

IP BPM x-port measured parameters

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(using slides by Y. Honda & S. Jang)

IP BPM measured parameters

- Aluminium batch #2
 - Installed November 2014
 - IPA & IPB presently in IP chamber
 - IPC in Oxford
- Re-manufactured IPC
 - With indium sealing
 - Installed March 2016
 - Presently in IP chamber

Aluminium batch #2

cavity	frequency (GHz)	Δf (FWHM) (MHz)	S21	S11	QL	β (calc from S21)/ (calc from S11)	Q0	Qext
A_Y	6.4210	15.0	0.35	0.67	428	0.53/0.49	626	1227
B_Y	6.4200	15.5	0.32	0.57	414	0.47/0.75	666	1092
C_Y (singlet)	6.4165	24.0	0.22	0.77	267	0.28/0.30	344	1186
A_X	5.7100	19.5	0.66	0.32	293	1.94/2.13	889	436
B_X	5.7095	22.0	0.53	0.49	260	1.13/1.04	542	500
C_X (singlet)	5.7145	29.0	0.54	0.41	197	1.17/1.43	453	348

Measured by Y. Honda, [ATF IPBPM/FONT meeting on 4 November 2014](#)

Re-manufactured IPC

Final check
Before install

IPC (Y)	X (m)	Y (m)	f_0 (GHz)	Δf (MHz)	Q_L	Decay time(ns)	S21(dB)	S21	B	Q_0	Qext
Simulation	0.04855	0.06085	6.4270	11.10	579.009	14.338	-1.3595	0.855	5.902	3996.361	677.112
IPC_S22	0.04855	0.06085	6.422500	8.58	748.543	18.550	-4.002	0.631	1.709	2027.540	1186.634

IPC (X)	X (m)	Y (m)	f_0 (GHz)	Δf (MHz)	Q_L	Decay time(ns)	S21(dB)	S21	B	Q_0	Qext
Simulation	0.04855	0.06085	5.7148	7.4	772.270	21.507	-1.852	0.808	4.207	4021.019	955.849
IPC_S22	0.04855	0.06085	5.7120	12.52	456.230	12.712	-2.200	0.776	3.469	2038.991	587.738

Measured by S. Jang, [ATF IPBPM/FONT meeting on 4 March 2016](#)