

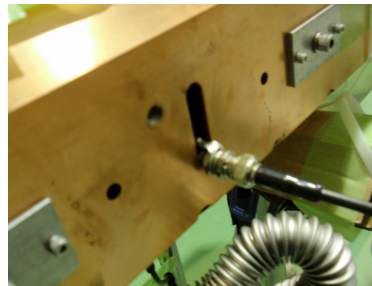
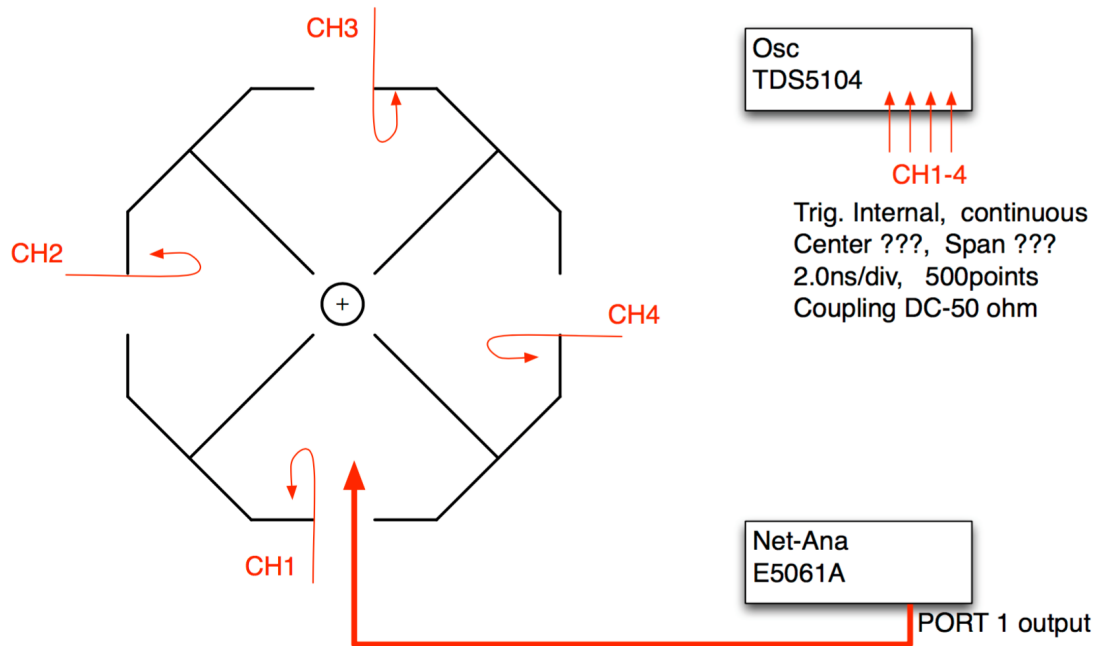
Status of RFQ

28.04.2016 y.ishi

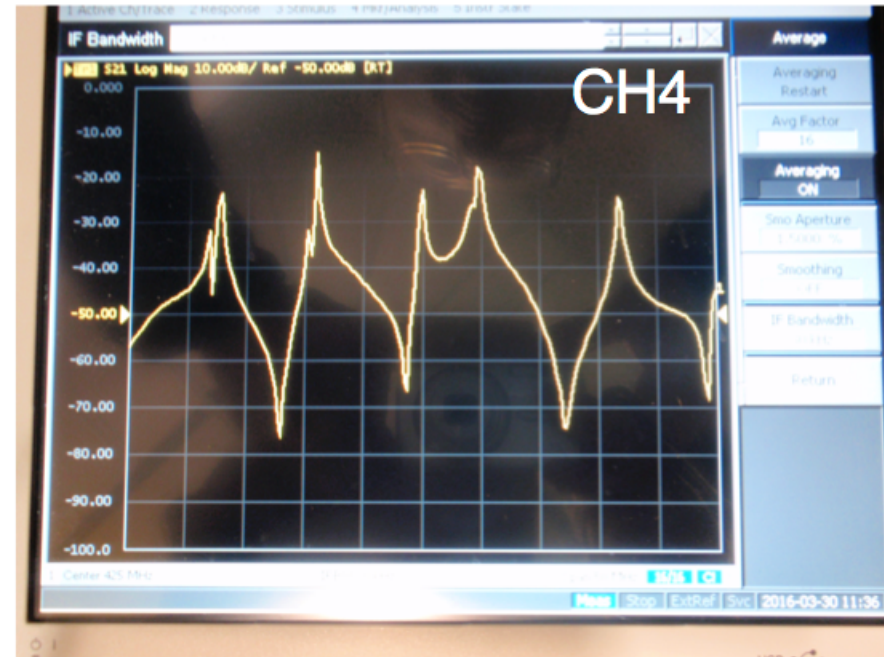
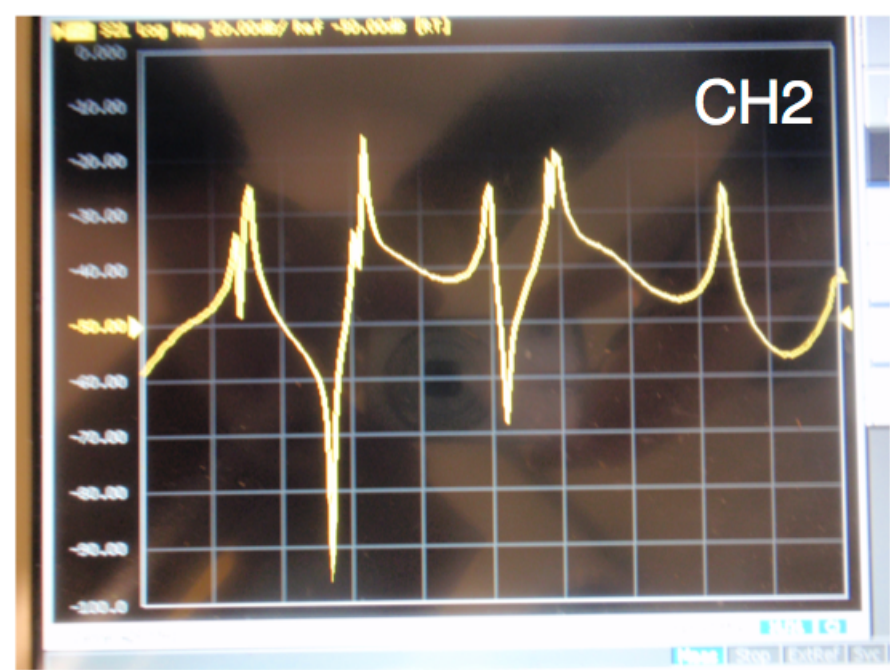
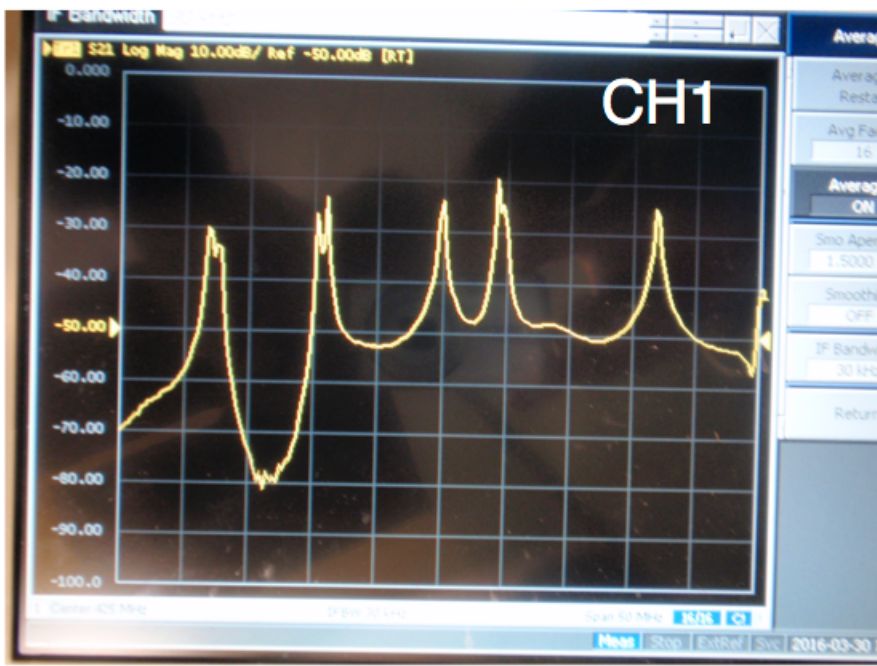
What we did with the damaged resonator
(nothing has been done with the healthy one)

1. Measured rf characteristics (e.g. f_0 , f of dipole modes, Q) using damaged resonator for exercise.
2. Did the same measurement after 90-degree rotation (damaged one). Obtained the same characteristics as before the rotation.
3. Established the procedure to pull the resonator out of the tank and to put it back.
4. Checked DTL1. No contamination found.

2016.03.30

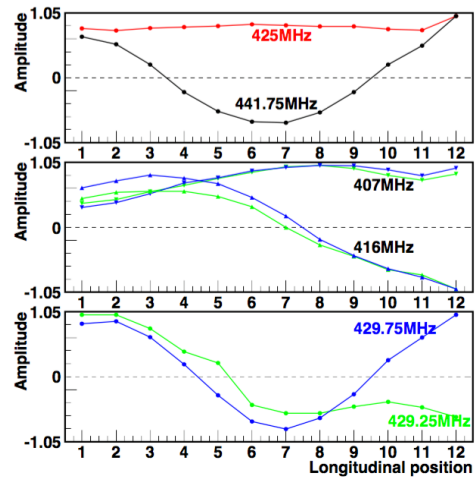
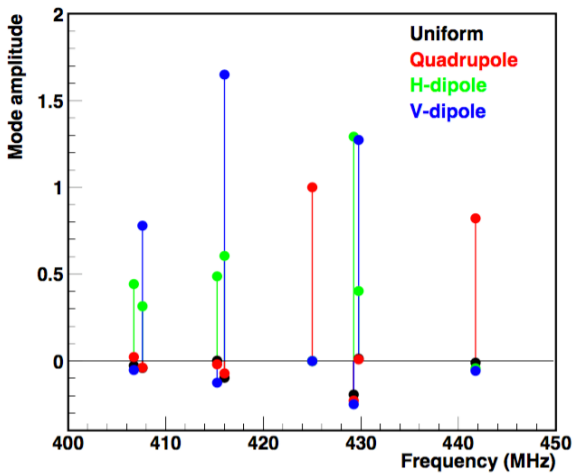
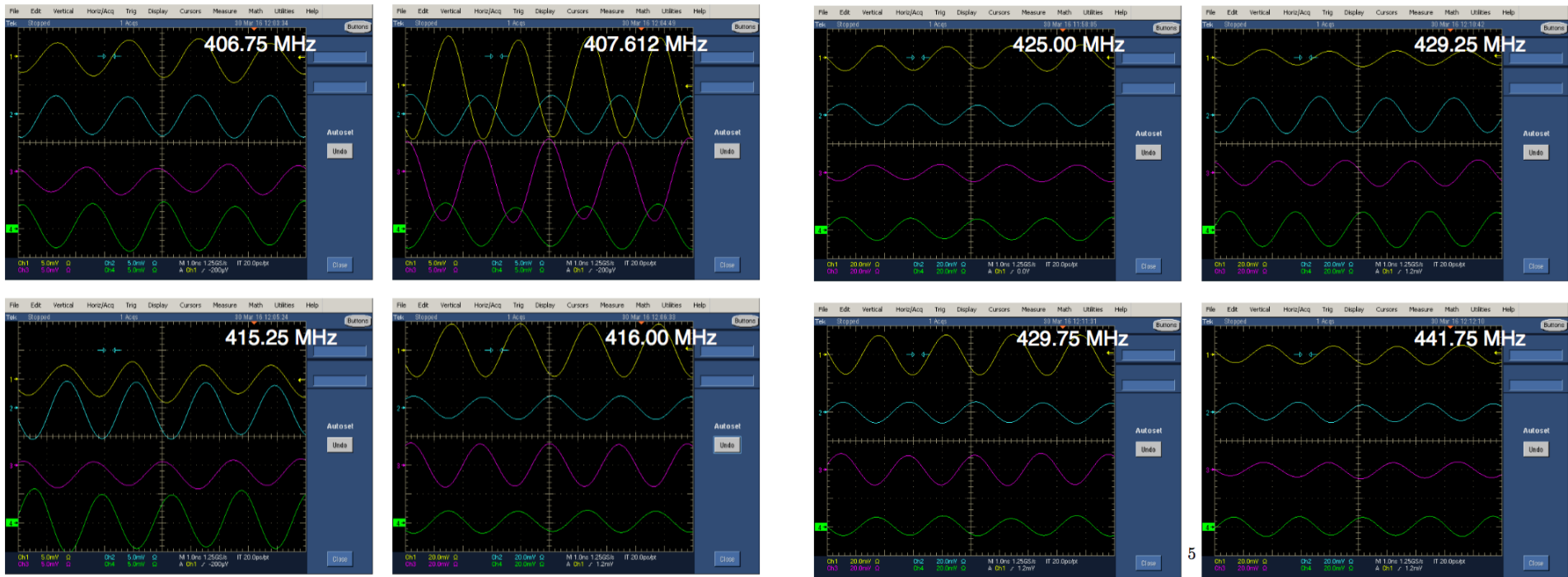


406.750	407.612	415.250	416.000
425.000	429.250	429.750	441.750



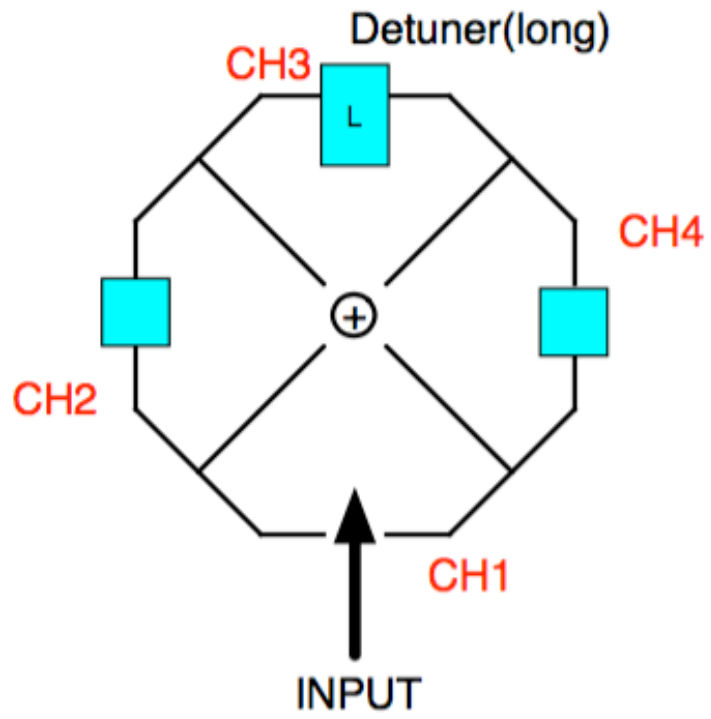
Center 425MHz, SPAN 50MHz

Before the rotation



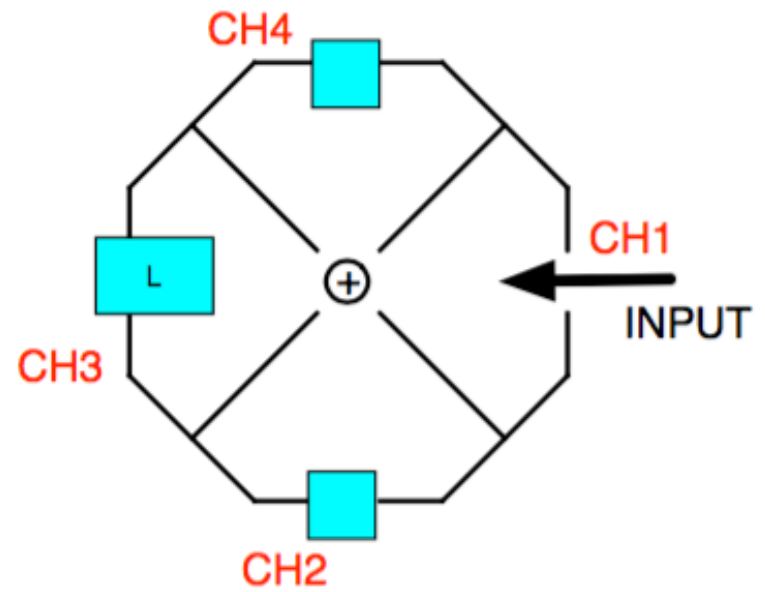
$$\begin{bmatrix} V_U \\ V_Q \\ V_H \\ V_V \end{bmatrix} = \frac{1}{4} \begin{bmatrix} +1 & +1 & +1 & +1 \\ +1 & -1 & +1 & -1 \\ +1 & +1 & -1 & -1 \\ +1 & -1 & -1 & +1 \end{bmatrix} \begin{bmatrix} V_1 \\ V_2 \\ V_3 \\ V_4 \end{bmatrix}$$

2016.03.30-04.01



2016.04.06-

4



Redefined CH-number

Plans

1. Beam profile measurements at the end of the ion source system (exit of the second solenoid).
2. Installation of the healthy RFQ into the beam line for the power testing before the rotation.
3. Roll out the RFQ and rotate by 90 degree.
4. Roll in again.
5. Beam testing.