

**Datasheet for #sbcw19750 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.

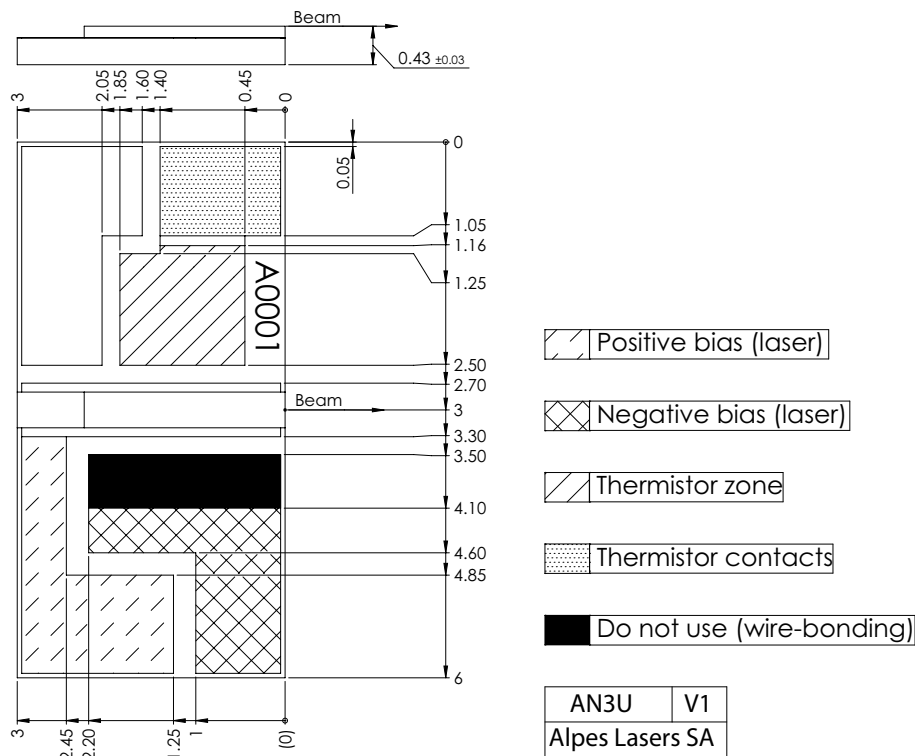


Figure 1: Mechanical and electrical interface for #sbcw19750 DN (please note that AlN submount numbering is A0T5J)

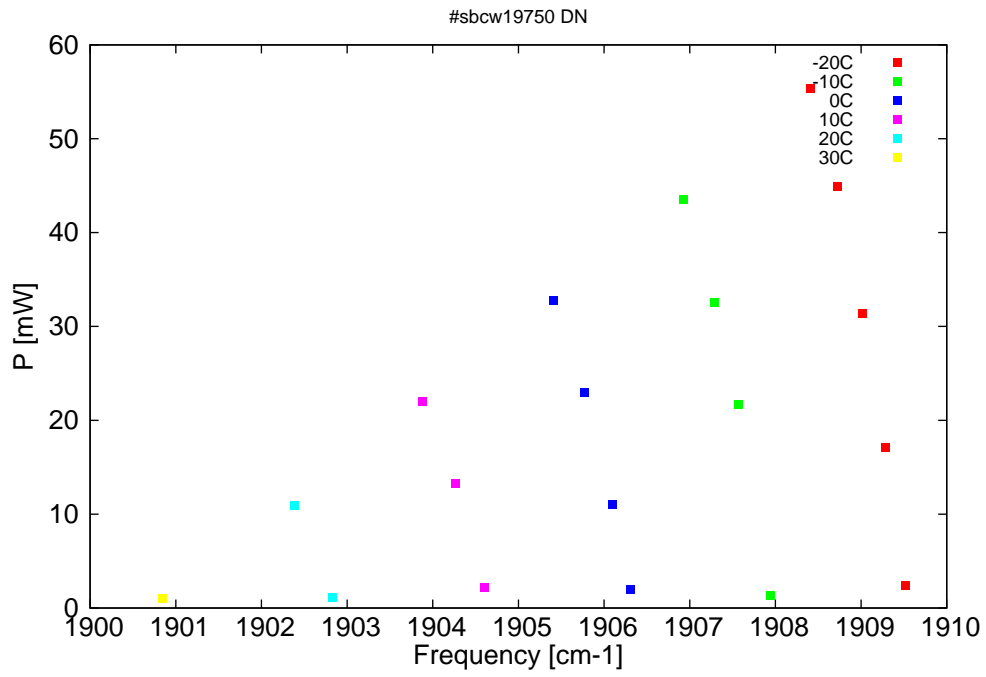


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

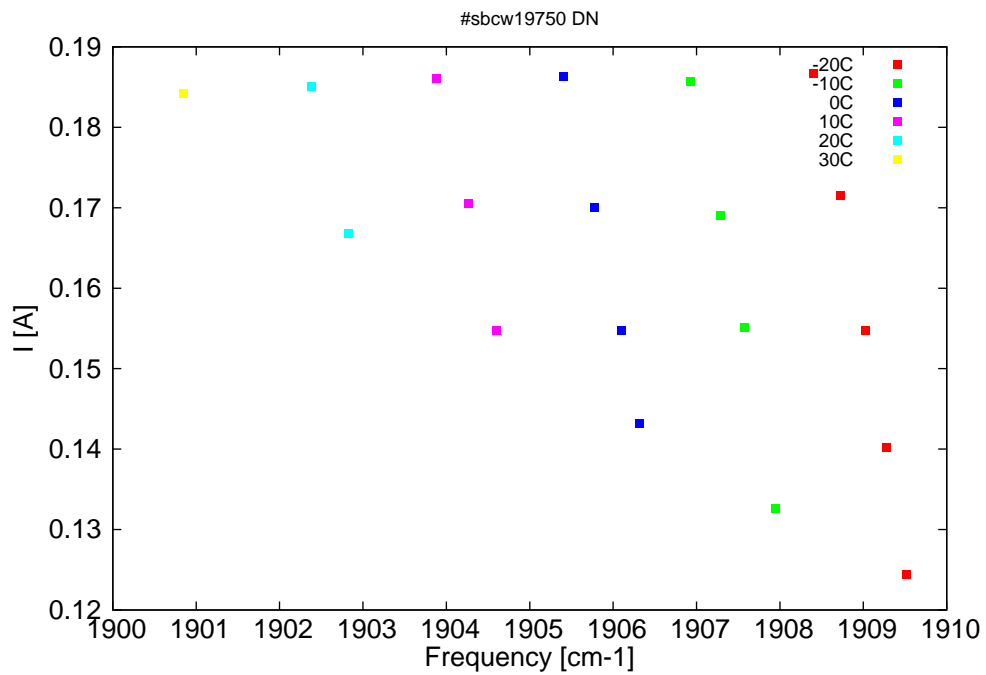


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5236.9	1909.5	2.4	-20	8.08	0.124
5237.6	1909.3	17.1	-20	8.28	0.14
5238.3	1909	31.3	-20	8.48	0.155
5239.1	1908.7	44.9	-20	8.71	0.172
5240	1908.4	55.3	-20	8.94	0.187
5241.2	1907.9	1.4	-10	8.15	0.133
5242.3	1907.6	21.6	-10	8.44	0.155
5243	1907.3	32.5	-10	8.65	0.169
5244	1906.9	43.5	-10	8.9	0.186
5245.7	1906.3	2	0	8.25	0.143
5246.3	1906.1	11.1	0	8.41	0.155
5247.2	1905.8	23	0	8.63	0.17
5248.2	1905.4	32.8	0	8.88	0.186
5250.4	1904.6	2.2	10	8.38	0.155
5251.4	1904.3	13.2	10	8.62	0.171
5252.4	1903.9	22	10	8.86	0.186
5255.3	1902.8	1.2	20	8.56	0.167
5256.6	1902.4	11	20	8.85	0.185
5260.8	1900.8	1	30	8.83	0.184

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

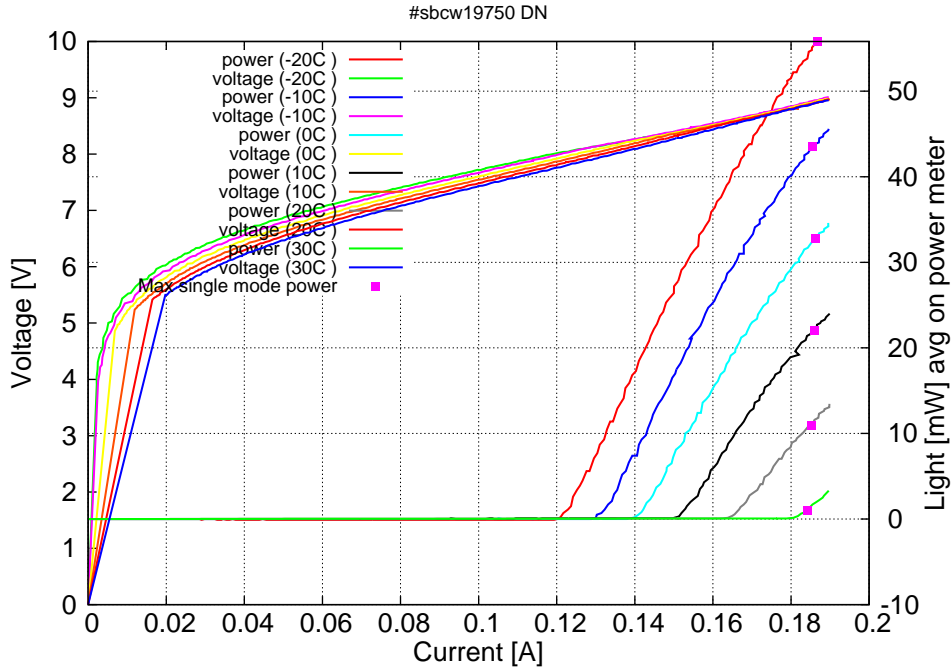


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.12A$  /  $V_{th}=8.0V$  (2-wires measurements). Maximum operation current: 0.19A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

