

**Datasheet for #sbcw24288 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 #sbcw24288 DN (please note that AlN submount numbering is A1128)

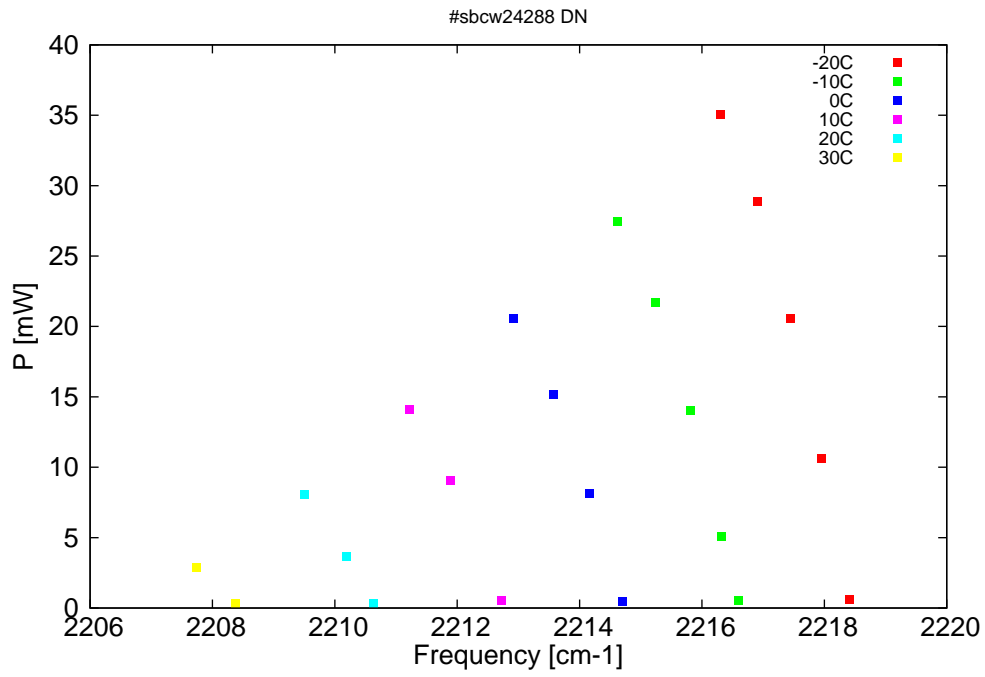


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

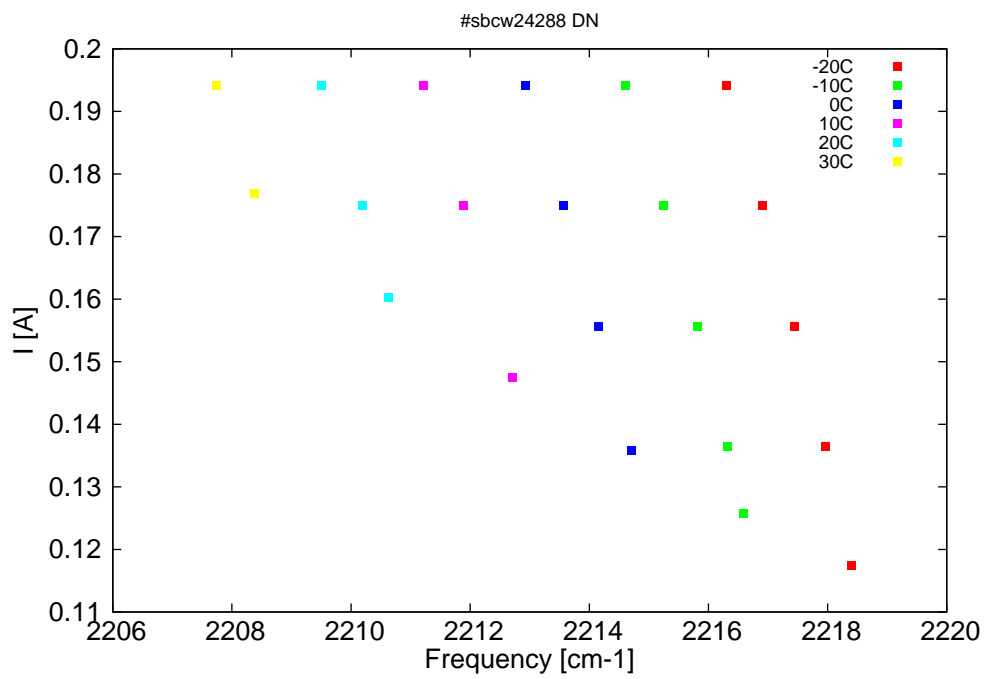


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4507.7	2218.4	0.6	-20	9.08	0.117
4508.7	2218	10.6	-20	9.31	0.137
4509.7	2217.4	20.6	-20	9.54	0.156
4510.8	2216.9	28.9	-20	9.77	0.175
4512	2216.3	35.1	-20	10.02	0.194
4511.4	2216.6	0.5	-10	9.15	0.126
4512	2216.3	5.1	-10	9.28	0.137
4513	2215.8	14.1	-10	9.5	0.156
4514.2	2215.2	21.7	-10	9.74	0.175
4515.5	2214.6	27.5	-10	9.99	0.194
4515.3	2214.7	0.5	0	9.24	0.136
4516.4	2214.2	8.1	0	9.47	0.156
4517.6	2213.6	15.2	0	9.71	0.175
4518.9	2212.9	20.6	0	9.95	0.194
4519.3	2212.7	0.5	10	9.36	0.148
4521	2211.9	9	10	9.68	0.175
4522.4	2211.2	14.1	10	9.92	0.194
4523.6	2210.6	0.3	20	9.49	0.16
4524.5	2210.2	3.6	20	9.66	0.175
4525.9	2209.5	8.1	20	9.9	0.194
4528.2	2208.4	0.3	30	9.69	0.177
4529.5	2207.7	2.9	30	9.89	0.194

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

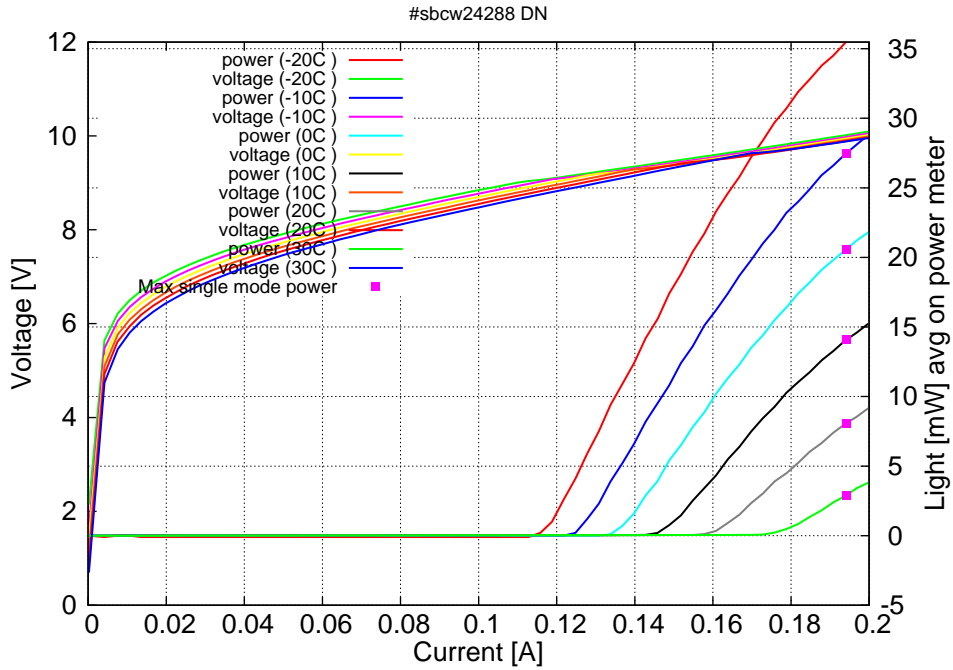


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.12A$  /  $V_{th}=9.1V$  (2-wires measurements). Maximum operation current: 0.20A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

