# Measurements of the 7W 808nm laser

## Power Table

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Aufbau: Linse Spiegel Linse Spiegel 30cm Drift
Sensor nach bestem Gewissen aufgestellt
amplitude = 0 = dc off
Thorlabs PM200
```

| A[bits] | P[mW] |
|---------|-------|
| 18000 | 404 |
| 15000 | 267 |
| 13000 | 106 |
| 12930 | 101 |
| 12915 | 100 |
| 11000 | 2.38 |
| 10000 | 1.38 |
| 9000 | 0.91 |
| 7000 | 0.457 |
| 5000 | 0.234 |
| 2500 | 0.074 |
| 2000 | 0.051 |
| 1500 | 0.032 |
| 1000 | 0.015 |
| 500 | 0.002 |
| 400 | 4.3e-4 |
| 350 | 1.6e-5 |
| 300 | 2e-6 |
| 250 | 2e-6 |
| 100 | 2e-6 |
| 0 | 2e-6 |

Table 1: Kennlinie Pyrometer

| Bit | $P$ [W] | $\Delta P$ [W] |
|-----|---------|----------------|
| 0 | -0.0085 | 0.001 |
| 2000 | -0.0085 | 0.001 |
| 4000 | -0.0083 | 0.001 |
| 6000 | -0.0078 | 0.001 |
| 8000 | -0.0075 | 0.001 |
| 10000 | -0.006 | 0.001 |
| 11000 | -0.003 | 0.001 |
| 11200 | -0.0015 | 0.001 |
| 11400 | 0.012 | 0.001 |
| 11600 | 0.0335 | 0.001 |
| 11800 | 0.0555 | 0.001 |
| 12000 | 0.081 | 0.001 |
| 12500 | 0.142 | 0.001 |
| 13000 | 0.2083 | 0.001 |
| 13500 | 0.2755 | 0.001 |
| 14000 | 0.343 | 0.001 |
| 15000 | 0.4765 | 0.001 |
| 16000 | 0.6105 | 0.001 |
| 18000 | 0.876 | 0.001 |
| 20000 | 1.14 | 0.001 |
| 22000 | 1.406 | 0.001 |
| 24000 | 1.661 | 0.001 |
| 26000 | 1.914 | 0.001 |
| 28000 | 2.184 | 0.001 |
| 30000 | 2.45 | 0.001 |
| 32000 | 2.707 | 0.001 |
| 34000 | 2.959 | 0.001 |
| 36000 | 3.199 | 0.001 |
| 38000 | 3.469 | 0.001 |
| 40000 | 3.762 | 0.001 |
| 42000 | 4.043 | 0.001 |
| 44000 | 4.279 | 0.001 |
| 46000 | 4.505 | 0.001 |
| 48000 | 4.784 | 0.001 |
| 50000 | 5.008 | 0.001 |
| 52000 | 5.26 | 0.001 |
| 54000 | 5.48 | 0.001 |
| 56000 | 5.721 | 0.001 |
| 58000 | 5.965 | 0.001 |
| 60000 | 6.145 | 0.001 |
| 62000 | 6.362 | 0.001 |
| 64000 | 6.604 | 0.001 |
| 65535 | 6.843 | 0.001 |

Table 2: Kennlinie Photodiode

| Bit | $P$ [mW] | $\Delta P$ [mW] |
|-----|----------|-----------------|
| 0 | 0 | 0 |
| 300 | 0.0003 | 0.0001 |
| 400 | 0.003 | 0.0001 |
| 500 | 0.0065 | 0.0001 |
| 600 | 0.0120 | 0.0001 |
| 700 | 0.0176 | 0.0001 |
| 800 | 0.0237 | 0.0001 |
| 900 | 0.03 | 0.0001 |
| 1000 | 0.0368 | 0.0001 |
| 1200 | 0.0515 | 0.0001 |
| 1400 | 0.0673 | 0.0001 |
| 1600 | 0.0842 | 0.0001 |
| 1800 | 0.102 | 0.001 |
| 2000 | 0.121 | 0.001 |
| 2500 | 0.173 | 0.001 |
| 3000 | 0.231 | 0.001 |
| 4000 | 0.369 | 0.001 |
| 5000 | 0.542 | 0.001 |
| 6000 | 0.763 | 0.001 |
| 7000 | 1.05 | 0.01 |
| 8000 | 1.46 | 0.01 |
| 9000 | 2.1 | 0.01 |
| 10000 | 3.23 | 0.01 |
| 10500 | 4.17 | 0.01 |
| 10750 | 4.85 | 0.01 |
| 11000 | 6.21 | 0.01 |
| 11100 | 6.48 | 0.01 |
| 11200 | 7.31 | 0.01 |
| 11300 | 10.5 | 0.01 |
| 11400 | 27 | 0.01 |
| 11500 | 39.1 | 0.01 |
| 11600 | 51.5 | 0.01 |
| 11700 | 63.2 | 0.01 |
| 11800 | 76.5 | 0.01 |
| 11900 | 91 | 0.01 |
| 12000 | 106 | 0.01 |
| 12500 | 172 | 0.01 |
| 13000 | 230 | 0.01 |
| 14000 | 317 | 0.01 |
| 15000 | 372 | 0.01 |
| 16000 | 411 | 0.01 |
| 17000 | 440 | 0.01 |
| 18000 | 464 | 0.01 |
| 19000 | 483 | 0.01 |
| 20000 | 500 | 0.01 |