

Why MPO connector? ⁽¹⁾

Reasons in the feature of infrastructure environment

- 1) The needs of the growing information transmission
- 2) Processing in the router is no longer keep up, then traffic would be stuck.

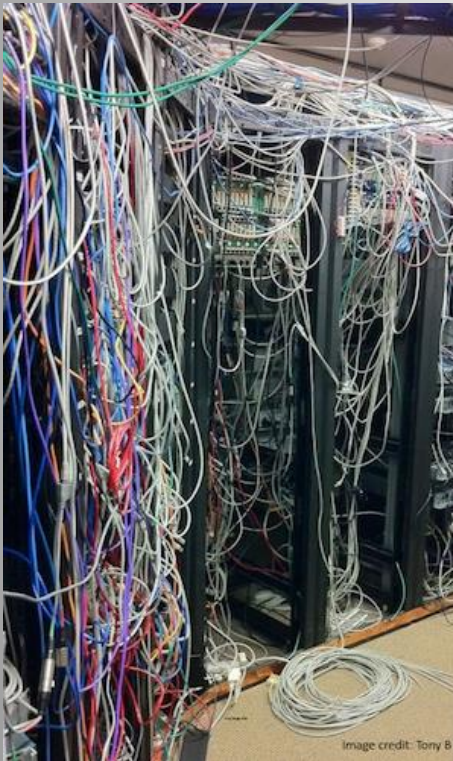


- 3) In the communication line, there is a transmission wavelength band shortage of relay amplifiers and optical fiber due to the number of wavelengths increase.
- 4) A problem that the entire network equipment scale and power consumption becomes enormous.

Why MPO connector? (2)

Reason: In case of Data Center

Using single core optical fiber cables only



IMAGE

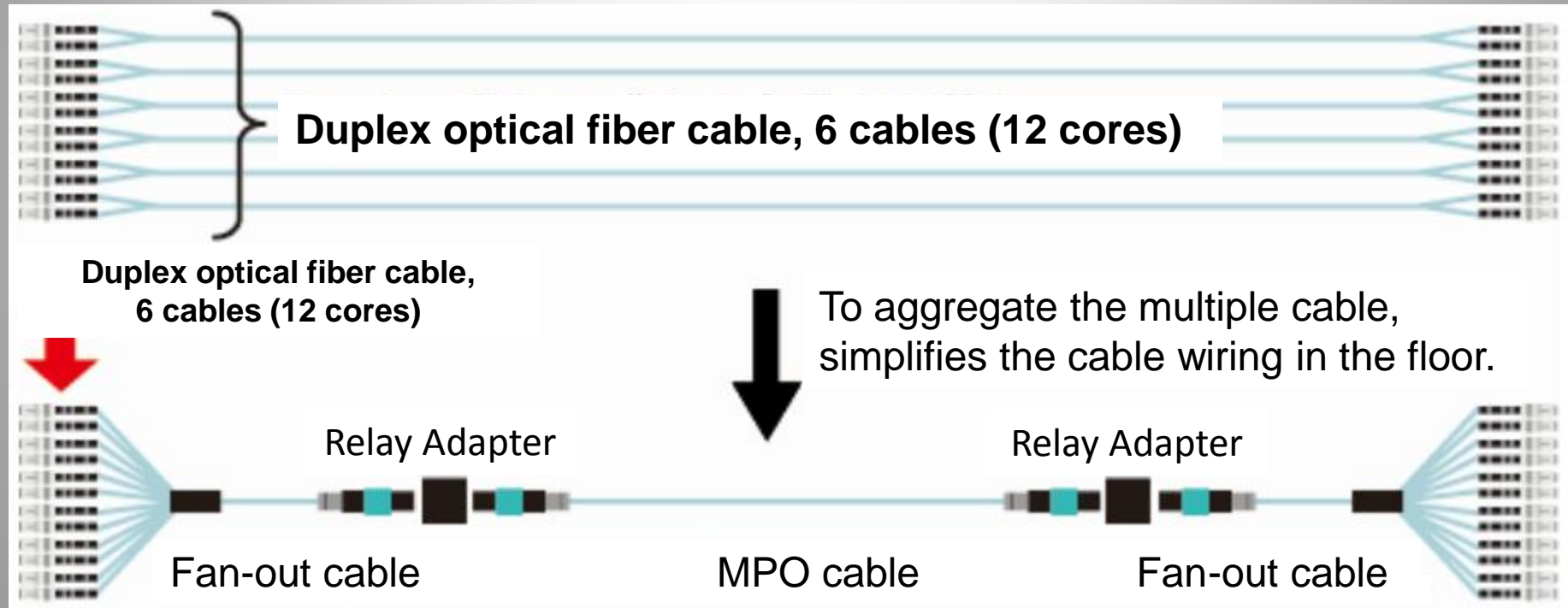
Change to fiber-optic patch cord with MPO connector



Why MPO connector? (3)

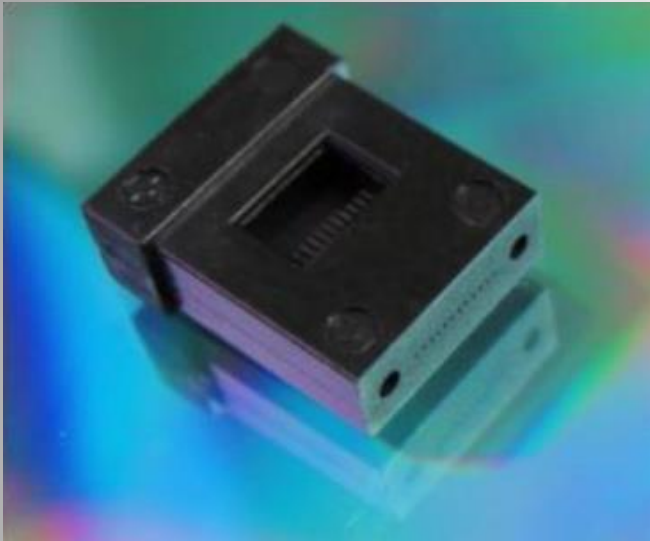
Multi-mode optical fiber to 10GB internal cable contains 12 cores.
To the end, equivalent to the duplex type, 6 optical cables.

Trunk part of the MPO connector cables can be aggregated into one.
In this case, use the fan-out cable at both ends.

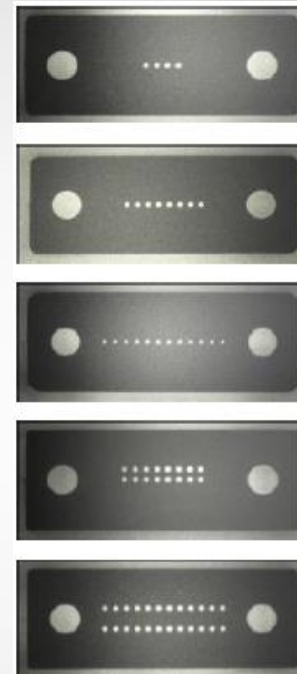


MT connector

Mechanically Transferable Splicing Connector



- Manufacturer: Hakusan MFG.
- Sales by: Fukushima Futaba Electric
- Distributed by: Gilland Electronics



4MT Ferrules

8MT Ferrules

12MT Ferrules

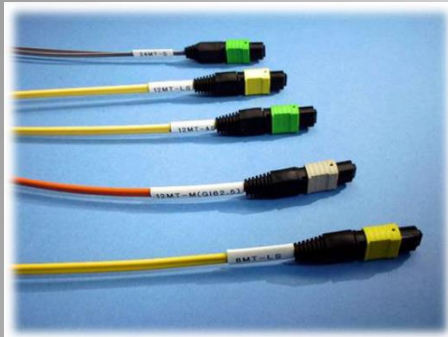
16MT Ferrules

24MT Ferrules

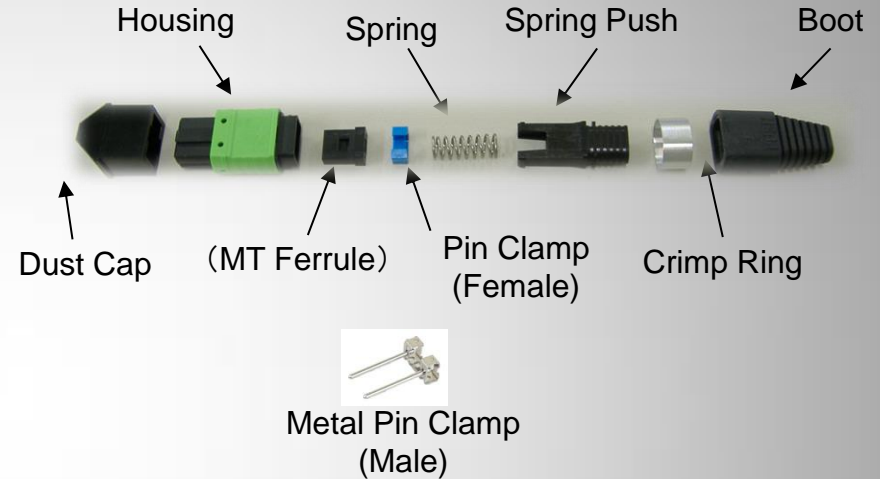
Propagation mode	Grade	Polishing	Number of cores	Insertion loss
Multi-mode	M (Standard)	Right angle PC	2, 4, 8, 12, 24, 48	MAX \leq 0.50dB
	SLM (Low loss)	Right angle PC	12, 24	MAX \leq 0.35dB
Single-mode	S (Standard)	Right angle	4, 8	MAX \leq 0.70dB
		8 degrees diagonal PC	2, 4, 8, 12, 24	MAX \leq 0.70dB
	SLS (Low loss)	8 degrees diagonal PC	8, 12	MAX \leq 0.35dB

MPO connector

MPO Connector (Multifiber Push-On Connector)



Fan-out cable is also available.



Components of MPO (MPO kit)

Type of connector	MPO			
Type of optical fiber	Low loss Single-mode	Standard Single-mode	Low loss Multi-mode	Standard Multi-mode
Insertion loss (dB)	≤ 0.35	≤ 0.70	≤ 0.35	≤ 0.50
Type of polishing	≥ 55		-	
Number of cores	8 degrees diagonal or right angle PC			
Type of cable	Bare ribbon or jacketed cable			
Standard	JIS C5982(F13), IEC 61754-7			
Color of housing	Yellow	Green	Beige	

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Loss characteristics of MPO connector

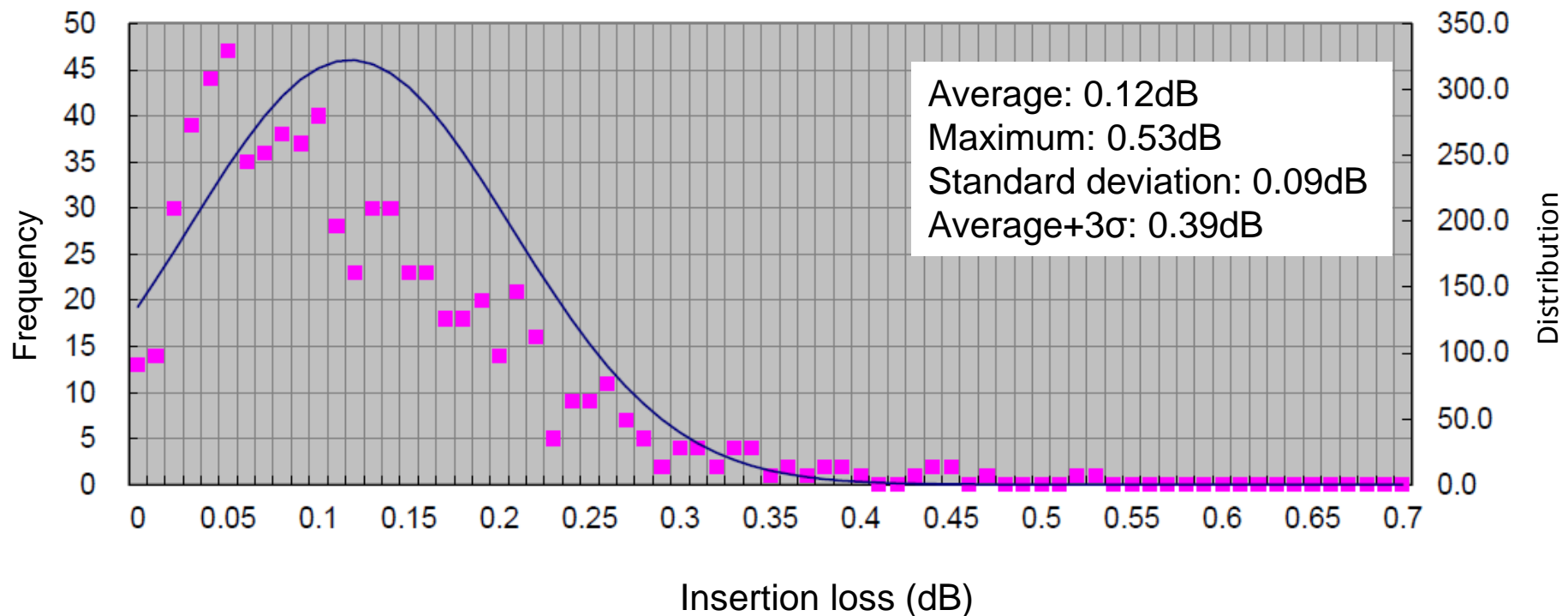
Ferrule: 12MT-PA-S

Measurement wavelength: 1310nm

Measuring method: Random connection

12MPO-S

N=720 Fiber



Loss characteristics of MPO connector

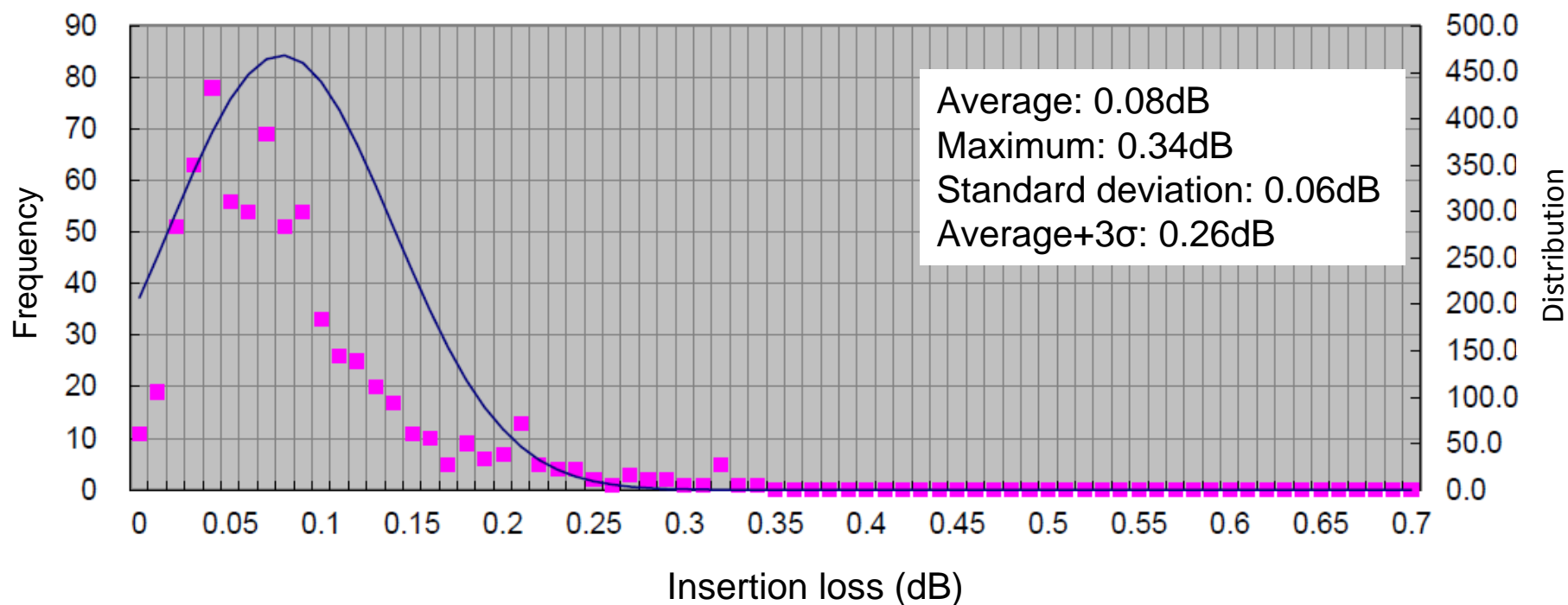
Ferrule: 12MT-PA-SLS

Measurement wavelength: 1310nm

Measuring method: Random connection

12MPO-SLS

N=720 Fiber



Loss characteristics of MPO connector

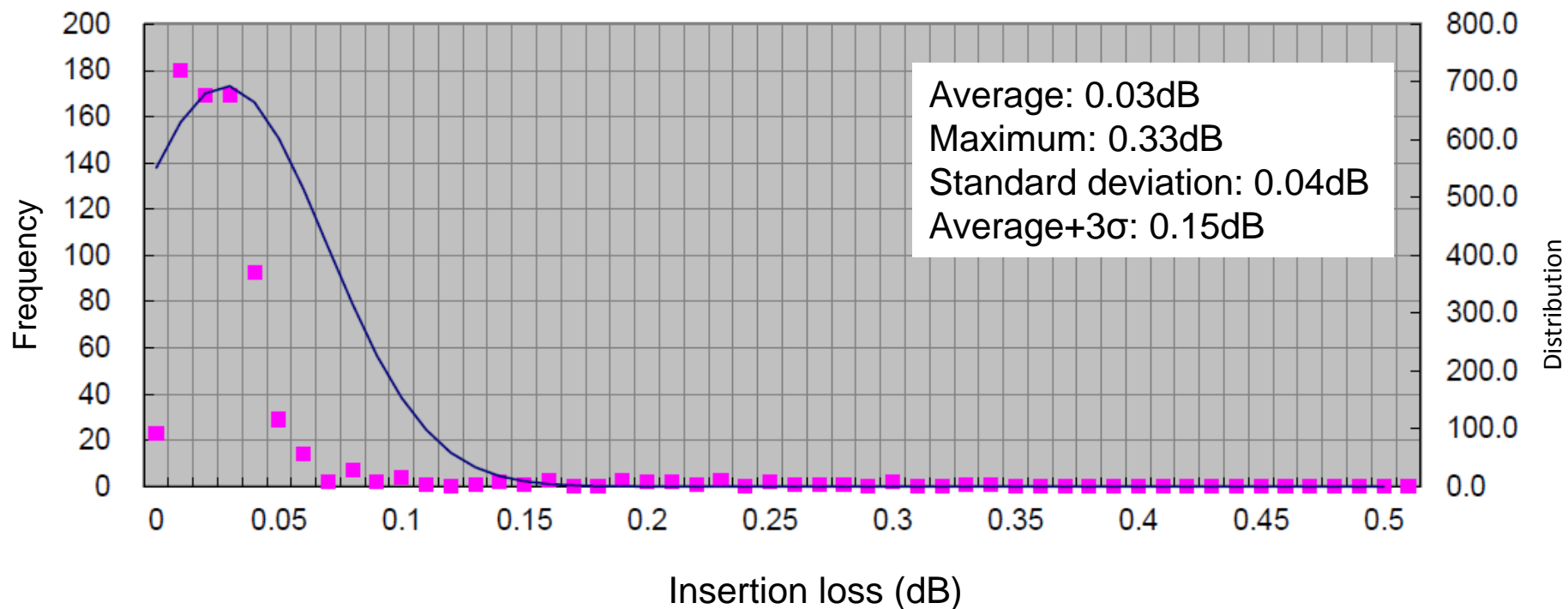
Ferrule: 12MT-PF-M

Measurement wavelength: 850nm

Measuring method: Random connection

12MPO-M

N=720 Fiber



Loss characteristics of MPO connector

Ferrule: 12MT-PF-SLM

Measurement wavelength: 850nm

Measuring method: Random connection

12MPO-SLM

N=720 Fiber

