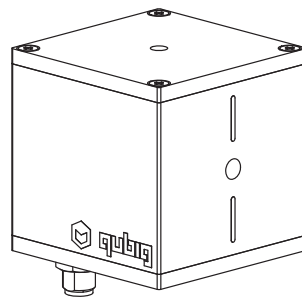


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Test Data Sheet

EO-K39L3

S/N F9164

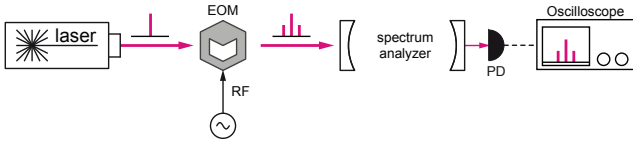
High-Q, resonant electro-optic modulator

| Parameter | Value | Unit |
|--------------------------|--------------------|-------------------|
| Resonance Frequency | 341-508 | MHz |
| Bandwidth | 1.3 | MHz |
| Q factor | ~300 | |
| EO crystal | LiNbO ₃ | |
| Optical Damage Threshold | 1 | W/mm ² |
| AR coating | 650-1100 | nm |
| Modulation at 767 nm | 0.17 | rad/Vpeak |

Modulation Performance:

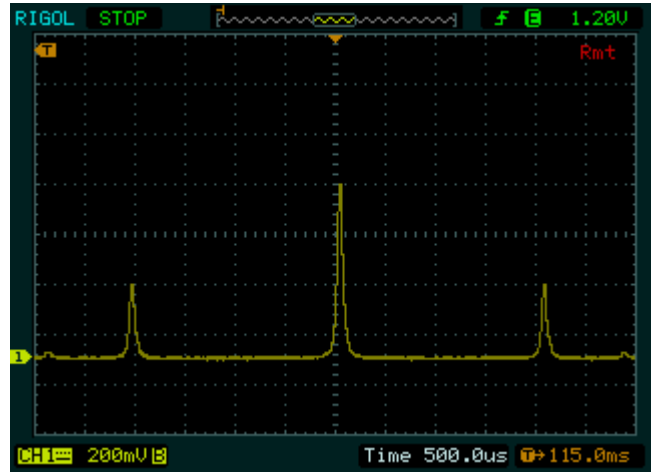
Measured Modulation:

Test setup



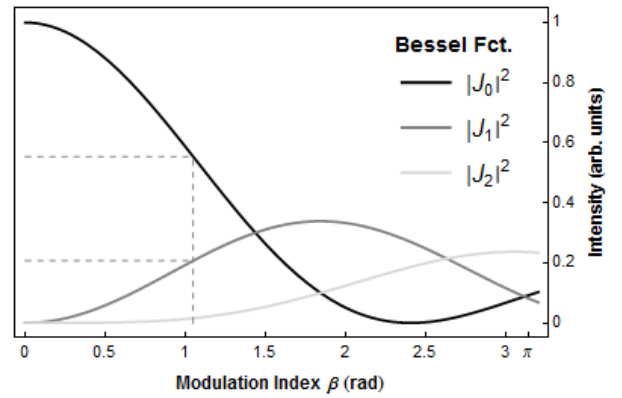
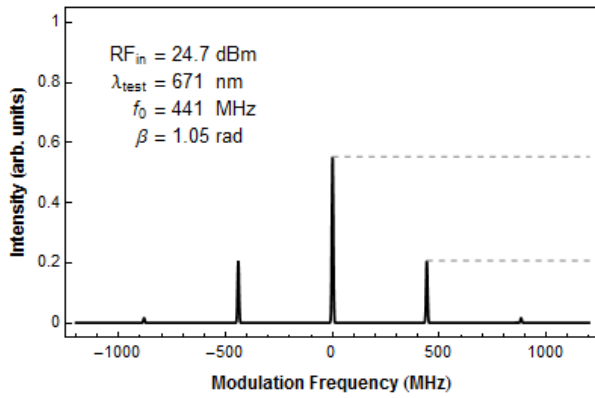
Parameters

| | | | |
|---------------------|------------------|------|-----|
| RF input power | RF_{in} | 24.7 | dBm |
| Test wavelength | λ_{test} | 671 | nm |
| Resonance frequency | f_0 | 441 | MHz |

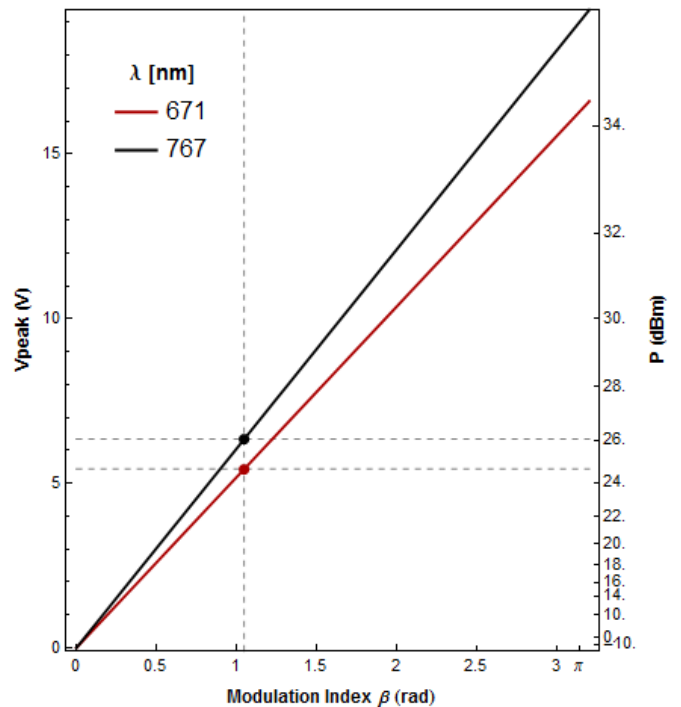


Oscilloscope screenshot

Numbers & Conversions:

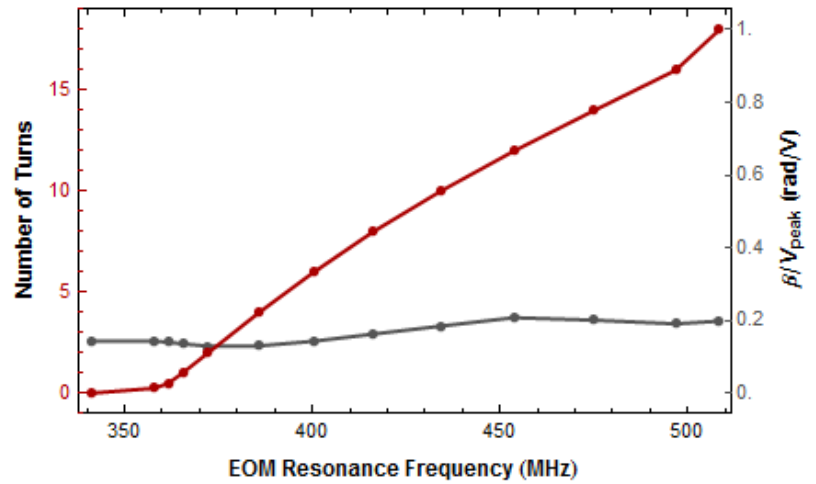


| $\beta=1.05\text{rad}$ | unit | λ_1 | λ_2 |
|------------------------|-------|-------------|-------------|
| λ | nm | 671 | 767 |
| V_{peak} | V | 5.4 | 6.3 |
| V_{rms} | V | 3.8 | 4.5 |
| P | dBm | 24.7 | 26. |
| P | mW | 295 | 402 |
| V_{π} | V | 16.3 | 19. |
| β/V_{peak} | rad/V | 0.19 | 0.17 |



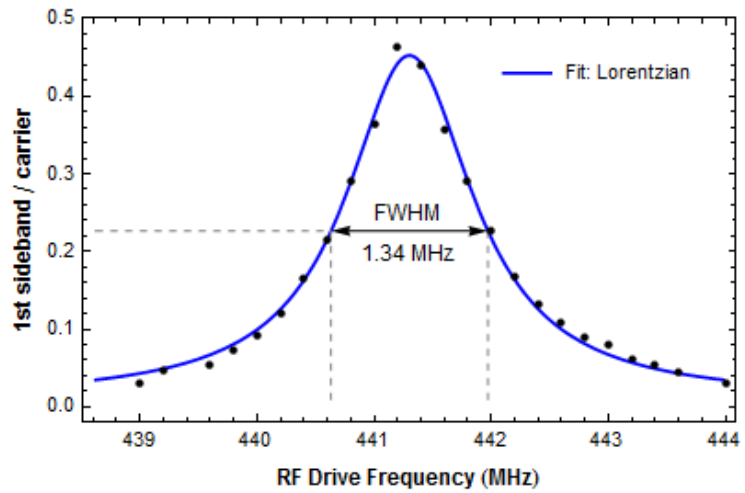
Tuning Performance:

- RF_{in} : 24.7 dBm
- ccw tuning: frequency \uparrow
- max number of turns: 18



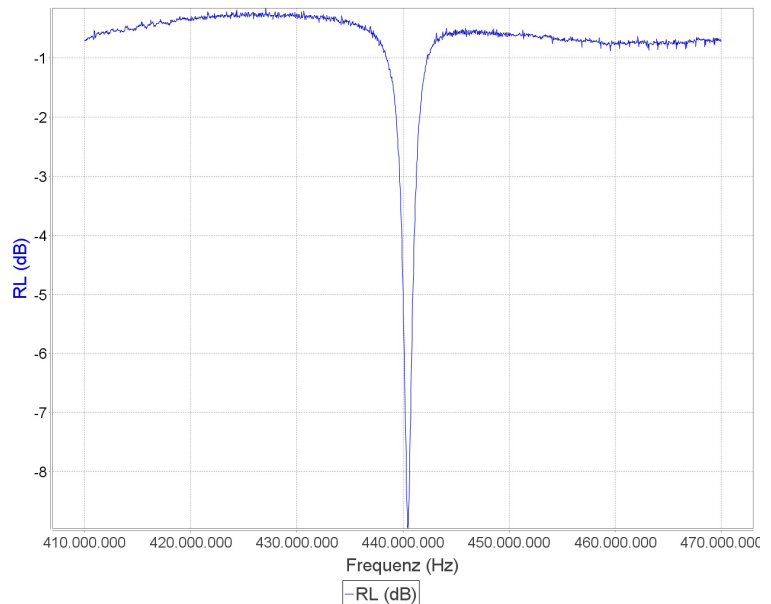
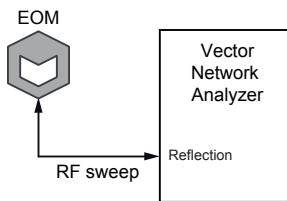
Bandwidth:

- Radio frequency tuning at a fixed resonance frequency f_0 .



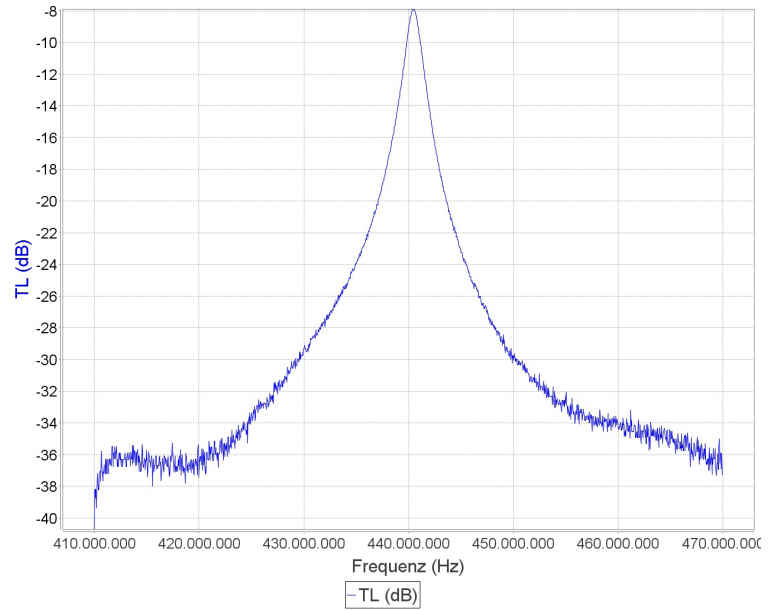
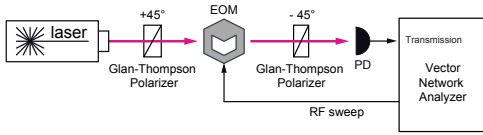
Return loss:

Test Setup

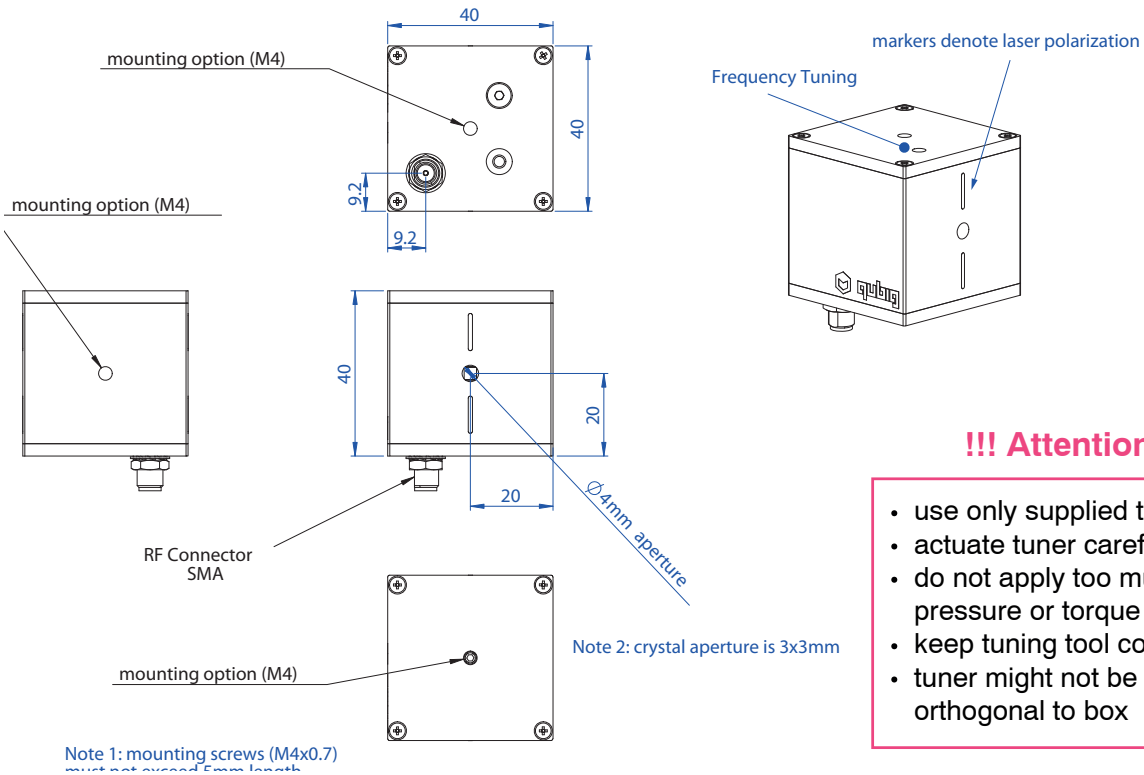


Optical modulation:

Test Setup



Package Drawing:



!!! Attention !!!

- use only supplied tuning tool
- actuate tuner carefully
- do not apply too much pressure or torque
- keep tuning tool coaxial
- tuner might not be perfectly orthogonal to box

Tested by:

Date:

___ / ___ / ___