

**Datasheet for #sbcw21264 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.

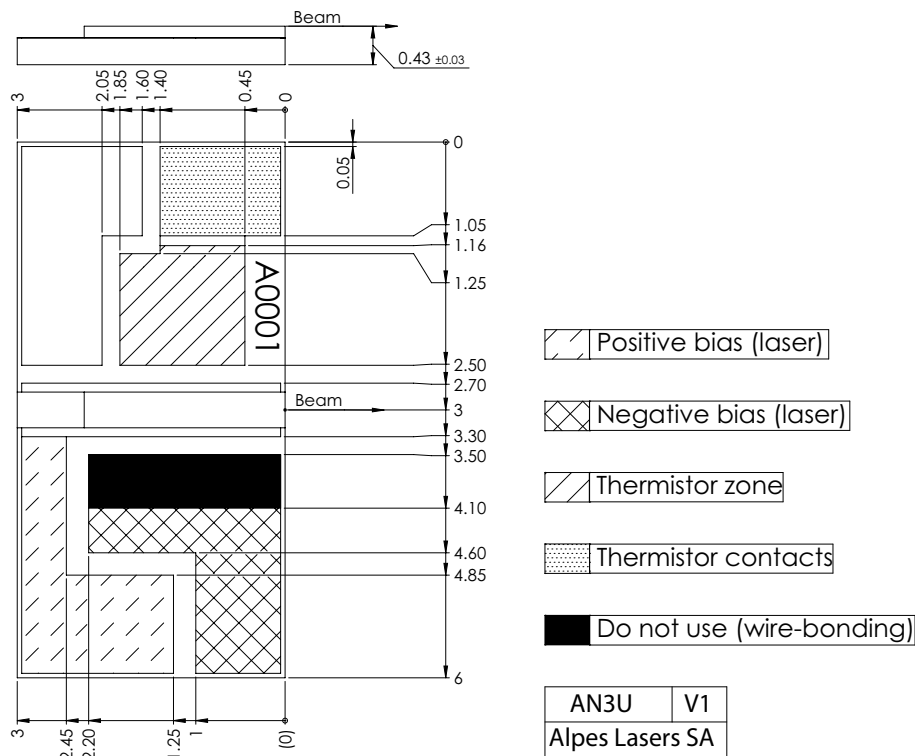


Figure 1: Mechanical and electrical interface for #sbcw21264 DN (please note that AlN submount numbering is A0NKM)

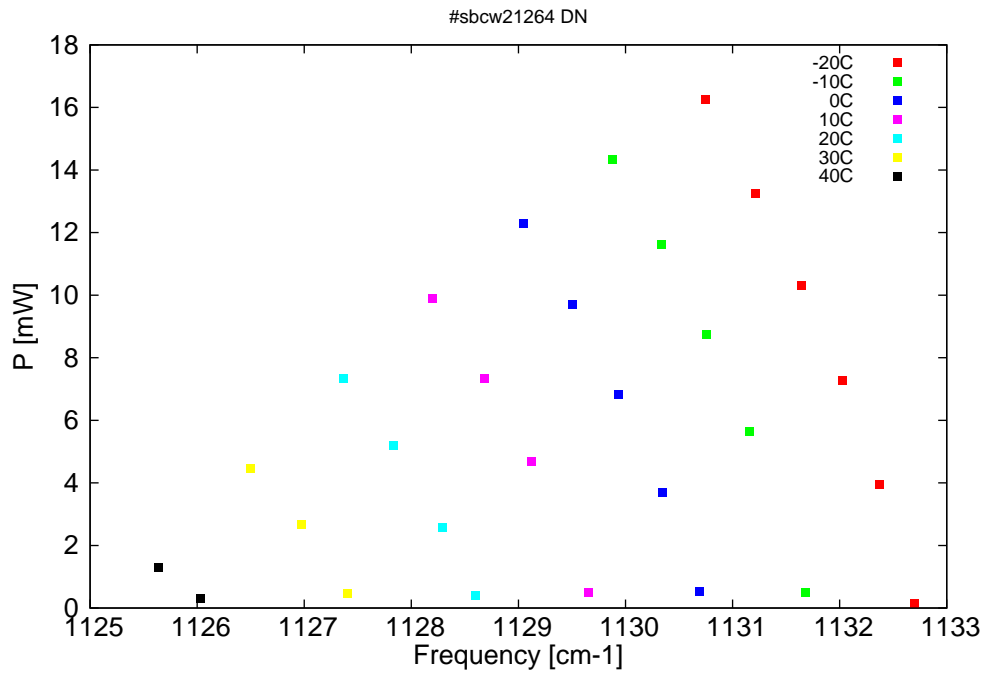


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

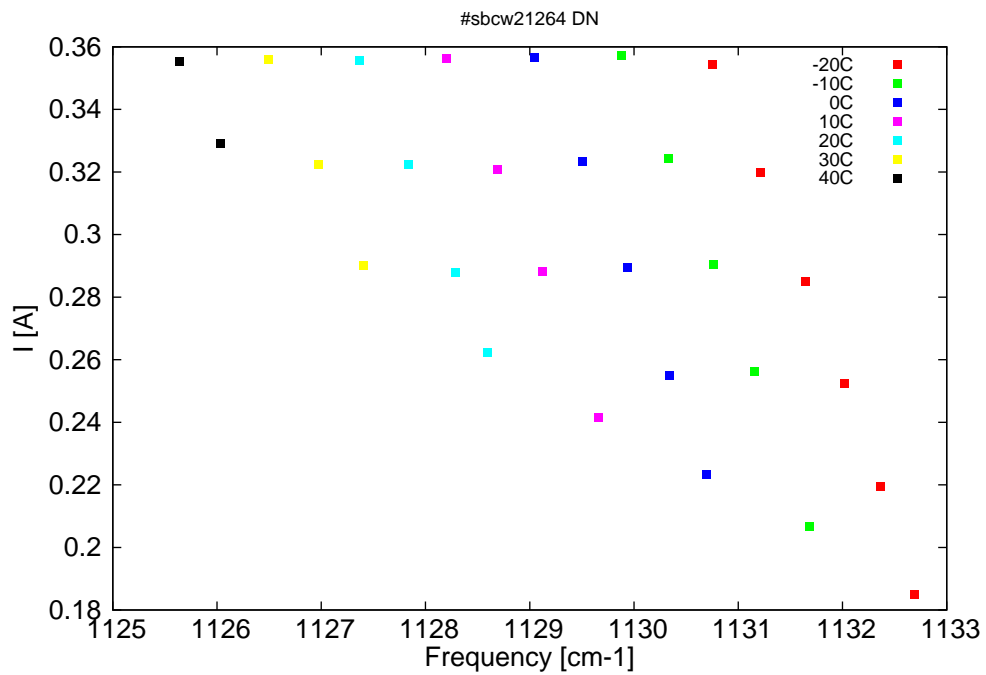


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
8828.5	1132.7	0.2	-20	9.32	0.185
8831.1	1132.4	3.9	-20	9.86	0.22
8833.7	1132	7.3	-20	10.36	0.252
8836.7	1131.6	10.3	-20	10.87	0.285
8840.1	1131.2	13.2	-20	11.4	0.32
8843.7	1130.7	16.2	-20	11.93	0.354
8836.4	1131.7	0.5	-10	9.43	0.207
8840.5	1131.2	5.6	-10	10.16	0.256
8843.6	1130.8	8.8	-10	10.67	0.291
8847	1130.3	11.6	-10	11.17	0.324
8850.5	1129.9	14.3	-10	11.66	0.357
8844.1	1130.7	0.5	0	9.5	0.223
8846.9	1130.3	3.7	0	9.95	0.255
8850.1	1129.9	6.8	0	10.45	0.289
8853.4	1129.5	9.7	0	10.93	0.324
8857	1129	12.3	0	11.41	0.357
8852.2	1129.7	0.5	10	9.58	0.242
8856.5	1129.1	4.7	10	10.24	0.288
8859.8	1128.7	7.3	10	10.7	0.321
8863.7	1128.2	9.9	10	11.19	0.356
8860.6	1128.6	0.4	20	9.71	0.262
8863	1128.3	2.6	20	10.05	0.288
8866.5	1127.8	5.2	20	10.52	0.322
8870.3	1127.4	7.3	20	10.97	0.356
8869.9	1127.4	0.5	30	9.92	0.29
8873.3	1127	2.7	30	10.34	0.322
8877.1	1126.5	4.4	30	10.78	0.356
8880.7	1126	0.3	40	10.25	0.329
8883.8	1125.6	1.3	40	10.59	0.355

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

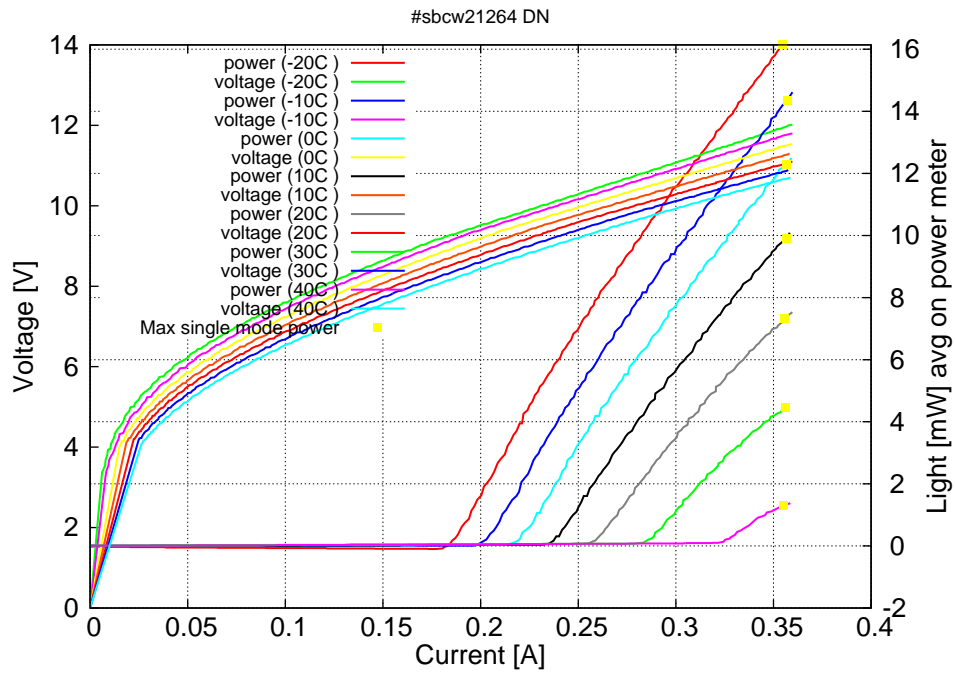


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.18A$  /  $V_{th}=9.2V$  (2-wires measurements). Maximum operation current: 0.355A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

