checklist contains:

1. CPC1304 COM Express Basic CPU Module with heatsink and 5 mm high racks
2. 8 mm high racks – 5 pcs
3. Washers and nuts for the racks – 5 pcs for each
4. Screws and washers for mounting to the carrier module – 5 pcs for each
5. Packaging

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Product specifications are subject to change without notice

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