

CYL-2000/S Single-mode Continuous Fiber Laser Test Report

Process: Test before installation

Test date: 2021.4.12

Inspector: Siyun Zhu, Xiao Zhang

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|---|------------|------------------------|---|--|
| 1 | Test items | Optical path detection | Coiling fiber effect | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Fiber line loss | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Fiber device installation | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Weld effect | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 2 | Test items | Circuit test | Fixed screw | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Welding point | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Wiring | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 3 | Test items | QBH test | Appearance of armored cable and mechanical parts | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Appearance of window panel and quartz column | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 4 | Test items | External effect | Fiber laser connect with water cooler | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Power meter connect with water cooler | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | QBH short-circuit metal contacts | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | The red light spot is normal and aimed at the power meter | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |

Process: Test work station

Test date: 2021.4.13

Inspector: Siyun Zhu, Xiao Zhang

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|-----|------------|---------------------------|--------------------------|---------|--|------|-------------------------------|
| 1 | Test items | Alarm function test | Forward light alarm test | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG | | |
| | | | QBH alarm test | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG | | |
| 2 | Test items | Water cooling temperature | Power percentage | Power/W | 3 | 47dB | Center wavelength /nm 1080 |
| | | 25℃ | 10 | 156.5 | | | |
| | | 25℃ | 20 | 284 | | | |
| | | 25℃ | 30 | 550 | | | |
| | | 25℃ | 40 | 745 | | | |
| | | 25℃ | 50 | 950 | | | |
| | | 25℃ | 60 | 1103 | | | |
| | | 25℃ | 70 | 1320 | | | |
| | | 25℃ | 80 | 1553 | | | |
| | | 25℃ | 90 | 1753 | | | |
| 25℃ | 100 | 2024 | | | | | |

Process: Aging, vibration test

Test date: 2021.5.9-5.11

Inspector: Siyun Zhu, Xiao Zhang

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|---|------------|----------------|--|--|
| 1 | Test items | Vibration test | Vibration time 30min | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Optical path effect after vibration | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Circuit effect after vibration | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Red light after vibration | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Total power after vibration | 2018W |
| 2 | Test items | Aging test | Full power continuous output light 72H | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Optical Path effect after aging | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Circuit effect after aging | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Red light after aging | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Power test after aging | 2010W |

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Process: Cutting test

Test date: 2021.5.11-5.13

Inspector: Jixiang Shen, Long Qian

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|---|------------|---|--|
| 1 | Test items | 1.5mm, 3mm stainless steel cutting effect | The section is smooth, no burrs, and the cutting effect is OK. |
| 2 | Test items | 3mm、6mm carbon steel cutting effect | Good section, the cutting effect is OK. |
| 3 | Test items | 1.5mm、3mm aluminum alloy cutting effect | Good section, the cutting effect is OK. |
| 4 | Test items | The above material cutting aging | No abnormality after cutting and aging for 2 days, and the cutting effect is good. |

Process: Test after cutting

Test date: 2021.5.13

Inspector: Siyun Zhu, Xiao Zhang

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|---|------------|-------------------------|-----------------------------------|-----------------------------|--|
| 1 | Test items | Test after cutting | Optical path effect after cutting | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Circuit effect after cutting | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 2 | Test items | Alarm function test | Forward light alarm test | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | QBH alarm test | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 3 | Test items | Total power test | 2010W | Beam quality M ² | 3 |
| 4 | Test items | Central wavelength (nm) | 1080 | Raman | 47dB |

Process: Warehousing test

Test date: 2021.5.14

Inspector: Qinghui Long, Peng Zheng

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|---|------------|-------------------------------|---|--|--|
| 1 | Test items | Appearance test | Whole machine appearance test | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Appearance of armored cable and mechanical parts | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Appearance of window panel and quartz column | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 2 | Test items | Traceability confirmation | Traceability table test information confirmation | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | The internal and external SN numbers are the same | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | Encryption time confirmation | | Not encrypted |
| 3 | Test items | U disk content confirmation | Software | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| | | | User manual | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 4 | Test items | Power test | Total power test | | 2012W |
| 5 | Test items | Accessories confirmation | Complete accessories, no abnormality | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |
| 6 | Test items | Packing material confirmation | Foam, packing box | | <input checked="" type="checkbox"/> OK <input type="checkbox"/> NG |