# Chelsio Unified Wire Adapter Product Selection Guide

## Single Adapter with concurrent Multi-Protocol Operation

### T6 ASIC based Ethernet Adapters

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<tbody>
<tr>
<td>Ports</td>
<td>2x40/50/100G</td>
<td>2x40/50/100G</td>
<td>2x40/50/100G</td>
<td>2x40/50/100G</td>
</tr>
<tr>
<td>Connector Type</td>
<td>QSFP28</td>
<td>QSFP28</td>
<td>QSFP28</td>
<td>QSFP28</td>
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<tr>
<td>Host Interface</td>
<td>PCIe Gen3 x16</td>
<td>PCIe Gen3 x16</td>
<td>PCIe Gen3 x16</td>
<td>PCIe Gen3 x16</td>
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<tr>
<td>Form Factor</td>
<td>Half Size</td>
<td>Low Profile</td>
<td>Low Profile</td>
<td>OCP3</td>
</tr>
<tr>
<td>Concurr. Conn.</td>
<td>32k</td>
<td>19W</td>
<td>16W</td>
<td>16W</td>
</tr>
<tr>
<td>Power (Typical)</td>
<td>22W</td>
<td>19W</td>
<td>16W</td>
<td>16W</td>
</tr>
<tr>
<td>Airflow</td>
<td>200 LFM (Linear Feet Per minute)</td>
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</tr>
<tr>
<td>Adapter Type</td>
<td>Unified Wire</td>
<td>Server Offload</td>
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</table>

### T6/T5 ASIC based Ethernet Adapters

<table>
<thead>
<tr>
<th>Chelsio P/N</th>
<th>T6225-OCP3</th>
<th>T6225-CR</th>
<th>T6225-SO-CR</th>
<th>T540-LP-CR</th>
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</thead>
<tbody>
<tr>
<td>Ports</td>
<td>2x10/25G</td>
<td>PCIe Gen3 x8</td>
<td>4x1/10G</td>
<td>SFP+</td>
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<tr>
<td>Connector Type</td>
<td>SFP28</td>
<td>PCIe Gen3 x8</td>
<td>PCIe Gen3 x8</td>
<td>PCIe Gen3 x8</td>
</tr>
<tr>
<td>Host Interface</td>
<td>OCP3</td>
<td>Low Profile</td>
<td>Low Profile</td>
<td>SFP+</td>
</tr>
<tr>
<td>Form Factor</td>
<td>OCP3</td>
<td>Low Profile</td>
<td>Low Profile</td>
<td>Low Profile</td>
</tr>
<tr>
<td>Concurr. Conn.</td>
<td>32K</td>
<td>256</td>
<td>32K</td>
<td>32K</td>
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<tr>
<td>Power (Typical)</td>
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<td>10W</td>
<td>11W</td>
<td>11W</td>
</tr>
<tr>
<td>Airflow</td>
<td>200 LFM (Linear Feet Per minute)</td>
<td>200 LFM (Linear Feet Per minute)</td>
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<tr>
<td>Adapter Type</td>
<td>Unified Wire</td>
<td>CNA</td>
<td>Unified Wire</td>
<td>CNA</td>
</tr>
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</table>

### Adapter Types and Supported Functions:

- **Server Offload**: L2 NIC
- **CNA**: Server Offload Functions, iSCSI Init HW Offload, iSER Init HW Offload, NVMe-oF Init HW Offload, FCoE Init, S2D iWARP HW Offload, RDMA over iWARP
- **Unified Wire (UWire)**: Server Offload & CNA functions, Storage Targets Offload, FCoE HW Offload, Media Streaming Offload, TCP & UDP Offloads, Traffic Management, Filtering, Unified Boot, Encryption Offload

### Features

- Windows Server 2016 / 2019 / 2022
- Windows Storage Spaces Direct (S2D)
- Windows Azure Stack Private Cloud
- Windows Network Direct
- Windows SMB Direct, Client RDMA
- Windows Storage Replica (SR)
- Windows dVMMQ
- Low Latency L2 NIC
- TCP/IP Offload Engine (TOE)
- iWARP RDMA Offload
- Inline TLS/SSL, DTLS, IPsec Offload
- Coprocessor TLS/SSL, IPsec Offload
- NGINX Offload
- iSCSI Offload (Initiator and Target)
- iSER Offload (Initiator and Target)
- FCoE HW Offload (Initiator)
- NVMe-oF iWARP (Initiator and Target)
- NVMe/TCP Offload (Initiator and Target)
- NVMe JBOF (Just a Batch of Flash)
- SPDK NVMe/TCP Offload Target
- Wire Direct Low Latency Suite
- SR-IOV / Virtualization
- DPDK / PacketDirect / Netmap
- OVS / OpenFlow Offload
- NVGRE / VxLAN / Geneve
- Media StreamEngine
- Traffic Management / DCB
- Packet Classification
- Sniffer / Tracer
- Multi / Single adapter Failover

1. Supported only on T6 family of adapters
2. Not supported by SO (Server Offload) adapters

**LP**: Low Profile  **SO**: Server Offload
Chelsio ASIC, Software and Support Guide

Unified Wire & Server Offload Controller ASICs

T6 is a highly integrated, hyper-virtualized 1/10/25/40/50/100GbE controller ASIC with full offload support of a complete Unified Wire solution comprising L2 NIC, TOE, iWARP RDMA, iSCSI, FCoE, NVGRE, VxLAN, Filtering, Traffic Analytics, Management, OVS Offload, DCB, NVMe-oF, NVMe/TCP, NVMe/TOE and TLS/SSL, DTLS, IPsec, SMB 3.X crypto Offload.

Ordering Information:
T6ASIC2100: T6 Unified Wire Engine, 2x1/10/25/40/50/100G ports, full featured.
T5ASIC40G: T5 Unified Wire Engine, 2x40G or 4x10G ports, full featured.

Chelsio Terminator Core IP

Chelsio’s Terminator Core IP is a configurable, high performance Ethernet packet processing engine with a full suite of software, suitable for a wide range of SoC network connectivity solutions. Contact sales@chelsio.com for more information.

<table>
<thead>
<tr>
<th>Twinaxial Cables</th>
<th>Optical Cables</th>
<th>Optical Transceivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPCABLE3M (3M 10G Passive)</td>
<td>QSRCABLE10M (10M Short Reach for 40G and 100G)</td>
<td>SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)</td>
</tr>
<tr>
<td>TAPCABLE-28-3M (3M 25G Passive)</td>
<td></td>
<td>SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)</td>
</tr>
<tr>
<td>QTAPCABLE3M (3M 40G QSFP+ Passive, 30 AWG)</td>
<td></td>
<td>SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)</td>
</tr>
<tr>
<td>OCTTAPCABLE3M (3M QSFP+ to 4xSFP+ Passive)</td>
<td></td>
<td>SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)</td>
</tr>
<tr>
<td>QTAPCABLE28-2M (2M 100G QSFP28 Passive)</td>
<td></td>
<td>SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)</td>
</tr>
</tbody>
</table>

Accessories

SM10G-SR (10G Short Reach SFP+)
SM10G-LR (10G Long Reach SFP+)
SM25G-SR (25G Short Reach SFP28)
SM25G-LR (25G Long Reach SFP28)
SM40G-SR (40G Short Reach QSFP+)
SM40G-LR (40G Long Reach QSFP+)
SM100G-SR (100G Short Reach QSFP28)
SM100G-LR (100G Long Reach QSFP28)
SM10G-SR-BT (1/10GBASE-T RJ45 SFP+)
SM1G-SR-BT (1000BASE-T RJ45 SFP+)

Support

The standard warranty period for Chelsio hardware products is three years from date of purchase. To contact support, call Chelsio at 408-962-3600, submit a support request via www.chelsio.com or email support at support@chelsio.com. Drivers for Chelsio adapters are available at service.chelsio.com

Support Plan:
SUPPORT-GOLD: 40 hours extended technical support: 24-hr response/replacement.
SUPPORT-SILVER: 4 hours extended technical support: 24-hr response.

Supported Platforms, Operating Systems and Hypervisors