

AQ4320A/4320B/4320D Tunable Laser Source

■ The ideal Tunable Laser Source for evaluation of D-WDM systems and components



AQ4320A

Introduction

The AQ4320 high-quality Tunable Laser Source can accurately set wavelength range, accommodating various aspects of D-WDM use.

High output, high SMSR, and other specifications are excellent for evaluating optical fiber amplifiers and components, D-WDM systems, etc.

Features

- Wavelength range: 1480 to 1580nm (AQ4320A)
- Continuous sweep
- High optical output with +10dBm (typ.) (AQ4320A)
- Side mode suppression ratio: 70dB (AQ4320B)
- High optical output at 1600nm band (AQ4320D)
- Wavelength calibration function with built-in wavelength standard

Specifications

| Model | | AQ4320A | AQ4320B | AQ4320D |
|---|------------------------|--|--------------------------|----------------|
| Wavelength range | | 1480 to 1580nm | 1500 to 1580nm | 1520 to 1620nm |
| Wavelength set resolution | | 0.001nm | | |
| Absolute wavelength accuracy | | ±0.1nm | | |
| Relative wavelength accuracy | | ±0.035nm (typ.) | | |
| Wavelength stability | | ±100MHz/h (±0.8pm/h) (typ.) | | |
| Spectral width ¹⁾ | Narrow | 1MHz or less 200kHz (typ.) | | |
| | Wide | 200MHz or more | | |
| SMSR ^{1, 2)} | | 50dB or more/60dB (typ.) | 70dB or more/80dB (typ.) | 50dB or more |
| Optical output level ¹⁾ | Peak | - | - | +7dBm (typ.) |
| | 1560 to 1600nm | - | - | +6dBm or more |
| | 1550nm | +8dBm or more +10dBm (typ.) | -3dBm or more | - |
| | 1540 to 1620nm | - | - | +5dBm or more |
| | 1520 to 1620nm | - | - | +3dBm or more |
| | 1520 to 1570nm | +7dBm or more | -6dBm or more | - |
| | 1500 to 1580nm | +5dBm or more | -10dBm or more | - |
| 1480 to 1580nm | +3dBm or more | - | - | |
| Settable optical output range ¹⁾ | | 20dB or more (0.1dB steps) | | |
| Optical output stability ¹⁾ | 5 min ³⁾ | ±0.01dB or less | | |
| | 1 h ⁴⁾ | ±0.05dB or less | | |
| | 8 h ⁵⁾ | ±0.3dB or less | | |
| Optical output accuracy ¹⁾ | | ±1dB or less | | |
| Optical output reproducibility ^{1, 6)} | | ±0.04dB | | |
| Optical output level flatness ^{1, 7)} | | ±0.1dB | | |
| RIN | | -145dB/Hz (typ.) | | |
| Internal modulation (CHOP) | Set frequency | 0.2 to 300kHz | | |
| | Set resolution | 10Hz, 100Hz, 1kHz, 10kHz, 100kHz | | |
| External modulation (CHOP) | Set frequency | 0.2 to 300kHz | | |
| | Set resolution | - | | |
| Direct modulation | Modulation frequency | 100kHz to 300MHz | | |
| | Modulation rate | 5% or less | | |
| | Modulation input level | 0dBm or less | | |
| Wavelength sweep speed | | 100nm/sec (Max.) | | |
| Applicable optical fiber | | SMF (10/125μm) | | |
| Applicable connector ⁸⁾ | | FC/PC, optical return loss: 50dB or more | | |
| Environmental conditions | | Operation temperature: +10 to +35°C, storage temperature: -10 to +50°C | | |
| Power requirements | | AC100 to 120V, 200 to 240V, 50/60Hz, Approx. 150VA | | |
| Dimensions and mass | | Approx. 425 (W) x 177 (H) x 450 (D) mm, approx. 20kg | | |
| Accessories | | Instruction manual: 1, power cord: 1, FD: 2, AQ9441 (FC) connector adapter, 50Ω terminal | | |

Notes

- 1) CW light, at the output point of 2m-long optical fiber
- 2) Optical output = (maximum optical output-3)dB 3) Constant temperature: 25°C
- 4) Within ±1°C in the range of 10 to 35°C 5) 10 to 35°C 6) Optical output level fixed.
- 7) Optical output = (maximum optical output-3)dB, at wavelength range of 1500 to 1580nm (AQ4320A/B), and at wavelength range of 1540 to 1600nm (AQ4320D)
- 8) For optical connectors other than FC/PC type, please consult us.
- 9) The above specifications become effective only when the unit is set for wavelength calibration operation after running the power on and leaving the unit in standby mode for 30 minutes.

Options

AQ9441 (SC) connector adapter

AQ9441 (ST) connector adapter