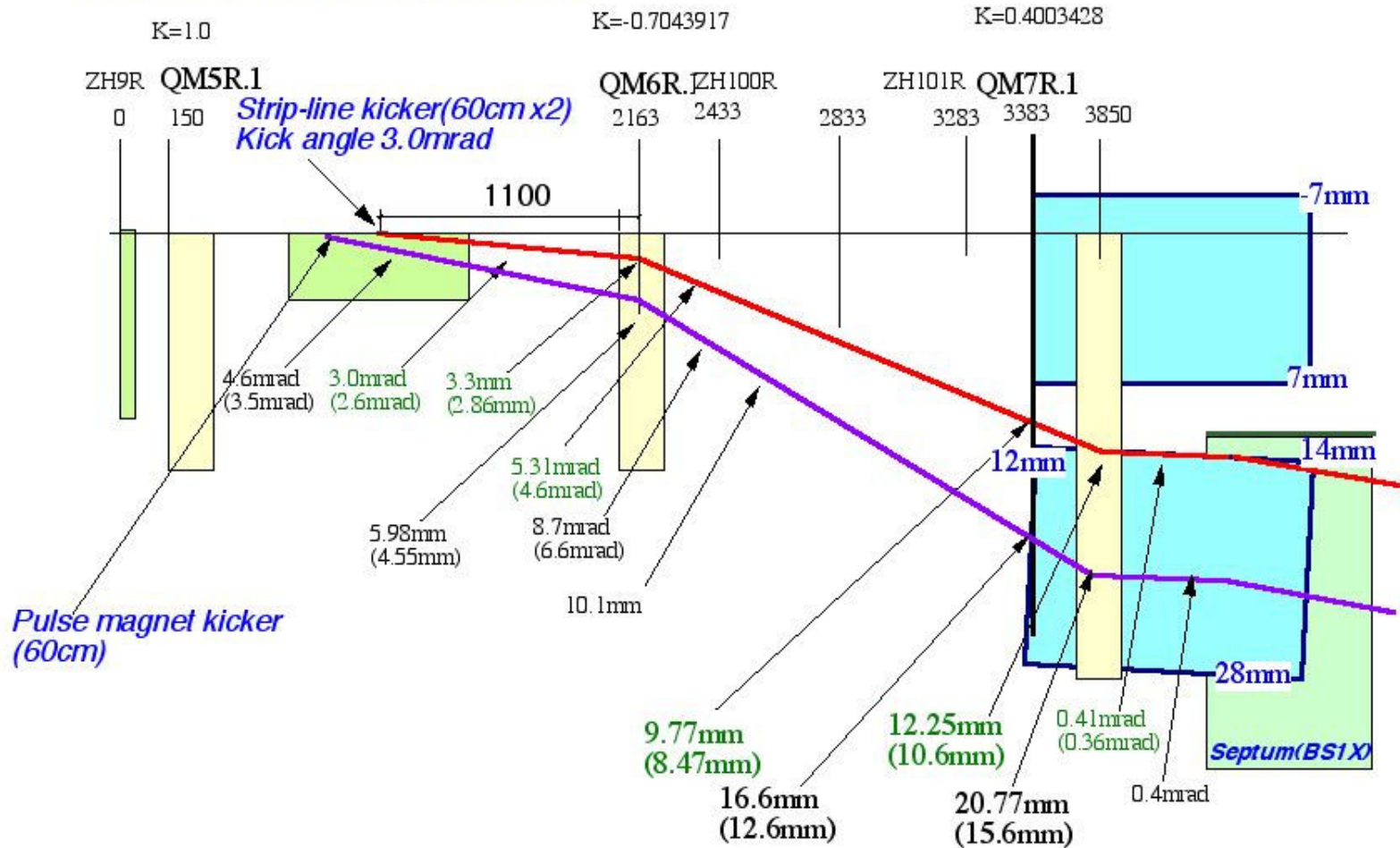


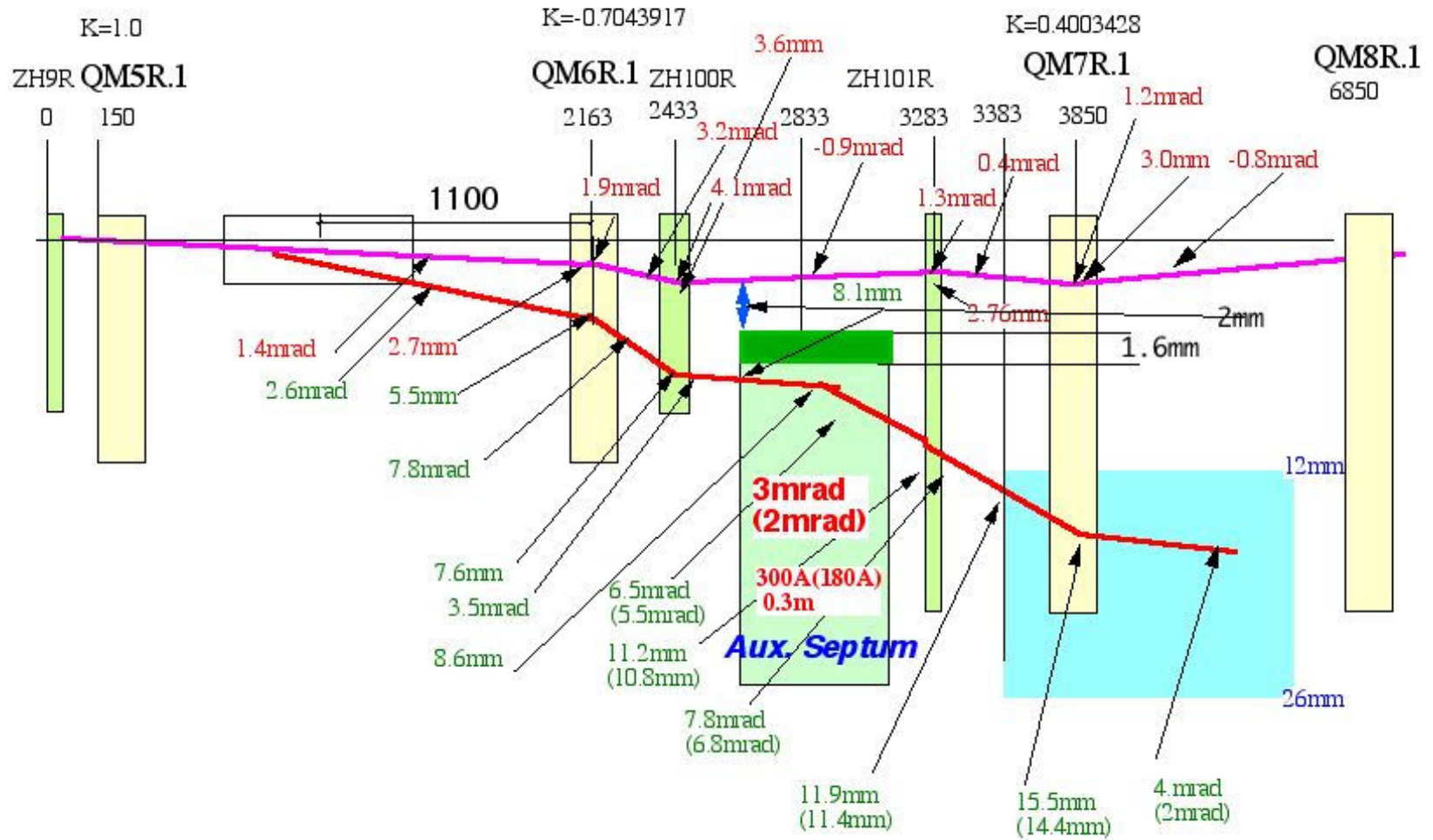
Beam Extraction orbit in the case of the pulse magnet(4.6mrad, 3.5mrad) and strip-line kicker(3.0mrad)



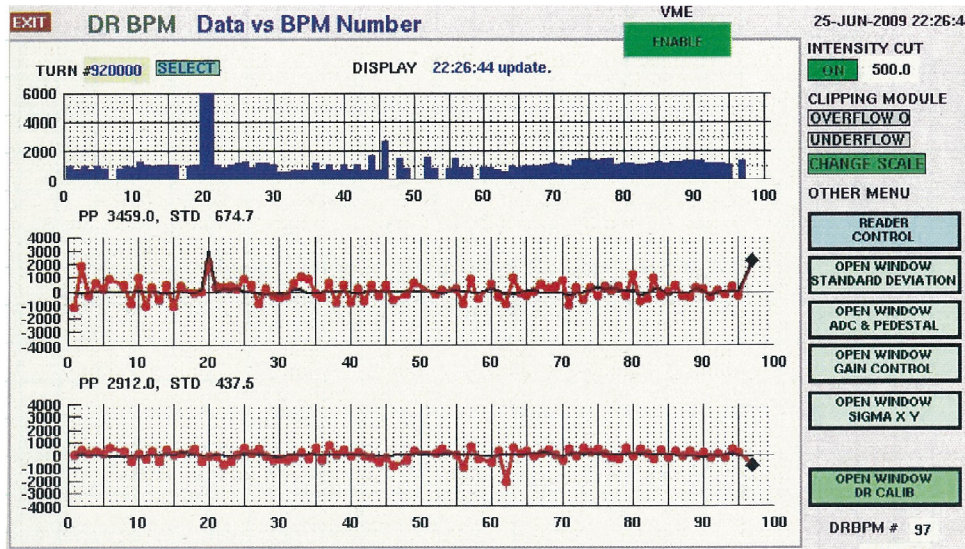
The beam can not extract even 3mrad kick angle of the Strip-line kicker for the geometrical restriction.

Beam extraction by using the local bump and auxiliary septum

2.6mrad kick angle



Beam extraction test by using the kicker magnet, the local bump and auxiliary septum



The kick angle (Normal operation 39000) could reduce to 24000.

Display Control Switches 19:26:01 DATA UPDATED. GOOD/READ = 20/20

N_AVER. 20

EXEC. AVERAGE STORE ORBIT INTO MEMORY

SAVE TO FILE 09jun19_212828

KILL Process HELP

POSITION POS - MEMORY POS - REF MEM - REF DATA TO SAD1 DATA TO SAD2

REFERENCE	STANDARD	FILE A	FILE B
09apr17_035129	09may19_001036	09may19_001129	09may19_001207

SERVER MS1X TIME 2009/06/25 22:15
SCREEN OFF FILE SIZE 6921 byte

EXT DKICKER (on)

EXIT EXTRACTION DKICKER

HV ON OFF RESET RESTORE OLD PREVIOUS 23E

FILE	SET	MONITOR	COUNT	KV
23800	24000	16556		
PULSE HV	240.0	17.4		

LOAD

MAG TP1-02

EXIT 19:59:12 Finish setting new data.

BS1X 1614.83 A

STATUS R:ON STEP 2.00

ON OFF RESET NEW 1552.830 A

Max 2000.00 A DAC 1614.80 A RESET 1552.830 A

Min 0.00 A ADC 1614.11 A FILE 1552.83 A

UPDATE STATUS 2.79 V

SERVER ABORT

DR MAGNET STEERING BUMP CONTROL

22:02:42 Finish to set new value.

BUMP	Factor
-6.1000	-1.2500
0.2703	0.1200
0.7905	0.0000
0.0000	0.0000
3.1980	0.7800
-1.8860	-0.4600
-3.8745	-0.9450

Step 0.100

BUMP ON

SEPTUM BS0X CONTROL WINDOW

EXIT 22:25:47 Finish setting new data.

BS0X 70.00 A

READ A 69.95 A DAC 70.00 A STEP 5.00

READ V 0.16 V

ON OFF RESET

UPDATE STATUS

DETAIL SETUP WINDOW FILE set09

MAG TP1-03

EXIT 19:59:21 Finish setting new data.

BS3X 2559.95 A

STATUS R:ON STEP 5.00

ON OFF RESET NEW 2584.950 A

Max 3300.00 A DAC 2559.94 A RESET 2584.950 A

Min 0.00 A ADC 2550.52 A FILE 2584.95 A

UPDATE STATUS 3.14 V

SERVER ABORT

MAG TP1-04

EXIT 22:21:07 Finish setting new data.

ZV100R 4.50 A

STATUS ON STEP 0.10

ON OFF RESET NEW 0.000 A

DS0X RS-232C socket server

START

TEMPERATURE

24.5	BPM 20 CHAMBER	0.85
27.7	BASE-OUT2	
27.6	BASE-IN1	0.72
27.8	SEPARATOR-OUT1	1.98

FLOW mo START

FLOW Mo START

CH 2

Beam kick test at ATF2 line

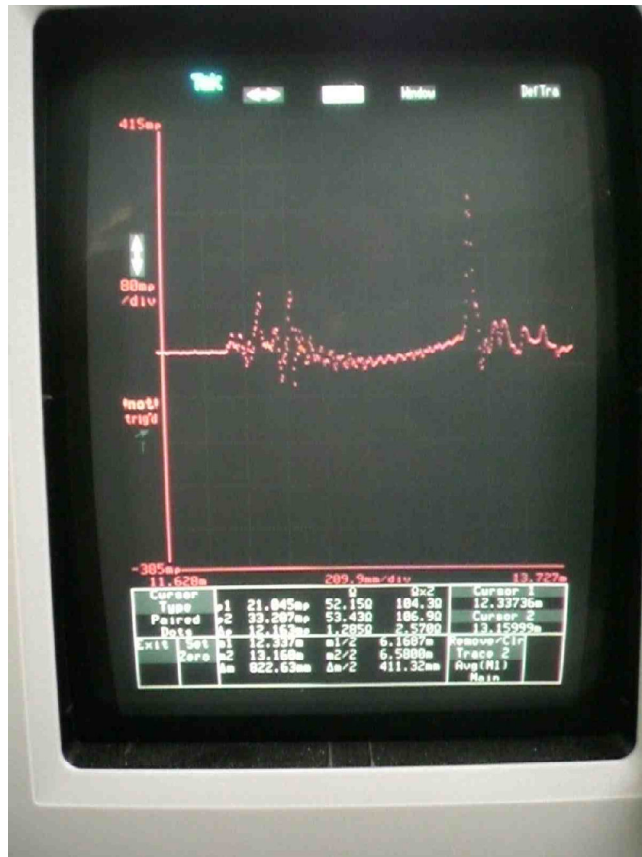
60cm long Strip-line kicker

	Left Side electrode	Right Side electrode(Calc.)	
2ns pulse	-400 ~ -380urad	+280 ~ +240urad	(600urad)
(Vertical)	+50urad	+40urad	(0urad)
4ns pulse	-750 ~ -640urad	+480 ~ +440urad	(900urad)
(Vertical)	+70urad	+70urad	(0urad)

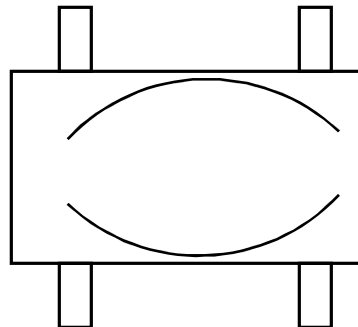
30cm long Strip-line kicker

2ns pulse	-313 ~ -283urad	+270 ~ +257urad	(350urad)
(Vertical)	+40urad	+20urad	(0urad)

60cm Left side electrode

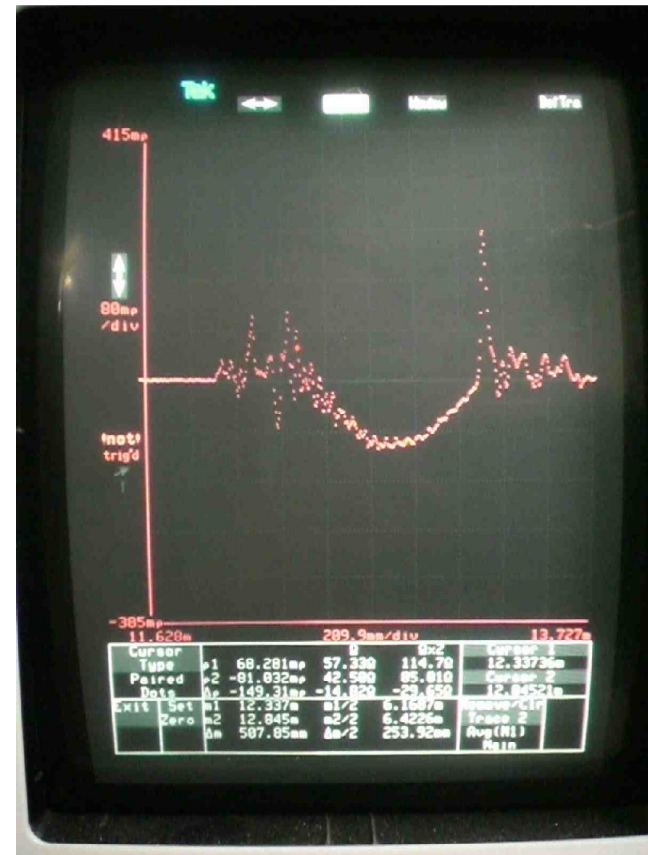


In 52.95Ω
 Out 52.95Ω
 Middle 48.9Ω



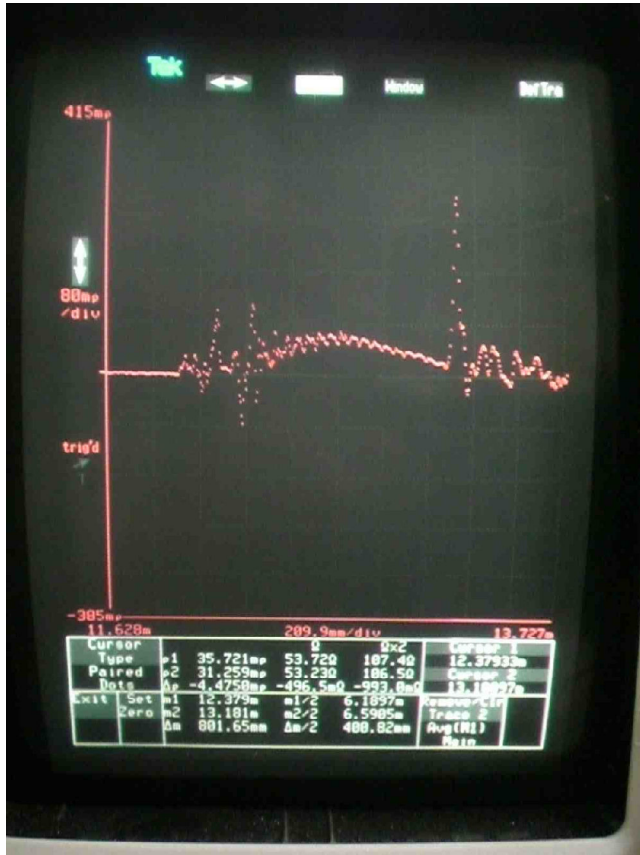
(Beam Test)

60cm Right side electrode

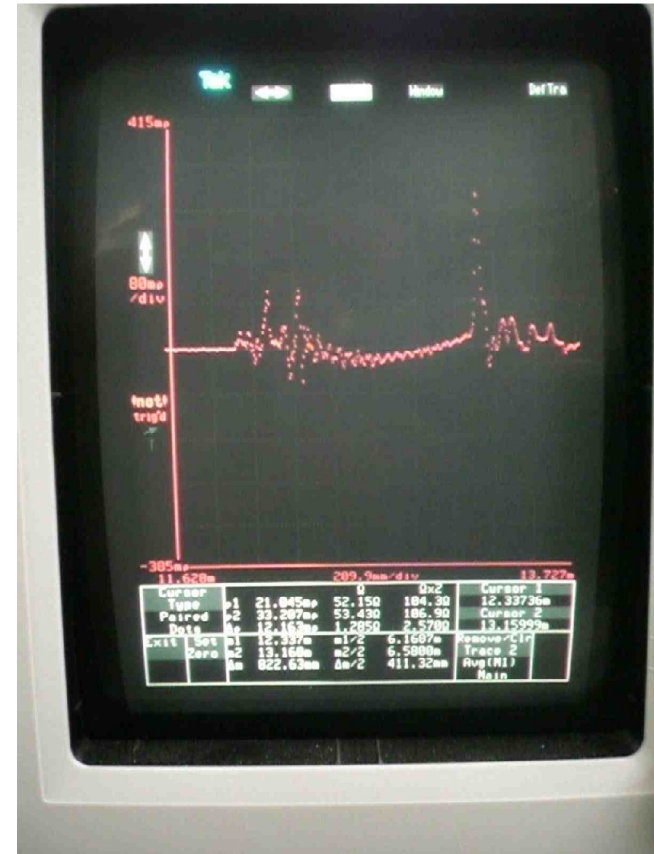


In 57.3Ω
 Out 50.16Ω
 Middle 41.9Ω

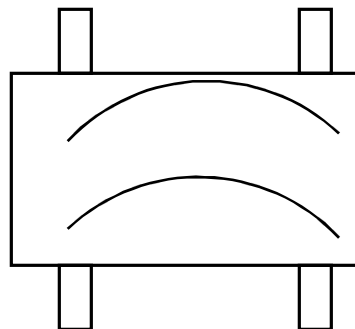
60 cm Left side electrode



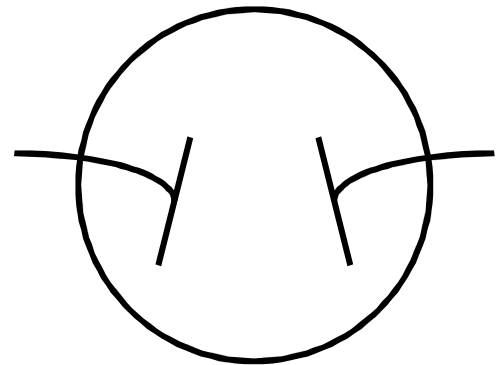
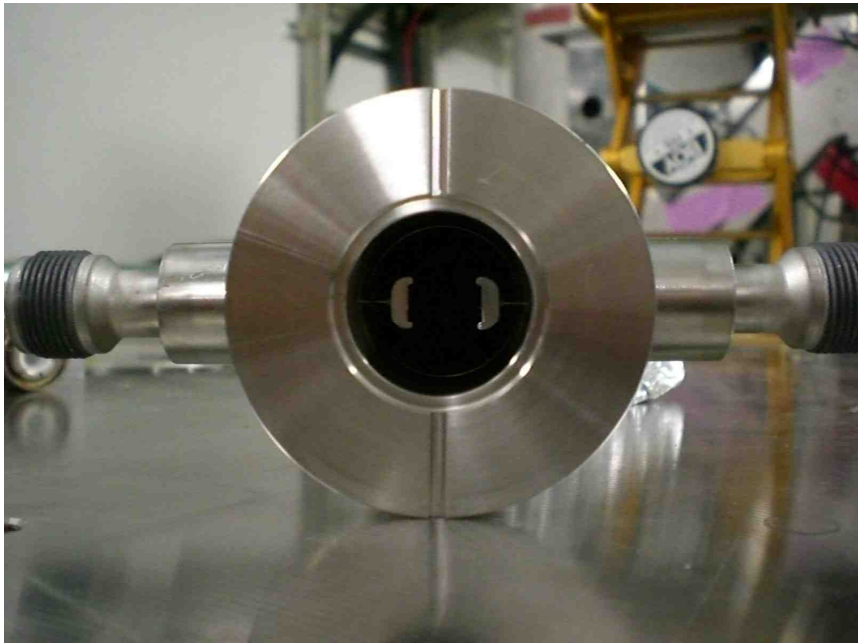
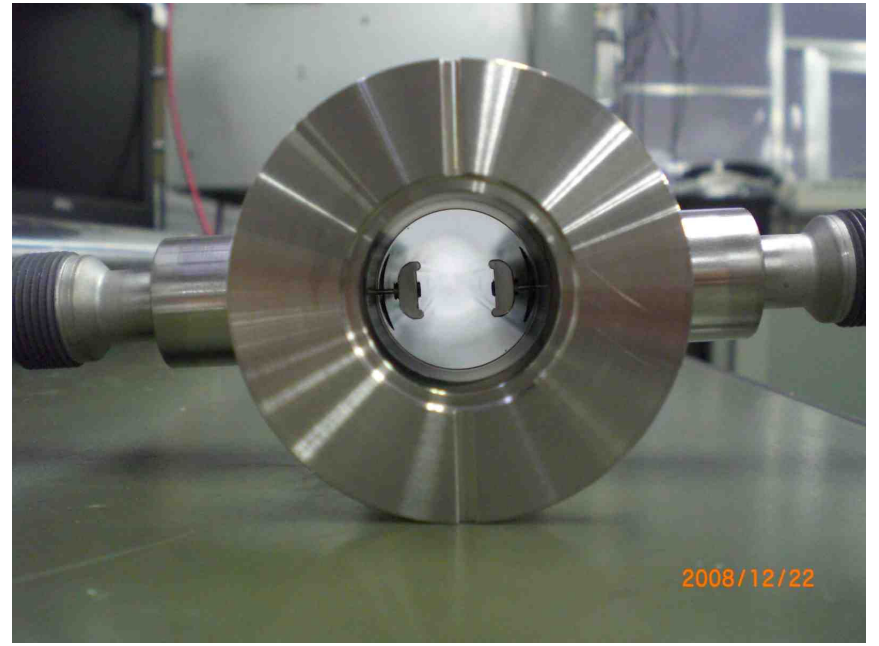
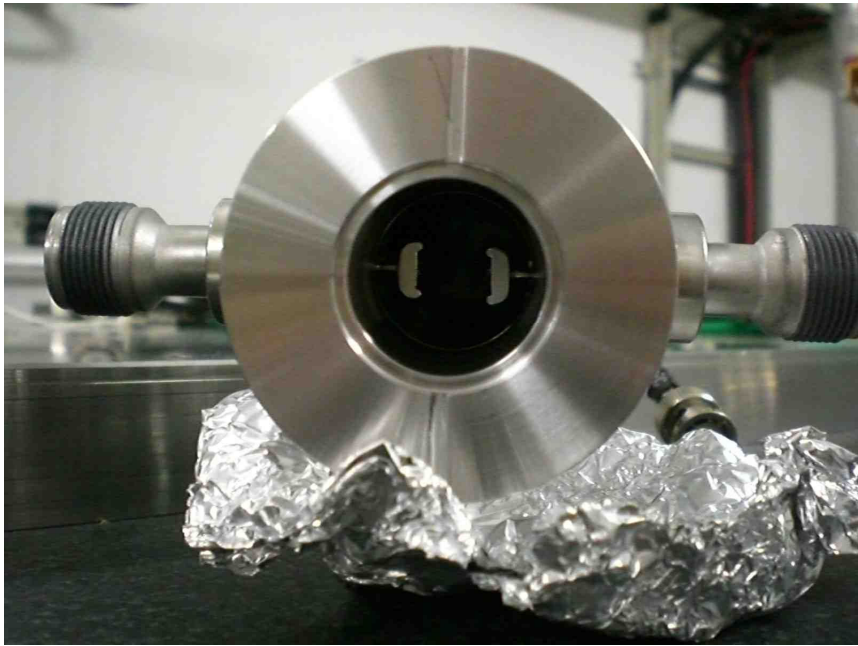
60cm Right side electrode



In 53.5Ω
 Out 53.2Ω
 Middle 58.5Ω



In 52.2Ω
 Out 53.1Ω
 Middle 45.4Ω



Improvement for the next experiment

- Re-fabricate the strip-line electrode
- Using 4ns pulser x 4 (20%)
- Strip-line gap 12mm ->11mm(10%)
- Strip-line length 60cm ->66cm(10%)
- Length of the BS0X 57cm ->37cm
 - The orbit difference of the upstream of the BS0X increases ~1mm

Schedule of the next beam test

2009/10/19~

1 week