

AllWave® FLEX+ Jumpers

Protecting and Enabling your Network for the Most Demanding Conditions



Features and Benefits

- 5 times lower bending loss than conventional single-mode fiber (CSMF) jumpers
- 50% lower connector loss than CSMF jumpers
- Zero Water Peak, low loss performance
- Fiber superior to and compliant with ITU G.652D specifications

- Improved network reliability and customer satisfaction
- Increased network reach, higher data rate potential
- Usable across the full spectrum of wavelengths for current applications and future upgrades
- Fully compatible with all single-mode systems and applications.

Applications

- FTTx, HFC, xDSL and BPL nodes, and any other optical access network
- Patch Panels in the Central Office, Head End, or Cabinet
- Pigtails in Optical Network Units (ONUs)

Product Description

Demanding Fiber-to-the-Home, Business, and Node (FTTx), Hybrid Fiber Coaxial (HFC), and other applications require connectivity solutions that provide superior optical performance with high reliability. To meet this challenge, OFS offers AllWave[®] *FLEX*+ ZWP Jumpers, the first ZWP jumpers to combine full spectrum low loss performance with very low bending loss.

As data rates and distances increase and power budgets tighten, it is imperative that optical components minimize signal loss to support current and future applications. Conventional Single-Mode Fiber (CSFM) jumpers on the market today may exhibit high bending and connector loss when installed in real networks, limiting distance, bandwidth, and network reliability. AllWave *FLEX*+ ZWP Jumpers combine low bending loss with OFS' very low loss LC or SC connectors to help enable superior performance in any patch panel system.

AllWave FLEX+ LC and SC Jumper Specifications*

Loss Maximum (per connector end)	0.25 dB
Return Loss Minimum (per connector end)	0.25 dB/.35C
Cable OD	1.6, 2 or 3 mm
Cable Retention (cordage)	20 lbs./88.9N
Mating Durability for 500 Reconnects Insertion Loss Change	< 0.2 dB
Temperature Stability (–40 °C to +75 °C) Insertion Loss Change	< 0.3 dB
Tip Material	Ceramic
* 0.25 dB/.35C Maximum insertion loss for LC and SC jumpers. All others are 0.5 dB maximum. Return loss values are per connector end.	

AllWave *FLEX*+ ZWP Jumpers also minimize heat generated by the combination of high power transmission and fiber bends, preventing premature fiber coating failure and burning of cordage materials.



Jumper Assemblies SMART Coding

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Examples:

JP3WY001LCULCU003M JR2WY002SCSSCA003M JV9WY001FCUUNC003M Jumper Plenum 3.0 mm AllWave[®] *FLEX* Fiber Yellow 1 fiber (Simplex) LCU LCU 003 Meters long Jumper Riser 2.0 mm AllWave *FLEX* Fiber Yellow 2 fibers (Zip) SCA SCA 003 Meters long Jumper 900 µm Low Smoke PVC AllWave *FLEX* Fiber Yellow 1 fiber FCU UNC (Pigtail) 003 Meters long





Maximum Total Bending Loss Per Jumper

Maximum Total Bending Loss Plus Insertion Loss Per Jumper



Chart 1 - Bending loss is a critical parameter in most networks - at the CO/Head End, in cabinets, in closures, and anywhere that fibers may be bent. AllWave *FLEX*+ ZWP Jumpers will enable low loss performance over the required wavelength range, even under severe bending which can easily occur accidentally in the hundreds of fibers serving a typical distribution area.

As shown to the left, conventional SMF jumpers can sap 1 to 2.5 dB of optical power from a network with just a single 20 mm (0.8") diameter bend. That can be enough loss to cause network failure, angry customers, and costly network repairs. With AllWave *FLEX*+ ZWP Jumpers, the loss induced by the same bending is only 0.2 dB to 0.5 dB worst-case, which typically can be absorbed by the design margin of most networks.

Chart 2 - In addition to lower bending loss, AllWave *FLEX*+ ZWP Jumpers lower insertion (connection) loss by up to 0.5 dB compared to CSMF jumpers. Put it all together and you can reduce loss by up to 2.5 dB per jumper using AllWave *FLEX*+ ZWP Jumpers.

For additional information please contact your sales representative. You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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