

**Datasheet for #sbcw22836 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.

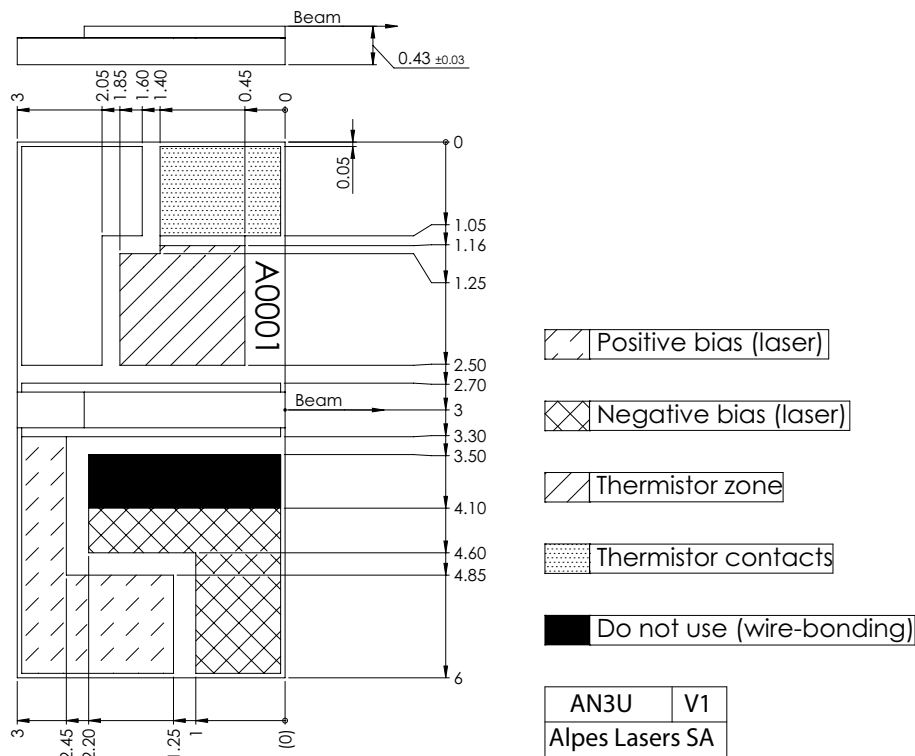


Figure 1: Mechanical and electrical interface for #sbcw22836 DN (please note that AlN submount numbering is A0WYT)

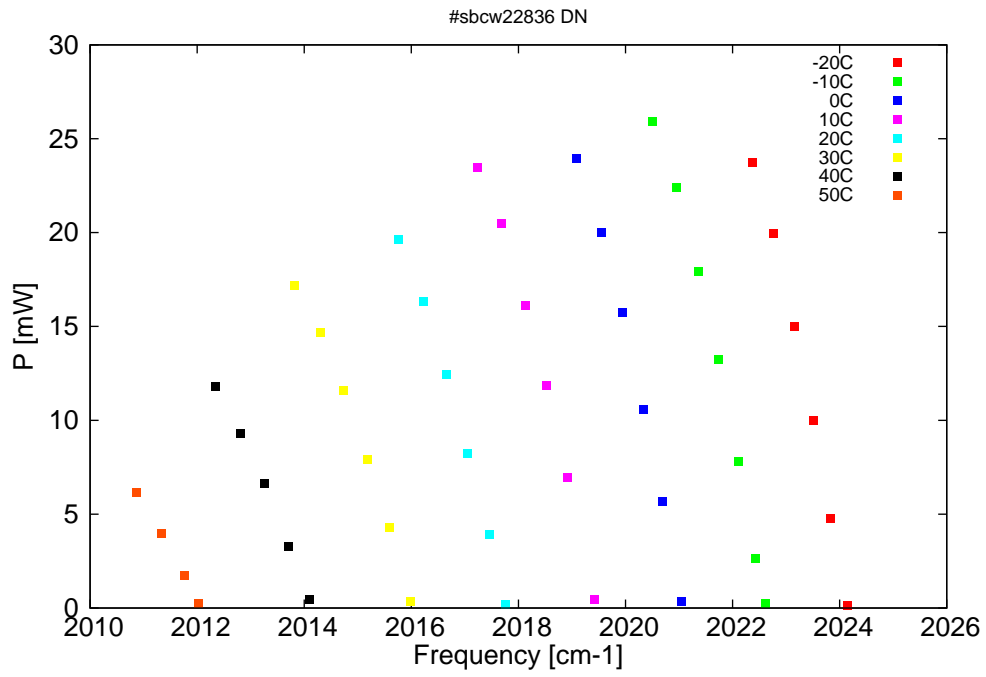


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

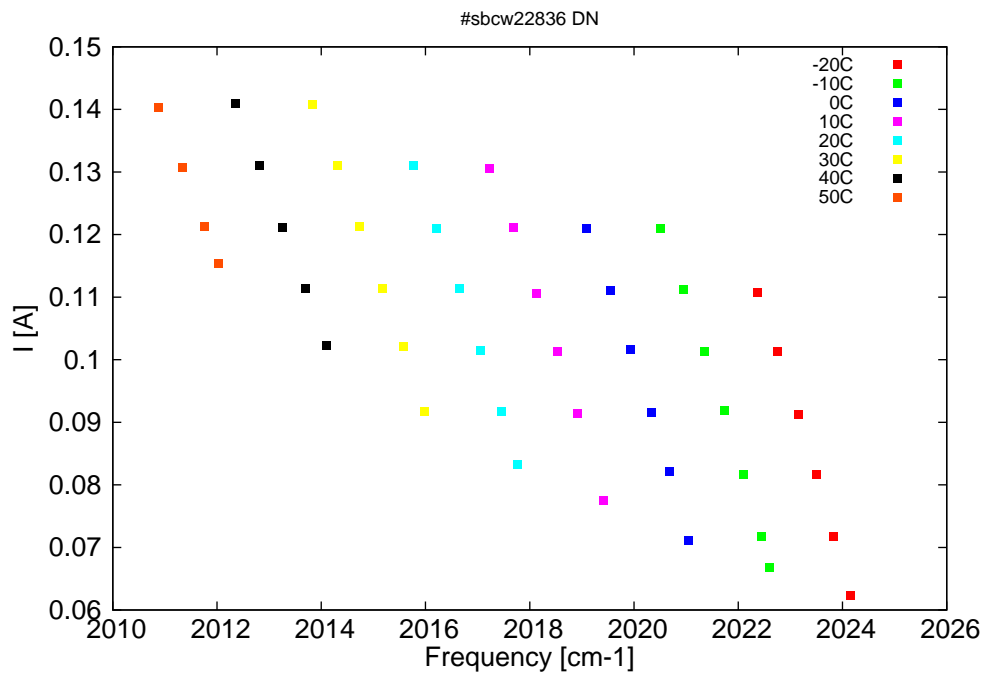


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4940.3	2024.1	0.2	-20	12.39	0.062
4941.1	2023.8	4.8	-20	12.72	0.072
4941.9	2023.5	10	-20	13.06	0.082
4942.8	2023.1	15	-20	13.39	0.091
4943.7	2022.8	19.9	-20	13.76	0.101
4944.7	2022.4	23.7	-20	14.11	0.111
4944.1	2022.6	0.3	-10	12.34	0.067
4944.5	2022.4	2.6	-10	12.51	0.072
4945.3	2022.1	7.8	-10	12.83	0.082
4946.2	2021.7	13.2	-10	13.16	0.092
4947.2	2021.4	17.9	-10	13.48	0.101
4948.2	2020.9	22.4	-10	13.83	0.111
4949.2	2020.5	25.9	-10	14.19	0.121
4947.9	2021.1	0.3	0	12.31	0.071
4948.8	2020.7	5.7	0	12.64	0.082
4949.7	2020.3	10.5	0	12.94	0.092
4950.6	2019.9	15.8	0	13.26	0.102
4951.6	2019.5	20	0	13.56	0.111
4952.7	2019.1	23.9	0	13.91	0.121
4951.9	2019.4	0.4	10	12.33	0.078
4953.2	2018.9	6.9	10	12.73	0.091
4954.1	2018.5	11.9	10	13.03	0.101
4955.1	2018.1	16.1	10	13.32	0.111
4956.2	2017.7	20.5	10	13.63	0.121
4957.3	2017.2	23.4	10	13.93	0.131
4956	2017.8	0.2	20	12.35	0.083
4956.7	2017.5	3.9	20	12.57	0.092
4957.7	2017.1	8.2	20	12.85	0.101
4958.7	2016.7	12.5	20	13.13	0.111
4959.8	2016.2	16.3	20	13.41	0.121
4960.9	2015.8	19.6	20	13.69	0.131
4960.4	2016	0.3	30	12.43	0.092
4961.3	2015.6	4.3	30	12.69	0.102
4962.3	2015.2	7.9	30	12.94	0.111
4963.4	2014.7	11.6	30	13.21	0.121
4964.5	2014.3	14.7	30	13.47	0.131
4965.7	2013.8	17.2	30	13.74	0.141
4965	2014.1	0.5	40	12.55	0.102
4966	2013.7	3.3	40	12.77	0.111
4967.1	2013.3	6.6	40	13.02	0.121
4968.2	2012.8	9.3	40	13.27	0.131
4969.3	2012.3	11.8	40	13.52	0.141
4970.1	2012	0.2	50	12.73	0.115
4970.8	2011.8	1.8	50	12.86	0.121
4971.8	2011.3	4	50	13.08	0.131
4973	2010.9	6.2	50	13.3	0.14

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

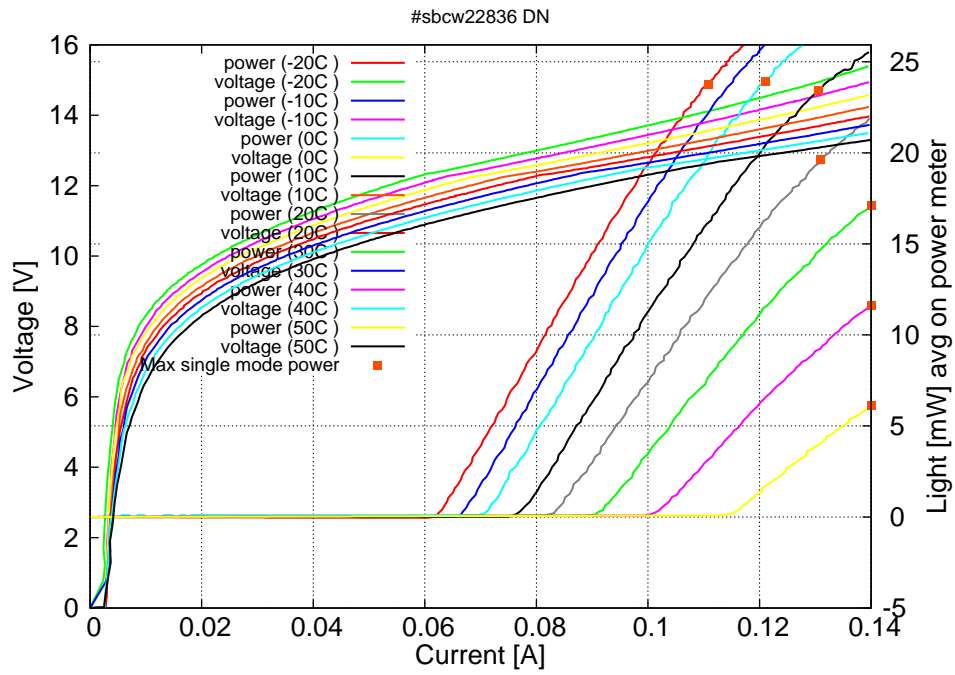


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.06A$  /  $V_{th}=12.4V$  (2-wires measurements). Maximum operation current: 0.11A at -20C, 0.12A between -10C and 0C, 0.13A between 10C and 20C, 0.14A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

