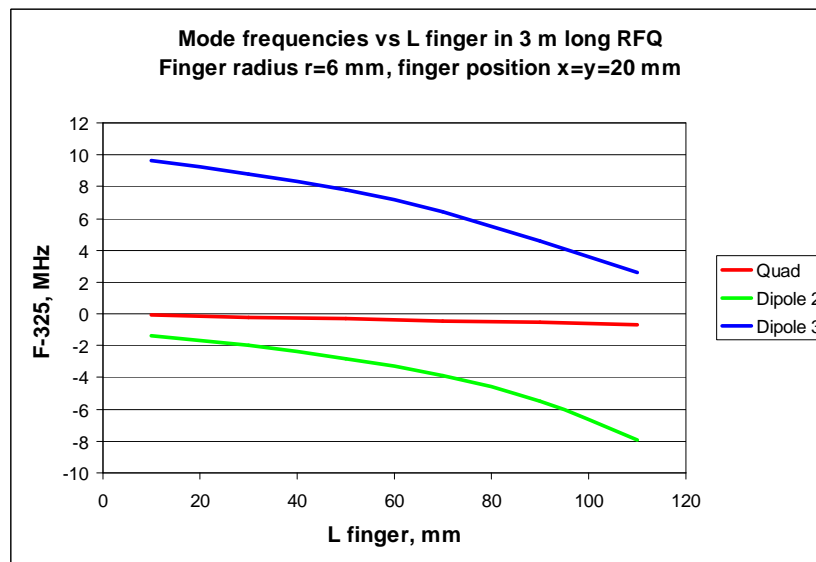
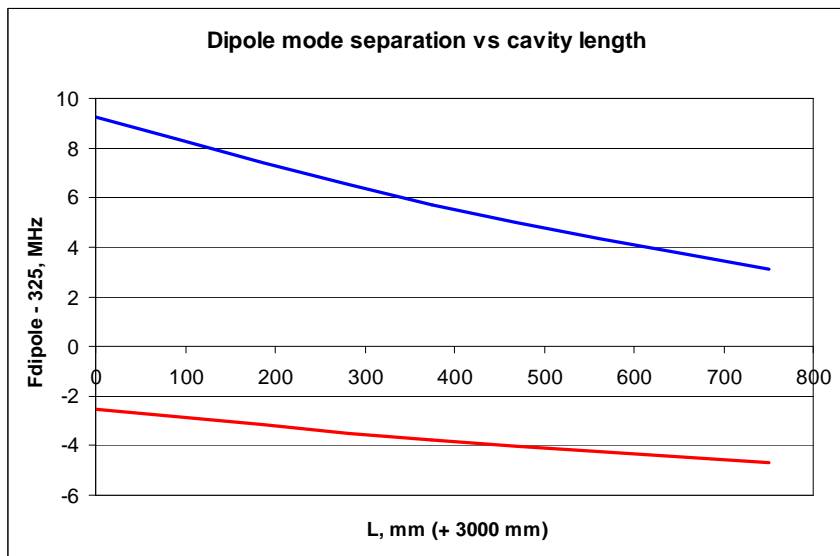
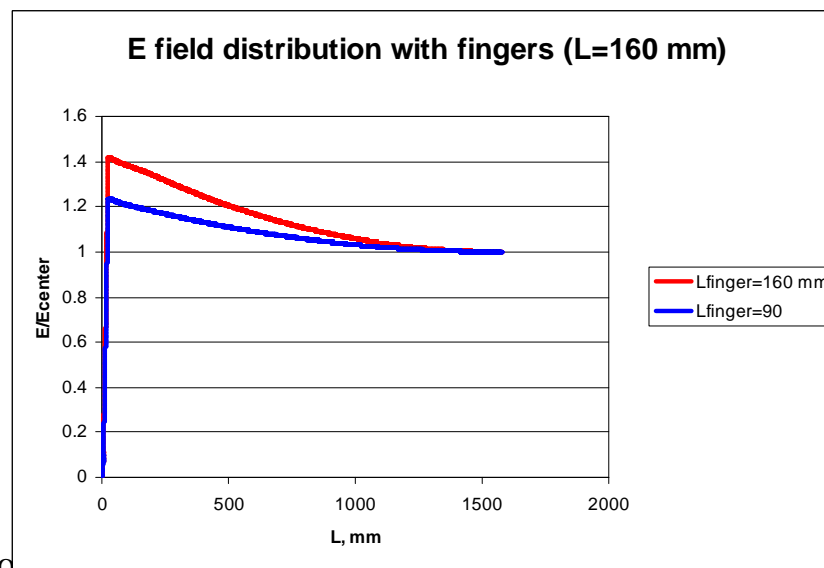


RFQ. Dipole mode separation.



3.4 meter from vane tip to vane tip would be OK

90 mm fingers would be OK for 3 meter long RFQ. But field distribution...



RT CH cavity design

Table 2.1.3.2.3 Parameters of the DTL tanks.

DTL Tank number	1
Injection energy	3.0
β_{in}	0.0797
Output energy	19.716
β_{out}	0.2017
Tank length	9.921
Number of cells	76
Number of post couplers	36
Rf driving power (*)	1.06
Beam power (50mA)	0.84
Total power (50mA)	1.90
Accelerating field	2.5
Stable phase	-30
Drift space	1
	0.187

(*)including a factor of 1.3

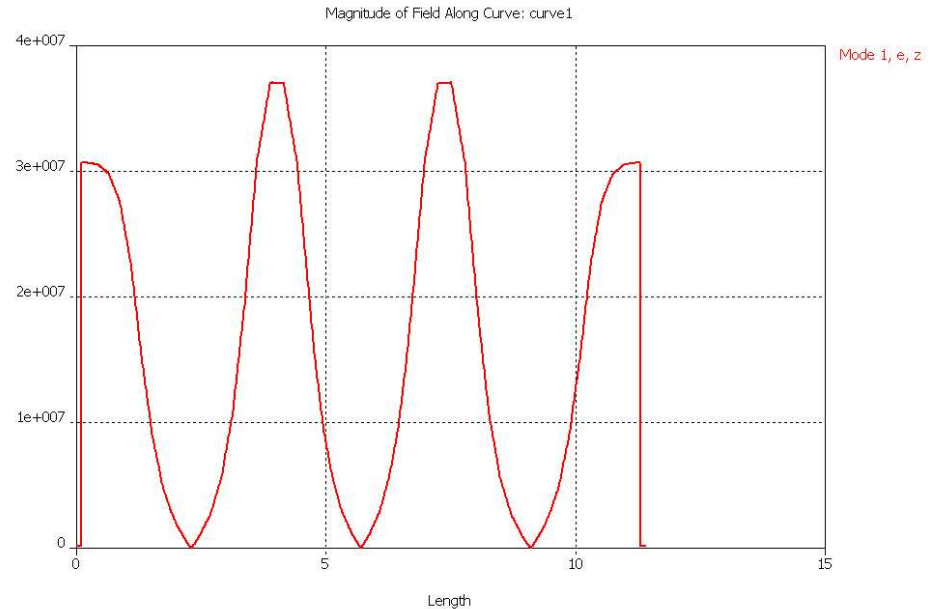
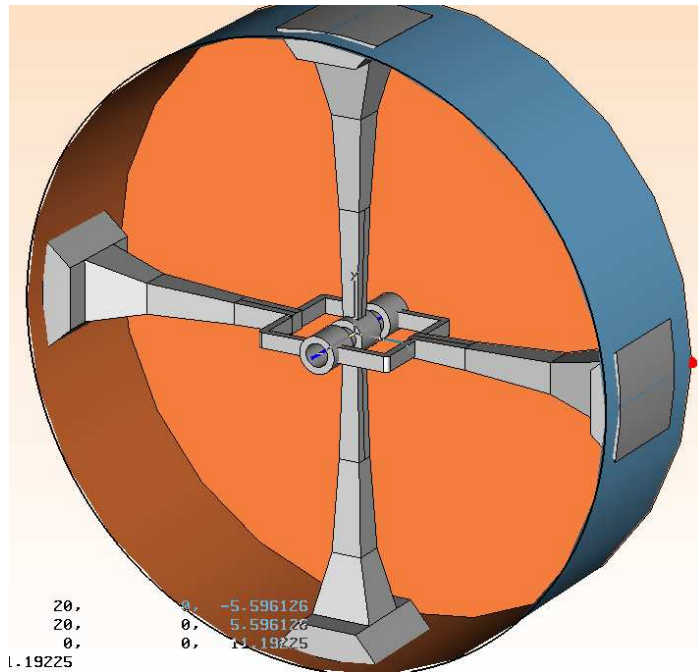
J-PARC

For 2.5-10 MeV
Tank length: ~5 m
Power: ~ 0.5 MW

CH

Length: ~ 10 m
Power: 0.3-0.6 MW
1 klystron for RFQ,
MEBT, RT CH and
SSR?

RT CH cavity design



Rsh: 140 M Ω /m – ideal boundaries

108 M Ω /m – 3 spokes, volume ends

~50 M Ω /m – 3 spokes, flat ends

65 M Ω /m – fork spoke, flat ends

Losses in copper

Cavity number	Beta	ZT ² Ideal ends	Q	Voltage MV	W kin MeV	dW MeV	Pcopper kW (+30%)	Pbeam kW I=26 mA	Ptotal kW	
1	0.072814	143.8762	13451.97	0.31	2.737477	0.237477	5.585652	6.174402	11.76005	
2	0.07714	140.4765	13702.95	0.33	2.990275	0.252798	6.658282	6.57275	13.23103	
3	0.081466	137.1258	13944.78	0.35	3.258394	0.268119	7.816206	6.971099	14.78731	
4	0.084958	134.4576	14133.37	0.373068	3.544185	0.28579	8.819736	7.43055	16.25029	
5	0.088562	131.7404	14321.73	0.402461	3.852492	0.308307	9.925233	8.015987	17.94122	
6	0.092283	128.9741	14509.57	0.432985	4.184182	0.33169	11.14705	8.623941	19.77099	
7	0.096117	126.1675	14696.04	0.464639	4.540121	0.355939	12.49747	9.254412	21.75189	
8	0.100068	123.3231	14880.67	0.499685	4.922907	0.382786	13.99307	9.952434	23.94551	
9	0.104139	120.4443	15062.95	0.530716	5.333406	0.410499	15.65218	10.67297	26.32515	
10	0.108333	117.5359	15242.28	0.564559	5.774216	0.44081	17.49486	11.46106	28.95592	
11	0.11265	114.6048	15417.89	0.598953	6.246203	0.471987	19.54199	12.27167	31.81366	
12	0.117092	111.6572	15589.09	0.636075	6.751965	0.505762	21.81742	13.14982	34.96724	
13	0.121661	108.7001	15755.14	0.674789	7.293235	0.54127	24.34739	14.07301	38.4204	
14	0.126361	105.7398	15915.31	0.716139	7.87261	0.579375	27.16196	15.06375	42.22572	
15	0.131196	102.7835	16068.83	0.760077	8.492688	0.620079	30.29439	16.12204	46.41643	
16	0.136167	99.84135	16214.76	0.805505	9.155202	0.662514	33.77921	17.22537	51.00457	
17	0.141273	96.9251	16352.1	0.853449	9.86275	0.707548	37.65249	18.39624	56.04873	
							304.1846	191.4315	495.6161	Volume ends
							608.3692	191.4315	799.8007	Flat ends

8 kW for
fork spoke