

1h:02
~~1h:45~~

② 4-4 unit の $E_s = 28.30$, Power for $E_j = 12.0$
Pf = 8.8 ~ 9.0

① ARE-ドの e-beam に切り替えた。
ビーム調整開始 : 5Hz

bl-H の ビームスポット確認

~~3.159 GeV~~ BM-61-1 132.845A 3.00/9 GeV

BPM . SP. bl. HL.

ARE-ド X (mm) Y (mm)
-0.9 ~ -1.509 4.576 ~ 4.973

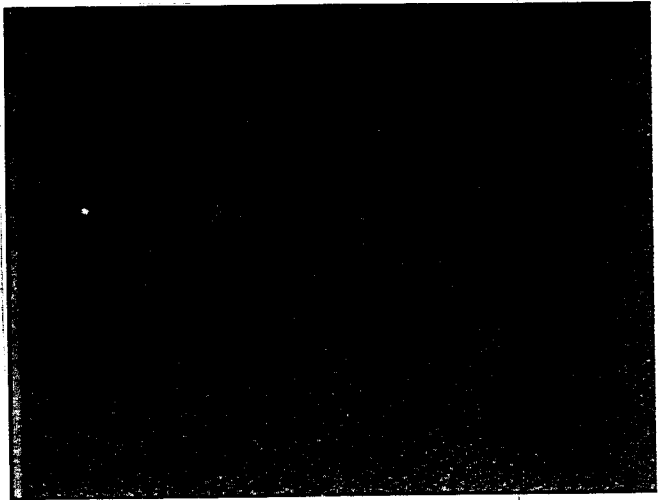
$\Delta 0.6$ mm
BPM の変動が大きい

I (nC) dX (mm) dY (mm)
0.098 1.309 0.262

dI (nC)
0.038

PF-ド X (mm) Y (mm)
-1.429 ~ ~~-1.4~~ 0.323 ~ 0.362

I (nC) dX (mm) dY (mm) dI (nC)
0.140 0.123 0.081 0.002



② ~~feedback~~ feedback OFF AR Energy, 5X, 5Y 10% 10%

③ ~~KL-44 STB~~ → ACC

Energy knob 0" SP. bl-H1 X position ± 0 にする。
3.1417 → 3.0876 ~~± 0.08~~ -0.08 ~ +0.02

$E_s = 28.56$ 12.4 , 9.2

5x
5x
Feed back

ON
(-) T = !

SX-45-1
+1A 0.452
-1A -1.548

BX-48-4
+1A 0.935
-1A -1.065

SX-57-1
+1A 3.790
-1A 1.790

SX-45-1
+1A 0.452
-1A -1.548

BX-48-1
-0.065

SX-45-1
+1A 0.452
-1A -1.548

BX-48-1
~~+0.1A -0.065A~~
~~+1A 0.935~~
~~-0.065A -0.065~~
+0.1A 0.035
-0.1A -0.165

SX-57-1
+1A 3.790
-1A 1.790

SP-48-4
dx = -0.025 ± 0.476 mm
0.428 ± 1.428 mm
0.414 ± 2.252 mm

SP-56-4
0.246 ± 0.508 mm
0.047 ± 0.723 mm
0.228 ± 1.042 mm

SP-58-4
-0.016 ± 0.943 mm
0.39 ± 1.298 mm
0.445 ± 1.341 mm

SP-48-4
dx = 0.127 ± 0.656 mm
1.093 ± 1.594 mm
-4.492 ± 0.221 mm

SP-56-4
0.790 ± 0.077 mm

SP-48-4
dx = 0.601 ± 0.129 mm
4.275 ± 0.667
-3.663 ± 0.173

SP-56-4
~~dx = 0.138 ± 0.107 mm~~

dx = 0.286 ± 0.126 mm
2.891 ± 0.071
-2.450 ± 0.159

SP-58-4
dx = 0.121 ± 0.215 mm
1.519 ± 0.158
-1.674 ± 0.266

$$\frac{\delta X_{pos}}{\delta I} = 3.669$$

$$\frac{\delta X_{pos}}{\delta I} = 26.705$$

$$\frac{\delta X_{pos}}{\delta I} = 1.5965$$

③ 均一度 3.0876 → 3.0902

X position -0.035 ~ ~~-0.035~~
+0.003

④ BPM to 5 time Average level

⑤ 4-4 KL-44 STB → ACC

H1
SP-61
+ 2.234
Energy F_{p1}, F_0

⑥ Simple Correlation Plot

20° → 380° #° step Interval 3
注意: S-band 180° 5

$$3 \text{ GeV} \times \frac{3.727}{307.5} = 36.369 \text{ MeV}$$

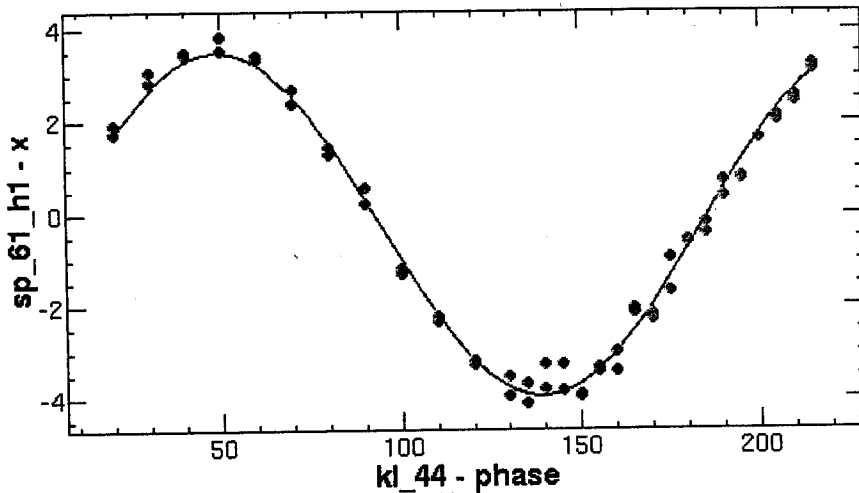
$$\frac{36.369}{0.96225} = 37.796 \text{ MV/m}$$

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ChiSquare = 3.64514 Goodness = .47464
a = 3.72784 +/- .04813 b = 184.058 +/- .39105 c = -.22654 +/- .03595

ES = 28.56



Function = (c+(a Sin[({.034906585039887 (x+(-b))})])

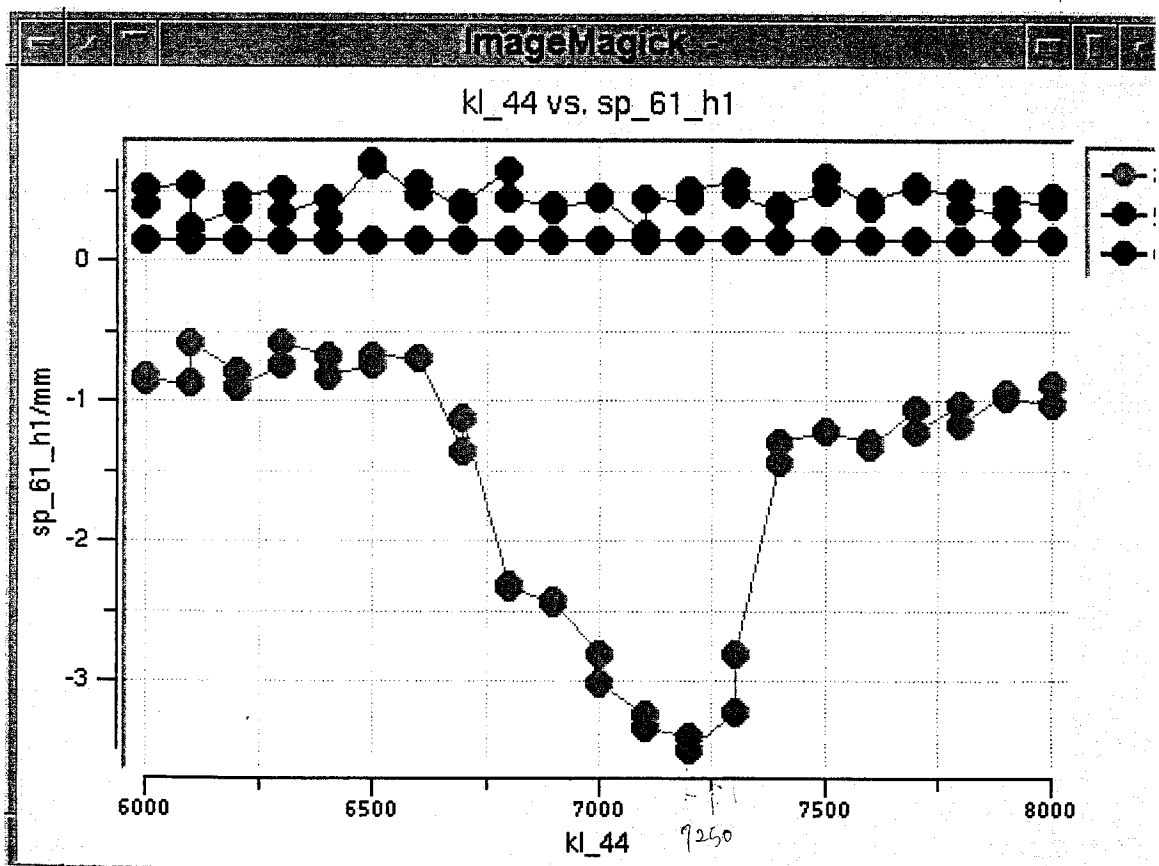
Status Display

$$184.058 - 45 = \underline{139.058^\circ}$$

- ① KL-44 Phase 20.8 → 139° にセット
- ② BEAMRFMON-4 ~~44750~~
- KL-44-RF
- KL-44-RF2
- PULSEDELAY-4 ← 77.450Tのため。4479-の kly があがってある
- KL-44 7190 ns

ALL、STBの切り替えで Delay 値が変わるものではないか?
 → リフトからは Delay の変化は対応しないので、無効

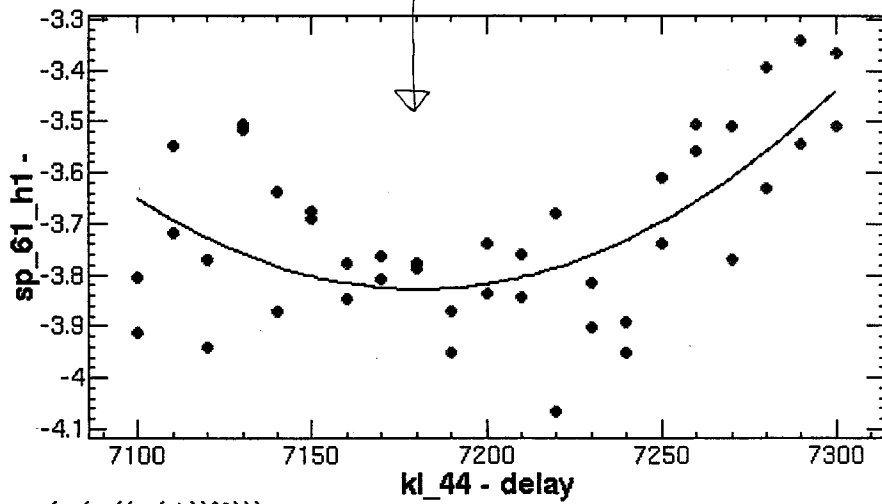
KL-44 A' の調整のため Es = 25 kV で Delay scan
 Phase 139° → 170.2° にセット



KL-44 7180 ns

ChiSquare = .71355 Goodness = .46988
 a = 2.73E-5 +/- 6.39E-6 b = 7180.45 +/- 7.78857 c = -3.8282 +/- .03035

最大加速と存在RFの位相



Function = (c+(a ((x+(-b))^2)))

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RF位相調整

- ① CD 高圧
- ② SB の RF
- ③ 位相反転
- ④ 4-5 a trigger timing

20:32

knob
61-H1

3.4069 → 3.4082
-3.466 -0.028

Energy spread の確認後、 3.3850

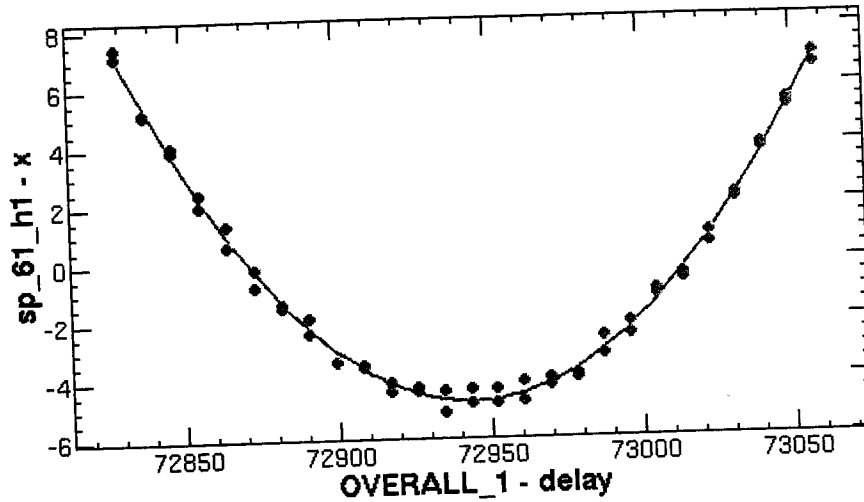
KL-44 STB → Acc に切り換え

軌道補正を行う。 BPM 5time Average

ES = 28.0 kV , 11.6 , 9.1

Oct. 6, 2004 18:30 KL-44のEsup 終了.
PF Mode 2の SLED gain peak search

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ChiSquare = 3.70456 Goodness = .47366
a = 9.07E-4 +/- 8.75E-6 b = 72943.6 +/- .29504 c = -4.8207 +/- .05508

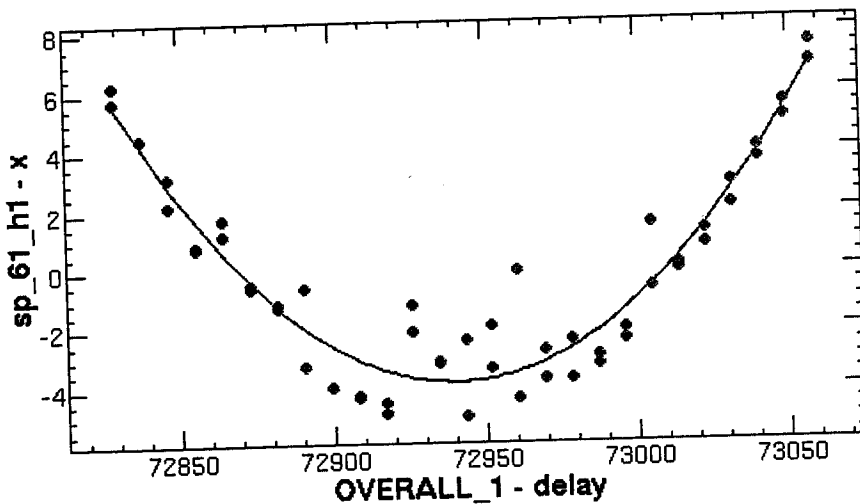


Function = (c+(a ((x+(-b))^2)))

同時に overall_1 [1-5] 調整し, SP-61-H1 を測定
Peak は 72944ms.

同様に AR-Mode

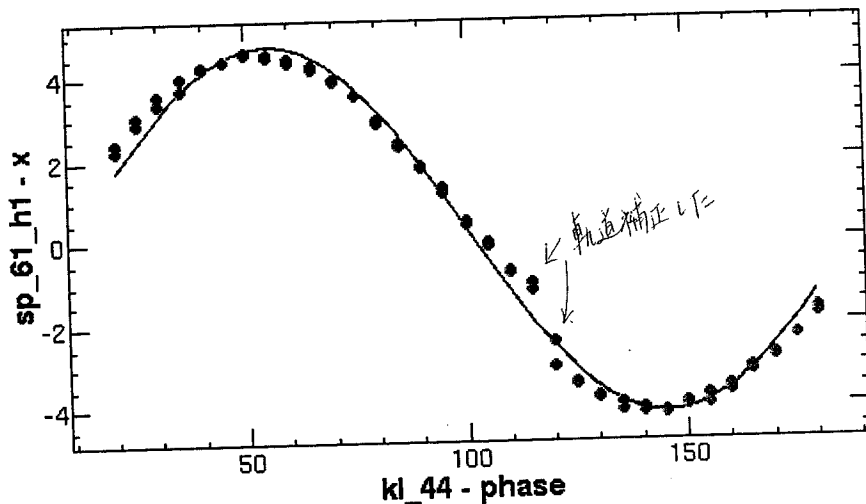
File Edit Window 10/06/2004 19:11:07 Hel
ChiSquare = 57.6786 Goodness = .47366
a = 7.67E-4 +/- 3.45E-5 b = 72939.9 +/- 1.38456 c = -3.8265 +/- .21715



Function = (c+(a ((x+(-b))^2)))

amon 6A の timing がよくない。 → 調整

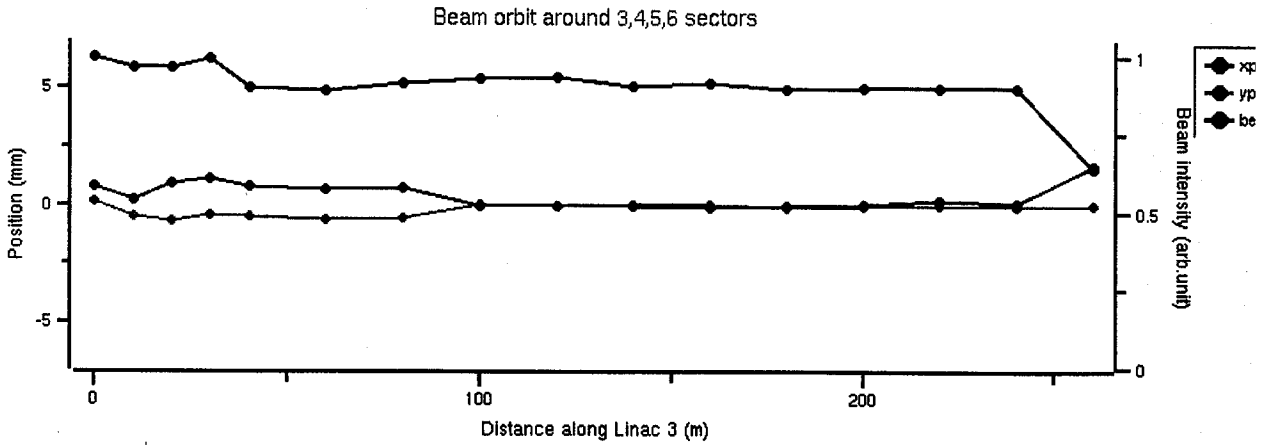
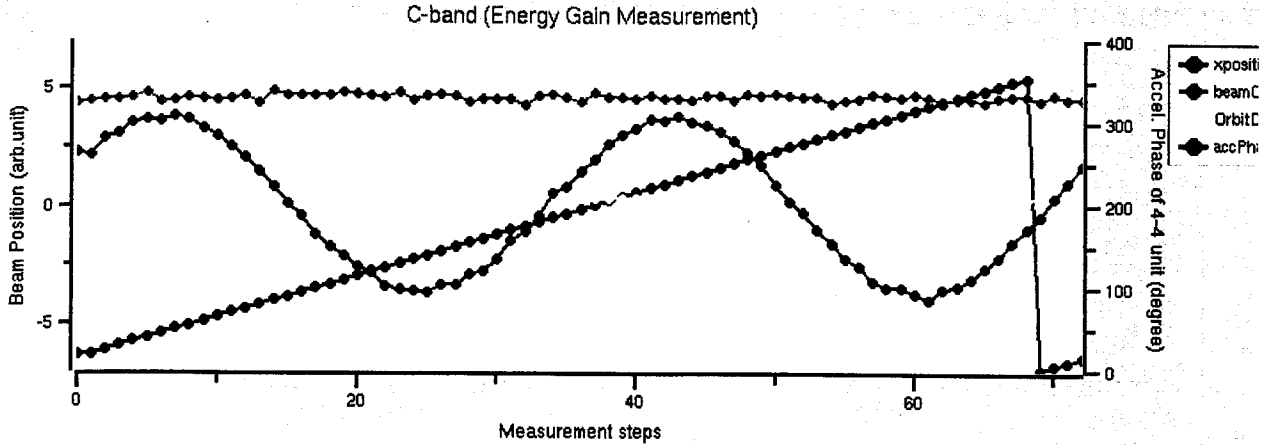
ChiSquare = 6.18861 Goodness = .47630
a = 4.44879 +/- .05232 b = 190.257 +/- .37105 c = .27868 +/- .03893



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43.40 MV

45.11 MV/m



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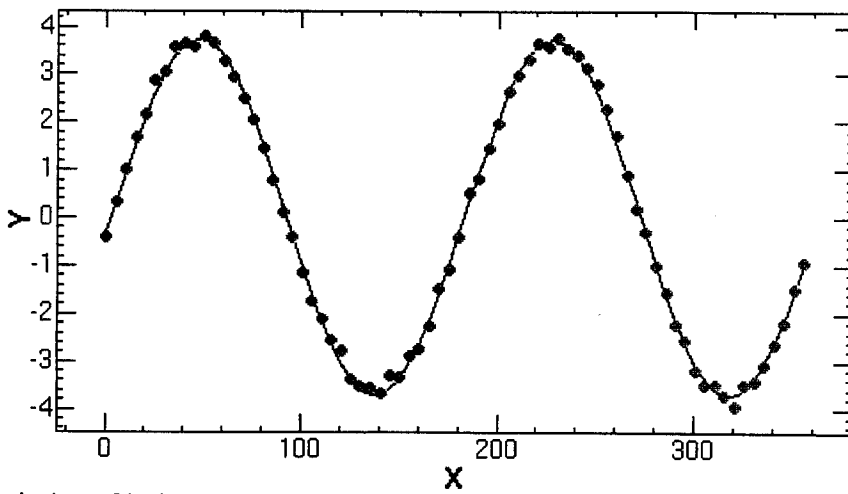
10/06/2004 21:16:31 Help

ChiSquare = .97313 Goodness = .47736

a = 3.71602 +/- .01979

c = -.10052 +/- .00533

d = -.00673 +/- .01400



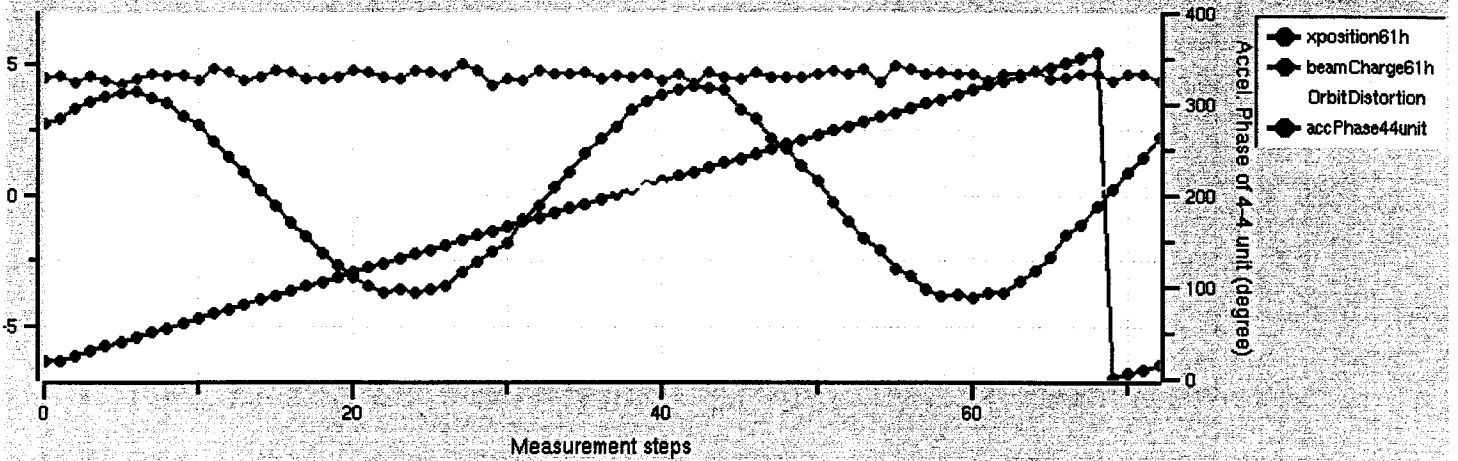
Function = (d+(a Sin[(c+(.034906585 x))]))

37.69 MV

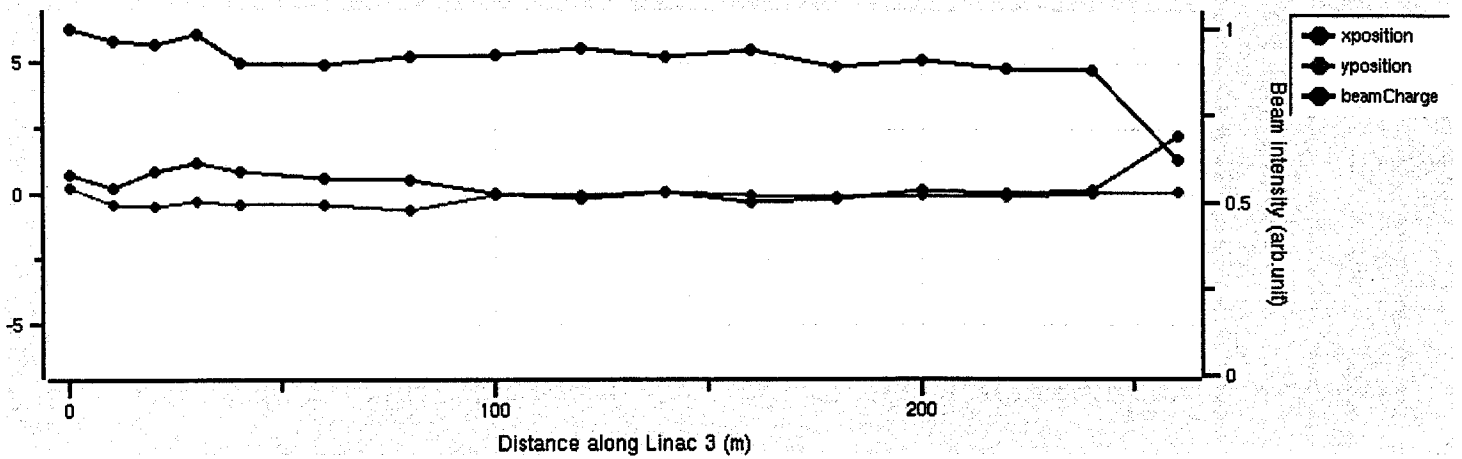
$E_s = 28.0 \text{ kV}$

$P_f = 9.1 \text{ MW}$

C-band (Energy Gain Measurement)



Beam orbit around 3,4,5,6 sectors



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ChiSquare = 1.44311 Goodness = .47752

a = 3.91354 +/- .02377

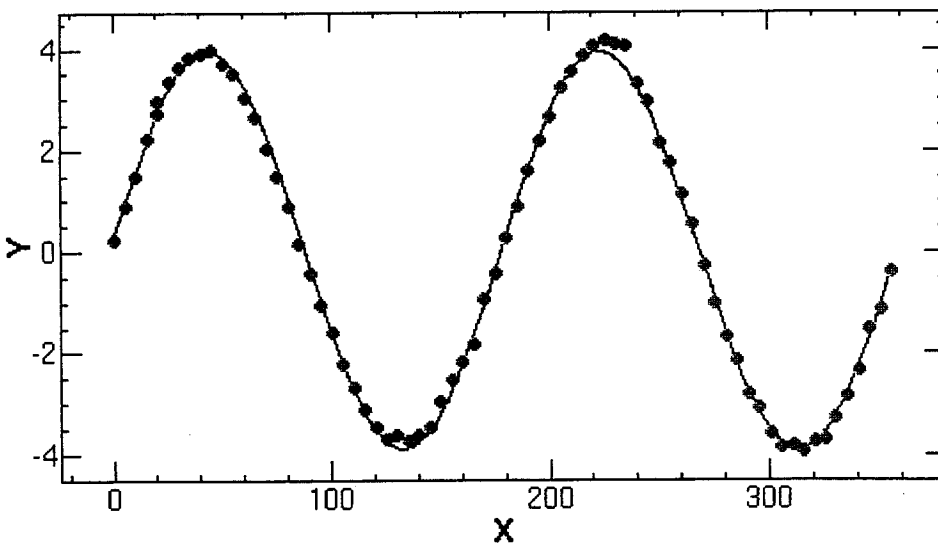
c = .06147 +/- .00607

d = .02473 +/- .01681

39.69 MV/m

Es = 28.56 kV

Pf = 9.4 MW



Function = (d+(a Sin[(c+(.034906585 x))]))

KBE mode 2 Overall [C1-5] を推定.

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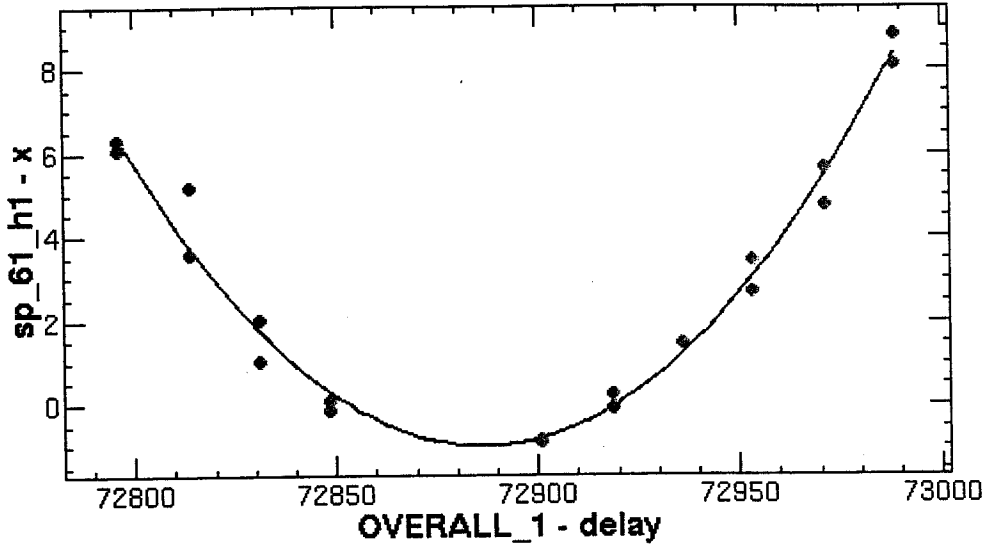
10/06/2004 22:26:44 Hel

ChiSquare = 4.06409 Goodness = .45437

a = 9.02E-4 +/- 3.48E-5

b = 72886.4 +/- .94020

c = -1.0023 +/- .18574



Function = (c+(a ((x+(-b))^2)))

Peak at 72886.

Operation at 72934

↓

(peakとの差)

(dispersion 307.5mm)

-53 MeV = 0.66%

時間軸.