Interferogram fringes pictures taken with the optical bench (double pass mode)


## First measurement

WFE map (single pass mode, without tilt, focus and coma:
REOSC
O sacsm WaRPP v 3.30 mesure1 Date: 01/06/10 Heure: 11:34:48 Surface $\mathrm{L}=632.80 \mathrm{~nm}$
$\mathrm{R}=105.500 \mathrm{~m}$ $\mathrm{R}=105.500 \mathrm{~mm}$ Résol. : $150 \times 15$ Echelle Lin. -0.533 L
0.423 L 0.423 L
16414 point 16414 points
Min $=-0.533 \mathrm{~L}$ $\mathrm{Min}_{\text {in }}=-0.533 \mathrm{~L}$ Max $=0.423 \mathrm{~L}$ Moy $=-0.003 \mathrm{~L}$ $\mathrm{P}-\mathrm{V}=0.956 \mathrm{~L}$ RMS $=0.147 \mathrm{~L}$


Astigmatism of the measurement:
REOSC

- SAGEM WaRPP v 3.30 mesure1 Date: 01/06/10 Heure : 11:39:16 Surface $\mathrm{L}=632.80 \mathrm{~nm}$ $\mathrm{R}=105.500 \mathrm{~mm}$ Résol. : $150 \times 150$ Echelle Lin. -0.303 L 0.338 L

16414 points
Min $=-0.303$ Min $=-0.303 \mathrm{~L}$
Max $=0.338 \mathrm{~L}$ Max $=0.338 \mathrm{~L}$
Moy $=0.013 \mathrm{~L}$ Moy $=0.013 \mathrm{~L}$
$\mathrm{P}-\mathrm{V}=0.641 \mathrm{~L}$ $\mathrm{P}-\mathrm{V}=0.641 \mathrm{~L}$
RMS $=0.133 \mathrm{~L}$


Measurement without astigmatism:
REOSC

## O sacem

 WaRPP v 3.30 mesure1 Date: 01/06/10 Heure: 11:38:01 Surface $\mathrm{L}=632.80 \mathrm{~nm}$ $\mathrm{R}=105.500 \mathrm{~mm}$ Résol. : $150 \times 150$ Echelle Lin. $-0.269 \mathrm{~L}$ 0.182 L 16414 points Min $=-0.269$ Max $=0.182 \mathrm{~L}$ Moy $=0.001 \mathrm{~L}$ $\mathrm{P}-\mathrm{V}=0.451 \mathrm{~L}$ RMS $=0.064 \mathrm{~L}$

Cormentaires
Tilt_HD=50Tilt_ $\mathrm{BG}=50$

Second measurement (mirror turn by $90^{\circ}$ )
WFE map (single pass mode, without tilt, focus and coma:


Astigmatism of the measurement.


Measurement without astigmatism:


Mean of the two measurement:


Mean astigmatism:


Mean of the two measurements without astigmatism:


## Conclusion:

This mirror suffer of a strong astigmatism, witch is confirmed by the second measurement, turned by $90^{\circ}$. The Strehl ratio is not better than 0,37 . It is very far of the $\lambda / 10$ clamed by the supplier.

