

**Datasheet for #BG-7.5-10.5**

Recommendations:

Please read the starter kit user manual, if available, and have a look at the FAQ at <http://www.alpeslasers.ch/alfaqa.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.

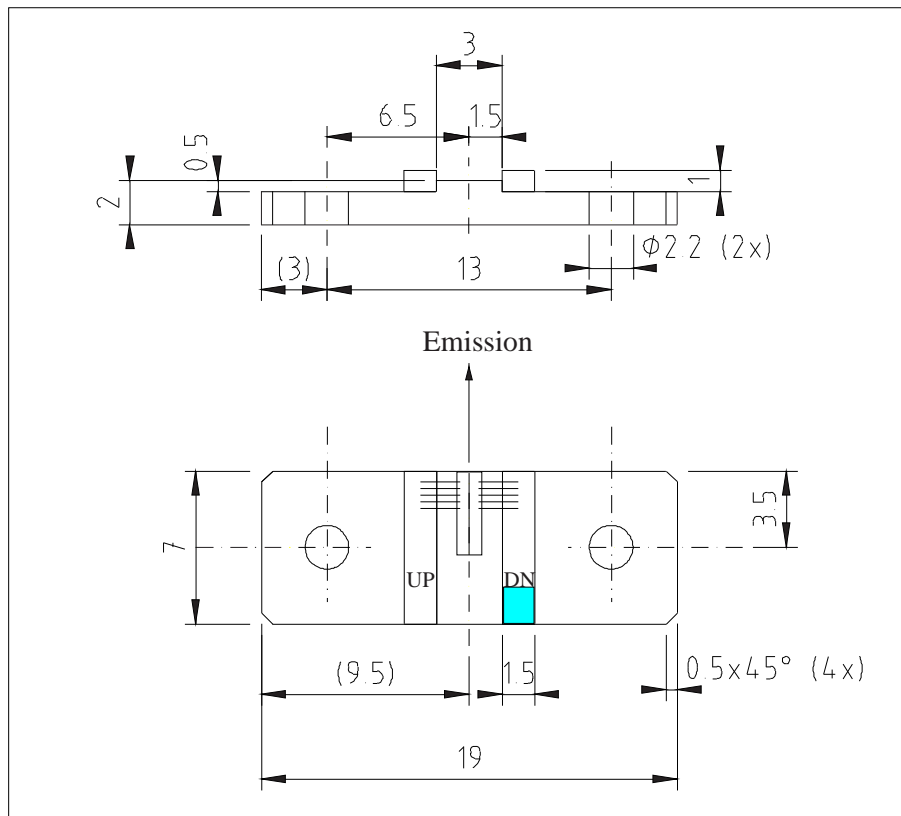


Figure 1: Support mounting for #BG-7.5-10.5 (please note that the laser is connected to the DN pad drawn in blue)

# Uncoated device

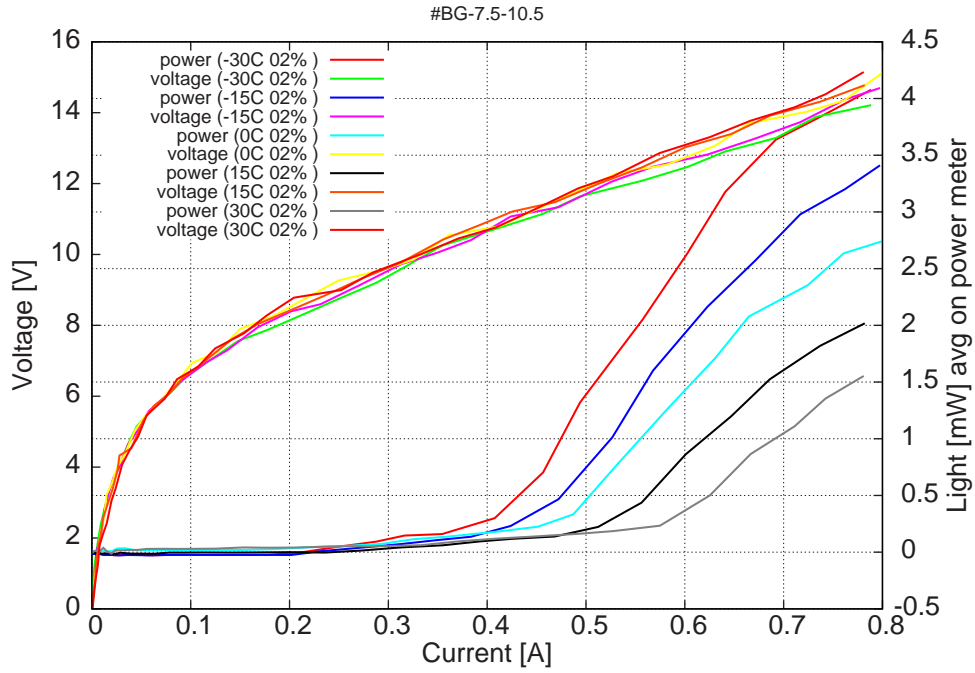


Figure 2: peak voltage and average power vs peak current at 2% duty-cycle (100ns pulses on the laser,  $5\mu\text{s}$  period)

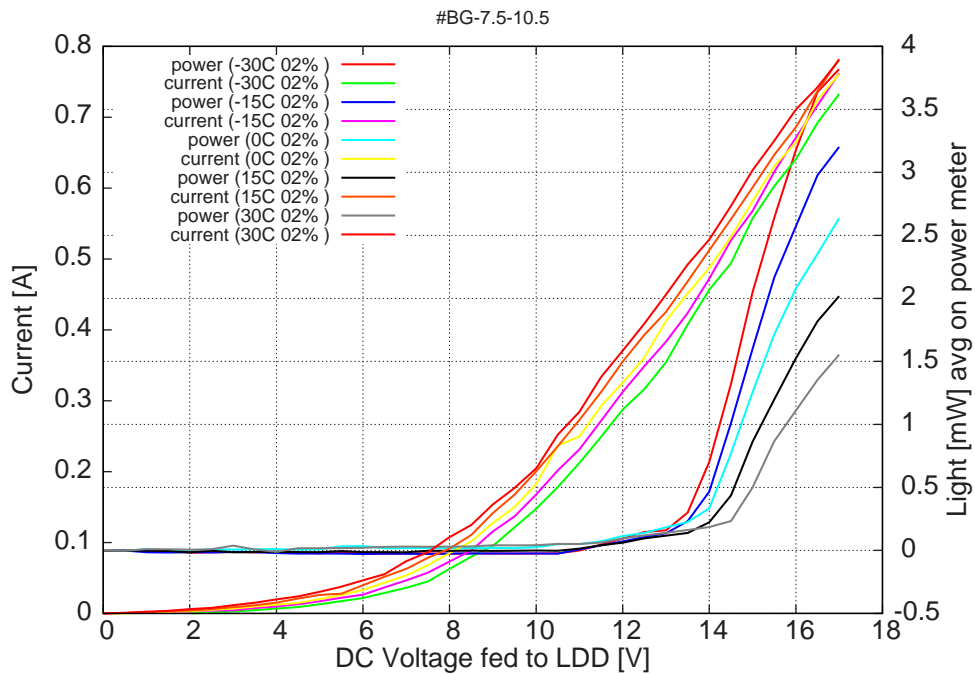


Figure 3: peak current and average power vs LDD voltage at 2% duty-cycle (100ns pulses on the laser,  $5\mu\text{s}$  period)

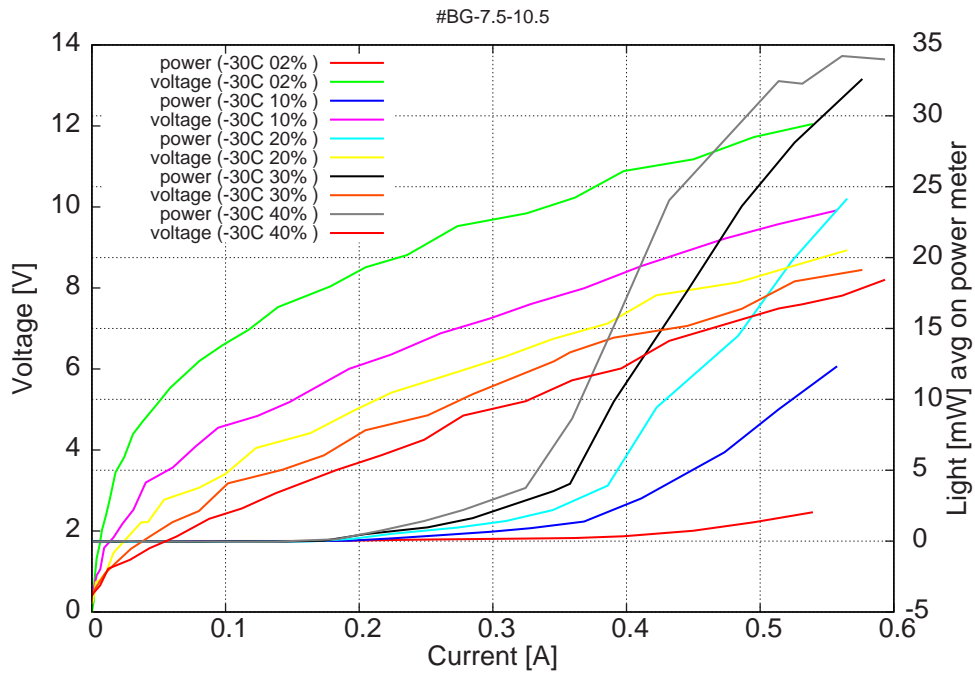


Figure 4: peak voltage and average power vs peak current at -30C for various duty-cycles (100ns pulses on the laser)

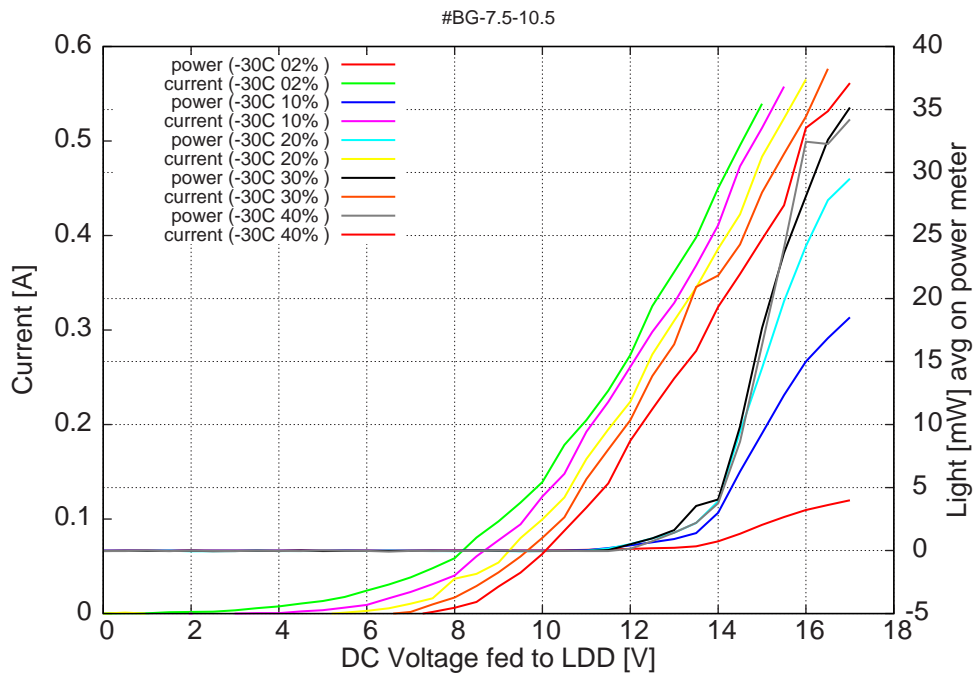
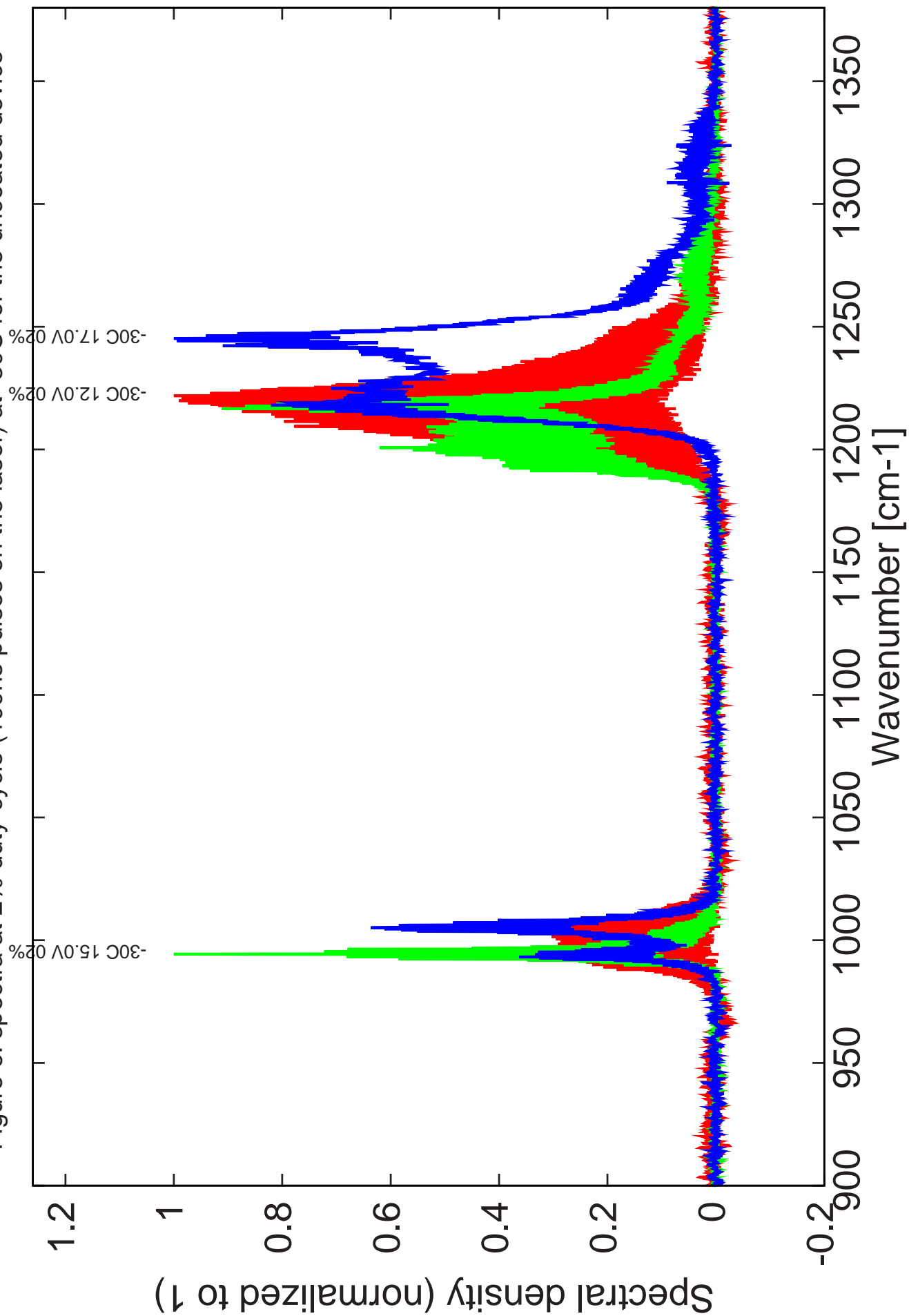


Figure 5: peak current and average power vs LDD voltage at -30C for various duty-cycles (100ns pulses on the laser)

Figure 6: spectra at 2% duty-cycle (100ns pulses on the laser) at -30C for the uncoated device



# HR coated device

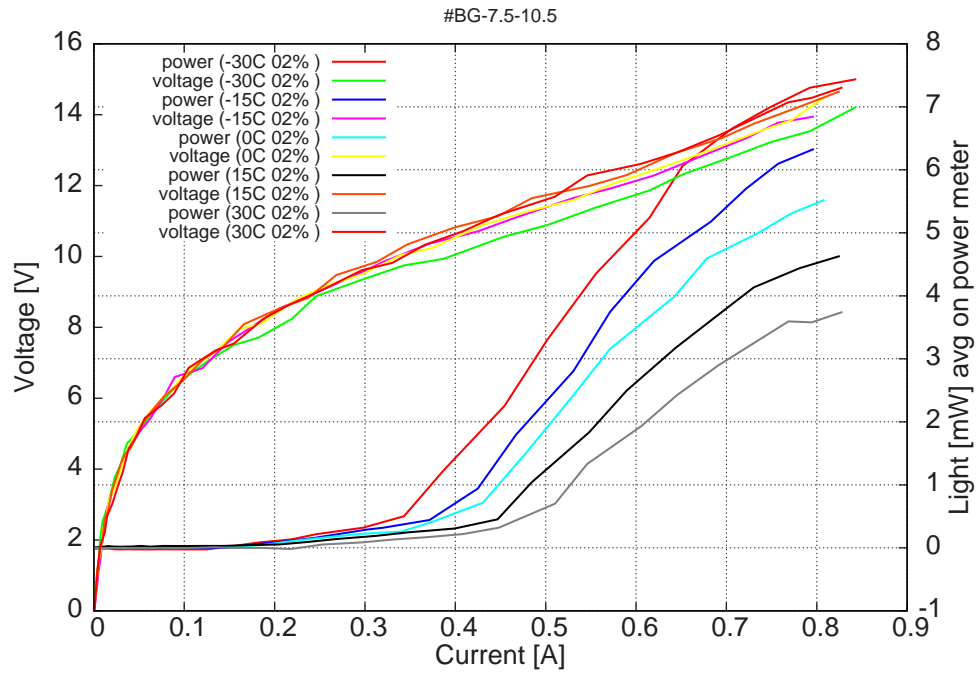


Figure 6: peak voltage and average power vs peak current at 2% duty-cycle (100ns pulses on the laser,  $5\mu\text{s}$  period)

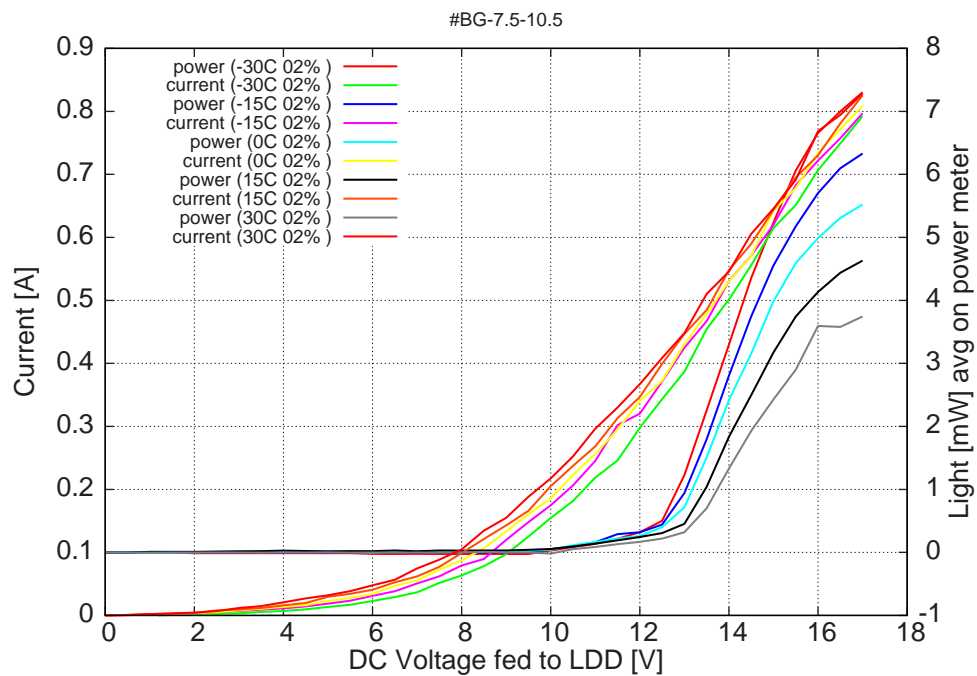


Figure 7: peak current and average power vs LDD voltage at 2% duty-cycle (100ns pulses on the laser,  $5\mu\text{s}$  period)

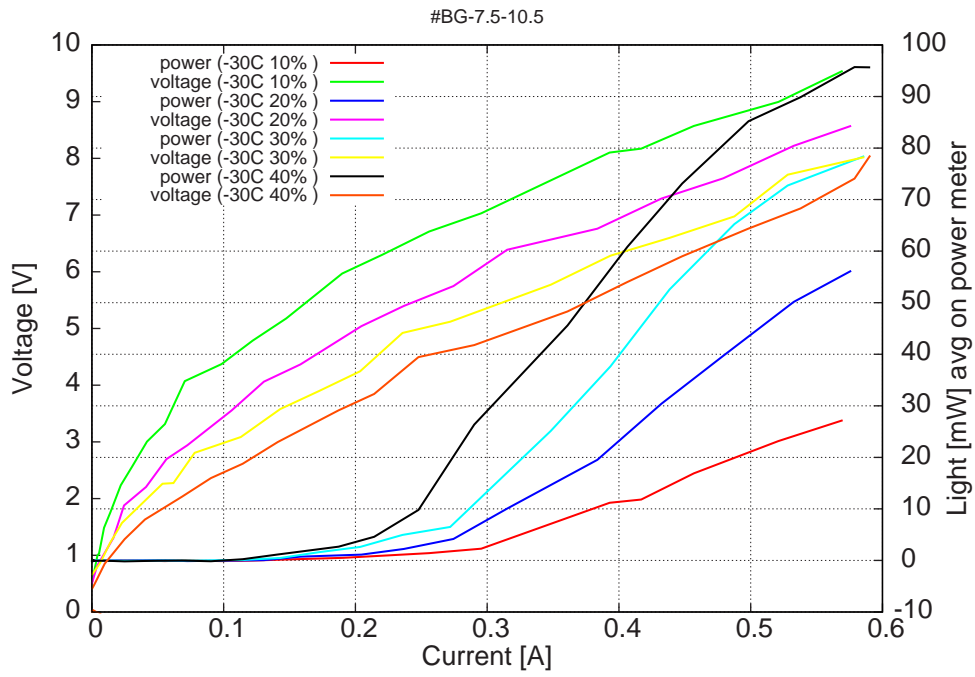


Figure 8: peak voltage and average power vs peak current at -30C for various duty-cycles (100ns pulses on the laser)

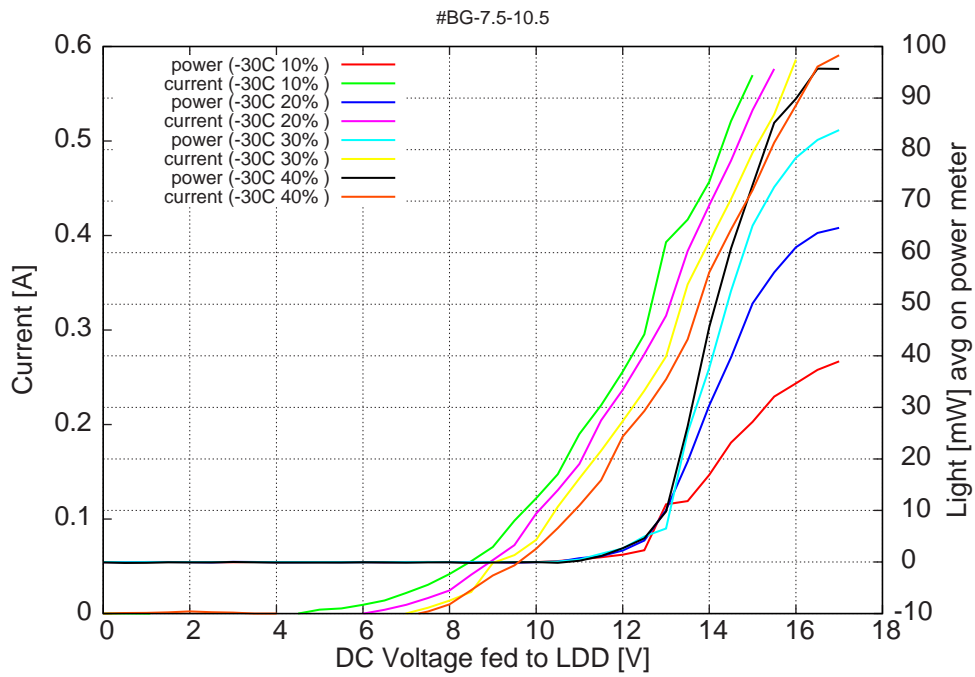
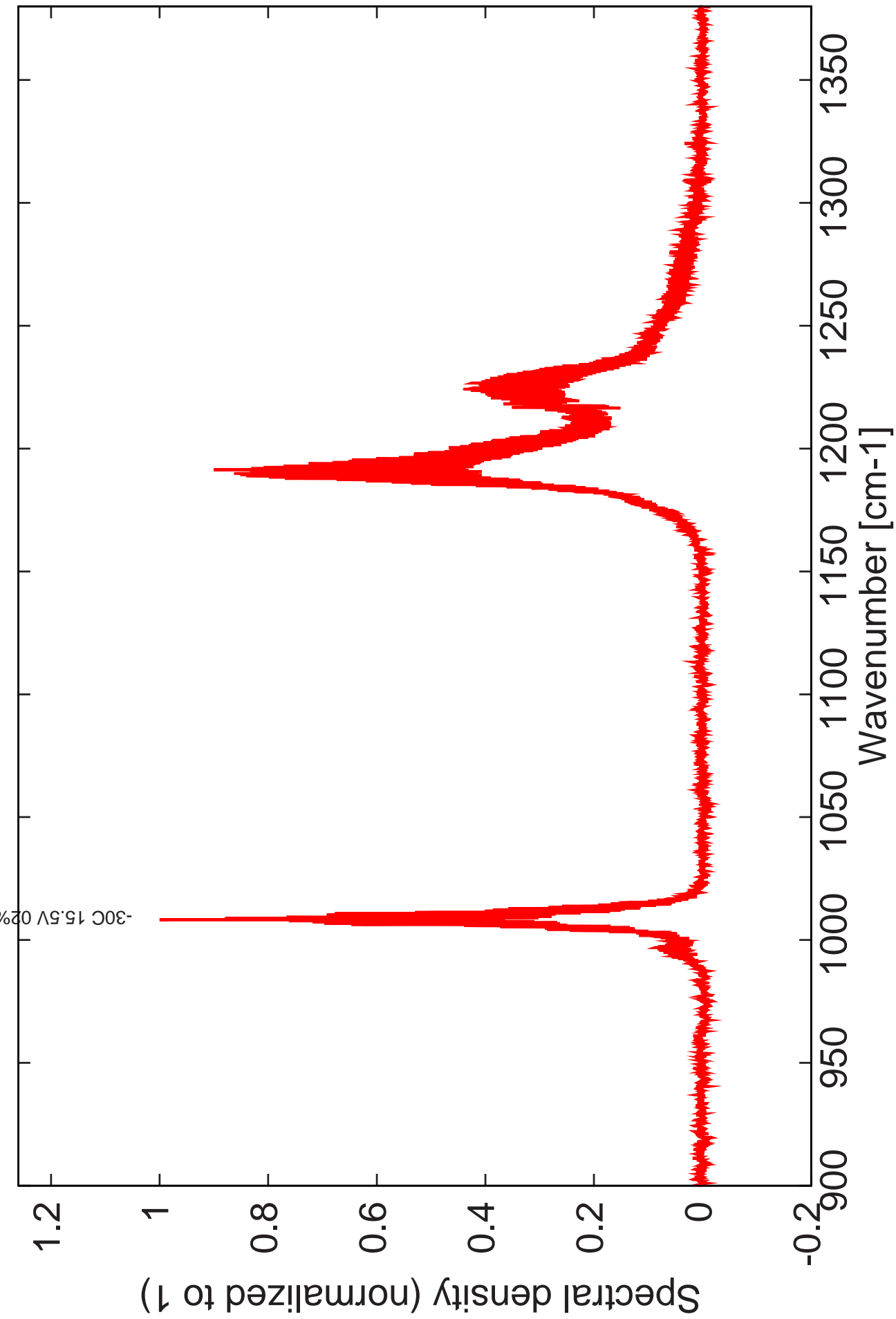


Figure 9: peak current and average power vs LDD voltage at -30C for various duty-cycles (100ns pulses on the laser)

Figure 11: spectrum at 2% duty-cycle (100ns pulses on the laser) at -30C for the HR coated device



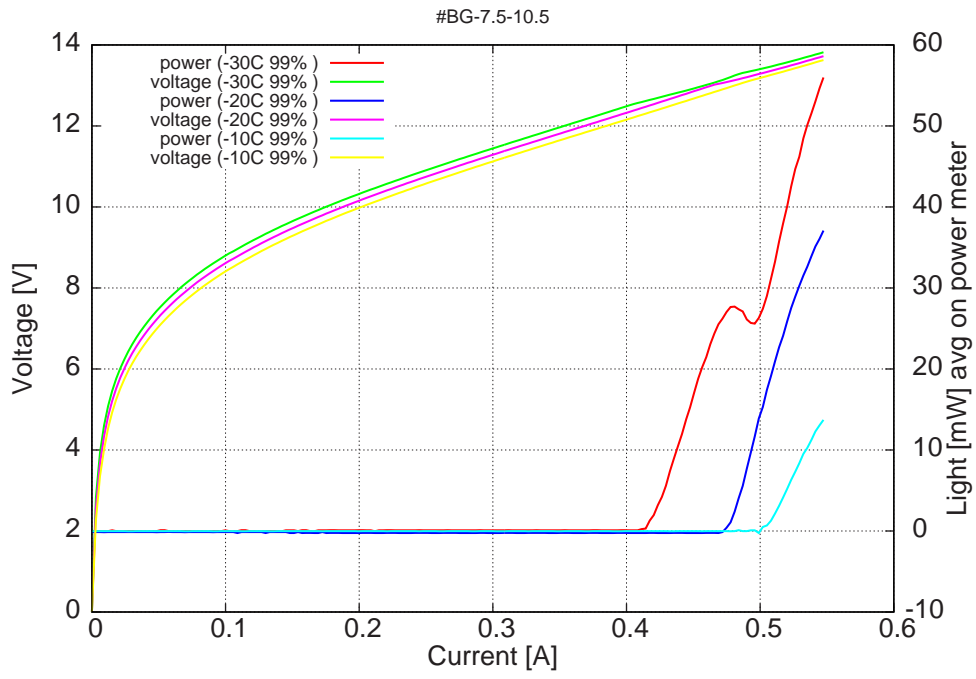


Figure 10: voltage and avg power vs current in continuous-wave operation for the HR coated device



Figure 13: spectra in continuous-wave at -30C for the HR coated device

