

**Datasheet for #sbcw19815 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.

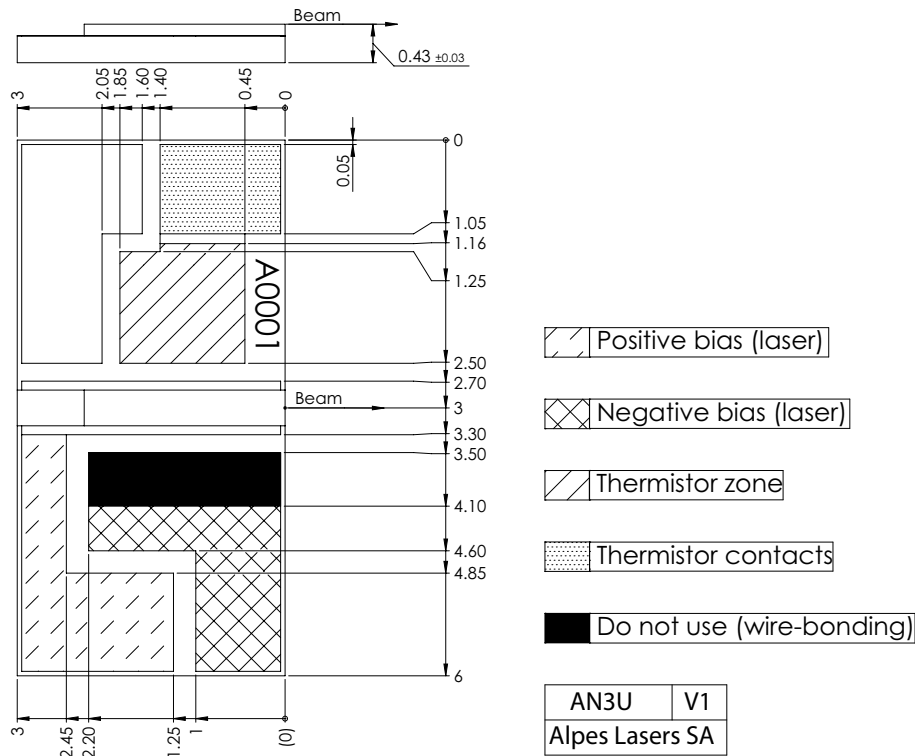


Figure 1: Mechanical and electrical interface for #sbcw19815 DN (please note that AlN submount numbering is A0MGE)

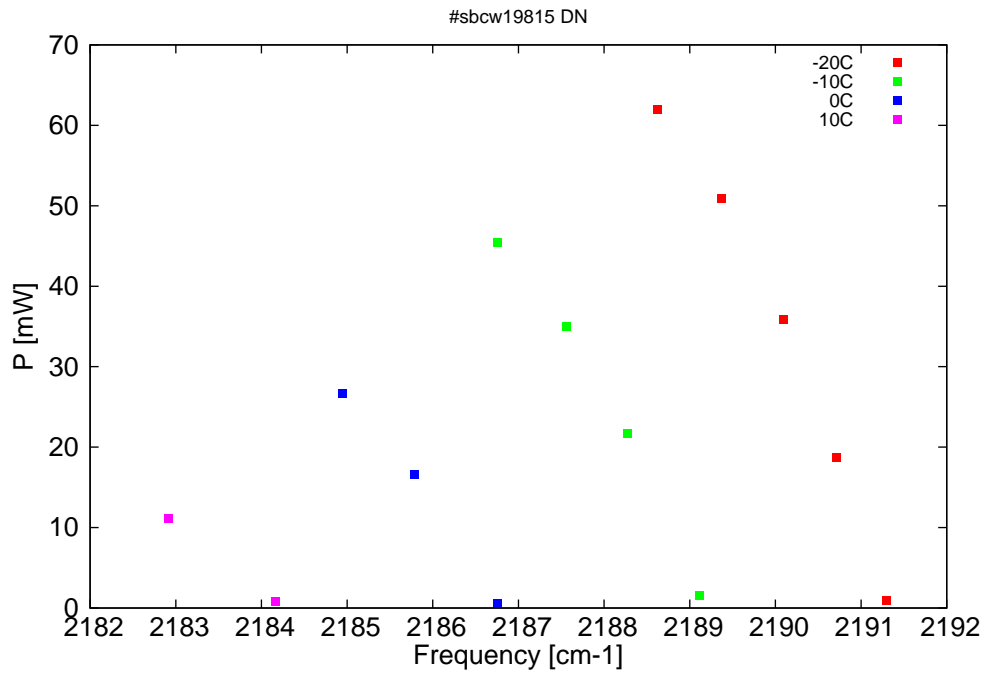


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

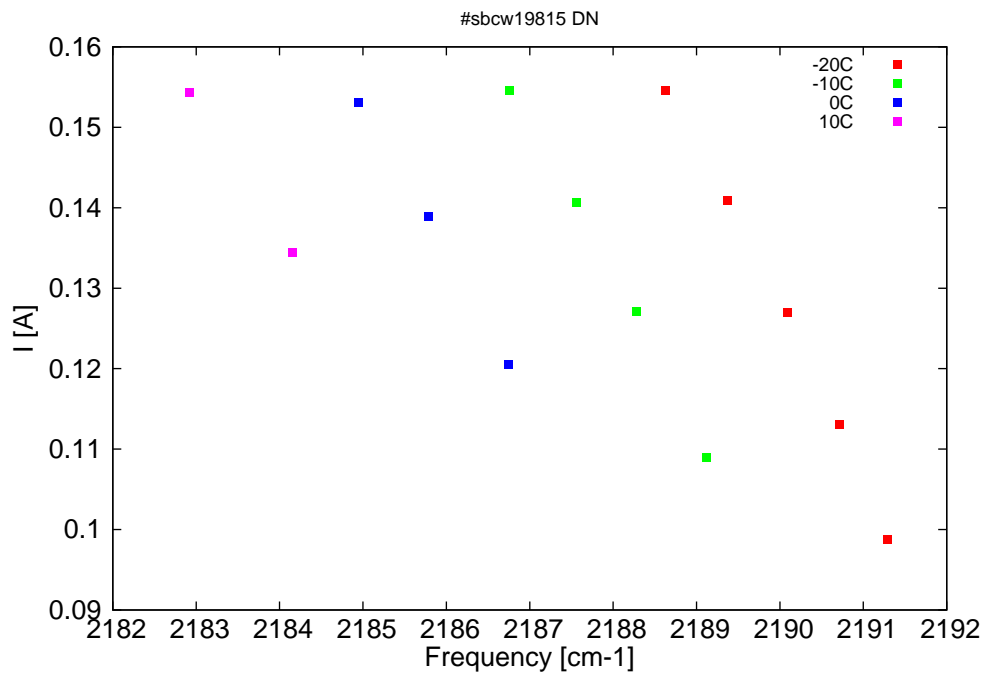


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
4563.5	2191.3	1	-20	9.01	0.099
4564.7	2190.7	18.7	-20	9.21	0.113
4566	2190.1	35.8	-20	9.41	0.127
4567.5	2189.4	50.9	-20	9.63	0.141
4569.1	2188.6	62	-20	9.83	0.155
4568.1	2189.1	1.6	-10	9.09	0.109
4569.8	2188.3	21.6	-10	9.37	0.127
4571.3	2187.6	35	-10	9.58	0.141
4573	2186.8	45.5	-10	9.8	0.155
4573	2186.8	0.5	0	9.23	0.121
4575	2185.8	16.7	0	9.5	0.139
4576.8	2184.9	26.7	0	9.72	0.153
4578.4	2184.2	0.9	10	9.41	0.134
4581	2182.9	11.1	10	9.71	0.154

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

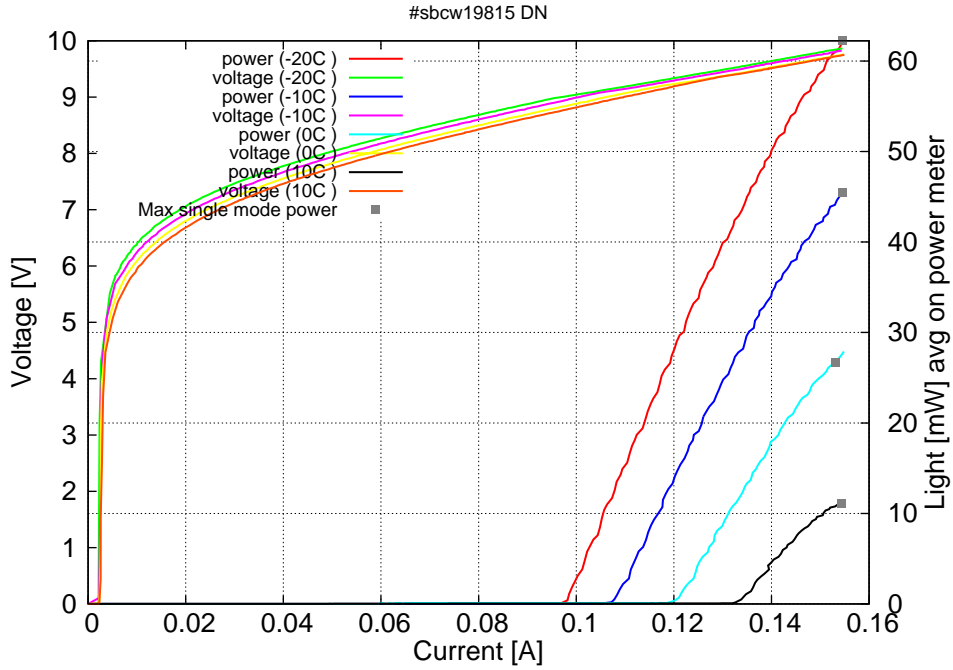


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.10A$  /  $V_{th}=9.0V$  (2-wires measurements). Maximum operation current: 0.155A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

