

**Datasheet for #sbcw22879 DN**

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

**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 bias and positive bias on the specific zones drawn below. 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.

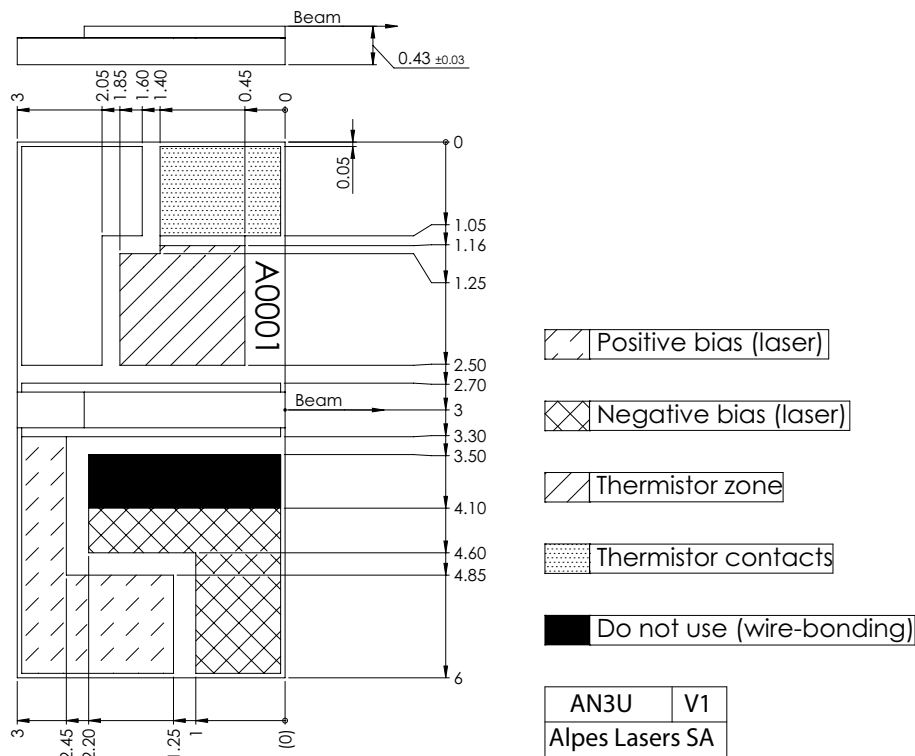


Figure 1: Mechanical and electrical interface for #sbcw22879 DN (please note that AlN submount numbering is A0YPW)

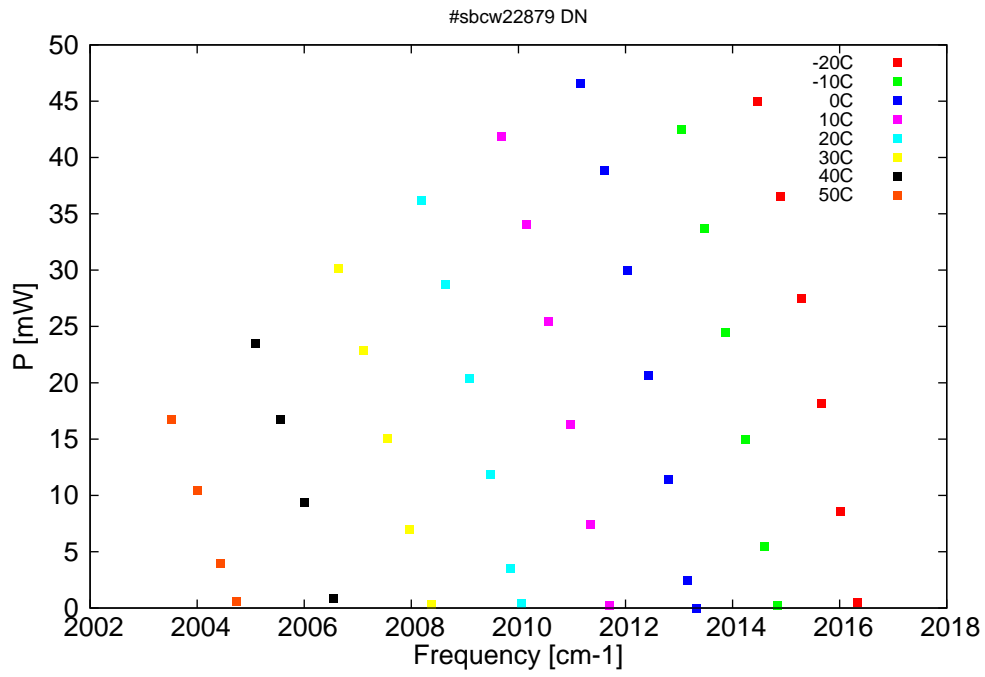


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

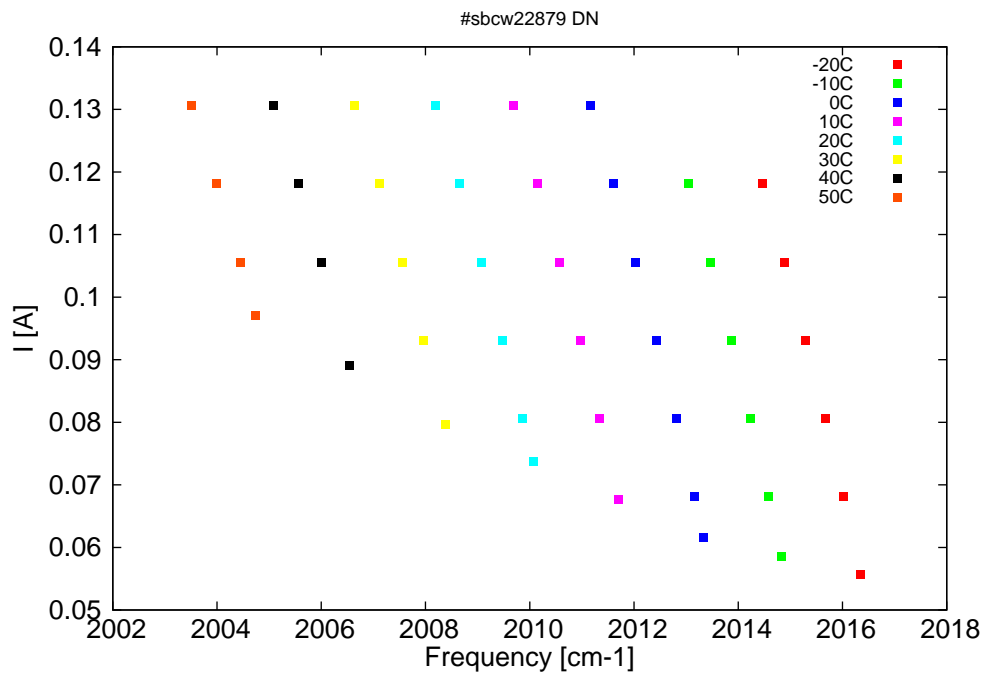


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4959.5	2016.3	0.5	-20	11.21	0.056
4960.3	2016	8.5	-20	11.53	0.068
4961.1	2015.7	18.2	-20	11.85	0.081
4962.1	2015.3	27.5	-20	12.16	0.093
4963	2014.9	36.6	-20	12.47	0.106
4964.1	2014.5	44.9	-20	12.79	0.118
4963.2	2014.8	0.2	-10	11.13	0.059
4963.8	2014.6	5.5	-10	11.36	0.068
4964.6	2014.2	15	-10	11.67	0.081
4965.6	2013.9	24.5	-10	11.97	0.093
4966.5	2013.5	33.7	-10	12.26	0.106
4967.6	2013	42.5	-10	12.56	0.118
4966.9	2013.3	0	0	11.08	0.062
4967.3	2013.2	2.5	0	11.22	0.068
4968.2	2012.8	11.4	0	11.51	0.081
4969.1	2012.4	20.6	0	11.8	0.093
4970.1	2012	30	0	12.08	0.106
4971.1	2011.6	38.8	0	12.37	0.118
4972.3	2011.2	46.6	0	12.67	0.131
4970.9	2011.7	0.2	10	11.09	0.068
4971.8	2011.3	7.4	10	11.37	0.081
4972.7	2011	16.3	10	11.65	0.093
4973.7	2010.6	25.4	10	11.93	0.106
4974.8	2010.1	34.1	10	12.2	0.118
4975.9	2009.7	41.9	10	12.48	0.131
4975	2010.1	0.4	20	11.11	0.074
4975.5	2009.9	3.5	20	11.25	0.081
4976.4	2009.5	11.9	20	11.52	0.093
4977.4	2009.1	20.4	20	11.79	0.106
4978.5	2008.6	28.7	20	12.05	0.118
4979.6	2008.2	36.2	20	12.32	0.131
4979.1	2008.4	0.3	30	11.14	0.08
4980.2	2008	7	30	11.4	0.093
4981.2	2007.6	15.1	30	11.66	0.106
4982.3	2007.1	22.9	30	11.92	0.118
4983.4	2006.6	30.2	30	12.18	0.131
4983.7	2006.5	0.8	40	11.23	0.089
4985	2006	9.4	40	11.55	0.106
4986.1	2005.6	16.7	40	11.8	0.118
4987.3	2005.1	23.5	40	12.05	0.131
4988.2	2004.7	0.6	50	11.29	0.097
4988.9	2004.4	4	50	11.45	0.106
4990	2004	10.4	50	11.69	0.118
4991.2	2003.5	16.8	50	11.94	0.131

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

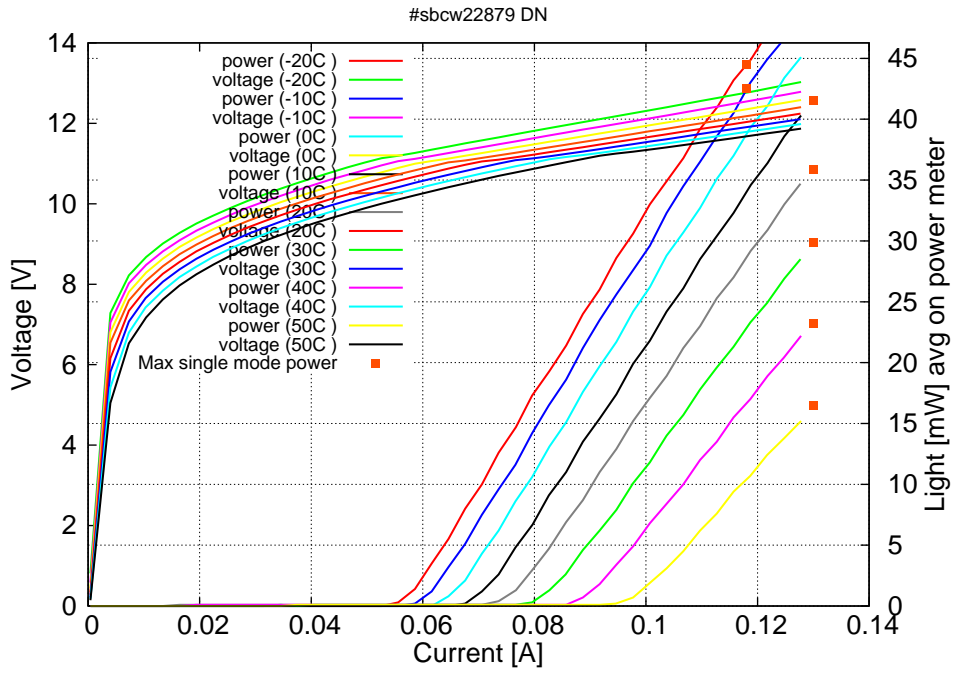


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.06A$  /  $V_{th}=11.2V$  (2-wires measurements). Maximum operation current: 0.12A between -20C and 0C, 0.13A between 10C and 50C.

Figure 3: spectra at different temperatures for various DC currents

