IXIA Flex Taps

íxia

The Industry's Best Fiber Tap

Mix and Match
Combining a variety of different passive taps in a single 19 inch 1U unit allows you to make maximum use of valuable data center rack space

Totally Passive
Passive taps gives high reliability, no risk of compromize from security attacks and virtually zero ongoing operational costs

Wide range of split ratios and fiber types
1G, 10G, 40G and 100G speeds across both Single Mode and Multi Mode allows tap investments to be re-used in multiple locations over time, so reducing capex costs

Low insertion losss
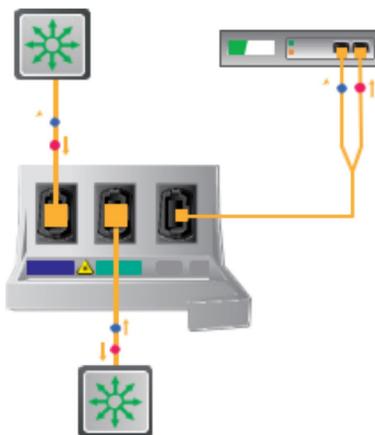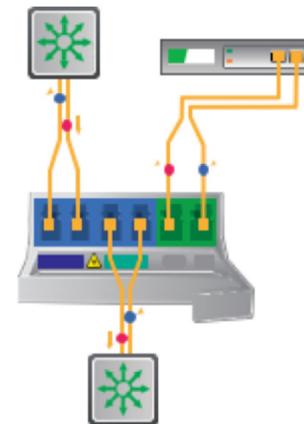Best in class insertion loss minimizes impact on data flows

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Deployment Scenarios

MTP Tap Deployment

LC Tap Deployment

Ordering Information

Single-Mode is available in one model that covers 1-100 Gbps.

Mult-Mode has two models at 1 Gbps (50 and 62.5 micron), one at 10 Gbps (50 micron), two models at 40 Gbps (both a MTP and a BiDi model for Cisco BiDi deployments) and a single 100 Gbps model using MTP connectors.

Tap 'bundles' are available for the most popular models. These include both a chassis rack mount and either 16 or 24 taps.

Part Numbers					
	50/50	**60/40**	**70/30**	**80/20**	**90/10**
LC 1G – 100G SM	TP-100-LR-85-50	TP-100-LR-85-60	TP-100-LR-85-70	TP-100-LR-85-80	TP-100-LR-85-90
LC 1G MM – 62.5	TP-1-SX-62-50	TP-1-SX-62-60	TP-1-SX-62-70	TP-1-SX-62-80	TP-1-SX-62-90
LC 1G MM – 50	TP-1-SX-50-50	TP-1-SX-50-60	TP-1-SX-50-70	TP-1-SX-50-80	TP-1-SX-50-90
LC 10G MM – 50	TPX-10-SR-50-50	TPX-10-SR-50-60	TPX-10-SR-50-70	TPX-10-SR-50-80	-
40G BiDi	TPX-40-SR-50-50-BD	-	-	-	-
MTP 40G MM	TPX-40-SR-50-50-MTP	-	TPX-40-SR-50-70-MTP	-	-
MTP 100G MM	TPX-100-SR-50-50-MTP	-	TPX-100-SR-50-70-MTP	-	-
16 SM Tap Bundle	TP-PACK-16-SM50	-	TP-PACK-16-SM70	-	-
16 MM Tap Bundle	TP-PACK-16-MM50	-	TP-PACK-16-MM70	-	-
24 SM Tap Bundle	TP-PACK-24-SM50	-	TP-PACK-24-SM70	-	-
24 MM Tap Bundle	TP-PACK-24-MM50	-	TP-PACK-24-MM70	-	-
Rack Mount					
Rack Mount	RK-FLEX-24			**Spacer Unit**	RK-FLEX-SPACER

Insertion Loss Data

Insertion Loss (Network / Monitor)					
	50/50	**60/40**	**70/30**	**80/20**	**90/10**
1/10/40/100G SM	3.7db /3.7db	2.8 dB/ 4.8 dB	2.0 dB/ 6.1 dB	1.3 dB/ 8.0 dB	0.8 dB/ 12.0 dB
1G MM	4.5 dB/ 4.5 dB	3.1 dB/ 5.1 dB	2.4 dB / 6.3 dB	1.8 dB/ 8.1 dB	1.3 dB / 11.5 dB
10G MM	3.9 dB / 3.9 dB	2.9 DB / 4.9 DB	2.2 dB / 6.1 dB	1.6 DB / 7.9 dB	-
40G MM BiDi	4.1 dB / 4.1 dB	-	-	-	-
40G MM	4.4 dB / 4.4 dB	-	2.6 dB / 6.6 dB	-	-
100G MM	4.4 dB / 4.4 dB	-	2.6 dB / 6.6 dB	-	-

IXIA'S BEST SELLING TAP

IXIA TAPS

FAQ's

Q: What is insertion loss?
A: Insertion loss is the difference you see in power from what is initially transmitted minus the output after a connector or splice.

Q: What is a split ratio?
A: It is the ratio amount of light that is split between the network and monitor outputs on an Ixia Flex Tap. For example, 70/30 represents (of the available light) 70% is split to the network and 30% is split to the monitor. It is important to understand the available light budget when determining the appropriate split ratio required.

Q: What are the different cable types of MTP(MPO)?
A: MPO (Multi-fiber Push On) is a connector for ribbon cables with four to twenty-four fibers. Connectors for singlemode fiber have angled ends to minimize back-reflection, while multimode fiber versions typically have flat ends. MTP is a brand name for a version of the MPO connector with improved specifications. MTP and MPO connectors intermate. Due to the large number of variations of MTP connectors its important to carefully select the correct cable.

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TECHNICAL INFO

Do the light budget analysis during design, not after
Before any cables are connected or equipment is deployed an analysis of the light budget is strongly recommended, to ensure the proposed design with Taps is feasible. This calculation can also be used as a comparative measurement once the proposed link is fully online.
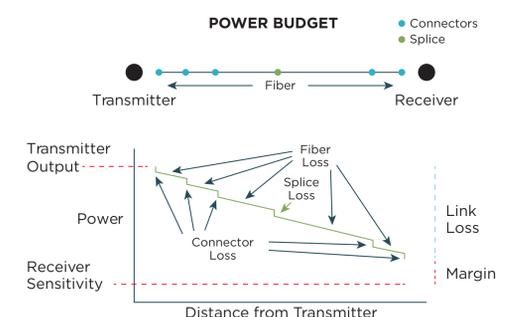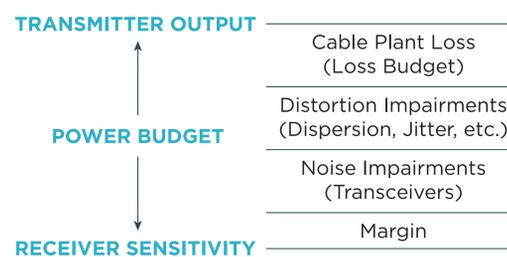
How to conduct a light budget calculation
To calculate the light budget, you must first list all the proposed elements on that link and the associated loss (for the optical transceivers, record the transmit power). As the POWER BUDGET diagram shows, take the total light output and subtract the loss from each of the elements on that link. It is also recommended that you allocate some amount of optical power as margin on the link.

FIBER OPTIC TERMS

Absorption : One cause of attenuation where light signal is absorbed into the glass during transmission.

Attenuation : Optical loss of power. Attenuation is measured in dB loss per length of cable. Attenuation is usually caused by absorption and scattering.

Attenuator : A device used to reduce the power of an optical signal.

Back Reflection : A measure of the light reflected off the polished end of a fiber connector. Measured in negative dB relative to incident power.

Bandwidth : The range of signal frequencies that a fiber optic cable will transmit.

Buffer : The protective coating over the fiber.

Insertion Loss : The attenuation caused by the insertion of a device (such as a splice or connection point) to a cable.

Loss Budget : The maximum amount of power that is allowed to be lost per optical link.

Multimode : A type of fiber optic cable where the core diameter is much larger than the wavelength of light transmitted. Two common multimode fiber types are 50/125 and 62.5/125.

Return Loss : The ratio of the power launched into a cable and the power of the light returned down the fiber. This measurement is expressed in positive decibel units (dB). A higher number is better. Return Loss = 10 log (incident power / returned power).

Scattering : A second cause of attenuation. Scattering occurs when light collides with individual atoms in the glass.

Single mode : A type of fiber with a small core that allows only one mode of light to propagate.

Wavelength : A means of measuring light color. Expressed in nanometers (nm).

TYPES OF FIBER + ATTENUATION (dB/km)

Multimode fiber type	Maximum attenuation @ 850 nm	Maximum attenuation @ 1300 nm
OM1	3.5	1.5
OM2	3.5	1.5
OM3	3.5	1.5
OM4	2.5-3.5	1.5

Multimode fiber type	Maximum attenuation @ 1310 nm	Maximum attenuation @ 1550 nm
OS1	1.0	1.0
OS2	0.4	0.4

TYPES OF CONNECTORS + TYPICAL AND RECOMMENDED LOSS VALUE

LC **Connector Loss**	**MTP24 (MPO24)** **Connector Loss**	**MTP12 (MPO12)** **Connector Loss**
Typical: 0.25dB Recommended: 0.5dB	Typical: 0.25dB Recommended: 0.5dB (as high as 1.0dB)	Typical: 0.25dB Recommended: 0.5dB (as high as 1.0dB)