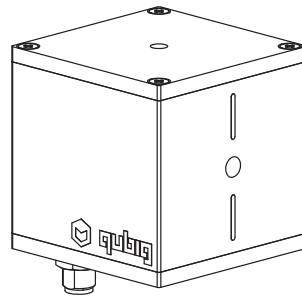


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## Test Data Sheet

EO-Na23M3  
S/N F8159

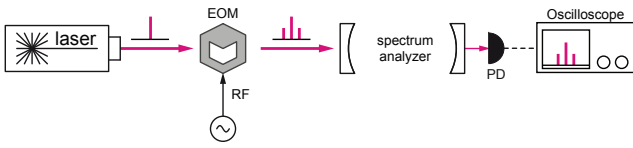
High-Q, tunable resonant electro-optic modulator

Parameter	Value	Unit
Resonance Frequency	1.64-1.79	GHz
Bandwidth	8.3	MHz
EO crystal	MgO:LiNbO <sub>3</sub>	
Damage Threshold	2	W/mm <sup>2</sup>
AR coating	380-780	nm
Modulation at 671nm	0.12	rad/V

# Modulation Performance:

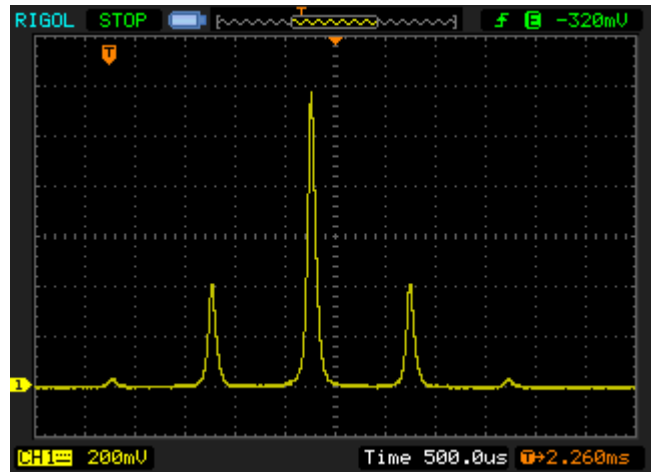
## Measured Modulation:

### Test setup



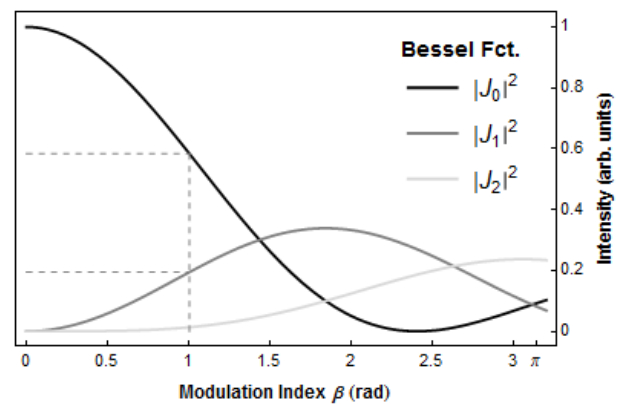
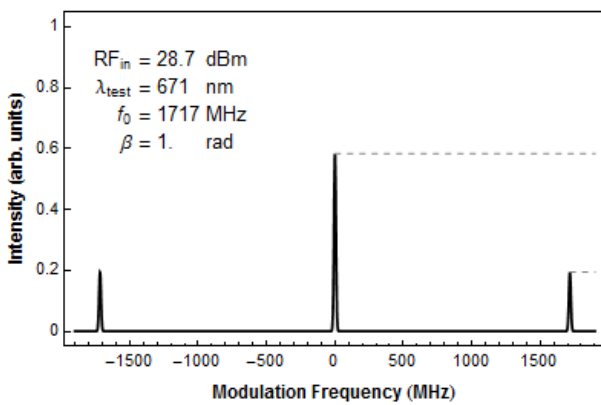
### Parameters

RF input power	$RF_{in}$	28.7	dBm
Test wavelength	$\lambda_{test}$	671	nm
Resonance frequency	$f_0$	1717	MHz

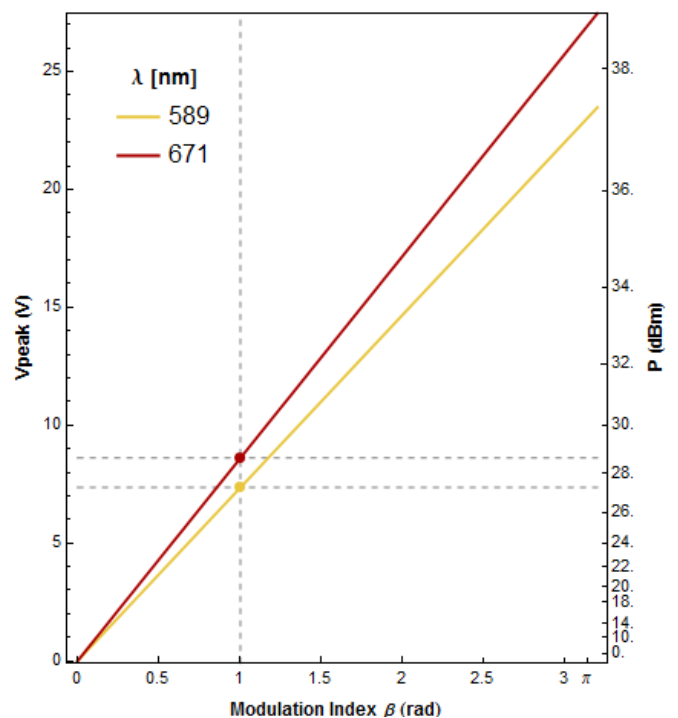


Oscilloscope screenshot

## Numbers & Conversions:

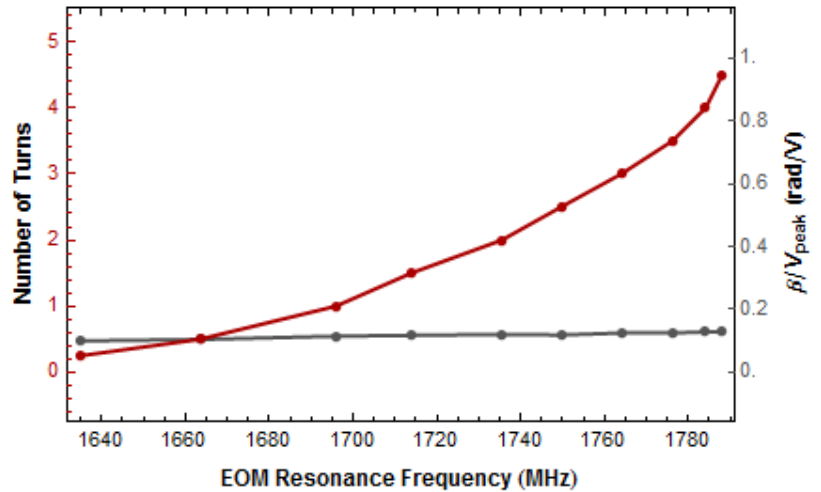


$\beta=1. \text{rad}$	unit	$\lambda_1$	$\lambda_2$
Parameter	nm	589	671
$V_{peak}$	V	7.4	8.6
$V_{rms}$	V	5.2	6.1
P	dBm	27.3	28.7
P	mW	542	741
$V_{\pi}$	V	23.	27.
$\beta/V_{peak}$	rad/V	0.14	0.12



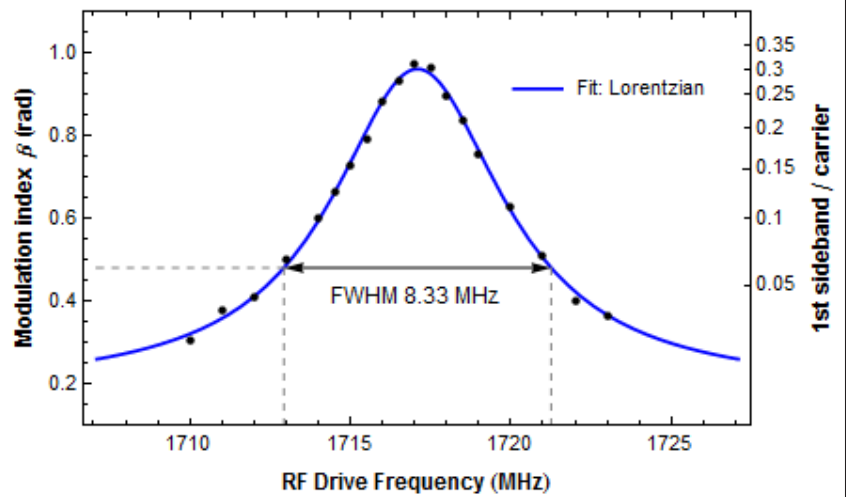
## Tuning Performance:

- ccw tuning: frequency  $\uparrow$
- max number of turns: 4.5
- RFin = 28.7 dBm



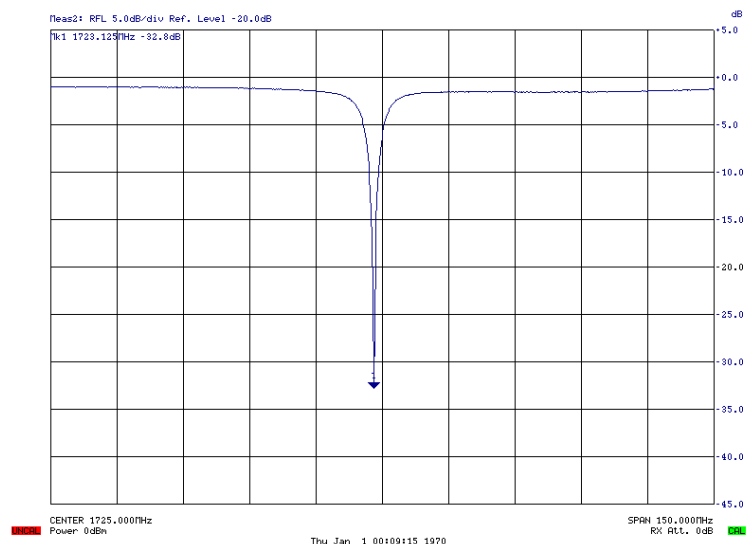
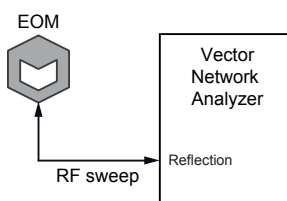
## Bandwidth:

- Radio frequency tuning at a fixed resonance frequency  $f_0$ .
- The Bandwidth (FWHM) is extracted from a Lorentzian fit applied to the modulation index variation as a function of the RF drive frequency.

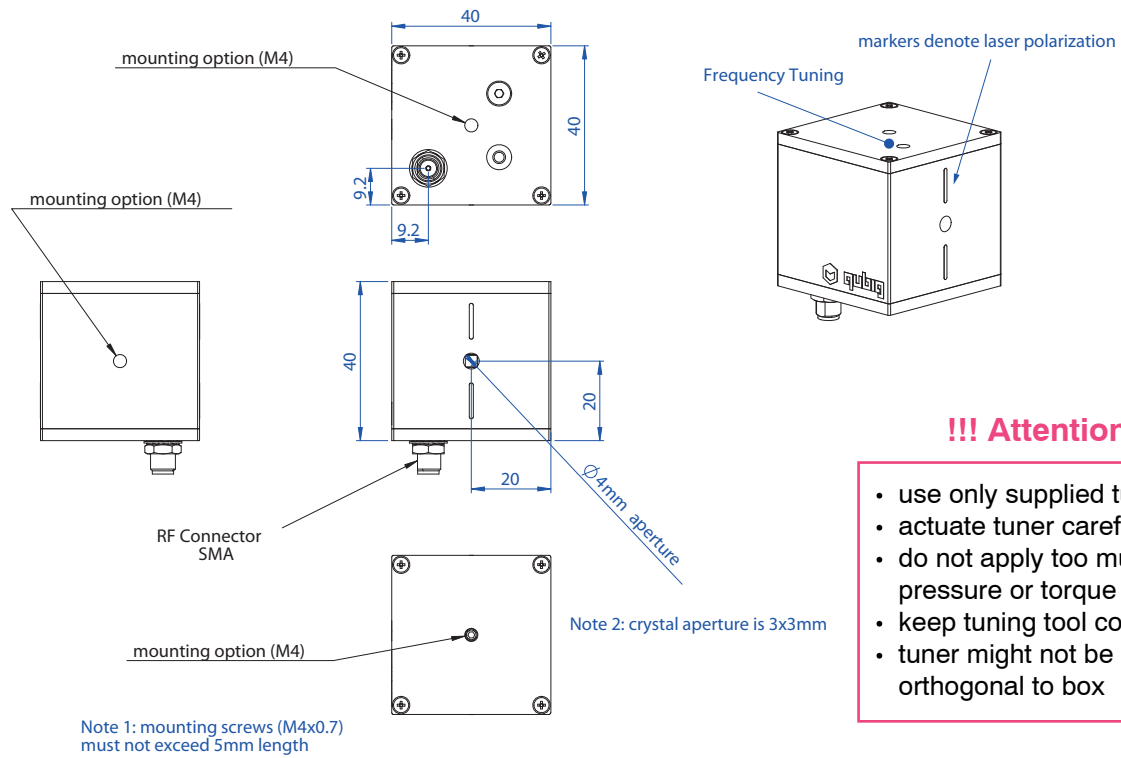


## Return loss:

### 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:

\_\_\_\_\_

\_\_\_ / \_\_\_ / \_\_\_