

DIAMOND
Test & Calibration Laboratory

Product Specification Qualification Test Report



E-2000™ Crimp & Cleave simplex

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Test Description	Test Method	Page	Edition ⁽¹⁾	Riq. ⁽²⁾	Similarity ⁽³⁾
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Notes:

(1) Edition: this column states the date of the qualification test.

(2) Requalification: this column states the date of the requalification test

(3) Similarity: this column lists the product for which similarity principle has been applied and therefore a particular test has been requalified

This Qualification Test Report (QTR) summarizes the qualification tests performed to verify the design and the optical, mechanical and environmental performance of the E-2000™ Crimp & Cleave simplex connector at our laboratory.

Because of similarity of this product to E-2000 SM, only a limited set of test have been selected as qualification test program.

Test methods are generally in agreement with IEC 61300 and are listed above in the column "test method".

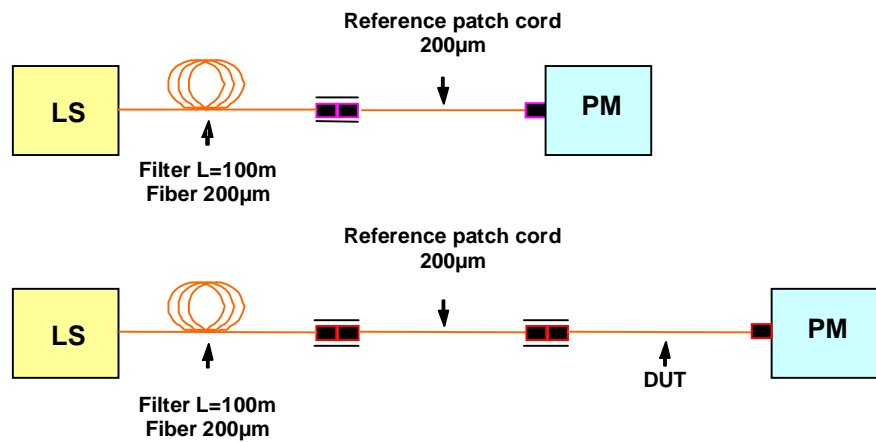
The qualified product is subject to periodic requalification with the purpose of guaranteeing the product compliance to the specifications measured in the present test report over the years.

For requalification purpose we apply the principle of "similarity", where the qualification data of similar products can be used if they meet the same technology platform and are manufactured using the same process.

For additional information, please contact Diamond or your Diamond Sales Representative.

Insertion loss random mated

1) Method: IEC 61300-3-34, method B



2) Requirement: **Random IL 97% < 1.00 for connections**

3) Device under test (DUT)

Test samples: 10 patchcords terminated with E-2000 Crimp & Cleave connectors, cable 2500 / 500 / 230 / 200 (1005195).
Total number of tested samples = 20

Measurements: 400

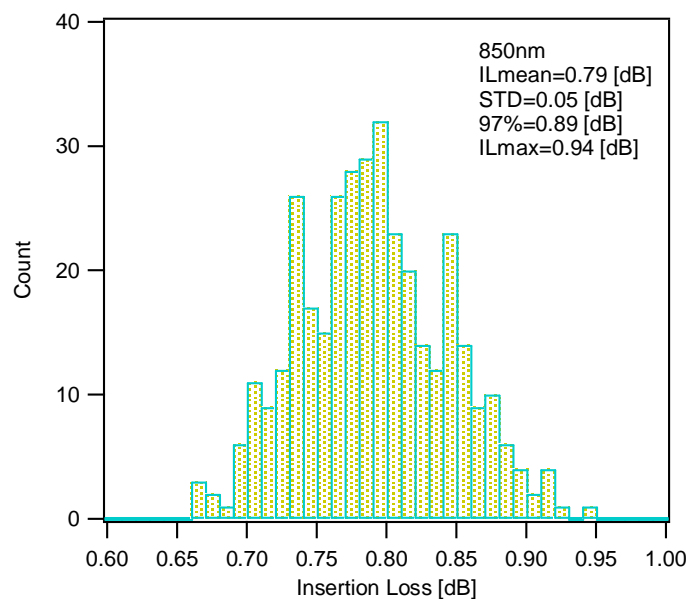
Mating adapter: E-2000 C&C

4) Test condition

Wavelength: 850nm

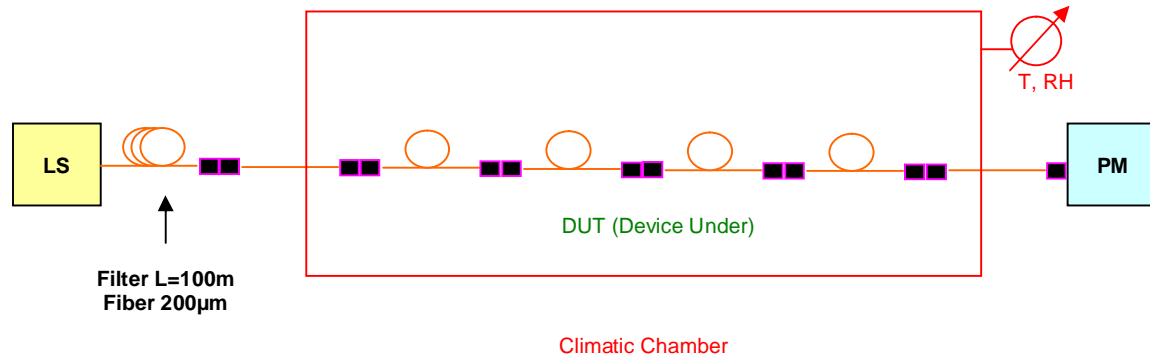
5) Test results:

At 850nm
 $IL_{Mean} = 0.79 \text{ dB}$
 $IL_{max} = 0.94 \text{ dB}$
 $IL_{97\%} = 0.89 \text{ dB}$
 $STD = 0.05 \text{ dB}$

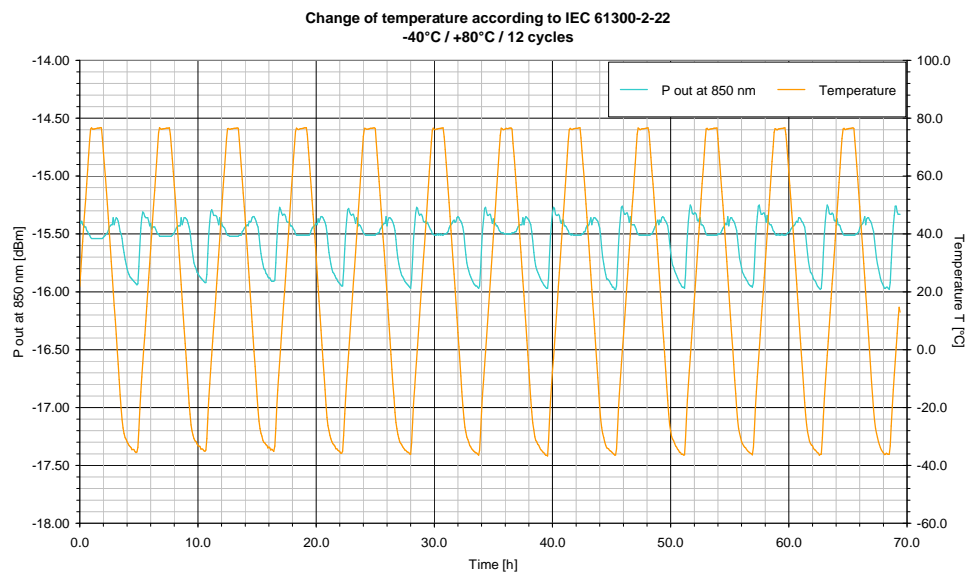


Change of temperature λ 850nm

- 1) Method: IEC 61300-2-22
IEC 61300-3-3

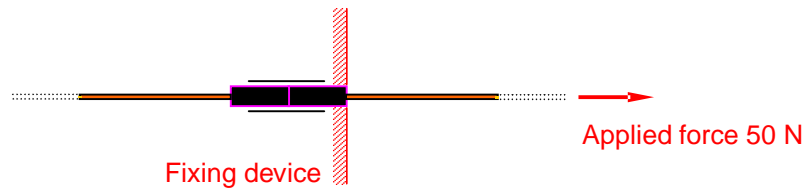


- 2) Requirement: Δ insertion loss ≤ 1.40 dB during the test
- 3) Device under test (DUT)
Test samples: 6 patchcords terminated with E-2000 Crimp & Cleave connectors, cable 2500 / 500 / 230 / 200 (1005195).
Total number of tested samples = 10
Mating adapter: E-2000 C&C
- 4) Test condition
Wavelength: 850 nm
High Temperature 80°C
Low Temperature -40°C
Temp. change rate 1°C/min.
Dwell time 1 h
Number of cycles 12
- 5) Test results: **max insertion loss variation during the test**
At 1310nm 0.73 dB



Cable retention

- 1) Method: IEC 61300-2-4
IEC 61300-3-3



- 2) Requirement: Δ insertion loss $\leq 0.20\text{dB}$ during the test
- 3) Device under test (DUT)
 Test samples: 2 patchcords terminated with E-2000 Crimp & Cleave connectors, cable 2500 / 500 / 230 / 200 (1005195).
 Total number of tested samples = 4
 Mating adapter: E-2000 C&C
 Reference connectors: 1 taken from test samples
- 4) Test condition
 Wavelength: 850 nm
 Force: 50 N
 Time : 2 minute
 Point of application of the tensile load: $l = 30\text{cm}$
- 5) Test results:

No. Test	Before [dB]	During [dB]	After [dB]	Δ max [dB]
1	0.77	0.77	0.77	0.00
2	0.74	0.74	0.74	0.00
3	0.65	0.65	0.65	0.00
4	0.75	0.75	0.75	0.00