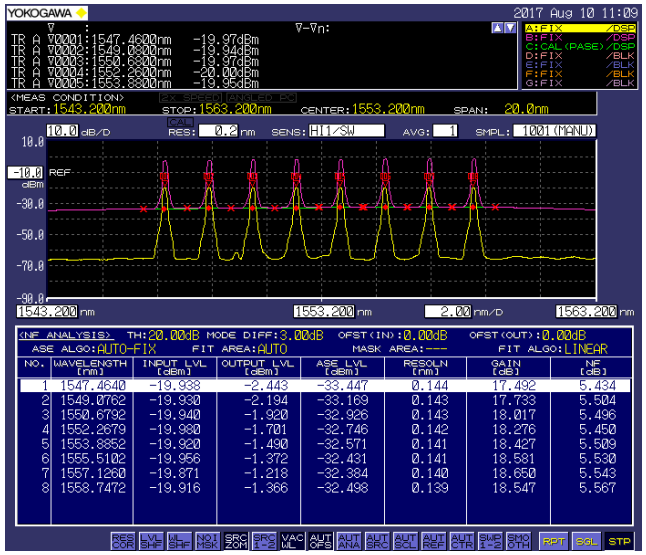
Characterization of Optical Amplifier with OSA

As the communication traffic has grown, an optical amplifier such as EDFA which enables long-distance, large-capacity transmission e.g. submarine cables has become increasingly important.

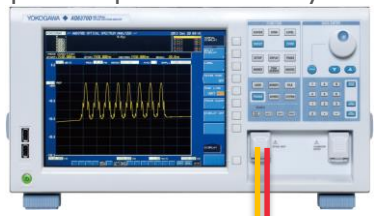
The optical amplifier analysis function of the AQ6370D, AQ6374, AQ6375B and AQ6376 easily and efficiently calculates the gain and the noise figure (NF) of the optical amplifier based on the measured waveform of signal light to the optical amplifier and measured waveform of output light from the optical amplifier.

Because the output light of the optical amplifier is superimposed by an ASE component included in the EDFA, it is important to remove the ASE component in the evaluation of NF.

Because the optical amplifier analysis function of the AQ6370D, AQ6374, AQ6375B and AQ6376 sets a fit and a mask area with an auto parameter function using the ASE compensation method, it can easily remove the ASE component and precisely evaluate the characterization of the optical amplifier. It also allows the user to change parameters manually, of course.



AQ6370D/AQ6374/AQ6375B/AQ6376
Optical Spectrum Analyzer



Light source
AQ2200-131/132

① Writing the signal waveform of the optical amplifier into the trace

② Inserting the DUT.

DUT
(optical amplifier)

③ Writing the signal waveform of the optical amplifier into the trace B.

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