

**Datasheet for #sbcw21571 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 #sbcw21571 DN (please note that AlN submount numbering is A0N1K)

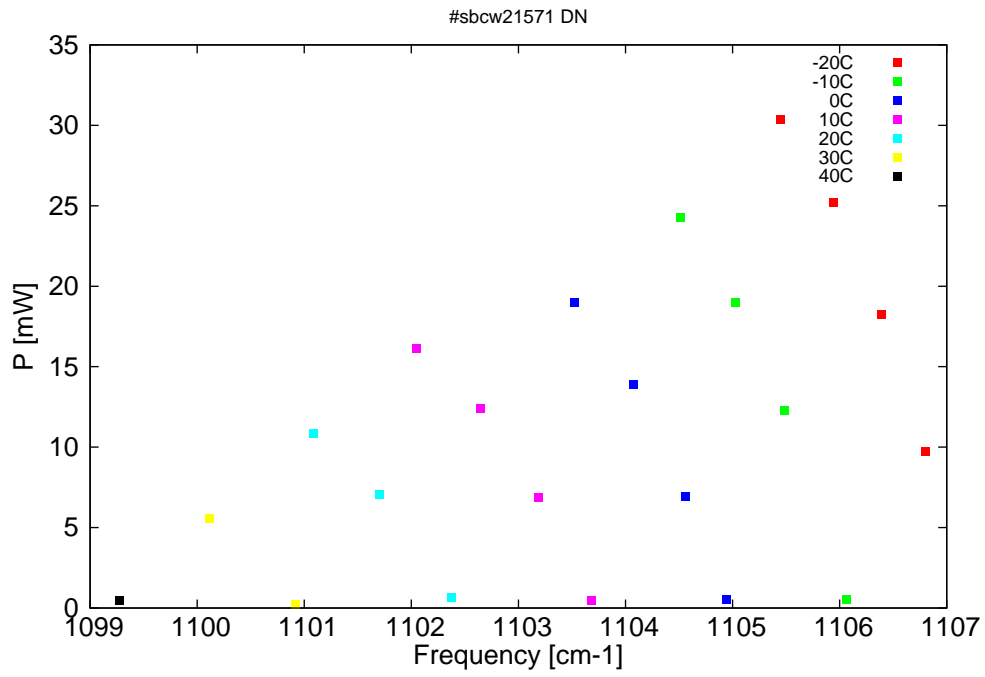


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

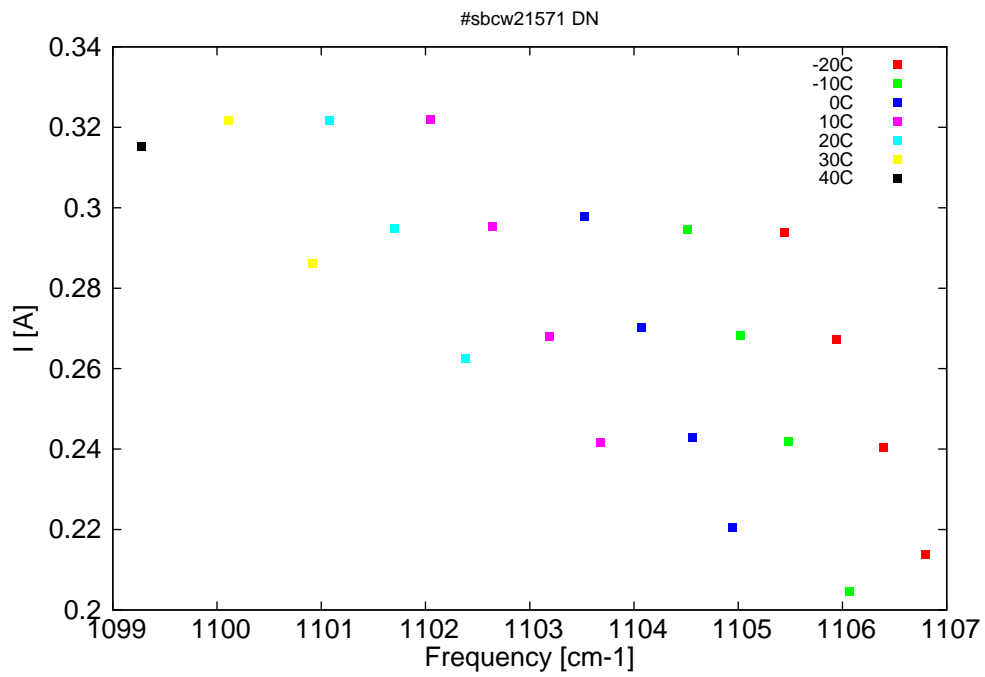


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
9035.1	1106.8	9.7	-20	10.59	0.214
9038.4	1106.4	18.3	-20	10.98	0.24
9042.1	1105.9	25.2	-20	11.37	0.267
9046.1	1105.4	30.4	-20	11.77	0.294
9041.1	1106.1	0.5	-10	10.36	0.205
9045.8	1105.5	12.3	-10	10.91	0.242
9049.6	1105	19	-10	11.3	0.268
9053.7	1104.5	24.3	-10	11.7	0.295
9050.2	1104.9	0.5	0	10.5	0.22
9053.4	1104.6	7	0	10.83	0.243
9057.4	1104.1	13.9	0	11.23	0.27
9061.9	1103.5	19	0	11.64	0.298
9060.6	1103.7	0.5	10	10.74	0.242
9064.7	1103.2	6.9	10	11.12	0.268
9069.1	1102.6	12.4	10	11.52	0.295
9074	1102	16.1	10	11.94	0.322
9071.3	1102.4	0.6	20	10.97	0.262
9076.8	1101.7	7	20	11.45	0.295
9082	1101.1	10.9	20	11.86	0.322
9083.4	1100.9	0.2	30	11.26	0.286
9090	1100.1	5.6	30	11.79	0.322
9096.9	1099.3	0.5	40	11.62	0.315

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

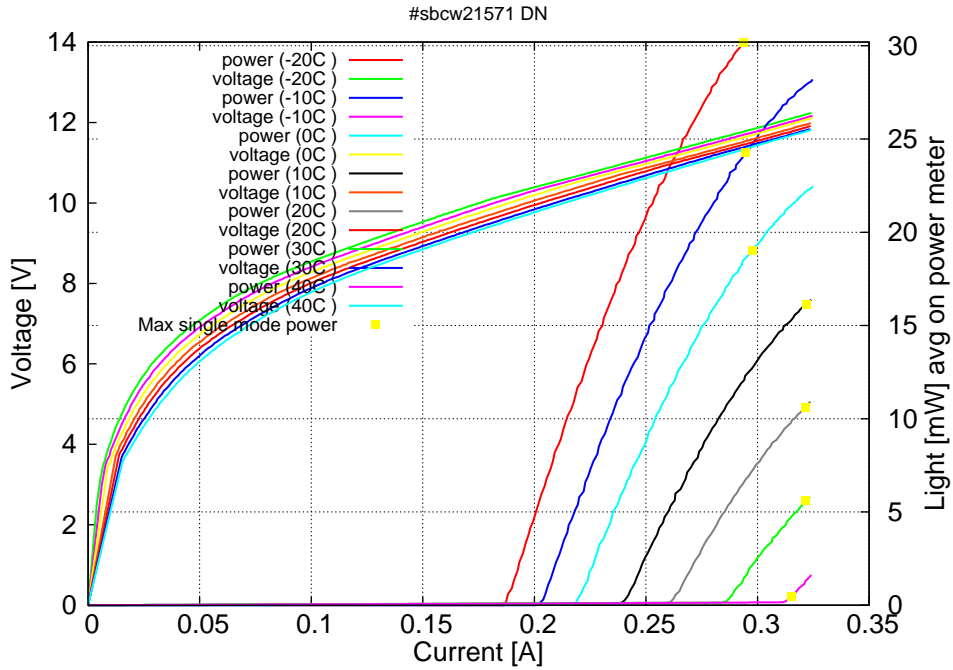


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.18A$  /  $V_{th}=10.1V$  (2-wires measurements). Maximum operation current: 0.3A between -20C and 0C, 0.325A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

