

OAS-DSP NU-2000 농도측정모듈

2021. 08. 14



Content

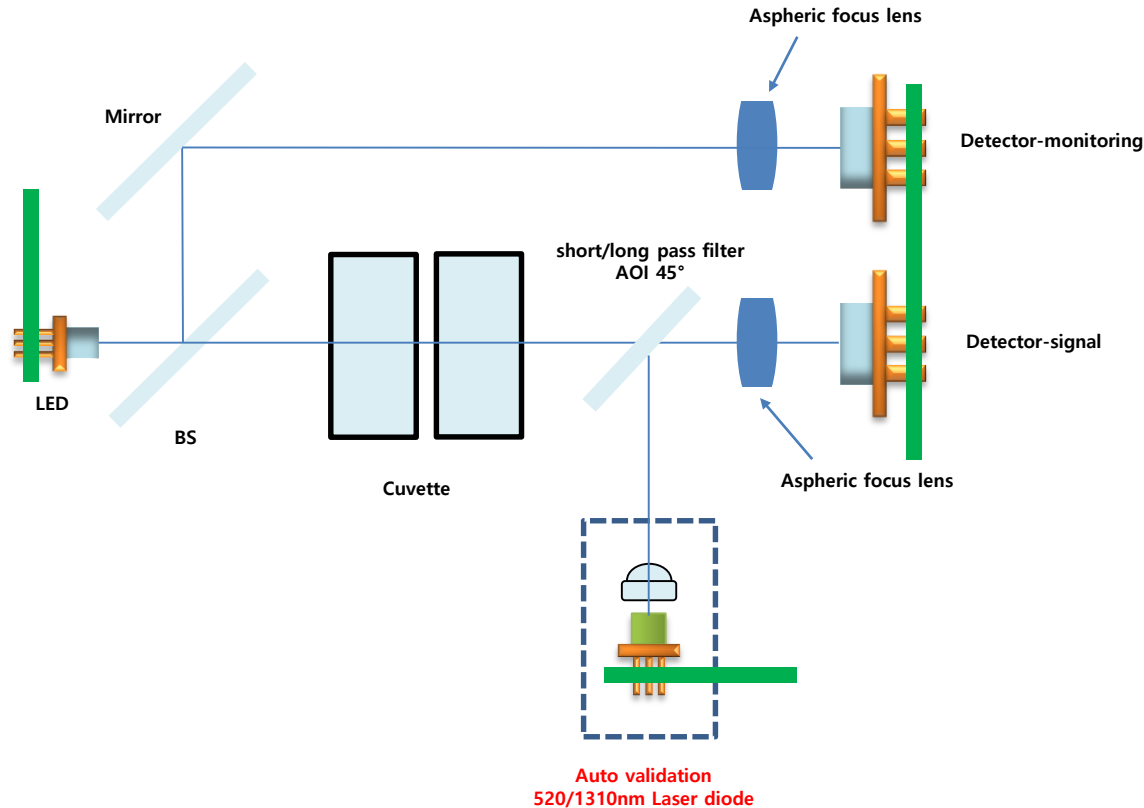
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1. Modified optical layout
2. Design factor
3. Dimensions
4. Schedule

1. Modified optical layout

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- PD 신호 경향성의 일치 유도

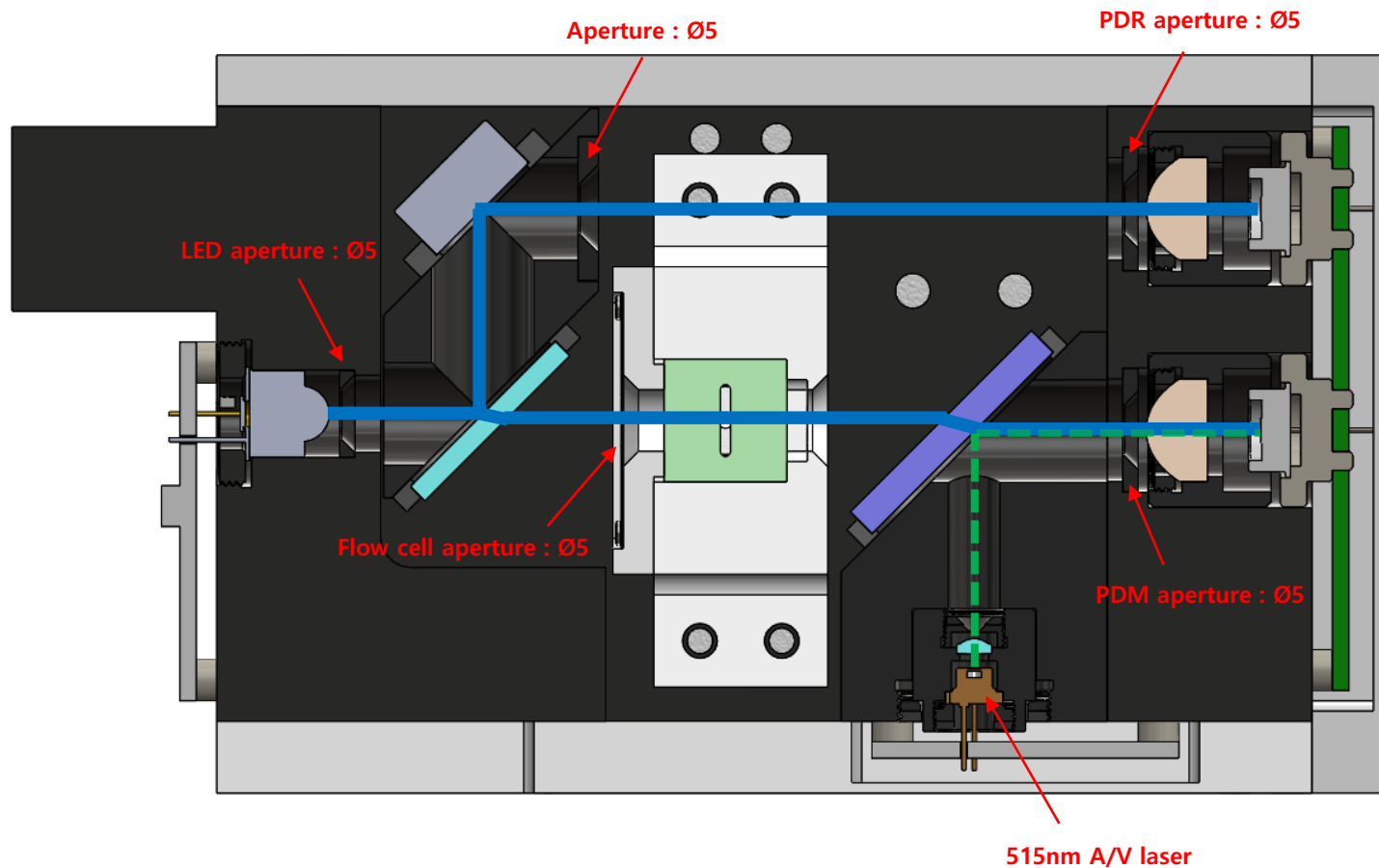


- Monitor PD의 온도 영향을 최소화
- Monitor PD 및 signal PD를 함께 배치 : 통합 PD board 적용
- Beam path를 위한 metal-coated mirror 배치(UV/MIR)
- 기존 monitor 신호 수광을 위한 구면 렌즈를 signal 수광 렌즈와 동일한 비구면 렌즈로 변경

2. Design factor

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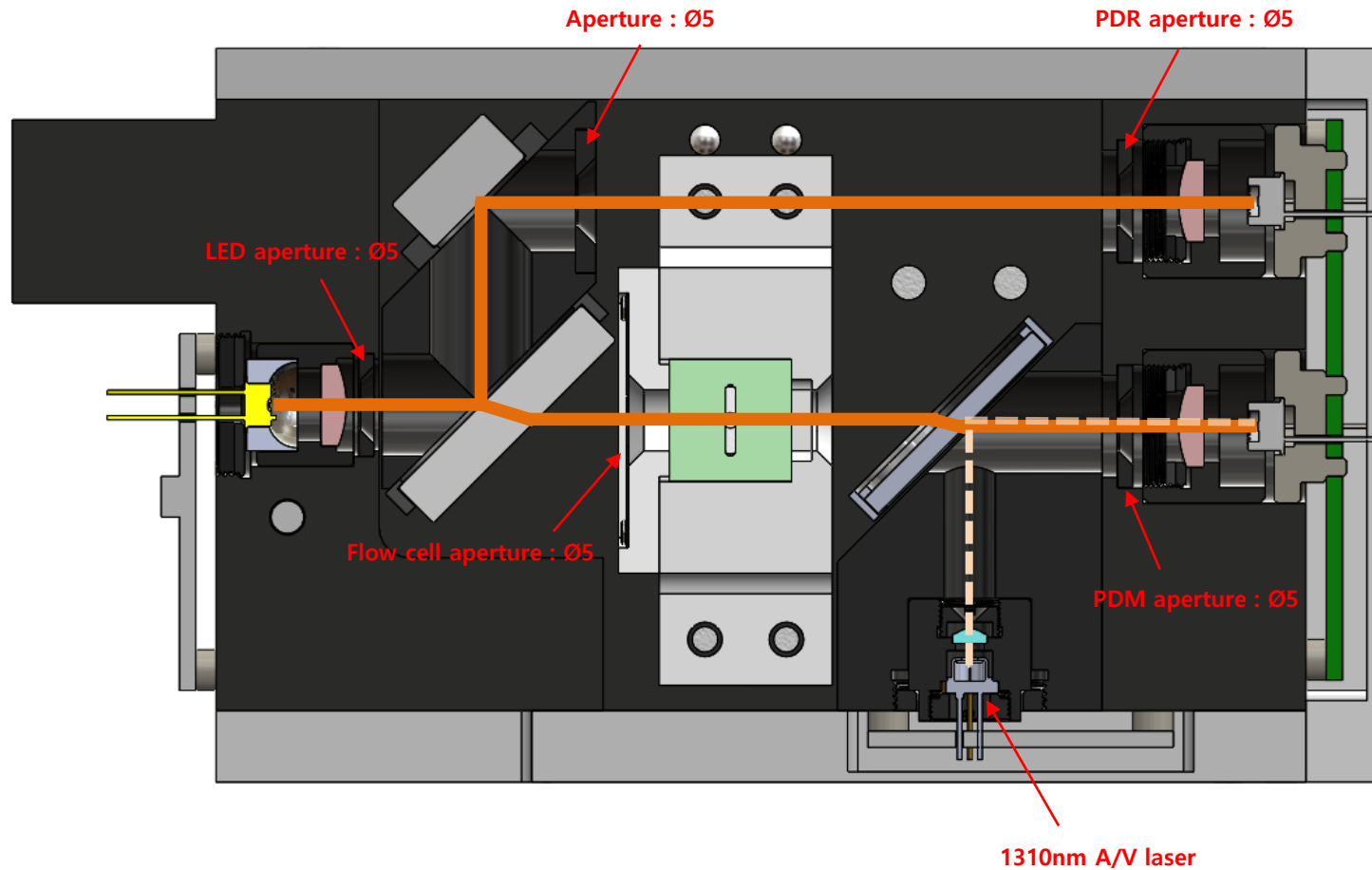
- Mechanical layout
 - UV module



2. Design factor

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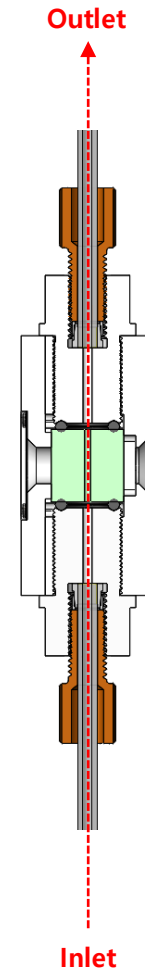
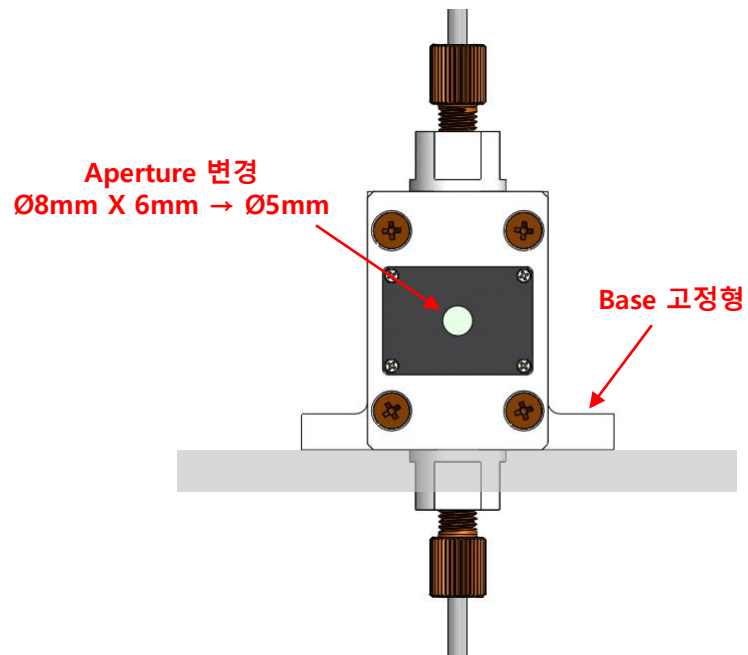
- Mechanical layout
 - MIR module



2. Design factor

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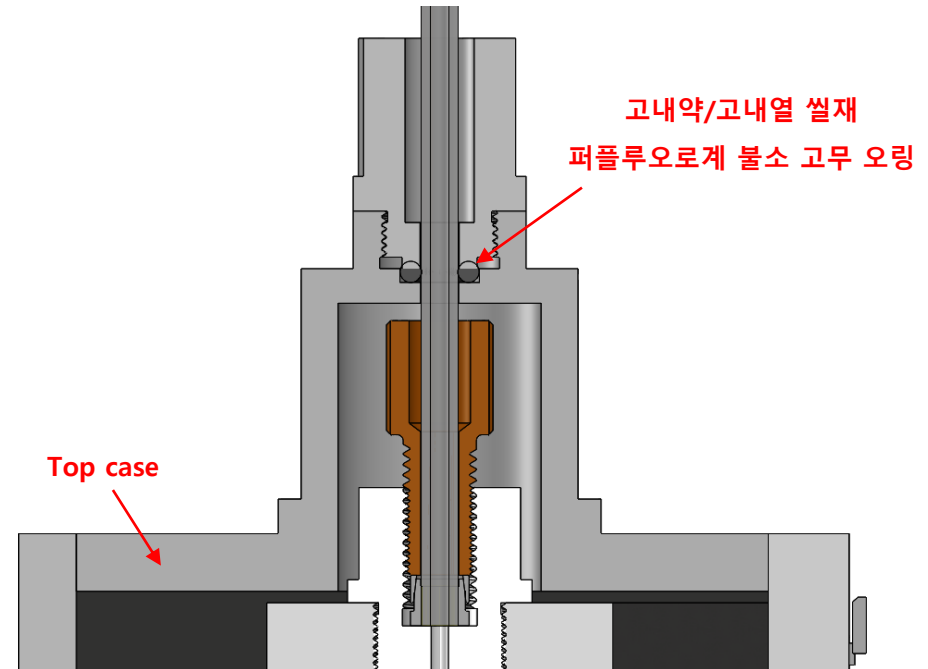
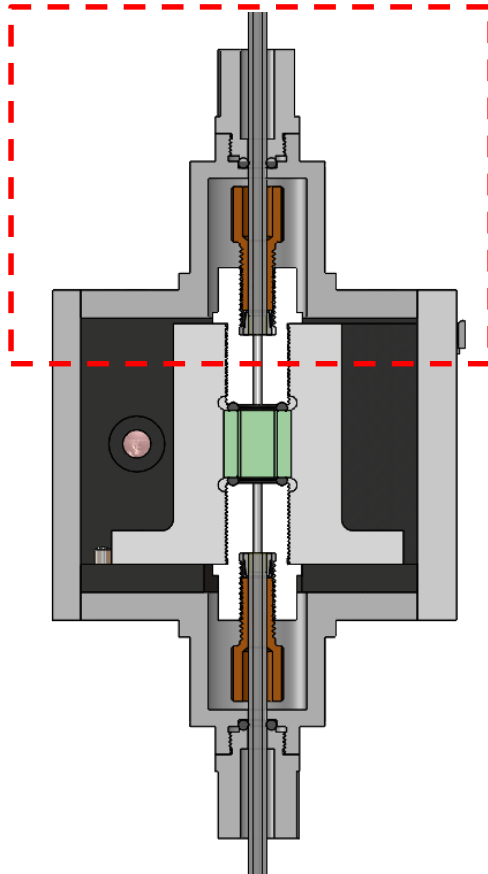
- 측정 약액의 leak 방지
 - Flow cell 및 case 구조 변경



2. Design factor

Confidential

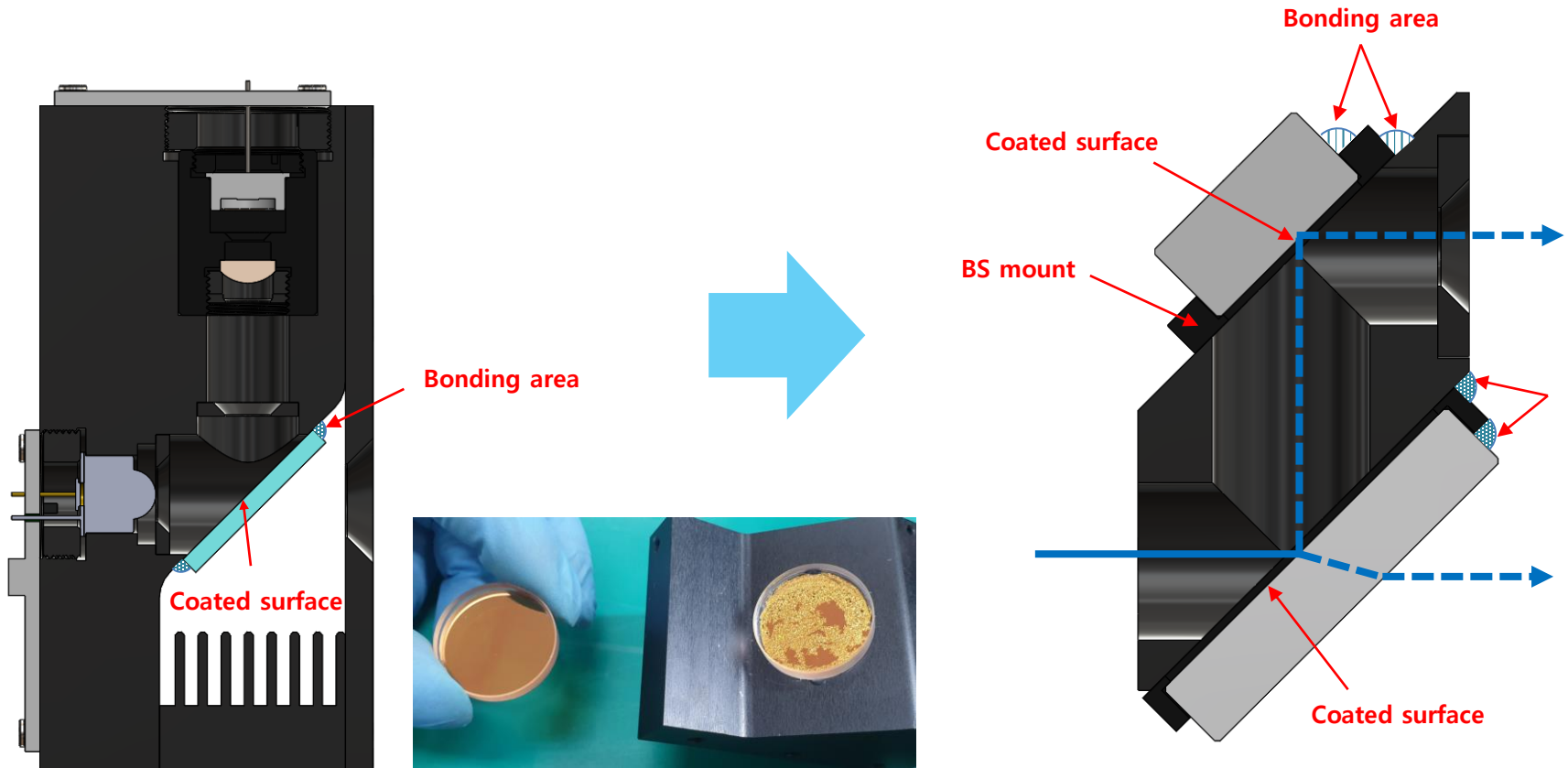
- 측정 약액의 leak 방지
 - Case 구조 변경 : 추가 방지 구성



2. Design factor

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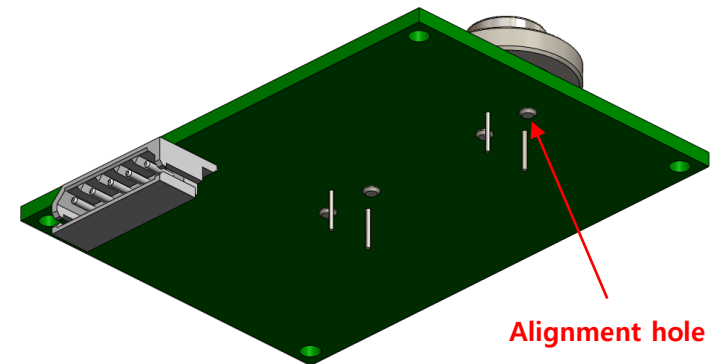
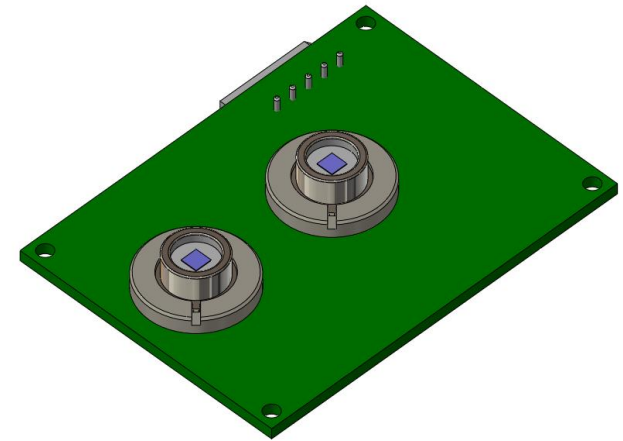
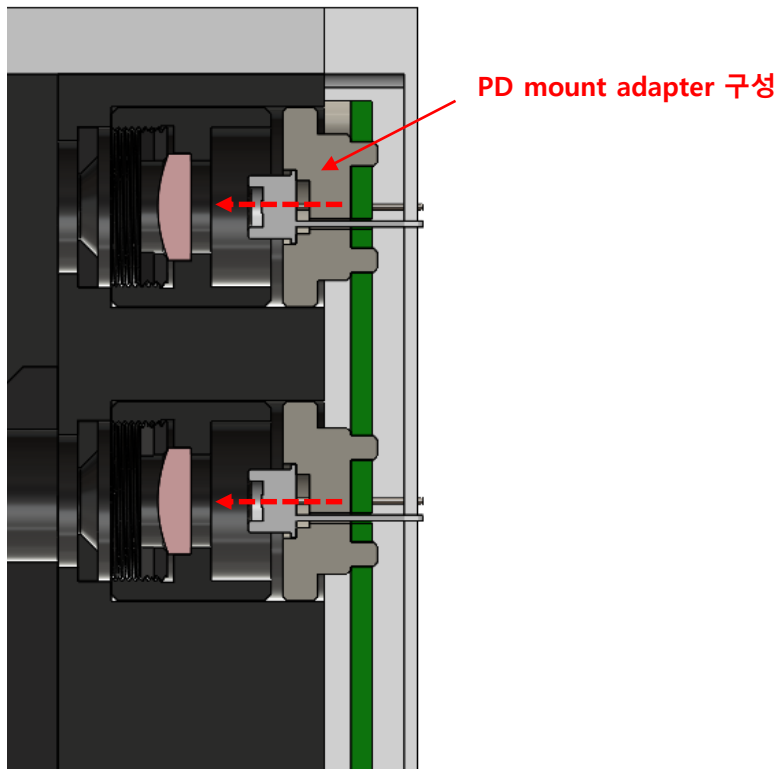
- Beamsplitter mount
 - 수지 계열의 BS mount 별도 구성
 - 온도 구배에 따른 열전도 방지
 - Bonding 시 coating 면에 가해지는 압축응력 발생 차단



2. Design factor

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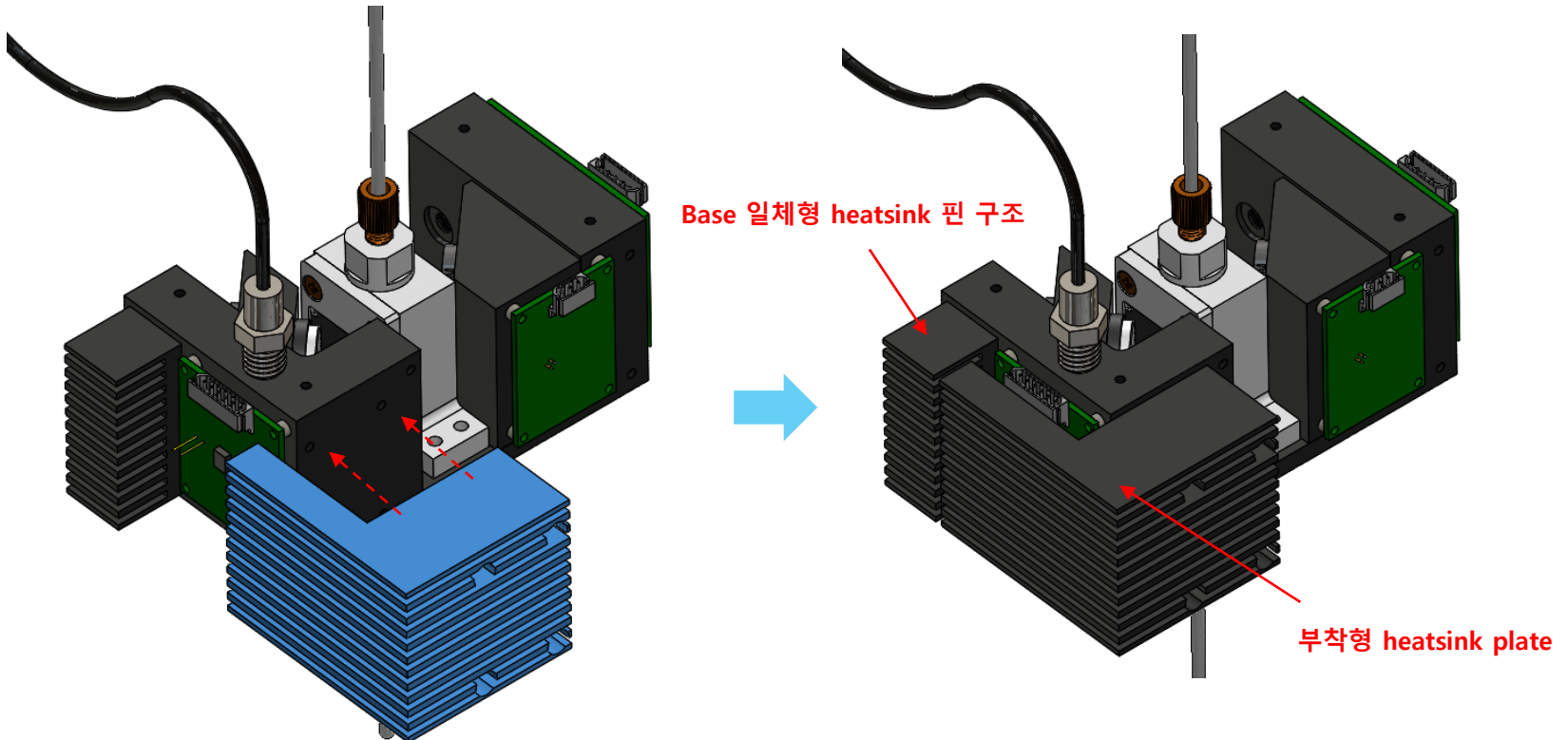
- PD board
 - Photodiode 조립 구조 변경
 - Module 조립 및 해체 시 유리



2. Design factor

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- Heatsink plate
 - Main base 구조 변경
 - Base 일체형 heatsink 핀 추가
 - 별도의 부착형 heatsink plate 추가

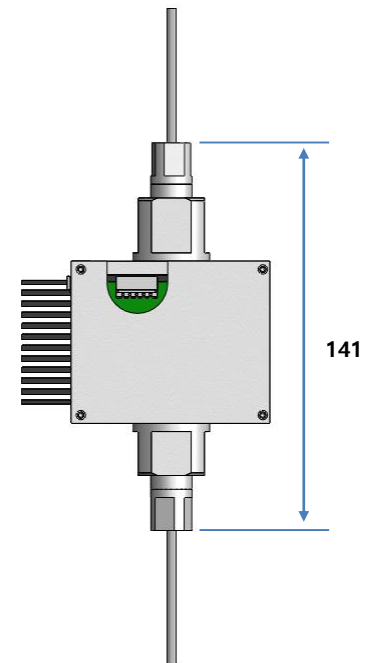
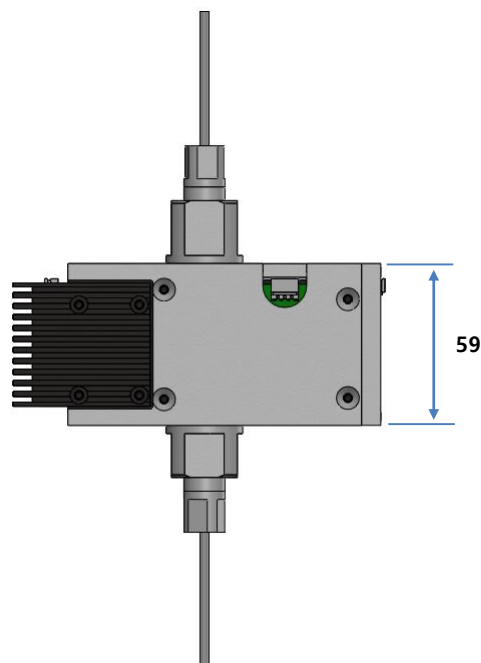
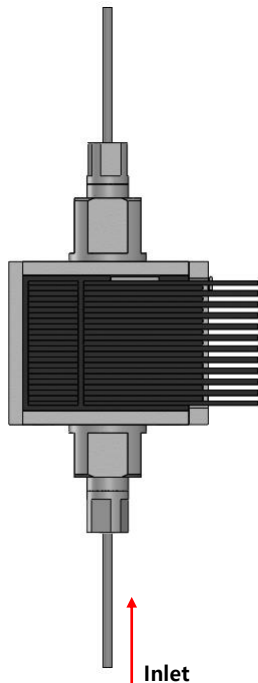
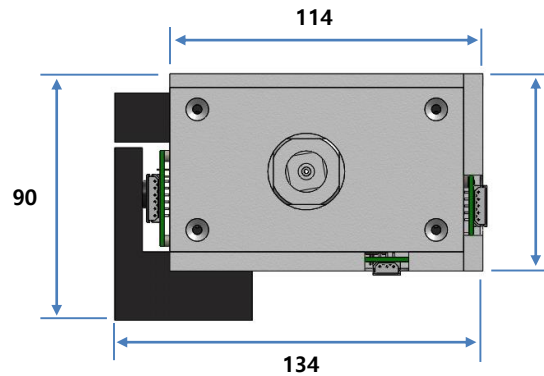


3. Dimensions

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- Module size
 - UV/MIR module 동일

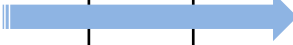



단위 : mm



4. Schedule

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- 2차 개선 농도측정모듈
 - 제작 일정

주요 내용	8월				9월				10월			
• 광학 부품 선정 및 구매												
• 광기구 설계 및 제작												
• 회로부 설계 및 제작												
• 조립 및 성능 테스트												

- Note) Monitor PD 수광용 비구면 렌즈 추가 구매 진행 : 기존 구면 렌즈 사용 후 교체 가능 구조