

**Datasheet for #sbcw2837 DN**

Recommendations:

Please read the starter kit user manual (at least installation chapter 5), if available, and have a look at the FAQ at <http://www.alpeslasers.ch/alfaq.pdf>

**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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To use with a power-supply ILX Lightwave LDX-3232 or equivalent.



Figure 1: Support mounting for #sbcw2837 DN (please note that the laser is connected to the DN pad drawn in blue)

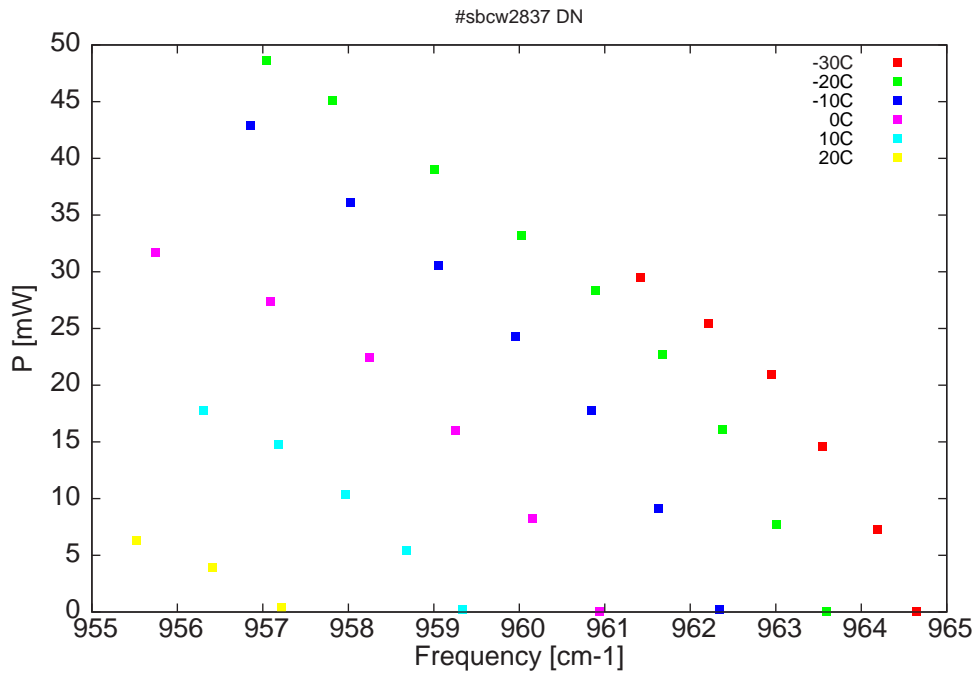


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

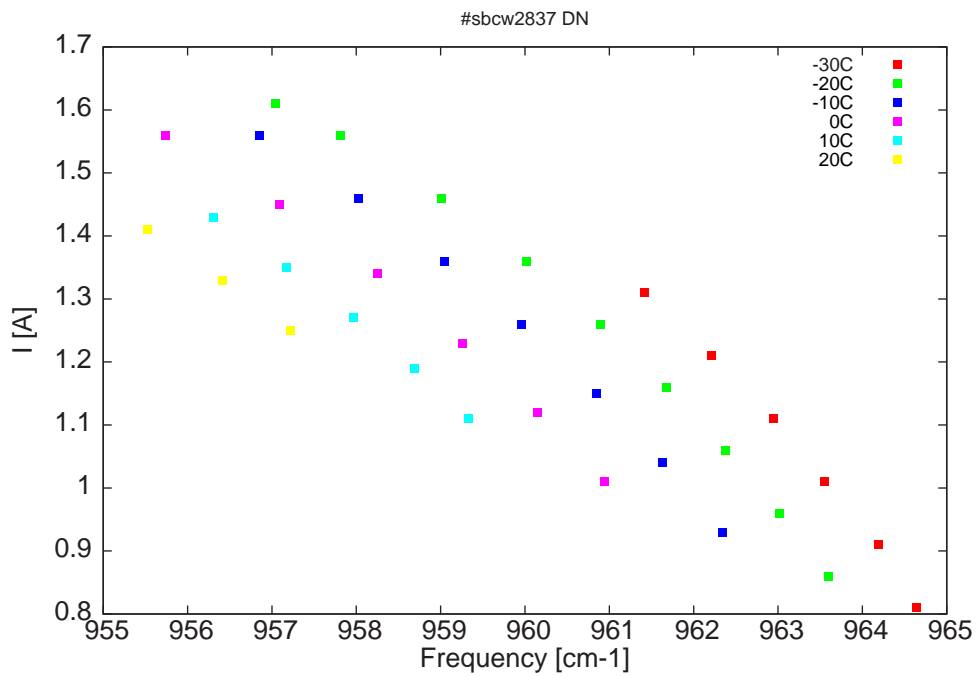


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10366.5	964.6	0.1	-30	9.1	0.81
10371.4	964.2	7.2	-30	9.4	0.91
10378.3	963.6	14.6	-30	9.8	1.01
10384.8	962.9	21	-30	10.2	1.11
10392.7	962.2	25.5	-30	10.5	1.21
10401.4	961.4	29.5	-30	10.9	1.31
10377.8	963.6	0.1	-20	9.2	0.86
10384.1	963	7.7	-20	9.6	0.96
10390.9	962.4	16.1	-20	9.9	1.06
10398.5	961.7	22.7	-20	10.3	1.16
10407	960.9	28.3	-20	10.7	1.26
10416.4	960	33.2	-20	11.1	1.36
10427.4	959	39	-20	11.5	1.46
10440.4	957.8	45.1	-20	12	1.56
10448.9	957	48.6	-20	12.2	1.61
10391.3	962.3	0.2	-10	9.4	0.93
10399	961.6	9.1	-10	9.8	1.04
10407.5	960.8	17.8	-10	10.2	1.15
10417.1	960	24.3	-10	10.7	1.26
10427	959	30.6	-10	11.1	1.36
10438.1	958	36.1	-10	11.5	1.46
10450.9	956.9	42.9	-10	12	1.56
10406.4	960.9	0.1	0	9.7	1.01
10415.1	960.1	8.3	0	10.1	1.12
10424.7	959.3	16	0	10.5	1.23
10435.7	958.3	22.5	0	11	1.34
10448.4	957.1	27.4	0	11.5	1.45
10463.1	955.7	31.7	0	12	1.56
10423.9	959.3	0.2	10	10	1.11
10430.9	958.7	5.5	10	10.4	1.19
10438.8	958	10.4	10	10.7	1.27
10447.4	957.2	14.7	10	11	1.35
10456.9	956.3	17.8	10	11.4	1.43
10446.9	957.2	0.4	20	10.6	1.25
10455.8	956.4	3.9	20	10.9	1.33
10465.4	955.5	6.3	20	11.3	1.41

Table 1 : singlemode optical output power as function of operating parameters

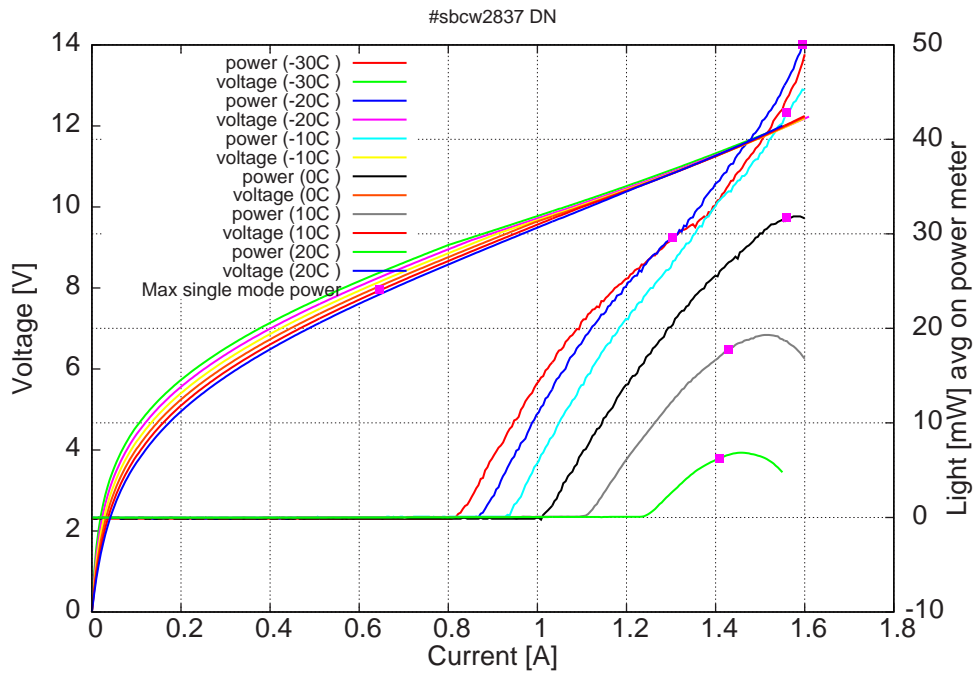


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -30C:  $I_{th}=810\text{mA}$  /  $V_{th}= 9.1\text{V}$  (2-wires measurements). Maximum operation current: 1.31A at -30C, 1.61A at -20C, 1.56A between -10C and 0C, 1.43A at 10C and 1.41A at 20C.

Figure 3: spectra between -30C and 20C for various DC currents

