

**Datasheet for #sbcw10221 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 use with an ILX Lightwave LDX-3232 laser driver, or equivalent.



Figure 1: Support mounting for #sbcw10221 DN (please note that AlN submount numbering is A01Z2)

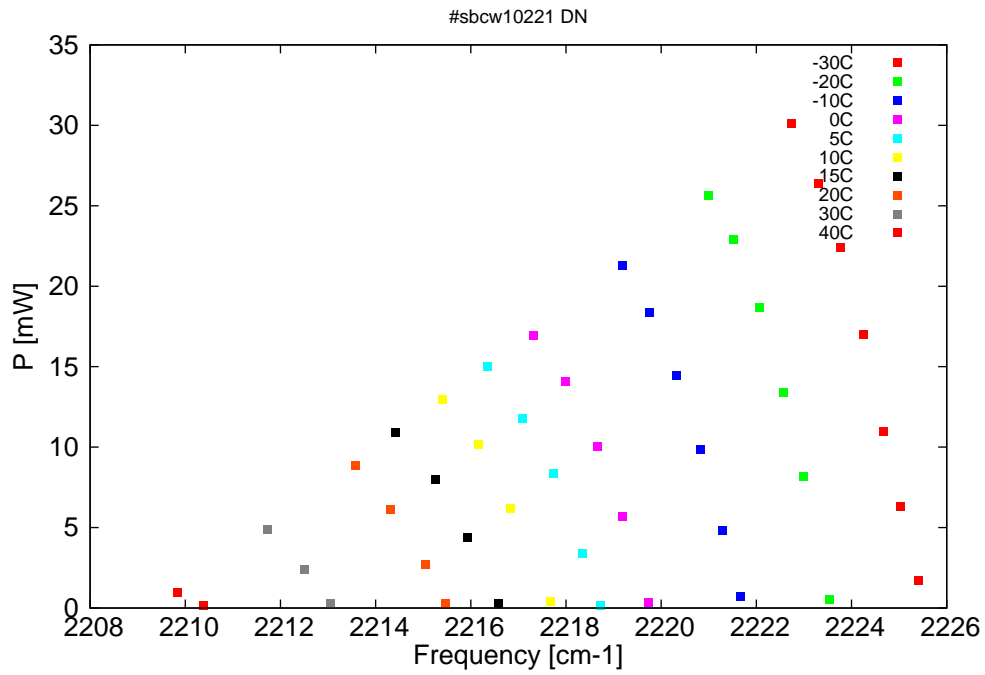


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

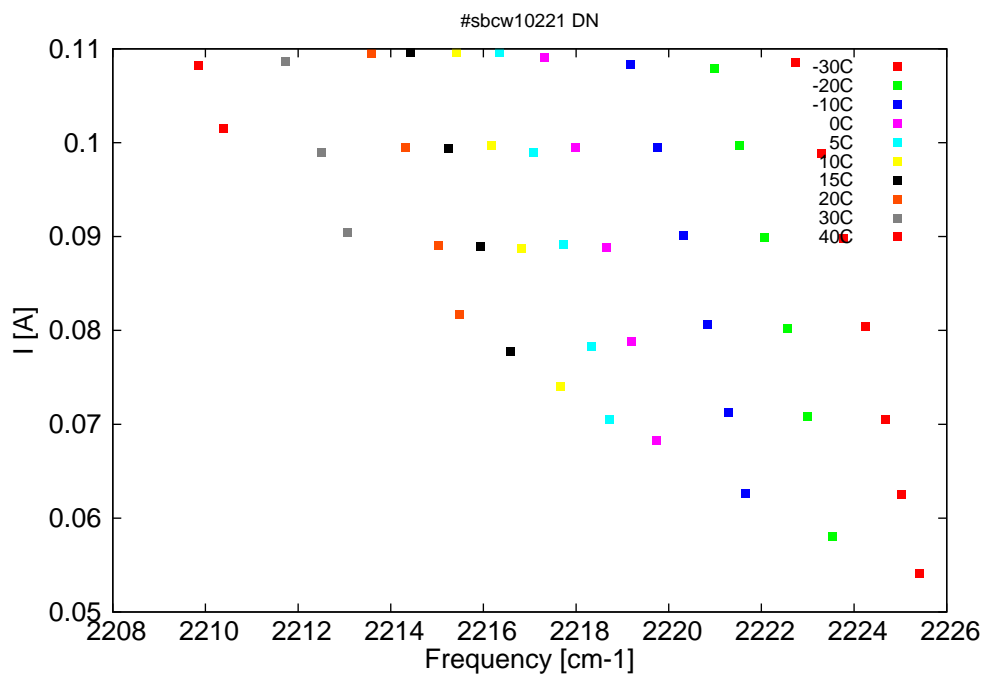


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4493.5	2225.4	1.7	-30	8.6	0.05
4494.3	2225	6.3	-30	8.8	0.06
4495	2224.7	10.9	-30	9	0.07
4495.9	2224.3	17	-30	9.2	0.08
4496.9	2223.8	22.4	-30	9.4	0.09
4497.8	2223.3	26.4	-30	9.6	0.1
4498.9	2222.7	30.1	-30	9.8	0.11
4497.4	2223.5	0.5	-20	8.7	0.06
4498.4	2223	8.1	-20	9	0.07
4499.3	2222.6	13.4	-20	9.2	0.08
4500.3	2222.1	18.7	-20	9.4	0.09
4501.4	2221.5	22.9	-20	9.6	0.1
4502.5	2221	25.7	-20	9.8	0.11
4501.1	2221.7	0.7	-10	8.8	0.06
4501.9	2221.3	4.8	-10	9	0.07
4502.8	2220.8	9.8	-10	9.2	0.08
4503.8	2220.3	14.5	-10	9.4	0.09
4505	2219.8	18.4	-10	9.6	0.1
4506.2	2219.2	21.3	-10	9.8	0.11
4505	2219.7	0.3	0	8.9	0.07
4506.1	2219.2	5.7	0	9.1	0.08
4507.2	2218.7	10.1	0	9.3	0.09
4508.6	2218	14.1	0	9.6	0.1
4510	2217.3	16.9	0	9.8	0.11
4507.1	2218.7	0.2	5	8.9	0.07
4507.9	2218.3	3.4	5	9.1	0.08
4509.1	2217.7	8.4	5	9.3	0.09
4510.4	2217.1	11.8	5	9.5	0.1
4511.9	2216.3	15	5	9.8	0.11
4509.2	2217.7	0.4	10	9	0.07
4510.9	2216.8	6.2	10	9.3	0.09
4512.3	2216.2	10.2	10	9.6	0.1
4513.8	2215.4	13	10	9.8	0.11
4511.5	2216.6	0.3	15	9.1	0.08
4512.8	2215.9	4.4	15	9.3	0.09
4514.2	2215.3	8	15	9.5	0.1
4515.8	2214.4	10.9	15	9.8	0.11
4513.7	2215.5	0.3	20	9.1	0.08
4514.6	2215	2.7	20	9.3	0.09
4516.1	2214.3	6.1	20	9.5	0.1
4517.6	2213.6	8.9	20	9.8	0.11
4518.6	2213.1	0.3	30	9.4	0.09
4519.8	2212.5	2.4	30	9.5	0.1
4521.3	2211.7	4.8	30	9.8	0.11
4524.1	2210.4	0.2	40	9.6	0.1
4525.2	2209.8	1	40	9.8	0.11

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

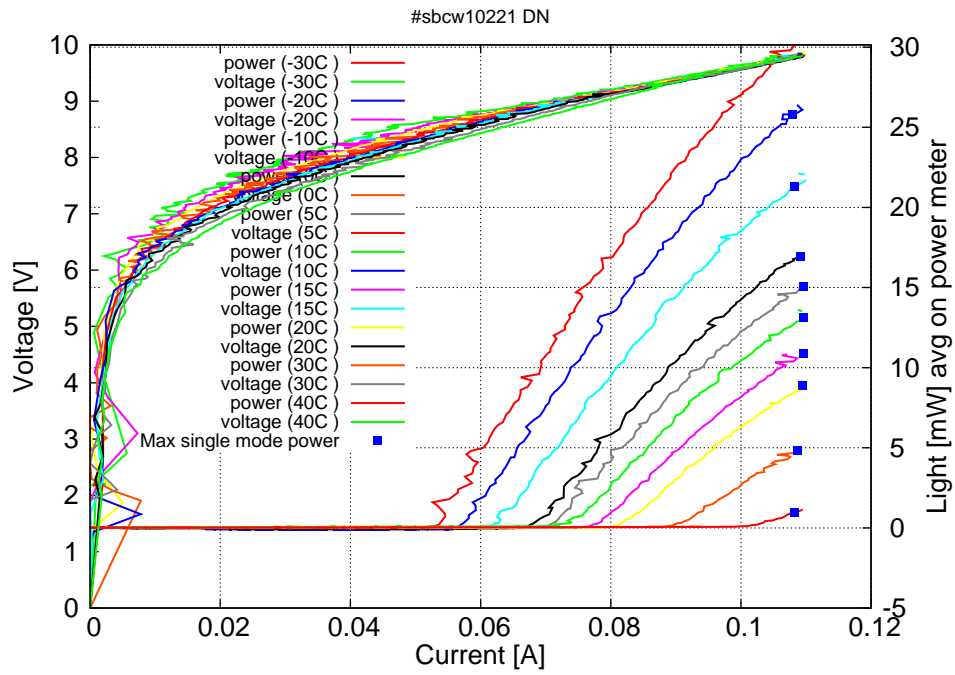


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C:  $I_{th}=0.05A$  /  $V_{th}=8.6V$  (2-wires measurements). Maximum operation current: 0.110A for all temperatures.

