

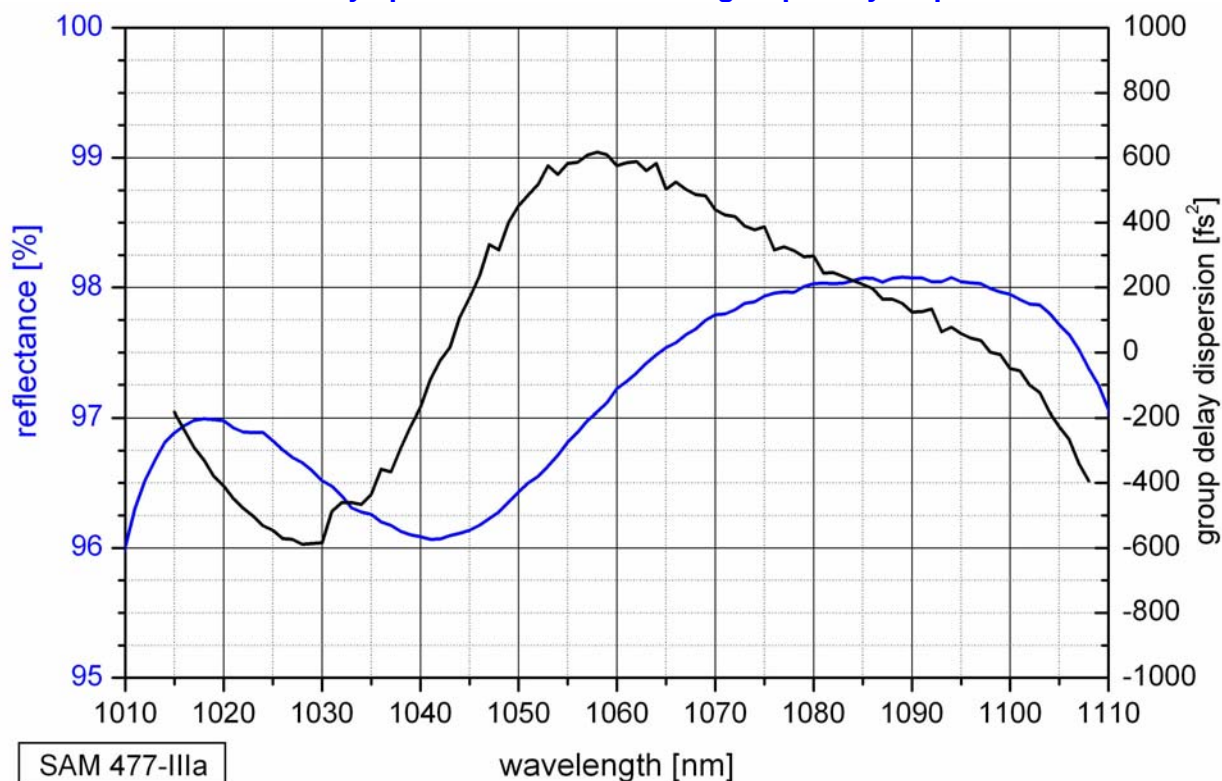
SAM™ data sheet SAM-1040-4-x-500fs, $\lambda = 1040$ nm

Laser wavelength	$\lambda = 1040$ nm
High reflection band (R > 96%)	$\lambda = 1010 \dots 1110$ nm
Absorbance	$A_0 = 4$ %
Modulation depth	$\Delta R = 2.6$ %
Non-saturable loss	$A_{ns} = 1.4$ %
Saturation fluence	$\Phi_{sat} = 50$ $\mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 500$ fs
Damage threshold	700 MW/cm^2
Chip area	4mm x 4mm; other dimensions on request
Chip thickness	400 μm
Protection	the SAM is protected with a dielectric front layer

Mounting of SAM-1040-4-x-500fs 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 group delay dispersion



Group Delay Dispersion (GDD)

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

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

