

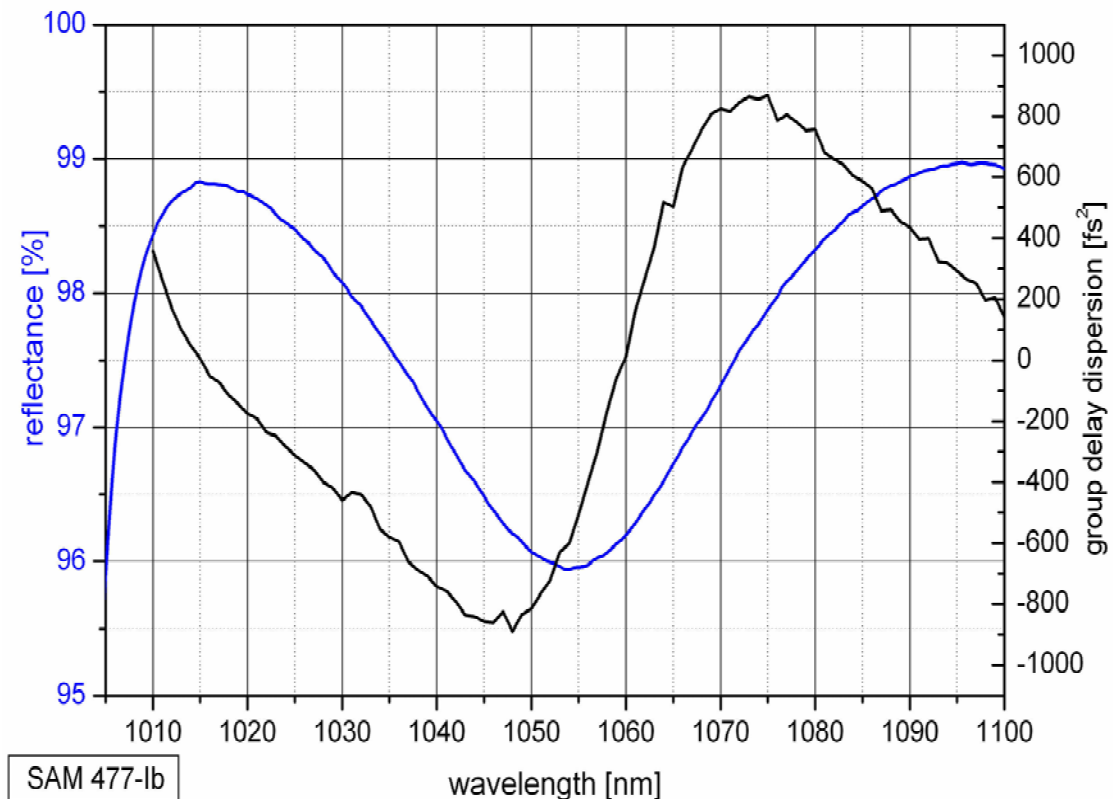
SAM™ Data Sheet SAM-1040-3-1ps-x, $\lambda = 1040$ nm

Laser wavelength	$\lambda = 1040$ nm
High reflection band (R > 96%)	$\lambda = 1010 \dots 1090$ nm
Absorbance	$A_0 = 3$ %
Modulation depth	$\Delta R = 1.6$ %
Non-saturable loss	$A_{ns} = 1.4$ %
Saturation fluence	$\Phi_{sat} = 50 \mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 1$ ps
Damage threshold	$\Phi = 4 \text{ mJ}/\text{cm}^2$
Chip area	4mm x 4mm; 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 = 25.4 w** soldered on a water cooled 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 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