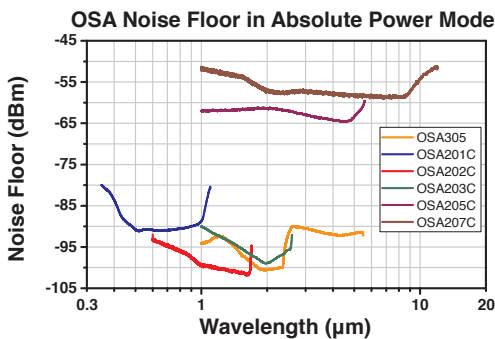
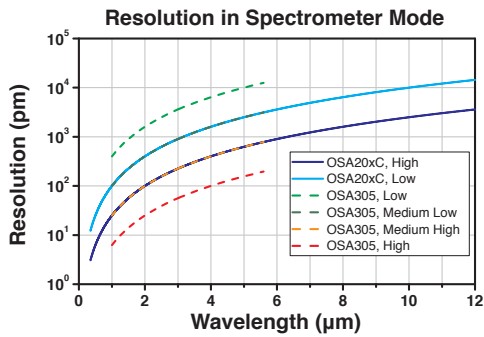


Features

- ◆ Wide Wavelength Range:
1.0 - 5.6 μm
- ◆ High Spectral Resolution:
2.0 GHz (0.0625 cm^{-1})
- ◆ Low Noise Floor:
-90 to -100 dBm
- ◆ Piezo Auto-Alignment for
Improved Signal-to-Noise



OSA305
Available Fall 2021



The high-performance Redstone™ OSA305 is designed for applications that require higher optical resolutions or sensitivities than our general-purpose OSA20xC instruments can offer. To accommodate detailed measurements over a wide wavelength range, the Redstone features two detectors and a 2.0 GHz (0.0625 cm^{-1}) spectral resolution, as well as an improved noise floor relative to the previous generation and a 40 dB optical rejection ratio. This OSA also includes BNC inputs to allow for externally triggered spectrum acquisition.

The Redstone OSA uses a scanning Michelson interferometer with a standard arrangement, i.e. one fixed and one movable retroreflector. The moving retroreflector can be translated by up to 8 cm, which results in an optical path distance (OPD) of up to 16 cm. To finely adjust the overlap of the recombined beams, the fixed mirror is mounted on a piezoelectric actuator. To support a spectral accuracy down to 0.2 ppm, this OSA includes a frequency-locked 1532.8323 nm alignment laser.

Performance Comparison

Item #	Redstone OSA305 ^a	OSA20xC
Spectral Resolution	2.0 GHz (0.0625 cm^{-1})	7.5 GHz (0.25 cm^{-1})
Spectral Accuracy	± 0.2 to ± 1.0 ppm	± 2 ppm
Wavelength Meter Accuracy	± 1 ppm	± 1 ppm
Power Level Accuracy	± 0.4 dB	± 1 dB
Optical Rejection Ratio	± 40 dB	± 30 dB
Polarization Dependence	± 0.1 dB	± 1 dB
Input Fiber Compatibility	FC/PC Connector (Other Connectors Upon Request)	
Free-Space Input	Accepts Collimated Beams $\leq \varnothing 10$ mm Red Alignment Laser Beam Four 4-40 Taps for 60 mm Cage Systems	Accepts Collimated Beams $\leq \varnothing 6$ mm Red Alignment Laser Beam Four 4-40 Taps for 30 mm Cage Systems

a. Specifications are subject to change.

To learn more about our Redstone OSA, please contact techsupport.se@thorlabs.com.