

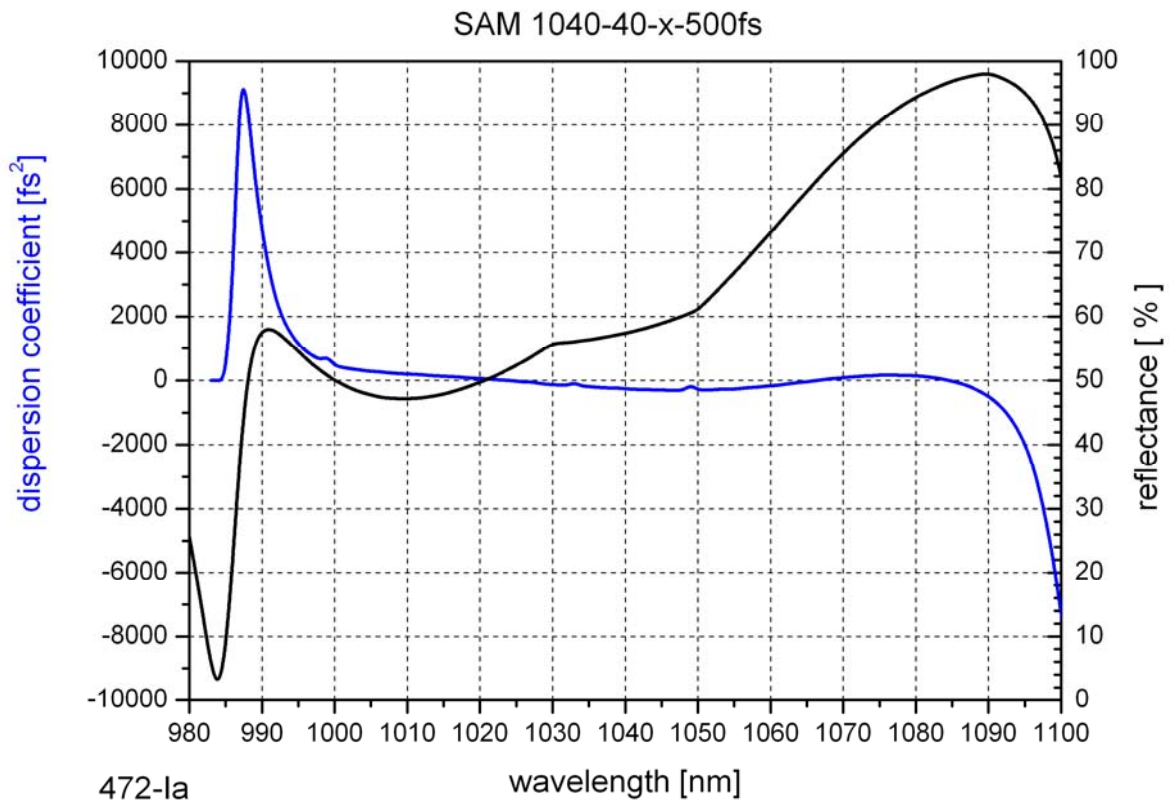
SAM™ Data Sheet SAM-1040-40-500fs-x, $\lambda = 1040\text{nm}$

Laser wavelength	$\lambda = 1040\text{ nm}$
High reflection band (R > 55%)	$\lambda = 1010 \dots 1100\text{ nm}$
Absorbance	$A_0 = 40\%$
Modulation depth	$\Delta R = 24\%$
Non-saturable loss	$A_{\text{ns}} = 16\%$
Saturation fluence	$\Phi_{\text{sat}} = 120\text{ }\mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 500\text{ fs}$
Damage threshold	$\Phi = 1\text{ mJ}/\text{cm}^2$
Chip area	4mm x 4mm; other dimensions on request
Chip thickness	400 μm ; optional: 150 μm on request
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 = FC	mounted on a 1 m monomode fiber cable with FC connector

Low intensity spectral reflectance and dispersion coefficient D_2



Group Delay Dispersion (GDD)

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

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

Low intensity spectral reflectance

