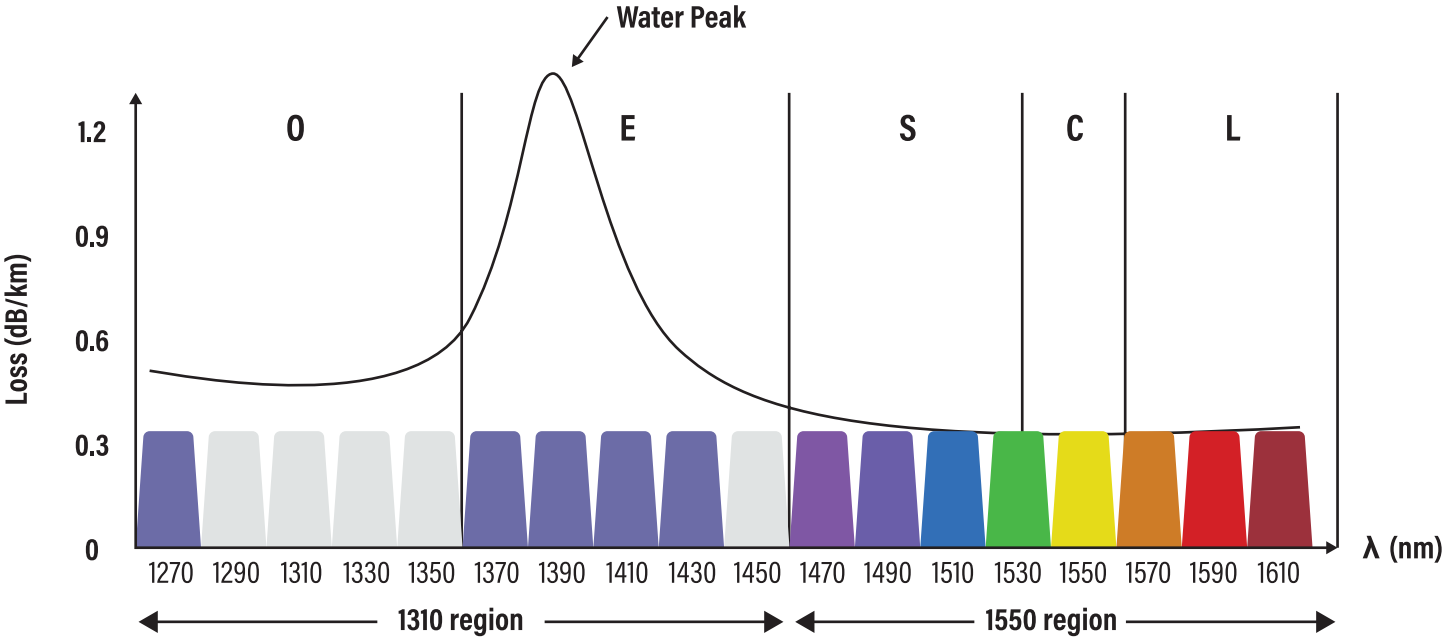
A CWDM system commonly supports 8 wavelength channels with a max of 18 wavelength channels transmitted over a dark fiber at the same time at 20nm apart. CWDM technology offers a convenient and cost-efficient solution for shorter distances of up to 70 kilometers.



Nominal central wavelengths (nm) for spacing of 20nm	
1270 or 1271	1450 or 1451
1290 or 1291	1470 or 1471
1310 or 1311	1490 or 1491
1330 or 1331	1510 or 1511
1350 or 1351	1530 or 1531
1370 or 1371	1550 or 1551
1390 or 1391	1570 or 1571
1410 or 1411	1590 or 1591
1430 or 1431	1610 or 1611
NOTE-The endpoints of this table are illustrative only.	

For distances over 40 kilometers, CWDM tends to be limited to supporting eight channels due to a chemical property in the fiber called a "water peak". The water peak is an area of high loss in the 1300nm region of the fiber that affects CWDM channels 1370nm to 1450nm. Additionally, some of the lower channels are affected by Chromatic Dispersion.

We recommend when looking at CWDM, to utilize the 8 channels between 1470nm and 1610nm. The first 10 channels experience much more loss, are not as commonly used today and the transceivers are not easily sourced.