

Return loss module specifications with internal source

(when used with external sources the specifications of 81610A return loss module apply)

All modules require angled contact (8°) at input and output connectors

	81611A	81612A	81613A
Source	Fabry-Perot Laser (internal)		
Output Power	typ. – 4dBm		
Center wavelength [1]	1310 nm ±20 nm typ.	1550 nm ±20 nm typ.	1310/1550 nm ±20 nm typ.
Sensor Element	InGaAs		
Fiber Type	Standard single-mode 9 / 125 μm		
Dynamic Range	75 dB		
Relative uncertainty of Return Loss (RL)	User calibration [2]		Plug and play [3]
<ul style="list-style-type: none"> • RL ≤55 dB • RL ≤60 dB • RL ≤65 dB • RL ≤70 dB • RL ≤75 dB 	$<\pm 0.5$ dB (typ. $<\pm 0.3$ dB) $<\pm 0.6$ dB (typ. $<\pm 0.4$ dB) $<\pm 0.8$ dB (typ. $<\pm 0.5$ dB) $<\pm 1.9$ dB (typ. $<\pm 0.8$ dB) [4] typ. $<\pm 2.0$ dB [4]		typ. $<\pm 0.6$ dB typ. $<\pm 1.5$ dB
Total uncertainty	add ± 0.2 dB		add typ. ± 0.2 dB
Dimensions (H x W x D)	75 mm x 32 mm x 335 mm (2.8" x 1.3" x 13.2")		
Weight			
Recommended Recalibration period	2 years		
Operating temperature	10 to 40°C		
Humidity	Non-condensing		
Warm-up time [5]	20 minutes		

^[1] At 25°C constant temperature,
coherence control on,
warm-up time after laser turn on >5 min.

^[2] Averaging time 1s,
calibration prior to measurement,
constant temperature,
coherence control on,
warm-up time after laser turn on >5 min,
length of measurement patch cord ≤2m,
angled connector in optimal optical condition.
Reference cable 81610CC used for total uncertainty.

^[3] Use defaults settings (no user calibration necessary):
length of measurement patch cord ≤ 2m,
return loss of connectors ≥70 dB.

^[4] For measurements performed immediately after calibration.

^[5] Warm-up time 60 min, if previously not stored at the same
temperature.

Laser Safety Information

The above products are classified as Class 1 according to IEC 60825-1 (2001).

All laser sources comply with 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50, dated 2001-July-26.

