

# Chelsio Unified Wire Adapter Product Selection Guide



## Single Adapter with concurrent Multi-Protocol Operation

| T6 ASIC based Ethernet Adapters               |  |                     |                     |                    |                   |                   |                   |                   |  |
|---|--|---------------------|---------------------|--------------------|-------------------|-------------------|-------------------|-------------------|--|
| <b>Chelsio P/N</b>                            | <b>T62100-CR</b>   | <b>T62100-LP-CR</b> | <b>T62100-SO-CR</b> | <b>T6225-SO-CR</b> | <b>T6225-CR</b>   |                   |                   |                   |  |
| <b>Ports</b>                                  | 2x40/50/100G   |                     |                     | 2x10/25G           |                   |                   |                   |                   |  |
| <b>Connector Type</b>                         | QSFP28   |                     |                     | SFP28              |                   |                   |                   |                   |  |
| <b>Host Interface</b>                         | PCIe Gen3 x16  |                     |                     | PCIe Gen3 x8       |                   |                   |                   |                   |  |
| <b>Form Factor</b>                            | Half Size  | Low Profile         |                     |                    |                   |                   |                   |                   |  |
| <b>Concurr. Conn.</b>                         | 32k  |                     |                     | 256                |                   | 32k               |                   |                   |  |
| <b>Power (Typical)</b>                        | 22W  | 19W                 | 16W                 | 15W                | 13W               |                   |                   |                   |  |
| <b>Airflow</b>                                | 200 LFM (Linear Feet Per minute)   |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Adapter Type</b>                           | Unified Wire   |                     | Server Offload      |                    | CNA               |                   | Unified Wire      |                   |  |
| T5 ASIC based Ethernet Adapters               |  |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Chelsio P/N</b>                            | <b>T540-BT</b>   | <b>T520-BT</b>      | <b>T520-CR</b>      | <b>T540-LP-CR</b>  | <b>T540-SO-CR</b> | <b>T520-SO-CR</b> | <b>T580-SO-CR</b> | <b>T580-LP-CR</b> |  |
| <b>Ports</b>                                  | 4x100M/1/10G   | 2x100M/1/10G        | 2x1/10G             | 4x1/10G            |                   | 2x1/10G           | 2x10/40G          |                   |  |
| <b>Connector Type</b>                         | RJ-45  |                     | SFP+ Cage           |                    |                   | QSFP+ Cage        |                   |                   |  |
| <b>Host Interface</b>                         | PCIe Gen3 x8   |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Form Factor</b>                            | Half Size  | Low Profile         |                     |                    |                   |                   |                   |                   |  |
| <b>Concurr. Conn.</b>                         | 32k  |                     |                     |                    |                   |                   |                   | 32k               |  |
| <b>Power (Typical)</b>                        | 26W  | 20W                 | 12W                 | 11W                | 8W                | 9W                | 12W               | 17W               |  |
| <b>Airflow</b>                                | 200 LFM (Linear Feet Per minute)   |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Adapter Type</b>                           | Unified Wire   |                     |                     | Server Offload     |                   |                   | Unified Wire      |                   |  |
| <b>Adapter Types and Supported Functions:</b> |  |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Server Offload</b>                         | L2 NIC   |                     |                     |                    |                   |                   |                   |                   |  |
| <b>CNA</b>                                    | Server Offload Functions, iSCSI Init HW Offload, iSER Init HW Offload, NVMe-oF Init HW Offload, FCoE Init, Unified Boot, S2D iWARP HW Offload, RDMA over iWARP                       |                     |                     |                    |                   |                   |                   |                   |  |
| <b>Unified Wire (UWire)</b>                   | Server Offload & CNA functions, FCoE HW Offload, Storage Target Offload, Media Streaming Offload, TCP & UDP Offloads, Traffic Management, Filtering, Encryption Offload <sup>1</sup> |                     |                     |                    |                   |                   |                   |                   |  |

### Features

- Windows Server 2012-R2 / 2016 / 2019
- Windows Storage Spaces Direct (S2D)
- Windows Azure Stack Private Cloud
- Windows Network Direct
- Windows SMB Direct
- Windows Client RDMA
- Windows Storage Replica (SR)
- Windows d.VMMQ
- Low Latency L2 NIC
- TCP/IP Offload Engine (TOE)
- iWARP RDMA Offload
- TLS/SSL, DTLS, IPsec, SMB 3.X crypto<sup>1,2</sup>
- iSCSI Offload (Initiator and Target)
- iSER Offload (Initiator and Target)
- FCoE HW Offload (Initiator and Target)
- NVMe-oF (Initiator and Target)
- NVMe JBOF (Just a Bunch of Flash)
- GPUDirect RDMA
- Wire Direct Low Latency Suite
- SR-IOV / Virtualization
- DPDK / PacketDirect / Netmap
- OVS / OpenFlow Offload
- NVGRE / VxLAN/ Geneve
- Media StreamEngine<sup>2</sup>
- Traffic Management / DCB
- Packet Classification
- Sniffer / Tracer
- Multi / Single adapter Failover

<sup>1</sup> Supported only on T6 family of adapters  
<sup>2</sup> Not supported by SO (Server Offload) adapters

**LP:** Low Profile **SO:** Server Offload

## 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 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.

## Specialty Ethernet Adapters

Following adapters are also available on order (Minimum MOQ of 25 units):

- **T6225-OCP:** 2-port OCP, 10/25GbE CNA Adapter, PCI-E Gen3 x8 interface, SFP28 connector
- **T61100-OCP:** 1-port OCP, 40/50/100GbE Server Offload Adapter, PCI-E Gen3 x16 interface, QSFP28 connector
- **T6425-CR:** 4-port Half Size, 10/25GbE UWire Adapter, PCI-E Gen3 x8 interface, 16k conn., SFP28 connector
- **T6225-LL-CR:** 2-port Low Latency Low Profile, 10/25GbE UWire Adapter, PCI-E Gen3 x8 interface, 16k conn., SFP28 connector



## Accessories

### Twinaxial Cables

TAPCABLE1M (1M 10G Passive)  
TAPCABLE3M (3M 10G Passive)  
TAPCABLE5M (5M 10G Passive)  
TAPCABLE28-1M (1M 25G Passive)  
TAPCABLE28-2M (2M 25G Passive)  
TAPCABLE28-3M (3M 25G Passive)

QTAPCABLE1M (1M 40G QSFP+ Passive, 30 AWG)  
QTAPCABLE3M (3M 40G QSFP+ Passive, 30 AWG)  
QTAPCABLE5M (5M 40G QSFP+ Passive, 26 AWG)  
QTAPCABLE28-1M (1M 100G QSFP28 Passive)  
QTAPCABLE28-2M (2M 100G QSFP28 Passive)  
QTAPCABLE28-3M (3M 100G QSFP28 Passive)  
OCTTAPCABLE3M (3M QSFP+ to 4xSFP+ Passive)

### Optical Cables

SRCABLE3M (3M Short Reach for 10G and 25G)  
LRCABLE3M (3M Long Reach for 10G and 25G)  
QSRCABLE10M (10M Short Reach for 40G and 100G)  
OCTCABLE5M-SR (5M QSFP+ to 4xSFP+ Short Reach)

### Optical Transceivers

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)

## 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](http://www.chelsio.com) or email support at [support@chelsio.com](mailto:support@chelsio.com). Drivers for Chelsio adapters are available at [service.chelsio.com](http://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

