

PC3623 Coaxlink Quad CXP-12 Value

General

Product name	PC3623 Coaxlink Quad CXP-12 Value
Product code	3623
Product status	Released

Mechanical

Mechanical Specs

<dl>
<dt>Form factor</dt>
<dd>
<p>PCI Express card</p>
</dd>
<dt>Format</dt>
<dd>
<p>Standard profile, half length, 8-lane PCI Express card</p>
</dd>
<dt>Cooling method</dt>
<dd>
<p>Air cooling, fan-cooled heatsink</p>
</dd>
<dt>Mounting</dt>
<dd>
<p>For insertion in a standard height, 8-lane or higher, PCI Express card slot</p>
</dd>
<dt>Connectors</dt>
<dd>
<p>'A B C D' on card bracket:</p>
<p>4 x Micro-BNC 75 Ohms coaxial receptacles</p>
<p>CoaXPress Host Interface</p>
<p>'EXTERNAL I/O' on card bracket:</p>
<p>26-pin 3-row high-density D-Sub female socket with UNC4-40 jack socket screws</p>
<p>I/O lines and I/O power output</p>
<p>'INTERNAL I/O 1' on printed circuit board:</p>
<p>26-pin 2-row 0.1" pitch pin header with shrouding</p>
<p>I/O lines and I/O power output</p>
<p>'INTERNAL I/O 2' on printed circuit board:</p>
<p>26-pin 2-row 0.1" pitch pin header with shrouding</p>
<p>I/O lines and I/O power output</p>
<p>'I/O EXTENSION' on printed circuit board:</p>
<p>26-pin 2-row 0.05" pitch pin header with shrouding</p>
<p>I/O extension cable socket</p>
<p>'C2C-LINK' on printed circuit board:</p>
<p>6-pin 2-row 0.1" pitch pin header with shrouding</p>
<p>Card-to-card link</p>
<p>'AUXILIARY POWER INPUT' on printed circuit board:</p>
<p>6-pin PEG power socket</p>

Mechanical

<p>12 V DC power input for PoCXP and I/O power output</p>
</dd>
<dt>LED indicators</dt>
<dd>
<p>'A', 'B', 'C', 'D' on bracket:</p>
<p>Bi-color red/green LEDs</p>
<p>CoaXPress Host connector indicator</p>
<p>'FPGA STATUS LAMP' on PCB:</p>
<p>Bi-color red/green LED</p>
<p>FPGA status indicator</p>
<p>'BOARD STATUS LAMP' on PCB:</p>
<p>Bi-color red/green LED</p>
<p>Board status indicator</p>
</dd>
<dt>Switches</dt>
<dd>
<p>'RECOVERY' on PCB:</p>
<p>3-pin 1-row 0.1" header or 2-way DIP switch</p>
<p>Firmware emergency recovery</p>
</dd>
<dt>Dimensions</dt>
<dd>
<p>PCB L x H: 167.65 mm x 111.15 mm [6.6 in x 4.38 in]</p>
</dd>
<dt>Weight</dt>
<dd>
<p>Net weight: 187 g [6.6 oz]</p>
<p>Gross weight: 287 g [10.1 oz]</p>
</dd>
</dl>

Form factor	PCIe Card
Cooling method	Air cooling / fan-cooled

Host Bus

Standard	PCIe 3.0
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Camera Inputs

Camera Inputs	<dl> <dt>Camera interface standard</dt> <dd> CoaXPress </dd> <dt>Interface standard(s)</dt> <dd> CoaXPress 1.0, 1.1, 1.1.1, 2.0 and 2.1 </dd> <dt>Maximum link speed</dt> <dd> CXP-12 </dd> <dt>Maximum link width</dt>
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Camera Inputs

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<dd>
<p>4 connections</p>
</dd>
<dt>Camera powering</dt>
<dd>
<p>PoCXP</p>
</dd>
<dt>Connectors</dt>
<dd>
<p>Four micro-BNC 75 Ohms (also known as HD-BNC™) CXP-12</p>
</dd>
<dt>Status LEDs</dt>
<dd>
<p>One CoaXPress Host connection status LED per connection</p>
</dd>
<dt>Number of cameras</dt>
<dd>
<p>Area-scan cameras:</p>
<p>One 1- or 2- or 4-connection camera</p>
<p>Two 1- or 2-connection cameras</p>
<p>Four 1-connection cameras</p>
<p>Line-scan cameras:</p>
<p>One 1- or 2- or 4-connection camera</p>
<p>Two 1- or 2-connection cameras</p>
<p>Four 1-connection cameras</p>
</dd>
<dt>Maximum number of cameras</dt>
<dd>
<p>4</p>
</dd>
<dt>Line-scan cameras supported</dt>
<dd>
<p>Yes</p>
</dd>
<dt>Maximum aggregated camera data transfer rate</dt>
<dd>
<p>50 Gbps (5,000 MB/s)</p>
</dd>
<dt>Supported CXP down-connection speeds</dt>
<dd>
<p>1.25 Gbps (CXP-1), 2.5 Gbps (CXP-2), 3.125 Gbps (CXP-3), 5 Gbps (CXP-5), 6.25 Gbps (CXP-6), 10.0 Gbps (CXP-10), and 12.5 Gbps (CXP-12)</p>
</dd>
<dt>Supported CXP up-connection speeds</dt>
<dd>
<p>Low-speed 20.83... Mbps (CXP-1 to CXP-6)</p>
<p>Low-speed 41.66... Mbps (CXP-10, CXP-12)</p>
</dd>
<dt>Number of CXP data streams (per camera)</dt>
<dd>
<p>1 data stream per camera</p>
</dd>
<dt>Maximum CXP stream packet size</dt>

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Camera Inputs

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<dd>
<p>16,384 bytes</p>
</dd>
<dt>PoCXP (Power over CoaXPress)</dt>
<dd>
<p>PoCXP Safe Power:</p>
<p>17 W of 24V DC regulated power per CoaXPress connector</p>
<p>PoCXP Device detection and automatic power-on</p>
<p>Overload and short-circuit protections</p>
<p>On-board 12V to 24V DC/DC converter</p>
<p>A +12V power source must be connected to the AUXILIARY
POWER INPUT connector using a 6-pin PEG cable</p>
</dd>
<dt>Camera types</dt>
<dd>
<p>Area-scan cameras:</p>
<p>Grayscale and color (YCbCr, YUV, RGB and Bayer CFA)</p>
<p>Single-tap (1X-1Y) progressive-scan</p>
<p>Two-tap (1X-2YE) on two distinct data streams ( '1-camera'
firmware variant only)</p>
<p>Line-scan cameras and contact imaging sensors:</p>
<p>Grayscale and color RGB</p>
</dd>
<dt>Camera pixel formats supported</dt>
<dd>
<p>Mono8, Mono10, Mono12, Mono14, Mono16</p>
<p>BayerXX8, BayerXX10, BayerXX12, BayerXX14, BayerXX16
where XX = GR, RG, GB, or BG</p>
<p>RGB8, RGB10, RGB12, RGB14, RGB16</p>
<p>RGBA8, RGBA10, RGBA12, RGBA14, RGBA16</p>
<p>YCbCr601_422_8, YCbCr601_422_10</p>
<p>YCbCr709_422_8, YCbCr709_422_10</p>
<p>YUV422_8, YUV422_10</p>
<p>Raw</p>
</dd>
</dl>

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Camera interface standard

CoaXPress