

112: Specchio piano inc. normale



SINCROTRONE TRIESTE

Laboratorio metrologia e ottica raggi X molli

Experimental Division

S.S. 14 Km 163,5 in Area Science Park - 34012 Basovizza, TRIESTE, ITALY

TEL 0039-040-3758632/8038 FAX. 0039-040-3758565

Optics under test: Plane mirror 545 70 001

Beamline: X-MOSS

Manufacturer: Jobin Yvon

Test period: 7-10 December 1999

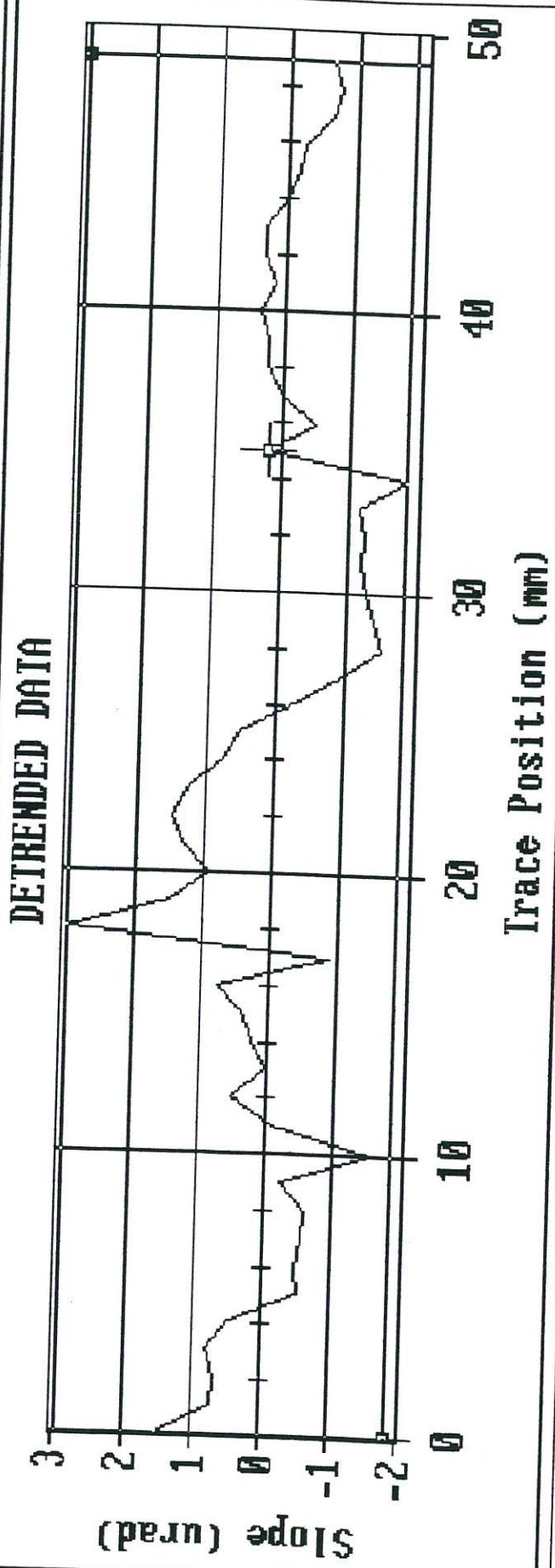
Laboratory conditions: Temperature: 22 °C Humidity: <50%

Parameter under test			
	Specification	Manufacturer measurement	Test result
Tangential radius	-	-	∞
Sagittal radius	-	-	∞
Surface flatness peak-valley value	-	-	$\lambda/18$ P-V
Tangential slope error	-	-	0.18 arcsec rms
Sagittal slope error	-	-	0.25 arcsec rms
RMS roughness	-	-	<0.15nm
Groove density	-	-	
Groove density variation	-	-	

Additional Observations:

Trieste 20/12/1999

Detrend Data



Open Surface Data File	Reference Correction	Display
Exchange Current Data	Polynomial Extraction	Edit point
Invert Current Data	Slope Data to Hight Data	Print
Difference with Stored Data	Hight Data to Slope Data	Save
Average Data Files	Chebyshev Approximation	

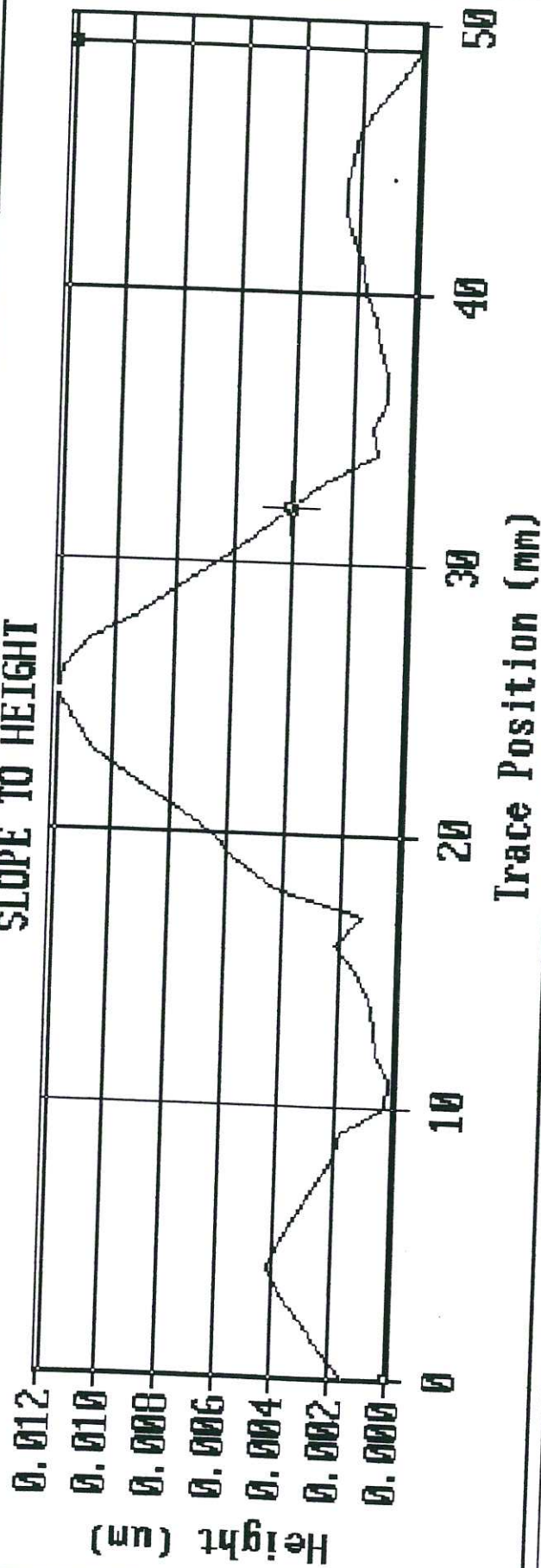
Filename Comment

History

RMS	minimum	maximum	cursor3
9.4393e-1	1.0000e-6	49.0000	35.0000
Radius(m)	x	y	2.1392e-1
	Zoom In	Zoom Out	Curve Fit
			Exclude
			Rejected
			Validated
			Record Off
			Quit

Detrend Data

SLOPE TO HEIGHT



Open Surface Data File
 Exchange Current Data
 Invert Current Data
 Difference with Stored Data
 Average Data Files

Reference Correction
 Polynomial Extraction
 Slope Data to Hight Data
 Hight Data to Slope Data
 Chebyshev Approximation

Display

Edit point

Print

Save

Filename 10dec07.int

Comment XMOSS plane mirror

History I2S PS0 AUG PS0 S2H

RMS

5.0390e-3 x 1.0000e-6

Radius(m) y 0.00000e+0

minimum

49.0000

1.1910e-2

maximum

32.0000

4.1333e-3

cursor3

Zoom In

Name Data

Curve File

Exclude

Investigate

Validate

Record Off

Quit



INSTRUMENTS S.A. ITALIA

INSTRUMENTS S.A. ITALIA s.r.l. - Via C. Pavese, 35/AB - 20090 OPERA - MILANO
Tel. 02-57603050 - Fax 02-57600876 - E-mail: isaita@tin.it
Ufficio di Roma: Via F. Sproveri 41/1 - 00152 ROMA - Tel. 06-5813179 - FAX 06-5880871
- P.IVA 09041440158 - Cap. Soc. Lit. 325.000.000 i.v. - Iscr. Trib. MI 280551 - C.C.I.A.A. 1273868

DOCUMENTO DI TRASPORTO

(D.P.R. n° 472 del 14/08/1996)

NUMERO	DATA	COD. CLIENTE	NS. RIFERIMENTO	PARTITA IVA CLIENTE	SPEDIZIONE	PORTO	AGENTE
116	23/9/99		101/98			Fco	

COD. ARTICOLO	DESCRIZIONE MERCE	QUANTITÀ	NOTE
11-SP 5457000	Specchio piano in silicio	1	Us ord. Prot. 254/PRG-XROS- AMM del 23/2/99

SPETT. ATT. Prof. S. Nannarelli ~~ATT.~~
Lab. Elettra
SS 14 Km 163,5
34012 Basovizza
Trieste

	CONTROL CERTIFICATE	CI : C28250 Ref : 04-PV-CTL-48278 Date : June 10, 1999 Page : 1 / 1
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Plane Mirror for X-moss beam line

Serial Number : 48278

ITEM	SPECIFICATIONS	MEASUREMENT	STATUS
Length (mm)	$60^{+0/-0.1}$	59.96	Conform
External Width (mm)	$50^{+0/-0.1}$	49.97	Conform
Thickness (mm)	$20^{+/-0.2}$	19.99	Conform
Shape	PLANE	PLANE	Conform
Radius of curvature (mm)	----	----	Conform
Material	SILICON	SILICON	Conform
Binding layer	None	None	Conform
Reflective Coating	Pt	Pt	Conform
Thickness	400 A +/- 10%	400 A	Conform
Active Area size (mm)	$\geq 40 \times 50$	46 x 56	Conform
Micro-Roughness	$\leq 5 \text{ A}^\circ \text{ RMS}$	$\approx 3 \text{ A}^\circ \text{ RMS}$	Conform
Figure accuracy (slope error)	Long : $\leq 0.20 \text{ arc sec}$ Short : $\leq 0.20 \text{ arc sec}$	0.18 arc sec	Conform
Visual inspection			

Prepared by : <i>[Signature]</i>	Approuved by : <i>GNO</i>
Date/ signature : <i>[Signature]</i>	Date/signature: 11/06/99 <i>[Signature]</i>

N° 048278

le 11-06-1999

WIN-YVON I.S.A.

1 pt coated
Silicon Plane mirror

Mirror

Réseau N°

Dimension Support

Dimension Tracé

Rayon de Courbure

Nombre de Traits/mm

Angle de Blaze

Qualité Surface d'Onde à $\lambda =$

Ghost %

Qualité image

ORDRE N°	$\lambda 1$	$\lambda 2$	$\lambda 3$
Flux diffracté	CENTRO CERTIFICATO		
Flux incident			

16-18, rue du Canal — 91165 LONGJUMEAU CEDEX