

### **cPacket cTAP Network Test Access Points**

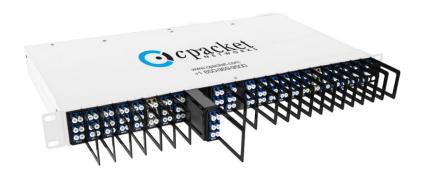
Cost-effective Fixed and Modular Passive Network TAPs for Monitoring to 100Gbps

# Use cTAP Network Test Access Points to:

- Passively acquire network packets, without having to deal with power, heat, or IP/MAC addresses
- Connect to all physical cPacket Visibility Fabric appliances (i.e., cVu<sup>®</sup> Network Packet Broker+ and cStor<sup>®</sup> Packet Capture appliances)
- Rightsize network packet acquisition using modular TAPs for your current and future needs; just add more modules when needed
- Acquire packets from varied media by using the appropriate modules for specific media and data rates

Network test access points (TAPs) instrument your core network to access and monitor your network and traffic. The cPacket cTAP passive TAPs support high-speed and high-density network monitoring of enterprise networks that operate at data rates from 100 Mbps to 100 Gbps. They are used to passively acquire network packets in data centers and other physical networks without disrupting the network and its performance or introducing security vulnerabilities. Fixed and modular chassis are available to meet current needs and scale with growth. Regeneration Fiber TAPs are available to tap fiber optic networks and mitigate the power reduction from splitting the optical signal.

### **cTAP Modular Fiber Chassis System**



The modular chassis system for passive fiber TAPs is scalable, so you can rightsize the number of modules to meet current demand and scale as needed while preserving your connections and investment in existing monitoring tools.

Key features of the modular fiber chassis system:

- 1Gbps, 10Gpbs, 25Gbps 40Gbps, 100Gbps and 400Gbps network data rates
- 16 to 24 network TAP modules, based on configurations (i.e., 24 LC TAP Modules, 16 MPO/MTP TAP Modules, 16 BiDi LC TAP Modules)
- Change network TAP modes on-the-fly
- Mix and match modules by media and data rates
- Supports single-mode: OS1/OS2 and multi-mode: OM3/OM4/OM5 media for long-range and short-range environments
- Supports Cisco BiDirectional optical technology
- Supports split ratios of 90/10, 80/20, 50/50, 70/30, 60/40
- Durable, all-steel construction for chassis and TAP network modules

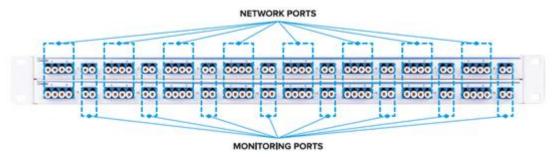
#### **cTAP Fixed Multi-Port TAPs**

Fixed chassis multi-port passive monitoring TAP appliances are easy to deploy, lightweight, and cost-effective. Options are available for:

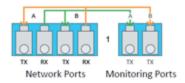
- Full duplex links at rates of 100 Mbps, 1 Gbps, 10 Gbps, 40 Gbps, 100 Gbps
- Multi-mode (MM) and single-mode (SM) optical fiber types, with optical splitratios of 90/10, 80/20, 70/30, 60/40, and 50/50

#### cTAP-0824-SM-MM and cTAP-1648-SM/MM for Links from 100Mbps to 100Gbps

As shown below, the cTAP-0824-SM-MM and cTAP-1648-SM/MM provide monitoring access to eight and sixteen full-duplex links at data rates from 100Mbps to 100Gbps.

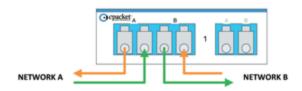


Looking at the diagram below, traffic received on port A is passively duplicated on the port-B transmit port and the port-A monitoring port. In the B to A direction, traffic received on the port-B receive port is passively duplicated on the port-A transmit port and the port-B receive port.

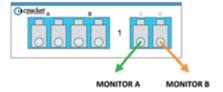


#### **Network and Monitor Port Connectivity**

Connecting this cTAP device to the network requires connecting network A to port A and network B to port B for each segment with the traffic flow in the directions shown in the following diagram. Following standard fiber transceiver connections, from the perspective of the TAP, the left LC connector is transmit, and the right LC connector is receive.

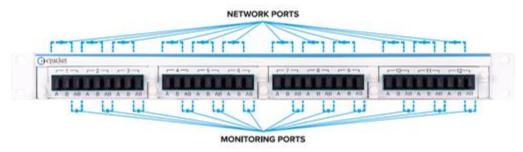


Each monitor port relays traffic from one of the network ports; traffic received on network port A is transmitted out via the monitor port A, and traffic received on network port B is transmitted out via the monitor port B, as shown in the following diagram.



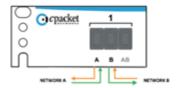
#### cTAP-1236-MTP-MM/SM for 40 Gbps Links

Each cTAP-1236-MTP-MM/SM device provides monitoring access to twelve full-duplex links at the data rate of 40Gbps.

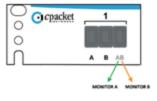


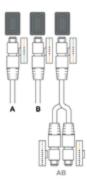
### **Network and Monitor Port Connectivity**

Connecting this cTAP device to the network requires connecting network A to port A and network B to port B for each segment with the traffic flow in the directions shown in the following diagram.



Each monitor port relays traffic from one of the network ports; traffic received on network port A and B is transmitted out via the monitor port AB using a Y cable. The use of the AB monitor port along with the Y is shown in the following diagram.



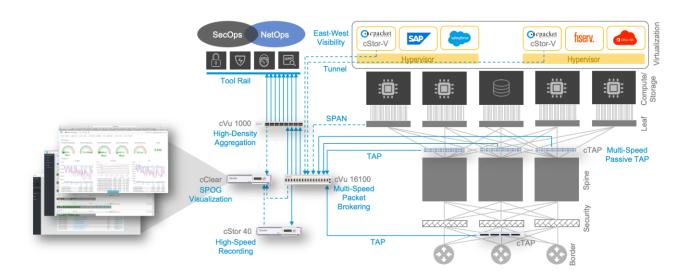


### **Deployment Options**

The cPacket Visibility Fabric provides streamed and stored network packets to provide the entire IT team and the analytics and tools they use with visibility and packets needed to ensure their network's secure and optimal operation.

The Network Operations team easily deploys the TAPs to monitor network traffic at strategic vantage points (e.g., critical network links such as north-south ingress/egress connections, specific east-west connections, etc.).

The following high-level diagram shows where a network can be instrumented with cTAP Network Test Access Points to gain visibility and access packets for brokering, storage, and analysis. Also shown is integration with other components of the cPacket Networks Intelligent Observability Platform Visibility Fabric, including packet brokering, packet capture, analytics, and dashboards.



# **Technical Specifications**

## Fiber Modular TAP Chassis and Module Options and Specifications

| Model     | Network Speed         | Ports | TAPs | Split<br>Ratio | Wavelengths | Media | Connector /Mode |
|-----------|-----------------------|-------|------|----------------|-------------|-------|-----------------|
| CP_FMC-1U | Fiber Modular Chassis |       |      |                |             |       |                 |

|   | Passive TA      | P Modules | (for use |   | _FMC-1U chass              | is)                        |                             |
|---|-----------------|-----------|----------|---|----------------------------|----------------------------|-----------------------------|
| CP_OS2501M<br>CP_OS2601M<br>CP_OS2701M<br>CP_OS2801M<br>CP_OS2901M  | 1/10/25/40/100G | O O O O   | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 1290/1330nm<br>1530/1570nm | Fiber-<br>OS1/OS2          | Fiber-LC<br>Single-<br>Mode |
| CP_OM1501M<br>CP_OM1601M<br>CP_OM1701M<br>CP_OM1801M<br>CP_OM1901M  | 1/10G           |           | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 850/1300nm                 | Fiber-<br>OM1/OM2          | Fiber-LC<br>Multi-Mode      |
| CP_OM4501M<br>CP_OM4601M<br>CP_OM4701M<br>CP_OM4801M<br>CP_OM4901M  | 1/10/25G        |           | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 850nm                      | Fiber-<br>OM3/OM4          | Fiber-LC<br>Multi-Mode      |
| CP_OM5501M<br>CP_OM5601M<br>CP_OM5701M<br>CP_OM5801M<br>CP_OM5901M  | 1/10/25/40/100G |           | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 850-950nm                  | Fiber-<br>OM5 <sup>*</sup> | Fiber-LC<br>Multi-Mode      |
| CP_OM4501-<br>SR4BM<br>CP_OM4601-<br>SR4BM<br>CP_OM4701-<br>SR4BM<br>CP_OM4801-<br>SR4BM<br>CP_OM4901-<br>SR4BM | 40/100G         |           | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 850nm                      | Fiber-<br>OM3/OM4          | MTP-12<br>Multi-Mode        |
| CP_OM5501-<br>SR4BM<br>CP_OM5601-<br>SR4BM<br>CP_OM5701-<br>SR4BM<br>CP_OM5801-<br>SR4BM<br>CP_OM5901-<br>SR4BM | 40/100/400G     |           | 1        | 50/50<br>60/40<br>70/30<br>80/20<br>90/10 | 850-950nm                  | Fiber-<br>OM5*             | MTP-12<br>Multi-Mode        |

| CP_OM4501-               |         |        |   | 50/50 |                            |                |                      |
|--------------------------|---------|--------|---|-------|----------------------------|----------------|----------------------|
| 100GSR10AM<br>CP_OM4601- |         |        |   |       |                            |                |                      |
| 100GSR10AM               |         | A B    |   | 60/40 |                            |                |                      |
| CP_OM4701-               | 4000    |        |   | 70/00 | 050                        | Fiber-         | MTP-24               |
| 100GSR10AM               | 100G    |        | 1 | 70/30 | 850nm                      | OM3/OM4        | Multi-Mode           |
| CP_OM4801-               |         |        |   | 80/20 |                            |                |                      |
| 100GSR10AM               |         |        |   | 00/20 |                            |                |                      |
| CP_OM4901-<br>100GSR10AM |         |        |   | 90/10 |                            |                |                      |
| TOOGSICTOAW              |         |        |   |       |                            |                |                      |
| CP_OM5501-               |         |        |   | EO/EO |                            |                |                      |
| 100GSR10AM               |         |        |   | 50/50 |                            |                |                      |
| CP_OM5601-               |         |        |   | 60/40 |                            |                |                      |
| 100GSR10AM               |         | Ŕ      |   |       |                            | <b>-</b> :::   | MTD 04               |
| CP_OM5701-<br>100GSR10AM | 100G    |        | 1 | 70/30 | 850-950nm                  | Fiber-<br>OM5* | MTP-24<br>Multi-Mode |
| CP_OM5801-               |         | ۳      |   |       |                            | Olvio          | Wall Wood            |
| 100GSR10AM               |         |        |   | 80/20 |                            |                |                      |
| CP_OM5901-               |         |        |   | 90/10 |                            |                |                      |
| 100GSR10AM               |         |        |   | 30/10 |                            |                |                      |
| CP_OM4501-               |         |        |   |       |                            |                |                      |
| 40GSRBiDiM               |         |        |   | 50/50 |                            |                |                      |
| CP_OM4601-               |         |        |   | 00/40 |                            |                |                      |
| 40GSRBiDiM               |         | -00°+  |   | 60/40 |                            |                |                      |
| CP_OM4701-               | 40G     | -1001  | 1 | 70/30 | 850-950nm                  | Fiber-         | Fiber-LC             |
| 40GSRBiDiM<br>CP_OM4801- |         | -00-   |   |       |                            | OM3/OM4        | Multi-Mode           |
| 40GSRBiDiM               |         | СВ     |   | 80/20 |                            |                |                      |
| CP_OM4901-               |         |        |   | 00/40 |                            |                |                      |
| 40GSRBiDiM               |         |        |   | 90/10 |                            |                |                      |
| OD OMEEOA                |         |        |   |       |                            | T              |                      |
| CP_OM5501-<br>SRBiDiM    |         |        |   | 50/50 |                            |                |                      |
| CP_OM5601-               |         |        |   |       |                            |                |                      |
| SRBiDiM                  |         | A B    |   | 60/40 |                            |                |                      |
| CP_OM5701-               | 40/100G | -1001- | 1 | 70/30 | 850-950nm                  | Fiber-         | Fiber-LC             |
| SRBiDiM                  | 40/1000 | -100+  | ' | 70/30 | 030-3301111                | OM5*           | Multi-Mode           |
| CP_OM5801-<br>SRBiDiM    |         | СВ     |   | 80/20 |                            |                |                      |
| CP_OM5901-               |         |        |   |       |                            |                |                      |
| SRBiDiM                  |         |        |   | 90/10 |                            |                |                      |
|                          |         | 1      |   |       |                            |                |                      |
|                          |         |        |   |       |                            |                |                      |
| CP_OS2502-               |         | 00     | 2 | 50/50 |                            |                |                      |
| BiDiM                    |         | MON    | _ | 00,00 |                            |                |                      |
|                          |         |        |   |       |                            |                |                      |
|                          |         | 00     |   |       | 1270 12500                 |                | Eibar I O            |
| CP_OS2504-               | 1/10G   | O O O  | 4 | 50/50 | 1270~1350nm                | Fiber-         | Fiber-LC<br>Single-  |
| BiDiM                    | 1/100   | MON    |   |       | 1450~1530nm<br>1510~1590nm | OS1/OS2        | Mode                 |
|                          |         |        |   |       | 1010~10901111              |                |                      |
|                          |         |        |   |       |                            |                |                      |
| CP_OS2506-               |         | 500    | 6 | 50/50 |                            |                |                      |
| BiDiM                    |         | O O    |   |       |                            |                |                      |
|                          |         |        |   |       |                            |                |                      |

<sup>\*</sup> OM5 Fiber supports OM3/OM4

# **Regeneration Passive TAP Module Options and Specifications**

| Model     | Network<br>Speed      | Ports | Netw<br>ork | Moni<br>tor | TAPs | Split<br>Ratio | Wave-<br>lengths | Media | Connector/<br>Mode |
|-----------|-----------------------|-------|-------------|-------------|------|----------------|------------------|-------|--------------------|
| CP_FMC-1U | Fiber Modular Chassis |       |             |             |      |                |                  |       |                    |

| Regen         | Regeneration Passive TAP Modules (for use with CP_FMC-1U chassis) |  |      |         |   |                    |                 |                       |                             |
|---------------|---|--|------|---------|---|--------------------|-----------------|-----------------------|-----------------------------|
| CP_OS23321X3M | 1/10/25/40<br>/100G   |  | 1 LC | 3<br>LC | 1 | 33.3/33<br>.3/33.3 | 1310/15<br>50nm | Fiber-<br>OS1/O<br>S2 | Fiber-LC<br>Single-<br>Mode |
| CP_OS43321X3M | 1/10G   |  | 1 LC | 3<br>LC | 1 | 33.3/33<br>.3/33.3 | 850nm           | Fiber-<br>OM3/<br>OM4 | Fiber-LC<br>Multi-<br>Mode  |
| CP_OS53321X3M | 1/10G   |  | 1 LC | 3<br>LC | 1 | 33.3/33<br>.3/33.3 | 850nm           | Fiber-<br>OM5*        | Fiber-LC<br>Multi-<br>Mode  |

<sup>\*</sup> OM5 Fiber supports OM3/OM4

## **Fixed and Modular TAP Chassis Mechanical Specifications**

|                          | Modular Chassis           | Fixed Chassis             |                           |                           |  |  |  |
|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|--|--|
|                          | cTAP FMC-1U               | cTAP<br>1236-MTP-MM/SM    | cTAP<br>0824-MM/SM        | cTAP<br>1648 MM/SM        |  |  |  |
| Height                   | 1.75 in<br>(4.4 cm), 1RU  | 1.7 in (4.3 cm), 1RU      | 0.87 in (2.2 cm), ½<br>RU | 0.87 in (2.2 cm), ½<br>RU |  |  |  |
| Width                    | 17.4 in<br>(44.2 cm), 1U  | 17.5 in (44.5 cm)         | 17.5 in<br>(44.5 cm)      | 17.5 in<br>(44.5 cm)      |  |  |  |
| Depth                    | 13.5 in<br>(34.3 cm)      | 9.13 in (23.2 cm)         | 7.1 in (18.0 cm)          | 7.1 in (18.0 cm)          |  |  |  |
| Weight                   | 1.5 lbs. (0.7 kg)         | 8.1 lbs. (3.7 kg)         | 5.1 lbs. (2.3 kg)         | 9.8 lbs. (4.4 kg)         |  |  |  |
| Operating<br>Temperature | 32F to 104F<br>(0 to 40C) |  |  |  |
| Operating Humidity       | 10 to 90%                 | 10 to 90%                 | 10 to 90%                 | 10 to 90%                 |  |  |  |

# Ordering Information

| sku        | Description   |
|------------|---|
| CP_FMC-1U  | cPacket cTap 1U Fiber Modular Chassis: 1U holds up to 24 LC TAP Modules, 16 MPO/MTP TAP Modules, 16 BiDi LC TAP Modules. Maintenance not included.          |
|            |   |
| CP_OS2501M | cPacket cTap Modular Fiber Single Tap: Single-Mode Fiber 9 Micron OS1/OS2, 1290/1330nm and 1530/1570nm Wavelengths, 50/50. Maintenance not included.        |
| CP_OS2601M | cPacket cTap Modular Fiber Single Tap: Single-Mode Fiber 9 Micron OS1/OS2, 1290/1330nm and 1530/1570nm Wavelengths, 60/40. Maintenance not included.        |
| CP_OS2701M | cPacket cTap Modular Fiber Single Tap: Single-Mode Fiber 9 Micron OS1/OS2, 1290/1330nm and 1530/1570nm Wavelengths, 70/30. Maintenance not included.        |
| CP_OS2801M | cPacket cTap Modular Fiber Single Tap: Single-Mode Fiber 9 Micron OS1/OS2, 1290/1330nm and 1530/1570nm Wavelengths, 80/20 * NCNR. Maintenance not included. |
| CP_OS2901M | cPacket cTap Modular Fiber Single Tap: Single-Mode Fiber 9 Micron OS1/OS2, 1290/1330nm and 1530/1570nm Wavelengths, 90/10 * NCNR. Maintenance not included. |
|            |   |
| CP_OM1501M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 62.5 Micron OM1/OM2, 850/1300nm Wavelengths, 50/50. Maintenance not included.                       |
| CP_OM1601M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 62.5 Micron OM1/OM2, 850/1300nm Wavelengths, 60/40. Maintenance not included.                       |
| CP_OM1701M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 62.5 Micron OM1/OM2, 850/1300nm Wavelengths, 70/30. Maintenance not included.                       |
| CP_OM1801M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 62.5 Micron OM1/OM2, 850/1300nm Wavelengths, 80/20 * NCNR. Maintenance not included.                |
| CP_OM1901M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 62.5 Micron OM1/OM2, 850/1300nm Wavelengths, 90/10 * NCNR. Maintenance not included.                |
|            |   |
| CP_OM4501M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 50/50. Maintenance not included.                               |
| CP_OM4601M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 60/40. Maintenance not included.                               |
| CP_OM4701M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM3/OM4 , 850nm Wavelength, 70/30. Maintenance not included.                              |
| CP_OM4801M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 80/20 * NCNR. Maintenance not included.                        |
| CP_OM4901M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 90/10 * NCNR. Maintenance not included.                        |

| CP_OM5501M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 50/50. Maintenance not included.        |
|------------|--|
| CP_OM5601M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 60/40. Maintenance not included.        |
| CP_OM5701M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 70/30. Maintenance not included.        |
| CP_OM5801M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 80/20 * NCNR. Maintenance not included. |
| CP_OM5901M | cPacket cTap Modular Fiber Single Tap: Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 90/10 * NCNR. Maintenance not included. |

| CP_OM4501-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 50/50, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
|---------------------|---|
| CP_OM4601-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 60/40, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
| CP_OM4701-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 70/30, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
| CP_OM4801-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 80/20, MTP-12 B Style Male Connectors (MPO12) * NCNR. Maintenance not included. |
| CP_OM4901-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 90/10, MTP-12 B Style Male Connectors (MPO12) * NCNR. Maintenance not included. |

| CP_OM5501-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 50/50, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
|---------------------|---|
| CP_OM5601-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 60/40, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
| CP_OM5701-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 70/30, MTP-12 B Style Male Connectors (MPO12). Maintenance not included.        |
| CP_OM5801-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 80/20, MTP-12 B Style Male Connectors (MPO12) * NCNR. Maintenance not included. |
| CP_OM5901-<br>SR4BM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR4/100G-SR4, MTP-12 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 90/10, MTP-12 B Style Male Connectors (MPO12) * NCNR. Maintenance not included. |

| CP_OW4501- | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 50/50, MTP A Style Male Connectors (MPO). Maintenance not included. |
|------------|---|
|------------|---|

| CP_OM4601-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 60/40, MTP A Style Male Connectors (MPO). Maintenance not included.        |
|--------------------------|--|
| CP_OM4701-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 70/30, MTP A Style Male Connectors (MPO). Maintenance not included.        |
| CP_OM4801-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 80/20, MTP A Style Male Connectors (MPO) * NCNR. Maintenance not included. |
| CP_OM4901-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM3/OM4, 850nm Wavelength, 90/10, MTP A Style Male Connectors (MPO) * NCNR. Maintenance not included. |

| CP_OM5501-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 50/50, MTP A Style Male Connectors (MPO). Maintenance not included.        |
|--------------------------|--|
| CP_OM5601-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 60/40, MTP A Style Male Connectors (MPO). Maintenance not included.        |
| CP_OM5701-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 70/30, MTP A Style Male Connectors (MPO). Maintenance not included.        |
| CP_OM5801-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 80/20, MTP A Style Male Connectors (MPO) * NCNR. Maintenance not included. |
| CP_OM5901-<br>100GSR10AM | cPacket cTap Modular Fiber Single Passive Tap: 100G-SR10A, MTP-24 Multi-Mode Fiber 50 Micron OM5, 850-950nm Wavelength, 90/10, MTP A Style Male Connectors (MPO) * NCNR. Maintenance not included. |

| CP_OS2502-<br>BiDiM | cPacket cTap Fiber Dual Passive Tap: 1G/10G Single-Mode BiDi 9 Micron OS1/OS2, 1270~1350nm 1450~1530nm and 1510~1590nm Wavelengths, 50/50, LC Connectors. Maintenance not included.      |
|---------------------|--|
| CP_OS2504-<br>BiDiM | cPacket cTap Fiber Quadruple Passive Tap: 1G/10G Single-Mode BiDi 9 Micron OS1/OS2, 1270~1350nm 1450~1530nm and 1510~1590nm Wavelengths, 50/50, LC Connectors. Maintenance not included. |
| CP_OS2506-<br>BiDiM | cPacket cTap Fiber Sextuple Passive Tap: 1G/10G Single-Mode BiDi 9 Micron OS1/OS2, 1270~1350nm 1450~1530nm and 1510~1590nm Wavelengths, 50/50, LC Connectors. Maintenance not included.  |

| CP_OM4501-<br>40GSRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR BiDi Multi-Mode Fiber 50 Micron OM3/OM4, 800-950nm Wavelength, 50/50, LC Connectors. Maintenance not included. |
|--------------------------|--|
| CP_OM4601-<br>40GSRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR BiDi Multi-Mode Fiber 50 Micron OM3/OM4, 800-950nm Wavelength, 60/40, LC Connectors. Maintenance not included. |
| CP_OM4701-<br>40GSRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR BiDi Multi-Mode Fiber 50 Micron OM3/OM4, 800-950nm Wavelength, 70/30, LC Connectors. Maintenance not included. |

| CP_OM4801-<br>40GSRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR BiDi Multi-Mode Fiber 50 Micron OM3/OM4, 800-950nm Wavelength, 80/20, LC Connectors * NCNR. Maintenance not included. |
|--------------------------|---|
| CP_OM4901-<br>40GSRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR BiDi Multi-Mode Fiber 50 Micron OM3/OM4, 800-950nm Wavelength, 90/10, LC Connectors * NCNR. Maintenance not included. |

| CP_OM5501-<br>SRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR/100G-SR BiDi Multi-Mode Fiber 50 Micron OM5, 800-950nm Wavelength, 50/50, LC Connectors. Maintenance not included.        |
|-----------------------|---|
| CP_OM5601-<br>SRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR/100G-SR BiDi Multi-Mode Fiber 50 Micron OM5, 800-950nm Wavelength, 60/40, LC Connectors. Maintenance not included.        |
| CP_OM5701-<br>SRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR/100G-SR BiDi Multi-Mode Fiber 50 Micron OM5, 800-950nm Wavelength, 70/30, LC Connectors. Maintenance not included.        |
| CP_OM5801-<br>SRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR/100G-SR BiDi Multi-Mode Fiber 50 Micron OM5, 800-950nm Wavelength, 80/20, LC Connectors * NCNR. Maintenance not included. |
| CP_OM5901-<br>SRBiDiM | cPacket cTap Modular Fiber Single Passive Tap: 40G-SR/100G-SR BiDi Multi-Mode Fiber 50 Micron OM5, 800-950nm Wavelength, 90/10, LC Connectors * NCNR. Maintenance not included. |

| CP_OS23321X3M | cPacket cTap Fiber Dual Passive Regeneration Tap Module for FMC-1U: Two (2) 1 x 3 Single-Mode Fiber OS1/OS2 9 Micron 1310/1550nm Wavelength Uni-Directional Tap: 33.3/33.3.3 Maintenance not included. |
|---------------|--|
| CP_OM43321X3M | cPacket cTap Fiber Dual Passive Regeneration Tap Module for FMC-1U: Two (2) 1 x 3 Multi-Mode Fiber OM3/OM4 50 Micron 850nm Wavelength Uni-Directional Tap: 33.3/33.3/33.3. Maintenance not included.   |
| CP_OM53321X3M | cPacket cTap Fiber Dual Passive Regeneration Tap Module for FMC-1U: Two (2) 1 x 3 Multi-Mode Fiber OM5 50 Micron 850nm Wavelength Uni-Directional Tap: 33.3/33.3/33.4. Maintenance not included.       |

| CP_TAP-MTP-1236-<br>MM-XX-YY | cPacket cTap Passive Tap: 12 x 40G/100G Full-Duplex Links, Multi-Mode 850nm Wavelength, 1RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included.                |
|------------------------------|---|
| CP_TAP-MTP-1236-<br>SM-XX-YY | cPacket cTap Passive Tap: 12 x 40G/100G Full-Duplex Links, Single-Mode 1310/1550nm Wavelength, 1RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included.         |
| CP_TAP-0824-MM-<br>XX-YY     | cPacket cTap Passive Tap: 8 Full-Duplex Links and 16 Tap Feeds, Multi-Mode 850nm Wavelength, 1/2 RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included.        |
| CP_TAP-0824-SM-<br>XX-YY     | cPacket cTap Passive Tap: 8 Full-Duplex Links and 16 Tap Feeds, Single-Mode 1310/1550nm Wavelength, 1/2 RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included. |
| CP_TAP-1648-MM-<br>XX-YY     | cPacket cTap Passive Tap: 16 Full-Duplex Links and 32 Tap Feeds, Multi-Mode 850nm Wavelength, 1RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included.          |
| CP_TAP-1648-SM-<br>XX-YY     | cPacket cTap Passive Tap: 16 Full-Duplex Links and 32 Tap Feeds, Single-Mode 1310/1550nm Wavelength, 1RU and specify xx-yy of 90-10, 80-20, 70-30, 60-40, and 50-50 Splits. Maintenance not included.   |

 $<sup>\</sup>hbox{$^*$ items marked NCNR are custom built products, all sales are final upon order and are non-cancelable and non-returnable}$ 

