

PC1633 Coaxlink Quad G3

General

Product name	PC1633 Coaxlink Quad G3
Product code	1633
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, 4-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, 4-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 DIN 1.0/2.3 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>'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> <p>12 V DC power input for PoCXP and I/O power output</p> </dd> <dt>LED indicators</dt>
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Mechanical

<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: 173 g [6.1 oz]</p>
 <p>Gross weight: 274 g [9.7 oz]</p>
 </dd>
 </dl>

Form factor

PCIe Card

Cooling method

Air cooling / fan-cooled

Host Bus

Standard

PCIe 3.0

Camera Inputs

Camera Inputs

<dl>
 <dt>Camera interface standard</dt>
 <dd>
 <p>CoaXPress</p>
 </dd>
 <dt>Interface standard(s)</dt>
 <dd>
 <p>CoaXPress 1.0, 1.1, 1.1.1, 2.0 and 2.1</p>
 </dd>
 <dt>Maximum link speed</dt>
 <dd>
 <p>CXP-6</p>
 </dd>
 <dt>Maximum link width</dt>
 <dd>
 <p>4 connections</p>
 </dd>
 </dl>

Camera Inputs

<dt>Camera powering</dt>	<dd> PoCXP </dd>
<dt>Connectors</dt>	<dd> Four DIN1.0/2.3 75 Ohms CXP-6 </dd>
<dt>Status LEDs</dt>	<dd> One CoaXPress Host connection status LED per connection </dd>
<dt>Number of cameras</dt>	<dd> Area-scan cameras: One 1- or 2- or 4-connection camera One 1- or 2- or 4-connection multi-stream camera (up to 4 data streams) One or two 1- or 2-connection cameras One 1- or 2-connection and one or two 1-connection cameras Up to four 1-connection cameras One 4-connection sub-link of an 8-connection camera Line-scan cameras: One 1- or 2- or 4-connection camera One or two 1- or 2-connection cameras Up to four 1-connection cameras </dd>
<dt>Maximum number of cameras</dt>	<dd> 4 </dd>
<dt>Line-scan cameras supported</dt>	<dd> Yes </dd>
<dt>Maximum aggregated camera data transfer rate</dt>	<dd> 25 Gbps (2,500 MB/s) </dd>
<dt>Supported CXP down-connection speeds</dt>	<dd> 1.25 Gbps (CXP-1), 2.5 Gbps (CXP-2), 3.125 Gbps (CXP-3), 5 Gbps (CXP-5), and 6.25 Gbps (CXP-6) </dd>
<dt>Number of CXP data streams (per camera)</dt>	<dd> 4 on '1-camera, 4 data-stream' firmware variant 1 per camera on other firmware variants </dd>
<dt>Maximum CXP stream packet size</dt>	<dd> 16,384 bytes </dd>
<dt>PoCXP (Power over CoaXPress)</dt>	

Camera Inputs

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<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>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>
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Camera interface standard

CoaXPress