



# GETCAMERAS

## DATASHEET GRAB-D-PCIe4-10G-1X1X

10 Gigabit Ethernet to PCI Express x4 Gen 3 Adapter without PoE.



### Highlights

- PCIe x4 Gen 3 (8.0 GT/s), Low-Profile PCI Form Factor
- IEEE 802.3an 10G, 5G, 2.5G, 1G and 100M over up to 100m of Cat6a (or better) cables
- Typical Power Consumption: 6 W at 10 Gbps, 4W at 5 Gbps full length 100 m Cat6a
- Standard compliance:
  - IEEE 802.3bz – NBASE-T, IEEE 802.3x – flow control,
  - IEEE 802.1P – quality of service, IEEE 802.1QAV – AVB
- Jumbo frame support up to 16 KB

### Introduction

The GRAB-D-PCIe4-10G-1X1X is a single-chip, single-port, high-performance PCIe 3.0 Multi-Gig 10GBASE-T/ 5GBASE-T/ 2.5GBASE-T/ 1000BASE-T/ 100BASE-TX Ethernet adapter. It incorporates Aquantia's AQRate PHY technology to deliver 1 GbE and 2.5 GbE network connectivity speeds over 100 m with zero change required for legacy cabling. Speeds ranging from 5 GbE to 100 M are supported by Cat 5e cabling while 10GbE requires a minimum of Cat6 with Cat 6a running up to 100 m.

## Technical Specifications

PCI Express	<ul style="list-style-type: none"> <li>• PCI Express Gen3 or Gen2, (Supports line rates of 8.0 GT/s and 5.0 GT/s per lane)</li> <li>• Bus width: Supports Gen3 x4 or Gen2 x4</li> <li>• MSI, MSI-X, and legacy INTx PCIe interrupts, Improved CPU utilization and network performance</li> </ul>
MAC	<ul style="list-style-type: none"> <li>• Large Send Offload (LSO), Receive-Side Scaling (RSS), Direct Cache Access (DCA) header checksum <ul style="list-style-type: none"> <li>◦ Increased network performance and lower host CPU utilization</li> </ul> </li> <li>• WoL power management <ul style="list-style-type: none"> <li>◦ Supports low power modes</li> </ul> </li> <li>• On-chip CPU DASH <ul style="list-style-type: none"> <li>◦ Desktop management</li> </ul> </li> <li>• MACsec <ul style="list-style-type: none"> <li>◦ Secured traffic over Ethernet links</li> </ul> </li> <li>• Quality of Service (QOS) support <ul style="list-style-type: none"> <li>◦ Up to eight traffic classes and Data Center Bridging (DCB)</li> </ul> </li> <li>• Jumbo frames (up to 16Kbytes) <ul style="list-style-type: none"> <li>◦ Improves network performance with reduced CPU utilization</li> </ul> </li> <li>• IPv4, IPv6/TCP and IPv6/UDP checksum offload <ul style="list-style-type: none"> <li>◦ Offloading calculations and improved CPU usage</li> </ul> </li> </ul>
PHY	<ul style="list-style-type: none"> <li>• Integrated Aquantia AQrate PHY featuring NBASE-T technology <ul style="list-style-type: none"> <li>◦ 100 meters over Cat 6a at 10Gbps</li> <li>◦ 100 meters over Cat 5e and Cat 6a at 5Gbps/ 2.5Gbps/ 1Gbps/ 100Mbps</li> </ul> </li> <li>• Advanced cable diagnostics <ul style="list-style-type: none"> <li>◦ On-chip high resolution cable analyzer</li> </ul> </li> <li>• Audio Video Bridging (AVB) and 1588v2 <ul style="list-style-type: none"> <li>◦ Management of time-sensitive traffic packets</li> </ul> </li> <li>• EEE support <ul style="list-style-type: none"> <li>◦ PHY power savings mode</li> </ul> </li> <li>• Supported Data Rates <ul style="list-style-type: none"> <li>◦ 10G/ 5G/ 2.5G/ 1G/ 100 Mbps</li> </ul> </li> <li>• Standard compliance <ul style="list-style-type: none"> <li>◦ IEEE 802.3bz – NBASE-T, IEEE 802.3x – flow control, IEEE 802.1P – quality of service, IEEE 802.1QAV – AVB</li> </ul> </li> </ul>
LED Indicators	<ul style="list-style-type: none"> <li>• Left LEDs (Green &amp; Orange) <ul style="list-style-type: none"> <li>◦ Orange: 5G/2.5G/1G/100M Link</li> <li>◦ Green: 10G Link</li> </ul> </li> </ul>
Number of Port	<ul style="list-style-type: none"> <li>• One 10GBASE-T RJ45 Ethernet port with Screw Holes for thumbscrew locking Type Ethernet Cable</li> </ul>
Operating System Requirements	<ul style="list-style-type: none"> <li>• This driver supports in the following operating systems <ul style="list-style-type: none"> <li>◦ Windows 7, 8, 8.1, 10, Server 2012/2016</li> <li>◦ Linux kernels 3.10 and later, includes support for x86_64 and ARM Linux system</li> </ul> </li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• 64.4mm(H) x 148mm(L)</li> <li>• NW: 101.6g</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>• CE Test: Pass</li> <li>• FCC Test : Pass</li> <li>• VCCI Test: Pass</li> <li>• RCM Test: Pass</li> </ul>

## Mechanical drawing

Not Available