

Source Module Specifications

Apply to the end of a 2 m fiber cable (fiber type as specified) with Diamond HMS-10 connectors attached. All specifications are valid for an attenuation setting of 0.0 dB.

	81551MM	81552SM	81553SM	81554SM	81542MM
Type	Fabry-Perot Laser	Fabry-Perot Laser	Fabry-Perot Laser	Fabry-Perot Laser	LED
Central Wavelength^a	850 ±10 nm	1310 ±20 nm	1550 ±20 nm	1310/1550 ±20 nm	1300 ±40 nm
Fiber Type	MM 50/125 μm	SM 9/125 μm	SM 9/125 μm	SM 9/125 μm	MM 50/125 μm
Spectral Bandwidth^b	<1.5 nm rms	< 2.5 nm rms	< 4 nm rms	< 2.5/4 nm rms	< 90 nm FWHM ^c
Output Power	> -2 dBm ^d	> 0 dBm ^e	> 0 dBm ^e	> -1 dBm ^e	> -20 dBm
CW Stability^c					
Short-term (15 min, T=Constant)	±0.01 dB	±0.003 dB	±0.003 dB	±0.005 dB	±0.002 dB
Long-term (6 hours, T=Constant)	±0.06 dB	±0.03 dB	±0.03 dB	±0.05 dB	±0.01 dB
Operating Temperature	0° to + 55°C				
Dimensions	75 mm H × 32 mm W × 335 mm D (2.8 in × 1.3 in × 13.2 in)				
Weight	Net: 0.7 kg (1.5 lb)/ Shipping: 1 kg (2.2 lb)				
Recalibration Period	1 year				

- a. Central wavelength is shown on the display.
- b. FWHM = Full Width Half Maximum; rms = root mean square.
- c. After warmup time of 60 minutes with output enabled. If previously stored at the same temperature, 20 minutes only.
- d. Class 3A according to IEC 825-1, Class I according to FDA CFR 21.
- e. Class 1 according to IEC 825-1 and FDA CFR 21.

Supplementary Performance Characteristics

Internal Digital Modulation Mode	270 Hz, 1 kHz, 2 kHz, selectable. All output signals are pulse-shaped. Duty cycle 50%.
Output Attenuation	The output power of all source modules can be attenuated from 0 to 6 dB (4 dB for the Agilent 81551MM) in steps of 0.1 dB.
Stability	The value of the long-term CW stability will increase by a factor of two with one minute warm-up time (laser enabled).

