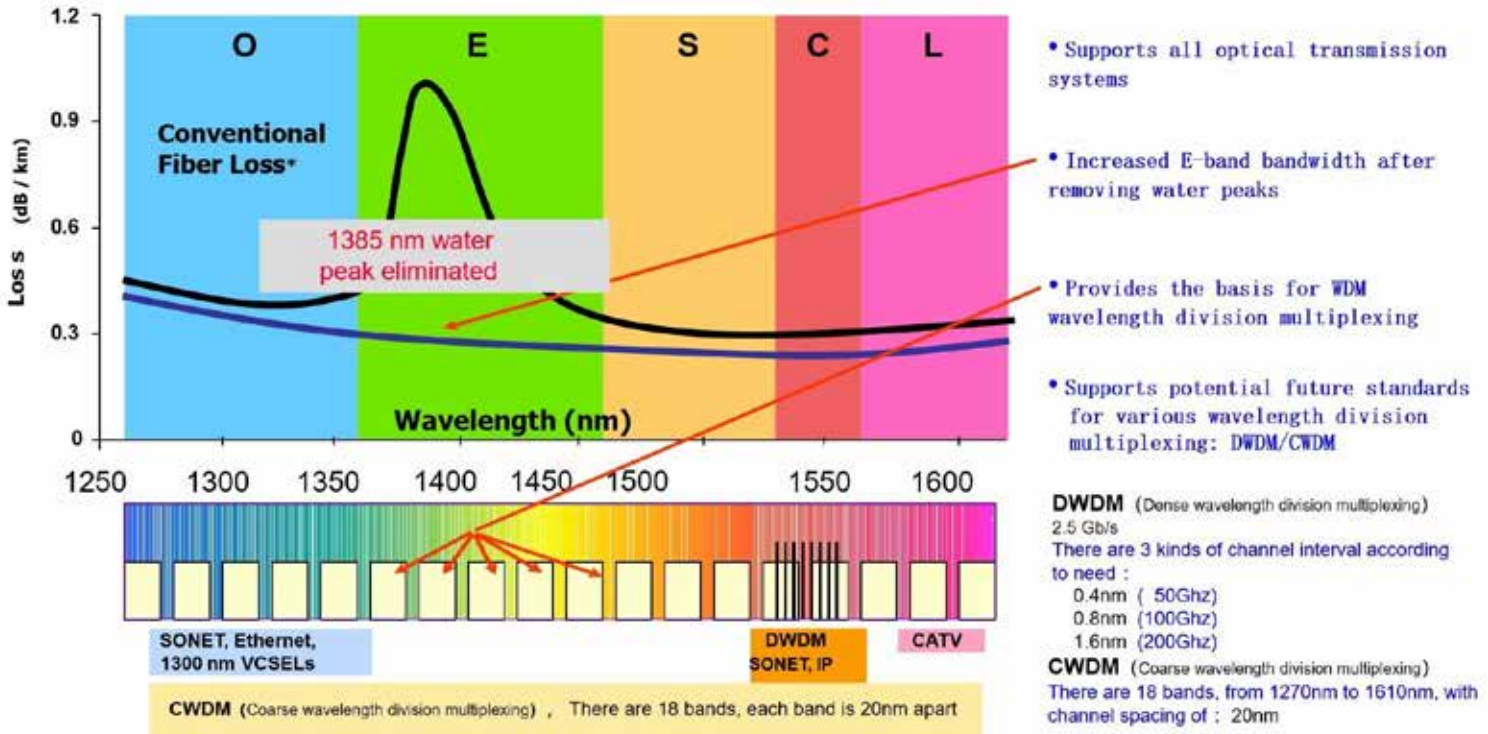
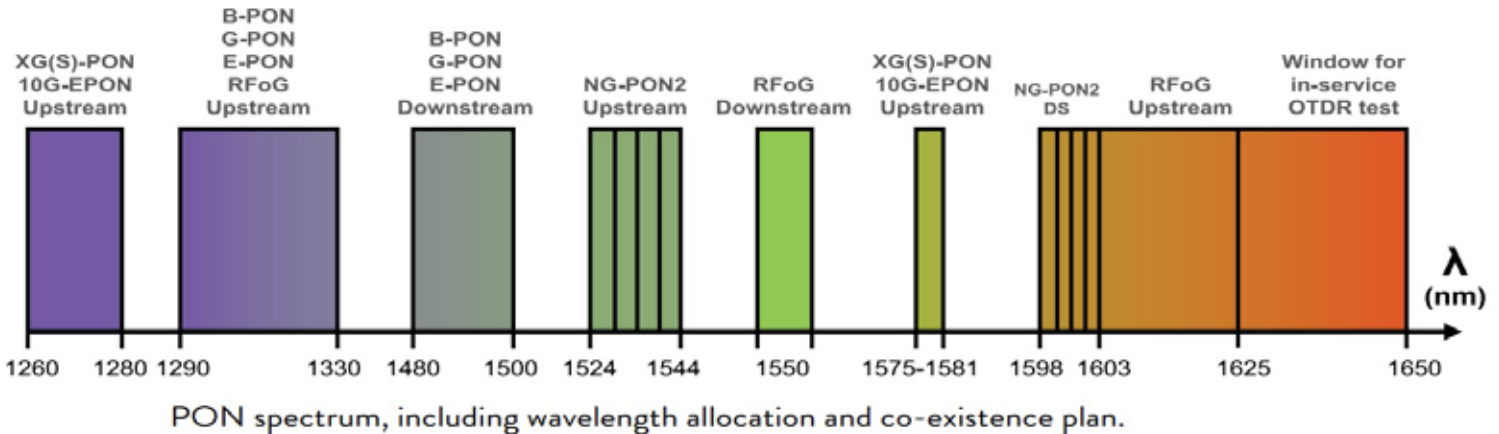


OS2 zero water peak single-mode full wave fiber -- the ultimate bandwidth provider

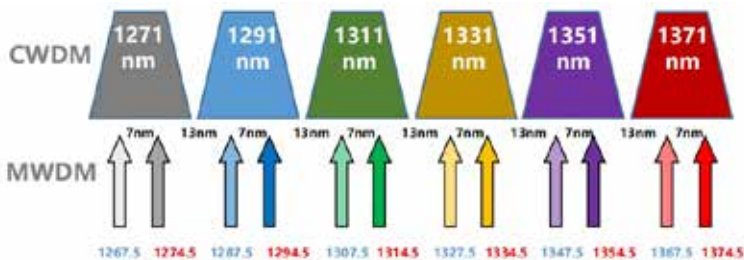


Due to the existence of hydroxyl ions in optical fibers, usually only a few wavelength windows can be used for optical signal transmission, such as traditional single-mode optical fibers, because there is a very serious water peak at the E-band of 1400nm, under normal circumstances. It is impossible to carry out optical signal transmission, but with the maturity of processing technology, by adding a small amount of rare elements in the fiber drawing process, the water peak at 1400nm is limited, so that the whole Optical signal transmission can be carried out within the wavelength band, which is equivalent to adding an E-band bandwidth. Therefore, this upgraded OS2 zero water peak full wave fiber and the new E-band provide the basis for WDM wavelength division multiplexing.



The wavelength division multiplexing technology of optical fiber is becoming more and more mature, mainly including DWDM dense wavelength division multiplexing and CWDM coarse wavelength division multiplexing. For example, you are familiar with PON Technology:

- EPON:** down 1480 ~ 1500nm /up 1260 ~ 1360nm;
- Asymmetric 10G EPON:** down 1575 ~ 1580nm /up 1260 ~ 1360nm;
- Symmetric 10G EPON:** down 1575 ~ 1580nm /up 1260 ~ 1280nm.
- GPON:** Downlink using S-band 1480 ~ 1500nm /Uplink using O-band 1290 ~ 1330nm;
- 10G GPON:** Downlink using 1575 ~ 1580nm /Uplink using 1260 ~ 1280nm, does not overlap with GPON, and theoretically can coexist by combining waves.



At present, it is a very popular innovative semi-active open developed to meet the needs of 5G forward networking-WDM/MWDM technology system has opened O-wave with wavelength range of 1260nm ~ 1380nm. Segment WDM application (mwdm system with unequal spacing wavelength and equal spacing passband, reusing CWDM at low cost 25G DML optical chip industry chain supports 12 wavelength WDM system, and the number of channels is doubled to meet the demand of one core per station), as shown in the left figure.