



## Product Information

### **CompactPCI®** USB 2.0 Host Controller • CB2-PIPE

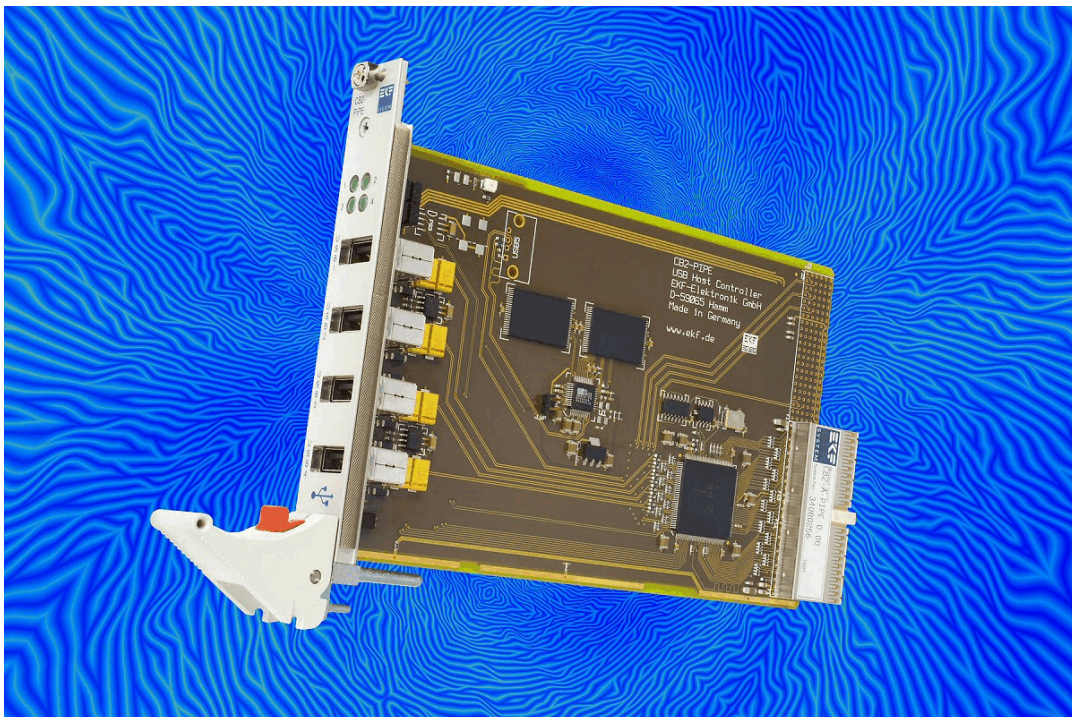
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The **CB2-PIPE** is a 5-port USB2.0 host controller. The 3U **CompactPCI®** board complies with the Universal Serial Bus Specification Revision 2.0 and Open Host Controller Interface (OHCI) Specification for full-/low-speed signalling and the Intel Enhanced Host Controller Interface (EHCI) Specification for high-speed data transfers. All downstream facing ports can handle high-speed (480Mbps), full-speed (12Mbps), and low-speed (1.5Mbps) transaction.

In addition, the CB2-PIPE optionally can be equipped with an on-board Flash disk drive.

All USB power lines are protected against over-current and short circuit conditions. Four of five USB ports are accessible from the front panel.

The fifth USB connector is situated on-board for system internal usage. However, when the on-board Flash disk ordering option was chosen, this connector is not stuffed and the USB port 5 is solely dedicated to the USB2.0 Flash disk controller. With its capacity of up to 2GByte and transfer rates of up to 18MB/s for read and 13MB/s for write, the Flash drive can be used for non-volatile data storage or even as a system boot device.

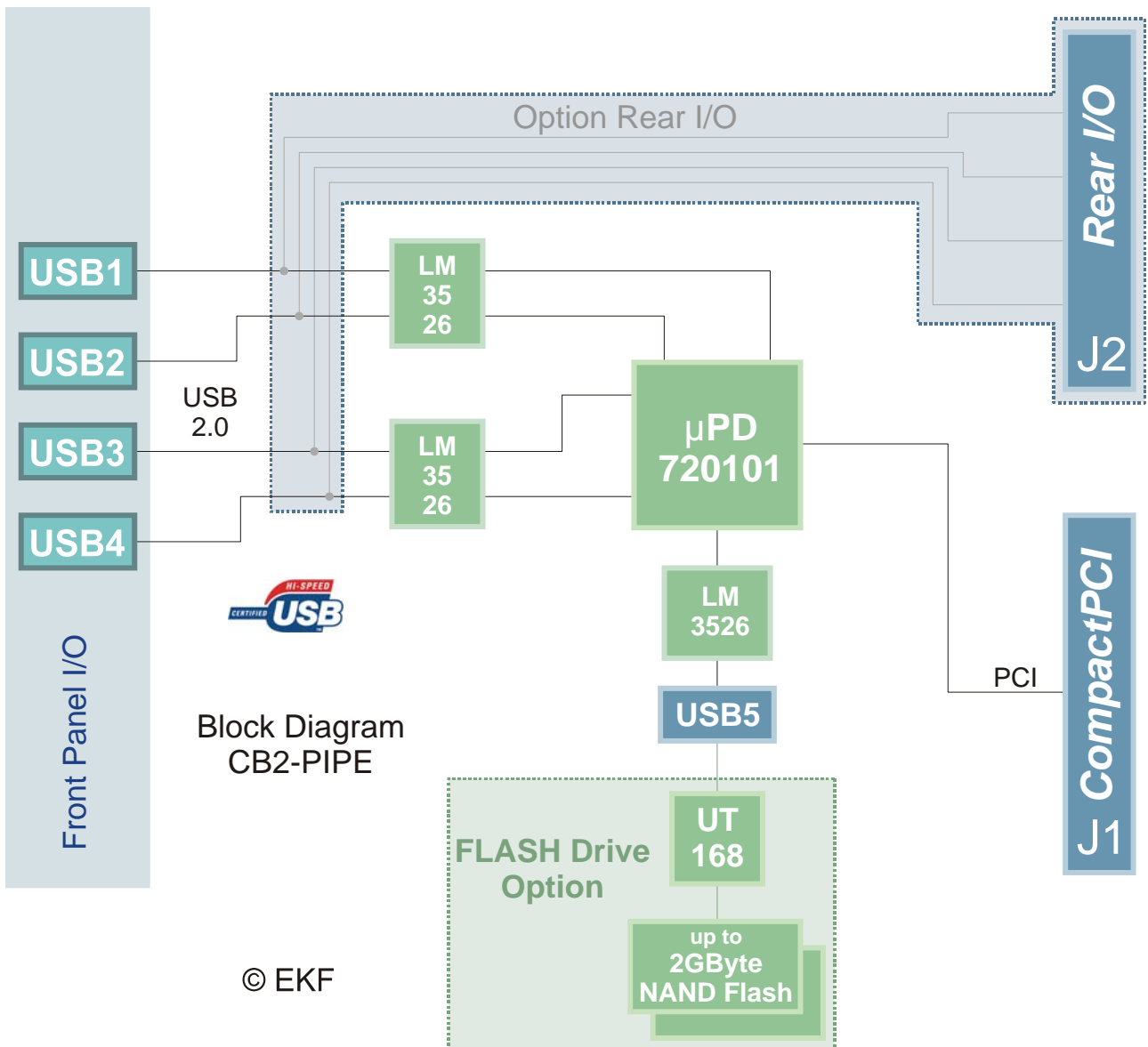


## Feature Summary CB2-PIPE

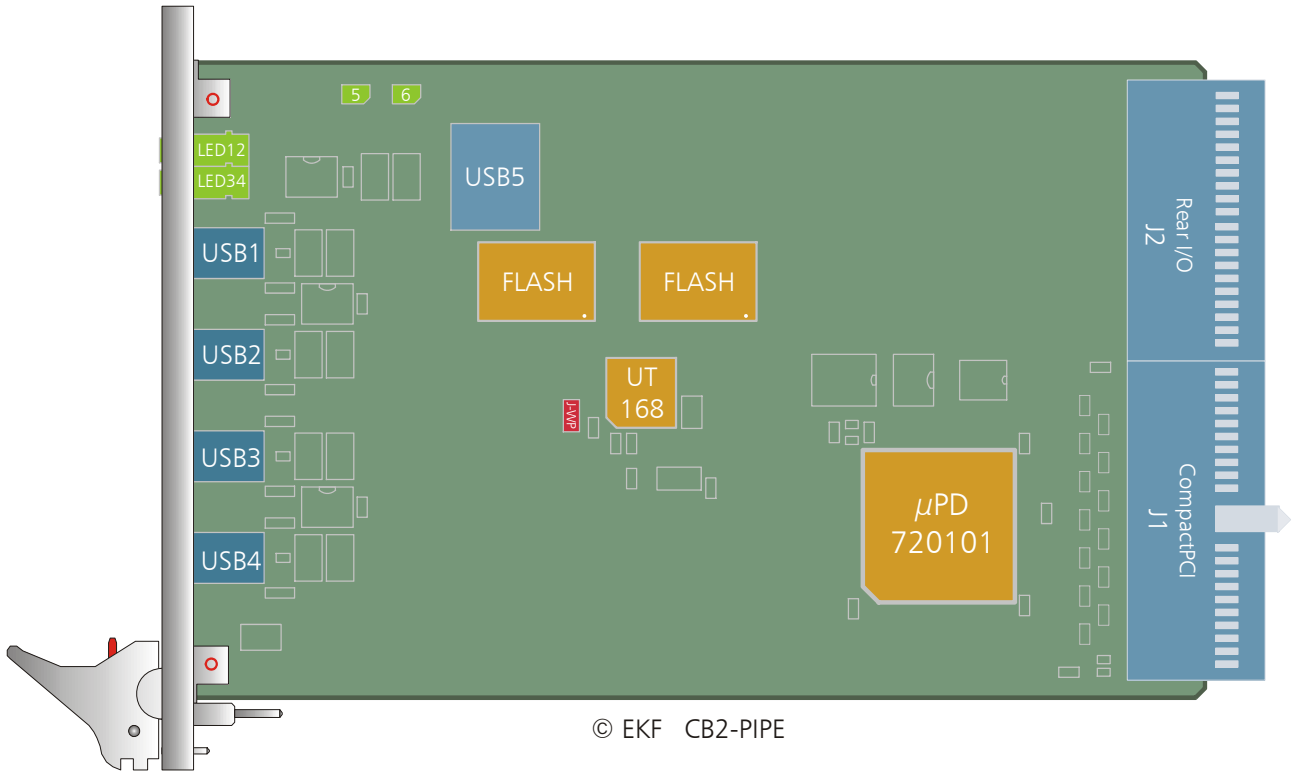
Form Factor	Single size <i>CompactPCI</i> style Eurocard (160x100mm <sup>2</sup> ), front panel width 4HP (20.3mm)
USB	<p>Root hub with 5 downstream facing ports, all ports over-current protected, data transfer rate up to 480Mbps, conforming to USB2.0, OHCI Rev. 1.0a, EHCI Rev. 1.0</p> <ul style="list-style-type: none"> <li>• USB port 1-4 wired to front panel type A connectors</li> <li>• USB port 1-4 optionally wired to J2 for rear I/O usage (front panel connectors USB1-4 removed), stuffing option - please take into consideration when ordering</li> <li>• USB port 5 wired to the on-board type A connector</li> <li>• USB port 5 optionally dedicated to the on-board USB Flash drive (on-board connector USB5 removed), stuffing option - please take into consideration when ordering</li> </ul>
FLASH Drive	Optional on-board USB2.0 Flash drive controller and 2 pcs. NAND Flash up to 8Gbit each (total memory capacity up to 2GByte), transfer rates of up to 18MB/s for read and 13MB/s for write, can be used as bootable device (observe Flash memory capacity limitations, e.g. a non trimmed down typical Windows® installation may require significantly more than 1GByte), stuffing option - please take into consideration when ordering
<i>CompactPCI</i> ®	32-bit, 133MBps CPCI master, 3.3V/5V Vio
Typical Power Consumption	<ul style="list-style-type: none"> <li>• +3.3V +0.17V/-0.1V 0.4A max. (w/o on-board Flash disk drive option)</li> <li>• +5V ± 5% 0.1A max. (w/o external current consuming USB devices)</li> <li>• +Vio 3.3V/5V 0.1A max.</li> </ul>
Thermal Conditions	<ul style="list-style-type: none"> <li>• Operating temperature: 0°C ... +70°C</li> <li>• Storage temperature: -40°C ... +85°C</li> </ul>
Environmental Conditions	<ul style="list-style-type: none"> <li>• Humidity 5% ... 95% non condensing</li> <li>• Altitude -300m ... +3000m</li> </ul>
Shock	15g 0.33ms, 6g 6ms
Vibration	1g 5-2000Hz
MTBF	0.333 * 10 <sup>6</sup> h

subject to change

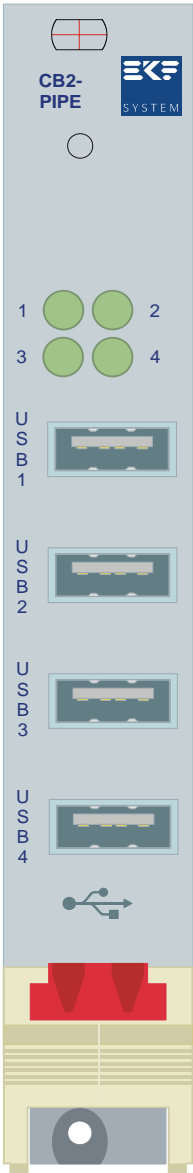
Block Diagram CB2-PIPE



Orientation of Connectors CB2-PIPE

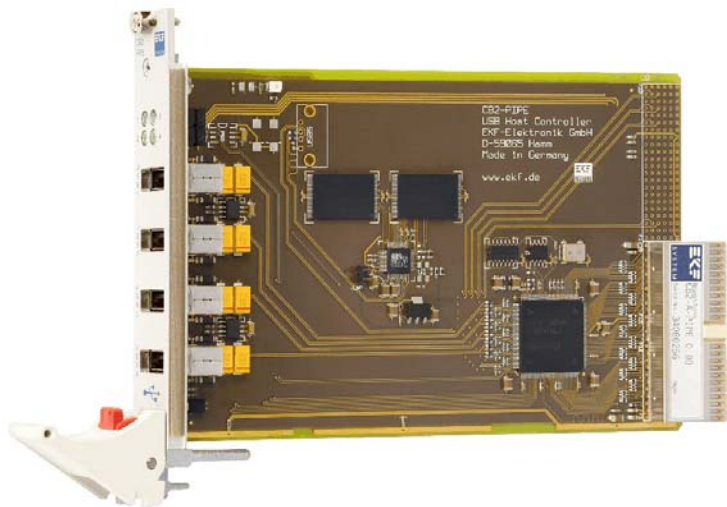


Front Panel I/O Functions CB2-PIPE



Ordering Information

Alias	Ordering No.	Short Description
PIPE	CB2-1-PIPE	3U, 5-port USB2.0 480Mbps host adapter EHCI/OHCI
PIPE	CB2-A-PIPE	3U, 4-port USB2.0 480Mbps host adapter EHCI/OHCI, on-board USB Flash disk drive, 256MB
PIPE	CB2-C-PIPE	Same as CB2-A, Flash disk drive 1GB
	CR9-1-ADAPT	Mechanical kit, expands 3U front panel to 6U



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