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SOLUTIONS

# **Cost analysis of 40G & 100G MMF variants**

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## Intrinsic\* Cost Factors of various 40G and 100G MMF PMDs

Component	40G 4xXFP	40G 4xSFP+	40G QSFP	100G 10x10G	Comment / assumption
CDR	4x	0x	0x	0x	< 300m eliminates CDR
Driver, TOSA	4x	4x	3x	8x	Array savings
ROSA, TIA	4x	4x	3x	8x	Array savings
PCB	4x	4x	2x	2x	Xtalk complicates QSFP
Pkg, Recept	4x	4x	2x	4x	LC/SC vs MPO
Test	4x	4x	3x	5x	Fewer logic ifcs on array
Total PMD	<b>4x</b>	<b>3x</b>	<b>2x</b>	<b>4x</b>	Weighted average
Host real estate	8x	4x	1x	2x	
Cabling	1x	1x	1x	2x	Array cabling in Data Ctrs

QSFP provides the lowest cost alternative for both PMD and host real estate for 40G, and a factor of 2 savings on both compared to 100G

4xSFP+ provides a lower cost PMD vs 4xXFP or 10x10G, but 2x more real estate than 10x10G

Cabling for all 40G variants is 1/2 that of 100G

\*PMD manufacturing volume effects not included