

**Datasheet for #sbcw21572 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.

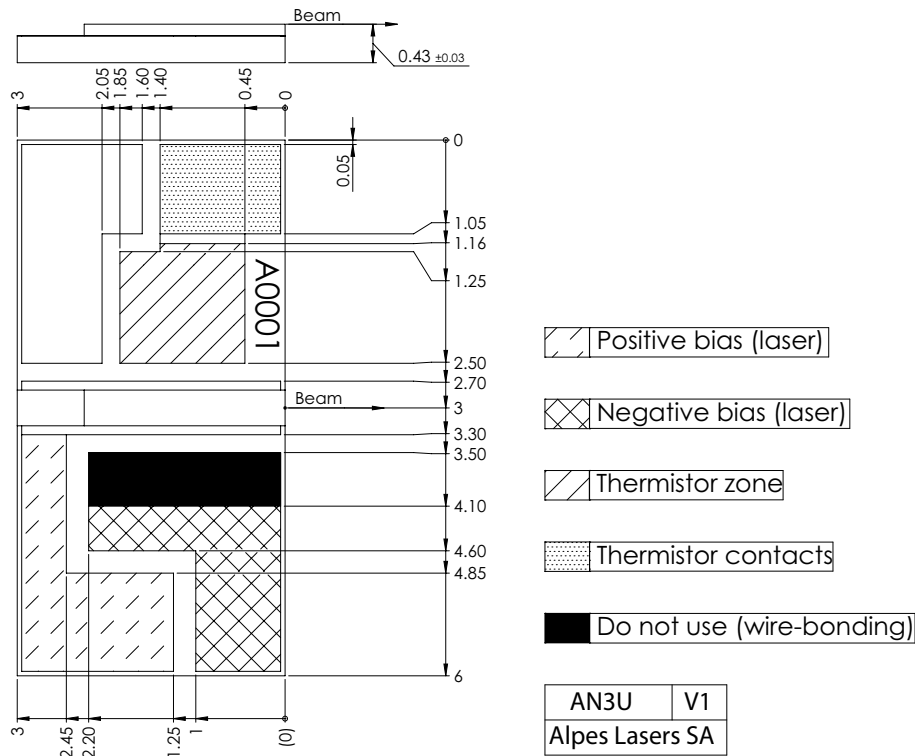


Figure 1: Mechanical and electrical interface for #sbcw21572 DN (please note that AlN submount numbering is A0TD9)

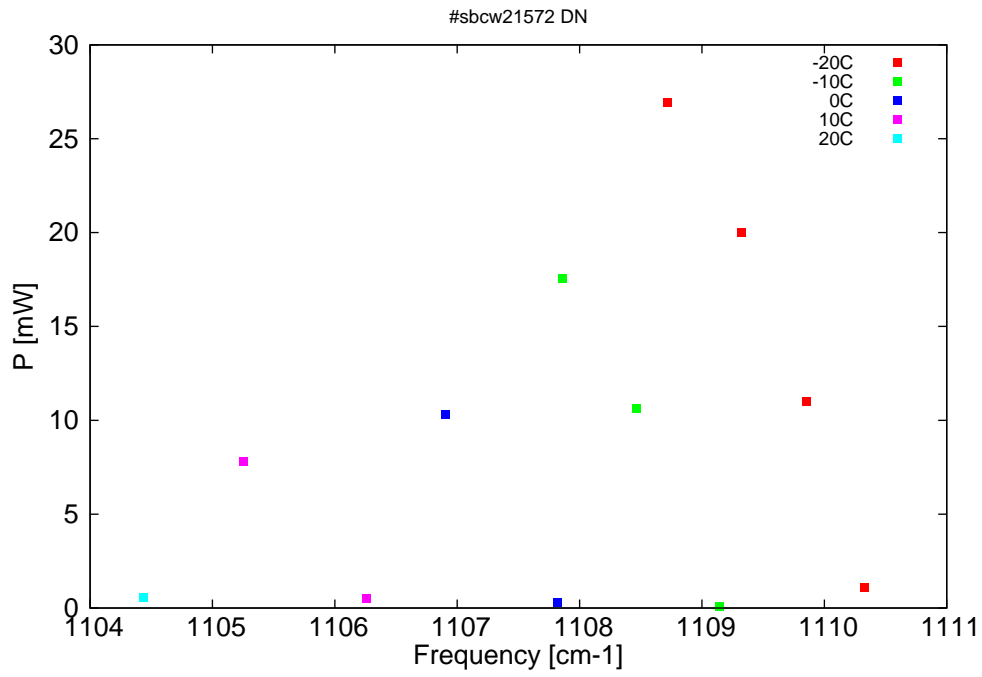


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

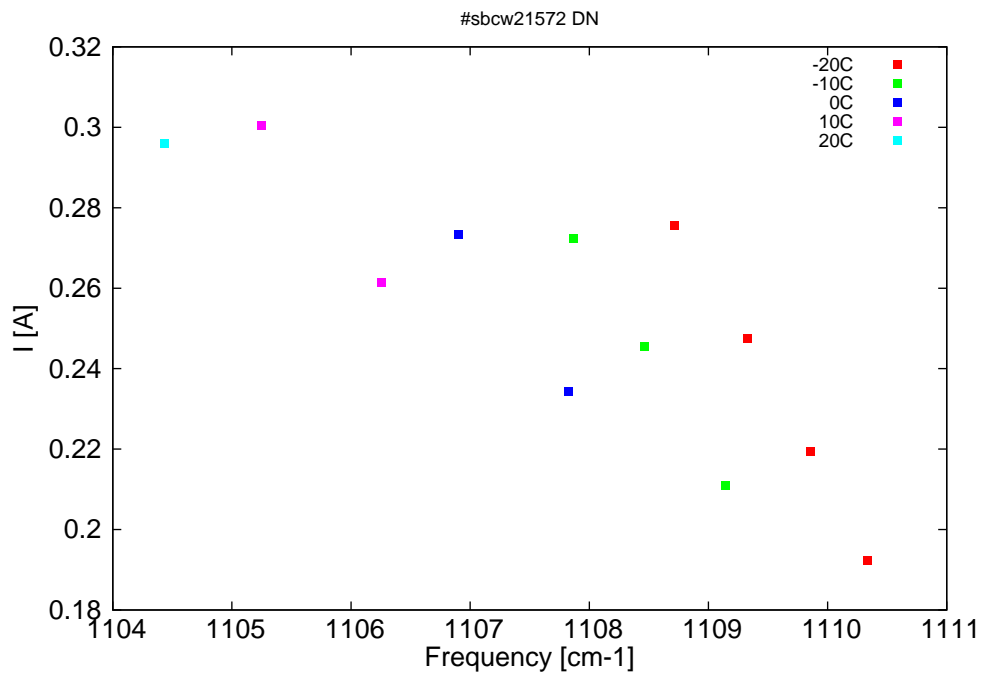


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
9006.3	1110.3	1.1	-20	10.7	0.192
9010.2	1109.9	11	-20	11.18	0.219
9014.5	1109.3	20	-20	11.66	0.248
9019.4	1108.7	26.9	-20	12.16	0.276
9016	1109.1	0.1	-10	10.94	0.211
9021.5	1108.5	10.6	-10	11.53	0.245
9026.4	1107.9	17.6	-10	12.01	0.272
9026.7	1107.8	0.3	0	11.27	0.234
9034.2	1106.9	10.3	0	11.96	0.273
9039.5	1106.3	0.5	10	11.65	0.261
9047.7	1105.3	7.8	10	12.36	0.3
9054.4	1104.4	0.5	20	12.18	0.296

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

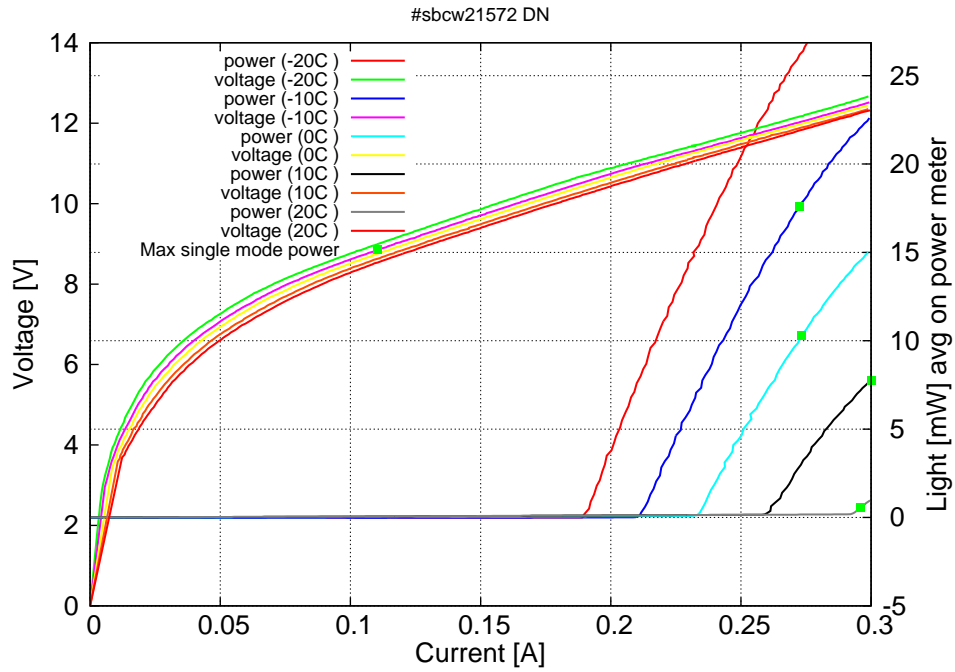


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.18A$  /  $V_{th}=10.6V$  (2-wires measurements). Maximum operation current: 0.28A between -20C and 0C, 0.300A at 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

