

## **Appendix K. Antenna Tuning of Test Results**

The single point SAR time-sweep measurements result is shown as below.

Band	LTE 5	Band	LTE 12	Band	LTE 13	Band	LTE 14	Band	LTE 17	Band	LTE 26	Band	LTE 71
Mode	QPSK10M	Mode	QPSK10M	Mode	QPSK10M	Mode	QPSK10M	Mode	QPSK10M	Mode	QPSK15M	Mode	QPSK20M
Position	Right Cheek_SET 250	Position	Right Cheek_SET 250	Position	Right Cheek_SET 250	Position	Right Cheek_SET 250	Position	Right Cheek_SET 250	Position	Right Cheek_SET 250	Position	Right Cheek_SET 250
Channel	20525	Channel	23130	Channel	23230	Channel	23330	Channel	23800	Channel	26765	Channel	133222
Measured 1g SAR (W/kg)	0.18	Measured 1g SAR (W/kg)	0.158	Measured 1g SAR (W/kg)	0.0370	Measured 1g SAR (W/kg)	0.162	Measured 1g SAR (W/kg)	0.181	Measured 1g SAR (W/kg)	0.111	Measured 1g SAR (W/kg)	0.162
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune	0.206	Auto-tune	0.168	Auto-tune	0.039	Auto-tune	0.203	Auto-tune	0.161	Auto-tune	0.149	Auto-tune	0.155
Default	0.206	Default	0.149	Default	0.038	Default	0.203	Default	0.161	Default	0.068	Default	0.121
(Open-loop)		(Open-loop)		(Open-loop)		(Open-loop)		(Open-loop)		(Open-loop)		(Open-loop)	
State 0	0.00553	State 0	0.00576	State 0	0.00002	State 0	0.00796	State 0	0.00272	State 0	0.122	State 0	0.00161
State 1	0.0101	State 1	0.00931	State 1	0.00002	State 1	0.0152	State 1	0.00579	State 1	0.115	State 1	0.00301
State 2	0.0251	State 2	0.0183	State 2	0.0011	State 2	0.0301	State 2	0.0123	State 2	0.112	State 2	0.00721
State 3	0.0671	State 3	0.0379	State 3	0.0087	State 3	0.0662	State 3	0.0295	State 3	0.103	State 3	0.0191
State 4	0.106	State 4	0.0567	State 4	0.0163	State 4	0.0931	State 4	0.0435	State 4	0.068	State 4	0.0301
State 5	0.123	State 5	0.0609	State 5	0.0195	State 5	0.101	State 5	0.0513	State 5	0.055	State 5	0.0372
State 6	0.149	State 6	0.0746	State 6	0.022	State 6	0.127	State 6	0.0636	State 6	0.052	State 6	0.0475
State 7	0.161	State 7	0.0817	State 7	0.0171	State 7	0.138	State 7	0.0711	State 7	0.044	State 7	0.0543
State 8	0.176	State 8	0.118	State 8	0.00064	State 8	0.183	State 8	0.107	State 8	0.032	State 8	0.0906
State 9	0.00476	State 9	0.0318	State 9	0.00002	State 9	0.0232	State 9	0.0255	State 9	0.005	State 9	0.0132
State 10	0.00927	State 10	0.0533	State 10	0.00004	State 10	0.0391	State 10	0.0398	State 10	0.124	State 10	0.0215
State 11	0.0221	State 11	0.0981	State 11	0.00001	State 11	0.0741	State 11	0.0683	State 11	0.101	State 11	0.0399
State 12	0.0617	State 12	0.155	State 12	0.00127	State 12	0.139	State 12	0.112	State 12	0.098	State 12	0.0743
State 13	0.0978	State 13	0.167	State 13	0.00007	State 13	0.175	State 13	0.132	State 13	0.068	State 13	0.0967
State 14	0.113	State 14	0.168	State 14	0.006	State 14	0.186	State 14	0.139	State 14	0.074	State 14	0.106
State 15	0.138	State 15	0.166	State 15	0.0077	State 15	0.211	State 15	0.149	State 15	0.065	State 15	0.121
State 16	0.147	State 16	0.167	State 16	0.0083	State 16	0.207	State 16	0.152	State 16	0.063	State 16	0.129
State 17	0.158	State 17	0.149	State 17	0.00694	State 17	0.205	State 17	0.161	State 17	0.055	State 17	0.155
State 18	0.00375	State 18	0.00336	State 18	0	State 18	0.00922	State 18	0.00519	State 18	0.043	State 18	0.00627
State 19	0.00706	State 19	0.00728	State 19	0	State 19	0.0181	State 19	0.0116	State 19	0.015	State 19	0.0131
State 20	0.0167	State 20	0.0178	State 20	0	State 20	0.0413	State 20	0.0272	State 20	0.006	State 20	0.0305
State 21	0.0487	State 21	0.0501	State 21	0.00002	State 21	0.103	State 21	0.0739	State 21	0.001	State 21	0.0793
State 22	0.0782	State 22	0.0768	State 22	0.0008	State 22	0.143	State 22	0.103	State 22	0.128	State 22	0.112
State 23	0.0938	State 23	0.0867	State 23	0.002	State 23	0.158	State 23	0.113	State 23	0.101	State 23	0.125
State 24	0.113	State 24	0.0951	State 24	0.0027	State 24	0.167	State 24	0.121	State 24	0.088	State 24	0.133
State 25	0.122	State 25	0.0967	State 25	0.00306	State 25	0.172	State 25	0.123	State 25	0.078	State 25	0.135
State 26	0.135	State 26	0.0828	State 26	0.00295	State 26	0.157	State 26	0.103	State 26	0.066	State 26	0.121
State 27	0.00255	State 27	0.000765	State 27	0.00034	State 27	0.00262	State 27	0.00107	State 27	0.054	State 27	0.00133
State 28	0.00537	State 28	0.00185	State 28	0	State 28	0.00627	State 28	0.00201	State 28	0.033	State 28	0.0021
State 29	0.0131	State 29	0.00465	State 29	0	State 29	0.0172	State 29	0.00628	State 29	0.015	State 29	0.00761
State 30	0.0399	State 30	0.0158	State 30	0	State 30	0.0501	State 30	0.0243	State 30	0.004	State 30	0.0261
State 31	0.0651	State 31	0.0271	State 31	0.00015	State 31	0.0701	State 31	0.0413	State 31	0.001	State 31	0.0445
State 32	0.0783	State 32	0.0345	State 32	0.00042	State 32	0.0931	State 32	0.0496	State 32	0.125	State 32	0.0553
State 33	0.0963	State 33	0.0423	State 33	0.000731	State 33	0.108	State 33	0.0593	State 33	0.111	State 33	0.0691
State 34	0.103	State 34	0.0451	State 34	0.00084	State 34	0.111	State 34	0.0613	State 34	0.101	State 34	0.0711
State 35	0.112	State 35	0.0462	State 35	0.00126	State 35	0.102	State 35	0.0588	State 35	0.069	State 35	0.0723
State 36	0.00143	State 36	0.00101	State 36	0	State 36	0.00145	State 36	0.0001123	State 36	0.055	State 36	0
State 37	0.00363	State 37	0.00251	State 37	0	State 37	0.00438	State 37	0.000413	State 37	0.041	State 37	0.000172
State 38	0.0112	State 38	0.00639	State 38	0.00001	State 38	0.0122	State 38	0.00283	State 38	0.039	State 38	0.00211
State 39	0.0543	State 39	0.0158	State 39	0.0136	State 39	0.0363	State 39	0.0117	State 39	0.022	State 39	0.00721
State 40	0.131	State 40	0.0265	State 40	0.0337	State 40	0.0629	State 40	0.0231	State 40	0.005	State 40	0.0168
State 41	0.167	State 41	0.0326	State 41	0.0345	State 41	0.0767	State 41	0.0311	State 41	0.001	State 41	0.0223
State 42	0.203	State 42	0.0453	State 42	0.0181	State 42	0.101	State 42	0.0461	State 42	0.149	State 42	0.0371
State 43	0.206	State 43	0.0531	State 43	0.0131	State 43	0.121	State 43	0.0566	State 43	0.112	State 43	0.0472
State 44	0.121	State 44	0.106	State 44	0.0033	State 44	0.177	State 44	0.132	State 44	0.104	State 44	0.143
State 45	0.00122	State 45	0.00923	State 45	0	State 45	0.00646	State 45	0.00619	State 45	0.102	State 45	0.00291
State 46	0.00296	State 46	0.018	State 46	0	State 46	0.0135	State 46	0.0101	State 46	0.069	State 46	0.00561
State 47	0.00955	State 47	0.0429	State 47	0	State 47	0.0341	State 47	0.0243	State 47	0.055	State 47	0.0128
State 48	0.0512	State 48	0.0727	State 48	0.0021	State 48	0.0847	State 48	0.0473	State 48	0.025	State 48	0.0311
State 49	0.131	State 49	0.0732	State 49	0.0014	State 49	0.111	State 49	0.0587	State 49	0.012	State 49	0.0432
State 50	0.167	State 50	0.0693	State 50	0.0189	State 50	0.121	State 50	0.0618	State 50	0.004	State 50	0.0493
State 51	0.199	State 51	0.0636	State 51	0.0133	State 51	0.128	State 51	0.0655	State 51	0.105	State 51	0.0586
State 52	0.191	State 52	0.0607	State 52	0.009	State 52	0.129	State 52	0.0672	State 52	0.122	State 52	0.0628

State 53	0.101	State 53	0.0473	State 53	0.001	State 53	0.112	State 53	0.0652	State 53	0.102	State 53	0.0773
State 54	0.000385	State 54	0.000696	State 54	0	State 54	0.00143	State 54	0.000133	State 54	0.111	State 54	0.000822
State 55	0.00207	State 55	0.00199	State 55	0	State 55	0.00487	State 55	0.00211	State 55	0.069	State 55	0.00272
State 56	0.00705	State 56	0.00642	State 56	0	State 56	0.0192	State 56	0.00961	State 56	0.008	State 56	0.0108
State 57	0.0403	State 57	0.0478	State 57	0.0001	State 57	0.0956	State 57	0.0627	State 57	0.004	State 57	0.0528
State 58	0.111	State 58	0.103	State 58	0.0044	State 58	0.151	State 58	0.103	State 58	0.118	State 58	0.0883
State 59	0.152	State 59	0.101	State 59	0.0088	State 59	0.148	State 59	0.0988	State 59	0.125	State 59	0.0903
State 60	0.181	State 60	0.0717	State 60	0.0083	State 60	0.128	State 60	0.0771	State 60	0.12	State 60	0.0793
State 61	0.172	State 61	0.0589	State 61	0.0062	State 61	0.115	State 61	0.0666	State 61	0.114	State 61	0.0708
State 62	0.0829	State 62	0.0245	State 62	0.00018	State 62	0.0655	State 62	0.0322	State 62	0.025	State 62	0.0383
State 63	0.000341	State 63	0.000152	State 63	0	State 63	0.00105	State 63	0	State 63	0.022	State 63	0
State 64	0.00135	State 64	0.000232	State 64	0	State 64	0.00131	State 64	0	State 64	0.021	State 64	0.000265
State 65	0.00519	State 65	0.00226	State 65	0	State 65	0.00681	State 65	0.00141	State 65	0.114	State 65	0.00171
State 66	0.0326	State 66	0.0138	State 66	0	State 66	0.0525	State 66	0.0201	State 66	0.11	State 66	0.0171
State 67	0.0971	State 67	0.0491	State 67	0.0017	State 67	0.131	State 67	0.0683	State 67	0.069	State 67	0.0593
State 68	0.135	State 68	0.0745	State 68	0.0039	State 68	0.141	State 68	0.0916	State 68	0.058	State 68	0.0887
State 69	0.163	State 69	0.0651	State 69	0.0057	State 69	0.115	State 69	0.0761	State 69	0.042	State 69	0.0853
State 70	0.152	State 70	0.0491	State 70	0.0039	State 70	0.0967	State 70	0.0591	State 70	0.022	State 70	0.0695
State 71	0.0689	State 71	0.0143	State 71	0	State 71	0.0418	State 71	0.0186	State 71	0.012	State 71	0.0221
State 72	0.000563	State 72	0.000452	State 72	0	State 72	0.000433	State 72	0	State 72	0.011	State 72	0
State 73	0.00161	State 73	0.000728	State 73	0	State 73	0.00166	State 73	0	State 73	0.004	State 73	0
State 74	0.00572	State 74	0.00266	State 74	0	State 74	0.00548	State 74	0.000678	State 74	0.002	State 74	0.000363
State 75	0.0285	State 75	0.00715	State 75	0.0057	State 75	0.0181	State 75	0.00531	State 75	0.122	State 75	0.00267
State 76	0.0733	State 76	0.0123	State 76	0.039	State 76	0.0333	State 76	0.0101	State 76	0.124	State 76	0.00626
State 77	0.112	State 77	0.0157	State 77	0.038	State 77	0.0423	State 77	0.0143	State 77	0.135	State 77	0.00977
State 78	0.167	State 78	0.0218	State 78	0.017	State 78	0.0588	State 78	0.0212	State 78	0.12	State 78	0.0167
State 79	0.181	State 79	0.0253	State 79	0.011	State 79	0.0691	State 79	0.0267	State 79	0.117	State 79	0.0215
State 80	0.102	State 80	0.0573	State 80	0.034	State 80	0.123	State 80	0.0782	State 80	0.112	State 80	0.0867
State 81	0.000138	State 81	0.00417	State 81	0	State 81	0.00275	State 81	0.00171	State 81	0.0104	State 81	0.000768
State 82	0.00122	State 82	0.00903	State 82	0	State 82	0.00626	State 82	0.00463	State 82	0.0106	State 82	0.00202
State 83	0.00473	State 83	0.0211	State 83	0	State 83	0.0176	State 83	0.0113	State 83	0.0105	State 83	0.00496
State 84	0.0265	State 84	0.0415	State 84	0.00029	State 84	0.0481	State 84	0.0247	State 84	0.0122	State 84	0.0141
State 85	0.0743	State 85	0.0423	State 85	0.0081	State 85	0.0688	State 85	0.0313	State 85	0.0124	State 85	0.0212
State 86	0.116	State 86	0.0417	State 86	0.0077	State 86	0.0766	State 86	0.0343	State 86	0.114	State 86	0.0251
State 87	0.173	State 87	0.0381	State 87	0.0185	State 87	0.0819	State 87	0.0369	State 87	0.12	State 87	0.0301
State 88	0.181	State 88	0.0365	State 88	0.011	State 88	0.0828	State 88	0.0371	State 88	0.0156	State 88	0.0332
State 89	0.0866	State 89	0.0292	State 89	0.00086	State 89	0.0755	State 89	0.0395	State 89	0.0145	State 89	0.0453
State 90	0.000212	State 90	0.000162	State 90	0	State 90	0.000363	State 90	0	State 90	0.0221	State 90	0
State 91	0.000496	State 91	0.000355	State 91	0	State 91	0.00147	State 91	0.000177	State 91	0.0038	State 91	0.000197
State 92	0.00303	State 92	0.00261	State 92	0.0012	State 92	0.00831	State 92	0.00331	State 92	0.1251	State 92	0.00343
State 93	0.0193	State 93	0.0212	State 93	0.0035	State 93	0.0511	State 93	0.0292	State 93	0.1222	State 93	0.0247
State 94	0.0602	State 94	0.0665	State 94	0.0033	State 94	0.102	State 94	0.0658	State 94	0.0687	State 94	0.0501
State 95	0.103	State 95	0.0791	State 95	0.0077	State 95	0.111	State 95	0.0701	State 95	0.0254	State 95	0.0576
State 96	0.166	State 96	0.0588	State 96	0.011	State 96	0.0995	State 96	0.0581	State 96	0.125	State 96	0.0533
State 97	0.172	State 97	0.0465	State 97	0.0033	State 97	0.0892	State 97	0.0482	State 97	0.1011	State 97	0.0479
State 98	0.071	State 98	0.0173	State 98	0.0021	State 98	0.0467	State 98	0.0222	State 98	0.1231	State 98	0.0251
State 99	0.000101	State 99	0.000102	State 99	0.00032	State 99	0	State 99	0	State 99	0.1201	State 99	0
State 100	0.000262	State 100	0.000273	State 100	0	State 100	0	State 100	0	State 100	0.0587	State 100	0
State 101	0.00232	State 101	0.000326	State 101	0	State 101	0.00197	State 101	0.000135	State 101	0.0254	State 101	0
State 102	0.0151	State 102	0.00467	State 102	0	State 102	0.0243	State 102	0.00692	State 102	0.0069	State 102	0.00639
State 103	0.0501	State 103	0.0225	State 103	0.00065	State 103	0.0851	State 103	0.0332	State 103	0.0078	State 103	0.0272
State 104	0.0923	State 104	0.0497	State 104	0.0027	State 104	0.117	State 104	0.0641	State 104	0.0025	State 104	0.0533
State 105	0.155	State 105	0.0699	State 105	0.0086	State 105	0.109	State 105	0.0741	State 105	0.0041	State 105	0.0756
State 106	0.162	State 106	0.0519	State 106	0.00702	State 106	0.0911	State 106	0.0571	State 106	0.0741	State 106	0.0627
State 107	0.0593	State 107	0.0107	State 107	0.00032	State 107	0.0317	State 107	0.0138	State 107	0.0125	State 107	0.0155
State 108	0	State 108	0.000165	State 108	0	State 108	0	State 108	0	State 108	0.0263	State 108	0
State 109	0.000191	State 109	0.000203	State 109	0	State 109	0.000146	State 109	0	State 109	0.114	State 109	0
State 110	0.00266	State 110	0.000881	State 110	0	State 110	0.00138	State 110	0	State 110	0.125	State 110	0
State 111	0.122	State 111	0.00292	State 111	0.00212	State 111	0.00792	State 111	0.00143	State 111	0.111	State 111	0.000262
State 112	0.0352	State 112	0.00489	State 112	0.028	State 112	0.0139	State 112	0.00316	State 112	0.0125	State 112	0.00202
State 113	0.0581	State 113	0.00656	State 113	0.038	State 113	0.0192	State 113	0.00488	State 113	0.0126	State 113	0.00282
State 114	0.111	State 114	0.00898	State 114	0.037	State 114	0.0275	State 114	0.00781	State 114	0.0245	State 114	0.00613
State 115	0.131	State 115	0.0107	State 115	0.035	State 115	0.0322	State 115	0.0103	State 115	0.0014	State 115	0.00771
State 116	0.073	State 116	0.0251	State 116	0.00101	State 116	0.0667	State 116	0.0343	State 116	0.0015	State 116	0.0401
State 117	0.000101	State 117	0.00165	State 117	0	State 117	0.000669	State 117	0.000296	State 117	0.0125	State 117	0
State 118	0.000236	State 118	0.00302	State 118	0	State 118	0.00188	State 118	0.00119	State 118	0.0124	State 118	0.000172
State 119	0.00189	State 119	0.00909	State 119	0	State 119	0.00667	State 119	0.00376	State 119	0.0025	State 119	0.00112

State 120	0.0115	State 120	0.0192	State 120	0	State 120	0.0223	State 120	0.0101	State 120	0.114	State 120	0.00532
State 121	0.0351	State 121	0.0205	State 121	0.00168	State 121	0.0335	State 121	0.0137	State 121	0.1231	State 121	0.00801
State 122	0.0602	State 122	0.0195	State 122	0.0112	State 122	0.0377	State 122	0.0151	State 122	0.1125	State 122	0.00993
State 123	0.121	State 123	0.0183	State 123	0.025	State 123	0.0421	State 123	0.0167	State 123	0.0652	State 123	0.0121
State 124	0.141	State 124	0.0171	State 124	0.0119	State 124	0.0433	State 124	0.0171	State 124	0.0025	State 124	0.0141
State 125	0.0612	State 125	0.0131	State 125	0.00035	State 125	0.0398	State 125	0.0183	State 125	0.0021	State 125	0.0207
State 126	0	State 126	0	State 126	0.00028	State 126	0	State 126	0	State 126	0.0365	State 126	0
State 127	0.000121	State 127	0	State 127	0	State 127	0.000292	State 127	0	State 127	0.0254	State 127	0
State 128	0.000833	State 128	0.000456	State 128	0	State 128	0.00205	State 128	0.000551	State 128	0.0074	State 128	0.000571
State 129	0.00815	State 129	0.00818	State 129	0	State 129	0.0232	State 129	0.0121	State 129	0.121	State 129	0.00866
State 130	0.0281	State 130	0.0339	State 130	0.0001	State 130	0.0558	State 130	0.0341	State 130	0.115	State 130	0.0235
State 131	0.0525	State 131	0.0498	State 131	0.00136	State 131	0.0658	State 131	0.0411	State 131	0.102	State 131	0.0296
State 132	0.121	State 132	0.0396	State 132	0.0014	State 132	0.0622	State 132	0.0343	State 132	0.00326	State 132	0.0292
State 133	0.145	State 133	0.0297	State 133	0.0135	State 133	0.0553	State 133	0.0282	State 133	0.00145	State 133	0.0261
State 134	0.0491	State 134	0.00886	State 134	0	State 134	0.0267	State 134	0.0111	State 134	0.0025	State 134	0.0121
State 135	0	State 135	0	State 135	0	State 135	0	State 135	0	State 135	0.0263	State 135	0
State 136	0	State 136	0	State 136	0	State 136	0	State 136	0	State 136	0.122	State 136	0
State 137	0.000523	State 137	0.000221	State 137	0	State 137	0.000236	State 137	0	State 137	0.1025	State 137	0
State 138	0.00651	State 138	0.00131	State 138	0	State 138	0.0106	State 138	0.00191	State 138	0.0015	State 138	0.00175
State 139	0.0238	State 139	0.00899	State 139	0	State 139	0.0423	State 139	0.0131	State 139	0.1145	State 139	0.0108
State 140	0.0463	State 140	0.0236	State 140	0.00734	State 140	0.0762	State 140	0.0333	State 140	0.01452	State 140	0.0255
State 141	0.121	State 141	0.0626	State 141	0.00772	State 141	0.0873	State 141	0.0601	State 141	0.0072	State 141	0.0543
State 142	0.147	State 142	0.0473	State 142	0.0112	State 142	0.0688	State 142	0.0455	State 142	0.0062	State 142	0.0478
State 143	0.0412	State 143	0.00575	State 143	0	State 143	0.0181	State 143	0.00722	State 143	0.0025	State 143	0.00717

Band	LTE 2	Band	LTE 4	Band	LTE 7	Band	LTE 25	Band	LTE 30	Band	LTE 38	Band	LTE 40	Band	LTE 41	Band	LTE 66
Mode	QPSK20M	Mode	QPSK20M	Mode	QPSK20M	Mode	QPSK20M	Mode	QPSK10M	Mode	QPSK20M	Mode	QPSK20M	Mode	QPSK20M	Mode	QPSK20M
Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 40	Position	Left Cheek_SET2 55	Position	Left Cheek_SET2 40
Channel	18700	Channel	20300	Channel	21350	Channel	26140	Channel	27710	Channel	37850	Channel	38750	Channel	40185	Channel	132072
Measured 1g SAR (W/kg)	0.127	Measured 1g SAR (W/kg)	0.12	Measured 1g SAR (W/kg)	0.124	Measured 1g SAR (W/kg)	0.067	Measured 1g SAR (W/kg)	0.147	Measured 1g SAR (W/kg)	0.055	Measured 1g SAR (W/kg)	0.046	Measured 1g SAR (W/kg)	0.0497	Measured 1g SAR (W/kg)	0.044
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune	0.202	Auto-tune	0.161	Auto-tune	0.229	Auto-tune	0.107	Auto-tune	0.244	Auto-tune	0.097	Auto-tune	0.0803	Auto-tune	0.087	Auto-tune	0.066
Default (Open-loop)	0.202	Default (Open-loop)	0.161	Default (Open-loop)	0.229	Default (Open-loop)	0.107	Default (Open-loop)	0.244	Default (Open-loop)	0.097	Default (Open-loop)	0.0803	Default (Open-loop)	0.087	Default (Open-loop)	0.066
State 0	0.0326	State 0	0.0128	State 0	0.01	State 0	0.103	State 0	0.198	State 0	0.088	State 0	0.0795	State 0	0.065	State 0	0.058
State 1	0.0607	State 1	0.0231	State 1	0.0222	State 1	0.1	State 1	0.188	State 1	0.084	State 1	0.0794	State 1	0.063	State 1	0.055
State 2	0.119	State 2	0.0511	State 2	0.0603	State 2	0.088	State 2	0.176	State 2	0.076	State 2	0.0792	State 2	0.058	State 2	0.054
State 3	0.167	State 3	0.0969	State 3	0.128	State 3	0.085	State 3	0.174	State 3	0.074	State 3	0.0791	State 3	0.054	State 3	0.052
State 4	0.168	State 4	0.127	State 4	0.111	State 4	0.077	State 4	0.166	State 4	0.071	State 4	0.0803	State 4	0.0051	State 4	0.042
State 5	0.166	State 5	0.131	State 5	0.158	State 5	0.107	State 5	0.163	State 5	0.065	State 5	0.0684	State 5	0.049	State 5	0.04
State 6	0.161	State 6	0.145	State 6	0.157	State 6	0.096	State 6	0.158	State 6	0.054	State 6	0.0682	State 6	0.038	State 6	0.033
State 7	0.155	State 7	0.152	State 7	0.155	State 7	0.091	State 7	0.147	State 7	0.049	State 7	0.0674	State 7	0.028	State 7	0.031
State 8	0.143	State 8	0.161	State 8	0.0326	State 8	0.088	State 8	0.145	State 8	0.043	State 8	0.0666	State 8	0.022	State 8	0.066
State 9	0.0481	State 9	0.0271	State 9	0.0333	State 9	0.087	State 9	0.133	State 9	0.074	State 9	0.0654	State 9	0.015	State 9	0.055
State 10	0.0821	State 10	0.0411	State 10	0.0222	State 10	0.055	State 10	0.13	State 10	0.071	State 10	0.0652	State 10	0.014	State 10	0.053
State 11	0.143	State 11	0.0662	State 11	0.0415	State 11	0.051	State 11	0.125	State 11	0.069	State 11	0.0631	State 11	0.012	State 11	0.051
State 12	0.202	State 12	0.0967	State 12	0.0417	State 12	0.043	State 12	0.201	State 12	0.065	State 12	0.0628	State 12	0.085	State 12	0.048
State 13	0.193	State 13	0.115	State 13	0.0215	State 13	0.105	State 13	0.197	State 13	0.061	State 13	0.0615	State 13	0.074	State 13	0.044
State 14	0.195	State 14	0.117	State 14	0.144	State 14	0.103	State 14	0.195	State 14	0.055	State 14	0.0518	State 14	0.071	State 14	0.039
State 15	0.196	State 15	0.127	State 15	0.123	State 15	0.1	State 15	0.192	State 15	0.051	State 15	0.0516	State 15	0.069	State 15	0.036
State 16	0.198	State 16	0.133	State 16	0.115	State 16	0.099	State 16	0.188	State 16	0.042	State 16	0.0502	State 16	0.065	State 16	0.031
State 17	0.197	State 17	0.143	State 17	0.11	State 17	0.09	State 17	0.185	State 17	0.033	State 17	0.0419	State 17	0.064	State 17	0.029
State 18	0.0837	State 18	0.0751	State 18	0.0963	State 18	0.078	State 18	0.178	State 18	0.096	State 18	0.041	State 18	0.058	State 18	0.025
State 19	0.117	State 19	0.0831	State 19	0.0852	State 19	0.077	State 19	0.169	State 19	0.094	State 19	0.0398	State 19	0.054	State 19	0.022
State 20	0.162	State 20	0.0871	State 20	0.0123	State 20	0.075	State 20	0.158	State 20	0.092	State 20	0.0387	State 20	0.049	State 20	0.019
State 21	0.178	State 21	0.0833	State 21	0.165	State 21	0.072	State 21	0.154	State 21	0.085	State 21	0.0668	State 21	0.042	State 21	0.015
State 22	0.179	State 22	0.0812	State 22	0.166	State 22	0.066	State 22	0.153	State 22	0.081	State 22	0.0654	State 22	0.039	State 22	0.057
State 23	0.177	State 23	0.0797	State 23	0.164	State 23	0.063	State 23	0.15	State 23	0.077	State 23	0.0652	State 23	0.036	State 23	0.054
State 24	0.176	State 24	0.0792	State 24	0.152	State 24	0.055	State 24	0.149	State 24	0.071	State 24	0.0651	State 24	0.022	State 24	0.052
State 25	0.173	State 25	0.0788	State 25	0.15	State 25	0.052	State 25	0.144	State 25	0.066	State 25	0.0559	State 25	0.015	State 25	0.051
State 26	0.171	State 26	0.0757	State 26	0.147	State 26	0.044	State 26	0.233	State 26	0.063	State 26	0.0554	State 26	0.011	State 26	0.044
State 27	0.118	State 27	0.129	State 27	0.145	State 27	0.042	State 27	0.231	State 27	0.054	State 27	0.0552	State 27	0.074	State 27	0.043
State 28	0.143	State 28	0.119	State 28	0.135	State 28	0.041	State 28	0.229	State 28	0.051	State 28	0.0512	State 28	0.069	State 28	0.033
State 29	0.153	State 29	0.0911	State 29	0.132	State 29	0.038	State 29	0.221	State 29	0.042	State 29	0.0511	State 29	0.063	State 29	0.03
State 30	0.142	State 30	0.0675	State 30	0.131	State 30	0.102	State 30	0.22	State 30	0.033	State 30	0.0498	State 30	0.055	State 30	0.028
State 31	0.139	State 31	0.0581	State 31	0.0147	State 31	0.0978	State 31	0.215	State 31	0.031	State 31	0.0495	State 31	0.054	State 31	0.026
State 32	0.137	State 32	0.0562	State 32	0.0144	State 32	0.0954	State 32	0.21	State 32	0.022	State 32	0.0492	State 32	0.025	State 32	0.022
State 33	0.132	State 33	0.0533	State 33	0.0125	State 33	0.0874	State 33	0.206	State 33	0.068	State 33	0.0465	State 33	0.021	State 33	0.019
State 34	0.131	State 34	0.0512	State 34	0.0122	State 34	0.0765	State 34	0.201	State 34	0.066	State 34	0.0462	State 34	0.019	State 34	0.015
State 35	0.127	State 35	0.0471	State 35	0.0123	State 35	0.0762	State 35	0.198	State 35	0.059	State 35	0.0461	State 35	0.081	State 35	0.011
State 36	0.00486	State 36	0.00322	State 36	0.0111	State 36	0.0742	State 36	0.197	State 36	0.044	State 36	0.0398	State 36	0.075	State 36	0.053
State 37	0.0131	State 37	0.00638	State 37	0.0106	State 37	0.0695	State 37	0.187	State 37	0.042	State 37	0.0396	State 37	0.072	State 37	0.051
State 38	0.0377	State 38	0.0141	State 38	0.0105	State 38	0.0664	State 38	0.165	State 38	0.036	State 38	0.0395	State 38	0.069	State 38	0.048
State 39	0.103	State 39	0.0365	State 39	0.142	State 39	0.0625	State 39	0.164	State 39	0.034	State 39	0.0394	State 39	0.065	State 39	0.042
State 40	0.151	State 40	0.0597	State 40	0.141	State 40	0.0557	State 40	0.158	State 40	0.028	State 40	0.0388	State 40	0.061	State 40	0.044
State 41	0.157	State 41	0.0638	State 41	0.0185	State 41	0.0542	State 41	0.155	State 41	0.015	State 41	0.0375	State 41	0.058	State 41	0.04
State 42	0.177	State 42	0.0801	State 42	0.0178	State 42	0.0996	State 42	0.152	State 42	0.011	State 42	0.0374	State 42	0.057	State 42	0.039
State 43	0.181	State 43	0.0915	State 43	0.0524	State 43	0.0943	State 43	0.149	State 43	0.002	State 43	0.0372	State 43	0.052	State 43	0.033
State 44	0.179	State 44	0.119	State 44	0.0522	State 44	0.0942	State 44	0.133	State 44	0.001	State 44	0.0371	State 44	0.049	State 44	0.03
State 45	0.0101	State 45	0.00618	State 45	0.229	State 45	0.0935	State 45	0.198	State 45	0.097	State 45	0.0366	State 45	0.087	State 45	0.024
State 46	0.0199	State 46	0.0132	State 46	0.215	State 46	0.09	State 46	0.192	State 46	0.055	State 46	0.0364	State 46	0.074	State 46	0.022
State 47	0.0447	State 47	0.0211	State 47	0.213	State 47	0.0842	State 47	0.188	State 47	0.041	State 47	0.0361	State 47	0.066	State 47	0.018
State 48	0.0901	State 48	0.0365	State 48	0.211	State 48	0.084	State 48	0.178	State 48	0.033	State 48	0.0355	State 48	0.065	State 48	0.014
State 49	0.119	State 49	0.0458	State 49	0.205	State 49	0.0775	State 49	0.165	State 49	0.032	State 49	0.0349	State 49	0.045	State 49	0.012
State 50	0.122	State 50	0.0477	State 50	0.188	State 50	0.0763	State 50	0.163	State 50	0.029	State 50	0.0344	State 50	0.035	State 50	0.063
State 51	0.137	State 51	0.0532	State 51	0.187	State 51	0.0742	State 51	0.158	State 51	0.022	State 51	0.0342	State 51	0.022	State 51	0.061
State 52	0.143	State 52	0.0569	State 52	0.185	State 52	0.0715	State 52	0.152	State 52	0.021	State 52	0.0339	State 52	0.021	State 52	0.058
State 53	0.152	State 53	0.0651	State 53	0.183	State 53	0.07	State 53	0.141	State 53	0.015	State 53	0.0358	State 53	0.068	State 53	0.057
State 54	0.0231	State 54	0.0269	State 54	0.0263	State 54	0.0624	State 54	0.14	State 54	0.012	State 54	0.0351	State 54	0.062	State 54	0.055
State 55	0.0366	State 55	0.0332	State 55	0.0222	State 55	0.0615	State 55	0.244	State 55	0.008	State 55	0.0342	State 55	0.058	State 55	0.044
State 56	0.0595	State 56	0.0359	State 56	0.0214	State 56	0.0603	State 56	0.239	State 56	0.007	State 56	0.0339	State 56	0.054	State 56	0.041
State 57	0.0817	State 57	0.0362	State 57	0.0211	State 57	0.0522	State 57	0.233	State 57	0.087	State 57	0.0336	State 57	0.051	State 57	0.035
State 58	0.0891	State 58	0.0378	State 58	0.021	State 58	0.0488	State 58	0.23	State 58	0.085	State 58	0.0334	State 58	0.049	State 58	0.034
State 59	0.0882	State 59	0.0345	State 59	0.0114	State 59	0.0398	State 59	0.225	State 59	0.075	State 59	0.0325	State 59	0.047	State 59	0.032
State 60	0.0912	State 60	0.0338	State 60	0.0111	State 60	0.0355	State 60	0.22	State 60							

State 73	0.00581	State 73	0.00218	State 73	0.123	State 73	0.0166	State 73	0.155	State 73	0.031	State 73	0.0655	State 73	0.054	State 73	0.042
State 74	0.0178	State 74	0.00877	State 74	0.12	State 74	0.0165	State 74	0.154	State 74	0.028	State 74	0.0653	State 74	0.052	State 74	0.041
State 75	0.0533	State 75	0.0198	State 75	0.118	State 75	0.0155	State 75	0.144	State 75	0.025	State 75	0.0644	State 75	0.042	State 75	0.038
State 76	0.0907	State 76	0.0328	State 76	0.185	State 76	0.0153	State 76	0.142	State 76	0.023	State 76	0.0625	State 76	0.032	State 76	0.036
State 77	0.0983	State 77	0.0363	State 77	0.183	State 77	0.0145	State 77	0.139	State 77	0.021	State 77	0.0615	State 77	0.011	State 77	0.035
State 78	0.123	State 78	0.0468	State 78	0.18	State 78	0.0142	State 78	0.137	State 78	0.017	State 78	0.0612	State 78	0.074	State 78	0.058
State 79	0.136	State 79	0.0547	State 79	0.174	State 79	0.014	State 79	0.13	State 79	0.015	State 79	0.0512	State 79	0.072	State 79	0.054
State 80	0.158	State 80	0.0796	State 80	0.169	State 80	0.0133	State 80	0.125	State 80	0.014	State 80	0.0511	State 80	0.025	State 80	0.052
State 81	0.00475	State 81	0.00311	State 81	0.162	State 81	0.0178	State 81	0.122	State 81	0.012	State 81	0.0425	State 81	0.021	State 81	0.051
State 82	0.0101	State 82	0.00641	State 82	0.157	State 82	0.0175	State 82	0.115	State 82	0.058	State 82	0.0411	State 82	0.015	State 82	0.049
State 83	0.0243	State 83	0.0115	State 83	0.187	State 83	0.0165	State 83	0.113	State 83	0.054	State 83	0.0395	State 83	0.011	State 83	0.046
State 84	0.0501	State 84	0.0201	State 84	0.178	State 84	0.0163	State 84	0.11	State 84	0.051	State 84	0.0392	State 84	0.045	State 84	0.044
State 85	0.0712	State 85	0.0265	State 85	0.177	State 85	0.0154	State 85	0.069	State 85	0.052	State 85	0.0295	State 85	0.041	State 85	0.042
State 86	0.0767	State 86	0.0286	State 86	0.174	State 86	0.0152	State 86	0.065	State 86	0.048	State 86	0.0284	State 86	0.039	State 86	0.033
State 87	0.0895	State 87	0.0311	State 87	0.163	State 87	0.0144	State 87	0.055	State 87	0.046	State 87	0.0275	State 87	0.035	State 87	0.031
State 88	0.0945	State 88	0.0346	State 88	0.162	State 88	0.0142	State 88	0.051	State 88	0.042	State 88	0.0261	State 88	0.03	State 88	0.029
State 89	0.116	State 89	0.041	State 89	0.16	State 89	0.0132	State 89	0.044	State 89	0.041	State 89	0.0252	State 89	0.015	State 89	0.028
State 90	0.0112	State 90	0.0188	State 90	0.154	State 90	0.0129	State 90	0.042	State 90	0.039	State 90	0.0243	State 90	0.012	State 90	0.021
State 91	0.0195	State 91	0.0215	State 91	0.135	State 91	0.0117	State 91	0.033	State 91	0.036	State 91	0.0487	State 91	0.055	State 91	0.014
State 92	0.0341	State 92	0.0243	State 92	0.134	State 92	0.0114	State 92	0.03	State 92	0.034	State 92	0.0465	State 92	0.052	State 92	0.011
State 93	0.0511	State 93	0.0237	State 93	0.13	State 93	0.0112	State 93	0.028	State 93	0.032	State 93	0.0462	State 93	0.045	State 93	0.009
State 94	0.0591	State 94	0.0239	State 94	0.177	State 94	0.0088	State 94	0.015	State 94	0.031	State 94	0.0432	State 94	0.041	State 94	0.007
State 95	0.0599	State 95	0.0243	State 95	0.171	State 95	0.0082	State 95	0.013	State 95	0.025	State 95	0.0411	State 95	0.033	State 95	0.006
State 96	0.0618	State 96	0.0222	State 96	0.164	State 96	0.0075	State 96	0.01	State 96	0.024	State 96	0.0354	State 96	0.031	State 96	0.004
State 97	0.0632	State 97	0.0219	State 97	0.162	State 97	0.0065	State 97	0.205	State 97	0.021	State 97	0.0325	State 97	0.02	State 97	0.065
State 98	0.0659	State 98	0.0227	State 98	0.157	State 98	0.0063	State 98	0.203	State 98	0.067	State 98	0.0321	State 98	0.014	State 98	0.064
State 99	0.0217	State 99	0.0428	State 99	0.0123	State 99	0.0059	State 99	0.188	State 99	0.064	State 99	0.031	State 99	0.011	State 99	0.062
State 100	0.0315	State 100	0.0486	State 100	0.0121	State 100	0.0054	State 100	0.184	State 100	0.063	State 100	0.0254	State 100	0.082	State 100	0.061
State 101	0.0423	State 101	0.0361	State 101	0.0115	State 101	0.0053	State 101	0.182	State 101	0.061	State 101	0.0587	State 101	0.079	State 101	0.058
State 102	0.0476	State 102	0.0228	State 102	0.0106	State 102	0.0048	State 102	0.18	State 102	0.059	State 102	0.0582	State 102	0.054	State 102	0.054
State 103	0.0465	State 103	0.0193	State 103	0.0102	State 103	0.0042	State 103	0.176	State 103	0.054	State 103	0.0566	State 103	0.024	State 103	0.049
State 104	0.0463	State 104	0.0183	State 104	0.198	State 104	0.0039	State 104	0.174	State 104	0.053	State 104	0.0542	State 104	0.021	State 104	0.047
State 105	0.0455	State 105	0.0171	State 105	0.188	State 105	0.0025	State 105	0.166	State 105	0.051	State 105	0.0541	State 105	0.022	State 105	0.023
State 106	0.0443	State 106	0.0155	State 106	0.176	State 106	0.0177	State 106	0.163	State 106	0.049	State 106	0.0533	State 106	0.015	State 106	0.021
State 107	0.0441	State 107	0.0152	State 107	0.174	State 107	0.0175	State 107	0.155	State 107	0.046	State 107	0.053	State 107	0.014	State 107	0.015
State 108	0	State 108	0	State 108	0.171	State 108	0.0165	State 108	0.145	State 108	0.042	State 108	0.0529	State 108	0.011	State 108	0.011
State 109	0.00167	State 109	0.00101	State 109	0.166	State 109	0.0163	State 109	0.139	State 109	0.041	State 109	0.0524	State 109	0.074	State 109	0.01
State 110	0.00757	State 110	0.00327	State 110	0.16	State 110	0.0142	State 110	0.135	State 110	0.037	State 110	0.0415	State 110	0.071	State 110	0.052
State 111	0.0253	State 111	0.00961	State 111	0.155	State 111	0.0133	State 111	0.134	State 111	0.036	State 111	0.0401	State 111	0.069	State 111	0.051
State 112	0.0458	State 112	0.0161	State 112	0.15	State 112	0.0125	State 112	0.122	State 112	0.032	State 112	0.04	State 112	0.065	State 112	0.044
State 113	0.0516	State 113	0.0178	State 113	0.199	State 113	0.0122	State 113	0.115	State 113	0.031	State 113	0.0398	State 113	0.055	State 113	0.042
State 114	0.0698	State 114	0.0233	State 114	0.195	State 114	0.0115	State 114	0.109	State 114	0.027	State 114	0.0668	State 114	0.054	State 114	0.041
State 115	0.0796	State 115	0.0278	State 115	0.193	State 115	0.011	State 115	0.105	State 115	0.026	State 115	0.0645	State 115	0.052	State 115	0.039
State 116	0.107	State 116	0.0419	State 116	0.19	State 116	0.0088	State 116	0.104	State 116	0.023	State 116	0.0622	State 116	0.041	State 116	0.038
State 117	0.00151	State 117	0.00107	State 117	0.188	State 117	0.0085	State 117	0.101	State 117	0.021	State 117	0.0621	State 117	0.035	State 117	0.035
State 118	0.00413	State 118	0.00161	State 118	0.184	State 118	0.0084	State 118	0.096	State 118	0.019	State 118	0.0542	State 118	0.028	State 118	0.033
State 119	0.0107	State 119	0.00457	State 119	0.182	State 119	0.0082	State 119	0.092	State 119	0.055	State 119	0.0512	State 119	0.026	State 119	0.02
State 120	0.0248	State 120	0.0103	State 120	0.174	State 120	0.0077	State 120	0.088	State 120	0.052	State 120	0.0425	State 120	0.025	State 120	0.015
State 121	0.0376	State 121	0.0133	State 121	0.173	State 121	0.0074	State 121	0.084	State 121	0.051	State 121	0.0411	State 121	0.022	State 121	0.012
State 122	0.0416	State 122	0.0148	State 122	0.17	State 122	0.0068	State 122	0.075	State 122	0.042	State 122	0.0395	State 122	0.015	State 122	0.011
State 123	0.0483	State 123	0.0181	State 123	0.166	State 123	0.0065	State 123	0.072	State 123	0.041	State 123	0.0365	State 123	0.011	State 123	0.061
State 124	0.0531	State 124	0.0178	State 124	0.164	State 124	0.006	State 124	0.065	State 124	0.033	State 124	0.0322	State 124	0.069	State 124	0.054
State 125	0.0667	State 125	0.0238	State 125	0.159	State 125	0.0057	State 125	0.063	State 125	0.032	State 125	0.0385	State 125	0.055	State 125	0.048
State 126	0.00497	State 126	0.00921	State 126	0.157	State 126	0.0054	State 126	0.062	State 126	0.025	State 126	0.0381	State 126	0.032	State 126	0.042
State 127	0.00875	State 127	0.0107	State 127	0.14	State 127	0.005	State 127	0.059	State 127	0.024	State 127	0.0375	State 127	0.025	State 127	0.033
State 128	0.0169	State 128	0.0128	State 128	0.132	State 128	0.0042	State 128	0.045	State 128	0.021	State 128	0.0365	State 128	0.024	State 128	0.029
State 129	0.0281	State 129	0.0137	State 129	0.13	State 129	0.0041	State 129	0.042	State 129	0.054	State 129	0.0354	State 129	0.077	State 129	0.027
State 130	0.0336	State 130	0.0135	State 130	0.122	State 130	0.0039	State 130	0.039	State 130	0.052	State 130	0.0352	State 130	0.065	State 130	0.018
State 131	0.0337	State 131	0.0131	State 131	0.114	State 131	0.0121	State 131	0.112	State 131	0.044	State 131	0.0322	State 131	0.062	State 131	0.016
State 132	0.0381	State 132	0.0128	State 132	0.11	State 132	0.0114	State 132	0.106	State 132	0.041	State 132	0.0312	State 132	0.058	State 132	0.014
State 133	0.0371	State 133	0.0119	State 133	0.175	State 133	0.011	State 133	0.101	State 133	0.033	State 133	0.0759	State 133	0.052	State 133	0.011
State 134	0.0396	State 134	0.0127	State 134	0.173	State 134	0.0094	State 134	0.096	State 134	0.032	State 134	0.0749	State 134	0.051	State 134	0.052
State 135	0.00918	State 135	0.0251	State 135	0.162	State 135	0.009	State 135	0.093	State 135	0.015	State 135	0.0715	State 135	0.042	State 135	0.05
State 136	0.0161	State 136	0.0311	State 136	0.161	State 136	0.0088	State 136	0.088	State 136	0.012	State 136	0.0712	State 136	0.031	State 136	0.044
State 137	0.0252	State 137	0.0236	State 137	0.159	State 137	0.0082	State 137	0.078	State 137	0.045	State 137	0.0705	State 137	0.029	State 137	0.041
State 138	0.0288	State 138	0.0141	State 138	0.154	State 138	0.0075	State 138	0.065	State 138	0.044	State 138	0.0702	State 138	0.024	State 138	0.038
State 139	0.0285	State 139	0.0115	State 139	0.153	State 139	0.0071	State 139	0.049	State 139	0.039	State 139					