BATOP
o p t o e l e c t r o n i c s

SAM™ Data Sheet SAM-1040-15-500fs-x, λ = 1040 nm

Laser wavelength	λ = 1040 nm
High reflection band	λ = 980 .. 1070 nm
Absorbance	A_0 = 15 %
Modulation depth	ΔR = 8 %
Non-saturable loss	A_{ns} = 7 %
Saturation fluence	Φ_{sat} = 50 µJ/cm^2
Relaxation time constant	τ ~ 500 fs
Damage threshold	Φ = 1.8 mJ/cm^2
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 $\varnothing$
x = 25.4 g	glued on a gold plated Cu-cylinder with 25.4 mm $\varnothing$
x = 12.7 s	soldered on a gold plated Cu-cylinder with 12.7 mm $\varnothing$
x = 25.4 s	soldered on a gold plated Cu-cylinder with 25.4 mm $\varnothing$
x = 25.0 w	soldered on a water cooled Cu-cylinder with 25.0 mm $\varnothing$
x = FC	mounted on a 1 m monomode fiber cable with FC connector

Low intensity spectral reflectance and dispersion coefficient D_2
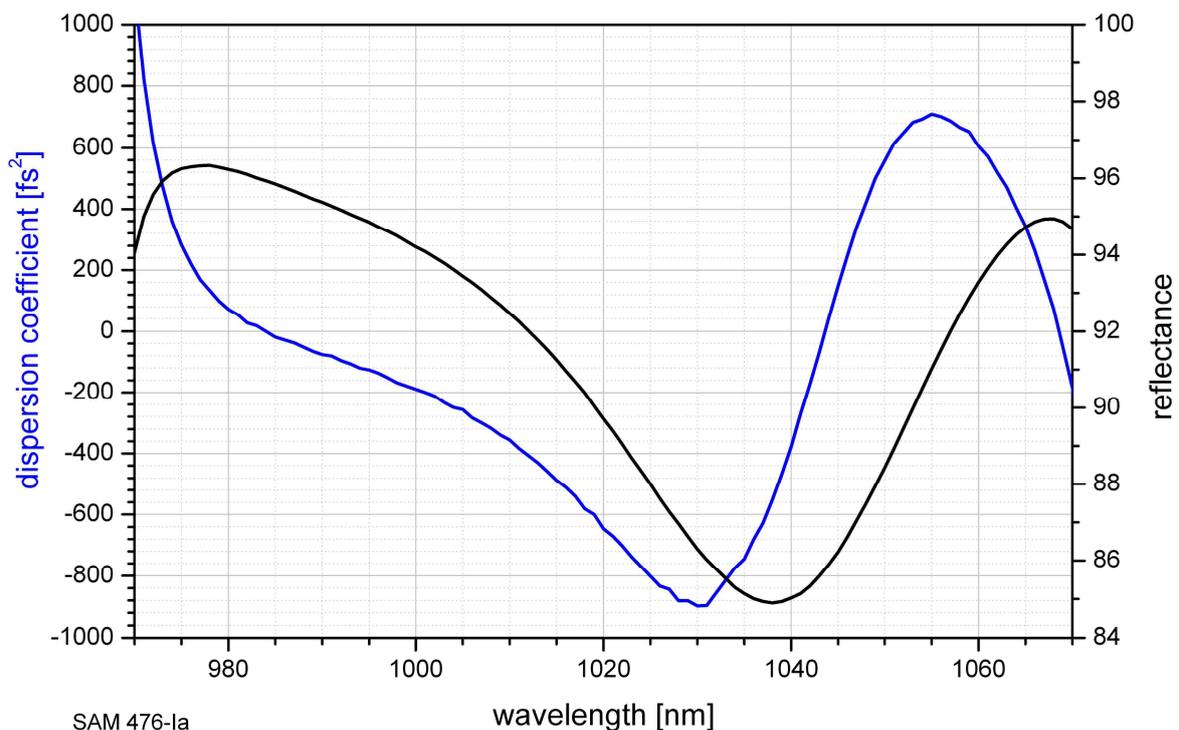
SAM 476-Ia

Group Delay Dispersion (GDD)

Dispersion coefficient $D_2(\omega) = \dfrac{\partial^2 \varphi}{\partial \omega^2}$ with φ - reflected phase

$$\omega = 2\pi \frac{c}{\lambda}$$ - angular frequency