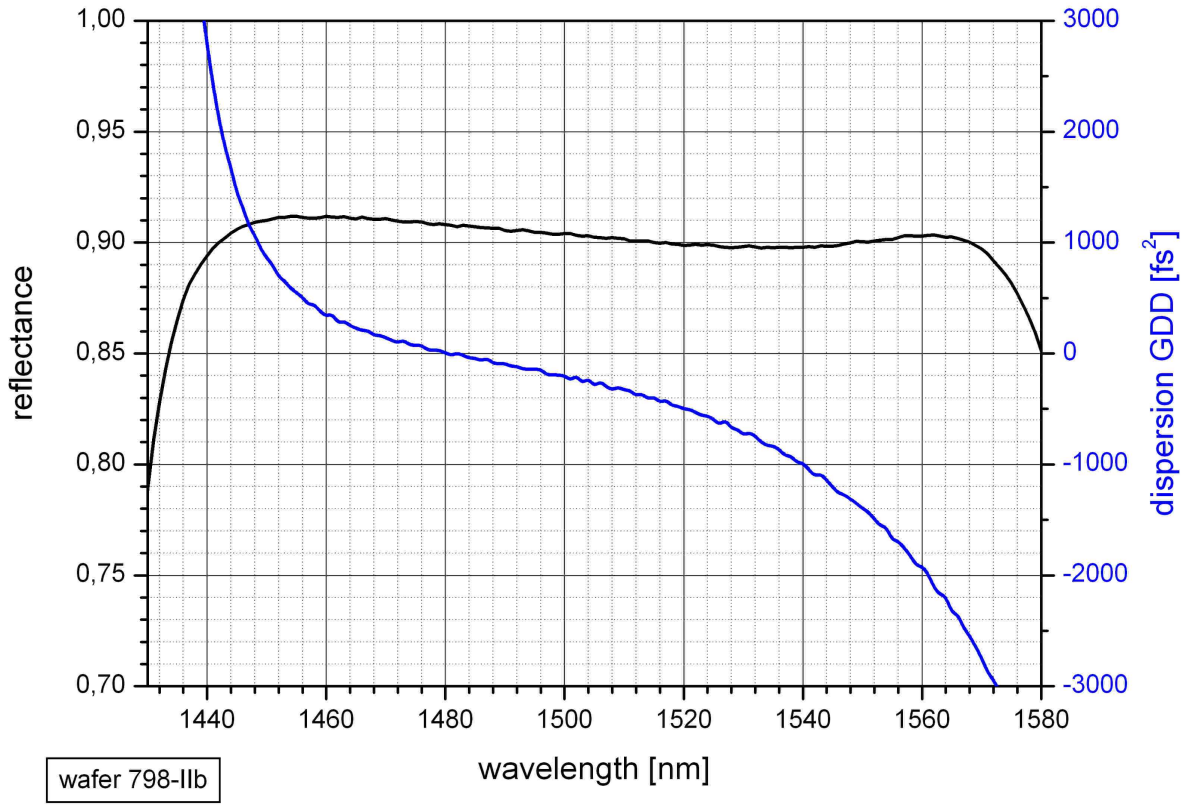
SAM™ Data Sheet SAM-1550-10-5ps-x, λ = 1550 nm

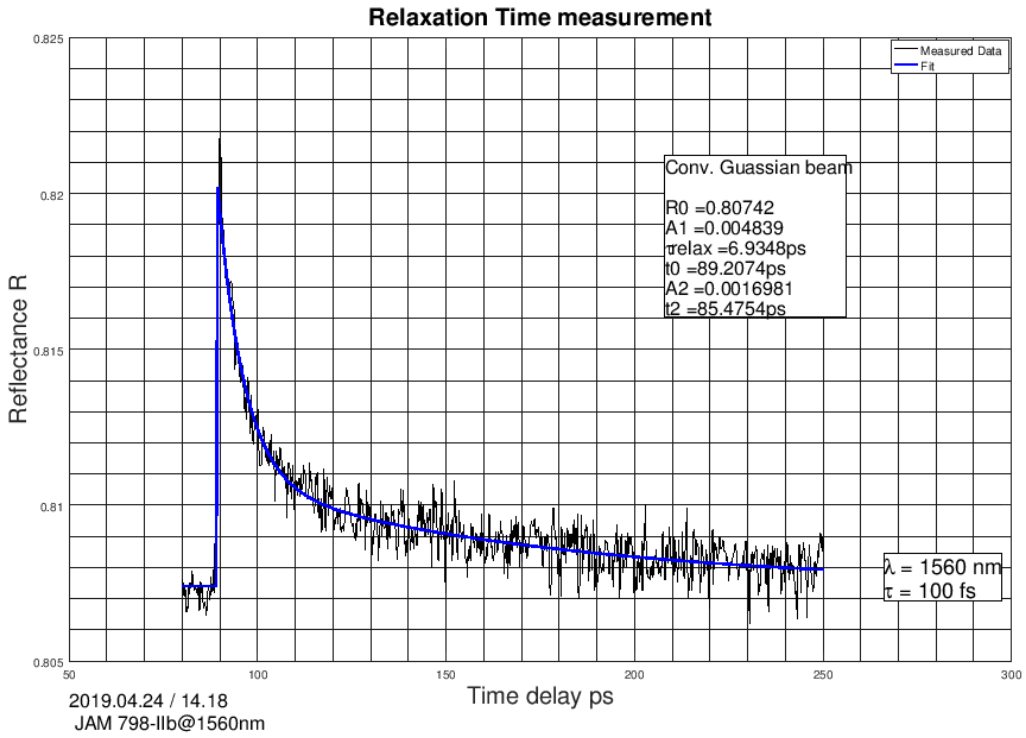
Laser wavelength	λ = 1550 nm
High reflection band	λ = 1450 .. 1570 nm
Absorbance	A_0 = 10 %
Modulation depth	ΔR = 4 %
Non-saturable loss	A_{ns} = 6 %
Saturation fluence	Φ_{sat} = 15 µJ/cm²
Relaxation time constant	τ = 5 ps
Damage threshold	Φ = 1 mJ/cm²
Chip area	4.0 mm x 4.0 mm; other dimensions on request
Chip thickness	450 µm
Protection	the SAM is protected with a dielectric front layer

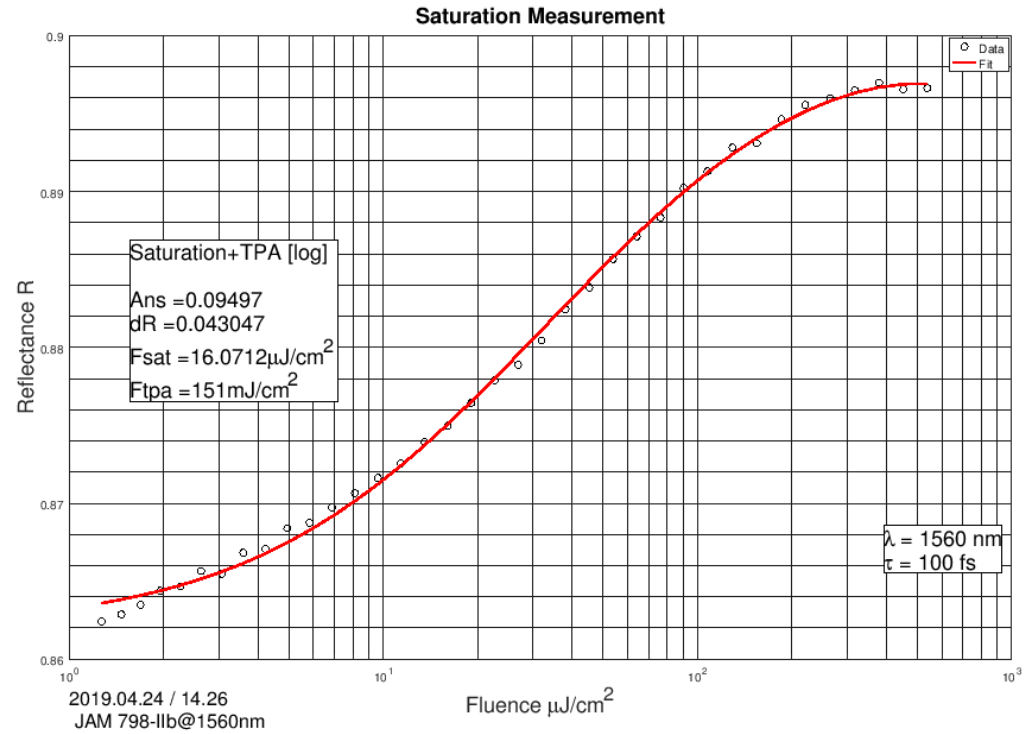
Mounting option **x** denotes the type of mounting as follows:

x = 0	unmounted
x = 12.7 g	glued on a gold plated Cu-cylinder with 12.7 mm ∅
x = 25.4 g	glued on a gold plated Cu-cylinder with 25.4 mm ∅
x = 12.7 s	soldered on a gold plated Cu-cylinder with 12.7 mm ∅
x = 25.4 s	soldered on a gold plated Cu-cylinder with 25.4 mm ∅
x = FC	mounted on a 1 m monomode fiber cable with FC connector

Low intensity spectral reflectance and dispersion




Relaxation Time measurement
Measured Data
Fit
Conv. Guassian beam
R0 =0.80742
A1 =0.004839
τrelax =6.9348ps
t0 =89.2074ps
A2 =0.0016981
t2 =85.4754ps
λ = 1560 nm
τ = 100 fs
Reflectance R
Time delay ps
0.825
0.82
0.815
0.81
0.805
50
100
150
200
250
300
2019.04.24 / 14.18
JAM 798-IIb@1560nm


Saturation Measurement
Data
Fit
Saturation+TPA [log]
Ans =0.09497
dR =0.043047
Fsat =16.0712µJ/cm2
Ftpa =151mJ/cm2
λ = 1560 nm
τ = 100 fs
Reflectance R
Fluence µJ/cm2
0.9
0.89
0.88
0.87
0.86
10^0
10^1
10^2
10^3
2019.04.24 / 14.26
JAM 798-IIb@1560nm