Basic Understanding of Optical splitters

For greater in-depth discussion on splitters and applications contact atg Technology
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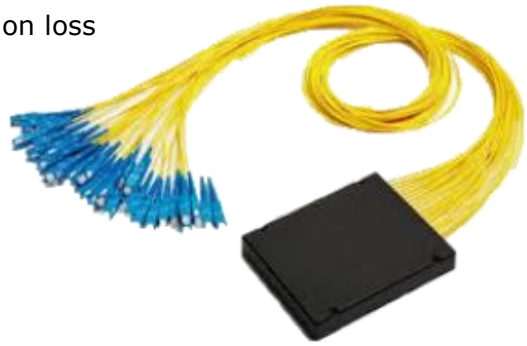
Splitters can be supplied in many package sizes, from the size of a fusion splice using 250-micron fibre, to large rugged packages using 2 or 3mm fibre with connectors fitted. They can also be supplied in rack mount solutions for switch room patching options.

Less splits means less power loss, see blow typical insertion loss



1x2 fibre optic Coupler - Insertion loss 3.6dB
1x4 fibre optic Coupler -Insertion loss 7.5dB
1x8 fibre optic Coupler -Insertion loss 11.0dB
1x16 fibre optic Coupler -Insertion loss 13.8dB
1x32 fibre optic Coupler -Insertion loss 17.2dB
1x64 fibre optic Coupler -Insertion loss 20.8dB

PLC type splitters designs are typically 1:2, 1:4, 2:4, 1:8, 2:8, 1:16, 2:16, 1:32, 2:32.
Splitter with split ratio of 1:2, 1:4 or 2:4 & 1:8 or 2:8 mostly used in exchange or in specialized outdoor closures.
Splitters used in street cabinets are typically of 1:8 or 2:8, 1:16 or 2:16, & 1:32 or 2:32.

You can also cascade splitters if you have the power in the network to do this.
See below chart to illustrate this.

Configuration	Insertion loss for 1:2 splitter	Insertion loss 1:32 or 2:32 splitter	Insertion loss 1:4 or 2:4 splitter	Total insertion loss due to splitters
1:2 + 1:32 split = 1:64 split	3.6dB	17.2dB~18dB		20.8dB~21.6dB
1:32 split		17.2dB~18dB		18dB
1:2 split + 1:4 split = 1:8 split	3.6dB		7.5dB~8dB	11dB
1:4 split			7.5dB~8dB	8dB

Typical delivery is 3 weeks from order, please confirm this with atg as times can vary.