

SAM™ Data Sheet SAM-1550-20-12ps-x, $\lambda = 1550$ nm

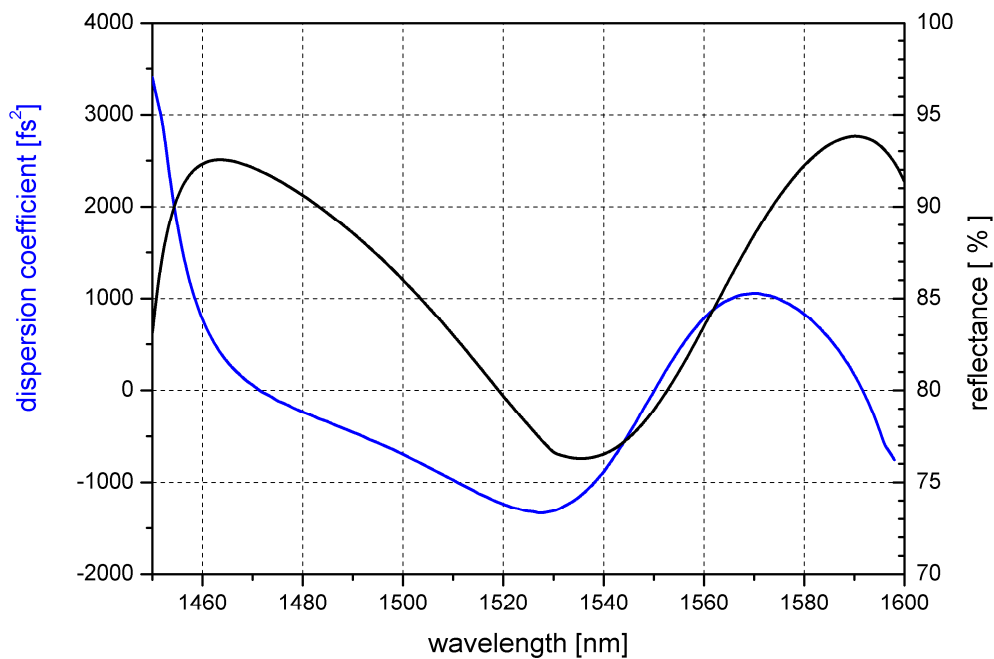
Laser wavelength	$\lambda = 1550$ nm
High reflection band	$\lambda = 1460 \dots 1600$ nm
Absorbance	$A_0 = 20$ %
Modulation depth	$\Delta R = 12$ %
Non-saturable loss	$A_{ns} = 8$ %
Saturation fluence	$\Phi_{sat} = 50 \mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau = 12$ ps
Damage threshold	$\Phi = 800 \mu\text{J}/\text{cm}^2$
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** = FC mounted on a 1 m monomode fiber cable with FC connector

Low intensity spectral reflectance and dispersion coefficient D_2

SAM 1550-20



Group Delay Dispersion (GDD)

Dispersion coefficient $D_2(\omega) = \frac{\partial^2 \varphi}{\partial \omega^2}$

with φ - reflected phase

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