

OSA: Measurement of Temporal Change of Optical Power

Applicable model*: AQ6380/AQ6370 series/AQ6360

Yokogawa's optical spectrum analyzer is equipped with a "0 nm sweep function" that repeatedly measures the optical power of a specific wavelength and displays the change over time. It is also effective for aligning the optical axis, such as coupling an optical fiber to the light source.

0 nm Sweep function

When the wavelength span setting of the optical spectrum analyzer is set to 0 nm, the spectroscopic element (diffraction grating) is fixed at the center wavelength position. If you perform measurement (sweep) in this state, the change over time in the optical power at the center wavelength can be observed. The horizontal axis of the screen is changed to time. (Usually, wavelength) Before executing the 0 nm sweep, set the center wavelength to the measuring wavelength and the wavelength resolution to the maximum resolution (2 nm). This is to avoid missing the optical power due to changes in wavelength over time. Since the measurement (sweep) time can be set arbitrarily in [0nm SWEEP TIME]**, slow power changes can be displayed on one screen.

0nm sweep setting

[CENTER]

Set to a measuring wavelength

[SPAN] 0nm

Horizontal axis is set to time

[RES] 2nm

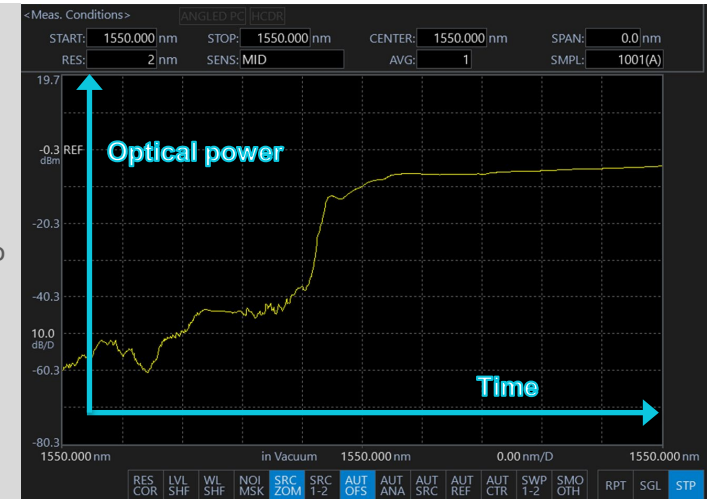
Set to the wide resolution not to miss the signal due to the wavelength drift

[SENS]

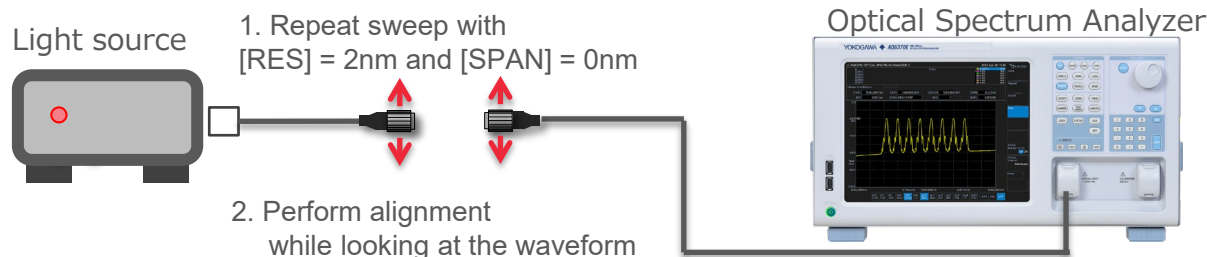
Set to a suitable sensitivity according to the optical power
Normal = fast / for high power
High * = slow / for low power

[0nm SWEEP TIME]

Set the sweep time for the full span of screen as appropriate.



Waveguide alignment and optical axis adjustment in spatial light experiments



* All versions unless otherwise specified.

** The sweep time depends on the measurement sensitivity (SENS) setting. Therefore, it may take longer than the time set in [0nm SWEEP TIME].