QUBIG

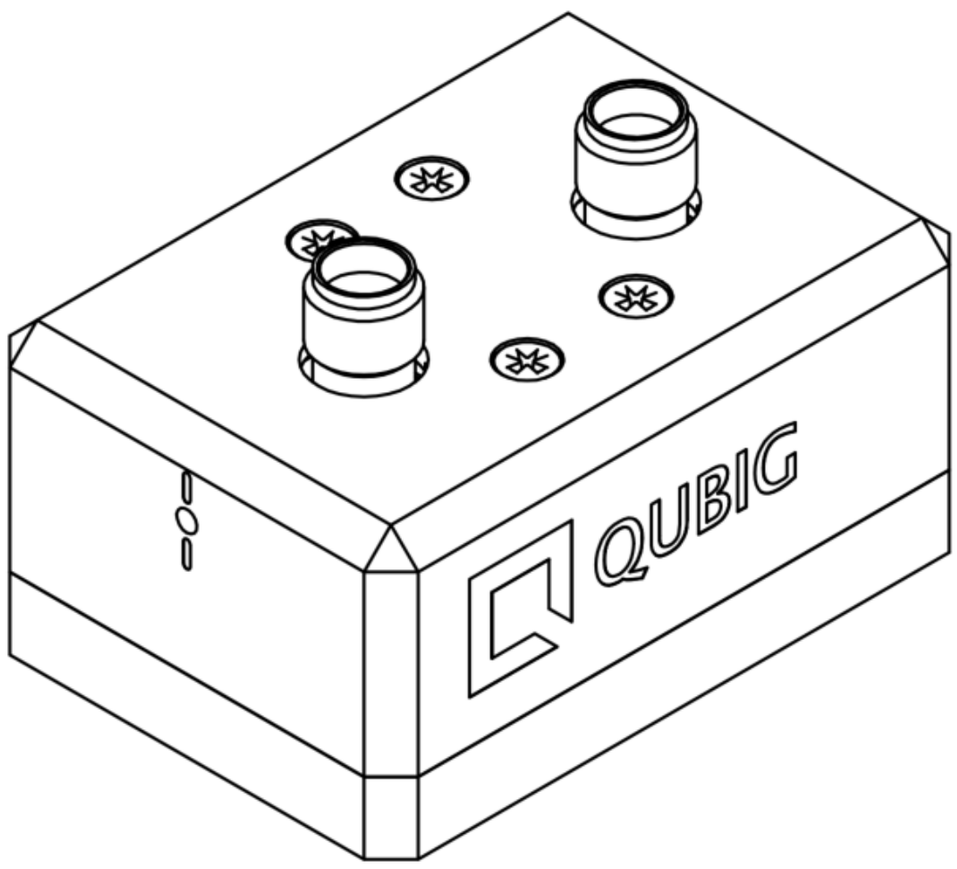
Empowering laser technologies

Test Data sheet

TWP20K1-VIS

Sample DS

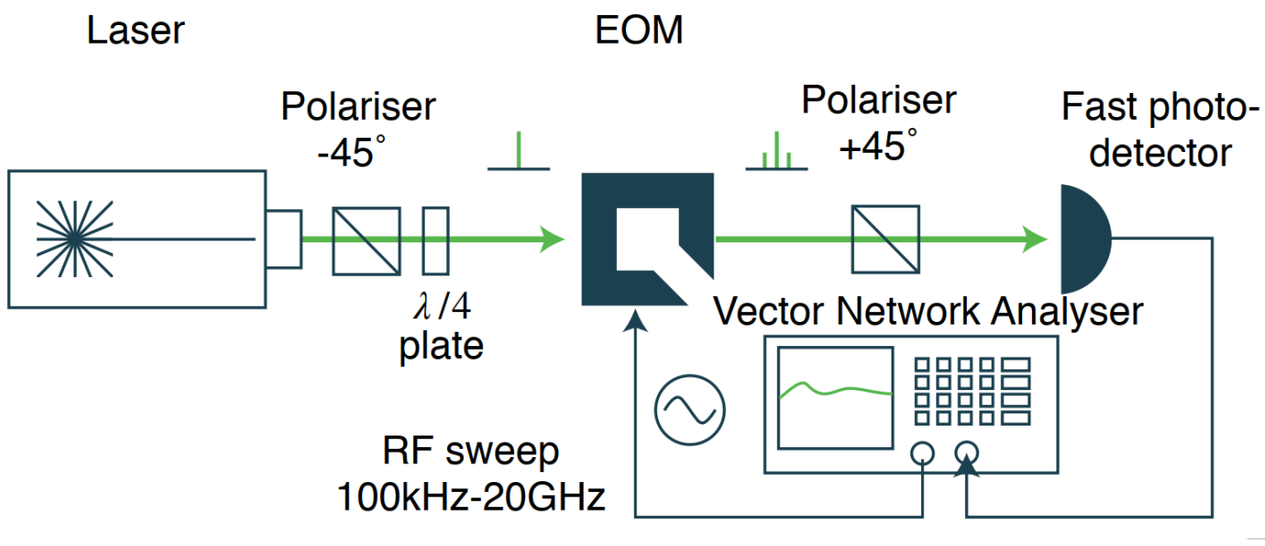
Free-space traveling-wave broadband electro-optic phase modulator



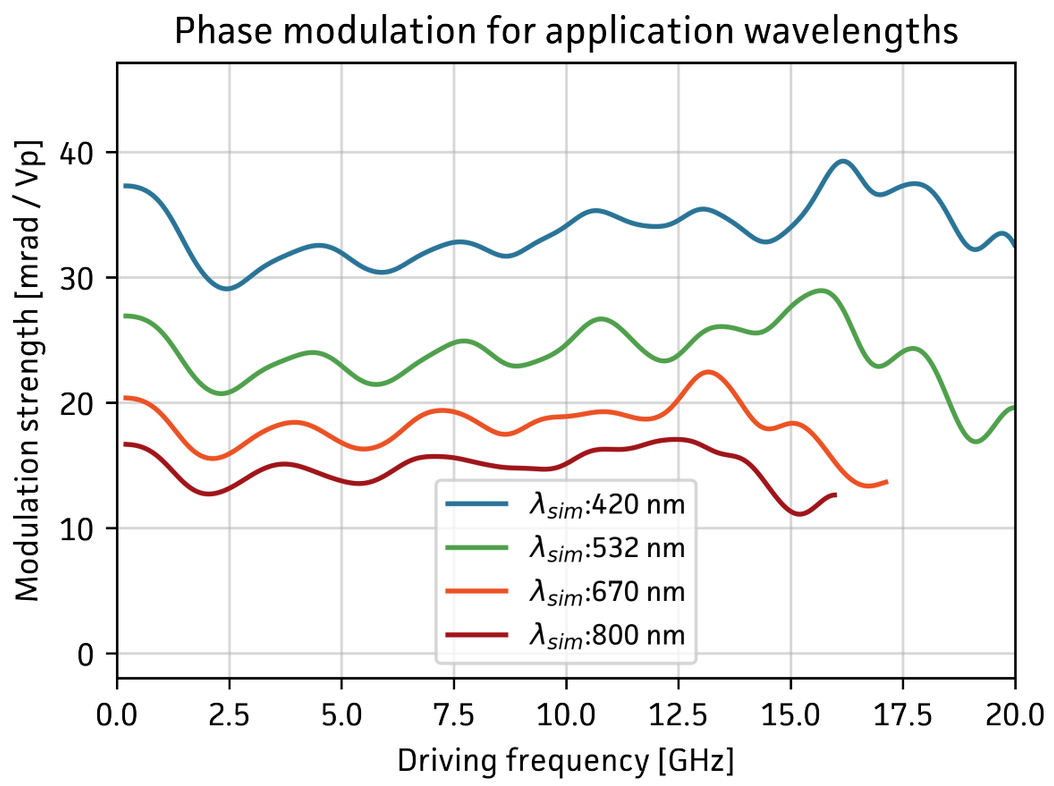
Property	Value	Unit
Modulation efficiency (532nm)	~ 24.0	mrad/Vp
Modulation bandwidth	~20	GHz
Max RF power[1]	40	dBm
Apperture	~ 1x1	mm^2
Wavefront distortion (633nm)	<λ/6	nm
Maximum optical intensity (532nm)	5	W/mm^2
AR coating (R<0.5%)	420-800	nm

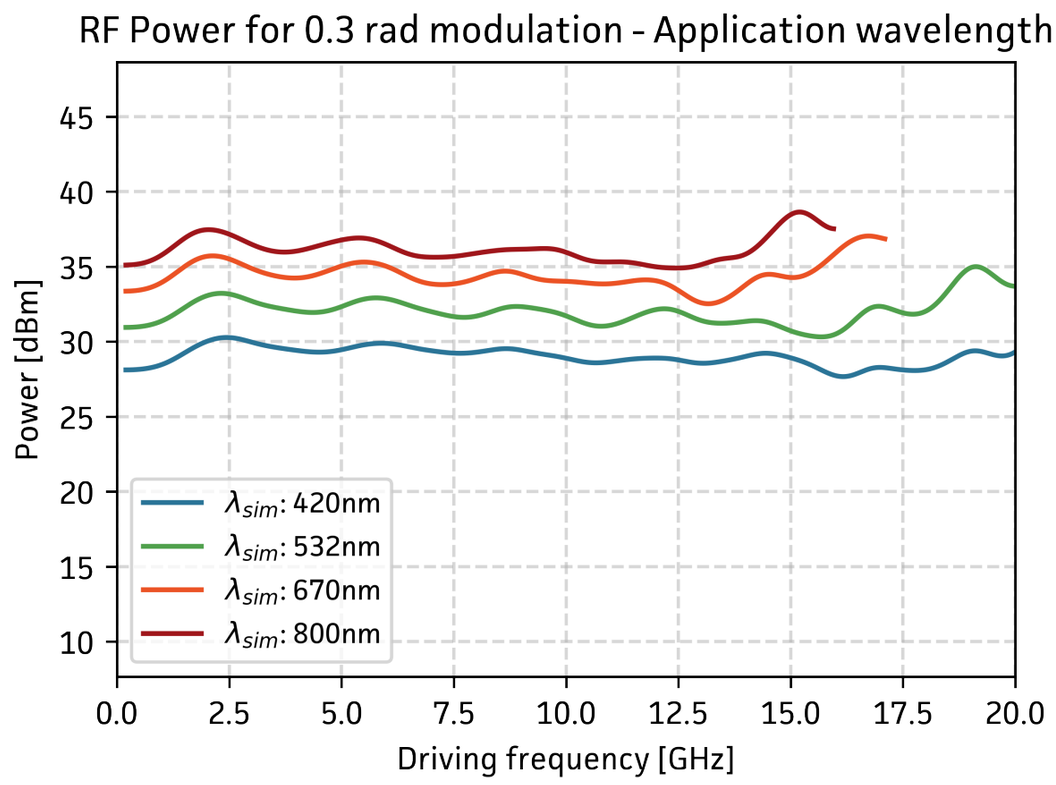
(1) use of a RF circulator is necessary. No damage with RFin < 10W, but use of a proper heatsink recommended

Measured modulation

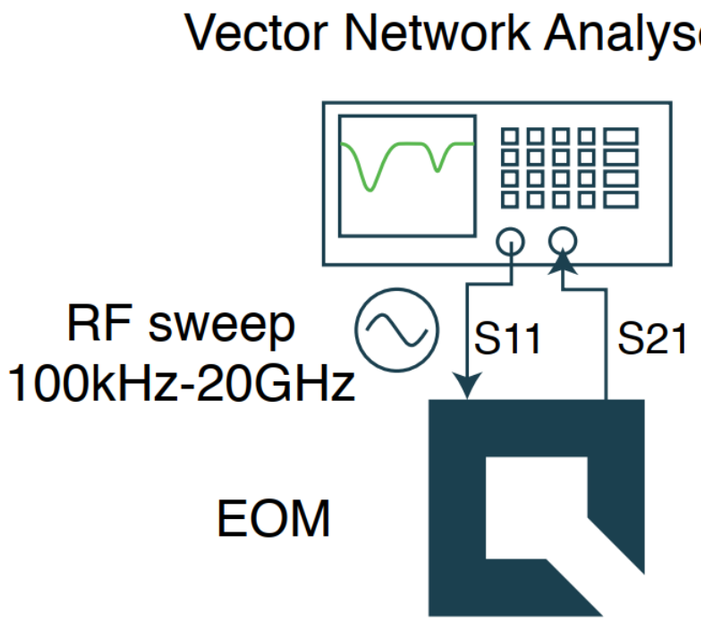


Test setup

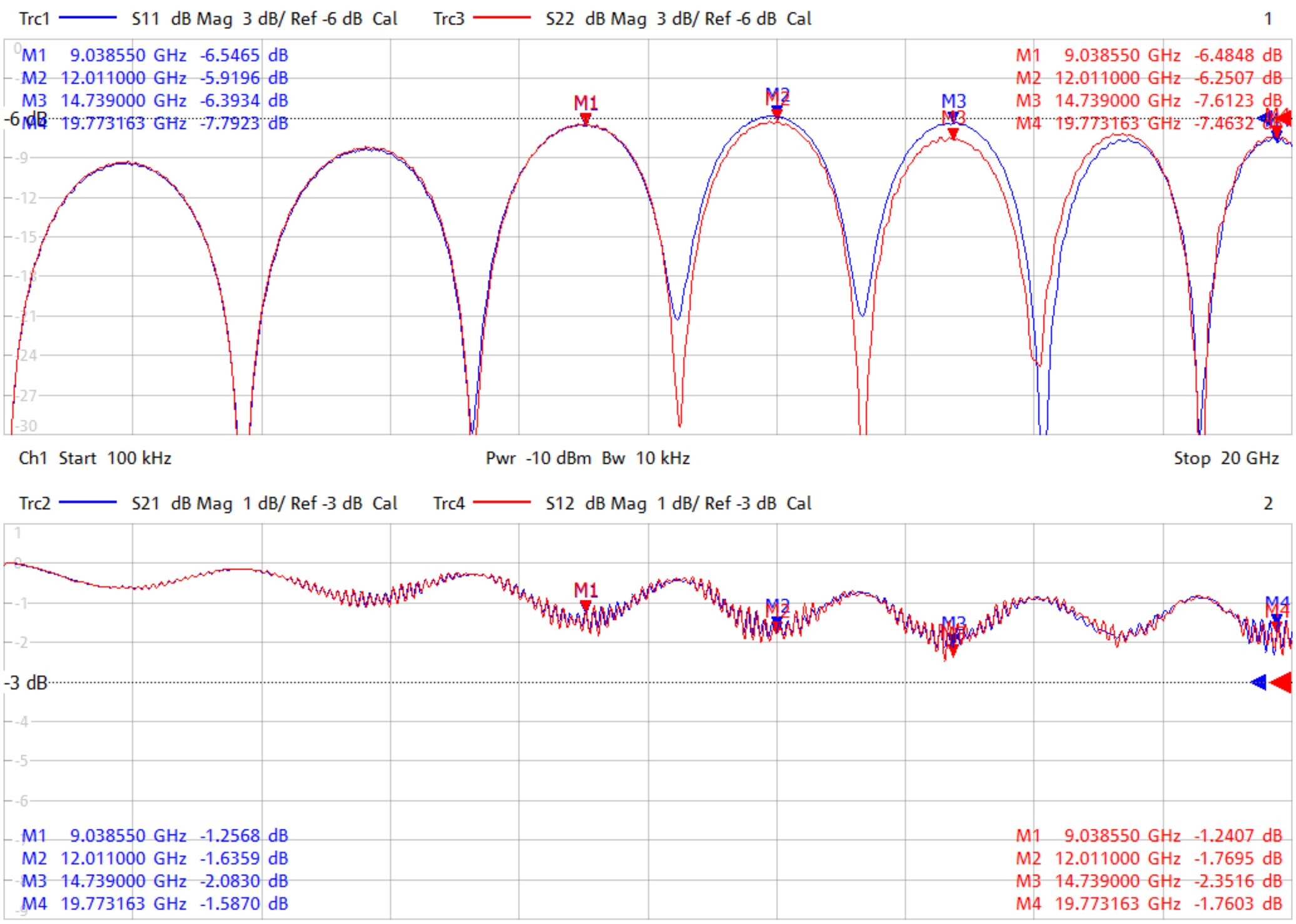




S-Parameters



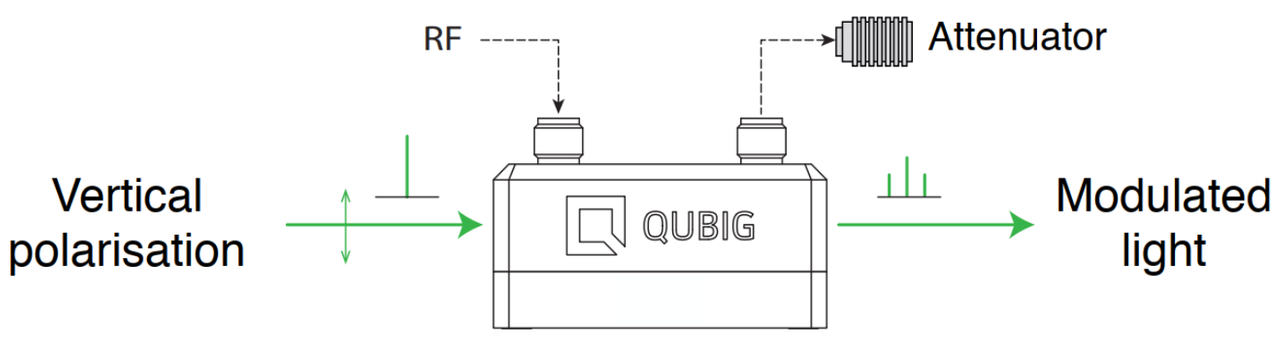
Test setup



Handling instructions

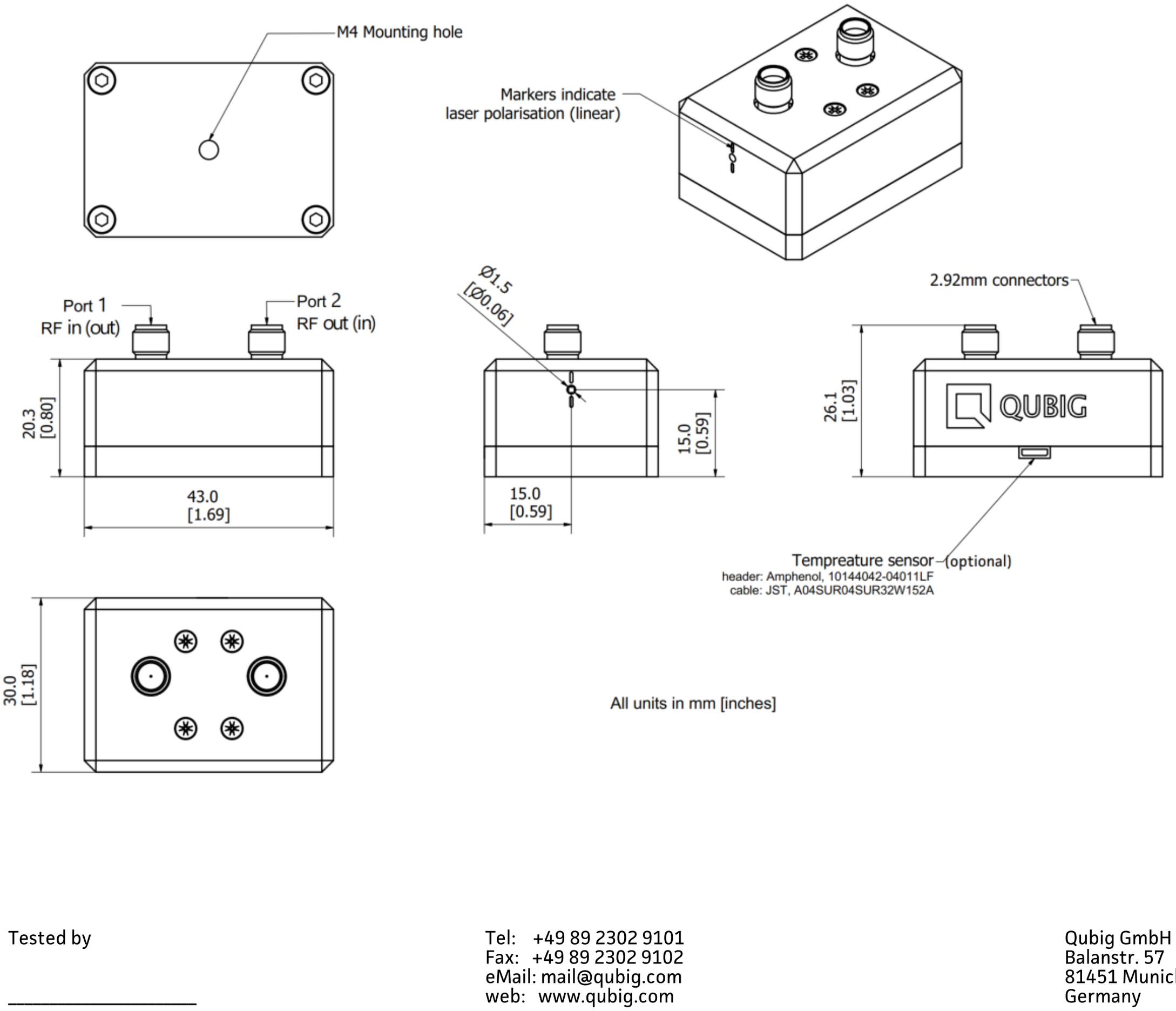
- Input laser polarisation must be aligned with respect to the white markers on the housing
- Radio frequency signal must propagate in the same direction as the light beam.
- An RF-attenuator must be used at the RF-out port.
- Please handle device carefully. Avoid shock. Do not drop.
- Slight angle adjustment can reduce unwanted residual amplitude modulation (RAM).

Operation configuration



The use of a long coaxial cable between the EOM and the RF attenuator is recommended to avoid heating for high RF power.

Package drawing



All units in mm [inches]

Tested by

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