# Aufgabe 3.

## Aufgabe 3.1

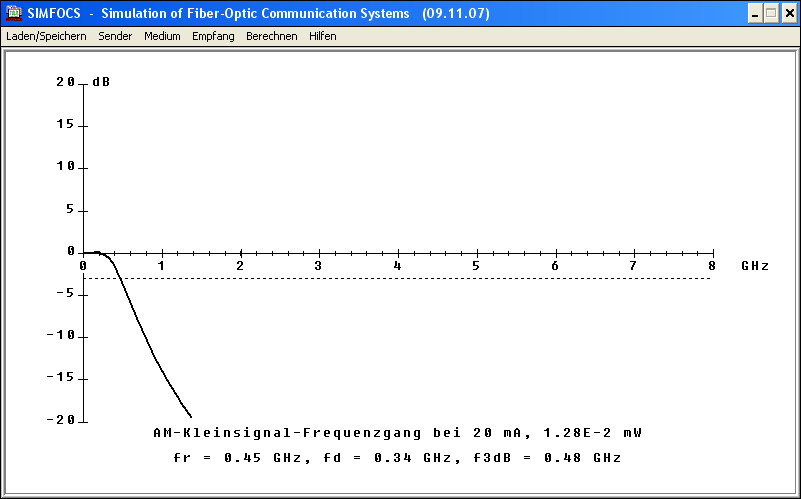
### Laserkennlinie für 253,15K:

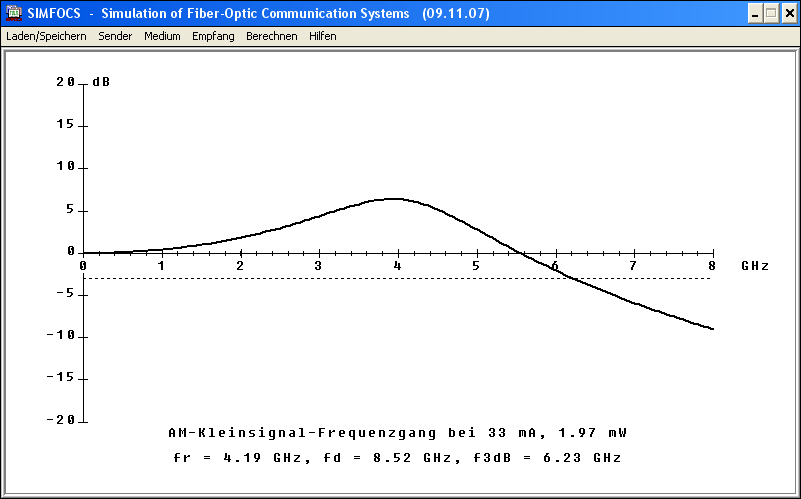
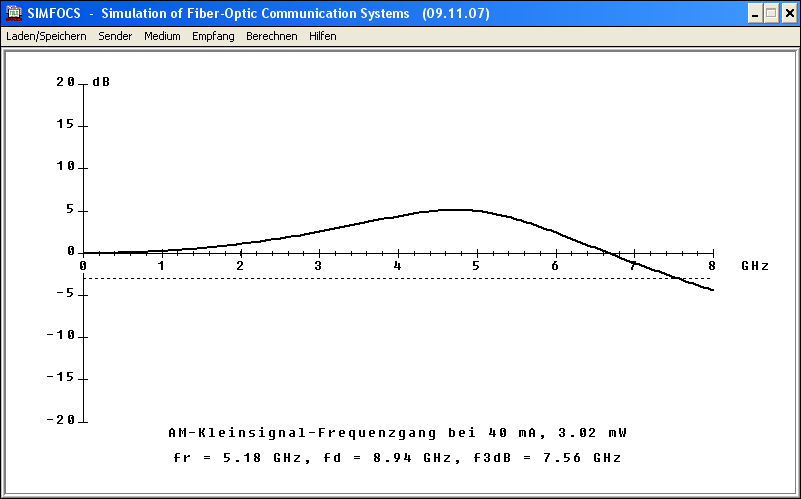
### Laserkennlinie für 293,15K:

### Laserkennlinie für 353,15 K:

## Aufgabe 3.2

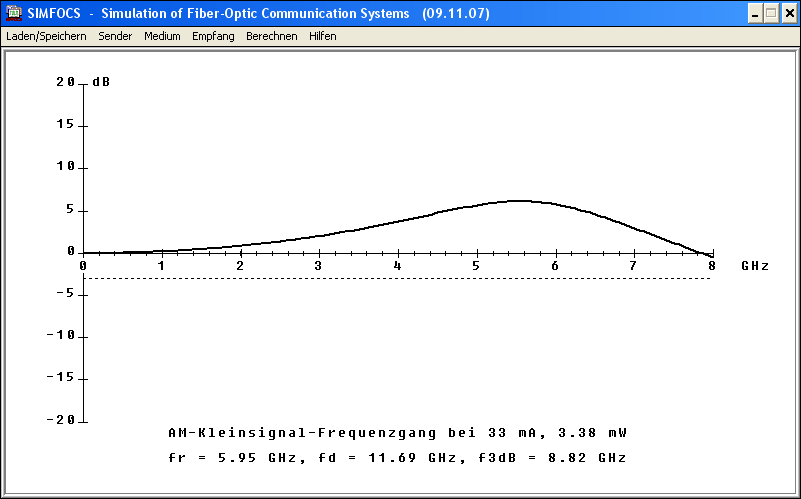
### Änderung Impulsstrom



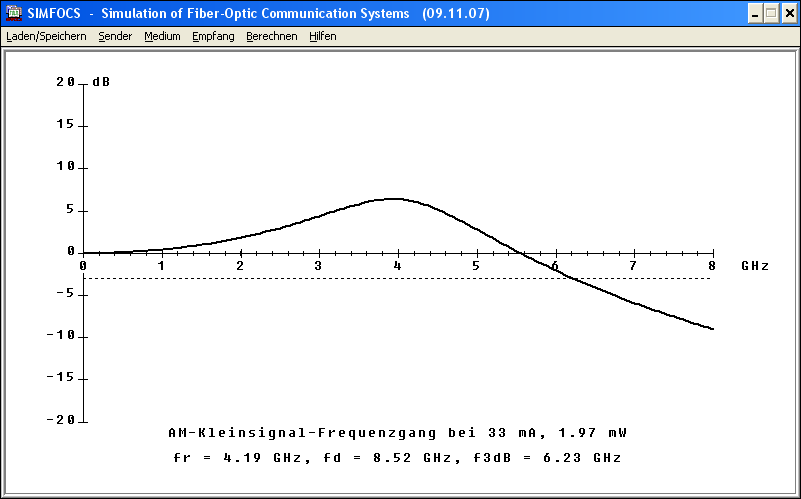


## Aufgabe 3.2

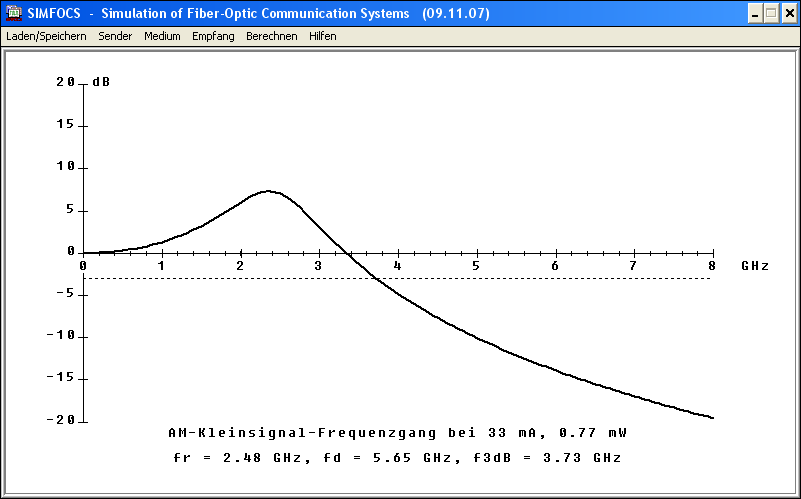
### Laserkennlinie für 253,15K:



### Laserkennlinie für 293,15K:

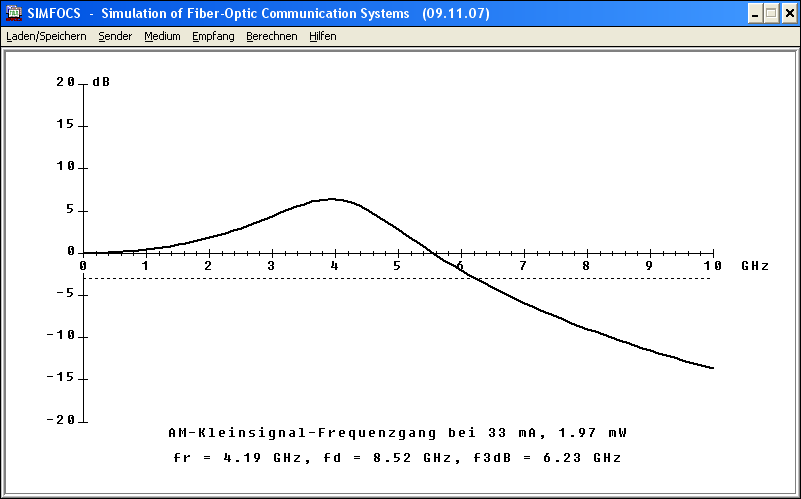


### Laserkennlinie für 323,15K:

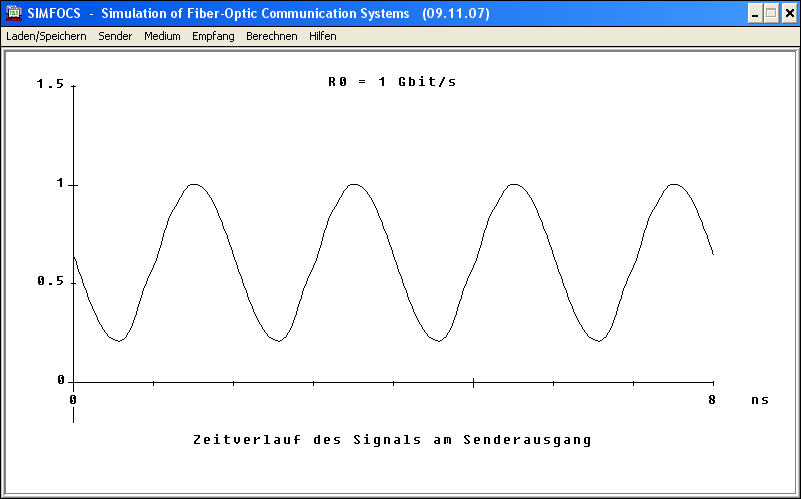


## Aufgabe 3.3 (Sinus)

### Modulationsverhalten, Frequenzgang,



### Modulationsverhalten, Zeitfunktion

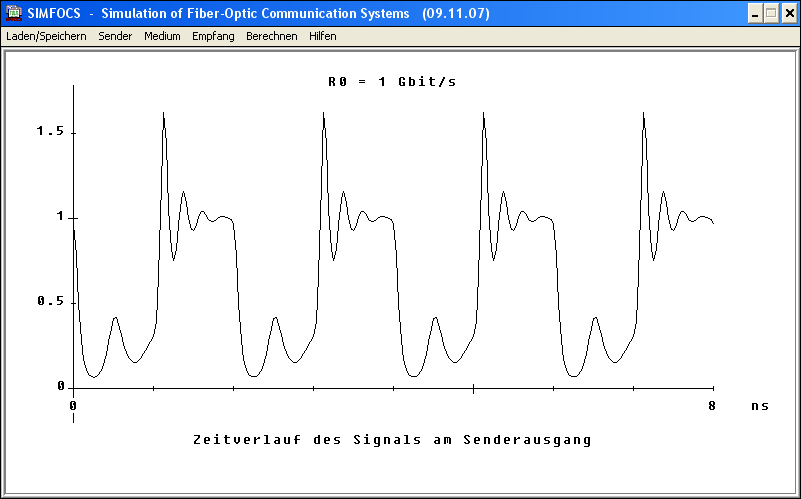


### Modulationsverhalten, Optisches Spektrom (log.)

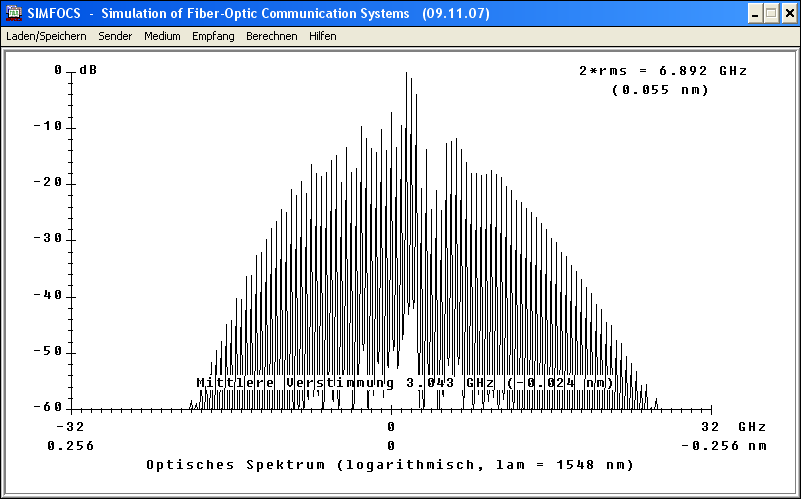
## Aufgabe 3.3 (Rechteck)

### Modulationsverhalten, Frequenzgang,

### Modulationsverhalten, Zeitfunktion



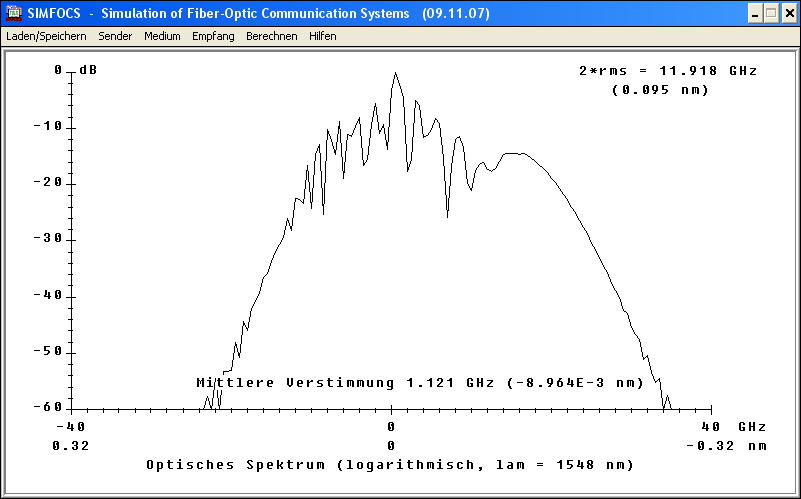
### Modulationsverhalten, Optisches Spektrom (log.)



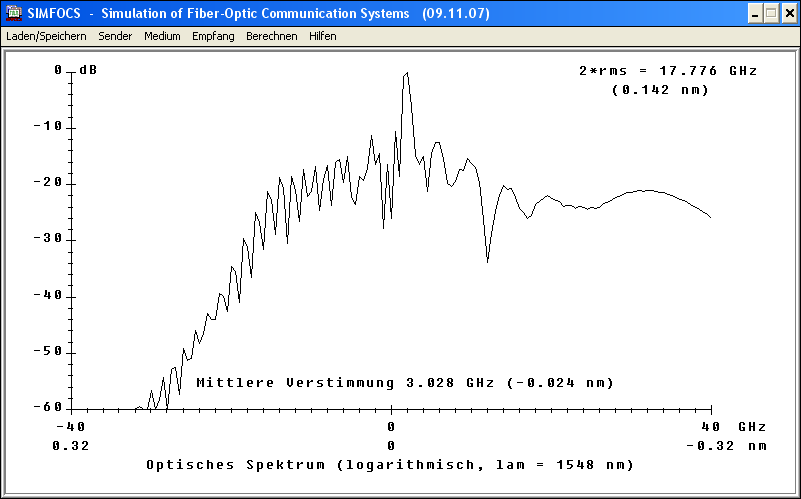
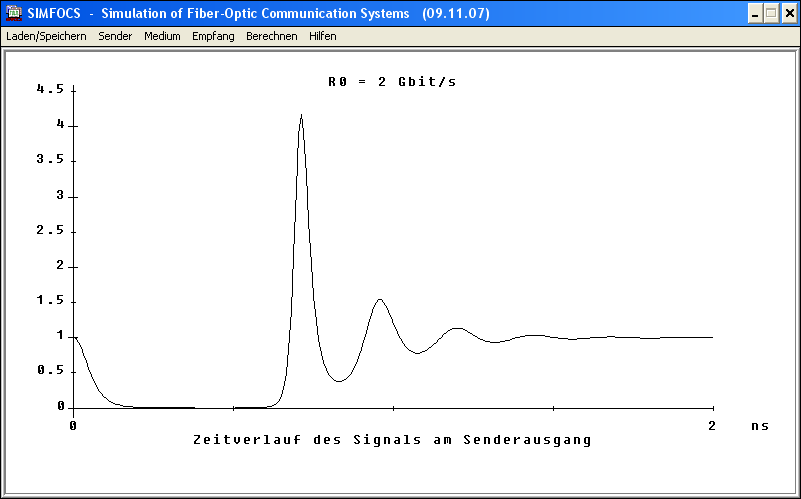
## Aufgabe 3.4 (Temp= 293,15 K )

### Impulsstrom=25

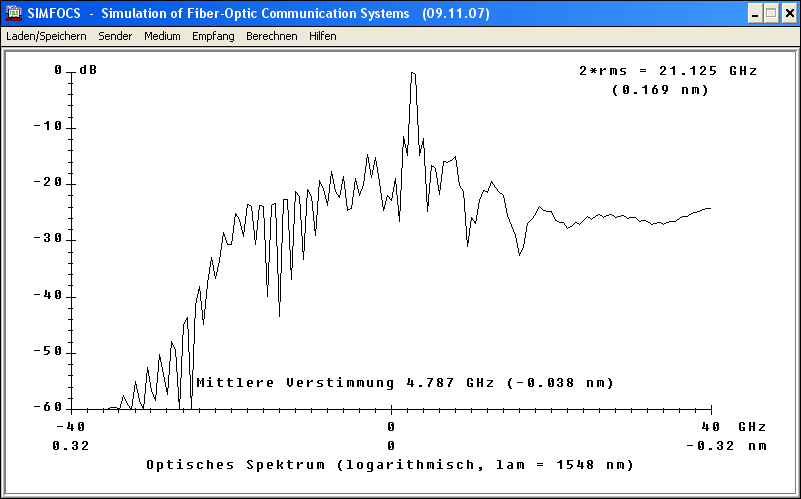
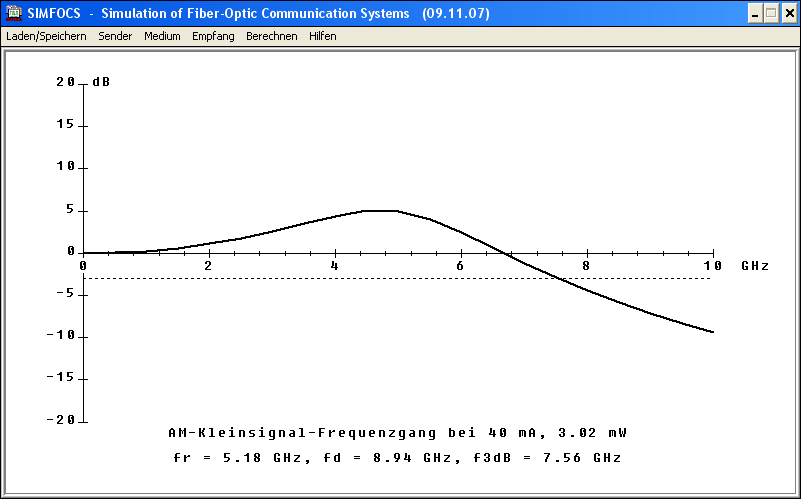
### 



### Impulsstrom=33

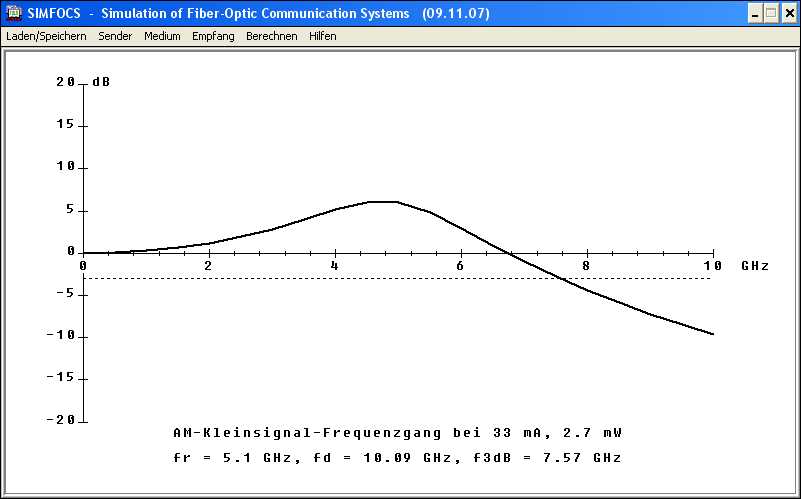


### Impulsstrom=40

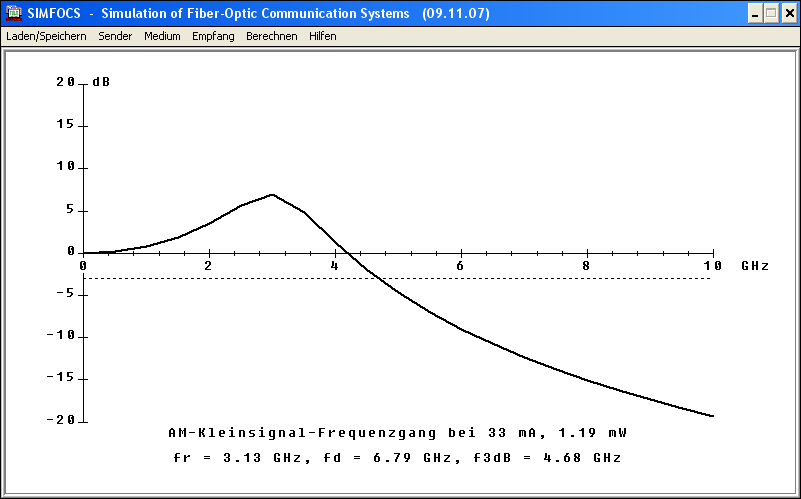
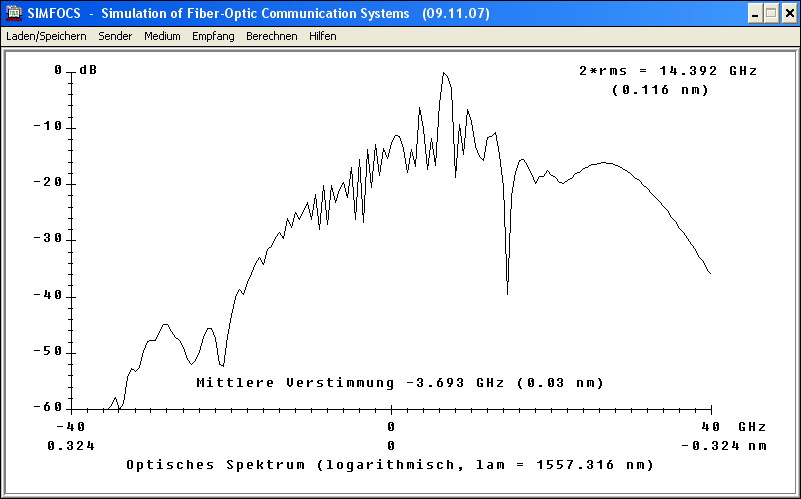
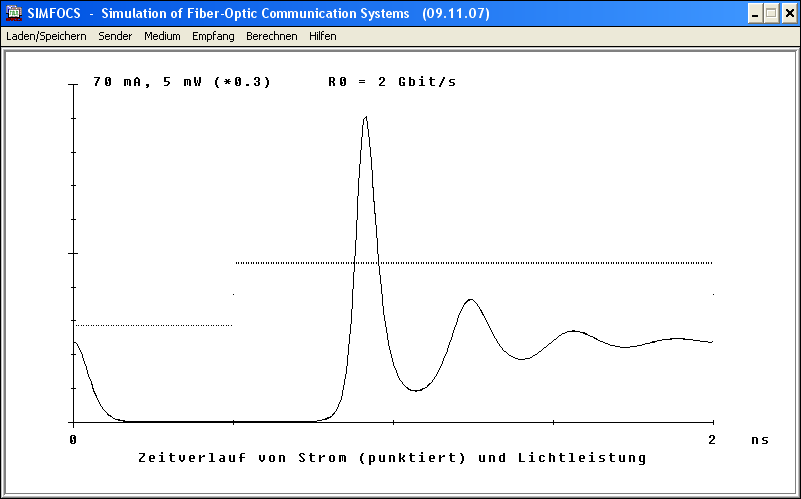


## Aufgabe 3.4 (Impulsstrom= 33)

### Temp=-20



### Temp =20



## Aufgabe 3.5

### Temp=-20 Temp= 0 Temp= 40

### 

## Aufgabe 3.6

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resonatorlänge | Wellenlänge | Bandbreite | Grenzfrequenz | Leistung in mW |
| 20 |  | 43,288 | 2,41GHz |  |
| 50 |  | 17,262 | 13,14GHz |  |
|  |  | 13,716 | 12,52GHz |  |
|  |  | 12,259 | 12,12GHz |  |
|  |  | 11,073 | 11,72GHz |  |
|  |  | 10,105 | 11,33GHz |  |
|  |  | 9,307 | 10,95GHz |  |
|  |  | 8,647 | 10,59GHz |  |
|  |  | 7,86 | 10,08GHz |  |
| 150 |  | 7,259 | 9,61GHz |  |
| 200 |  | 6,178 | 8,261GHz |  |
| 300 |  | 7,702 | 6,23GHz |  |