

Datasheet for #sb11450 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 longer pulses, higher repetition rate, higher voltage or higher current than specified in this document may cause damage. It will result in loss of warranty, unless agreed upon with Alpes Lasers!

**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.

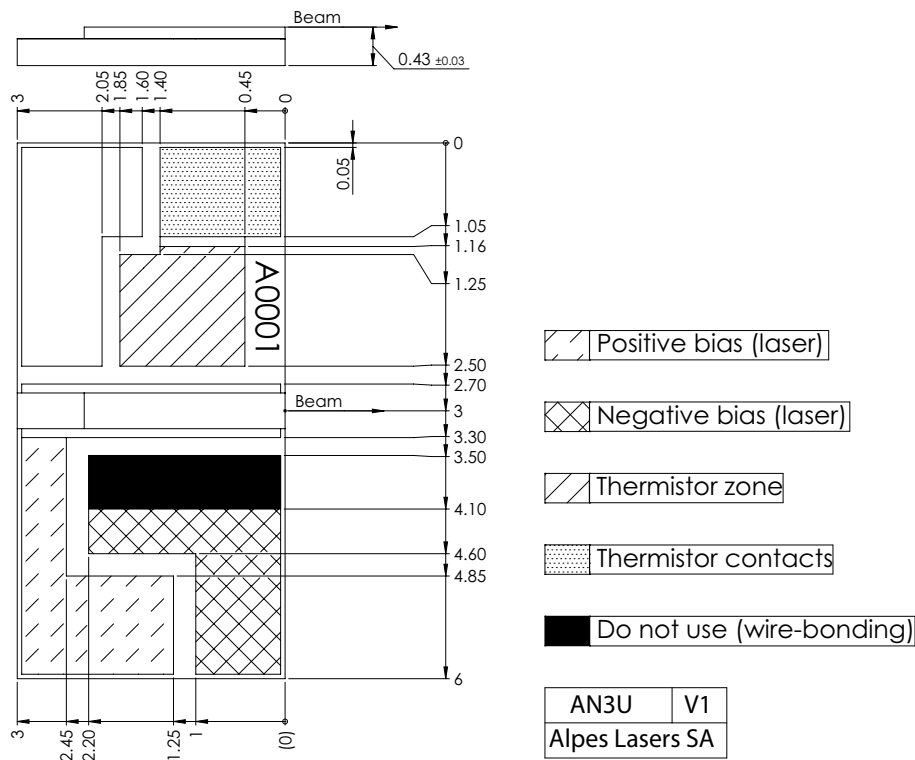


Figure 1: Support mounting for #sb11450 DN (please note that AlN submount numbering is A05V2)

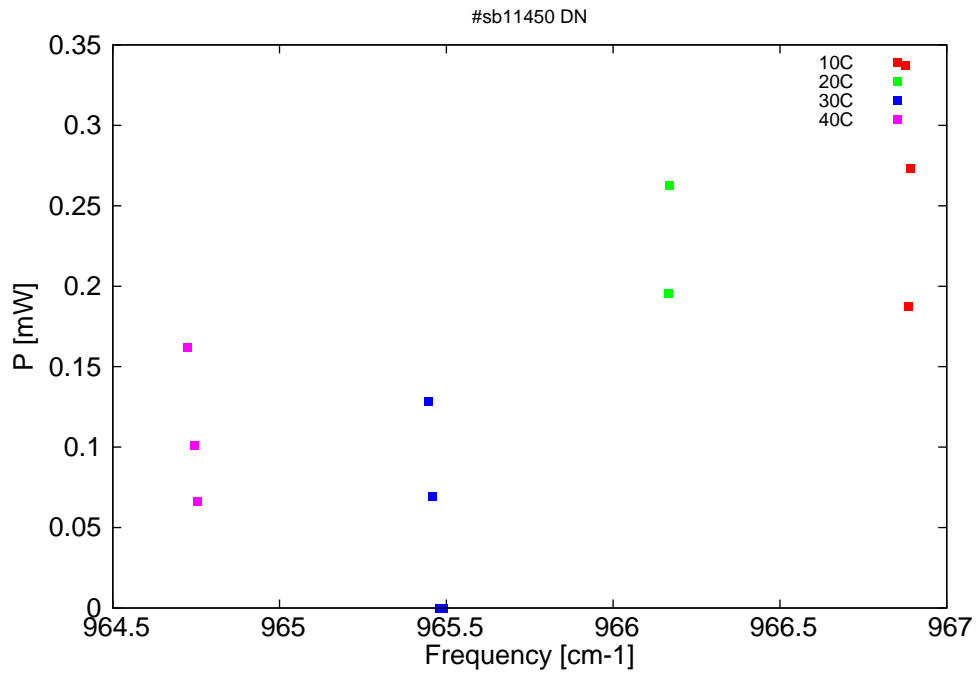


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

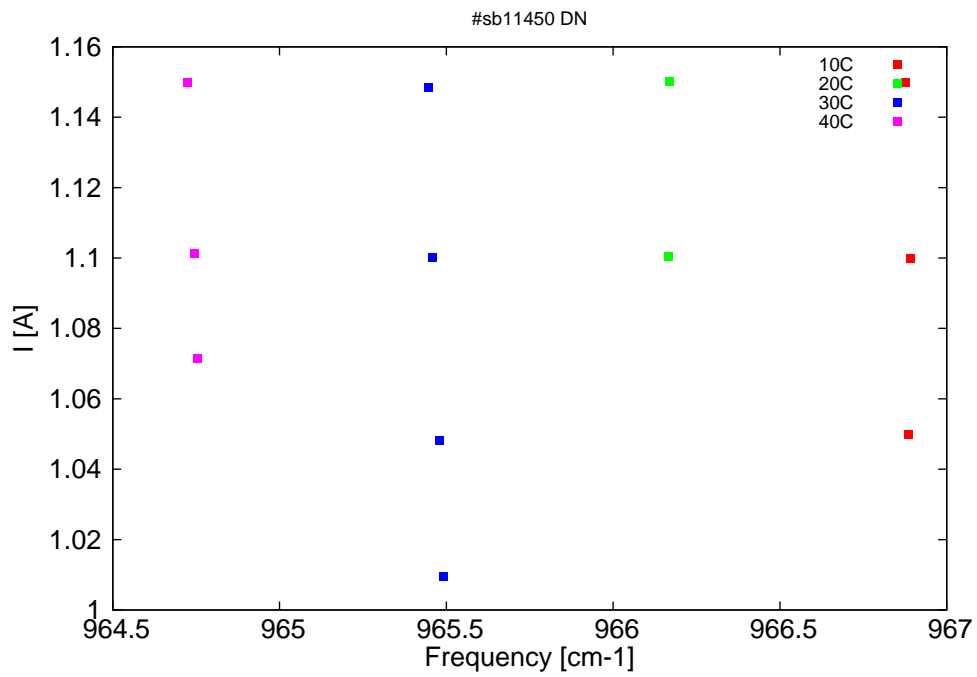


Figure 3: Peak current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [ $\text{cm}^{-1}$ ]	P[mW]	Temp[ $^{\circ}\text{C}$ ]	$U_{pulse}$ [V]	$I_{pulse}$ [A]
10342.5	966.9	0.2	10	10.6	1.05
10342.4	966.9	0.3	10	10.9	1.1
10342.6	966.9	0.3	10	11.2	1.15
10350.2	966.2	0.2	20	10.8	1.1
10350.1	966.2	0.3	20	11.1	1.15
10357.4	965.5	0	30	10.3	1.01
10357.5	965.5	0	30	10.5	1.05
10357.8	965.5	0.1	30	10.8	1.1
10357.9	965.4	0.1	30	11.1	1.15
10365.3	964.8	0.1	40	10.6	1.07
10365.4	964.7	0.1	40	10.8	1.1
10365.6	964.7	0.2	40	11.1	1.15

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

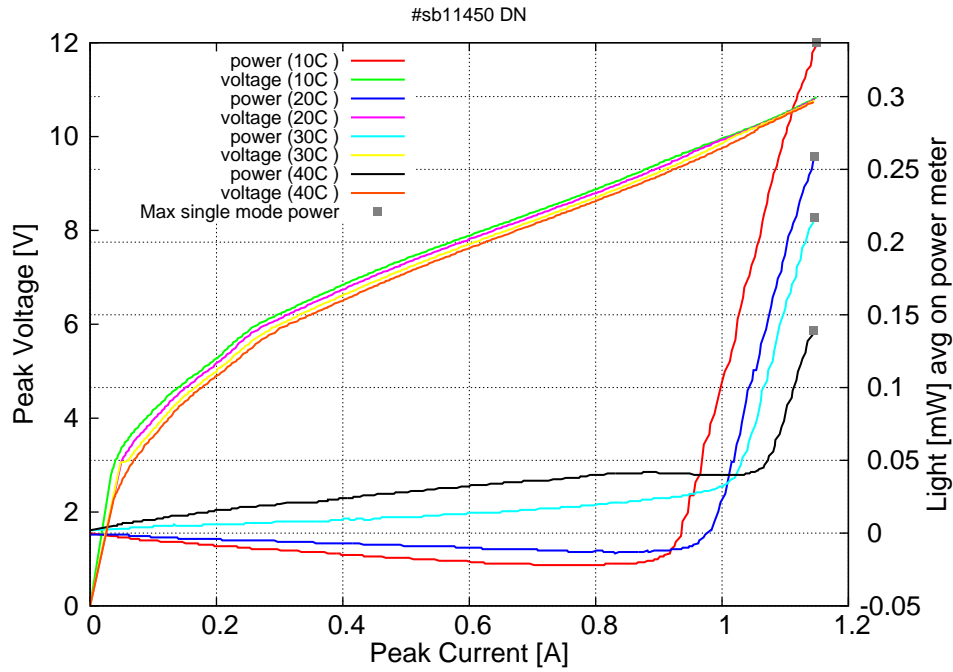
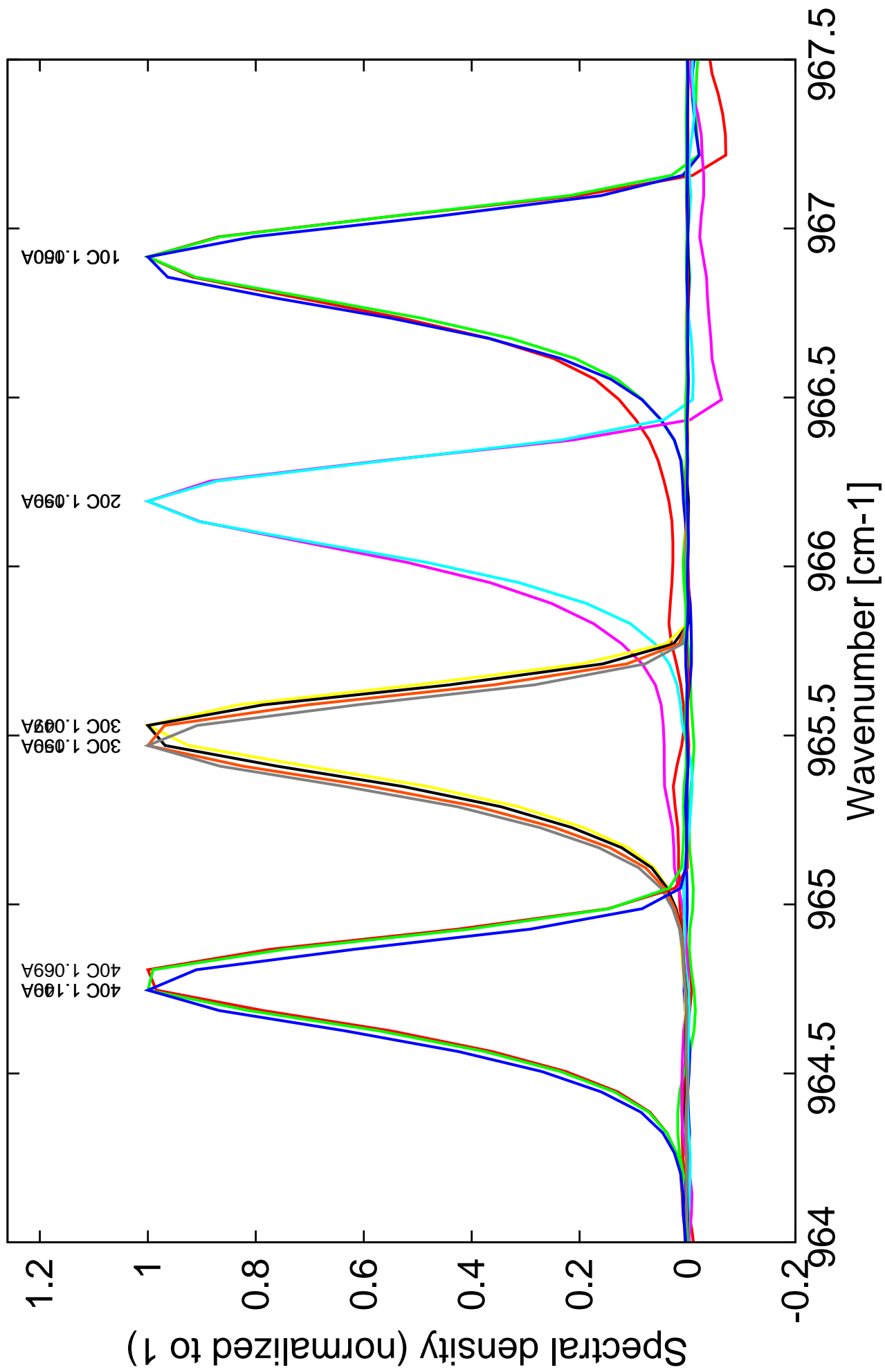


Figure 4: Peak voltage and average power vs peak current at 2% duty-cycle (200ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

Figure 3: spectra at different temperatures for various peak currents



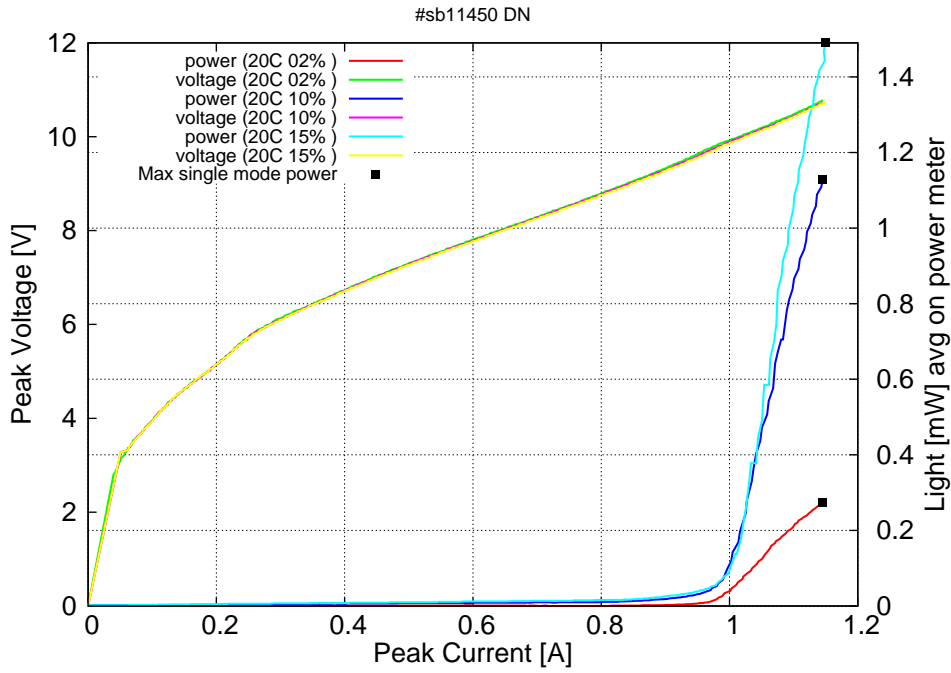


Figure 5: peak voltage and average power vs peak current at 20C for various duty-cycles (200ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

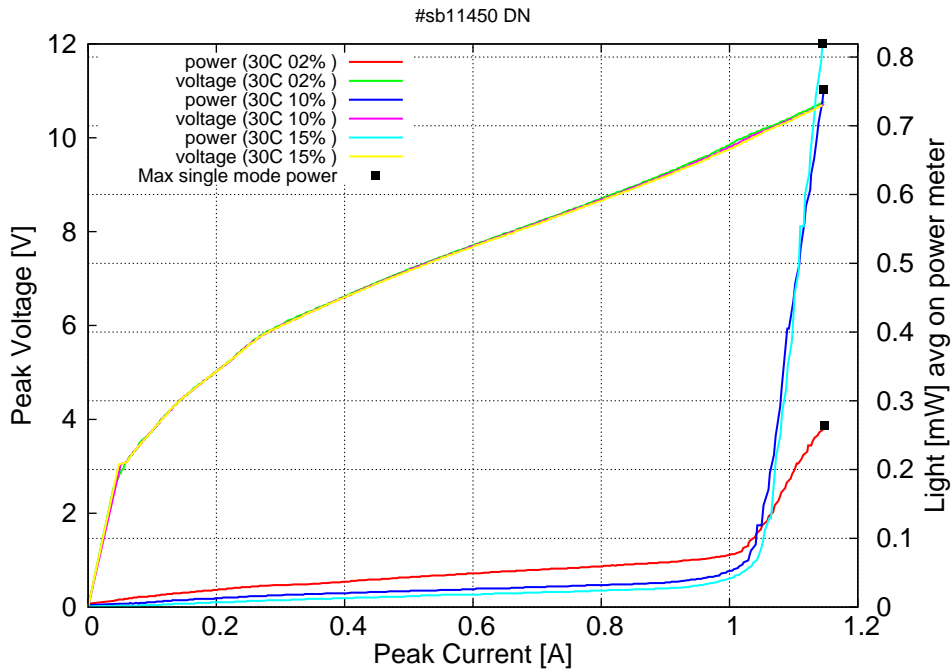


Figure 6: peak voltage and average power vs peak current at 30C for various duty-cycles (200ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

Figure 6: spectra at 20C and 30C at 10% duty-cycle for various peak currents

