

**Datasheet for #sbcw20692 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.

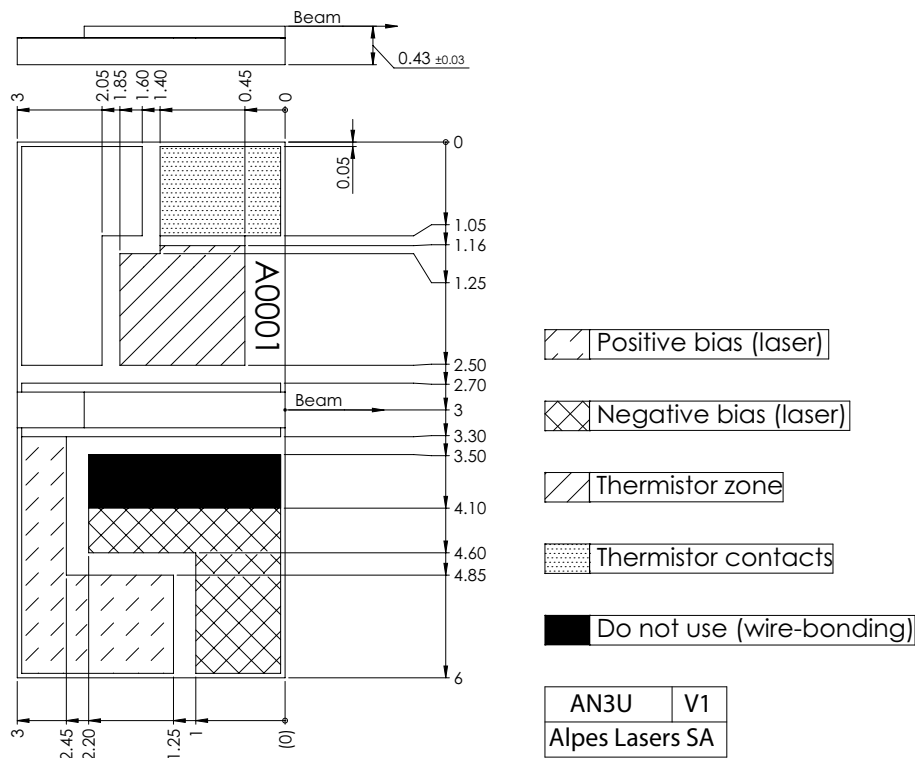


Figure 1: Mechanical and electrical interface for #sbcw20692 DN (please note that AlN submount numbering is A0RVL)

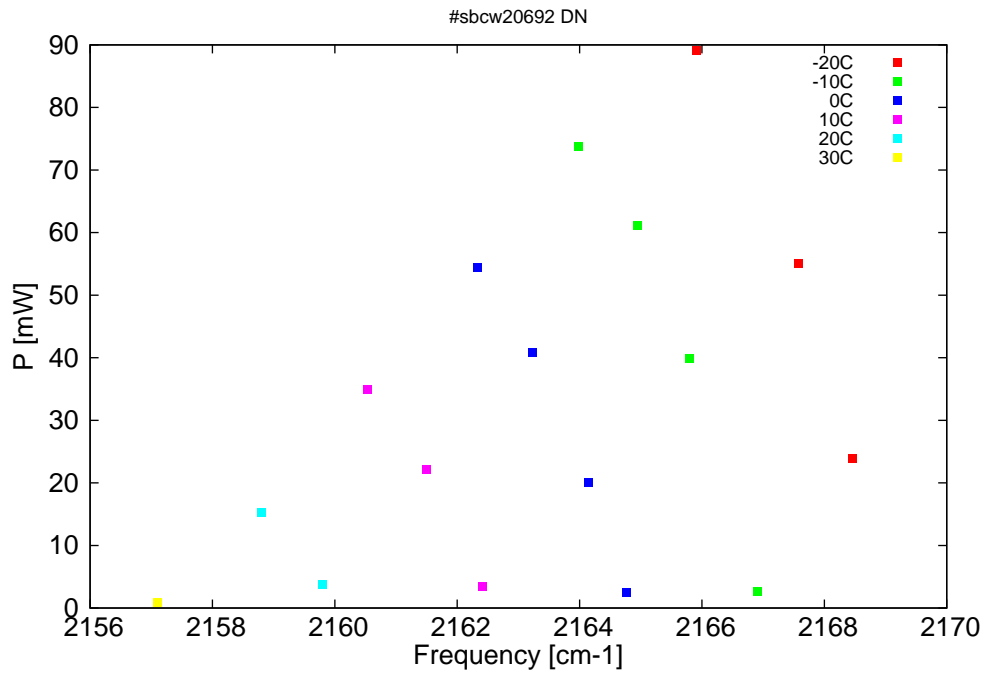


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

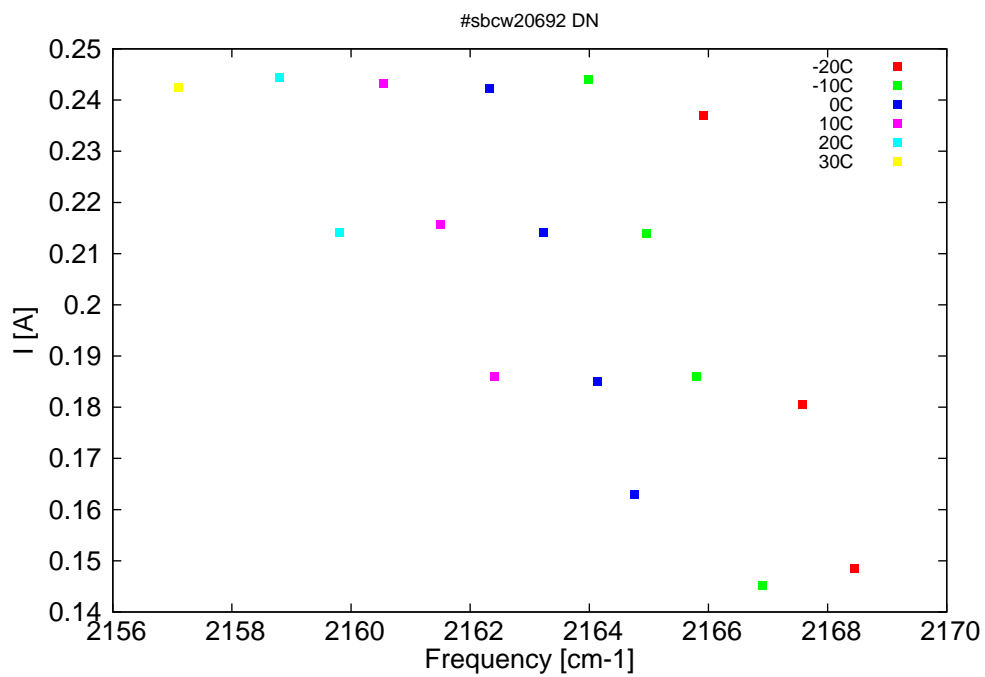


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4611.6	2168.5	23.8	-20	13.24	0.149
4613.5	2167.6	55.1	-20	13.56	0.181
4617	2165.9	89.2	-20	14.17	0.237
4614.9	2166.9	2.7	-10	13.01	0.145
4617.2	2165.8	39.9	-10	13.44	0.186
4619	2165	61.1	-10	13.74	0.214
4621.1	2164	73.8	-10	14.05	0.244
4619.4	2164.8	2.5	0	13.08	0.163
4620.8	2164.1	20	0	13.31	0.185
4622.7	2163.2	40.8	0	13.61	0.214
4624.6	2162.3	54.5	0	13.9	0.242
4624.5	2162.4	3.5	10	13.2	0.186
4626.4	2161.5	22.2	10	13.5	0.216
4628.5	2160.5	34.9	10	13.78	0.243
4630	2159.8	3.8	20	13.38	0.214
4632.2	2158.8	15.2	20	13.68	0.244
4635.9	2157.1	0.9	30	13.56	0.243

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

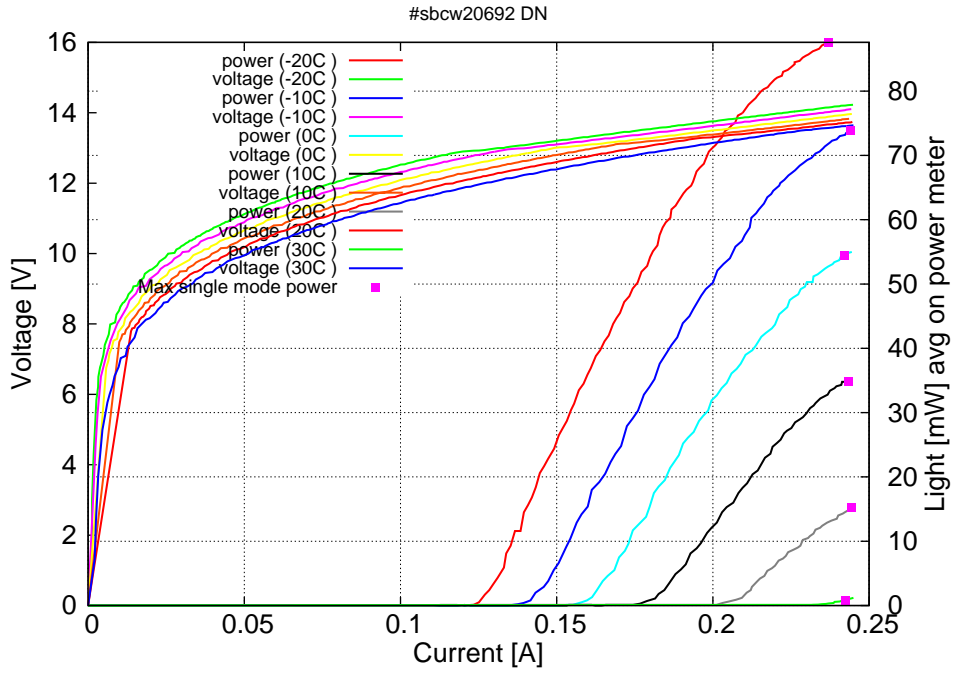


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.12A$  /  $V_{th}=12.9V$  (2-wires measurements). Maximum operation current: 0.245A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

