

**Datasheet for #sbcw22886 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.

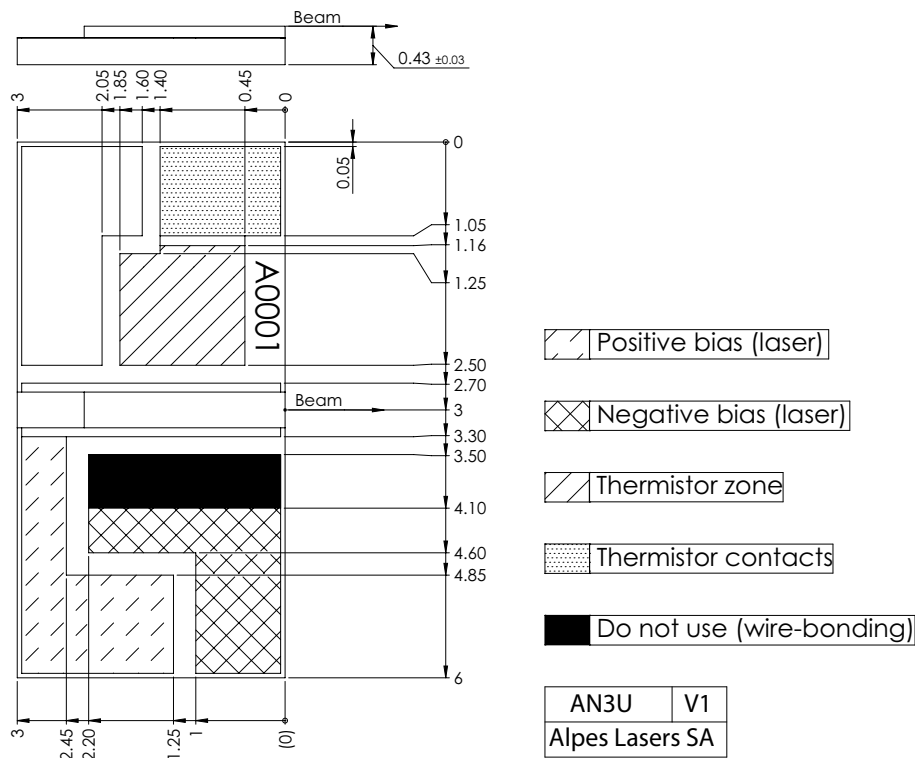


Figure 1: Mechanical and electrical interface for #sbcw22886 DN (please note that AlN submount numbering is A0VZH)

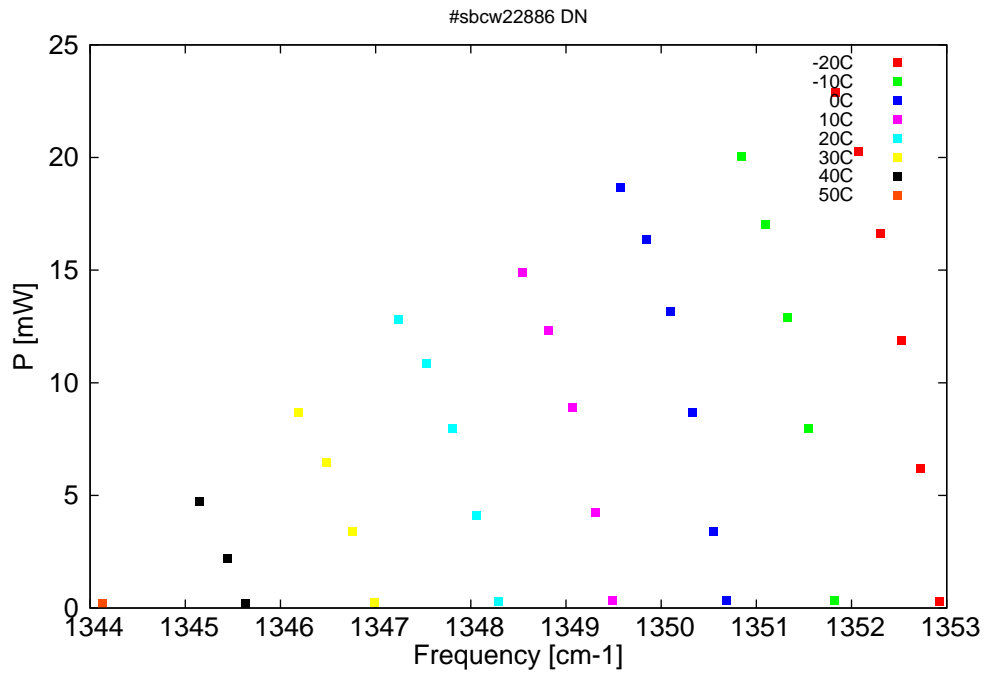


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

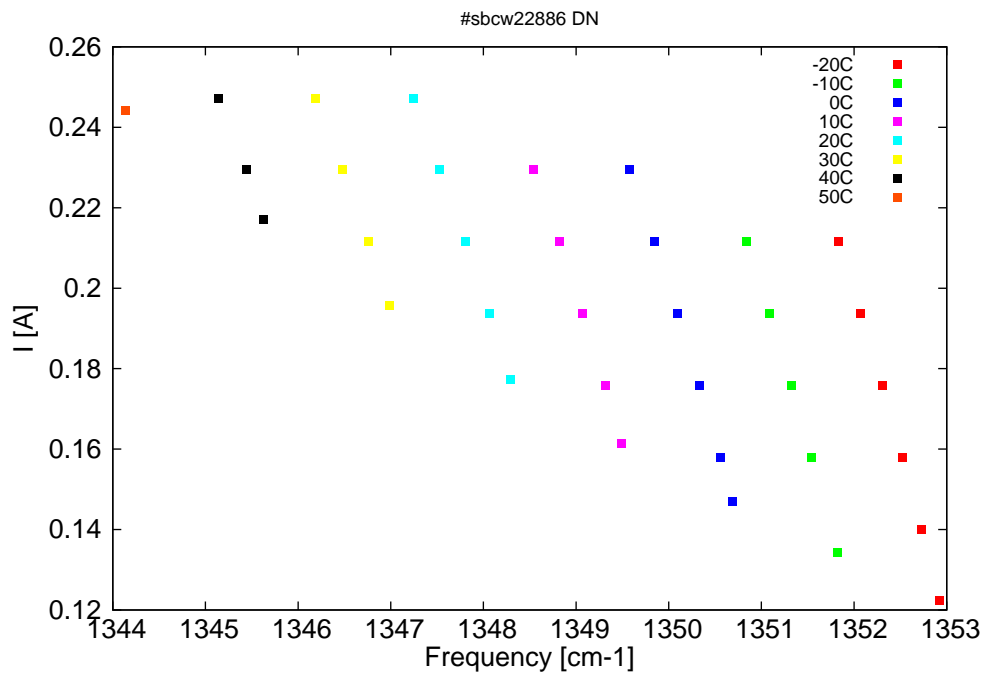


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7391.4	1352.9	0.3	-20	8.97	0.122
7392.5	1352.7	6.2	-20	9.22	0.14
7393.6	1352.5	11.9	-20	9.47	0.158
7394.8	1352.3	16.6	-20	9.72	0.176
7396	1352.1	20.3	-20	9.97	0.194
7397.4	1351.8	22.9	-20	10.22	0.212
7397.4	1351.8	0.3	-10	9.03	0.134
7398.9	1351.5	8	-10	9.36	0.158
7400.1	1351.3	12.9	-10	9.61	0.176
7401.4	1351.1	17	-10	9.85	0.194
7402.8	1350.8	20	-10	10.11	0.212
7403.7	1350.7	0.3	0	9.11	0.147
7404.4	1350.6	3.4	0	9.26	0.158
7405.6	1350.3	8.7	0	9.51	0.176
7406.9	1350.1	13.2	0	9.75	0.194
7408.3	1349.8	16.4	0	10	0.212
7409.7	1349.6	18.7	0	10.25	0.229
7410.2	1349.5	0.3	10	9.21	0.161
7411.2	1349.3	4.2	10	9.41	0.176
7412.5	1349.1	8.9	10	9.65	0.194
7413.9	1348.8	12.3	10	9.9	0.212
7415.4	1348.5	14.9	10	10.15	0.229
7416.8	1348.3	0.3	20	9.33	0.177
7418.1	1348.1	4.1	20	9.52	0.194
7419.5	1347.8	7.9	20	9.72	0.212
7421	1347.5	10.8	20	9.94	0.229
7422.6	1347.2	12.8	20	10.17	0.247
7424	1347	0.3	30	9.3	0.196
7425.2	1346.8	3.4	30	9.5	0.212
7426.8	1346.5	6.5	30	9.72	0.229
7428.4	1346.2	8.7	30	9.95	0.247
7431.5	1345.6	0.2	40	9.45	0.217
7432.5	1345.4	2.2	40	9.6	0.229
7434.1	1345.1	4.7	40	9.82	0.247
7439.7	1344.1	0.2	50	9.66	0.244

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

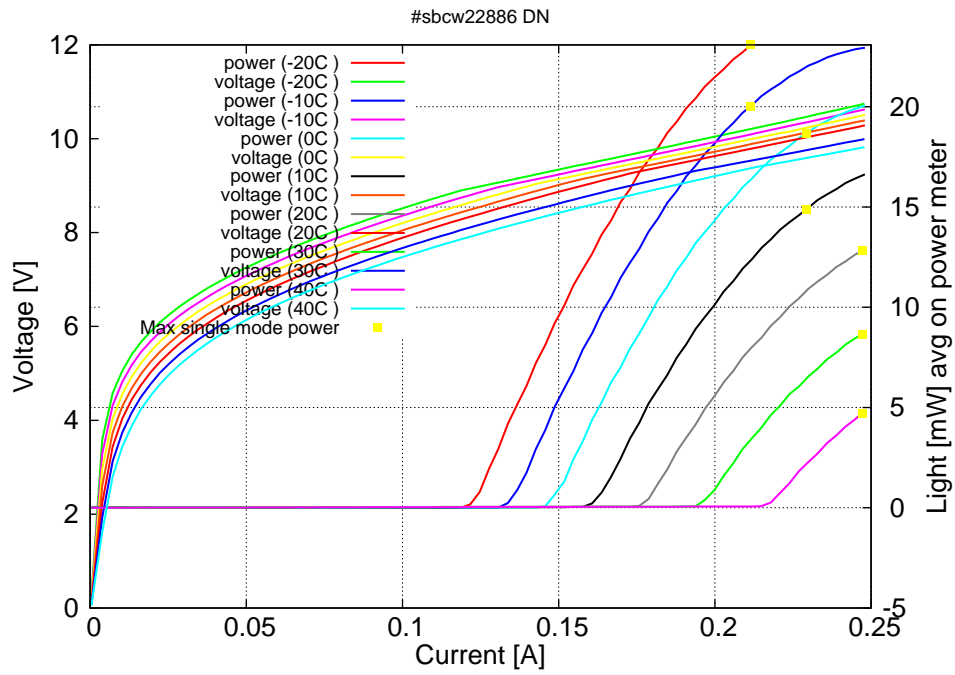


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.12A$  /  $V_{th}=8.9V$  (2-wires measurements). Maximum operation current: 0.21A between -20C and -10C, 0.23A between 0C and 10C, 0.25A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

