

List of photo-detectors for one squeezer unit (no filter cavity)

IN AIR:

- **FSS1 PD** Qty: 1
Newfocus 1611 (commercial): <https://www.newport.com/p/1611FS-AC>
- **DC monitoring diodes** Qty: 6
Commercial - Thorlabs SM1PD1A or others (similar to ALS monitoring: <https://dcc.ligo.org/LIGO-E1200938>)
- **SHG PDH diode** Qty: 1
LSC RF PD style @ 35MHz, 532nm
→ commercial alternative might be feasible (1811)
- **WFS, 42.4 MHz** Qty: 2
Same design as for 45 MHz aLIGO WFSs.
- **1 homodyne detector @ 3.1 MHz** Qty: 1
Diagnostic diode, prototype built (see <https://dcc.ligo.org/T1500040-v1>)

IN VACUUM:

- **In-vacuum DC diode for CLF monitor** Qty: 1
In-vacuum DC diode for monitoring @ 1064nm CLF beam
Typical power: ~ 1 uW, max 50 mW
(need to be able to handle SEED power level)
- **In-vacuum DC diode for GREEN PUMP monitor** Qty: 1
In-vacuum DC diode for monitoring @ 532nm green pump beam
Typical power: 20 uW, need to be able to handle 50 mW green
- Coherent locking field frequency is now set to 3.1 MHz because of current **OMC PDs response** (see figure 6 in <https://dcc.ligo.org/DocDB/0121/E1500358/002/E1500358-v2.pdf>); if redesign is done we can relax requirement on CLF frequency

PREFERIBLY IN VACUUM:

- **OPO REFL diode** (preferably in-vac) Qty: 1
LSC RFD PD style, 85 MHz, 532nm
- **CLF 2f diode** (preferably in-vac) Qty: 1
LSC RF PD style, 6.2 MHz, 1064nm