

Waveguide Distribution for ACC4, ACC5 and ACC6

Klystron 4

4/2/08 V.Katalev

Eacc, MeV **570** Pkly 4 **5.90** MW without beam Elinac **1030** Mev

6+10% waveguide losses + 10% circulator

tinj, mks **500** k 564 **2.56** P_ACC4, MW **1.43** P_ACC5&6, MW **3.54**
 there are the editing data in green cells

Assymetric Shunt Tee

AST, dB	S32, dB	S12*S12	S32*S32
2.4	3.72	0.575	0.425
Pcirc_max	390	Lcav = 1.038	

ACC4	21.2 MV/m								176 MeV	Max	191	Mev	Δ	15
Pin, MW	1.43	RF power OK												
Qext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0						
A, dB	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	not measured					
Pcav, kW	160.3	160.3	160.3	160.3	160.3	160.3	160.3	160.3				1282.4	146	
Ecav, MV/m	21.23	21.23	21.23	21.23	21.23	21.23	21.23	21.23				21.2 MV/m		
I match	7.09	7.09	7.09	7.09	7.09	7.09	7.09	7.09						
Ecav, max	23	23	23	23	23	23	23	23					23.0	
	Cav 1	Cav 2	Cav 3	Cav 4	Cav 5	Cav 6	Cav 7	Cav 8						
Δφ	not measured										beam - forward RF			

ACC5	21.8 MV/m								181 MeV	Max	231	Mev	Δ	50
Pin, MW	1.50	RF power OK												
Qext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0						
A, dB	9.67	9.64	9.61	9.53	9.34	9.35	9.38	9.39	measured					
Pcav, kW	162.0	163.1	164.2	167.3	174.7	174.3	173.1	172.7				1351.5	150	
Ecav, MV/m	21.34	21.42	21.49	21.69	22.17	22.14	22.07	22.04				21.8 MV/m		
I match	7.13	7.15	7.18	7.24	7.40	7.40	7.37	7.36						
Ecav, max	29	27	28	28	29	28	28	26					27.9	
	Cav 1	Cav 2	Cav 3	Cav 4	Cav 5	Cav 6	Cav 7	Cav 8						
Δφ	0	-6	11	1	15	6	6	20	beam - forward RF					

ACC6	25.6 MV/m								213 MeV	Max	238	Mev	Δ	25
Pin, MW	2.03	RF power OK												
Qext	2.95	2.97	3.00	2.98	3.00	2.98	2.99	2.98	11/21/07 measured					
A, dB	7.85	7.54	8.16	8.31	12.27	12.03	10.28	10.37						
Pcav, kW	333.8	358.5	310.8	300.2	120.6	127.5	190.7	186.8				1929.0	106	
Ecav, MV/m	30.74	31.82	29.57	29.10	18.42	18.96	23.18	22.95				25.6 MV/m		
I match	10.44	10.73	9.87	9.78	6.15	6.37	7.77	7.72						
Ecav, max	34	32	34	32	21	21	29	26					28.6	
	Cav 1	Cav 2	Cav 3	Cav 4	Cav 5	Cav 6	Cav 7	Cav 8						
Δφ	0	0	0	0	0	0	0	0	beam - forward RF					

Waveguide distribution for klystron #4 (status 06.08.07)

