

## SAM™ Data Sheet SAM-1040-2-2ps-flat-x, $\lambda = 1040$ nm

Super flat SAM surface for large optical beam diameter in high power oscillators like thin disc laser

Laser wavelength	$\lambda = 1040$ nm
High reflection band	$\lambda = 1020 \dots 1070$ nm
Absorbance	$A_0 = 2$ %
Modulation depth	$\Delta R = 1.2$ %
Non-saturable loss	$A_{ns} = 0.8$ %
Saturation fluence	$\Phi_{sat} = 70$ $\mu\text{J}/\text{cm}^2$
Relaxation time constant	$\tau \sim 2$ ps
Damage threshold	$\Phi_d = 4$ $\text{mJ}/\text{cm}^2$
Surface radius of curvature	$r > 50$ m, typically 80 – 100 m
Chip area	8 mm x 8 mm; other dimensions on request
Chip thickness	1.5 mm
Protection	the SAM is protected with a dielectric front layer

Mounting option **x** denotes the type of mounting as follows:

<b>x</b> = 0	unmounted
<b>x</b> = 12.7 g	glued on a gold plated Cu-cylinder with 12.7 mm $\varnothing$
<b>x</b> = 25.4 g	glued on a gold plated Cu-cylinder with 25.4 mm $\varnothing$
<b>x</b> = 12.7 s	soldered on a gold plated Cu-cylinder with 12.7 mm $\varnothing$
<b>x</b> = 25.4 s	soldered on a gold plated Cu-cylinder with 25.4 mm $\varnothing$
<b>x</b> = 25.4 w	soldered on a water cooled Cu-cylinder with 25.4 mm $\varnothing$

### Low intensity spectral reflectance

