# KEYSIGHT TECHNOLOGIES

# QUICK REFERENCE GUIDE TO TAPS

**What taps do:** Network Taps provide permanent access to 100% of all network traffic - which is required when monitoring and securing your network- without introducing costly bottlenecks or points of failure. Tool changes can be made without network downtime.
**Why Ixia:** Widest range of taps, short lead times, exceptional MTBF, global distribution, best in class worldwide Support

**How to use this table: COLUMN 1** provides: connector type- LC or MTP, fiber mode- Multimode ("MM") or Single mode ("SM"), and fiber spec-LR, SR, etc. **COLUMN 2** provides**:** Network speed and fiber diameter. **COLUMNS 3-7** provide Part numbers for each Split Ratio. All of this information is determined by the network link to be tapped, and must be provided by your customer.

**Useful Links:**

**Product Information:** https://ixia.keysight.com/products/network-taps-regenerators-and-aggregators
**Taps vs Spans:** https://ixia.keysight.com/resources/taps-vs-spans-total-visibility-anywhere
**Quick Reference Guide:** https://ixia.keysight.com/resources/flex-tap-quick-reference-guide

| OPTICAL TAPS | | Ordering Information / Insertion Loss | | | | | Accessories | |
|---|---|---|---|---|---|---|---|---|
| Family Connector Fiber | Speed/ Wavelength/Fiber Diameter | 50/50 Split Part#/Insertion Loss | 60/40 Split Part#/Insertion Loss | 70/30 Split Part#/Insertion Loss | 80/20 Split Part#/Insertion Loss | 90/10 Split Part#/Insertion Loss | Y Cable Kits | Rack Mounts |
| **FlexTap LC** SM LR | All speeds to 400G 1260-1340nm, 1550nm 8.5μm | **TP-100-LR-85-50** *3.7dB/3.7dB* | **TP-100-LR-85-60** *2.8dB/4.8dB* | **TP-100-LR-85-70** *2.0dB/6.1dB* | **TP-100-LR-85-80** *1.3dB/8.0dB* | **TP-100-LR-85-90** *0.8dB/12.0dB* | 705-0014-001 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **PatchTap LC** SM LR | All speeds to 100G 1260-1340nm, 8.5μm | **TPPCH-100-LR-85-50** *3.8dB/3.8dB* | - | **TPPCH-100-LR-85-70** *2.3dB/6.1dB* | - | - | 705-0014-001 | Patch Panels |
| **FlexTap LC VHD** SM LR/LX | All speeds to 400G 1260-1340nm, 1550nm 8.5μm | **TPVHD-100-LR-85-50** *3.7dB/3.7dB* | **TPVHD-100-LR-85-60** *2.8dB/4.8dB* | **TPVHD-100-LR-85-70** *2.0dB/6.1dB* | - | - | 705-0014-001 x3 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap LC Secure+** SM LR | All speeds to 400G 1260-1340nm, 1550nm 8.5μm | **TPS-100-LR-85-50** *3.7dB/3.7dB* | - | - | - | - | 705-0014-001 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FLEX TAP MTP PSM4** SM LR | All speeds to 400G 1260-1340nm, 1550nm 8.5μm | - | - | **TP-PSM4-85-70-MTP** *2.6dB/6.4dB* | - | - | MTP-SM-Y-CBL (optional) | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap LC** MM SX | 1G 50μm | **TP-1-SX-50-50** *4.5dB/4.5dB* | **TP-1-SX-50-60** *3.1dB/5.1dB* | **TP-1-SX-50-70** *2.4dB/6.3dB* | **TP-1-SX-50-80** *1.8dB/8.1dB* | **TP-1-SX-50-90** *1.3dB/11.5dB* | 705-0012-001 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap LC** MM SR | 50/25G/10G/1G 810-890nm, 50μm | **TPX-10-SR-50-50** *3.9dB/3.9dB* | **TPX-10-SR-50-60** *2.9dB/4.9dB* | **TPX-10-SR-50-70** *2.2dB/6.1dB* | **TPX-10-SR-50-80** *1.6dB/7.9dB* | - | 705-0012-001 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **PatchTap LC** MM SR | 25G/10G/1G 810-890nm, 50μm | **TPPCH-10-SR-50-50** *3.9dB/3.9dB* | - | **TPPCH-10-SR-50-70** *2.2dB/6.1dB* | - | - | 705-0012-001 | Patch Panels |
| **FlexTap LC VHD** MM SR/SX | 50/25G/10G/1G 810-890nm, 50μm | **TPVHD-10-SR-50-50** *3.9dB/3.9dB* | **TPVHD-10-SR-50-60** *2.9dB/4.9dB* | **TPVHD-10-SR-50-70** *2.2dB/6.1dB* | - | - | 705-0012-001 x3 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap LC BIDI** MM SR | 100G/40G 832-918nm, 50μm | **TPX-40-SR-50-50-BD** *4.1dB/4.1dB* | - | - | - | - | N/A | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap LC** MM MR4 | 40G /25G/10G 1260-1360nm, 50μm | - | - | **TP-40-SR-50-70-MR4** *3.7dB/6.7dB* | - | - | 705-0012-0001 | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap MTP** MM SR4 | 100G/40G/4x25/4x10G 810-890nm, 50μm | **TPX-40-SR-50-50-MTP** *4.4dB/4.4dB* | - | **TPX-40-SR-50-70-MTP** *2.6dB/6.6dB* | - | - | includes MTP Y cable | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |
| **FlexTap MTP** MM SR10 | 100G/40G/12x10G 50μm | **TPX-100-SR-50-50-MTP** *4.4dB/4.4dB* | - | **TPX-100-SR-50-70-MTP** *2.6dB/6.6dB* | - | - | includes MTP Y cable | RK-FLEX-ID-24 RK-FLEX-24 RK-FLEX-8 |

**What a bypass does:** Bypass switches are in-line devices that provide fail-safe protection for in-line security and monitoring devices. When inline tools fail, bypass switches automatically redirect network traffic so that it flows around the failed tool, instead of through

# QUICK REFERENCE GUIDE TO BYPASSES

it. Bypass switches typically have heartbeats to detect security tool failure, and power fail protection to continue to operate with no power.

**Why Ixia:** External bypass architecture, pre-configured heartbeats, redundant or serial active tool support, centralized management with IFC, world class GUI interface for rapid deployment of complex topologies, highest density (VHD), and the only bypass with two management ports (DUO).

**Useful Terminology:**

**An External bypass switch** is purpose-built hardware that keeps your network safe in the event of tool failure. Some security tools come with **Internal bypass switches**, but internal switches could require you to break your network link to disconnect the tool for service maintenance.

**High availability ("HA")** refers to a network architecture design that provides continued availability of network resources, even if individual components fail.

**Failover modes: Active-Standby** is defined as a primary active tool connected through the iBypass switch along with redundant inactive tools that are activated in event of primary tool failure. **Active-Active** is defined as duplicate primary active tools connected serially through the iBypass switch.

**Useful Links:**

Product Information: https://ixia.keysight.com/products/iBypass

Quick Reference Guide: https://ixia.keysight.com/resources/ibypass-quick-reference-guide

Video: https://ixia.keysight.com/products/ibypass-duo

| Bypass Switches | Ordering Information | | Specifications/Features | | | | | Accessories/Notes | |
|---|---|---|---|---|---|---|---|---|---|
| FAMILY | Part Numbers | | Speed | Networks per Device | Media Type | High Availability | Link Fault Detect | Accessories | Important Notes |
| iBypass 100G | IBP100G-CH-AC IBP100G-CH-DC (Up to 2 Modules per Chassis) | MIBP100G-SR4 MIBP100G-LR4 | 100G | 1 or 2 | Fiber | - | LFD | IBP100G-ACPS IBP100G-DCPS IBP100G-FAN-ASSY | Each Module supports 1 network and 1 tool segment Fail Open/Fail Close |
| iBypass VHD | IBPVHD-CH-AC IBPVHD-CH-DC IBPVHD-CHONLY-AC | IM-21-BYP LIC-IM-21-AR | 10/1G | 12 Segments | SFP+/SFP | Active-Active Active-Standby | LFD / LFDC | IM-21-BATT IBPVHD-PWR-AC    IBPVHD-PWR-DC | Chassis includes one module that contains 4 bypass switches. Order SFP+KT or SFPKT Transceivers. |
| iBypass 40G | I2BP-40G-SR-50-Q | - | 40G | 1 Segment | Fiber | - | LFD | - | Two 3M MM MTP-MTP network cables included. Standard 40G MM MTP-MTP tool side cables not included. |
| iBypass DUO | IBPDUO-1X10-SR IBPDUO-2X10-SR IBPDUO-1X10-LR IBPDUO-2X10-LR | - | 10G/1G | 1 or 2 | Fiber | Active-Active Active-Standby | LFD / LFDC | DUO-PWRAC DUO10G-VHD-FAN-ASSY | Mounting Brackets and Rack mounts included with 1x10 Chassis |
| iBypass HD | IBP-8000 IBP-8000-DC (Up to 4 Modules per Chassis) | DBM-100 DBM-200 DBM-250 DBM-300 | 10/100/1G | Up to 8 Segments | Copper or Fiber | Active-Standby | LFD | - | Chassis requires minimum 1 DBM module. Each DBM module contains 2 bypass switches. Order two SFPKT Transceiver kits per |
| iBypass 3 | I3BP-CU3 | - | 10/100/1G Copper | 1 Segment | Copper | - | LFD / LFDC | RK-8V2 rack mounts RK-8V2-BPL Blank Plates | Holds up to 8 taps in 1RU |