

# C.81536

## **HP 81536A Specifications**

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Specifications describe the instrument's warranted performance. Supplementary performance characteristics describe the instrument's non-warranted typical performance.

Because of the modular nature of the instrument, these performance specifications apply only to this module. You should insert these pages into the appropriate section of the manual.

### HP 81536A Specifications

Sensor Element	InGaAs
Wavelength range	800-1700nm
Power range	+3 to -70dBm
Display resolution	
dBm, dB	0.001dBm, 0.001dB
Watt	100pW
Applicable fiber type	9/125 $\mu$ m - 100/140 $\mu$ m, NA $\leq$ 0.3
Uncertainty (Accuracy)	$\pm$ 2.5% (1000-1650nm) <sup>[1]</sup>
Total Uncertainty	$\pm$ 5% $\pm$ 50pW (1000-1650nm) <sup>[2]</sup>
Linearity	(0 to -50dBm)
18°C to 28°C const. temp	$\pm$ 0.015dB $\pm$ 30pW
0°C to 55°C const. temp	$\pm$ 0.05dB $\pm$ 50pW
Noise	<50pW (1200-1600nm)
peak-peak, avg. time 1sec	
Dimensions	75mm H, 32mm W, 335mm D (2.8" x 1.3" x 13.2")
Weight	net 0.6kg (1.3lbs), shipping 1kg (2.2lbs)
Recalibration period	1 year
Warmup time	20 min.

Information on the traceability of power meters is available on request

[1] at the following reference conditions:

- Power level 10 $\mu$ m (-20dBm), Continuous Wave (CW).
- Fiber 50 $\mu$ m graded index, NA=0.2, fully excited.
- Ambient temperature 23 $\pm$ 5°C.
- Connector Diamond HMS-10/HP.
- At day of calibration.

[2] at the following operating conditions:

- Power range as stated under linearity.
- Fiber  $\leq 50\mu\text{m}$ , NA  $\leq 0.2$ .
- For NA  $> 0.2$  add 1%.
- Ambient temperature 0 to 55°C.
- Connector HMS-10/HP, FC/PC, DIN 47256, ST. For Biconic add 1%.
- Within 1 year after calibration.

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## Supplementary Performance Characteristics

To get the **Total Uncertainty** for this module in the 800-1000nm wavelength range, add 1% to the values shown in the specifications.

Outside the specified wavelength range, the noise increases by up to 5 times the value shown above.

<b>Analog output</b>	
bandwidth	DC-700Hz
output voltage	0 to 2V into open
output impedance	600 $\Omega$ typ.
max. input voltage	$\pm 10\text{V}$