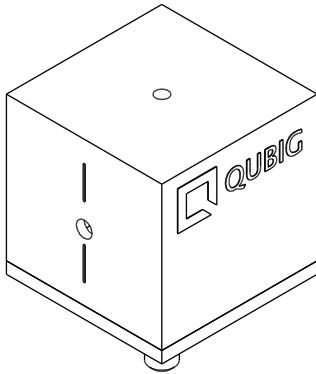


Test Data Sheet

AM-T70R3-YAG

S/N:

High-Q, resonant electro-optic amplitude modulator

with

- tunable resonance frequency
- thermal crystal mount

Tested by:

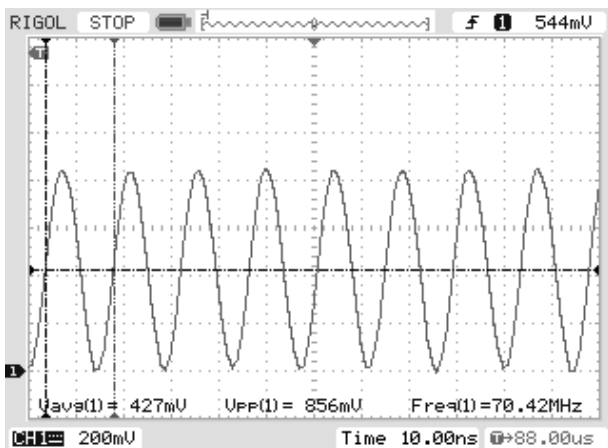
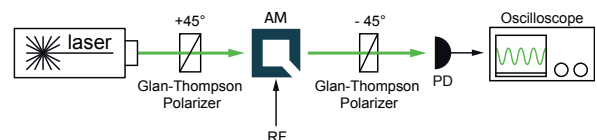
Qubig GmbH
 Greimelstr. 26
 83236 Übersee
 Germany

 Tel: +49 8642 2449064
 Fax: +49 8642 2447063
 eMail: mail@qubig.de
 web: www.qubig.com

RF properties	Sym	Value	Unit
Resonance frequency ¹⁾	f_1-f_2	58.4-79.9	MHz
Preset frequency ¹⁾	f_{set}	70.0	MHz
Bandwidth	$\Delta\nu$	700	kHz
Quality factor	Q	100	
Required voltage (@532nm) ²⁾	V_π	14.2	V _{pp}
max. RF _{in} power ³⁾	RF _{max}	2	W

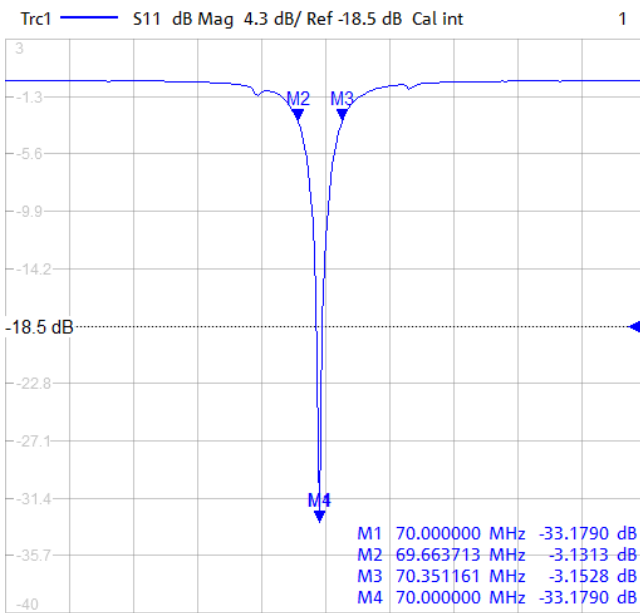
¹⁾ at 20°C ²⁾ with 50Ω termination ³⁾ no damage with RF_{in} < 10W

Optical properties	Value	Unit
EO crystal	RTP	
Aperture	3x3	mm ²
Wavefront distortion	$\lambda/8$	nm
max. optical intensity (671nm)	<10	W/mm ²
AR coating (R<0.5%)	532	nm

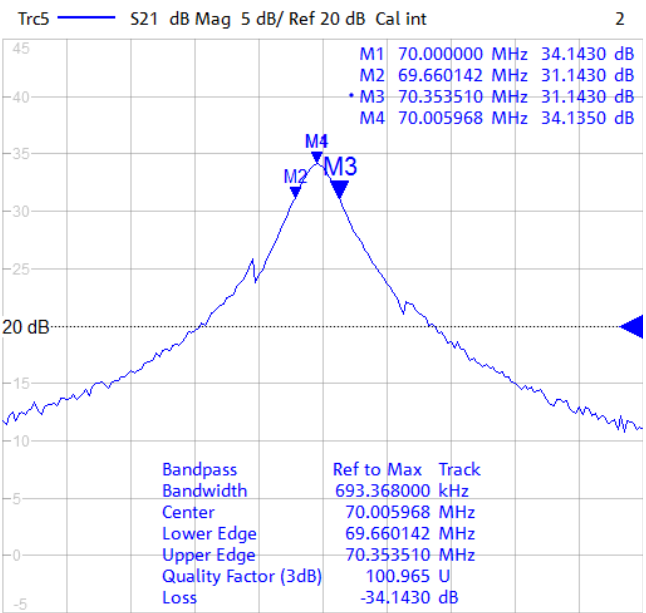
Measured amplitude modulation performance

Test setup


Test wavelength	λ_{test}	532	nm
Resonance frequency	f_0	70	MHz
RF power	RF _{in}	27	dBm
Extinction ratio	R	~100:1	
Laser Extinction with parallel polarisers !			

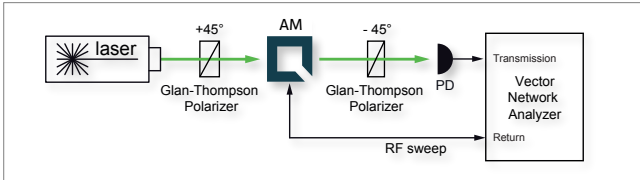
Return loss



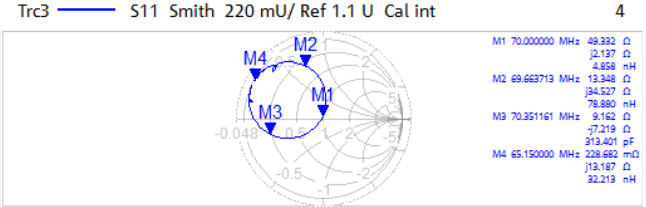
Optical modulation



test setup:

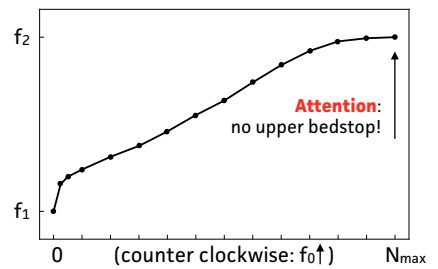


Ch2 Center 70.1 MHz Pwr -20 dBm Bw 10 kHz Span 5 MHz



Tuning Performance			
f_0 min max	f_1 f_2	58.4 79.9	GHz
max. number of turns	N_{max}	12	turns
incr. frequency shift	Δf	~1.8	MHz/turn
tuning orientation		ccw	$f_0 \uparrow$

- 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



Package drawing

