

SAM™ – Saturable Absorber Mirror

Product Overview



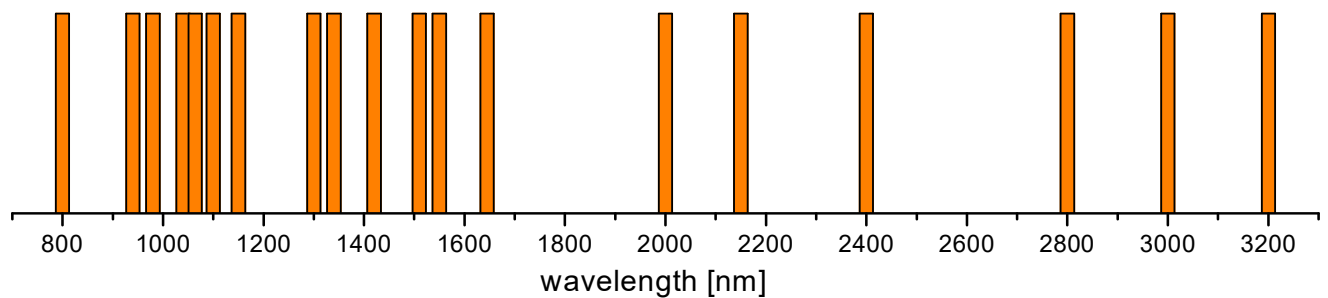
海纳光学有限公司

Application:

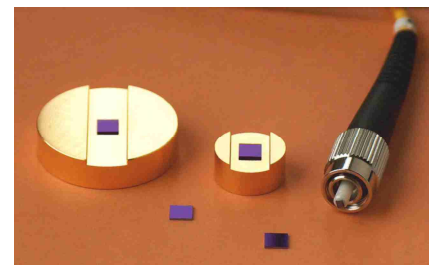
- Passive mode-locking
- Q-switching

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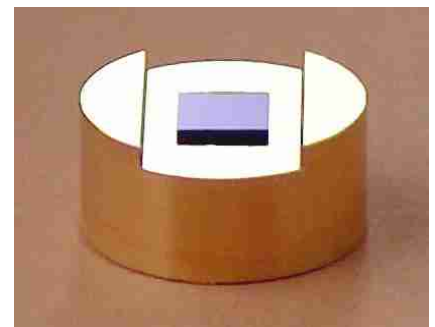
Available Wavelengths



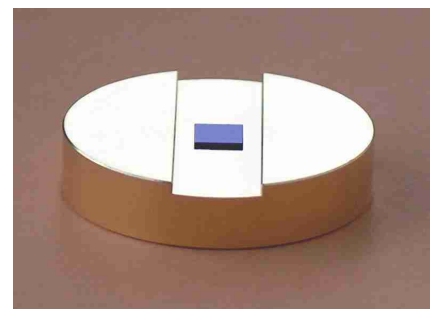
SAM 800	Laser wavelength Saturable absorption Relaxation time	$\lambda = 780 - 830 \text{ nm}$ $A_0 = 5 - 10 \%$ $\tau = 1 \text{ ps}$
SAM 940	Laser wavelength Saturable absorption Relaxation time	$\lambda = 910 - 990 \text{ nm}$ $A_0 = 4 - 30 \%$ $\tau = 1 \text{ ps}$
SAM 980	Laser wavelength Saturable absorption Relaxation time	$\lambda = 940 - 1000 \text{ nm}$ $A_0 = 2 - 70 \%$ $\tau = 500 \text{ fs}$
SAM 1040	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1020 .. 1050 \text{ nm}$ $A_0 = 1 - 64 \%$ $\tau = 500 \text{ fs} - 10 \text{ ps}$
SAM 1064	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1050 .. 1100 \text{ nm}$ $A_0 = 0.7 - 70 \%$ $\tau = 500 \text{ fs} - 124 \text{ ps}$
SAM 1100	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1070 .. 1120 \text{ nm}$ $A_0 = 30 - 90 \%$ $\tau = 500 \text{ fs}$
SAM 1150	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1100 .. 1200 \text{ nm}$ $A_0 = 3 - 32 \%$ $\tau = 500 \text{ fs} / 1 \text{ ps}$
SAM 1300	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1230 .. 1330 \text{ nm}$ $A_0 = 4 - 12 \%$ $\tau = 10 \text{ ps} / 12 \text{ ps}$



Mounting Options



12.7 mm \varnothing - (1/2" \varnothing) - Cu-Mount



25.4 mm \varnothing - (1" \varnothing) - Cu-Mount

SAM 1340	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1310 \dots 1370 \text{ nm}$ $A_0 = 1 - 15 \%$ $\tau = 1 \text{ ps}$
SAM 1420	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1360 \dots 1460 \text{ nm}$ $A_0 = 1 - 4 \%$ $\tau = 10 \text{ ps}$
SAM 1510	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1470 \dots 1570 \text{ nm}$ $A_0 = 4 - 23 \%$ $\tau = 10 \text{ ps}$
SAM 1550	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1500 \dots 1600 \text{ nm}$ $A_0 = 2 - 55 \%$ $\tau = 2 - 12 \text{ ps}$
SAM 1645	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1560 \dots 1720 \text{ nm}$ $A_0 = 2 - 50 \%$ $\tau = 2 \text{ ps}$
SAM 2000	Laser wavelength Saturable absorption Relaxation time	$\lambda = 1900 \dots 2050 \text{ nm}$ $A_0 = 2 - 36 \%$ $\tau = 10 \text{ ps} / 30 \text{ ps}$
SAM 2150	Laser wavelength Saturable absorption Relaxation time	$\lambda = 2050 \dots 2200 \text{ nm}$ $A_0 = 2.5 - 8 \%$ $\tau = 10 \text{ ps}$
SAM 2400	Laser wavelength Saturable absorption Relaxation time	$\lambda = 2300 \dots 2600 \text{ nm}$ $A_0 = 1 \%$ / 1.5% $\tau = 10 \text{ ps}$
SAM 2800	Laser wavelength Saturable absorption Relaxation time	$\lambda = 2700 \dots 2900 \text{ nm}$ $A_0 = 4 \%$ - 23% $\tau = 10 \text{ ps}$
SAM 3000	Laser wavelength Saturable absorption Relaxation time	$\lambda = 2500 \dots 3200 \text{ nm}$ $A_0 = 9 - 33 \%$ $\tau = 10 \text{ ps}$

Chip area: 1.3 mm x 1.3 mm, 4 mm x 4 mm, 8 mm x 8 mm
(other dimensions on request)

Chip thickness: 450 μm (other on request)

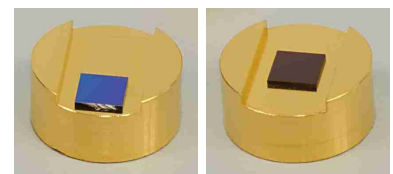
- Mounting:
- Unmounted
 - Glued or soldered on:
 - 12.7 mm \varnothing (1/2" \varnothing) Cu-mount
 - 25.0 mm \varnothing Cu-mount
 - 25.4 mm \varnothing (1" \varnothing) Cu-mount
 - Soldered on a water-cooled 25.0 mm \varnothing Cu-mount
 - Thin film soldered on a water-cooled Cu-mount
 - Fiber coupled (SMF, PM fiber) / Fiber mount FM1.3
 - Mounting on custom mounts on request



Fiber coupled SAM



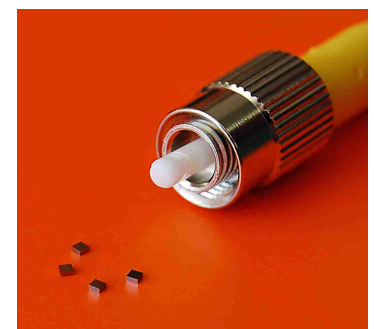
Fiber mount FM1.3



Edge Center mounting



Water-cooled 25.0 mm \varnothing Cu-mount



Batch of 4 chips, 1.3 mm x 1.3 mm

Other wavelengths and parameters on request.