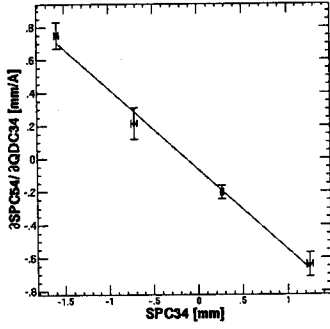


File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

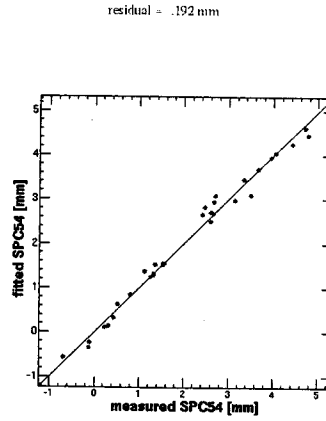
Display :  
BPM : Steering step :  
SPC34 1

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

rel. curr. thresh. : .7

Rt Chk 1 Save

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

Display :  
BPM : Steering step :  
SPC34 1

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

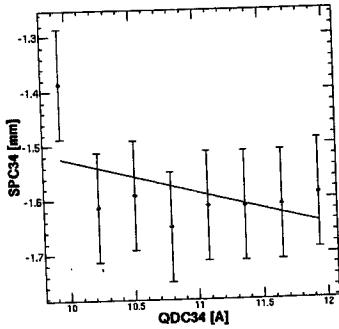
rel. curr. thresh. : .7

Rt Chk 1 Save

Hard Copy

Hard Copy

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

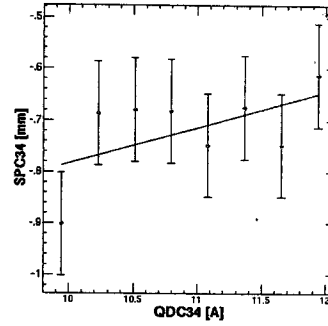
Display :  
BPM : Steering step :  
SPC34 1

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

rel. curr. thresh. : .7

Rt Chk 1 Save

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

Display :  
BPM : Steering step :  
SPC34 2

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

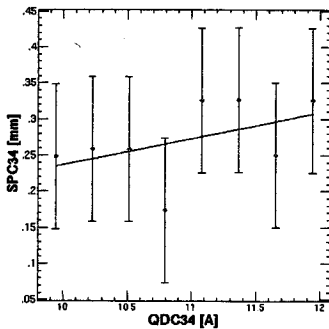
rel. curr. thresh. : .7

Rt Chk 1 Save

Hard Copy

Hard Copy

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

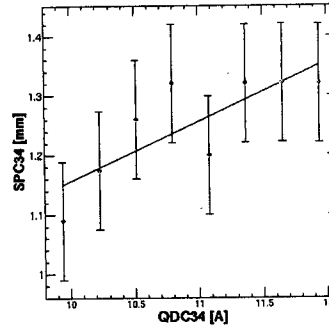
Display :  
BPM : Steering step :  
SPC34 3

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

rel. curr. thresh. : .7

Rt Chk 1 Save

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34

Direction :  
Horizontal Vertical

Used Components :  
BPM : SPC34  
Steering : (('SXG31',1))  
from -3  
to 3  
number 4  
Q magnet: QDC34  
from 0  
to 2  
number 8

next remem. save

GO READ

Display :  
BPM : Steering step :  
SPC34 4

Result:  
When the beam is at the Q center :  
BPM reading [mm]: -20122  
error [mm]: .01714  
Last BPM taken into account :  
SPC34

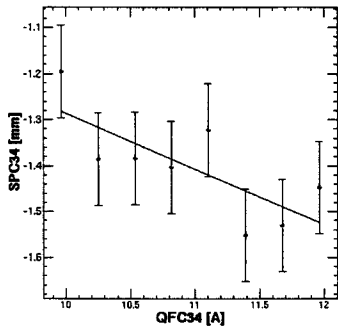
rel. curr. thresh. : .7

Rt Chk 1 Save

Hard Copy

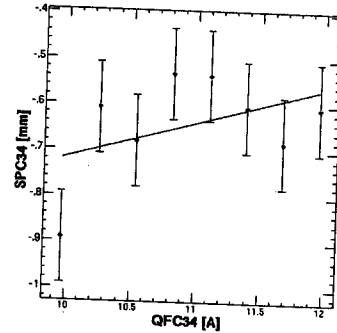
Hard Copy

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SXC31,1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 1  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 0.1514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window

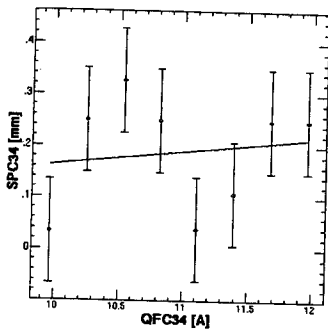


Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering :  
from  
to  
number  
Q magnet:  
from  
to  
number  
next rem  
GO  
Display  
BPM :  
SPC34  
Result  
When the beam is at  
BPM reading [mm]:  
error [mm]:  
Last BPM taken into  
SPC34  
rel. curr. thresh. :  
Fit Ok

Hard Copy

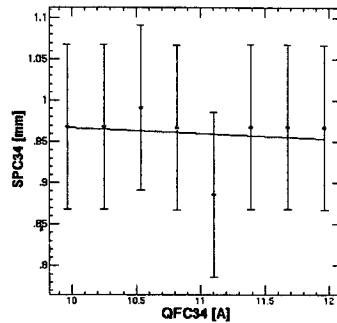
Hard Copy

File Edit Window



Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SXC31,1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 3  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 0.1514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

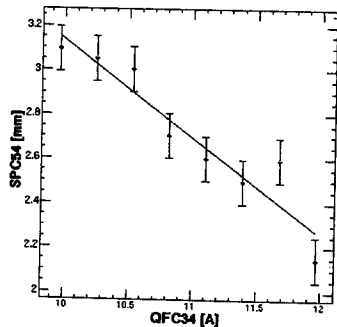
File Edit Window



Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM :  
Steering :  
from  
to  
number  
Q magnet:  
from  
to  
number  
next rem  
GO  
Display  
BPM :  
SPC34  
Result  
When the beam is at  
BPM reading [mm]:  
error [mm]:  
Last BPM taken into  
SPC34  
rel. curr. thresh. :  
Fit Ok

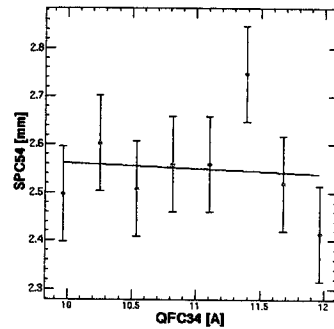
Hard Copy

File Edit Window



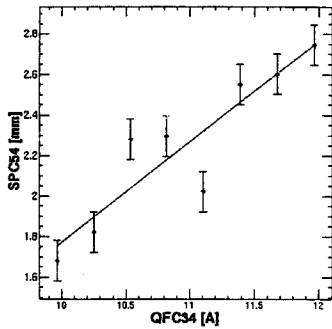
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SXC31,1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 1  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 0.1514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



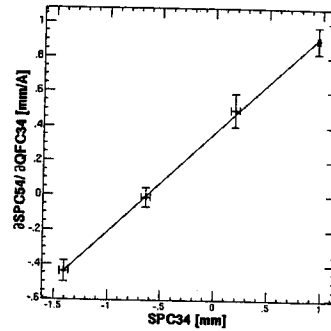
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM :  
Steering :  
from  
to  
number  
Q magnet:  
from  
to  
number  
next rem  
GO  
Display  
BPM :  
SPC34  
Result  
When the beam is at  
BPM reading [mm]:  
error [mm]:  
Last BPM taken into  
SPC34  
rel. curr. thresh. :  
Fit Ok

File Edit Window



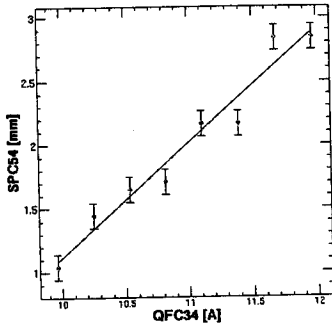
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SX31',1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 3  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 01514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



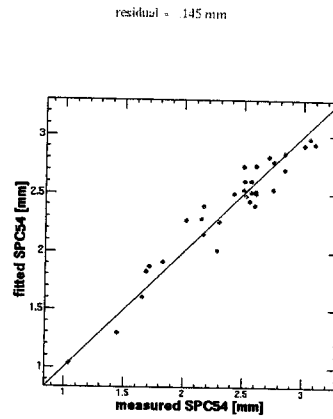
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SX31',1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 3  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 01514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



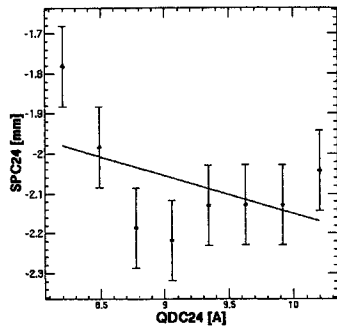
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SX31',1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 4  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 01514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



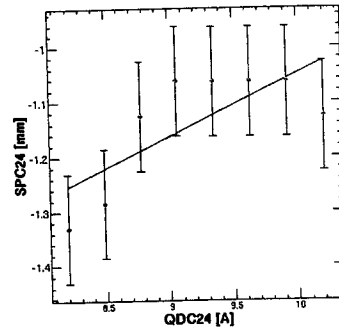
Condition  
BPM to be Calibrated :  
SPC34  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC34  
Steering : ((SX31',1))  
from -2.5  
to 2.5  
number 4  
Q magnet: QFC34  
from 0  
to 2  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC34 4  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -6792  
error [mm]: 01514  
Last BPM taken into account :  
SPC34  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



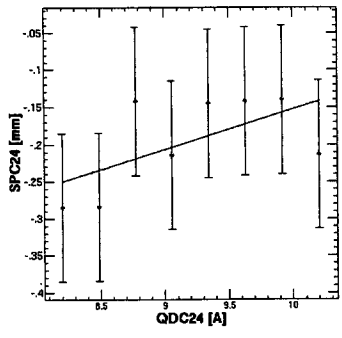
Condition  
BPM to be Calibrated :  
SPC24  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC24  
Steering : ((SX21',1))  
from -4  
to 2  
number 4  
Q magnet: QDC24  
from -1  
to 1  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC24 1  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -43305  
error [mm]: 02567  
Last BPM taken into account :  
SPC24  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



Condition  
BPM to be Calibrated :  
SPC24  
Direction :  
Horizontal Vertical  
Used Components :  
BPM : SPC24  
Steering : ((SX21',1))  
from -4  
to 2  
number 4  
Q magnet: QDC24  
from -1  
to 1  
number 8  
next remem. save  
GO READ  
Display  
BPM : Steering step :  
SPC24 2  
Result  
When the beam is at the Q center :  
BPM reading [mm]: -43305  
error [mm]: 02567  
Last BPM taken into account :  
SPC24  
rel. curr. thresh. : 7  
Fit Ok I Save

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC24 3

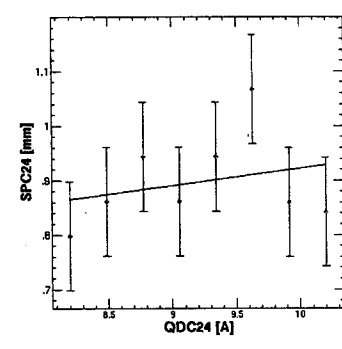
Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

Last BPM taken into account: SPC24

rel. curr. thresh.: 7

Rt Ok I Save

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC24 3

Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

Last BPM taken into account: SPC24

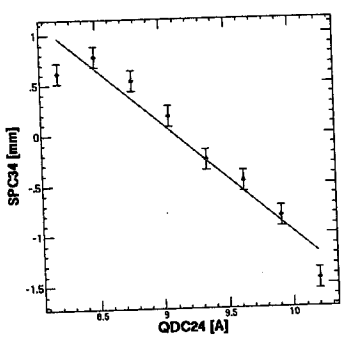
rel. curr. thresh.: 7

Rt Ok I Save

Hard Copy

Hard Copy

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC34 1

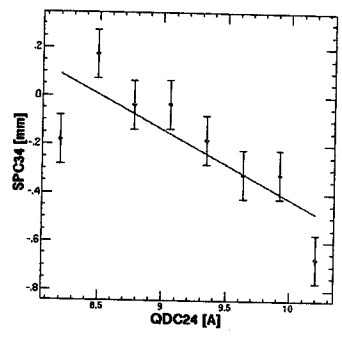
Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

Last BPM taken into account: SPC34

rel. curr. thresh.: 7

Rt Ok I Save

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC34 1

Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

Last BPM taken into account: SPC34

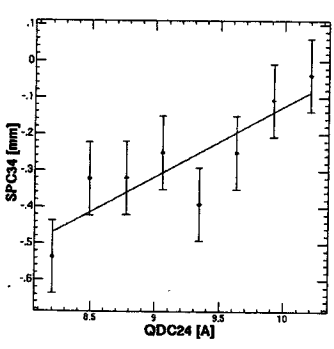
rel. curr. thresh.: 7

Rt Ok I Save

Main Application Area

Main Application Area

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC34 3

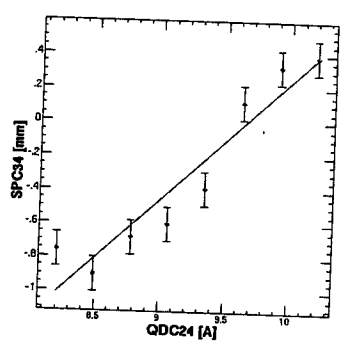
Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

Last BPM taken into account: SPC34

rel. curr. thresh.: 7

Rt Ok I Save

File Edit Window



Condition: BPM to be Calibrated: SPC24

Direction: Horizontal Vertical

Used Components: SPC24

BPM: SPC24

Steering: ((SXC21,1))

from: -4

to: 2

number: 4

Q magnet: QDC24

from: -1

to: 1

number: 8

next: numbr. save

GO READ

Display: BPM: Steering step: SPC34 4

Result: When the beam is at the Q center: BPM reading [mm]: -43305 error [mm]: 02957

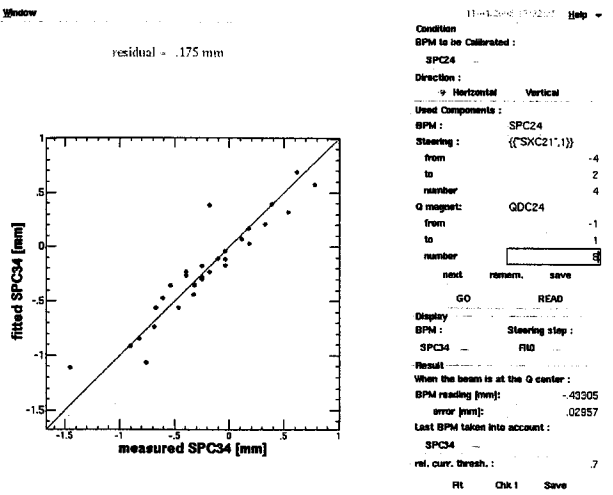
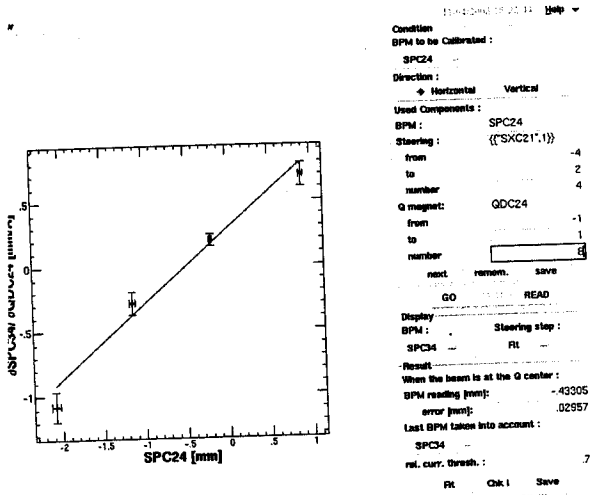
Last BPM taken into account: SPC34

rel. curr. thresh.: 7

Rt Ok I Save

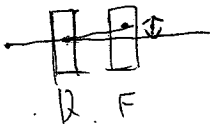
Hard Copy

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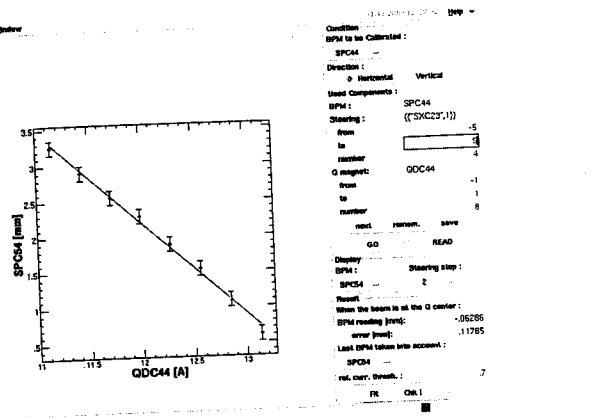
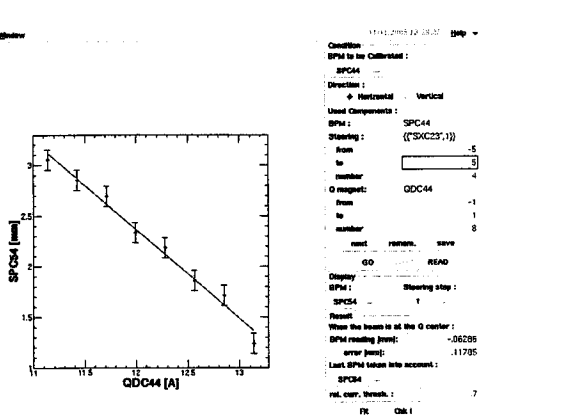


$$QFC34_{offset} - QRC34_{offset} = -0.6792 - (-0.20122) = -0.47798$$

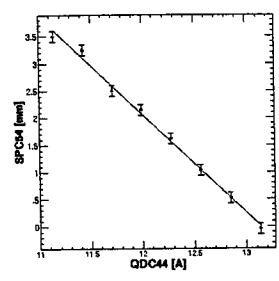
-0.6792  
0.20122  
-0.47798



(05/11/11(2)) Quad BPM (M. Satoh)  
SPC44, QRC44, QFC44



Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

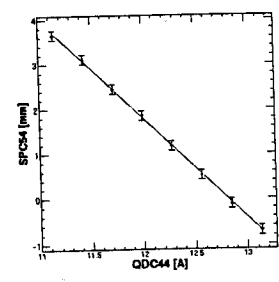
Display: SPC44 Steering step: 3

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

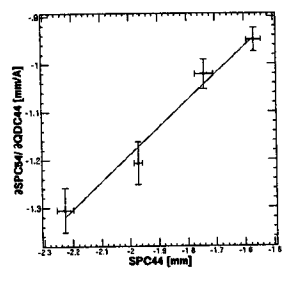
Display: SPC44 Steering step: 4

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

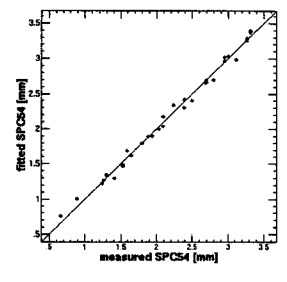
Display: SPC44 Steering step: 3

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

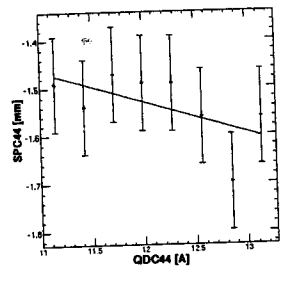
Display: SPC44 Steering step: 3

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

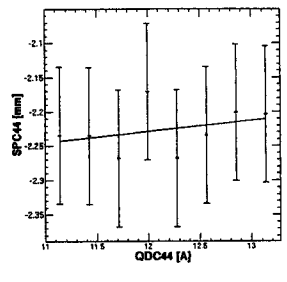
Display: SPC44 Steering step: 1

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

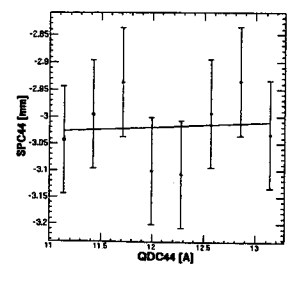
Display: SPC44 Steering step: 2

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

GO READ

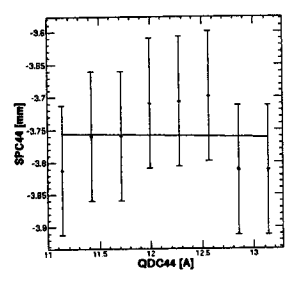
Display: SPC44 Steering step: 3

BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

FR Ok!

Print Screen



Hard Copy

Condition: 11.12.2007 13:27:31 [BPM] -

BPM to be Calibrated: SPC44

Direction: Horizontal Vertical

Used Components: SPC44

BPM: SPC44

Steering: ((SX23',1))

from: 5

to: 4

number: 4

Q magnet: QDC44

from: -1

to: 1

number: 8

next remain save

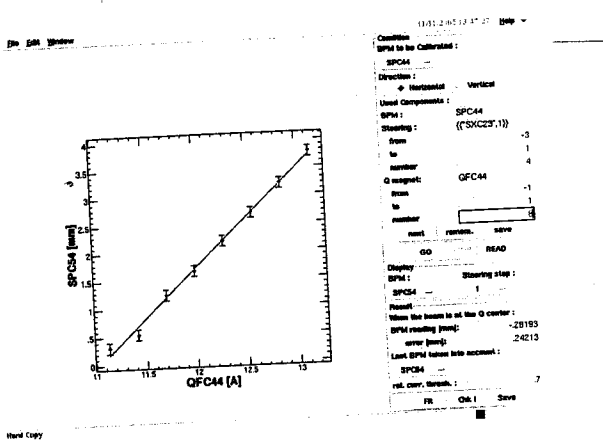
GO READ

Display: SPC44 Steering step: 4

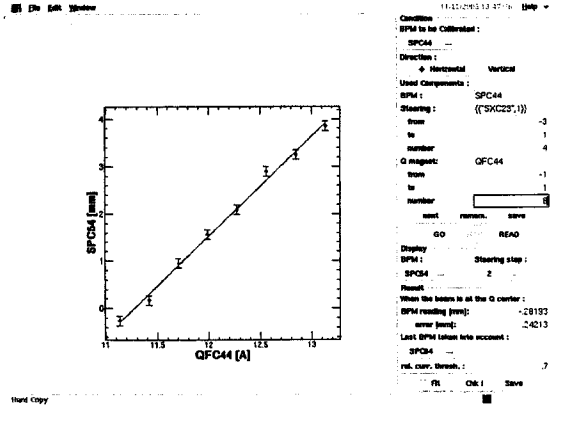
BPM: SPC44

Result: When the beam is at the Q center: BPM reading [mm]: -0.6286 error [mm]: .11785 Last BPM taken into account: SPC44 ref. curr. thresh.: 7

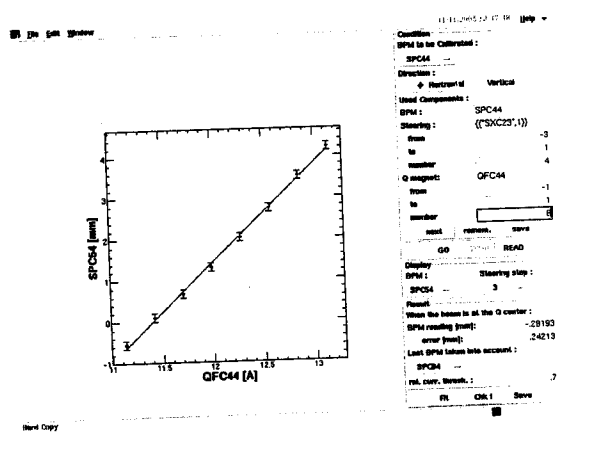
FR Ok!



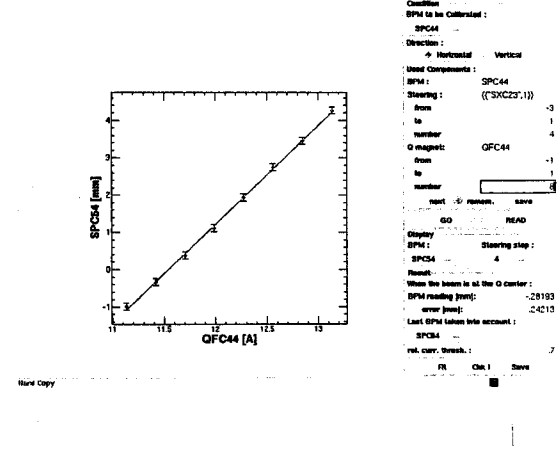
Hard Copy



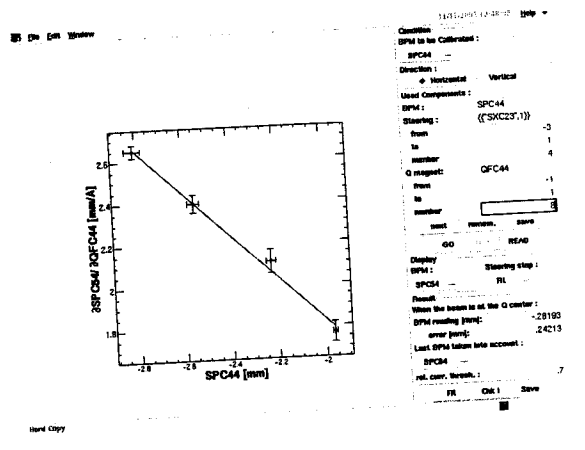
Hard Copy



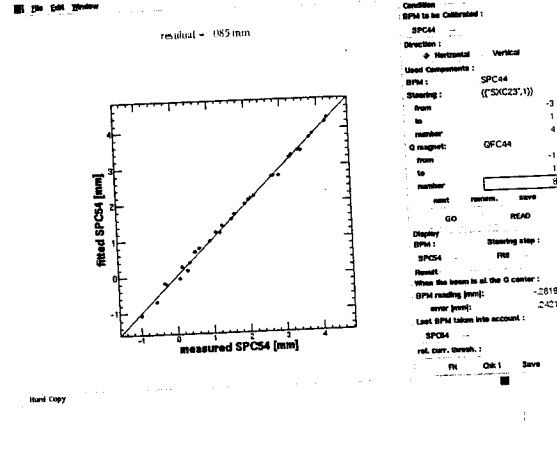
Hard Copy



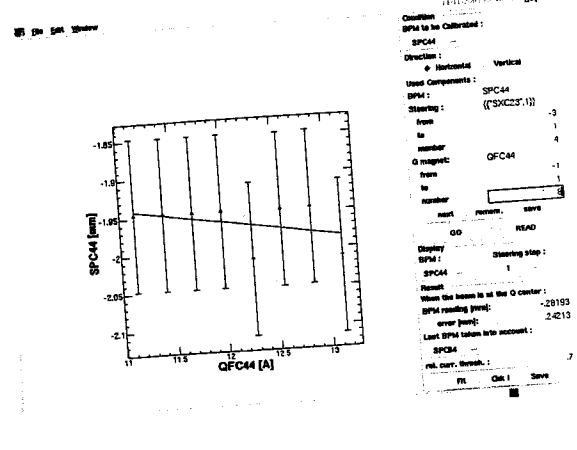
Hard Copy



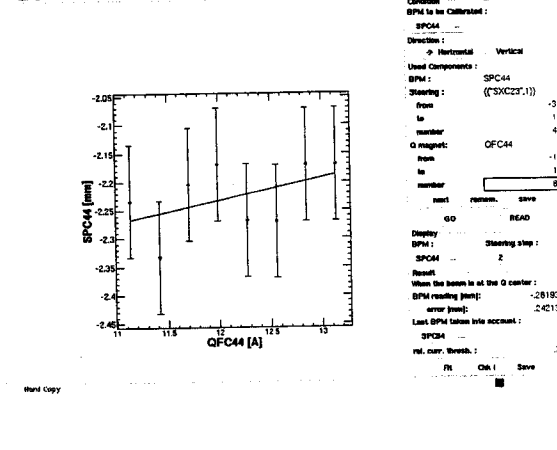
Hard Copy



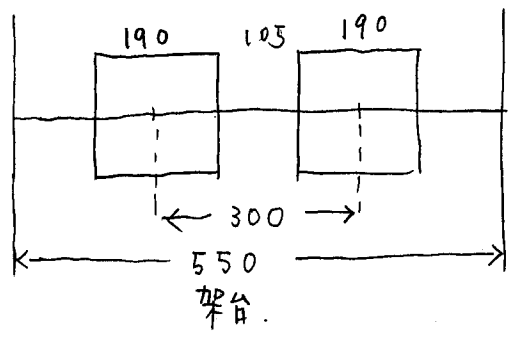
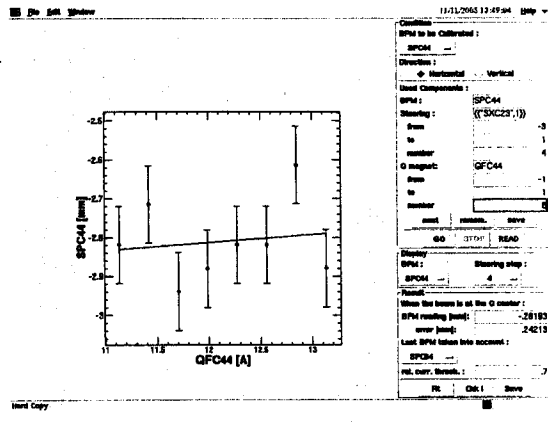
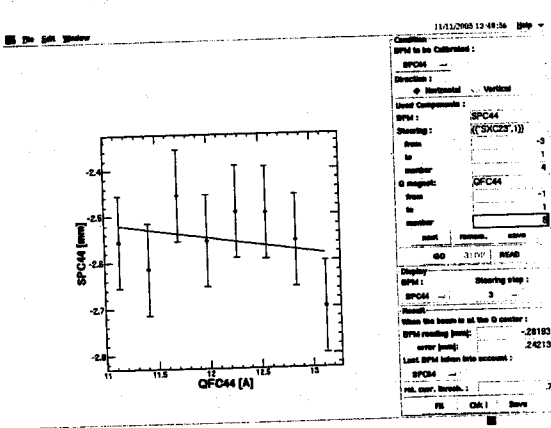
Hard Copy



Hard Copy

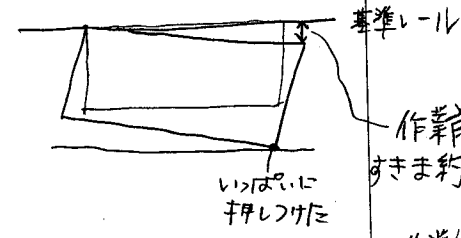


Hard Copy



$$\frac{550}{300} \times 0.67 \div 1.2 \text{ mm}$$

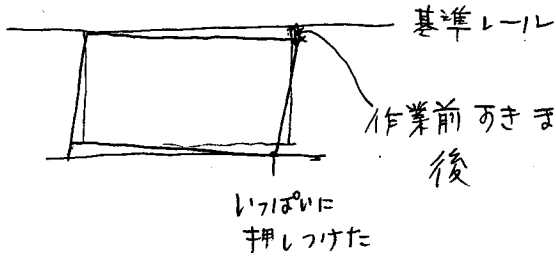
11月2日(水) QFC24 / QDC24



作業後約2.1mm  
約1.2mm移動

11月11日(金) 16:15  
QFC34 / QDC34

$$\frac{550}{300} \times 0.48 \div 0.9 \text{ mm}$$



後 1.92mm  
0.92mm移動

- C44 ↓すきま 0.3mm
- C54 0.3mm以下
- C64 0.97mm



2005.12.12 Mon.

PF. AR. KEKB 同時入射 study

小川, 新谷, 大西, 飯田  
藤本, 佐藤

2004/6/28  
参照

添付(3)  
P.136

KEKB e<sup>-</sup> e<sup>+</sup>

大西さんより

\* 5-1, 5-2 knob は e<sup>+</sup> の "0.10.27" にする。

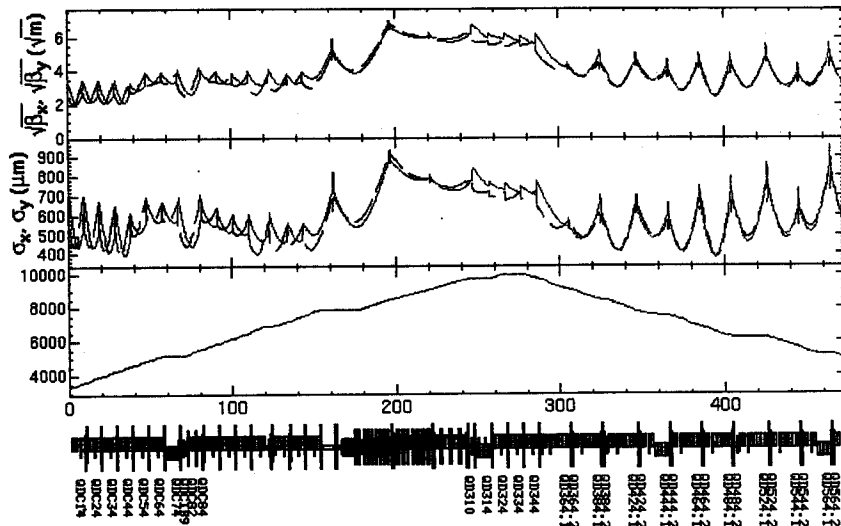
3-2 まで は これまでと同じ

3-3 stand by

3-4 以後は 減速 (θ → θ + 180°)

(\* 但し、5-1、5-2 は 除く)

Optics



Momentum (MeV/c) 1700 Start End 47 Name QD(C345)\*

Hard Copy

11:47 linac parameter 保存.

11:55 Beam wait

送位相を set する作業開始 (kly phase を set) 但し 4sector は sub-booster まで OK  
Magnet set

12:05 0.1nC に charge を FIT する。 BPM (PF 画面に) を set する。

Feedback off する。

軌道補正 (手動) 行う。

PF へ "BM 58-1 154.921 A (2.5 GeV)  
SC 61-F1.

Energy knob を 0.15 → 0.1 (126° くらい見えた) → phase set が  
7.9649 → 8.1 (7.6146 (KL51=259.25, KL-52=280.14) ほとんどできていない  
が、あったせいで)

Abort parameter 保存.

13:00 BPM の タイミング 調整 (佐藤氏) → ECS (6679-) まで  
および キャリブレーション

13:20 " wire scanner background 高い いうので 軌道調整 する。(飯田氏)

→ screen で見て 中央にくるようにした。  
X 方向に 6.4 が 2.5 くらい。 (SC-57-2)  
Gun の 3.9 くらいか?

マシニング 後、  
SC-57-2 で、ビーム 丸く なった。

→ 測定の ための  
スクリーン がある  
SX-57-1

