

Datasheet for #sb17189 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.

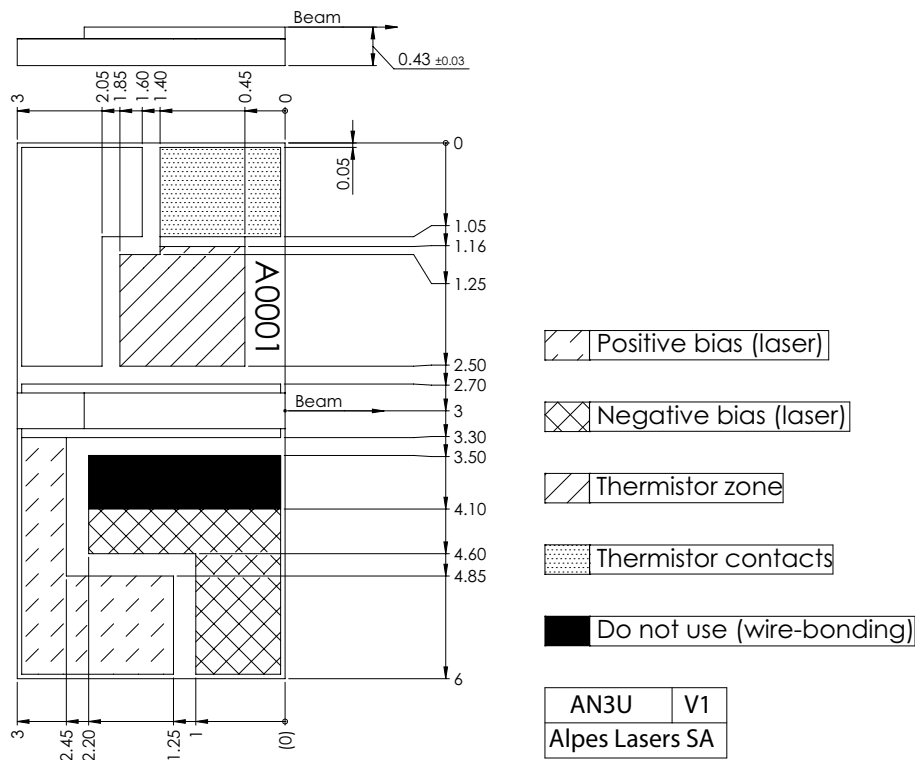


Figure 1: Mechanical and electrical interface for #sb17189 DN (please note that AlN submount numbering is A0LEJ)

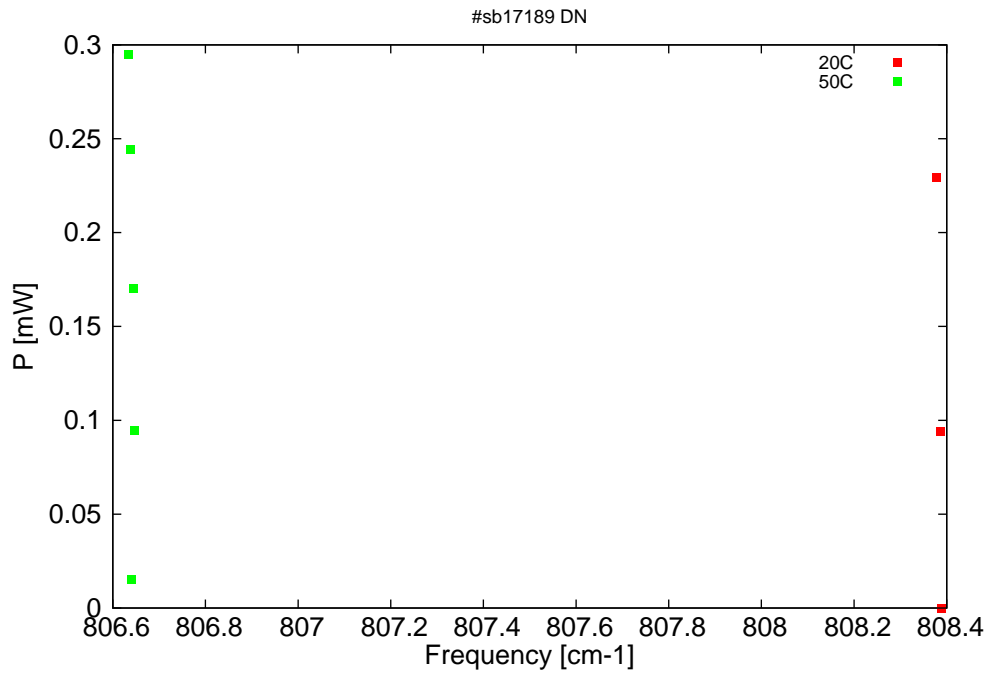


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

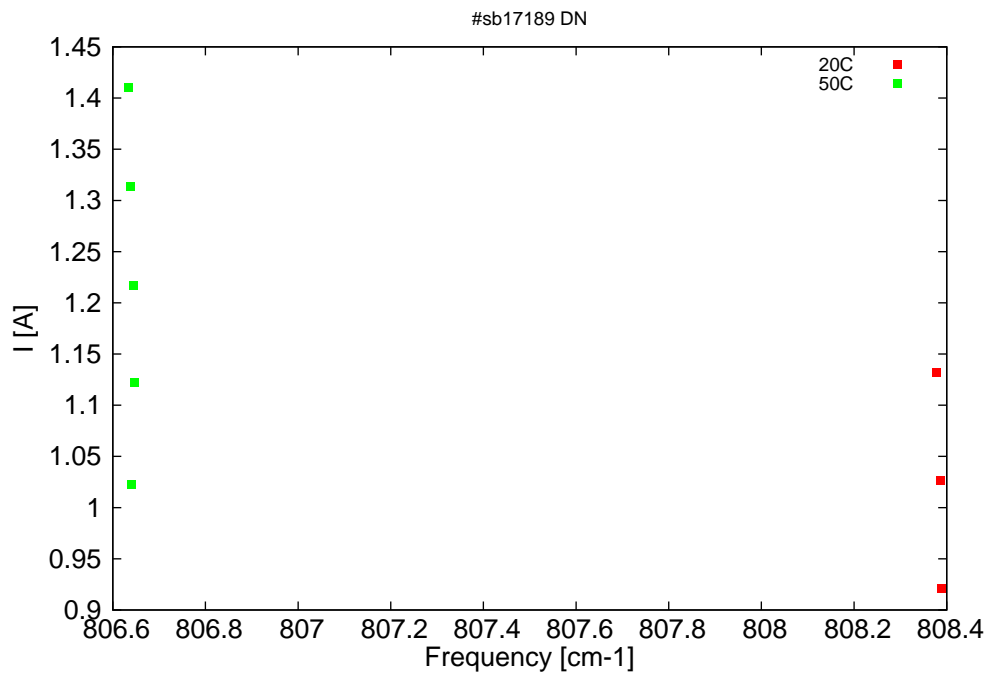


Figure 3: Peak current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm^{-1}]	P[mW]	Temp[$^{\circ}\text{C}$]	U_{pulse} [V]	I_{pulse} [A]
12370.3	808.4	0	20	8.2	0.92
12370.3	808.4	0.1	20	8.6	1.03
12370.4	808.4	0.2	20	8.9	1.13
12397.1	806.6	0	50	8.5	1.02
12397	806.6	0.1	50	8.8	1.12
12397	806.6	0.2	50	9.2	1.22
12397.1	806.6	0.2	50	9.5	1.31
12397.2	806.6	0.3	50	9.9	1.41

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

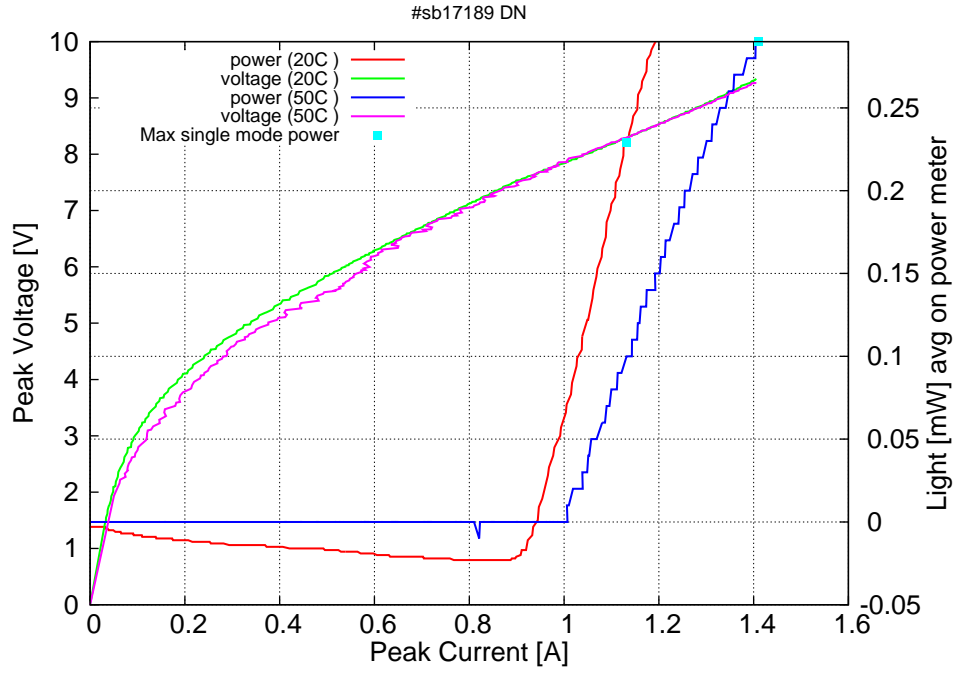


Figure 4: Peak voltage and average power vs peak current at 2% duty-cycle (500ns pulses on the laser) (the solid squares indicate the maximum singlemode emitted power)

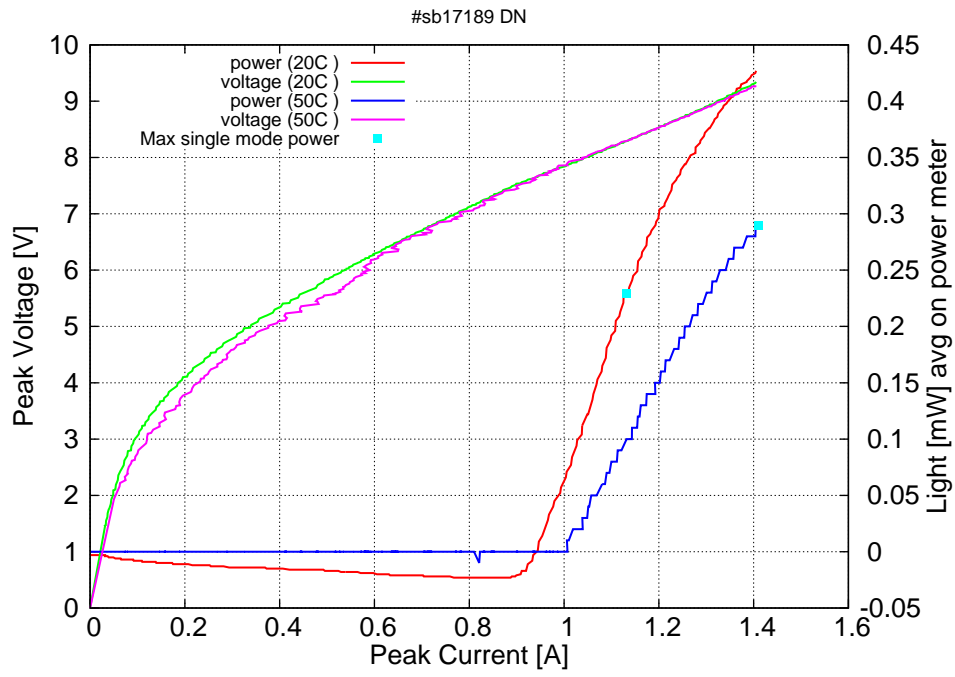
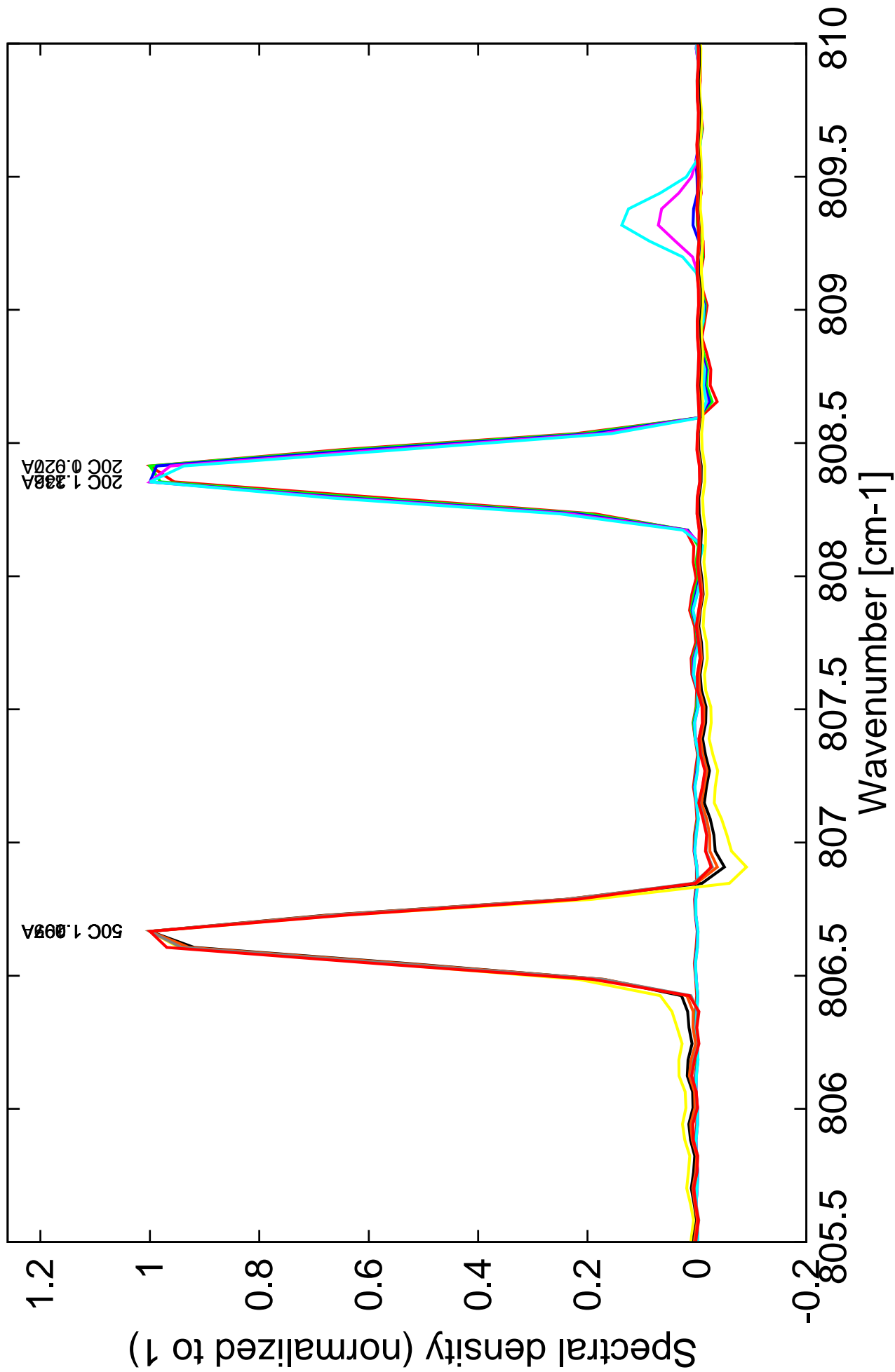


Figure 5: Peak voltage and average power vs peak current at 2% duty-cycle (500ns pulses on the laser) (including the multimode region)

Figure 4: spectra at different temperatures for various peak currents (20ns pulses on the laser)



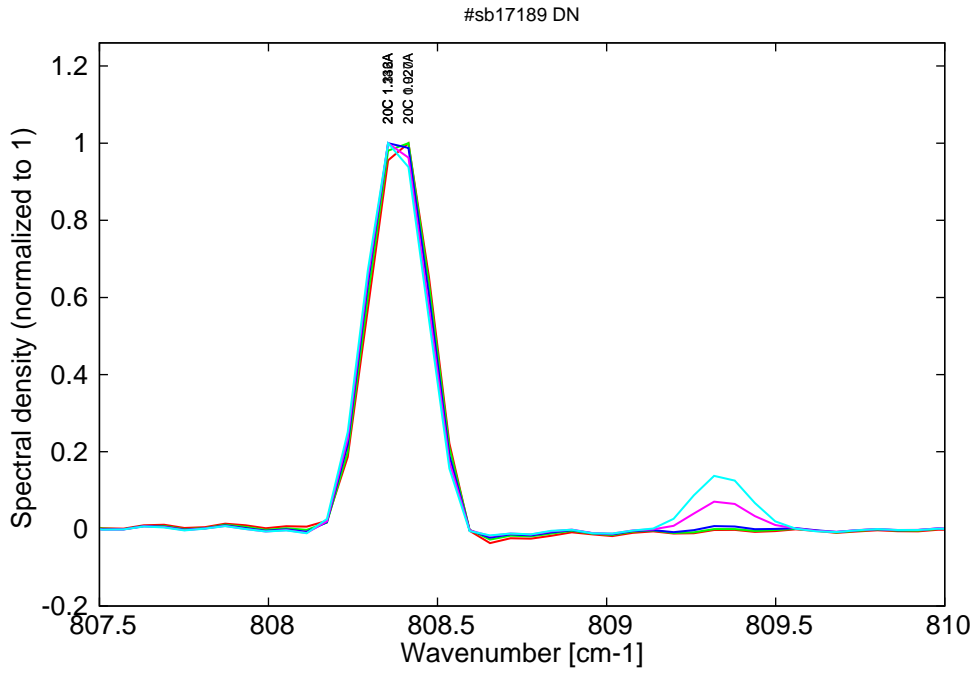


Figure 6: spectra at 20C for various peak currents (monomode up to 1.135A, then bimode)

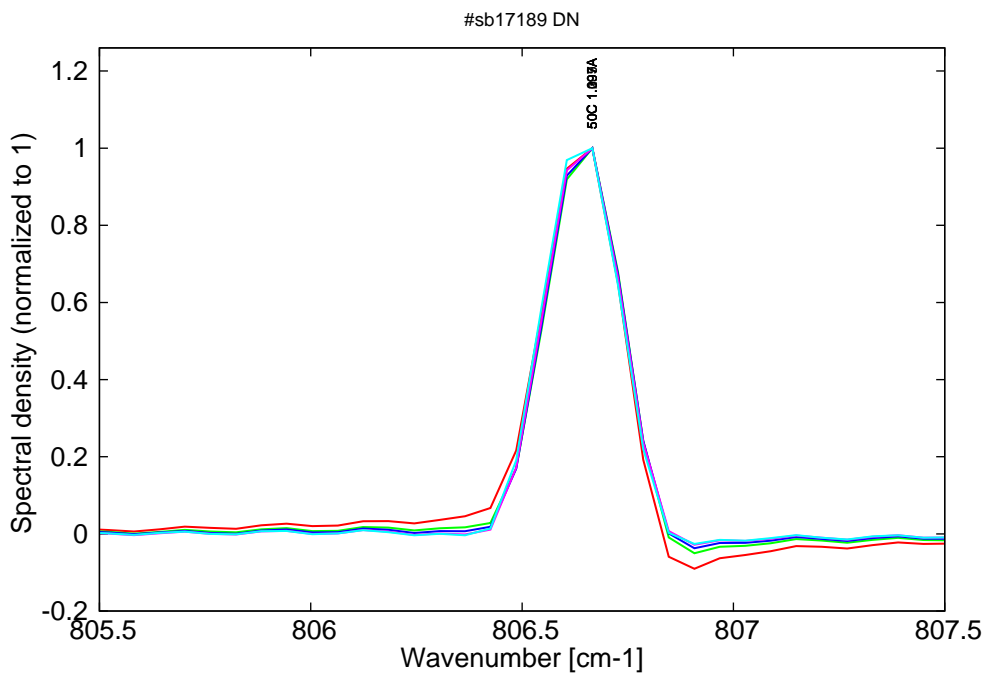


Figure 7: spectra at 50C for various peak currents (monomode up to 1.41A)