

# RSAM™ – Resonant Saturable Absorber Mirror



海纳光学有限公司

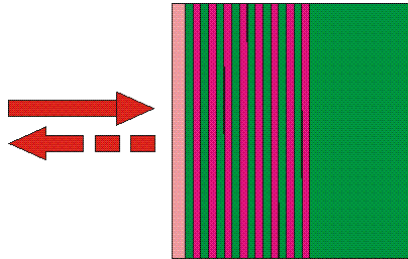
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## Product Overview

- For optical noise suppression or optical pulse cleaning after a pulse picker or amplifier
- Low intensity reflectance at resonance wavelength  $\leq 1\%$



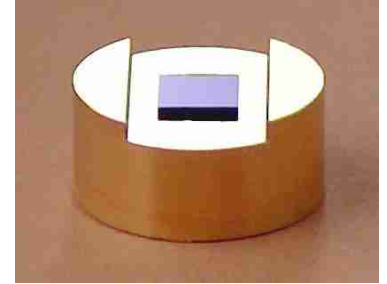
<b>RSAM 980</b>	Laser wavelength	$\lambda = 968 - 984 \text{ nm}$
	Absorptance	$A_0 \geq 99\%$
	Modulation depth	$\Delta R \sim 60\%$
	Relaxation time	$\tau \sim 1 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 15 \mu\text{J}/\text{cm}^2$

<b>RSAM 1030</b>	Laser wavelength	$\lambda = 1030 \text{ nm}$
	Absorptance	$A_0 \geq 99\%$
	Modulation depth	$\Delta R \sim 55\%$
	Relaxation time	$\tau \sim 1 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 50 \mu\text{J}/\text{cm}^2$

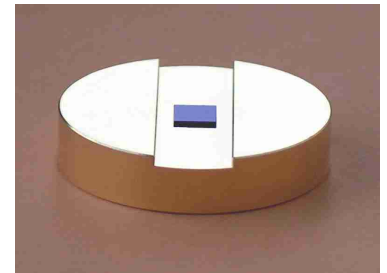
<b>RSAM 1064</b>	Laser wavelength	$\lambda = 1050 - 1064 \text{ nm}$
	Absorptance	$A_0 \geq 98\%$
	Modulation depth	$\Delta R \sim 60\%$
	Relaxation time	$\tau \sim 9 - 32 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 15 - 30 \mu\text{J}/\text{cm}^2$

<b>RSAM 1550</b>	Laser wavelength	$\lambda = 1530 - 1560 \text{ nm}$
	Absorptance	$A_0 \geq 98\%$
	Modulation depth	$\Delta R \sim 60\%$
	Relaxation time	$\tau \sim 10 \text{ ps}$
	Saturation fluence	$\Phi_{\text{sat}} = 15 \mu\text{J}/\text{cm}^2$

### Mounting Options



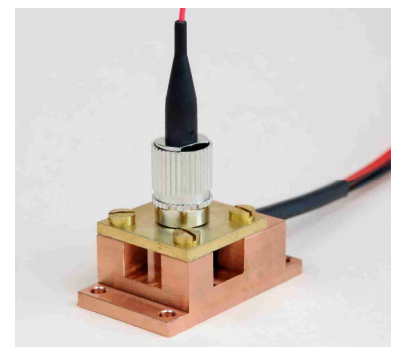
12.7 mm  $\varnothing$  - Cu-Mount with  $\varnothing$  4 mm hole



25.0 mm / 25.4 mm  $\varnothing$  - Cu-Mount



Fiber coupled RSAM



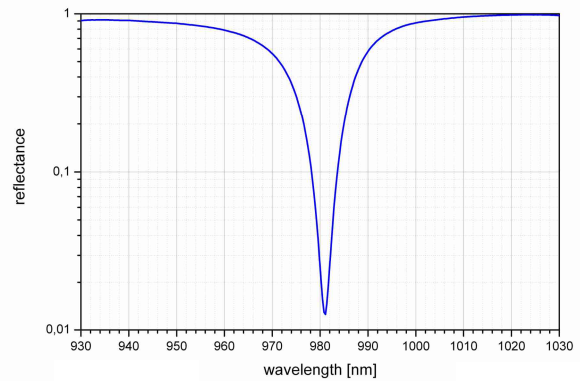
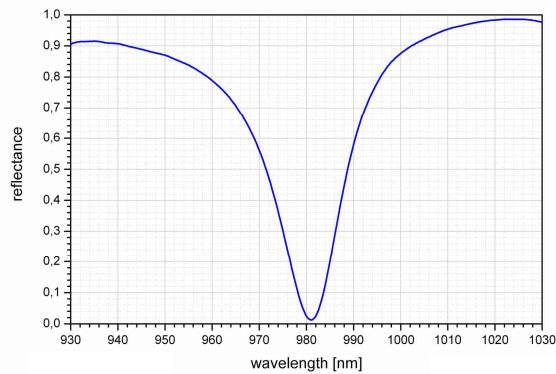
Fiber coupled RSAM™ with TEC cooler

Other wavelengths and parameters on request.

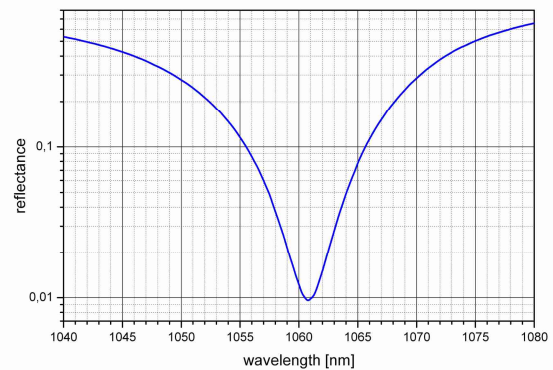
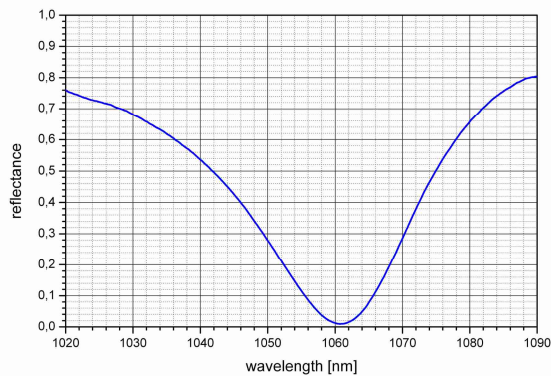
- Chip area: 4 mm x 4 mm
- Chip thickness: 450  $\mu\text{m}$ , semi – insulating GaAs
- Mounting:
- Unmounted
  - Glued or soldered on:
    - 12.7 mm  $\varnothing$  (1/2"  $\varnothing$ ) Cu-mount
    - 25.0 mm  $\varnothing$  Cu-mount
    - 25.4 mm  $\varnothing$  (1"  $\varnothing$ ) Cu-mount
  - 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 coupled (SMF, PM fiber) with TEC cooler
  - mounting on custom mounts on request

### Spectral reflection / transmission:

#### RSAM 980-X



#### RSAM 1064-X



#### RSAM 1550-X

