

Datasheet for #sbcw26130 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.

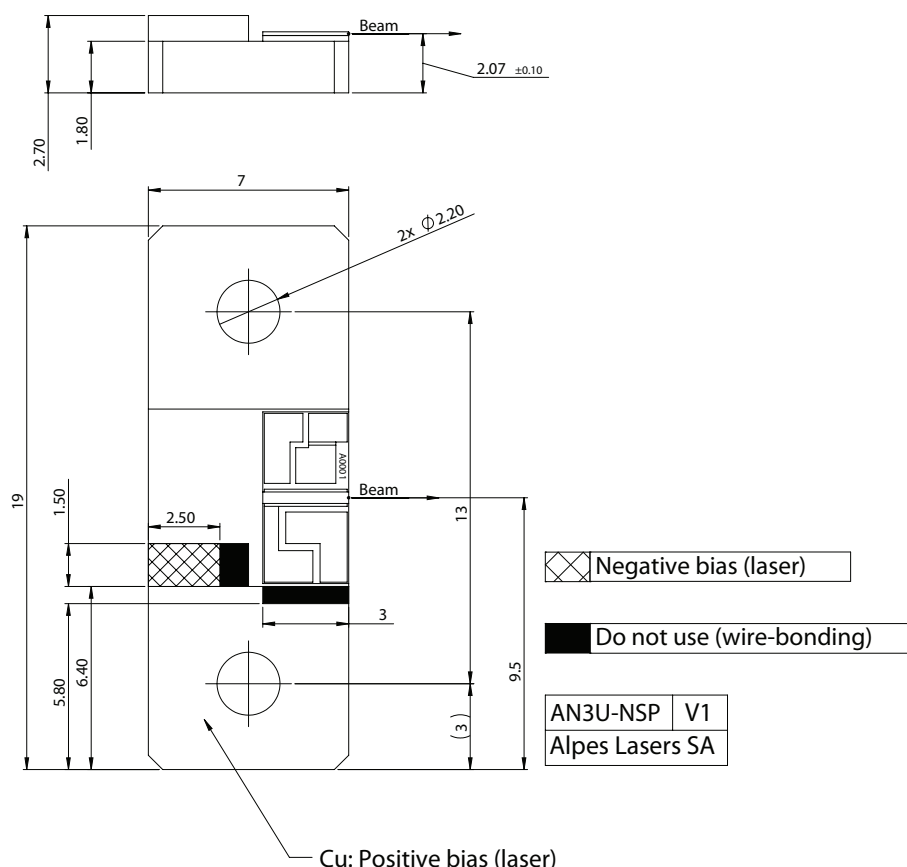


Figure 1: Mechanical and electrical interface for #sbcw26130 DN

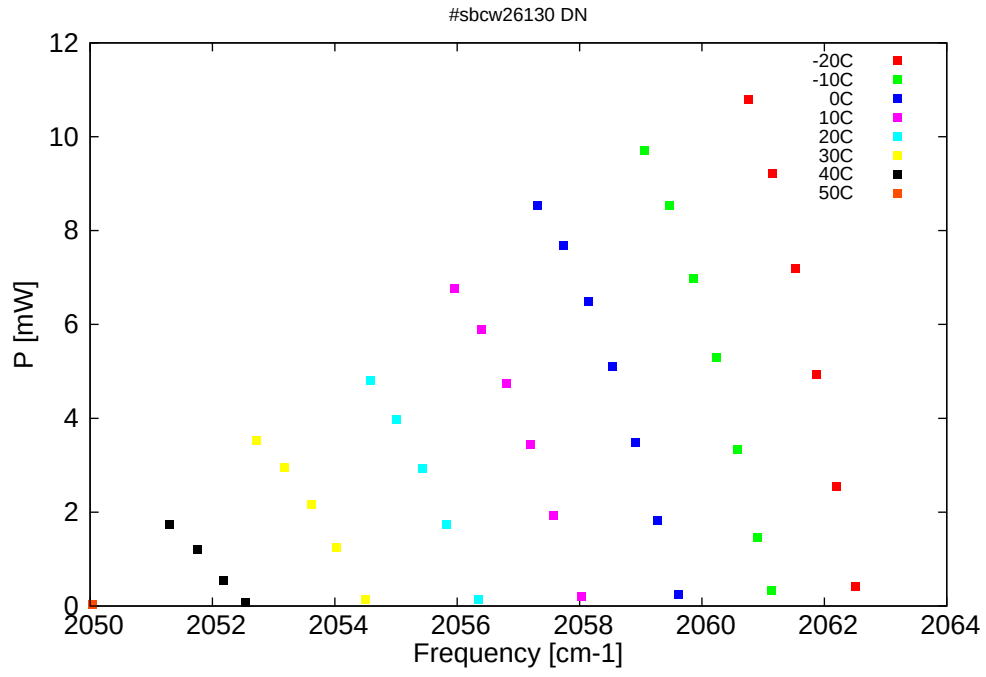


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

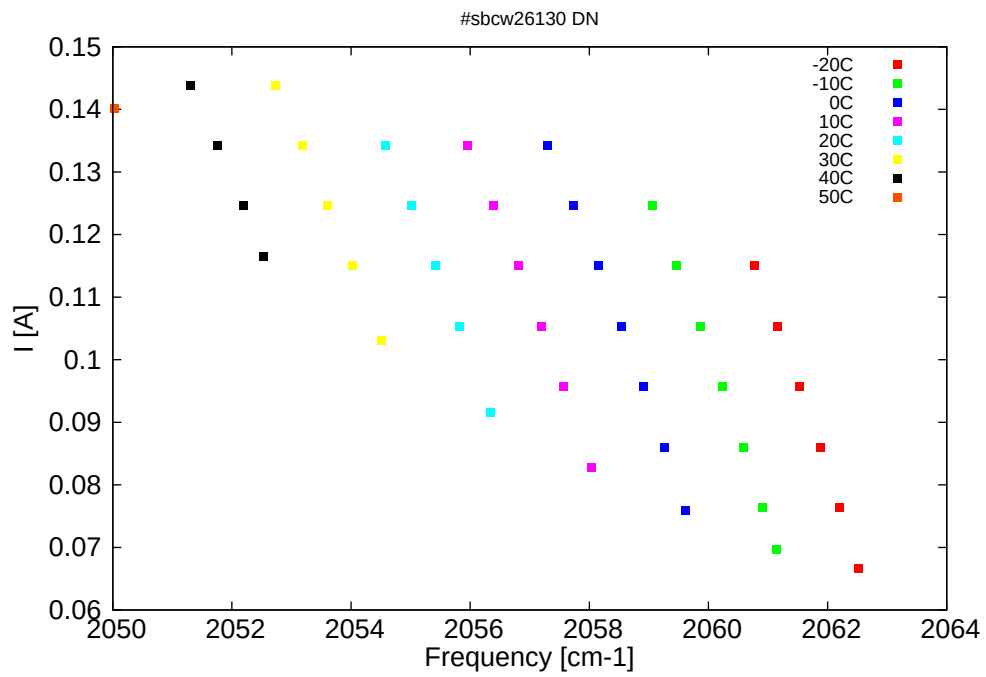


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4848.4	2062.5	0.4	-20	12.8	0.067
4849.2	2062.2	2.6	-20	13.14	0.076
4850	2061.9	4.9	-20	13.48	0.086
4850.8	2061.5	7.2	-20	13.83	0.096
4851.6	2061.2	9.2	-20	14.19	0.105
4852.6	2060.8	10.8	-20	14.57	0.115
4851.7	2061.1	0.3	-10	12.75	0.07
4852.2	2060.9	1.5	-10	12.98	0.076
4853	2060.6	3.3	-10	13.3	0.086
4853.8	2060.2	5.3	-10	13.63	0.096
4854.7	2059.9	7	-10	13.96	0.105
4855.6	2059.5	8.5	-10	14.32	0.115
4856.6	2059.1	9.7	-10	14.7	0.125
4855.3	2059.6	0.2	0	12.81	0.076
4856.1	2059.3	1.8	0	13.13	0.086
4856.9	2058.9	3.5	0	13.43	0.096
4857.8	2058.5	5.1	0	13.76	0.105
4858.7	2058.2	6.5	0	14.08	0.115
4859.7	2057.7	7.7	0	14.43	0.125
4860.7	2057.3	8.5	0	14.8	0.134
4859	2058	0.2	10	12.89	0.083
4860.1	2057.6	1.9	10	13.27	0.096
4861	2057.2	3.4	10	13.57	0.105
4861.9	2056.8	4.7	10	13.88	0.115
4862.9	2056.4	5.9	10	14.2	0.125
4863.9	2056	6.8	10	14.54	0.134
4863	2056.3	0.1	20	13.02	0.092
4864.2	2055.8	1.7	20	13.41	0.105
4865.2	2055.4	2.9	20	13.7	0.115
4866.1	2055	4	20	14	0.125
4867.2	2054.6	4.8	20	14.31	0.134
4867.4	2054.5	0.1	30	13.21	0.103
4868.5	2054	1.2	30	13.54	0.115
4869.5	2053.6	2.2	30	13.82	0.125
4870.5	2053.2	3	30	14.11	0.134
4871.6	2052.7	3.5	30	14.41	0.144
4872	2052.5	0.1	40	13.46	0.117
4872.8	2052.2	0.6	40	13.67	0.125
4873.9	2051.8	1.2	40	13.94	0.134
4875	2051.3	1.7	40	14.22	0.144
4878	2050	0	50	13.96	0.14

Table 1: Singlemode optical output power as function of operating parameters.

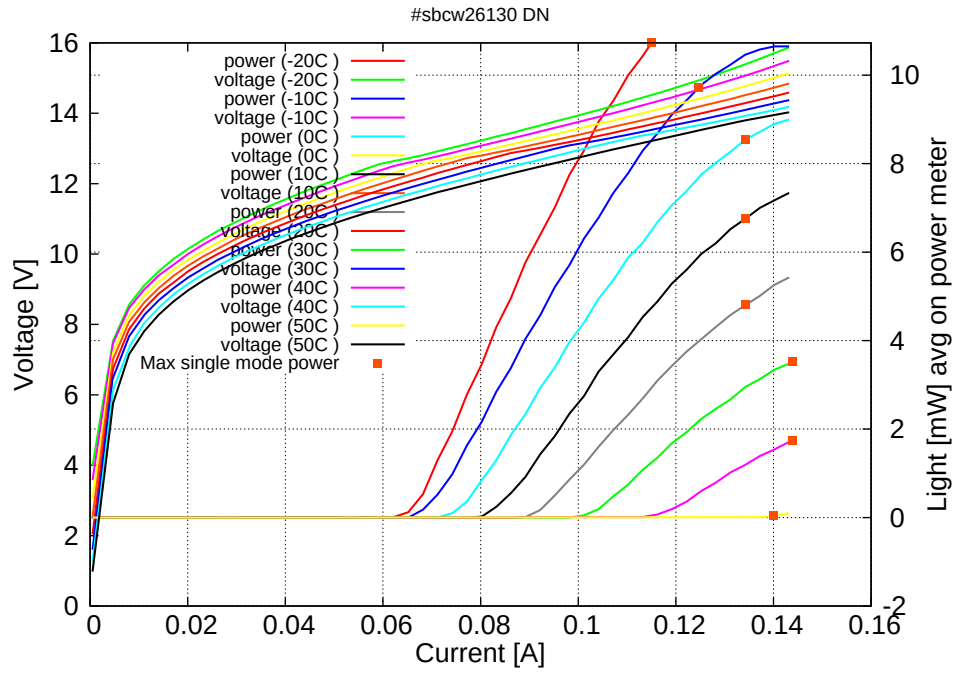


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06A$ / $V_{th}=12.7V$ (2-wires measurements). Maximum operation current: 0.115A at -20C, 0.125A at -10C, 0.135A between 0C and 20C, 0.145A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

