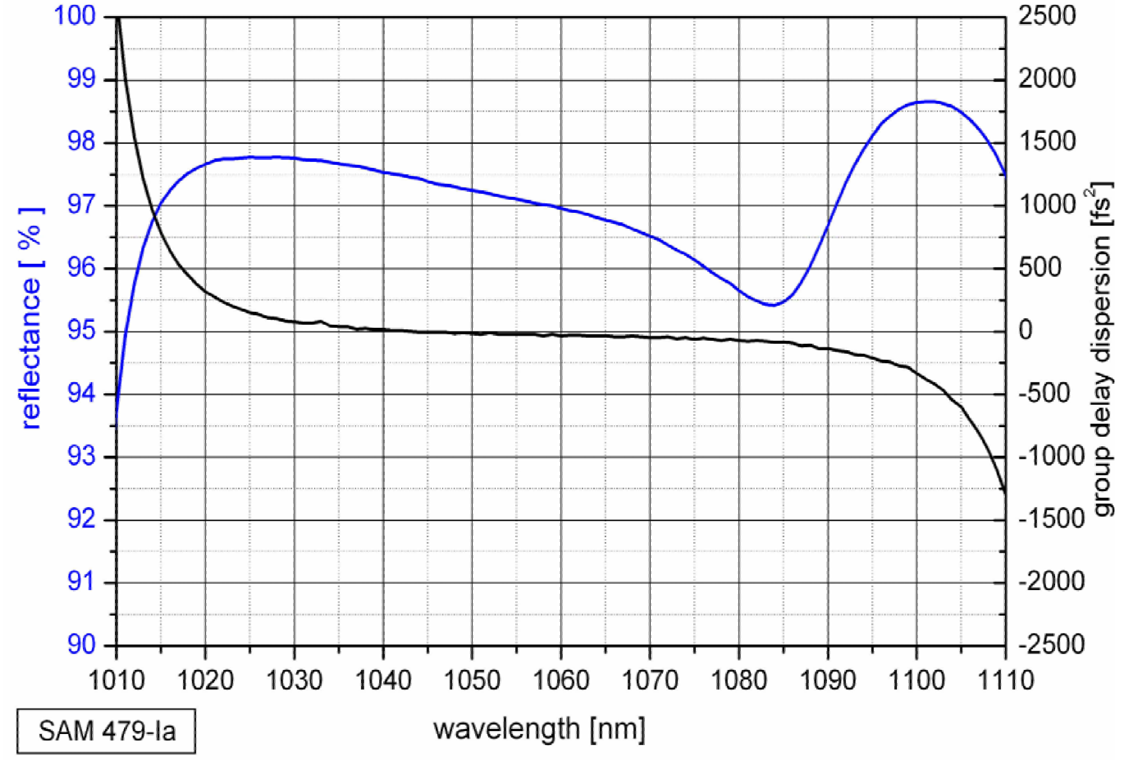
SAM™ Data Sheet SAM-1040-2.5-1ps-x, λ = 1040 nm

Laser wavelength	λ = 1040 nm
High reflection band (R > 95%)	λ = 1020 .. 1110 nm
Absorbance	A_0 = 2.5 %
Modulation depth	ΔR = 1.4 %
Non-saturable loss	A_{ns} = 1.1 %
Saturation fluence	Φ_{sat} = 50 µJ/cm^2
Relaxation time constant	τ ~ 1 ps
Damage threshold	Φ = 4 mJ/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 ∅
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 = 25.4 w	soldered on a water cooled Cu-cylinder with 25.4 mm ∅
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