

**Datasheet for #sbcw22716 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 #sbcw22716 DN (please note that AlN submount numbering is A0XF0)

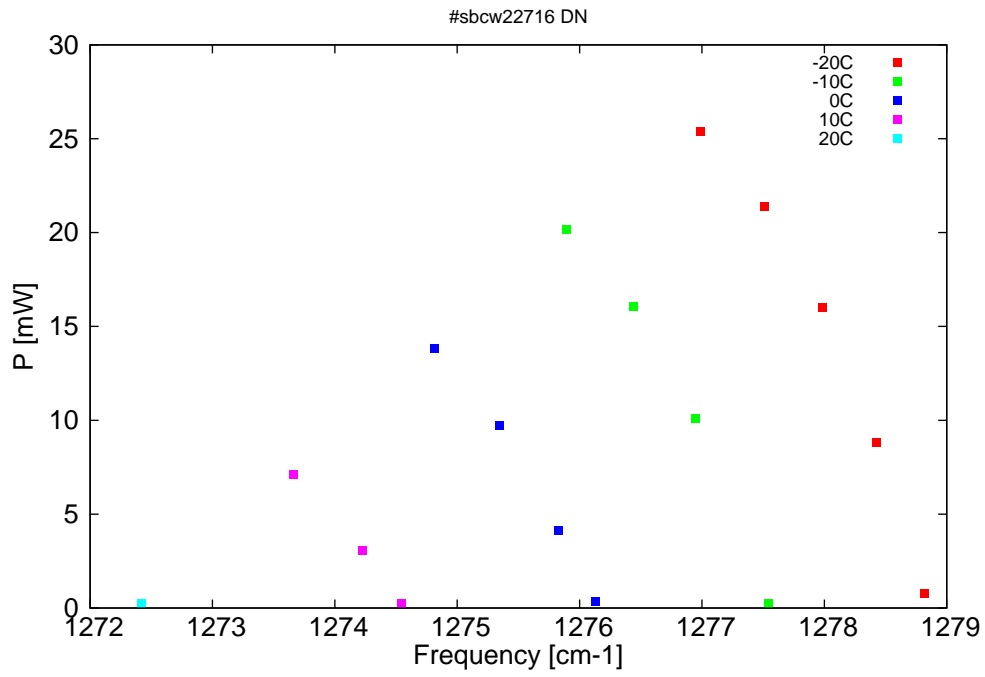


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

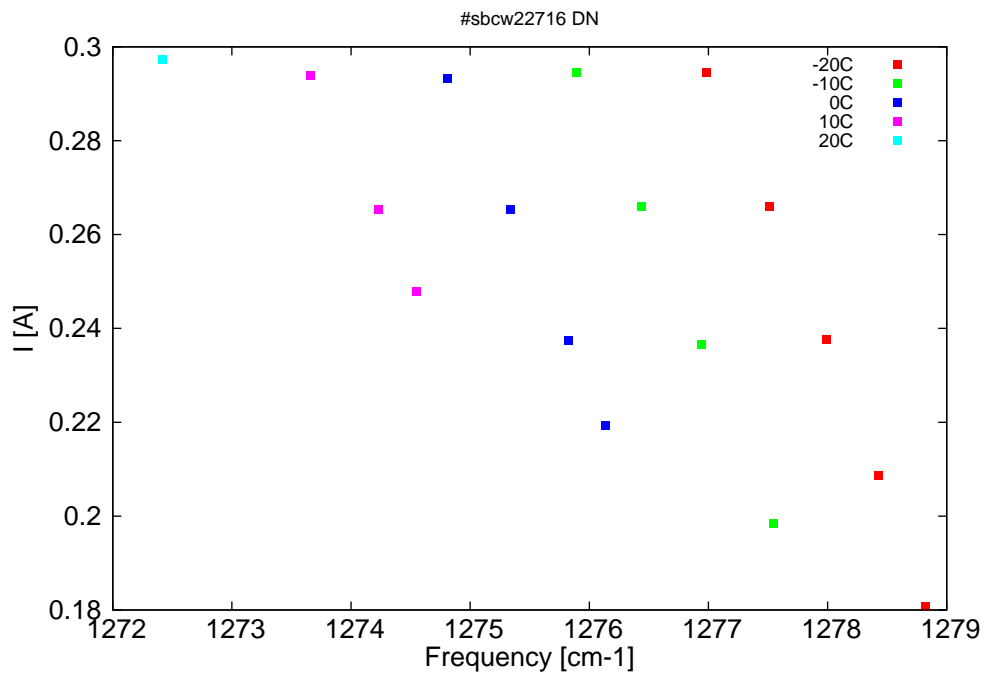


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
7819.7	1278.8	0.8	-20	9.2	0.181
7822.1	1278.4	8.8	-20	9.44	0.209
7824.8	1278	16	-20	9.69	0.238
7827.7	1277.5	21.4	-20	9.93	0.266
7830.9	1277	25.4	-20	10.18	0.295
7827.5	1277.5	0.3	-10	9.16	0.198
7831.2	1276.9	10.1	-10	9.5	0.237
7834.3	1276.4	16.1	-10	9.75	0.266
7837.6	1275.9	20.2	-10	9.99	0.295
7836.2	1276.1	0.3	0	9.18	0.219
7838	1275.8	4.1	0	9.34	0.237
7841	1275.3	9.7	0	9.58	0.265
7844.3	1274.8	13.8	0	9.81	0.293
7845.9	1274.5	0.2	10	9.27	0.248
7847.9	1274.2	3.1	10	9.42	0.265
7851.4	1273.7	7.1	10	9.66	0.294
7859	1272.4	0.2	20	9.55	0.297

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

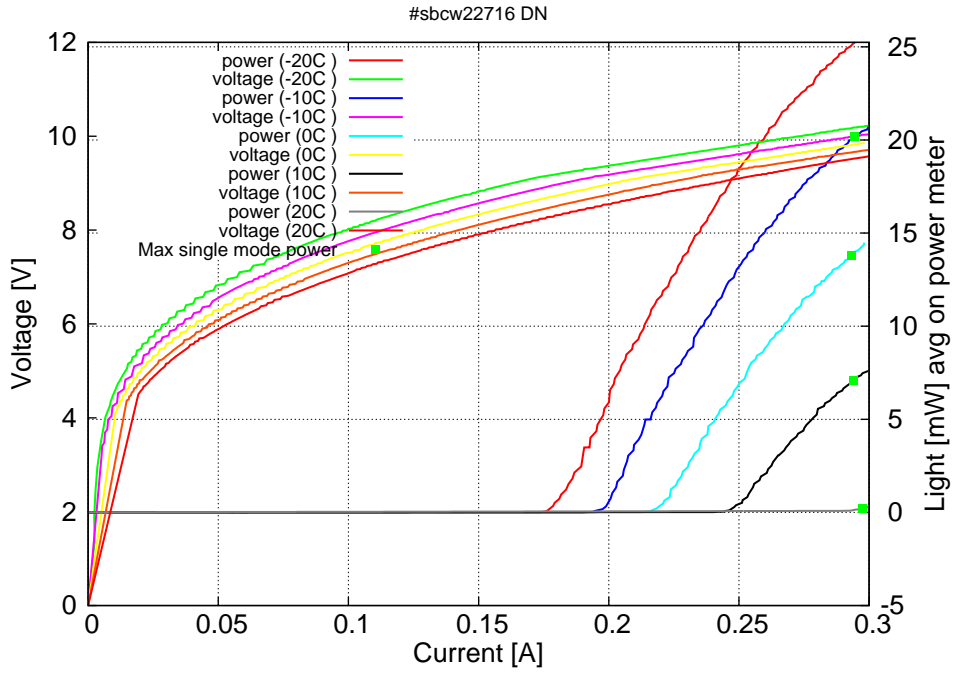


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.17A$  /  $V_{th}=9.1V$  (2-wires measurements). Maximum operation current: 0.300A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

