

**Datasheet for #sbcw21195 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 #sbcw21195 DN (please note that AlN submount numbering is A0MMU)

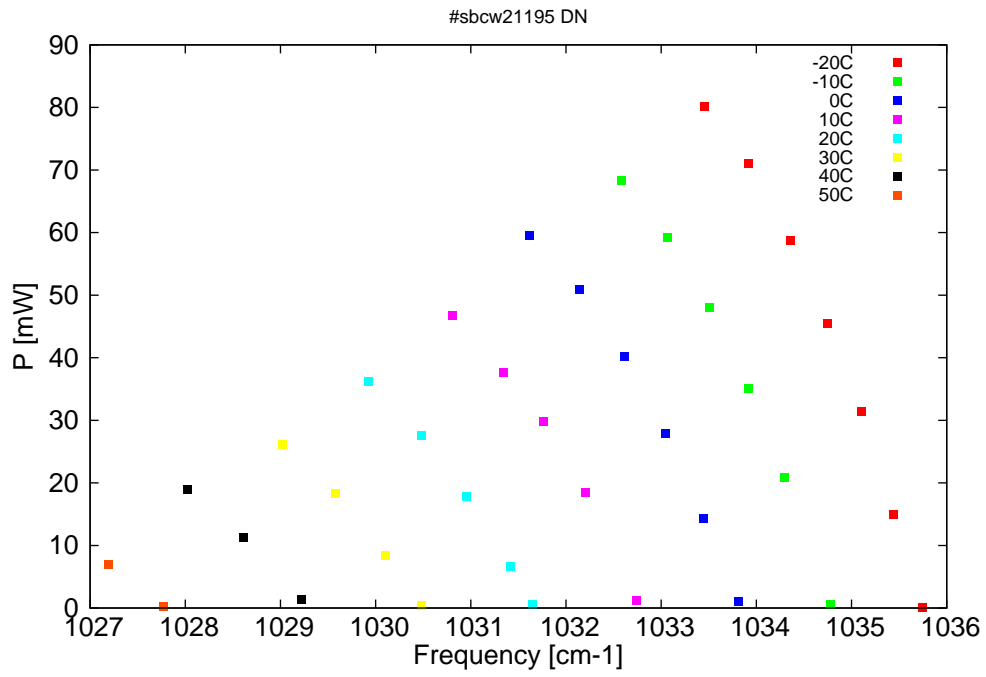


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

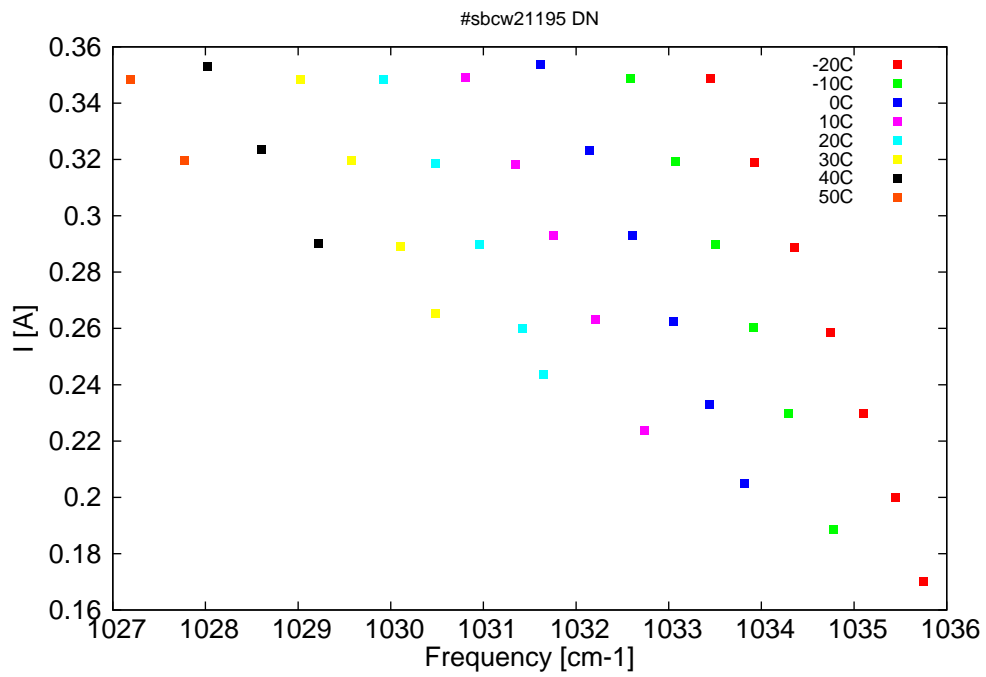


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
9654.8	1035.7	0.1	-20	8.86	0.17
9657.7	1035.4	15	-20	9.16	0.2
9660.9	1035.1	31.3	-20	9.45	0.23
9664.2	1034.7	45.5	-20	9.74	0.259
9667.8	1034.4	58.7	-20	10.04	0.289
9671.9	1033.9	71	-20	10.34	0.319
9676.3	1033.5	80.2	-20	10.64	0.349
9663.9	1034.8	0.6	-10	8.96	0.188
9668.4	1034.3	20.8	-10	9.38	0.23
9671.9	1033.9	35.1	-10	9.68	0.26
9675.8	1033.5	48	-10	9.98	0.29
9679.9	1033.1	59.1	-10	10.28	0.319
9684.4	1032.6	68.3	-10	10.58	0.349
9672.9	1033.8	1.1	0	9.07	0.205
9676.4	1033.4	14.3	0	9.36	0.233
9680.1	1033	27.9	0	9.65	0.263
9684.2	1032.6	40.1	0	9.96	0.293
9688.6	1032.1	51	0	10.26	0.323
9693.5	1031.6	59.6	0	10.58	0.354
9683	1032.7	1.2	10	9.2	0.224
9688	1032.2	18.5	10	9.6	0.263
9692.2	1031.8	29.8	10	9.9	0.293
9696.1	1031.3	37.6	10	10.17	0.318
9701.1	1030.8	46.8	10	10.48	0.349
9693.2	1031.6	0.6	20	9.35	0.244
9695.4	1031.4	6.6	20	9.52	0.26
9699.7	1031	17.8	20	9.82	0.29
9704.2	1030.5	27.6	20	10.12	0.319
9709.4	1029.9	36.2	20	10.43	0.348
9704.2	1030.5	0.4	30	9.52	0.265
9707.8	1030.1	8.4	30	9.77	0.289
9712.7	1029.6	18.2	30	10.08	0.32
9718	1029	26.1	30	10.39	0.348
9716.1	1029.2	1.4	40	9.72	0.29
9721.9	1028.6	11.3	40	10.08	0.324
9727.4	1028	19	40	10.39	0.353
9729.8	1027.8	0.2	50	9.99	0.32
9735.3	1027.2	7	50	10.3	0.348

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

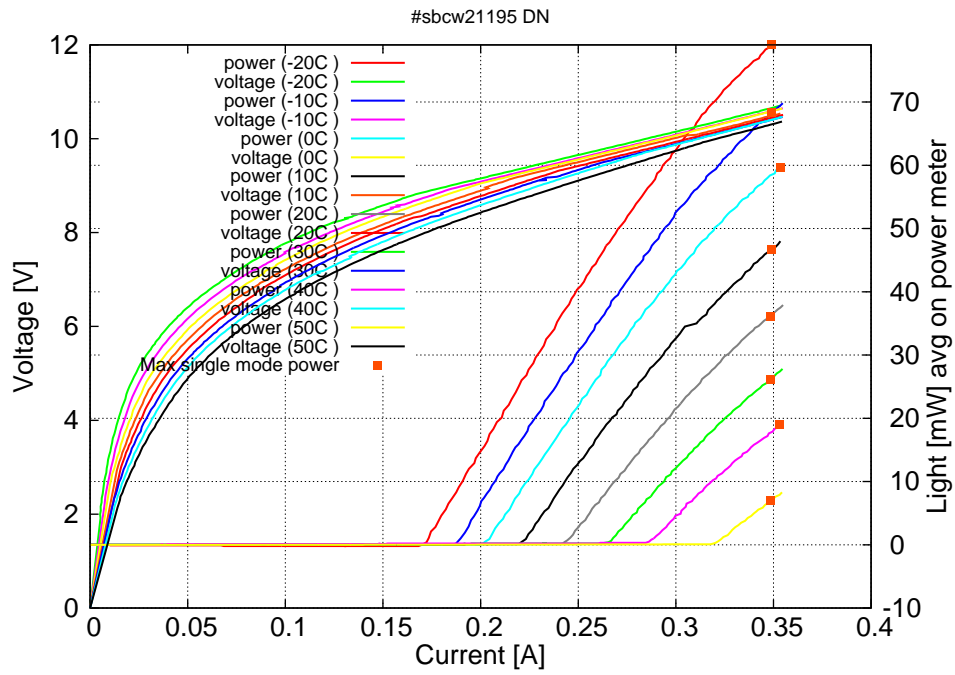


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.17A$  /  $V_{th}=8.8V$  (2-wires measurements). Maximum operation current: 0.355A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

