

**ZING SEMICONDUCTOR CORPORATION**  
**CERTIFICATE OF QUALITY CONFORMANCE**

**Part Number : 12PW002ZS Delivery Number : S201710130002**

SHIPMENT STATISTICAL SUMMARY						
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0054	299.9128	300.0208
Thickness	um	750 to 800	774.3891	1.1749	750.3740	780.1410
Resistivity	Ohm-cm	1 to 100	10.9426	1.4441	6.7970	20.2200
Particle @ 0.2um	ea/wafer	0 to 30	4.2961	6.0786	0	30
TTV	um	0 to 25	0.2290	0.1251	0.0499	2.1207
Bow	um	0 to 50	3.0478	2.2768	0.0012	14.3198
Warp	um	0 to 50	10.6724	5.2460	3.2659	38.7341

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70101010302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9979	0.0005	299.9976	299.9986
Thickness	um	750 to 800	775.0330	0.4215	774.6790	775.9190
Resistivity	Ohm-cm	1 to 100	10.0730	0.6266	9.3400	10.6900
Particle @ 0.2um	ea/wafer	0 to 30	4.6400	5.1872	0	20
TTV	um	0 to 25	0.2288	0.0662	0.0884	0.2921
Bow	um	0 to 50	1.3245	1.8265	0.1582	8.9960
Warp	um	0 to 50	33.3131	5.9204	20.7717	37.6817
LOT STATISTICAL SUMMARY						
Lot Number :	70111001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0005	0.0032	299.9905	300.0018
Thickness	um	750 to 800	774.7553	0.2772	774.1230	775.0650
Resistivity	Ohm-cm	1 to 100	10.4297	1.2473	7.0350	11.2000
Particle @ 0.2um	ea/wafer	0 to 30	7.6000	4.8648	1	22
TTV	um	0 to 25	0.1570	0.0464	0.0992	0.2625
Bow	um	0 to 50	4.5388	2.7735	0.1442	9.5905
Warp	um	0 to 50	12.9846	4.2620	6.6487	20.3182
LOT STATISTICAL SUMMARY						
Lot Number :	70113001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0000	0.0008	299.9998	300.0028
Thickness	um	750 to 800	774.6562	0.2255	774.3670	775.3000
Resistivity	Ohm-cm	1 to 100	11.1650	0.2980	10.8700	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	3.2800	2.3544	0	11
TTV	um	0 to 25	0.2006	0.0967	0.1141	0.5166
Bow	um	0 to 50	0.8457	0.6340	0.0657	2.6652
Warp	um	0 to 50	6.8379	0.6536	5.9057	8.0788
LOT STATISTICAL SUMMARY						
Lot Number :	70113001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0028	0.0000	300.0028	300.0029
Thickness	um	750 to 800	774.8891	0.3118	774.4970	775.4000
Resistivity	Ohm-cm	1 to 100	11.1650	0.2980	10.8700	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	6.2400	5.7899	0	30
TTV	um	0 to 25	0.1910	0.0678	0.1225	0.3319
Bow	um	0 to 50	1.0766	0.9716	0.0211	3.0882
Warp	um	0 to 50	7.7375	2.0239	4.7752	10.9562

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70113001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0020	0.0008	300.0011	300.0027
Thickness	um	750 to 800	773.7418	1.0957	771.7630	774.9660
Resistivity	Ohm-cm	1 to 100	11.1650	0.2980	10.8700	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	3.6400	4.7159	0	18
TTV	um	0 to 25	0.2662	0.0937	0.1486	0.4539
Bow	um	0 to 50	1.0075	0.8707	0.0328	3.8703
Warp	um	0 to 50	7.3512	1.6038	5.1078	11.0123
LOT STATISTICAL SUMMARY						
Lot Number :	70113001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0016	300.0010	300.0059
Thickness	um	750 to 800	774.4737	0.5119	773.7790	775.7900
Resistivity	Ohm-cm	1 to 100	11.1050	0.3226	10.5400	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	4.6000	3.7081	0	10
TTV	um	0 to 25	0.3294	0.0959	0.1700	0.5762
Bow	um	0 to 50	1.2649	1.4061	0.0012	5.4831
Warp	um	0 to 50	6.8542	1.5101	5.6112	13.4313
LOT STATISTICAL SUMMARY						
Lot Number :	70113001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0021	0.0056	299.9982	300.0134
Thickness	um	750 to 800	775.3942	0.2476	775.0970	776.1030
Resistivity	Ohm-cm	1 to 100	10.5016	0.8380	8.8850	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	5.8000	5.4391	0	19
TTV	um	0 to 25	0.1447	0.0595	0.0776	0.2877
Bow	um	0 to 50	3.6285	1.6741	0.1119	7.9632
Warp	um	0 to 50	11.3373	2.6032	8.1535	17.9576
LOT STATISTICAL SUMMARY						
Lot Number :	70113001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0019	0.0006	300.0014	300.0045
Thickness	um	750 to 800	775.5519	0.3771	774.6610	776.0520
Resistivity	Ohm-cm	1 to 100	11.1350	0.3120	10.5400	11.4600
Particle @ 0.2um	ea/wafer	0 to 30	3.6000	4.9666	0	20
TTV	um	0 to 25	0.1726	0.0484	0.0892	0.3227
Bow	um	0 to 50	0.8207	0.4757	0.0617	1.9898
Warp	um	0 to 50	6.8295	0.7642	5.7284	8.8007

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70121033302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0060	0.0020	300.0043	300.0082
Thickness	um	750 to 800	774.0983	0.6760	773.2810	775.0380
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	9.1200	6.1395	1	27
TTV	um	0 to 25	0.2482	0.0640	0.1691	0.3816
Bow	um	0 to 50	2.4598	1.7094	0.4733	8.5308
Warp	um	0 to 50	8.5294	2.4770	4.8389	16.9345
LOT STATISTICAL SUMMARY						
Lot Number :	70203010301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0042	0.0000	300.0042	300.0042
Thickness	um	750 to 800	774.7116	0.0825	774.5810	774.9180
Resistivity	Ohm-cm	1 to 100	11.8200	0.1818	11.6400	12.0000
Particle @ 0.2um	ea/wafer	0 to 30	9.9600	3.7581	3	19
TTV	um	0 to 25	0.1505	0.0283	0.0966	0.2109
Bow	um	0 to 50	1.9235	1.3529	0.1724	5.0601
Warp	um	0 to 50	13.2089	0.6761	12.4628	15.9822
LOT STATISTICAL SUMMARY						
Lot Number :	70203010304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0008	0.0006	300.0004	300.0018
Thickness	um	750 to 800	775.5149	0.2692	775.0030	776.1420
Resistivity	Ohm-cm	1 to 100	11.8200	0.1818	11.6400	12.0000
Particle @ 0.2um	ea/wafer	0 to 30	22.6000	3.0414	18	30
TTV	um	0 to 25	0.2209	0.0671	0.1065	0.3468
Bow	um	0 to 50	2.1798	0.8570	0.4811	3.7051
Warp	um	0 to 50	15.3932	1.1401	13.5901	17.5599
LOT STATISTICAL SUMMARY						
Lot Number :	70204079310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0097	0.0003	300.0094	300.0101
Thickness	um	750 to 800	776.8200	0.3775	776.2320	777.6250
Resistivity	Ohm-cm	1 to 100	10.1240	0.2586	9.8680	10.3800
Particle @ 0.2um	ea/wafer	0 to 30	3.0800	2.3615	0	9
TTV	um	0 to 25	0.4523	0.2450	0.1654	0.8904
Bow	um	0 to 50	4.7680	3.6433	0.4543	12.8348
Warp	um	0 to 50	13.1128	6.4739	6.5107	34.7001

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70211040303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9740	0.0456	299.9128	300.0094
Thickness	um	750 to 800	775.5379	0.6910	774.6850	776.7810
Resistivity	Ohm-cm	1 to 100	10.6557	0.6873	8.9530	11.5500
Particle @ 0.2um	ea/wafer	0 to 30	8.8000	9.6003	0	27
TTV	um	0 to 25	0.2109	0.1654	0.0697	0.5523
Bow	um	0 to 50	4.2750	3.2699	0.2836	10.0140
Warp	um	0 to 50	13.1541	6.9319	4.4577	25.7132
LOT STATISTICAL SUMMARY						
Lot Number :	70213001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0020	0.0046	299.9926	300.0083
Thickness	um	750 to 800	774.7836	0.5078	774.2670	776.4730
Resistivity	Ohm-cm	1 to 100	10.9199	0.6259	9.2190	11.5200
Particle @ 0.2um	ea/wafer	0 to 30	3.1600	4.1199	0	16
TTV	um	0 to 25	0.2465	0.1429	0.1010	0.8919
Bow	um	0 to 50	5.6952	4.0979	0.6852	14.3198
Warp	um	0 to 50	17.3285	9.4808	5.9768	30.7271
LOT STATISTICAL SUMMARY						
Lot Number :	70218001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0018	299.9952	300.0011
Thickness	um	750 to 800	774.4902	0.3719	774.1420	775.2890
Resistivity	Ohm-cm	1 to 100	11.2350	0.0657	11.1700	11.3000
Particle @ 0.2um	ea/wafer	0 to 30	1.7200	2.2825	0	9
TTV	um	0 to 25	0.2179	0.0680	0.0832	0.3110
Bow	um	0 to 50	3.0370	2.1255	0.0789	6.9667
Warp	um	0 to 50	8.6052	3.0503	4.7140	15.7997
LOT STATISTICAL SUMMARY						
Lot Number :	70218001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9985	0.0001	299.9984	299.9986
Thickness	um	750 to 800	775.0184	0.1420	774.7870	775.2910
Resistivity	Ohm-cm	1 to 100	11.2350	0.0657	11.1700	11.3000
Particle @ 0.2um	ea/wafer	0 to 30	4.1600	6.6438	0	29
TTV	um	0 to 25	0.1438	0.0447	0.0649	0.2016
Bow	um	0 to 50	2.6378	1.7465	0.1639	6.4663
Warp	um	0 to 50	7.9664	3.0804	4.4896	14.5478

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70218037302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9990	0.0016	299.9960	300.0018
Thickness	um	750 to 800	775.0721	0.1559	774.6950	775.3270
Resistivity	Ohm-cm	1 to 100	10.5645	0.9350	6.9230	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	2.7600	6.0089	0	26
TTV	um	0 to 25	0.1375	0.0171	0.1127	0.1915
Bow	um	0 to 50	2.0289	1.0632	0.3452	4.4693
Warp	um	0 to 50	10.3628	2.3011	5.1674	12.8498
LOT STATISTICAL SUMMARY						
Lot Number :	70218037303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0085	0.0012	300.0045	300.0089
Thickness	um	750 to 800	773.7720	0.2048	773.6410	774.4480
Resistivity	Ohm-cm	1 to 100	10.8800	0.2323	10.6500	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	7.7600	4.8501	1	18
TTV	um	0 to 25	0.2056	0.0194	0.1600	0.2366
Bow	um	0 to 50	3.6046	1.3887	0.7238	5.5813
Warp	um	0 to 50	13.0758	3.0583	6.6720	18.8829
LOT STATISTICAL SUMMARY						
Lot Number :	70218037304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0048	0.0006	300.0045	300.0058
Thickness	um	750 to 800	774.1012	0.2951	773.7900	774.6530
Resistivity	Ohm-cm	1 to 100	10.8800	0.2323	10.6500	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	1.9200	2.5968	0	12
TTV	um	0 to 25	0.1632	0.0217	0.1299	0.2053
Bow	um	0 to 50	2.9064	2.7592	0.1041	9.2417
Warp	um	0 to 50	7.9200	3.5129	4.6559	16.8250
LOT STATISTICAL SUMMARY						
Lot Number :	70218037305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0065	0.0014	300.0058	300.0089
Thickness	um	750 to 800	774.4156	0.2744	773.8780	774.6440
Resistivity	Ohm-cm	1 to 100	10.8800	0.2323	10.6500	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	4.6800	4.4038	0	19
TTV	um	0 to 25	0.1492	0.0203	0.1277	0.1956
Bow	um	0 to 50	3.0695	2.0022	0.0077	7.4101
Warp	um	0 to 50	7.8989	2.4633	4.6917	12.9970

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70218037306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0040	0.0056	299.9978	300.0089
Thickness	um	750 to 800	774.0367	0.0763	773.9100	774.1950
Resistivity	Ohm-cm	1 to 100	10.8800	0.2323	10.6500	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	4.1600	4.0690	0	16
TTV	um	0 to 25	0.1642	0.0281	0.0738	0.2117
Bow	um	0 to 50	3.7612	2.5150	0.1506	8.9280
Warp	um	0 to 50	10.1427	2.4023	7.3622	16.2234
LOT STATISTICAL SUMMARY						
Lot Number :	70218037308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0007	0.0005	299.9982	300.0008
Thickness	um	750 to 800	774.9277	0.2343	774.6900	775.3460
Resistivity	Ohm-cm	1 to 100	10.7715	0.6035	7.3960	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	0.5600	1.6093	0	8
TTV	um	0 to 25	0.2117	0.0381	0.1527	0.2935
Bow	um	0 to 50	3.5691	1.2577	0.7081	6.1851
Warp	um	0 to 50	13.7325	1.5137	10.0038	17.0092
LOT STATISTICAL SUMMARY						
Lot Number :	70218037309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0029	0.0003	300.0022	300.0030
Thickness	um	750 to 800	774.6324	1.3819	772.2490	775.6920
Resistivity	Ohm-cm	1 to 100	10.8800	0.2323	10.6500	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	7.5200	6.5709	0	29
TTV	um	0 to 25	0.1917	0.1056	0.0949	0.5188
Bow	um	0 to 50	2.3480	1.4081	0.1610	5.4867
Warp	um	0 to 50	10.6751	1.9225	8.2080	16.2843
LOT STATISTICAL SUMMARY						
Lot Number :	70221086308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0038	299.9926	300.0090
Thickness	um	750 to 800	775.2730	0.4035	773.9140	775.8500
Resistivity	Ohm-cm	1 to 100	10.0585	0.3912	9.4490	10.5900
Particle @ 0.2um	ea/wafer	0 to 30	8.4800	8.3970	0	24
TTV	um	0 to 25	0.1864	0.0827	0.0762	0.5094
Bow	um	0 to 50	3.2300	2.3192	0.3131	7.5718
Warp	um	0 to 50	15.1363	4.5495	5.8610	20.4549

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LOT STATISTICAL SUMMARY						
Lot Number :	70224001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0025	0.0000	300.0025	300.0025
Thickness	um	750 to 800	773.9705	0.0241	773.9270	774.0130
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	1.9200	2.3438	0	9
TTV	um	0 to 25	0.0972	0.0114	0.0775	0.1167
Bow	um	0 to 50	2.0410	1.1919	0.2386	4.9033
Warp	um	0 to 50	11.4092	1.3388	9.3626	14.7639
LOT STATISTICAL SUMMARY						
Lot Number :	70224001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9974	0.0031	299.9959	300.0035
Thickness	um	750 to 800	774.0776	0.1901	773.6360	774.2650
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	5.8800	3.7895	0	16
TTV	um	0 to 25	0.2160	0.0686	0.0676	0.3045
Bow	um	0 to 50	1.9853	1.2728	0.0391	4.7047
Warp	um	0 to 50	9.4558	2.4170	5.6760	14.3471
LOT STATISTICAL SUMMARY						
Lot Number :	70224001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0026	0.0019	299.9988	300.0035
Thickness	um	750 to 800	774.0263	0.1808	773.8160	774.7560
Resistivity	Ohm-cm	1 to 100	10.9608	0.0953	10.3100	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	3.8800	5.3488	0	20
TTV	um	0 to 25	0.1494	0.0654	0.0844	0.3355
Bow	um	0 to 50	1.9634	1.2505	0.0212	5.0949
Warp	um	0 to 50	10.7350	1.6108	6.3051	13.8265
LOT STATISTICAL SUMMARY						
Lot Number :	70224001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0037	0.0000	300.0037	300.0037
Thickness	um	750 to 800	774.0336	0.0746	773.9200	774.1630
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	1.4000	1.3540	0	5
TTV	um	0 to 25	0.1525	0.0327	0.0984	0.2131
Bow	um	0 to 50	1.5105	0.8835	0.1700	3.3216
Warp	um	0 to 50	9.9886	0.9703	8.0841	11.7594



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LOT STATISTICAL SUMMARY						
Lot Number :	70224001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0039	0.0022	300.0000	300.0051
Thickness	um	750 to 800	774.3723	1.1625	773.6280	776.9770
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	1.0000	1.1547	0	5
TTV	um	0 to 25	0.1708	0.1472	0.0837	0.5966
Bow	um	0 to 50	1.8760	1.7298	0.0171	7.7677
Warp	um	0 to 50	10.4649	1.4321	8.4947	15.3452
LOT STATISTICAL SUMMARY						
Lot Number :	70224001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9963	0.0067	299.9835	300.0000
Thickness	um	750 to 800	775.1190	1.5204	773.6510	777.0030
Resistivity	Ohm-cm	1 to 100	10.8070	0.3071	10.1100	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	5.5200	8.0214	0	24
TTV	um	0 to 25	0.2884	0.1544	0.0899	0.5179
Bow	um	0 to 50	1.7328	0.9413	0.0202	3.5127
Warp	um	0 to 50	9.9901	2.1624	6.0073	12.9051
LOT STATISTICAL SUMMARY						
Lot Number :	70224001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0036	0.0003	300.0035	300.0044
Thickness	um	750 to 800	775.6309	1.3601	774.1340	776.9840
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	2.1200	3.0044	0	11
TTV	um	0 to 25	0.3640	0.2295	0.0995	0.7193
Bow	um	0 to 50	1.4680	1.5515	0.0370	6.1917
Warp	um	0 to 50	9.0536	1.7578	6.7512	14.0989
LOT STATISTICAL SUMMARY						
Lot Number :	70224001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0040	0.0010	300.0017	300.0044
Thickness	um	750 to 800	773.9152	0.1799	773.6880	774.2130
Resistivity	Ohm-cm	1 to 100	10.9750	0.0152	10.9600	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	1.5200	2.9172	0	14
TTV	um	0 to 25	0.1023	0.0254	0.0516	0.1531
Bow	um	0 to 50	3.3460	1.5866	0.1872	6.4862
Warp	um	0 to 50	11.0723	1.6587	7.7522	14.0585

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70224032323					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0044	0.0018	300.0024	300.0069
Thickness	um	750 to 800	774.5728	0.8396	772.4590	775.4050
Resistivity	Ohm-cm	1 to 100	10.5356	0.3235	10.0700	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	8.4400	5.6501	0	16
TTV	um	0 to 25	0.2100	0.1457	0.0885	0.6631
Bow	um	0 to 50	3.6730	2.3698	0.2150	9.0897
Warp	um	0 to 50	11.0581	3.5200	7.4223	22.9803
LOT STATISTICAL SUMMARY						
Lot Number :	70225001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0020	0.0027	299.9974	300.0052
Thickness	um	750 to 800	774.8790	0.7077	771.9620	775.8030
Resistivity	Ohm-cm	1 to 100	10.4884	0.2527	10.1100	10.7300
Particle @ 0.2um	ea/wafer	0 to 30	20.0800	8.3012	1	30
TTV	um	0 to 25	0.2247	0.1202	0.0772	0.6187
Bow	um	0 to 50	3.4154	2.2334	0.4129	8.1655
Warp	um	0 to 50	10.1836	4.4218	3.3729	19.0933
LOT STATISTICAL SUMMARY						
Lot Number :	70225038304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0026	0.0030	299.9967	300.0096
Thickness	um	750 to 800	775.0898	0.2539	774.5190	775.4620
Resistivity	Ohm-cm	1 to 100	10.2050	0.3130	9.7740	10.6500
Particle @ 0.2um	ea/wafer	0 to 30	16.6800	8.7831	1	30
TTV	um	0 to 25	0.1952	0.0702	0.0761	0.3569
Bow	um	0 to 50	3.1297	1.8545	0.0694	6.8052
Warp	um	0 to 50	9.5744	2.5348	4.0908	14.9425
LOT STATISTICAL SUMMARY						
Lot Number :	70225075320					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0053	0.0010	300.0032	300.0062
Thickness	um	750 to 800	775.1350	0.4170	774.4060	775.6260
Resistivity	Ohm-cm	1 to 100	10.0396	0.6093	9.1050	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	0.9200	0.8124	0	2
TTV	um	0 to 25	0.1343	0.0411	0.0866	0.2550
Bow	um	0 to 50	3.4780	2.1708	0.1802	9.6742
Warp	um	0 to 50	8.4727	3.4036	3.9690	20.8895

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70226001330					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0007	0.0026	299.9938	300.0022
Thickness	um	750 to 800	773.5768	1.0705	770.3540	775.9170
Resistivity	Ohm-cm	1 to 100	10.4116	0.9189	8.2970	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	5.4800	7.7949	0	25
TTV	um	0 to 25	0.2475	0.1228	0.0864	0.6275
Bow	um	0 to 50	2.0979	1.5358	0.0459	4.8254
Warp	um	0 to 50	10.5246	3.2680	3.7248	14.3867
LOT STATISTICAL SUMMARY						
Lot Number :	70227069314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0004	0.0044	299.9963	300.0051
Thickness	um	750 to 800	774.1962	1.4729	769.3740	775.0280
Resistivity	Ohm-cm	1 to 100	10.2445	0.5817	8.9400	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	5.4400	4.4448	1	14
TTV	um	0 to 25	0.1897	0.0948	0.0995	0.5028
Bow	um	0 to 50	1.5376	1.1329	0.1379	3.6166
Warp	um	0 to 50	6.6624	1.7658	3.9493	10.9720
LOT STATISTICAL SUMMARY						
Lot Number :	70228075304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0010	0.0057	299.9921	300.0064
Thickness	um	750 to 800	773.1210	1.2031	772.0860	775.6080
Resistivity	Ohm-cm	1 to 100	10.5471	0.6500	9.1840	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	3.7600	4.7371	0	19
TTV	um	0 to 25	0.1645	0.1139	0.0691	0.3716
Bow	um	0 to 50	3.2295	1.9984	0.0362	6.1762
Warp	um	0 to 50	13.5030	3.6586	4.8294	22.5193
LOT STATISTICAL SUMMARY						
Lot Number :	70229001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9965	0.0010	299.9941	299.9982
Thickness	um	750 to 800	774.3297	0.2624	774.0270	775.0120
Resistivity	Ohm-cm	1 to 100	10.3309	0.7735	8.0910	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	15.1200	9.1256	3	29
TTV	um	0 to 25	0.1545	0.0358	0.1026	0.2161
Bow	um	0 to 50	2.3389	1.5265	0.3292	6.0110
Warp	um	0 to 50	8.5034	1.1403	6.1446	10.5235

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70229028302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9937	0.0020	299.9893	299.9969
Thickness	um	750 to 800	774.4230	0.2005	774.0870	774.8890
Resistivity	Ohm-cm	1 to 100	10.6240	0.2512	10.2900	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	21.5600	7.3941	0	30
TTV	um	0 to 25	0.1628	0.0562	0.0942	0.3983
Bow	um	0 to 50	2.3322	1.2864	0.3646	5.0740
Warp	um	0 to 50	9.3383	2.1667	7.0466	14.8833
LOT STATISTICAL SUMMARY						
Lot Number :	70230001316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9964	0.0047	299.9856	300.0029
Thickness	um	750 to 800	774.2167	0.7661	772.4650	775.0070
Resistivity	Ohm-cm	1 to 100	10.1331	0.8141	8.0910	11.0200
Particle @ 0.2um	ea/wafer	0 to 30	15.0000	9.3140	0	28
TTV	um	0 to 25	0.3160	0.2495	0.1417	1.1520
Bow	um	0 to 50	3.2165	2.7605	0.0102	9.6571
Warp	um	0 to 50	11.3942	5.9916	4.8035	31.7481
LOT STATISTICAL SUMMARY						
Lot Number :	70235063307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.3942	1.6699	294.9625	300.0067
Thickness	um	750 to 800	775.2298	0.5648	774.2750	776.4500
Resistivity	Ohm-cm	1 to 100	10.9884	1.9992	7.7860	19.6700
Particle @ 0.2um	ea/wafer	0 to 30	8.3600	6.5248	0	26
TTV	um	0 to 25	0.1941	0.0594	0.0798	0.3537
Bow	um	0 to 50	2.9248	2.1347	0.1214	7.2644
Warp	um	0 to 50	13.6257	12.1568	4.5663	38.3142
LOT STATISTICAL SUMMARY						
Lot Number :	71114001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0053	0.0047	299.9980	300.0121
Thickness	um	750 to 800	775.2047	0.7886	774.2170	776.1980
Resistivity	Ohm-cm	1 to 100	10.3764	0.4517	9.7020	11.0000
Particle @ 0.2um	ea/wafer	0 to 30	13.5600	9.8872	0	30
TTV	um	0 to 25	0.2083	0.0970	0.1015	0.3863
Bow	um	0 to 50	4.1138	2.8935	0.1871	10.0323
Warp	um	0 to 50	9.3975	5.1681	3.5627	19.1341

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71114001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0085	0.0007	300.0053	300.0093
Thickness	um	750 to 800	774.8148	1.2597	773.0940	776.2920
Resistivity	Ohm-cm	1 to 100	9.8710	0.1707	9.7020	10.0400
Particle @ 0.2um	ea/wafer	0 to 30	6.8400	9.3883	0	28
TTV	um	0 to 25	0.2754	0.1726	0.1344	0.7299
Bow	um	0 to 50	4.5824	2.1469	0.3674	7.6861
Warp	um	0 to 50	11.2453	2.9988	6.2535	15.1537
LOT STATISTICAL SUMMARY						
Lot Number :	71114001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0073	0.0020	299.9993	300.0081
Thickness	um	750 to 800	775.6181	0.7717	773.4470	776.3700
Resistivity	Ohm-cm	1 to 100	9.9010	0.2321	9.7020	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	3.3600	4.6982	0	17
TTV	um	0 to 25	0.2360	0.0910	0.1313	0.5108
Bow	um	0 to 50	1.8935	1.3248	0.1437	4.6467
Warp	um	0 to 50	10.1178	1.4599	6.7530	13.0259
LOT STATISTICAL SUMMARY						
Lot Number :	71114001313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0054	0.0001	300.0053	300.0055
Thickness	um	750 to 800	775.8579	0.1744	775.6180	776.1570
Resistivity	Ohm-cm	1 to 100	9.8710	0.1707	9.7020	10.0400
Particle @ 0.2um	ea/wafer	0 to 30	5.5600	6.5579	0	22
TTV	um	0 to 25	0.1692	0.0297	0.1201	0.2311
Bow	um	0 to 50	3.6265	2.3946	0.1062	7.6224
Warp	um	0 to 50	10.6658	2.4916	7.9350	16.0068
LOT STATISTICAL SUMMARY						
Lot Number :	71115067314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0026	0.0038	299.9935	300.0067
Thickness	um	750 to 800	774.9184	0.3827	774.3920	775.6730
Resistivity	Ohm-cm	1 to 100	9.1413	0.9992	7.6600	10.3700
Particle @ 0.2um	ea/wafer	0 to 30	16.3200	10.9686	0	30
TTV	um	0 to 25	0.2613	0.0907	0.1160	0.4105
Bow	um	0 to 50	2.9739	2.3760	0.3041	11.3342
Warp	um	0 to 50	19.3282	8.3845	7.3566	31.7439

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71120001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0012	299.9985	300.0010
Thickness	um	750 to 800	775.3372	0.1162	775.1310	775.5380
Resistivity	Ohm-cm	1 to 100	10.3050	0.1869	10.1200	10.4900
Particle @ 0.2um	ea/wafer	0 to 30	1.2000	1.9579	0	8
TTV	um	0 to 25	0.1663	0.0249	0.1139	0.2105
Bow	um	0 to 50	2.0475	1.6148	0.1199	6.7559
Warp	um	0 to 50	19.6379	2.3353	13.5110	22.1012
LOT STATISTICAL SUMMARY						
Lot Number :	71120073302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0016	0.0000	300.0016	300.0017
Thickness	um	750 to 800	773.9576	0.0894	773.8270	774.1280
Resistivity	Ohm-cm	1 to 100	9.8122	1.0044	8.6560	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	13.8800	11.3553	0	30
TTV	um	0 to 25	0.2010	0.0741	0.0911	0.2958
Bow	um	0 to 50	2.2346	1.7680	0.1678	8.4362
Warp	um	0 to 50	9.8837	2.6763	7.5779	19.9058
LOT STATISTICAL SUMMARY						
Lot Number :	71122001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9950	0.0005	299.9943	299.9967
Thickness	um	750 to 800	775.7250	0.2138	775.3430	776.0160
Resistivity	Ohm-cm	1 to 100	10.6200	0.3131	10.3100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	8.6000	7.6811	2	28
TTV	um	0 to 25	0.2658	0.0962	0.1650	0.6131
Bow	um	0 to 50	4.0991	2.4671	0.0717	8.9105
Warp	um	0 to 50	12.0296	3.1687	6.6757	19.1136
LOT STATISTICAL SUMMARY						
Lot Number :	71122001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9959	0.0009	299.9944	299.9967
Thickness	um	750 to 800	774.8132	0.8426	773.8860	775.8930
Resistivity	Ohm-cm	1 to 100	10.7664	0.3024	10.3100	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	9.3200	9.4195	0	27
TTV	um	0 to 25	0.2621	0.1437	0.1105	0.5228
Bow	um	0 to 50	2.3263	1.9045	0.0459	7.7555
Warp	um	0 to 50	10.8050	3.6137	7.6657	24.5549

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71122001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0006	0.0006	299.9998	300.0010
Thickness	um	750 to 800	774.9871	1.1407	773.4740	777.3830
Resistivity	Ohm-cm	1 to 100	10.6200	0.3131	10.3100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	4.7200	1.8376	2	8
TTV	um	0 to 25	0.2324	0.1111	0.1240	0.5026
Bow	um	0 to 50	2.5152	2.0412	0.0615	6.1335
Warp	um	0 to 50	11.3211	2.9555	6.6121	16.2968
LOT STATISTICAL SUMMARY						
Lot Number :	71122001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0007	299.9983	299.9998
Thickness	um	750 to 800	777.1528	0.4078	775.8450	777.4760
Resistivity	Ohm-cm	1 to 100	10.6200	0.3131	10.3100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	10.5200	5.7164	4	30
TTV	um	0 to 25	0.2170	0.0285	0.1701	0.2913
Bow	um	0 to 50	3.7545	2.9723	0.1015	12.3992
Warp	um	0 to 50	11.1685	4.5540	6.6992	24.7616
LOT STATISTICAL SUMMARY						
Lot Number :	71122001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9956	0.0016	299.9893	299.9963
Thickness	um	750 to 800	775.2154	0.4622	774.0470	776.1490
Resistivity	Ohm-cm	1 to 100	10.4068	0.7008	7.0350	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	3.8000	5.1478	0	25
TTV	um	0 to 25	0.2901	0.1257	0.1145	0.5930
Bow	um	0 to 50	2.9456	2.3888	0.0266	7.3103
Warp	um	0 to 50	10.2911	2.7355	7.1379	16.1447
LOT STATISTICAL SUMMARY						
Lot Number :	71124001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0052	299.9950	300.0058
Thickness	um	750 to 800	774.6080	0.1990	774.0870	774.8190
Resistivity	Ohm-cm	1 to 100	10.8200	0.1111	10.7100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	5.2400	6.2134	0	22
TTV	um	0 to 25	0.2397	0.0487	0.1902	0.3547
Bow	um	0 to 50	2.1428	1.7542	0.2184	8.9249
Warp	um	0 to 50	8.5940	3.1282	3.4699	15.4945

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71124001314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0069	0.0035	300.0033	300.0102
Thickness	um	750 to 800	774.5670	0.1314	774.3680	774.8050
Resistivity	Ohm-cm	1 to 100	10.8200	0.1111	10.7100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	4.6800	5.3907	0	23
TTV	um	0 to 25	0.2478	0.0390	0.1882	0.3316
Bow	um	0 to 50	2.4657	2.0537	0.0391	7.2634
Warp	um	0 to 50	8.5163	2.3577	5.4936	13.7606
LOT STATISTICAL SUMMARY						
Lot Number :	71124001315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0027	0.0003	300.0025	300.0033
Thickness	um	750 to 800	774.5276	0.1205	774.2570	774.7080
Resistivity	Ohm-cm	1 to 100	10.8200	0.1111	10.7100	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	1.4800	2.3650	0	12
TTV	um	0 to 25	0.2593	0.0142	0.2395	0.2894
Bow	um	0 to 50	4.5422	2.3246	0.2739	8.7499
Warp	um	0 to 50	8.8087	2.7474	4.5770	14.0368
LOT STATISTICAL SUMMARY						
Lot Number :	71124028301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9969	0.0021	299.9956	300.0001
Thickness	um	750 to 800	774.8664	0.1845	774.5370	775.2370
Resistivity	Ohm-cm	1 to 100	10.1820	0.4525	9.7340	10.6300
Particle @ 0.2um	ea/wafer	0 to 30	25.0000	3.3292	19	30
TTV	um	0 to 25	0.1756	0.0497	0.1082	0.2948
Bow	um	0 to 50	2.8467	3.3512	0.0132	12.5185
Warp	um	0 to 50	11.0226	4.2498	6.6493	23.2040
LOT STATISTICAL SUMMARY						
Lot Number :	71124028307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9974	0.0030	299.9941	300.0001
Thickness	um	750 to 800	774.8520	0.5615	772.4440	775.2900
Resistivity	Ohm-cm	1 to 100	10.5489	0.5736	8.9400	11.2000
Particle @ 0.2um	ea/wafer	0 to 30	16.3600	10.0659	5	30
TTV	um	0 to 25	0.1967	0.0408	0.1177	0.2564
Bow	um	0 to 50	4.8100	3.5962	0.4063	11.6229
Warp	um	0 to 50	13.8139	5.4479	5.6206	23.3897



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71124028309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9946	0.0007	299.9935	299.9960
Thickness	um	750 to 800	774.7338	0.4730	773.1780	775.0670
Resistivity	Ohm-cm	1 to 100	10.1820	0.4525	9.7340	10.6300
Particle @ 0.2um	ea/wafer	0 to 30	23.2800	5.1114	11	30
TTV	um	0 to 25	0.2143	0.0461	0.0629	0.2649
Bow	um	0 to 50	2.0287	2.2623	0.1499	9.4857
Warp	um	0 to 50	9.0357	3.1962	4.5387	16.9493
LOT STATISTICAL SUMMARY						
Lot Number :	71126001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9969	0.0003	299.9966	299.9972
Thickness	um	750 to 800	774.4915	0.0739	774.3510	774.5810
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	0.6880	0	2
TTV	um	0 to 25	0.0785	0.0196	0.0566	0.1273
Bow	um	0 to 50	1.6123	1.2059	0.0564	3.2565
Warp	um	0 to 50	10.3161	0.9378	8.5995	12.8330
LOT STATISTICAL SUMMARY						
Lot Number :	71126001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9969	0.0003	299.9966	299.9972
Thickness	um	750 to 800	774.4108	0.1002	774.2540	774.5710
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	2.9600	2.3537	0	10
TTV	um	0 to 25	0.0821	0.0150	0.0652	0.1161
Bow	um	0 to 50	1.5401	0.9334	0.2194	3.1596
Warp	um	0 to 50	9.6669	0.7576	8.2149	11.1359
LOT STATISTICAL SUMMARY						
Lot Number :	71126001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9970	0.0003	299.9964	299.9978
Thickness	um	750 to 800	774.3669	0.3988	773.3970	774.6710
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	0.8000	0.8165	0	2
TTV	um	0 to 25	0.1403	0.0955	0.0716	0.3398
Bow	um	0 to 50	1.7973	0.7225	0.6266	3.0374
Warp	um	0 to 50	8.4159	1.3255	5.2956	10.2865

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71126001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9966	0.0004	299.9964	299.9978
Thickness	um	750 to 800	773.7048	0.4809	773.0770	774.5970
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	4.5600	2.0833	0	9
TTV	um	0 to 25	0.2642	0.1377	0.0910	0.4824
Bow	um	0 to 50	1.1550	0.8409	0.0746	3.1962
Warp	um	0 to 50	6.6720	1.0380	5.5400	9.9248
LOT STATISTICAL SUMMARY						
Lot Number :	71126001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9963	0.0030	299.9835	299.9978
Thickness	um	750 to 800	774.3810	0.3335	773.7580	774.8010
Resistivity	Ohm-cm	1 to 100	10.7116	0.2781	10.1100	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	8.2400	5.1013	0	16
TTV	um	0 to 25	0.2793	0.0378	0.1947	0.3342
Bow	um	0 to 50	2.0037	0.7625	0.0086	3.4008
Warp	um	0 to 50	7.1318	1.2278	4.9893	9.1531
LOT STATISTICAL SUMMARY						
Lot Number :	71126001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9974	0.0005	299.9971	299.9982
Thickness	um	750 to 800	774.4315	0.2171	774.0180	774.7570
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	3.6400	3.2772	0	11
TTV	um	0 to 25	0.2003	0.0515	0.0915	0.2885
Bow	um	0 to 50	3.3886	1.7845	0.8110	6.4253
Warp	um	0 to 50	9.7893	2.8356	5.9100	14.9331
LOT STATISTICAL SUMMARY						
Lot Number :	71126001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0000	300.0018	300.0018
Thickness	um	750 to 800	772.6421	2.2859	768.4850	774.6070
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	1.9600	1.7673	0	9
TTV	um	0 to 25	0.2865	0.0875	0.1131	0.4172
Bow	um	0 to 50	2.1856	2.0114	0.2003	9.1466
Warp	um	0 to 50	10.0870	3.3699	7.1154	22.2541

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71126001315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9967	0.0001	299.9966	299.9969
Thickness	um	750 to 800	774.0719	0.1736	773.8430	774.3690
Resistivity	Ohm-cm	1 to 100	10.8700	0.0000	10.8700	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	6.2400	6.3658	0	27
TTV	um	0 to 25	0.1538	0.0313	0.0988	0.2103
Bow	um	0 to 50	2.9312	1.8873	0.3667	10.0865
Warp	um	0 to 50	11.3086	3.1781	8.3440	24.6553
LOT STATISTICAL SUMMARY						
Lot Number :	71126001317					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9996	0.0048	299.9969	300.0082
Thickness	um	750 to 800	774.2668	0.3935	773.4350	774.5600
Resistivity	Ohm-cm	1 to 100	10.6844	0.3500	9.8830	10.8700
Particle @ 0.2um	ea/wafer	0 to 30	6.4000	8.2916	0	24
TTV	um	0 to 25	0.1385	0.0524	0.0894	0.2821
Bow	um	0 to 50	2.0403	1.9452	0.0940	7.6587
Warp	um	0 to 50	12.1096	3.5390	6.4595	21.0250
LOT STATISTICAL SUMMARY						
Lot Number :	71130038305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9978	0.0000	299.9978	299.9978
Thickness	um	750 to 800	774.4217	0.3441	774.0070	775.4080
Resistivity	Ohm-cm	1 to 100	11.9050	0.4192	11.4900	12.3200
Particle @ 0.2um	ea/wafer	0 to 30	3.2400	3.5033	0	15
TTV	um	0 to 25	0.0841	0.0194	0.0614	0.1456
Bow	um	0 to 50	1.4659	1.1607	0.0583	4.0274
Warp	um	0 to 50	16.9587	0.2719	16.4841	17.5299
LOT STATISTICAL SUMMARY						
Lot Number :	71130038306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0019	0.0009	299.9989	300.0022
Thickness	um	750 to 800	774.3322	0.2707	773.7240	774.5690
Resistivity	Ohm-cm	1 to 100	11.9050	0.4192	11.4900	12.3200
Particle @ 0.2um	ea/wafer	0 to 30	7.1600	7.0396	0	30
TTV	um	0 to 25	0.1743	0.0149	0.1373	0.2026
Bow	um	0 to 50	2.2196	1.3502	0.1383	4.3080
Warp	um	0 to 50	15.2317	0.4555	14.2873	15.9333

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71130038307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9991	0.0005	299.9989	300.0002
Thickness	um	750 to 800	773.7557	0.3299	773.4270	774.4100
Resistivity	Ohm-cm	1 to 100	11.7482	0.5338	10.7400	12.3200
Particle @ 0.2um	ea/wafer	0 to 30	5.5200	5.8389	0	28
TTV	um	0 to 25	0.1667	0.0238	0.1164	0.1967
Bow	um	0 to 50	3.1610	1.2829	0.1602	5.3049
Warp	um	0 to 50	14.4961	3.0554	7.1725	20.2176
LOT STATISTICAL SUMMARY						
Lot Number :	71130038308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9984	0.0009	299.9953	299.9987
Thickness	um	750 to 800	773.2585	0.2906	772.8840	773.9060
Resistivity	Ohm-cm	1 to 100	11.9050	0.4192	11.4900	12.3200
Particle @ 0.2um	ea/wafer	0 to 30	5.4800	4.4264	0	19
TTV	um	0 to 25	0.2188	0.0179	0.1650	0.2457
Bow	um	0 to 50	3.5299	1.1621	0.5257	5.5568
Warp	um	0 to 50	21.6204	2.7540	14.7606	25.3831
LOT STATISTICAL SUMMARY						
Lot Number :	71130038311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9991	0.0008	299.9964	299.9993
Thickness	um	750 to 800	774.2890	0.1610	773.8890	774.4740
Resistivity	Ohm-cm	1 to 100	11.9050	0.4192	11.4900	12.3200
Particle @ 0.2um	ea/wafer	0 to 30	1.9200	1.9983	0	8
TTV	um	0 to 25	0.1184	0.0211	0.0868	0.1831
Bow	um	0 to 50	2.6656	1.3293	0.3026	6.2078
Warp	um	0 to 50	18.2329	1.3702	14.6267	20.2502
LOT STATISTICAL SUMMARY						
Lot Number :	71131001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9918	0.0000	299.9918	299.9919
Thickness	um	750 to 800	773.9316	0.2385	773.8000	774.5790
Resistivity	Ohm-cm	1 to 100	10.9250	0.1869	10.7400	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	5.4000	6.1779	0	22
TTV	um	0 to 25	0.1219	0.0247	0.0656	0.1628
Bow	um	0 to 50	2.0350	1.4236	0.0443	5.2159
Warp	um	0 to 50	9.5637	2.2094	6.3556	14.9610

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71131001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9973	0.0036	299.9930	300.0002
Thickness	um	750 to 800	774.2831	0.1107	774.0540	774.3990
Resistivity	Ohm-cm	1 to 100	10.9250	0.1869	10.7400	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	3.2000	5.1640	0	22
TTV	um	0 to 25	0.1252	0.0121	0.1069	0.1528
Bow	um	0 to 50	2.9051	1.7919	0.5080	6.2850
Warp	um	0 to 50	9.6303	2.5068	6.8143	15.4981
LOT STATISTICAL SUMMARY						
Lot Number :	71131033301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0021	0.0021	299.9980	300.0037
Thickness	um	750 to 800	774.8517	0.1597	774.5390	775.0800
Resistivity	Ohm-cm	1 to 100	10.3750	0.3283	10.0500	10.7000
Particle @ 0.2um	ea/wafer	0 to 30	8.8000	8.6699	1	30
TTV	um	0 to 25	0.0960	0.0243	0.0675	0.1523
Bow	um	0 to 50	1.9824	1.0790	0.4301	4.7801
Warp	um	0 to 50	9.3774	1.9928	5.7024	13.8318
LOT STATISTICAL SUMMARY						
Lot Number :	71131033306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0013	0.0018	299.9988	300.0026
Thickness	um	750 to 800	774.7164	0.2385	774.2620	775.1420
Resistivity	Ohm-cm	1 to 100	10.3750	0.3283	10.0500	10.7000
Particle @ 0.2um	ea/wafer	0 to 30	13.0000	8.7226	1	28
TTV	um	0 to 25	0.0820	0.0228	0.0537	0.1478
Bow	um	0 to 50	2.6919	1.5325	0.3098	6.0670
Warp	um	0 to 50	8.1491	2.0395	4.8926	13.9579
LOT STATISTICAL SUMMARY						
Lot Number :	71131033307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9995	0.0033	299.9931	300.0026
Thickness	um	750 to 800	774.4576	0.1837	774.2280	774.8970
Resistivity	Ohm-cm	1 to 100	14.0542	4.3593	10.0500	19.6700
Particle @ 0.2um	ea/wafer	0 to 30	16.3600	9.5737	2	30
TTV	um	0 to 25	0.1109	0.0507	0.0552	0.2082
Bow	um	0 to 50	3.1615	1.6048	0.1534	6.1644
Warp	um	0 to 50	8.5335	3.2121	4.5410	15.8118

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71131068311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9983	0.0014	299.9947	300.0006
Thickness	um	750 to 800	773.9969	1.1647	771.8260	775.0450
Resistivity	Ohm-cm	1 to 100	10.2271	1.3277	8.3770	12.0300
Particle @ 0.2um	ea/wafer	0 to 30	0.8000	0.7071	0	2
TTV	um	0 to 25	0.2163	0.1675	0.0606	0.4859
Bow	um	0 to 50	1.6146	0.9840	0.0828	4.2756
Warp	um	0 to 50	8.9372	2.4399	4.3564	12.1318
LOT STATISTICAL SUMMARY						
Lot Number :	71132034308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9983	0.0009	299.9971	299.9990
Thickness	um	750 to 800	774.2379	0.3307	773.8060	774.8090
Resistivity	Ohm-cm	1 to 100	12.0250	0.4192	11.6100	12.4400
Particle @ 0.2um	ea/wafer	0 to 30	5.3600	5.2510	0	21
TTV	um	0 to 25	0.1028	0.0228	0.0731	0.1459
Bow	um	0 to 50	2.3771	1.6050	0.1933	6.0686
Warp	um	0 to 50	13.1809	3.0612	8.4562	18.4791
LOT STATISTICAL SUMMARY						
Lot Number :	71133001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9962	0.0007	299.9949	299.9965
Thickness	um	750 to 800	774.9110	0.5608	774.4370	776.0780
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	3.0800	5.1065	0	22
TTV	um	0 to 25	0.1636	0.0273	0.1181	0.2427
Bow	um	0 to 50	1.8326	1.5083	0.1211	7.0220
Warp	um	0 to 50	9.5062	1.1896	7.4039	11.8611
LOT STATISTICAL SUMMARY						
Lot Number :	71133001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9956	0.0011	299.9949	299.9972
Thickness	um	750 to 800	775.5946	0.6058	774.7210	776.7570
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	8.4800	4.5655	3	22
TTV	um	0 to 25	0.1874	0.0379	0.1521	0.2774
Bow	um	0 to 50	1.1458	0.6228	0.1585	2.2951
Warp	um	0 to 50	10.3008	1.1913	8.4862	13.1792

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71133001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0042	0.0033	299.9967	300.0056
Thickness	um	750 to 800	774.5838	0.2304	774.0680	774.8540
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	7.1600	7.7281	0	29
TTV	um	0 to 25	0.2611	0.0400	0.1681	0.3285
Bow	um	0 to 50	4.4767	1.4341	0.1333	6.4929
Warp	um	0 to 50	15.1224	2.6262	8.3592	18.1613
LOT STATISTICAL SUMMARY						
Lot Number :	71133001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9966	0.0002	299.9962	299.9967
Thickness	um	750 to 800	774.2338	0.2582	773.9220	774.8120
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	1.8800	1.8102	0	6
TTV	um	0 to 25	0.2136	0.0411	0.1273	0.2873
Bow	um	0 to 50	4.4657	1.6853	0.4260	6.9694
Warp	um	0 to 50	10.1856	1.6347	7.1814	13.7608
LOT STATISTICAL SUMMARY						
Lot Number :	71133001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9977	0.0030	299.9962	300.0050
Thickness	um	750 to 800	774.3666	0.4462	772.8390	774.7490
Resistivity	Ohm-cm	1 to 100	12.0441	1.3939	8.5970	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	5.0800	6.8002	0	26
TTV	um	0 to 25	0.2466	0.0491	0.1463	0.3726
Bow	um	0 to 50	3.6725	1.9589	0.1303	6.9074
Warp	um	0 to 50	8.9652	1.5097	6.2617	11.4553
LOT STATISTICAL SUMMARY						
Lot Number :	71133001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0037	0.0028	299.9944	300.0045
Thickness	um	750 to 800	774.5173	0.2361	774.2590	775.1170
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	9.9200	5.7657	0	23
TTV	um	0 to 25	0.3016	0.0616	0.1633	0.3562
Bow	um	0 to 50	1.3867	1.3819	0.1560	5.8891
Warp	um	0 to 50	10.2382	1.0214	9.0740	13.5566

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71133001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9949	0.0011	299.9944	299.9974
Thickness	um	750 to 800	774.2959	0.1083	774.0890	774.4850
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	5.3600	3.6501	1	15
TTV	um	0 to 25	0.2351	0.0241	0.1962	0.2959
Bow	um	0 to 50	1.7279	1.3866	0.0503	5.4611
Warp	um	0 to 50	10.4828	1.2309	7.9133	13.0705
LOT STATISTICAL SUMMARY						
Lot Number :	71133001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9984	0.0023	299.9974	300.0035
Thickness	um	750 to 800	774.4799	0.1086	774.3630	774.7330
Resistivity	Ohm-cm	1 to 100	12.4864	0.7223	10.6900	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	2.5200	1.9391	0	6
TTV	um	0 to 25	0.2382	0.0189	0.2110	0.2847
Bow	um	0 to 50	1.7136	1.0649	0.4624	4.9956
Warp	um	0 to 50	9.6501	1.1123	7.3090	12.5732
LOT STATISTICAL SUMMARY						
Lot Number :	71133001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9995	0.0005	299.9992	300.0004
Thickness	um	750 to 800	774.6914	0.2899	774.0200	775.1520
Resistivity	Ohm-cm	1 to 100	12.7800	0.2424	12.5400	13.0200
Particle @ 0.2um	ea/wafer	0 to 30	4.8000	4.8045	0	16
TTV	um	0 to 25	0.2510	0.1044	0.0784	0.4092
Bow	um	0 to 50	1.3273	1.2158	0.0859	4.9548
Warp	um	0 to 50	10.2652	2.1693	6.2999	14.5978
LOT STATISTICAL SUMMARY						
Lot Number :	71134001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9966	0.0000	299.9966	299.9966
Thickness	um	750 to 800	773.6410	0.2683	773.0810	774.0430
Resistivity	Ohm-cm	1 to 100	12.0550	0.0051	12.0500	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	0.6000	0.6455	0	2
TTV	um	0 to 25	0.1387	0.0635	0.0614	0.3289
Bow	um	0 to 50	3.1531	1.2957	1.2526	6.0782
Warp	um	0 to 50	11.5727	0.9339	9.6520	13.3523



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71134001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9966	0.0013	299.9946	299.9991
Thickness	um	750 to 800	774.1382	0.4826	773.7800	775.1990
Resistivity	Ohm-cm	1 to 100	13.3830	2.6892	12.0500	19.1000
Particle @ 0.2um	ea/wafer	0 to 30	4.4800	5.9800	0	24
TTV	um	0 to 25	0.1380	0.0485	0.0691	0.2562
Bow	um	0 to 50	2.3059	1.1545	0.2739	5.3474
Warp	um	0 to 50	8.6247	1.6699	5.0665	10.6454
LOT STATISTICAL SUMMARY						
Lot Number :	71134081301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9980	0.0006	299.9976	299.9988
Thickness	um	750 to 800	774.7577	0.2385	774.2570	775.0450
Resistivity	Ohm-cm	1 to 100	9.4285	1.0622	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.8000	0.8165	0	2
TTV	um	0 to 25	0.0908	0.0286	0.0569	0.1671
Bow	um	0 to 50	1.1672	0.6361	0.1014	2.5934
Warp	um	0 to 50	10.5291	0.8545	9.4343	13.5835
LOT STATISTICAL SUMMARY						
Lot Number :	71134081302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9984	0.0005	299.9979	299.9988
Thickness	um	750 to 800	774.5034	0.1609	774.2380	774.7780
Resistivity	Ohm-cm	1 to 100	9.4285	1.0622	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.6800	0.7483	0	2
TTV	um	0 to 25	0.1122	0.0336	0.0588	0.1605
Bow	um	0 to 50	1.3078	1.2134	0.0036	5.6264
Warp	um	0 to 50	9.9454	1.3312	7.8377	13.2830
LOT STATISTICAL SUMMARY						
Lot Number :	71134081303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9954	0.0026	299.9931	299.9992
Thickness	um	750 to 800	774.7422	0.0830	774.6140	774.9030
Resistivity	Ohm-cm	1 to 100	9.4285	1.0622	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	0.7461	0	2
TTV	um	0 to 25	0.1687	0.0845	0.0601	0.2732
Bow	um	0 to 50	2.0155	1.3705	0.1826	5.8658
Warp	um	0 to 50	8.8853	1.8259	5.9036	13.7854

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71134081306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9948	0.0017	299.9917	299.9958
Thickness	um	750 to 800	774.6854	0.1564	774.4510	774.9720
Resistivity	Ohm-cm	1 to 100	9.4285	1.0622	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	0.8000	0	2
TTV	um	0 to 25	0.2826	0.0903	0.0827	0.4418
Bow	um	0 to 50	1.9106	1.2501	0.3063	5.6009
Warp	um	0 to 50	8.6292	1.0019	5.6344	10.2999
LOT STATISTICAL SUMMARY						
Lot Number :	71134081310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9941	0.0029	299.9922	299.9983
Thickness	um	750 to 800	773.4085	1.6858	770.7040	774.7970
Resistivity	Ohm-cm	1 to 100	9.4448	0.9253	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.5600	0.7681	0	2
TTV	um	0 to 25	0.1388	0.0545	0.0774	0.3139
Bow	um	0 to 50	2.0656	1.6583	0.1307	6.0991
Warp	um	0 to 50	7.7451	1.2786	5.6789	11.3887
LOT STATISTICAL SUMMARY						
Lot Number :	71134081312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9969	0.0009	299.9964	299.9987
Thickness	um	750 to 800	774.6275	0.1268	774.3890	774.7680
Resistivity	Ohm-cm	1 to 100	9.4285	1.0622	8.3770	10.4800
Particle @ 0.2um	ea/wafer	0 to 30	0.5600	0.5831	0	2
TTV	um	0 to 25	0.0860	0.0179	0.0609	0.1210
Bow	um	0 to 50	1.6354	0.8878	0.0867	3.4532
Warp	um	0 to 50	8.7389	1.3644	5.9632	10.4525
LOT STATISTICAL SUMMARY						
Lot Number :	71134081313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9976	0.0015	299.9947	299.9987
Thickness	um	750 to 800	774.5940	0.1864	774.3260	774.9990
Resistivity	Ohm-cm	1 to 100	9.8268	1.2752	8.3770	12.0300
Particle @ 0.2um	ea/wafer	0 to 30	0.5600	0.7118	0	2
TTV	um	0 to 25	0.2590	0.1353	0.0686	0.4466
Bow	um	0 to 50	2.3897	1.5308	0.3251	6.1413
Warp	um	0 to 50	9.5725	2.5527	5.4583	15.8728

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71134081315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0003	0.0027	299.9971	300.0050
Thickness	um	750 to 800	772.8089	1.8115	770.7810	775.3750
Resistivity	Ohm-cm	1 to 100	10.0739	1.2739	8.3770	12.0300
Particle @ 0.2um	ea/wafer	0 to 30	0.4400	0.7118	0	2
TTV	um	0 to 25	0.2264	0.0870	0.1355	0.5836
Bow	um	0 to 50	2.7044	1.3092	0.1790	4.8775
Warp	um	0 to 50	8.2592	2.1673	4.0433	11.2475
LOT STATISTICAL SUMMARY						
Lot Number :	71134081316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0023	299.9976	300.0040
Thickness	um	750 to 800	774.2006	0.2267	773.8250	774.5830
Resistivity	Ohm-cm	1 to 100	10.0343	0.8281	8.3770	10.7000
Particle @ 0.2um	ea/wafer	0 to 30	5.1600	4.4317	0	16
TTV	um	0 to 25	0.2283	0.0994	0.0991	0.4454
Bow	um	0 to 50	2.4768	1.8368	0.1175	6.9077
Warp	um	0 to 50	9.2260	3.0283	3.4339	15.9147
LOT STATISTICAL SUMMARY						
Lot Number :	701250B4308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9987	0.0009	299.9971	299.9999
Thickness	um	750 to 800	774.6372	0.3891	774.0460	775.3500
Resistivity	Ohm-cm	1 to 100	9.8620	0.4222	9.4440	10.2800
Particle @ 0.2um	ea/wafer	0 to 30	4.4400	4.8741	0	17
TTV	um	0 to 25	0.1338	0.0260	0.0731	0.1910
Bow	um	0 to 50	2.6623	1.4899	0.1788	5.1430
Warp	um	0 to 50	12.0572	3.1048	6.5150	15.6826
LOT STATISTICAL SUMMARY						
Lot Number :	701280B7314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0000	0.0066	299.9950	300.0208
Thickness	um	750 to 800	774.5930	1.5159	769.3550	775.5310
Resistivity	Ohm-cm	1 to 100	10.7065	0.6602	9.5370	11.5400
Particle @ 0.2um	ea/wafer	0 to 30	4.2000	3.6629	0	13
TTV	um	0 to 25	0.2033	0.1024	0.1217	0.5424
Bow	um	0 to 50	2.9963	1.7432	0.3164	5.8928
Warp	um	0 to 50	20.6092	13.0985	5.6503	38.7341

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	702110C2309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0034	0.0022	299.9961	300.0061
Thickness	um	750 to 800	774.7742	0.2542	774.0960	775.2070
Resistivity	Ohm-cm	1 to 100	9.8385	0.5307	8.4920	10.3700
Particle @ 0.2um	ea/wafer	0 to 30	4.9200	6.1503	0	21
TTV	um	0 to 25	0.2408	0.0418	0.1379	0.3099
Bow	um	0 to 50	4.8388	2.3469	0.1142	8.5198
Warp	um	0 to 50	15.3436	3.4060	7.8034	21.8081
LOT STATISTICAL SUMMARY						
Lot Number :	702110G2315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0038	0.0020	299.9982	300.0047
Thickness	um	750 to 800	774.5734	0.3426	774.0420	775.4350
Resistivity	Ohm-cm	1 to 100	9.1281	0.8502	8.2710	11.0400
Particle @ 0.2um	ea/wafer	0 to 30	7.8800	6.3267	0	21
TTV	um	0 to 25	0.1695	0.0620	0.1191	0.3862
Bow	um	0 to 50	9.6921	3.1861	0.8197	12.0799
Warp	um	0 to 50	26.7607	7.5763	7.3263	32.2199
LOT STATISTICAL SUMMARY						
Lot Number :	702110G2318					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0039	0.0014	299.9988	300.0069
Thickness	um	750 to 800	774.9102	0.2066	774.5620	775.4550
Resistivity	Ohm-cm	1 to 100	8.8425	0.6997	7.6600	11.2800
Particle @ 0.2um	ea/wafer	0 to 30	7.0800	8.5922	0	25
TTV	um	0 to 25	0.3258	0.0408	0.1833	0.3853
Bow	um	0 to 50	9.6294	3.2740	0.3934	11.8301
Warp	um	0 to 50	29.4591	5.2104	7.2873	32.8353
LOT STATISTICAL SUMMARY						
Lot Number :	702190D2316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0038	0.0054	299.9980	300.0113
Thickness	um	750 to 800	774.9545	0.8245	772.0190	775.7950
Resistivity	Ohm-cm	1 to 100	9.5182	0.8876	8.2730	11.0000
Particle @ 0.2um	ea/wafer	0 to 30	0.6800	0.6272	0	2
TTV	um	0 to 25	0.1805	0.0642	0.0870	0.3400
Bow	um	0 to 50	4.2168	3.4092	0.1397	12.6434
Warp	um	0 to 50	17.9307	5.9146	3.6353	24.7604

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	702210D0310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0068	0.0076	299.9955	300.0158
Thickness	um	750 to 800	774.8946	0.8708	770.9170	775.4630
Resistivity	Ohm-cm	1 to 100	10.2504	1.1603	7.8650	11.5200
Particle @ 0.2um	ea/wafer	0 to 30	2.1600	6.2027	0	30
TTV	um	0 to 25	0.2539	0.1922	0.1019	1.0891
Bow	um	0 to 50	2.0452	1.7476	0.0489	7.9136
Warp	um	0 to 50	11.3488	2.8004	6.5062	16.0352
LOT STATISTICAL SUMMARY						
Lot Number :	702250F5302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0022	0.0034	299.9951	300.0065
Thickness	um	750 to 800	775.2882	0.2119	774.9000	775.6200
Resistivity	Ohm-cm	1 to 100	7.9538	1.2626	6.7970	10.7100
Particle @ 0.2um	ea/wafer	0 to 30	0.8800	0.7810	0	2
TTV	um	0 to 25	0.1294	0.0634	0.0735	0.2657
Bow	um	0 to 50	4.4026	2.2422	0.1028	7.3754
Warp	um	0 to 50	13.5597	4.3099	6.6260	20.3082
LOT STATISTICAL SUMMARY						
Lot Number :	702250F5304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0064	0.0018	300.0025	300.0083
Thickness	um	750 to 800	775.1673	0.2289	774.7600	775.5970
Resistivity	Ohm-cm	1 to 100	8.1914	1.4100	6.7970	10.6500
Particle @ 0.2um	ea/wafer	0 to 30	10.4000	5.8666	1	24
TTV	um	0 to 25	0.1925	0.0753	0.0864	0.3134
Bow	um	0 to 50	4.6353	2.1617	1.7670	9.0436
Warp	um	0 to 50	11.6920	3.5273	5.6592	16.6653
LOT STATISTICAL SUMMARY						
Lot Number :	702260D2310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0060	0.0021	300.0018	300.0107
Thickness	um	750 to 800	774.3926	0.6393	772.7580	774.9530
Resistivity	Ohm-cm	1 to 100	9.3837	1.3543	7.6990	10.9300
Particle @ 0.2um	ea/wafer	0 to 30	13.6000	8.5732	1	26
TTV	um	0 to 25	0.2114	0.0697	0.1160	0.3886
Bow	um	0 to 50	2.0833	1.9880	0.0725	6.7058
Warp	um	0 to 50	8.8700	2.8199	5.4349	16.4070

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	702260D2322					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0020	0.0021	299.9998	300.0046
Thickness	um	750 to 800	771.1336	3.1465	767.0460	774.6010
Resistivity	Ohm-cm	1 to 100	9.2041	1.1016	7.6990	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	2.1600	2.0141	0	8
TTV	um	0 to 25	0.4605	0.3808	0.1266	1.5178
Bow	um	0 to 50	1.2959	0.9921	0.0440	3.7553
Warp	um	0 to 50	5.9409	0.9195	4.6539	8.2540
LOT STATISTICAL SUMMARY						
Lot Number :	702280B5310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0004	0.0050	299.9960	300.0084
Thickness	um	750 to 800	773.0953	1.4601	768.9970	774.2170
Resistivity	Ohm-cm	1 to 100	9.0670	0.6500	8.2970	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	3.7600	2.7731	1	10
TTV	um	0 to 25	0.3984	0.1974	0.1366	1.0292
Bow	um	0 to 50	4.1365	2.1815	0.0628	7.6073
Warp	um	0 to 50	10.0595	2.1760	5.7379	14.3276
LOT STATISTICAL SUMMARY						
Lot Number :	702300B5305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9976	0.0051	299.9864	300.0043
Thickness	um	750 to 800	774.3726	0.2953	773.4750	774.9130
Resistivity	Ohm-cm	1 to 100	9.9978	0.8506	8.4920	11.2000
Particle @ 0.2um	ea/wafer	0 to 30	9.6800	9.8646	0	30
TTV	um	0 to 25	0.1716	0.0639	0.0679	0.3668
Bow	um	0 to 50	1.7726	1.3723	0.3121	6.7808
Warp	um	0 to 50	8.5057	2.7896	5.1748	16.5400
LOT STATISTICAL SUMMARY						
Lot Number :	702300B5318					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9956	0.0024	299.9898	299.9973
Thickness	um	750 to 800	774.3500	0.0781	774.2120	774.5550
Resistivity	Ohm-cm	1 to 100	9.3644	0.9915	7.0350	10.3700
Particle @ 0.2um	ea/wafer	0 to 30	14.6000	7.1297	3	27
TTV	um	0 to 25	0.1340	0.0165	0.1000	0.1628
Bow	um	0 to 50	2.2808	2.0711	0.0708	7.9066
Warp	um	0 to 50	8.1947	2.8105	4.6115	14.5980

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	702300F6316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9942	0.0056	299.9841	300.0012
Thickness	um	750 to 800	772.6098	2.4810	766.2610	774.2310
Resistivity	Ohm-cm	1 to 100	9.2476	1.4607	7.0350	11.1100
Particle @ 0.2um	ea/wafer	0 to 30	18.8400	7.9356	0	30
TTV	um	0 to 25	0.2417	0.1359	0.0985	0.4976
Bow	um	0 to 50	2.4266	1.6306	0.2460	5.0656
Warp	um	0 to 50	9.6493	3.6077	5.3494	17.5023
LOT STATISTICAL SUMMARY						
Lot Number :	702370F4316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	294.9627	0.0018	294.9607	294.9654
Thickness	um	750 to 800	774.9102	0.3118	774.4750	775.5830
Resistivity	Ohm-cm	1 to 100	8.6060	0.8283	7.7860	9.4260
Particle @ 0.2um	ea/wafer	0 to 30	7.3600	5.4687	0	23
TTV	um	0 to 25	0.2683	0.0434	0.1977	0.3483
Bow	um	0 to 50	1.6036	0.9411	0.1964	4.3571
Warp	um	0 to 50	6.0275	2.1934	3.7312	11.8789
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9986	0.0005	299.9978	299.9989
Thickness	um	750 to 800	773.5756	0.4270	773.2170	774.3310
Resistivity	Ohm-cm	1 to 100	8.0335	0.8430	7.1990	8.8680
Particle @ 0.2um	ea/wafer	0 to 30	6.6000	5.8381	0	24
TTV	um	0 to 25	0.2346	0.0569	0.1509	0.3402
Bow	um	0 to 50	2.6594	0.4735	1.6988	3.5597
Warp	um	0 to 50	8.3751	0.7939	6.8597	9.7138
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9991	0.0010	299.9978	300.0024
Thickness	um	750 to 800	774.2691	2.0796	764.4050	774.9950
Resistivity	Ohm-cm	1 to 100	8.0737	0.8542	7.1990	9.4780
Particle @ 0.2um	ea/wafer	0 to 30	3.4400	4.9420	0	24
TTV	um	0 to 25	0.2814	0.3845	0.1469	2.1207
Bow	um	0 to 50	2.6023	0.7878	1.3170	3.9719
Warp	um	0 to 50	8.1401	1.1399	6.4011	10.5388

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	711310B2303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9989	0.0000	299.9989	299.9990
Thickness	um	750 to 800	774.2616	0.8051	773.1700	775.0410
Resistivity	Ohm-cm	1 to 100	8.0335	0.8430	7.1990	8.8680
Particle @ 0.2um	ea/wafer	0 to 30	4.5200	6.8076	0	28
TTV	um	0 to 25	0.2532	0.0239	0.2180	0.3018
Bow	um	0 to 50	1.4440	0.6862	0.0886	2.8264
Warp	um	0 to 50	7.5043	0.9947	5.7722	9.0614
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9990	0.0009	299.9979	299.9999
Thickness	um	750 to 800	774.4433	0.2054	774.1670	774.7540
Resistivity	Ohm-cm	1 to 100	9.1860	1.6929	7.1990	11.3000
Particle @ 0.2um	ea/wafer	0 to 30	1.7600	1.8547	0	7
TTV	um	0 to 25	0.1522	0.0329	0.1158	0.2707
Bow	um	0 to 50	2.0670	1.2572	0.2821	4.9912
Warp	um	0 to 50	7.5856	1.3126	5.3072	10.4662
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9978	0.0003	299.9974	299.9980
Thickness	um	750 to 800	774.2650	0.1560	774.0240	774.4730
Resistivity	Ohm-cm	1 to 100	8.0335	0.8430	7.1990	8.8680
Particle @ 0.2um	ea/wafer	0 to 30	2.6000	3.3912	0	17
TTV	um	0 to 25	0.3281	0.0171	0.3011	0.3599
Bow	um	0 to 50	3.5176	0.6178	2.2185	4.4339
Warp	um	0 to 50	11.2197	1.4289	9.1607	14.3963
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9992	0.0017	299.9974	300.0035
Thickness	um	750 to 800	774.3596	0.2365	773.8250	774.8320
Resistivity	Ohm-cm	1 to 100	8.0335	0.8430	7.1990	8.8680
Particle @ 0.2um	ea/wafer	0 to 30	2.8800	3.3456	0	11
TTV	um	0 to 25	0.1655	0.0899	0.0633	0.3513
Bow	um	0 to 50	3.4381	1.2497	0.0345	6.4261
Warp	um	0 to 50	11.1158	2.6183	7.7946	17.8497



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	711310B2307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9995	0.0036	299.9956	300.0035
Thickness	um	750 to 800	774.2479	0.5023	772.8620	774.7610
Resistivity	Ohm-cm	1 to 100	8.0335	0.8430	7.1990	8.8680
Particle @ 0.2um	ea/wafer	0 to 30	4.3200	5.2893	0	26
TTV	um	0 to 25	0.2853	0.0492	0.1534	0.3446
Bow	um	0 to 50	5.0966	1.1699	3.1238	7.3640
Warp	um	0 to 50	14.9000	3.2222	11.1130	22.3504
LOT STATISTICAL SUMMARY						
Lot Number :	711310B2308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9982	0.0041	299.9956	300.0052
Thickness	um	750 to 800	773.3309	4.8028	750.3740	775.1160
Resistivity	Ohm-cm	1 to 100	8.3548	0.8777	7.1990	9.4780
Particle @ 0.2um	ea/wafer	0 to 30	6.8000	8.8034	0	25
TTV	um	0 to 25	0.3300	0.0356	0.1992	0.3822
Bow	um	0 to 50	4.3480	0.9336	3.1614	6.6242
Warp	um	0 to 50	11.2510	1.1557	8.7007	12.8437
LOT STATISTICAL SUMMARY						
Lot Number :	70129034311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0056	0.0069	299.9961	300.0148
Thickness	um	750 to 800	775.0316	0.6012	773.4300	775.8740
Resistivity	Ohm-cm	1 to 100	11.2512	0.4230	10.3700	11.8400
Particle @ 0.2um	ea/wafer	0 to 30	4.9600	4.5321	0	18
TTV	um	0 to 25	0.1853	0.1064	0.0499	0.5031
Bow	um	0 to 50	3.6349	1.8909	0.5148	7.2996
Warp	um	0 to 50	9.5207	2.2137	4.5113	14.1621
LOT STATISTICAL SUMMARY						
Lot Number :	70129034314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0065	0.0060	299.9910	300.0131
Thickness	um	750 to 800	772.6324	1.2237	769.3400	773.3220
Resistivity	Ohm-cm	1 to 100	11.1626	0.3945	10.1100	11.5300
Particle @ 0.2um	ea/wafer	0 to 30	5.8400	4.3463	1	20
TTV	um	0 to 25	0.4830	0.0784	0.3144	0.6150
Bow	um	0 to 50	3.0010	1.0732	0.0109	4.9181
Warp	um	0 to 50	6.7917	1.5470	4.4196	11.6728

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70234035306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0056	0.0040	299.9984	300.0108
Thickness	um	750 to 800	775.2726	0.4111	774.5490	775.8590
Resistivity	Ohm-cm	1 to 100	10.4053	0.9520	7.7800	11.7200
Particle @ 0.2um	ea/wafer	0 to 30	6.6800	4.4321	0	18
TTV	um	0 to 25	0.1448	0.0444	0.0836	0.2328
Bow	um	0 to 50	3.0159	1.8095	0.1193	5.8669
Warp	um	0 to 50	12.7751	5.9613	4.6448	26.6833
LOT STATISTICAL SUMMARY						
Lot Number :	71134081317					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0076	0.0041	299.9989	300.0126
Thickness	um	750 to 800	775.0417	0.3534	774.7190	775.8020
Resistivity	Ohm-cm	1 to 100	11.3987	0.7093	8.3770	11.8400
Particle @ 0.2um	ea/wafer	0 to 30	6.4800	5.9028	0	21
TTV	um	0 to 25	0.2438	0.0986	0.1011	0.3641
Bow	um	0 to 50	1.8160	1.1785	0.1522	4.6141
Warp	um	0 to 50	8.8320	2.0968	6.2634	13.7657
LOT STATISTICAL SUMMARY						
Lot Number :	71138070302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0052	0.0008	300.0048	300.0086
Thickness	um	750 to 800	775.4741	0.1435	774.9580	775.6640
Resistivity	Ohm-cm	1 to 100	10.2710	0.5344	9.7420	10.8000
Particle @ 0.2um	ea/wafer	0 to 30	2.8800	6.1463	0	30
TTV	um	0 to 25	0.1720	0.0227	0.1420	0.2382
Bow	um	0 to 50	1.5945	0.9667	0.0191	3.8875
Warp	um	0 to 50	5.8322	1.0711	4.2979	8.0775
LOT STATISTICAL SUMMARY						
Lot Number :	702370B3302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0050	0.0023	300.0007	300.0100
Thickness	um	750 to 800	774.8666	0.2285	774.4670	775.2050
Resistivity	Ohm-cm	1 to 100	10.5174	0.6247	9.4770	11.2600
Particle @ 0.2um	ea/wafer	0 to 30	4.8800	3.7674	0	16
TTV	um	0 to 25	0.1799	0.0720	0.0987	0.3879
Bow	um	0 to 50	2.9565	1.4160	0.4059	5.1679
Warp	um	0 to 50	8.1584	2.4995	4.9113	14.6825

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70106089301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0024	0.0001	300.0023	300.0024
Thickness	um	750 to 800	775.2004	0.3909	774.7760	775.7930
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.3600	2.6596	1	13
TTV	um	0 to 25	0.3196	0.1292	0.1613	0.5029
Bow	um	0 to 50	1.6470	1.0549	0.0868	3.9412
Warp	um	0 to 50	9.2088	1.9404	6.6173	13.0499
LOT STATISTICAL SUMMARY						
Lot Number :	70106089302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0041	0.0025	300.0016	300.0069
Thickness	um	750 to 800	774.0844	1.2782	771.6270	775.5360
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.2400	2.4880	0	11
TTV	um	0 to 25	0.2385	0.1964	0.0817	0.7250
Bow	um	0 to 50	4.7335	2.4679	0.3106	7.6821
Warp	um	0 to 50	12.6613	4.2653	5.2942	18.3764
LOT STATISTICAL SUMMARY						
Lot Number :	70106089303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0039	0.0013	300.0022	300.0056
Thickness	um	750 to 800	775.1052	0.2308	774.8410	775.5260
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.1600	2.0347	0	7
TTV	um	0 to 25	0.2063	0.0806	0.0955	0.3777
Bow	um	0 to 50	5.6376	1.7771	1.0535	7.6313
Warp	um	0 to 50	14.3072	2.7847	7.0933	18.9019
LOT STATISTICAL SUMMARY						
Lot Number :	70106089304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0042	0.0020	300.0022	300.0064
Thickness	um	750 to 800	774.9279	0.2866	774.3040	775.1840
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	4.0400	2.4913	0	10
TTV	um	0 to 25	0.1664	0.0633	0.0844	0.2849
Bow	um	0 to 50	4.3492	1.3424	0.8705	6.8332
Warp	um	0 to 50	11.5504	2.1679	6.9963	14.8965

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70106089305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0044	0.0024	300.0021	300.0073
Thickness	um	750 to 800	774.3882	0.3172	774.1120	775.4040
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	4.3200	3.6368	0	14
TTV	um	0 to 25	0.2221	0.0619	0.1563	0.3801
Bow	um	0 to 50	3.3693	1.6776	0.2656	5.6067
Warp	um	0 to 50	10.5243	2.7100	7.3912	15.9442
LOT STATISTICAL SUMMARY						
Lot Number :	70106089306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0069	0.0007	300.0047	300.0074
Thickness	um	750 to 800	774.5177	0.0902	774.3560	774.7100
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.8000	2.4495	0	9
TTV	um	0 to 25	0.1639	0.0147	0.1378	0.1895
Bow	um	0 to 50	3.5028	0.8131	2.2587	6.5839
Warp	um	0 to 50	12.9285	1.9316	7.6235	15.6034
LOT STATISTICAL SUMMARY						
Lot Number :	70106089307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0041	0.0007	300.0033	300.0047
Thickness	um	750 to 800	774.9944	0.1395	774.6890	775.1650
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.2000	2.0817	0	8
TTV	um	0 to 25	0.1941	0.0382	0.1336	0.2590
Bow	um	0 to 50	4.7818	1.7792	1.2886	7.0385
Warp	um	0 to 50	13.2674	2.3256	6.9919	16.5298
LOT STATISTICAL SUMMARY						
Lot Number :	70106089308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0038	0.0007	300.0030	300.0047
Thickness	um	750 to 800	774.5452	0.2949	774.0630	774.9700
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.4000	1.8930	0	7
TTV	um	0 to 25	0.2390	0.0327	0.1694	0.3011
Bow	um	0 to 50	4.7065	1.3753	2.2601	6.7373
Warp	um	0 to 50	13.2290	2.3191	10.4435	16.9608

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70106089309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0032	0.0001	300.0030	300.0034
Thickness	um	750 to 800	773.8445	1.8655	770.9260	775.9200
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.4000	2.6458	0	11
TTV	um	0 to 25	0.2479	0.0647	0.1659	0.3463
Bow	um	0 to 50	4.8265	1.6631	1.5810	7.3384
Warp	um	0 to 50	13.1865	2.6681	9.8894	17.7978
LOT STATISTICAL SUMMARY						
Lot Number :	70106089310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0049	0.0019	300.0027	300.0069
Thickness	um	750 to 800	775.1014	0.5726	774.5480	776.0640
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	6.1600	3.4962	1	16
TTV	um	0 to 25	0.2228	0.0917	0.1493	0.4567
Bow	um	0 to 50	3.7737	1.2762	2.2504	6.5115
Warp	um	0 to 50	11.3136	1.4790	8.9263	13.8451
LOT STATISTICAL SUMMARY						
Lot Number :	70106089311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0029	0.0002	300.0027	300.0031
Thickness	um	750 to 800	775.1293	0.2358	774.7870	775.4230
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.0000	2.1602	0	10
TTV	um	0 to 25	0.2257	0.0974	0.0932	0.4081
Bow	um	0 to 50	4.7590	1.5971	1.9463	7.8083
Warp	um	0 to 50	13.7367	3.0546	9.3899	18.7570
LOT STATISTICAL SUMMARY						
Lot Number :	70106089312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0030	0.0001	300.0029	300.0031
Thickness	um	750 to 800	774.7996	0.1167	774.6280	775.0030
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	5.1200	4.9943	1	25
TTV	um	0 to 25	0.1593	0.0336	0.0853	0.2295
Bow	um	0 to 50	2.8434	1.9709	0.4095	6.6968
Warp	um	0 to 50	9.6589	2.5453	6.9153	13.9479

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70106089314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0022	0.0009	300.0007	300.0031
Thickness	um	750 to 800	775.0585	0.1438	774.8030	775.2720
Resistivity	Ohm-cm	1 to 100	9.8535	0.3601	9.4970	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	3.0400	1.9468	1	8
TTV	um	0 to 25	0.1822	0.0095	0.1586	0.2018
Bow	um	0 to 50	2.4620	1.5959	0.0308	5.0964
Warp	um	0 to 50	8.9644	1.9779	5.5342	15.9052
LOT STATISTICAL SUMMARY						
Lot Number :	70106089315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0005	0.0041	299.9960	300.0089
Thickness	um	750 to 800	772.3686	2.5053	769.8590	775.3060
Resistivity	Ohm-cm	1 to 100	10.5160	0.4971	9.4970	10.9900
Particle @ 0.2um	ea/wafer	0 to 30	2.7600	3.6887	0	17
TTV	um	0 to 25	0.2772	0.0741	0.1483	0.3776
Bow	um	0 to 50	3.3099	2.2073	0.2667	8.1932
Warp	um	0 to 50	9.5093	1.9455	6.8434	15.5702
LOT STATISTICAL SUMMARY						
Lot Number :	70121033305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9994	0.0000	299.9994	299.9994
Thickness	um	750 to 800	773.5185	0.0897	773.3350	773.6610
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	5.9200	4.2024	1	19
TTV	um	0 to 25	0.2191	0.0278	0.1713	0.3079
Bow	um	0 to 50	2.5213	1.2366	1.0066	6.6858
Warp	um	0 to 50	10.1011	1.7808	8.3172	15.7264
LOT STATISTICAL SUMMARY						
Lot Number :	70121033306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0038	0.0008	300.0035	300.0060
Thickness	um	750 to 800	773.5342	0.2228	773.1610	773.7840
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	4.8400	3.0232	0	12
TTV	um	0 to 25	0.2161	0.0352	0.1675	0.3106
Bow	um	0 to 50	1.9067	0.8287	1.1285	4.8066
Warp	um	0 to 50	9.2553	1.3367	7.6143	13.3662

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70121033308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0055	0.0014	300.0019	300.0060
Thickness	um	750 to 800	773.6906	0.0525	773.5570	773.7830
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	3.8400	2.5113	0	9
TTV	um	0 to 25	0.2702	0.0332	0.2119	0.3235
Bow	um	0 to 50	3.1281	1.2783	1.7172	7.0395
Warp	um	0 to 50	10.6954	2.0295	8.4107	16.9846
LOT STATISTICAL SUMMARY						
Lot Number :	70121033309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0013	0.0019	299.9932	300.0024
Thickness	um	750 to 800	773.6569	0.6890	773.2600	776.0390
Resistivity	Ohm-cm	1 to 100	10.2035	0.4166	9.3920	11.7200
Particle @ 0.2um	ea/wafer	0 to 30	3.8000	3.9476	0	20
TTV	um	0 to 25	0.2893	0.0885	0.1096	0.5083
Bow	um	0 to 50	3.1935	1.5236	0.2710	5.9053
Warp	um	0 to 50	9.0578	2.2379	5.9537	17.0351
LOT STATISTICAL SUMMARY						
Lot Number :	70121033310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0050	0.0025	299.9985	300.0059
Thickness	um	750 to 800	773.6988	0.0770	773.5860	773.8500
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	3.4000	2.1602	0	9
TTV	um	0 to 25	0.2583	0.0344	0.1911	0.3775
Bow	um	0 to 50	3.7830	1.1603	1.6101	5.9631
Warp	um	0 to 50	8.8179	0.8513	7.1296	9.9573
LOT STATISTICAL SUMMARY						
Lot Number :	70121033311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9992	0.0012	299.9985	300.0011
Thickness	um	750 to 800	773.8440	0.1263	773.6390	774.0610
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	3.2400	2.0058	0	7
TTV	um	0 to 25	0.2364	0.0437	0.1844	0.3589
Bow	um	0 to 50	3.9553	1.2382	0.8794	6.2104
Warp	um	0 to 50	8.7720	1.4152	6.8453	13.2271

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70121033312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0025	0.0021	300.0011	300.0055
Thickness	um	750 to 800	773.7430	0.0902	773.5440	773.8540
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	4.7600	3.4675	0	14
TTV	um	0 to 25	0.2488	0.0213	0.2060	0.2843
Bow	um	0 to 50	3.3436	1.2189	0.2684	5.5438
Warp	um	0 to 50	8.1119	1.6518	6.5272	13.0887
LOT STATISTICAL SUMMARY						
Lot Number :	70121033313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0028	0.0040	299.9972	300.0055
Thickness	um	750 to 800	773.6820	0.3081	773.1890	774.0310
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	4.2800	5.4736	0	26
TTV	um	0 to 25	0.2025	0.0788	0.0664	0.3560
Bow	um	0 to 50	2.6328	1.6603	0.4782	7.0512
Warp	um	0 to 50	7.5631	2.3419	5.4911	15.4312
LOT STATISTICAL SUMMARY						
Lot Number :	70121033315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9970	0.0045	299.9881	300.0073
Thickness	um	750 to 800	774.0616	0.8788	773.2550	775.8830
Resistivity	Ohm-cm	1 to 100	11.2217	2.6835	8.8850	20.2200
Particle @ 0.2um	ea/wafer	0 to 30	4.4400	4.4636	0	19
TTV	um	0 to 25	0.2531	0.0687	0.1015	0.3935
Bow	um	0 to 50	2.3895	1.4462	0.1834	6.9073
Warp	um	0 to 50	9.4964	3.0660	5.4753	16.6100
LOT STATISTICAL SUMMARY						
Lot Number :	70121033316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0021	0.0028	299.9976	300.0038
Thickness	um	750 to 800	773.6436	0.2135	773.0010	773.9040
Resistivity	Ohm-cm	1 to 100	10.0965	0.2157	9.8830	10.3100
Particle @ 0.2um	ea/wafer	0 to 30	2.0400	2.1502	0	8
TTV	um	0 to 25	0.2337	0.0753	0.1102	0.3897
Bow	um	0 to 50	2.7340	1.7286	0.1245	7.3295
Warp	um	0 to 50	7.0865	2.3999	4.2102	13.9586



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70121033317					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9994	0.0025	299.9976	300.0032
Thickness	um	750 to 800	773.4136	0.5413	772.8010	774.6890
Resistivity	Ohm-cm	1 to 100	10.6621	0.7960	9.8830	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	1.9200	2.0396	0	9
TTV	um	0 to 25	0.3278	0.0667	0.1585	0.4428
Bow	um	0 to 50	2.2606	1.3289	0.2145	5.4600
Warp	um	0 to 50	8.5144	3.2219	5.3959	19.3691
LOT STATISTICAL SUMMARY						
Lot Number :	70125075316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0011	0.0054	299.9932	300.0096
Thickness	um	750 to 800	774.2106	0.4680	773.5470	775.0970
Resistivity	Ohm-cm	1 to 100	10.9773	0.8615	9.5470	12.4400
Particle @ 0.2um	ea/wafer	0 to 30	4.9200	5.4000	0	20
TTV	um	0 to 25	0.2185	0.1033	0.1172	0.4555
Bow	um	0 to 50	2.8724	2.0897	0.0105	7.1193
Warp	um	0 to 50	9.4277	3.2005	4.5981	13.6485
LOT STATISTICAL SUMMARY						
Lot Number :	70126074302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9957	0.0017	299.9937	299.9984
Thickness	um	750 to 800	774.0211	2.5184	768.2160	775.7550
Resistivity	Ohm-cm	1 to 100	11.0500	0.6071	10.3700	12.0400
Particle @ 0.2um	ea/wafer	0 to 30	8.5200	7.3887	0	23
TTV	um	0 to 25	0.4840	0.5249	0.1754	1.9468
Bow	um	0 to 50	2.4455	1.8188	0.0249	6.0552
Warp	um	0 to 50	18.6562	6.0131	7.7084	25.5828
LOT STATISTICAL SUMMARY						
Lot Number :	70127034315					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0123	0.0021	300.0042	300.0140
Thickness	um	750 to 800	774.4144	0.1129	774.2730	774.6140
Resistivity	Ohm-cm	1 to 100	11.3950	0.2374	11.1600	11.6300
Particle @ 0.2um	ea/wafer	0 to 30	4.9200	4.2123	0	22
TTV	um	0 to 25	0.2337	0.1272	0.1466	0.8229
Bow	um	0 to 50	4.1103	2.1665	0.2732	7.5754
Warp	um	0 to 50	10.1419	3.6001	4.6030	17.0927

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70129034313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0082	0.0006	300.0078	300.0097
Thickness	um	750 to 800	772.9284	0.1212	772.6650	773.0870
Resistivity	Ohm-cm	1 to 100	11.2700	0.2626	11.0100	11.5300
Particle @ 0.2um	ea/wafer	0 to 30	4.0800	1.8239	1	7
TTV	um	0 to 25	0.4830	0.0877	0.3439	0.6172
Bow	um	0 to 50	3.1195	0.6801	2.0732	4.4146
Warp	um	0 to 50	6.5366	0.9627	5.1217	8.6854
LOT STATISTICAL SUMMARY						
Lot Number :	70129034316					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0020	0.0074	299.9942	300.0160
Thickness	um	750 to 800	774.5882	1.0695	769.6860	775.3300
Resistivity	Ohm-cm	1 to 100	11.5006	1.2467	8.5200	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	4.1200	5.8475	0	20
TTV	um	0 to 25	0.2268	0.0788	0.1065	0.4193
Bow	um	0 to 50	3.2384	1.5089	0.1191	6.1767
Warp	um	0 to 50	7.5227	1.7371	3.6727	10.7021
LOT STATISTICAL SUMMARY						
Lot Number :	70130026301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0012	300.0006	300.0047
Thickness	um	750 to 800	774.1133	0.1843	773.7640	774.4610
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	4.5600	4.0423	0	20
TTV	um	0 to 25	0.3496	0.0877	0.2019	0.5198
Bow	um	0 to 50	2.1344	1.6852	0.1362	5.5148
Warp	um	0 to 50	9.3418	1.2117	7.0057	11.3522
LOT STATISTICAL SUMMARY						
Lot Number :	70130026303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0045	0.0003	300.0039	300.0047
Thickness	um	750 to 800	773.7403	0.2657	773.4270	774.3080
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	3.0000	2.6771	0	9
TTV	um	0 to 25	0.3340	0.1308	0.0578	0.4903
Bow	um	0 to 50	3.1622	2.5309	0.0212	6.7078
Warp	um	0 to 50	10.2224	1.9783	4.4424	12.9698

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70130026304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0026	0.0010	300.0017	300.0039
Thickness	um	750 to 800	774.2898	0.1548	774.0910	774.6280
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	3.4800	2.4853	0	9
TTV	um	0 to 25	0.2729	0.1483	0.0639	0.5271
Bow	um	0 to 50	3.1977	1.6504	0.0896	6.1811
Warp	um	0 to 50	8.0665	1.7313	4.9683	10.9209
LOT STATISTICAL SUMMARY						
Lot Number :	70130026306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0022	299.9986	300.0065
Thickness	um	750 to 800	774.7668	0.2761	774.4290	775.1130
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	3.2800	2.4752	1	10
TTV	um	0 to 25	0.1614	0.0816	0.0931	0.4217
Bow	um	0 to 50	1.8720	1.3738	0.1743	4.7271
Warp	um	0 to 50	8.1588	2.0382	4.9708	11.5950
LOT STATISTICAL SUMMARY						
Lot Number :	70130026307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0039	0.0020	300.0021	300.0065
Thickness	um	750 to 800	774.6153	0.1246	774.3720	774.9160
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	2.0000	1.8930	0	6
TTV	um	0 to 25	0.4624	0.1353	0.2294	0.6764
Bow	um	0 to 50	2.1139	1.7387	0.0084	4.9821
Warp	um	0 to 50	8.6540	1.3514	5.6665	10.7113
LOT STATISTICAL SUMMARY						
Lot Number :	70130026308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0042	0.0008	300.0038	300.0060
Thickness	um	750 to 800	774.7013	0.1394	774.5160	774.9620
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	1.9200	2.0801	0	7
TTV	um	0 to 25	0.3691	0.1361	0.1393	0.5442
Bow	um	0 to 50	2.5186	2.2037	0.0537	7.6974
Warp	um	0 to 50	9.4694	2.3715	6.2185	14.3062

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70130026309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0019	0.0014	300.0004	300.0044
Thickness	um	750 to 800	775.1370	0.3031	774.6030	775.6720
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	2.5200	1.8956	0	7
TTV	um	0 to 25	0.3684	0.1160	0.1327	0.5375
Bow	um	0 to 50	1.6062	1.4917	0.1014	5.4021
Warp	um	0 to 50	9.0246	1.5302	6.8370	11.8337
LOT STATISTICAL SUMMARY						
Lot Number :	70130026310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0034	0.0009	300.0025	300.0044
Thickness	um	750 to 800	774.7436	0.1686	774.5120	775.2010
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	2.1600	1.7000	0	6
TTV	um	0 to 25	0.3595	0.1330	0.2000	0.5596
Bow	um	0 to 50	4.5435	2.5256	0.0248	8.7782
Warp	um	0 to 50	9.1576	2.1130	5.1397	13.3201
LOT STATISTICAL SUMMARY						
Lot Number :	70130026311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0039	0.0005	300.0035	300.0049
Thickness	um	750 to 800	774.9086	0.2298	774.5330	775.2800
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	3.3600	5.2032	0	27
TTV	um	0 to 25	0.5521	0.3790	0.1865	1.4405
Bow	um	0 to 50	1.6972	2.3011	0.0062	7.0191
Warp	um	0 to 50	11.4164	2.8108	7.2703	15.4698
LOT STATISTICAL SUMMARY						
Lot Number :	70130026312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0029	0.0014	300.0017	300.0049
Thickness	um	750 to 800	774.5764	0.2366	774.2890	775.0000
Resistivity	Ohm-cm	1 to 100	11.5200	0.1919	11.3300	11.7100
Particle @ 0.2um	ea/wafer	0 to 30	2.7200	1.5684	0	5
TTV	um	0 to 25	0.3281	0.1406	0.1440	0.5363
Bow	um	0 to 50	2.9106	1.7593	0.1407	6.8101
Warp	um	0 to 50	9.6002	2.6684	6.0134	14.8358

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70209001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9930	0.0020	299.9924	299.9998
Thickness	um	750 to 800	773.7737	0.2522	773.4260	774.2880
Resistivity	Ohm-cm	1 to 100	11.0926	0.2485	10.1100	11.2600
Particle @ 0.2um	ea/wafer	0 to 30	4.3200	3.0784	0	12
TTV	um	0 to 25	0.2087	0.0468	0.1341	0.3162
Bow	um	0 to 50	2.7520	1.6039	0.3383	5.8232
Warp	um	0 to 50	6.9978	2.0325	4.9179	11.4116
LOT STATISTICAL SUMMARY						
Lot Number :	70224032314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0009	0.0009	300.0004	300.0032
Thickness	um	750 to 800	774.8686	0.1965	774.5740	775.1860
Resistivity	Ohm-cm	1 to 100	10.6410	0.2747	10.2000	10.9200
Particle @ 0.2um	ea/wafer	0 to 30	6.6800	3.9234	1	20
TTV	um	0 to 25	0.1045	0.0188	0.0758	0.1602
Bow	um	0 to 50	2.5679	2.4500	0.1307	8.5137
Warp	um	0 to 50	9.0824	2.7136	5.9951	15.8090
LOT STATISTICAL SUMMARY						
Lot Number :	70224077301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9996	0.0027	299.9958	300.0027
Thickness	um	750 to 800	774.9243	0.3314	774.4070	775.3320
Resistivity	Ohm-cm	1 to 100	9.9978	0.3889	9.6000	10.6500
Particle @ 0.2um	ea/wafer	0 to 30	2.9200	2.6128	0	9
TTV	um	0 to 25	0.1479	0.0399	0.0928	0.2033
Bow	um	0 to 50	5.3242	1.0555	3.4368	8.5293
Warp	um	0 to 50	11.1532	1.6058	8.7714	15.5823
LOT STATISTICAL SUMMARY						
Lot Number :	70225038309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0009	299.9975	299.9998
Thickness	um	750 to 800	775.1934	0.2089	774.7180	775.4850
Resistivity	Ohm-cm	1 to 100	10.2576	0.5692	9.7740	11.5500
Particle @ 0.2um	ea/wafer	0 to 30	3.4400	3.6065	0	15
TTV	um	0 to 25	0.1945	0.0472	0.1355	0.3141
Bow	um	0 to 50	1.4137	1.1516	0.0685	5.1520
Warp	um	0 to 50	11.5072	3.3524	7.2708	19.3996

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70233001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9917	0.0004	299.9914	299.9928
Thickness	um	750 to 800	774.2947	0.0596	774.2170	774.4430
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.2800	1.6207	0	6
TTV	um	0 to 25	0.3283	0.0195	0.2813	0.3632
Bow	um	0 to 50	3.2837	1.7949	0.0631	6.5710
Warp	um	0 to 50	8.9461	1.5779	6.0006	13.1556
LOT STATISTICAL SUMMARY						
Lot Number :	70233001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9926	0.0016	299.9915	299.9975
Thickness	um	750 to 800	774.6494	0.3377	774.2390	775.1830
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.2400	2.8325	0	14
TTV	um	0 to 25	0.3522	0.0294	0.2531	0.3820
Bow	um	0 to 50	4.1480	1.5368	0.3416	7.9381
Warp	um	0 to 50	7.7190	2.3303	3.9469	13.8609
LOT STATISTICAL SUMMARY						
Lot Number :	70233001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9963	0.0011	299.9953	299.9975
Thickness	um	750 to 800	775.2505	0.4629	774.6540	775.7960
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	1.7156	0	8
TTV	um	0 to 25	0.2248	0.1128	0.1136	0.3967
Bow	um	0 to 50	3.2451	2.4968	0.0702	9.0281
Warp	um	0 to 50	8.7052	1.7192	6.0659	13.6604
LOT STATISTICAL SUMMARY						
Lot Number :	70233001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9926	0.0005	299.9921	299.9931
Thickness	um	750 to 800	775.1633	0.3812	774.7490	775.6820
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.0000	1.0801	0	4
TTV	um	0 to 25	0.2519	0.1402	0.0857	0.4055
Bow	um	0 to 50	2.5383	1.3736	0.4166	5.8239
Warp	um	0 to 50	6.7841	2.3791	3.6693	13.1111

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70233001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9985	0.0012	299.9931	299.9990
Thickness	um	750 to 800	775.0742	0.2641	774.7490	775.5880
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	1.4236	0	6
TTV	um	0 to 25	0.1657	0.0687	0.0904	0.3374
Bow	um	0 to 50	3.1491	2.4092	0.0689	9.4032
Warp	um	0 to 50	9.0064	2.6945	5.4349	16.8491
LOT STATISTICAL SUMMARY						
Lot Number :	70233001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9964	0.0008	299.9955	299.9972
Thickness	um	750 to 800	775.4925	0.4393	774.4430	775.9260
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.4000	1.4720	0	5
TTV	um	0 to 25	0.1188	0.0388	0.0737	0.2195
Bow	um	0 to 50	2.5903	1.7703	0.0447	5.8419
Warp	um	0 to 50	8.0734	1.5944	6.1764	11.2312
LOT STATISTICAL SUMMARY						
Lot Number :	70233001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9982	0.0008	299.9971	299.9989
Thickness	um	750 to 800	775.7845	0.2480	775.3490	776.0520
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	0.6000	0.7638	0	2
TTV	um	0 to 25	0.1134	0.0201	0.0762	0.1559
Bow	um	0 to 50	6.2280	2.2296	2.5129	10.5184
Warp	um	0 to 50	9.2855	2.7760	4.6278	14.7856
LOT STATISTICAL SUMMARY						
Lot Number :	70233001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9948	0.0028	299.9913	299.9985
Thickness	um	750 to 800	775.3431	0.5204	774.3310	776.0000
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.2800	1.6207	0	7
TTV	um	0 to 25	0.2331	0.1135	0.0846	0.3725
Bow	um	0 to 50	4.5607	2.7483	0.4036	9.3821
Warp	um	0 to 50	9.4041	2.5718	4.0800	14.2633

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70233001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9934	0.0013	299.9923	299.9954
Thickness	um	750 to 800	774.7999	0.2698	774.2660	775.0990
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.3600	1.8000	0	6
TTV	um	0 to 25	0.2984	0.0749	0.1456	0.3745
Bow	um	0 to 50	2.0996	1.6650	0.1907	6.3368
Warp	um	0 to 50	7.7262	2.2081	4.9210	14.1427
LOT STATISTICAL SUMMARY						
Lot Number :	70233001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9953	0.0007	299.9941	299.9958
Thickness	um	750 to 800	775.5693	0.3542	774.8280	775.9920
Resistivity	Ohm-cm	1 to 100	12.0500	0.2626	11.7900	12.3100
Particle @ 0.2um	ea/wafer	0 to 30	1.3600	1.8000	0	7
TTV	um	0 to 25	0.1140	0.0445	0.0618	0.2035
Bow	um	0 to 50	2.7668	1.5907	0.1201	5.7061
Warp	um	0 to 50	8.0550	1.9504	4.2462	13.3057
LOT STATISTICAL SUMMARY						
Lot Number :	70235001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9991	0.0025	299.9973	300.0031
Thickness	um	750 to 800	774.9014	0.0683	774.8090	775.0640
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	1.6800	1.6258	0	5
TTV	um	0 to 25	0.2389	0.0901	0.0696	0.3330
Bow	um	0 to 50	4.4865	2.3324	0.3755	7.8624
Warp	um	0 to 50	11.6966	3.3803	5.3999	16.9287
LOT STATISTICAL SUMMARY						
Lot Number :	70235001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0035	299.9955	300.0037
Thickness	um	750 to 800	775.2435	0.3851	774.7780	776.3140
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	4.8400	6.1215	0	25
TTV	um	0 to 25	0.2176	0.0919	0.0810	0.3124
Bow	um	0 to 50	2.5555	0.9869	0.0563	4.4779
Warp	um	0 to 50	8.0463	1.6234	5.7242	13.5033



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70235001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9978	0.0032	299.9952	300.0028
Thickness	um	750 to 800	775.6191	0.3484	775.3430	776.3300
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	2.1600	2.4779	0	8
TTV	um	0 to 25	0.1446	0.0258	0.0872	0.2121
Bow	um	0 to 50	4.2888	1.7865	1.2939	8.3834
Warp	um	0 to 50	9.7962	2.1844	6.9418	15.3978
LOT STATISTICAL SUMMARY						
Lot Number :	70235001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9979	0.0013	299.9967	299.9996
Thickness	um	750 to 800	774.8144	0.4944	774.2760	775.6100
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	2.4000	1.9579	0	9
TTV	um	0 to 25	0.3371	0.1291	0.1488	0.5180
Bow	um	0 to 50	5.3416	2.6011	0.3054	9.7002
Warp	um	0 to 50	11.6765	3.3450	6.0919	17.3831
LOT STATISTICAL SUMMARY						
Lot Number :	70235001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9975	0.0003	299.9972	299.9979
Thickness	um	750 to 800	774.5614	0.1468	774.3730	774.8910
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	1.8800	1.6155	0	6
TTV	um	0 to 25	0.3654	0.0725	0.2583	0.5900
Bow	um	0 to 50	6.0427	3.3710	0.0376	9.8494
Warp	um	0 to 50	13.1603	4.3731	5.8883	17.9479
LOT STATISTICAL SUMMARY						
Lot Number :	70235001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9969	0.0019	299.9926	299.9978
Thickness	um	750 to 800	775.3270	0.2764	774.8130	775.6270
Resistivity	Ohm-cm	1 to 100	12.1594	0.3059	11.8500	12.8500
Particle @ 0.2um	ea/wafer	0 to 30	1.4000	1.5546	0	4
TTV	um	0 to 25	0.1870	0.0574	0.1254	0.2894
Bow	um	0 to 50	5.2678	1.3634	1.9358	7.0796
Warp	um	0 to 50	12.0816	1.6244	9.3051	14.7839

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	70235001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9979	0.0004	299.9962	299.9981
Thickness	um	750 to 800	775.0313	0.1657	774.4290	775.3080
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	2.5200	3.4775	0	14
TTV	um	0 to 25	0.2810	0.0259	0.2208	0.3346
Bow	um	0 to 50	3.5112	1.7751	0.2924	6.5291
Warp	um	0 to 50	8.3067	2.1624	5.5146	12.2584
LOT STATISTICAL SUMMARY						
Lot Number :	70235001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9974	0.0015	299.9952	299.9989
Thickness	um	750 to 800	775.2389	0.7107	774.3710	776.0750
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	1.2800	1.9689	0	7
TTV	um	0 to 25	0.1917	0.0866	0.0966	0.3650
Bow	um	0 to 50	3.3049	1.7485	1.2234	7.0637
Warp	um	0 to 50	8.8843	1.8235	6.3163	13.2813
LOT STATISTICAL SUMMARY						
Lot Number :	70235001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9967	0.0026	299.9952	300.0045
Thickness	um	750 to 800	775.6989	0.2663	775.2610	775.9730
Resistivity	Ohm-cm	1 to 100	12.0650	0.2172	11.8500	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	2.4800	2.6160	0	9
TTV	um	0 to 25	0.1269	0.0161	0.1016	0.1547
Bow	um	0 to 50	3.4821	1.7549	0.6861	7.2458
Warp	um	0 to 50	8.5795	2.5503	4.8903	13.5870
LOT STATISTICAL SUMMARY						
Lot Number :	70235063302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9999	0.0064	299.9804	300.0099
Thickness	um	750 to 800	774.4110	1.7744	769.4900	775.7570
Resistivity	Ohm-cm	1 to 100	11.2095	0.7033	9.5470	12.2000
Particle @ 0.2um	ea/wafer	0 to 30	9.0400	8.6143	0	29
TTV	um	0 to 25	0.1611	0.0693	0.0801	0.3699
Bow	um	0 to 50	2.1630	1.4041	0.2570	6.1871
Warp	um	0 to 50	8.3686	2.3693	4.6738	14.7841

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71122001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0026	0.0025	299.9945	300.0038
Thickness	um	750 to 800	773.6199	0.3307	772.9880	774.0890
Resistivity	Ohm-cm	1 to 100	10.8324	0.6667	10.3100	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	22.3600	8.0977	2	30
TTV	um	0 to 25	0.1780	0.1119	0.0541	0.3543
Bow	um	0 to 50	2.8771	2.8971	0.0750	10.8468
Warp	um	0 to 50	12.3113	6.0373	4.6559	26.6094
LOT STATISTICAL SUMMARY						
Lot Number :	71129001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9962	0.0000	299.9962	299.9962
Thickness	um	750 to 800	772.6080	0.0321	772.5550	772.6620
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	2.1600	2.1150	0	8
TTV	um	0 to 25	0.3203	0.0281	0.2625	0.3605
Bow	um	0 to 50	2.7747	1.3113	0.1890	5.1417
Warp	um	0 to 50	7.9133	1.2134	5.1637	9.8767
LOT STATISTICAL SUMMARY						
Lot Number :	71129001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0019	0.0022	299.9962	300.0027
Thickness	um	750 to 800	772.5152	0.0974	772.3490	772.7320
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	1.2000	1.3229	0	5
TTV	um	0 to 25	0.3464	0.0472	0.2434	0.4207
Bow	um	0 to 50	1.4039	0.9380	0.0118	3.2891
Warp	um	0 to 50	6.2924	1.0371	5.1703	9.0555
LOT STATISTICAL SUMMARY						
Lot Number :	71129001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9972	0.0018	299.9962	300.0004
Thickness	um	750 to 800	772.7279	0.1061	772.5680	772.9290
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	3.3600	3.4385	0	15
TTV	um	0 to 25	0.3400	0.0364	0.2788	0.4134
Bow	um	0 to 50	2.4287	1.0771	0.1405	4.1747
Warp	um	0 to 50	8.1048	2.0600	4.8772	12.9036

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71129001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9980	0.0026	299.9953	300.0004
Thickness	um	750 to 800	773.0639	0.3021	772.6380	773.4480
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	1.8779	0	9
TTV	um	0 to 25	0.3114	0.0334	0.2543	0.3765
Bow	um	0 to 50	2.1807	0.9813	0.7774	4.7662
Warp	um	0 to 50	6.6550	1.3638	5.2266	9.9652
LOT STATISTICAL SUMMARY						
Lot Number :	71129001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9981	0.0027	299.9953	300.0006
Thickness	um	750 to 800	773.3274	0.1674	773.0240	773.5520
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	1.6400	1.8903	0	8
TTV	um	0 to 25	0.3140	0.0226	0.2767	0.3559
Bow	um	0 to 50	2.6457	1.1296	0.2483	4.2471
Warp	um	0 to 50	7.5088	1.3463	4.8789	9.8473
LOT STATISTICAL SUMMARY						
Lot Number :	71129001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0008	0.0059	299.9950	300.0087
Thickness	um	750 to 800	774.0241	1.2417	772.3870	775.4580
Resistivity	Ohm-cm	1 to 100	10.8108	0.6372	9.4770	11.9400
Particle @ 0.2um	ea/wafer	0 to 30	6.4400	8.2618	0	28
TTV	um	0 to 25	0.2821	0.0994	0.0785	0.4098
Bow	um	0 to 50	3.1948	2.4210	0.0051	8.8083
Warp	um	0 to 50	8.4521	2.6572	3.9498	15.8600
LOT STATISTICAL SUMMARY						
Lot Number :	71129001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0064	0.0015	299.9990	300.0067
Thickness	um	750 to 800	771.8176	0.0227	771.7730	771.8560
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	1.3600	0.9522	0	3
TTV	um	0 to 25	0.5052	0.0505	0.3740	0.5828
Bow	um	0 to 50	2.9883	1.1199	0.1992	4.8811
Warp	um	0 to 50	9.9346	1.8559	6.4859	15.2143

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71129001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9998	0.0019	299.9990	300.0042
Thickness	um	750 to 800	771.8046	0.0623	771.6520	771.8970
Resistivity	Ohm-cm	1 to 100	10.5150	0.0859	10.4300	10.6000
Particle @ 0.2um	ea/wafer	0 to 30	1.6000	1.2910	0	5
TTV	um	0 to 25	0.5384	0.0368	0.4208	0.5780
Bow	um	0 to 50	2.8596	1.1321	0.0614	4.5970
Warp	um	0 to 50	8.6669	1.8753	5.4345	12.6235
LOT STATISTICAL SUMMARY						
Lot Number :	71129001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0028	0.0028	299.9974	300.0050
Thickness	um	750 to 800	772.5063	1.2745	771.6790	775.4320
Resistivity	Ohm-cm	1 to 100	10.9592	0.8417	9.7420	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	4.2000	5.9652	0	24
TTV	um	0 to 25	0.4269	0.1432	0.1273	0.5972
Bow	um	0 to 50	1.5322	1.4541	0.0373	5.6929
Warp	um	0 to 50	8.7433	4.6869	5.1759	18.4050
LOT STATISTICAL SUMMARY						
Lot Number :	71130001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9979	0.0013	299.9959	299.9987
Thickness	um	750 to 800	773.0910	0.3534	772.8120	773.7350
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.5600	2.3466	0	8
TTV	um	0 to 25	0.3468	0.0182	0.3023	0.3753
Bow	um	0 to 50	3.4130	1.1864	0.4357	5.3515
Warp	um	0 to 50	17.1670	1.2001	14.7219	19.1493
LOT STATISTICAL SUMMARY						
Lot Number :	71130001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9985	0.0026	299.9959	300.0020
Thickness	um	750 to 800	773.4609	0.2907	773.1490	773.9670
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.7200	3.2470	0	12
TTV	um	0 to 25	0.4076	0.0644	0.2616	0.5071
Bow	um	0 to 50	5.1937	2.8234	2.3747	10.2723
Warp	um	0 to 50	19.9730	2.9921	17.2522	25.4425

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71130001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9997	0.0024	299.9972	300.0020
Thickness	um	750 to 800	773.4514	0.4991	772.9060	774.0050
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	3.4400	3.4530	0	13
TTV	um	0 to 25	0.3827	0.0548	0.3006	0.4680
Bow	um	0 to 50	8.9890	1.3988	6.7674	11.1835
Warp	um	0 to 50	23.8106	1.9881	20.6068	26.9466
LOT STATISTICAL SUMMARY						
Lot Number :	71130001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9974	0.0001	299.9972	299.9975
Thickness	um	750 to 800	772.9058	0.0805	772.7960	773.0390
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	5.0000	5.4160	0	22
TTV	um	0 to 25	0.2968	0.0316	0.2474	0.3519
Bow	um	0 to 50	7.4329	1.0108	5.4454	8.7193
Warp	um	0 to 50	20.9795	1.2297	18.9905	23.2458
LOT STATISTICAL SUMMARY						
Lot Number :	71130001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9978	0.0012	299.9961	299.9991
Thickness	um	750 to 800	772.8347	0.0636	772.7340	772.9770
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.2000	1.9149	0	7
TTV	um	0 to 25	0.3140	0.0406	0.2179	0.3582
Bow	um	0 to 50	6.2860	1.2313	4.1750	8.6365
Warp	um	0 to 50	21.5352	3.3079	18.4450	28.9514
LOT STATISTICAL SUMMARY						
Lot Number :	71130001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9984	0.0008	299.9976	299.9991
Thickness	um	750 to 800	772.9340	0.1906	772.7330	773.2260
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.4000	1.6833	0	6
TTV	um	0 to 25	0.3022	0.0362	0.2601	0.3670
Bow	um	0 to 50	7.1429	2.4757	3.0927	10.4667
Warp	um	0 to 50	21.9007	2.5503	18.9004	25.3777

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71130001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9970	0.0006	299.9965	299.9976
Thickness	um	750 to 800	773.5561	0.1706	773.1280	773.7880
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.2000	2.7386	0	13
TTV	um	0 to 25	0.3351	0.0450	0.2656	0.4049
Bow	um	0 to 50	8.5398	1.4642	5.8500	10.7743
Warp	um	0 to 50	22.1672	2.7665	18.7774	26.4812
LOT STATISTICAL SUMMARY						
Lot Number :	71130001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9973	0.0003	299.9965	299.9974
Thickness	um	750 to 800	773.5526	0.1286	773.1570	773.6810
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	4.5600	2.6470	1	10
TTV	um	0 to 25	0.4127	0.0638	0.2839	0.5196
Bow	um	0 to 50	3.7458	1.6256	1.3946	7.2661
Warp	um	0 to 50	18.4429	0.6861	17.5723	19.9281
LOT STATISTICAL SUMMARY						
Lot Number :	71130001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0007	0.0000	300.0007	300.0007
Thickness	um	750 to 800	772.8835	0.3194	772.5650	773.3110
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	2.8000	2.6771	0	10
TTV	um	0 to 25	0.3299	0.0420	0.2676	0.3911
Bow	um	0 to 50	9.7389	0.7128	8.3414	11.0148
Warp	um	0 to 50	24.8595	1.0224	23.2093	27.1473
LOT STATISTICAL SUMMARY						
Lot Number :	71130001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9985	0.0004	299.9984	300.0005
Thickness	um	750 to 800	772.8559	0.0432	772.7760	772.9110
Resistivity	Ohm-cm	1 to 100	12.5700	0.1919	12.3800	12.7600
Particle @ 0.2um	ea/wafer	0 to 30	3.2800	1.9261	1	8
TTV	um	0 to 25	0.2631	0.0414	0.1976	0.3401
Bow	um	0 to 50	3.8584	0.8253	2.2125	5.3850
Warp	um	0 to 50	17.7119	0.4622	16.6925	18.7101

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71134001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9995	0.0032	299.9976	300.0045
Thickness	um	750 to 800	774.6472	0.5555	774.0850	775.5340
Resistivity	Ohm-cm	1 to 100	12.0550	0.0051	12.0500	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	1.2800	1.4295	0	5
TTV	um	0 to 25	0.2283	0.0819	0.1043	0.3681
Bow	um	0 to 50	3.0282	1.3605	0.4949	5.6306
Warp	um	0 to 50	9.5175	2.5566	5.3975	13.9811
LOT STATISTICAL SUMMARY						
Lot Number :	71134001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0046	0.0049	299.9909	300.0111
Thickness	um	750 to 800	774.7144	0.7166	773.4770	775.5310
Resistivity	Ohm-cm	1 to 100	10.6084	1.7393	7.7860	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	4.9600	6.3013	0	26
TTV	um	0 to 25	0.1996	0.0821	0.1051	0.3807
Bow	um	0 to 50	1.8400	1.1592	0.2345	5.2782
Warp	um	0 to 50	7.7134	2.1160	4.6647	11.4322
LOT STATISTICAL SUMMARY						
Lot Number :	71134001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0037	0.0006	300.0029	300.0044
Thickness	um	750 to 800	770.7538	2.3278	768.4340	773.2150
Resistivity	Ohm-cm	1 to 100	12.0550	0.0051	12.0500	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	1.2356	0	5
TTV	um	0 to 25	0.2539	0.1117	0.0926	0.3895
Bow	um	0 to 50	1.4441	1.0496	0.0068	3.3053
Warp	um	0 to 50	9.2179	1.1050	7.1855	11.2102
LOT STATISTICAL SUMMARY						
Lot Number :	71134001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0032	0.0024	299.9962	300.0074
Thickness	um	750 to 800	773.7954	0.9155	772.9120	775.3740
Resistivity	Ohm-cm	1 to 100	11.1683	2.5096	7.7800	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	5.1200	7.6066	0	29
TTV	um	0 to 25	0.2198	0.0873	0.1102	0.4654
Bow	um	0 to 50	2.1270	1.3779	0.1572	5.4415
Warp	um	0 to 50	10.7664	5.9532	5.3676	26.2405



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71134001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0045	0.0015	300.0036	300.0069
Thickness	um	750 to 800	774.2928	0.1396	773.9430	774.4530
Resistivity	Ohm-cm	1 to 100	12.0550	0.0051	12.0500	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	1.6155	0	7
TTV	um	0 to 25	0.1904	0.0866	0.0816	0.4611
Bow	um	0 to 50	1.0575	0.7397	0.0123	3.2797
Warp	um	0 to 50	6.5591	1.0655	5.2127	9.6075
LOT STATISTICAL SUMMARY						
Lot Number :	71134001313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0034	0.0010	300.0028	300.0048
Thickness	um	750 to 800	774.7977	1.6530	772.5470	780.1410
Resistivity	Ohm-cm	1 to 100	12.0550	0.0051	12.0500	12.0600
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	1.0279	0	4
TTV	um	0 to 25	0.1614	0.1111	0.0708	0.4794
Bow	um	0 to 50	2.3832	1.1248	0.3065	5.5503
Warp	um	0 to 50	7.3405	1.0936	4.4451	9.4392
LOT STATISTICAL SUMMARY						
Lot Number :	71134001314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0012	0.0034	299.9980	300.0094
Thickness	um	750 to 800	774.5304	0.7098	773.5730	775.8610
Resistivity	Ohm-cm	1 to 100	11.6422	0.8000	7.7860	12.2800
Particle @ 0.2um	ea/wafer	0 to 30	3.1200	3.1796	0	10
TTV	um	0 to 25	0.2531	0.1093	0.1235	0.4258
Bow	um	0 to 50	2.5267	2.4799	0.3974	7.3597
Warp	um	0 to 50	9.3722	2.4459	5.1661	13.6700
LOT STATISTICAL SUMMARY						
Lot Number :	71135001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0028	0.0019	300.0009	300.0046
Thickness	um	750 to 800	774.6330	0.2460	774.3030	775.0170
Resistivity	Ohm-cm	1 to 100	13.3050	0.0960	13.2100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	1.0000	1.1547	0	5
TTV	um	0 to 25	0.1638	0.0735	0.0724	0.2907
Bow	um	0 to 50	1.8261	1.1120	0.2178	3.9371
Warp	um	0 to 50	25.0563	1.6093	22.0124	28.2127

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71135001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0005	0.0007	299.9998	300.0012
Thickness	um	750 to 800	775.4575	0.2282	775.1780	775.8040
Resistivity	Ohm-cm	1 to 100	13.3050	0.0960	13.2100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	1.4000	1.6073	0	5
TTV	um	0 to 25	0.2213	0.0647	0.1325	0.3064
Bow	um	0 to 50	1.9266	1.3652	0.1745	5.4684
Warp	um	0 to 50	24.6733	1.0712	22.6310	26.2754
LOT STATISTICAL SUMMARY						
Lot Number :	71135001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0004	299.9998	300.0012
Thickness	um	750 to 800	774.9019	0.2167	774.6290	775.2480
Resistivity	Ohm-cm	1 to 100	13.3050	0.0960	13.2100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	1.1600	1.4629	0	5
TTV	um	0 to 25	0.1567	0.0735	0.0955	0.3329
Bow	um	0 to 50	2.7148	1.9050	0.2193	5.7135
Warp	um	0 to 50	23.6882	2.9201	19.0132	27.2246
LOT STATISTICAL SUMMARY						
Lot Number :	71135001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0012	0.0018	299.9986	300.0033
Thickness	um	750 to 800	775.0064	0.3993	774.4250	775.5410
Resistivity	Ohm-cm	1 to 100	12.6282	1.0231	10.8100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	2.2000	1.8930	0	7
TTV	um	0 to 25	0.2391	0.0496	0.1626	0.3097
Bow	um	0 to 50	1.2033	1.3219	0.0065	4.9759
Warp	um	0 to 50	20.5555	8.4525	7.7640	29.0109
LOT STATISTICAL SUMMARY						
Lot Number :	71135001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0006	0.0001	300.0003	300.0006
Thickness	um	750 to 800	774.6355	0.3860	774.2190	775.3920
Resistivity	Ohm-cm	1 to 100	13.3050	0.0960	13.2100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	2.0400	2.1111	0	8
TTV	um	0 to 25	0.1446	0.0305	0.1023	0.2101
Bow	um	0 to 50	1.8600	1.2181	0.0372	4.0666
Warp	um	0 to 50	23.0939	1.4940	20.9200	28.1888

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71135001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0017	0.0016	300.0003	300.0034
Thickness	um	750 to 800	774.7676	0.3797	774.3040	775.1490
Resistivity	Ohm-cm	1 to 100	13.3050	0.0960	13.2100	13.4000
Particle @ 0.2um	ea/wafer	0 to 30	0.8800	0.9274	0	3
TTV	um	0 to 25	0.1679	0.0362	0.1161	0.2275
Bow	um	0 to 50	1.7213	1.0270	0.1583	4.3043
Warp	um	0 to 50	24.8084	1.6884	21.5532	28.8235
LOT STATISTICAL SUMMARY						
Lot Number :	71135087301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0050	0.0003	300.0048	300.0054
Thickness	um	750 to 800	772.9767	0.1402	772.7840	773.2500
Resistivity	Ohm-cm	1 to 100	10.6475	0.6793	9.9750	11.3200
Particle @ 0.2um	ea/wafer	0 to 30	9.7600	7.5734	2	23
TTV	um	0 to 25	0.4136	0.0532	0.2672	0.4959
Bow	um	0 to 50	2.2516	1.2493	0.2527	5.1697
Warp	um	0 to 50	8.8008	1.2076	7.2228	12.5451
LOT STATISTICAL SUMMARY						
Lot Number :	71136001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0040	0.0025	300.0023	300.0076
Thickness	um	750 to 800	772.8502	0.1272	772.5580	773.0180
Resistivity	Ohm-cm	1 to 100	12.8850	0.3283	12.5600	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	1.8400	1.9723	0	6
TTV	um	0 to 25	0.1447	0.0410	0.0973	0.2337
Bow	um	0 to 50	3.4632	1.3603	0.3725	5.5351
Warp	um	0 to 50	7.6511	1.4748	5.0500	11.5968
LOT STATISTICAL SUMMARY						
Lot Number :	71136001302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0023	0.0024	300.0012	300.0076
Thickness	um	750 to 800	772.9573	0.1974	772.2350	773.1560
Resistivity	Ohm-cm	1 to 100	12.8850	0.3283	12.5600	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	1.2000	2.2546	0	9
TTV	um	0 to 25	0.2520	0.0497	0.0985	0.2965
Bow	um	0 to 50	0.8391	0.8767	0.0226	3.2709
Warp	um	0 to 50	4.9948	1.0810	3.3780	7.7201

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71136001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0027	0.0002	300.0026	300.0032
Thickness	um	750 to 800	772.4842	0.2334	772.1150	772.7230
Resistivity	Ohm-cm	1 to 100	12.8850	0.3283	12.5600	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	1.8400	1.5188	0	6
TTV	um	0 to 25	0.2041	0.0421	0.1312	0.2667
Bow	um	0 to 50	0.7640	0.5485	0.0237	2.2306
Warp	um	0 to 50	5.2559	1.0642	3.7794	7.6924
LOT STATISTICAL SUMMARY						
Lot Number :	71136001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0034	0.0004	300.0032	300.0043
Thickness	um	750 to 800	772.3753	0.1197	772.2250	772.6010
Resistivity	Ohm-cm	1 to 100	12.8850	0.3283	12.5600	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	1.8400	2.1541	0	9
TTV	um	0 to 25	0.2361	0.0177	0.1979	0.2699
Bow	um	0 to 50	0.8505	0.7660	0.0111	2.2928
Warp	um	0 to 50	4.9898	0.9746	3.4560	7.0124
LOT STATISTICAL SUMMARY						
Lot Number :	71136001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0051	0.0014	300.0043	300.0076
Thickness	um	750 to 800	772.8673	0.7921	772.3210	774.2890
Resistivity	Ohm-cm	1 to 100	12.8850	0.3283	12.5600	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	2.6800	2.8243	0	10
TTV	um	0 to 25	0.2719	0.0525	0.2102	0.3789
Bow	um	0 to 50	0.9486	0.5467	0.1323	1.9127
Warp	um	0 to 50	5.4714	0.8062	3.9189	6.8049
LOT STATISTICAL SUMMARY						
Lot Number :	71136043301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9989	0.0000	299.9989	299.9989
Thickness	um	750 to 800	774.7116	0.1109	774.5200	774.8440
Resistivity	Ohm-cm	1 to 100	11.8800	0.5758	11.3100	12.4500
Particle @ 0.2um	ea/wafer	0 to 30	2.8800	4.8932	0	25
TTV	um	0 to 25	0.0797	0.0131	0.0555	0.1053
Bow	um	0 to 50	5.4734	0.8983	3.7173	7.2712
Warp	um	0 to 50	14.2540	1.5870	11.0728	17.2857

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71136043302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0032	0.0008	300.0006	300.0034
Thickness	um	750 to 800	774.8507	0.1022	774.6730	774.9660
Resistivity	Ohm-cm	1 to 100	11.8800	0.5758	11.3100	12.4500
Particle @ 0.2um	ea/wafer	0 to 30	1.9600	1.4572	0	6
TTV	um	0 to 25	0.0914	0.0160	0.0686	0.1245
Bow	um	0 to 50	5.5171	0.9862	3.9743	7.4749
Warp	um	0 to 50	14.7084	1.6971	12.1847	18.2431
LOT STATISTICAL SUMMARY						
Lot Number :	71136043303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0008	0.0006	300.0006	300.0028
Thickness	um	750 to 800	774.6271	1.3945	767.9540	775.1340
Resistivity	Ohm-cm	1 to 100	11.6656	0.9003	7.7800	12.4500
Particle @ 0.2um	ea/wafer	0 to 30	2.6400	2.5146	0	10
TTV	um	0 to 25	0.1137	0.0590	0.0599	0.3560
Bow	um	0 to 50	6.0991	2.0349	0.8388	8.2396
Warp	um	0 to 50	16.9847	3.5130	8.2064	26.4752
LOT STATISTICAL SUMMARY						
Lot Number :	71136043304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0047	299.9897	300.0076
Thickness	um	750 to 800	773.9896	1.8625	769.7610	775.0140
Resistivity	Ohm-cm	1 to 100	11.2955	1.7004	7.0350	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	1.7200	2.2825	0	11
TTV	um	0 to 25	0.1457	0.1089	0.0681	0.3890
Bow	um	0 to 50	5.2500	1.6821	0.7149	6.9043
Warp	um	0 to 50	13.4017	4.2546	4.5191	18.9704
LOT STATISTICAL SUMMARY						
Lot Number :	71137001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9941	0.0006	299.9933	299.9946
Thickness	um	750 to 800	774.5968	0.1511	774.3450	774.7870
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.5600	2.7398	0	12
TTV	um	0 to 25	0.2425	0.0447	0.1666	0.3248
Bow	um	0 to 50	3.0341	1.0527	0.6612	4.9427
Warp	um	0 to 50	6.0536	1.3106	3.8855	9.3995

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9947	0.0001	299.9946	299.9947
Thickness	um	750 to 800	774.9452	0.1744	774.7220	775.2040
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	0.9600	1.1719	0	4
TTV	um	0 to 25	0.1474	0.0433	0.0852	0.2240
Bow	um	0 to 50	2.8004	0.9063	1.3152	4.5877
Warp	um	0 to 50	5.5122	1.3247	3.2659	9.0276
LOT STATISTICAL SUMMARY						
Lot Number :	71137001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9970	0.0032	299.9940	300.0003
Thickness	um	750 to 800	775.0063	0.2234	774.5780	775.2160
Resistivity	Ohm-cm	1 to 100	11.2134	1.8414	8.5200	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.1200	2.2789	0	11
TTV	um	0 to 25	0.2162	0.0441	0.1290	0.2825
Bow	um	0 to 50	1.7150	1.0880	0.0935	4.3206
Warp	um	0 to 50	6.9423	1.3527	5.0962	9.6471
LOT STATISTICAL SUMMARY						
Lot Number :	71137001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9972	0.0034	299.9940	300.0009
Thickness	um	750 to 800	774.5645	0.3036	773.9890	774.9800
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.3200	1.0693	0	4
TTV	um	0 to 25	0.1843	0.0385	0.1029	0.2450
Bow	um	0 to 50	2.3989	1.0517	0.4403	4.2976
Warp	um	0 to 50	5.5283	1.0775	3.6431	7.7732
LOT STATISTICAL SUMMARY						
Lot Number :	71137001306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9991	0.0017	299.9959	300.0009
Thickness	um	750 to 800	774.6444	0.1891	774.3930	774.9810
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.0800	0.9092	0	3
TTV	um	0 to 25	0.2131	0.0766	0.1033	0.3265
Bow	um	0 to 50	2.7532	1.1335	0.0374	3.9827
Warp	um	0 to 50	6.2743	0.9228	4.3785	8.3686

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137001307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9950	0.0012	299.9938	299.9966
Thickness	um	750 to 800	774.9876	0.1476	774.5800	775.1450
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.1600	1.3441	0	4
TTV	um	0 to 25	0.1963	0.0468	0.1350	0.2996
Bow	um	0 to 50	1.1587	0.7254	0.1594	2.7848
Warp	um	0 to 50	5.2047	1.2929	3.7094	9.7870
LOT STATISTICAL SUMMARY						
Lot Number :	71137001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9960	0.0005	299.9955	299.9966
Thickness	um	750 to 800	774.2007	1.4028	771.0710	775.4870
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	2.6000	3.1091	0	10
TTV	um	0 to 25	0.2436	0.0459	0.1502	0.3117
Bow	um	0 to 50	1.9505	0.5454	1.1957	3.0432
Warp	um	0 to 50	5.8757	1.4701	3.2741	9.4513
LOT STATISTICAL SUMMARY						
Lot Number :	71137001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9957	0.0005	299.9951	299.9962
Thickness	um	750 to 800	775.0598	0.2392	774.5450	775.3230
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.2800	1.6713	0	6
TTV	um	0 to 25	0.1862	0.0504	0.1361	0.3069
Bow	um	0 to 50	2.1237	1.4869	0.1299	4.6110
Warp	um	0 to 50	6.9324	2.6320	3.2932	11.2568
LOT STATISTICAL SUMMARY						
Lot Number :	71137001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9952	0.0009	299.9936	299.9962
Thickness	um	750 to 800	774.9176	0.2198	774.5540	775.1780
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.7200	2.3544	0	10
TTV	um	0 to 25	0.2440	0.0475	0.1122	0.3197
Bow	um	0 to 50	1.0205	0.7358	0.1726	3.5086
Warp	um	0 to 50	4.9716	1.0259	3.3217	7.5575

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137001311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9964	0.0030	299.9934	300.0006
Thickness	um	750 to 800	774.7602	0.1617	774.4950	775.0990
Resistivity	Ohm-cm	1 to 100	12.8550	0.0556	12.8000	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	0.8000	1.2247	0	4
TTV	um	0 to 25	0.2075	0.0594	0.1125	0.3233
Bow	um	0 to 50	2.4914	0.9186	0.6824	4.0274
Warp	um	0 to 50	6.1925	1.2550	3.6457	8.9987
LOT STATISTICAL SUMMARY						
Lot Number :	71137001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9953	0.0028	299.9926	300.0006
Thickness	um	750 to 800	774.8584	0.4354	774.4410	775.9340
Resistivity	Ohm-cm	1 to 100	12.7184	0.2943	11.7900	12.9100
Particle @ 0.2um	ea/wafer	0 to 30	1.2400	1.4224	0	5
TTV	um	0 to 25	0.2397	0.0415	0.1490	0.3248
Bow	um	0 to 50	2.5525	1.1015	0.5785	5.0651
Warp	um	0 to 50	8.1313	2.2599	3.7835	12.5497
LOT STATISTICAL SUMMARY						
Lot Number :	71137035301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9987	0.0049	299.9929	300.0041
Thickness	um	750 to 800	773.0453	0.1302	772.6730	773.2410
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.7600	2.0265	0	7
TTV	um	0 to 25	0.2368	0.0383	0.1687	0.3134
Bow	um	0 to 50	1.1882	1.0899	0.0466	4.5375
Warp	um	0 to 50	7.9128	2.7995	4.5609	13.0345
LOT STATISTICAL SUMMARY						
Lot Number :	71137035302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0031	0.0009	300.0007	300.0041
Thickness	um	750 to 800	772.8886	0.1301	772.6920	773.0700
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	0.8800	1.0132	0	4
TTV	um	0 to 25	0.2333	0.0312	0.1431	0.2725
Bow	um	0 to 50	1.3607	1.1435	0.0436	3.3536
Warp	um	0 to 50	7.3760	2.5498	4.4490	11.8388



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137035303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0029	0.0016	300.0007	300.0040
Thickness	um	750 to 800	772.8674	0.1683	772.6440	773.0820
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.0400	1.3379	0	4
TTV	um	0 to 25	0.2520	0.0501	0.1716	0.3392
Bow	um	0 to 50	1.5004	0.7601	0.2242	2.8138
Warp	um	0 to 50	6.5877	1.2392	4.3801	8.3086
LOT STATISTICAL SUMMARY						
Lot Number :	71137035304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0029	0.0009	300.0020	300.0040
Thickness	um	750 to 800	772.8362	0.1394	772.6320	773.0430
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.6000	1.8484	0	8
TTV	um	0 to 25	0.2509	0.0432	0.1865	0.3969
Bow	um	0 to 50	1.5704	1.0345	0.0449	3.1992
Warp	um	0 to 50	7.2355	1.6454	4.6668	10.0586
LOT STATISTICAL SUMMARY						
Lot Number :	71137035305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0050	0.0013	300.0030	300.0069
Thickness	um	750 to 800	773.3864	0.5784	772.8860	774.4460
Resistivity	Ohm-cm	1 to 100	12.1086	0.2070	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	0.9200	1.2220	0	4
TTV	um	0 to 25	0.2656	0.0574	0.1115	0.3870
Bow	um	0 to 50	2.3552	1.4306	0.0691	5.0198
Warp	um	0 to 50	7.0598	1.3610	5.1668	9.4940
LOT STATISTICAL SUMMARY						
Lot Number :	71137035306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0032	0.0014	300.0020	300.0047
Thickness	um	750 to 800	772.8957	1.1836	772.1100	775.9930
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.6400	2.5962	0	12
TTV	um	0 to 25	0.2870	0.0449	0.2093	0.3812
Bow	um	0 to 50	1.4396	1.2765	0.0723	4.4060
Warp	um	0 to 50	7.8479	2.6988	4.4359	15.0935

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137035307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0051	0.0004	300.0048	300.0055
Thickness	um	750 to 800	772.3154	0.1917	772.1480	772.8260
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.7600	1.5078	0	6
TTV	um	0 to 25	0.2951	0.0387	0.2102	0.3573
Bow	um	0 to 50	1.1775	1.0248	0.0657	3.3032
Warp	um	0 to 50	6.7746	1.4998	4.8048	10.0239
LOT STATISTICAL SUMMARY						
Lot Number :	71137035308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0044	0.0004	300.0040	300.0048
Thickness	um	750 to 800	774.0251	1.6942	772.2400	775.7190
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.6800	3.2624	0	16
TTV	um	0 to 25	0.3365	0.0288	0.2853	0.4132
Bow	um	0 to 50	2.1095	1.3382	0.1284	4.0707
Warp	um	0 to 50	6.7472	1.4917	4.8346	10.5255
LOT STATISTICAL SUMMARY						
Lot Number :	71137035309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0050	0.0005	300.0046	300.0059
Thickness	um	750 to 800	774.0378	1.5486	772.2160	775.6570
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	0.9600	1.1719	0	5
TTV	um	0 to 25	0.3508	0.0624	0.2281	0.5099
Bow	um	0 to 50	1.2261	1.0414	0.0253	3.6622
Warp	um	0 to 50	7.4549	2.8954	4.3930	15.1430
LOT STATISTICAL SUMMARY						
Lot Number :	71137035310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0054	0.0012	300.0032	300.0076
Thickness	um	750 to 800	774.7980	1.1029	772.3230	775.7830
Resistivity	Ohm-cm	1 to 100	12.3102	0.5380	11.3300	13.2100
Particle @ 0.2um	ea/wafer	0 to 30	2.6400	3.3897	0	13
TTV	um	0 to 25	0.4094	0.1023	0.2326	0.6644
Bow	um	0 to 50	1.6384	1.1769	0.3420	4.1006
Warp	um	0 to 50	6.7612	1.9635	4.5928	10.8640

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71137035311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0016	0.0017	299.9998	300.0044
Thickness	um	750 to 800	775.4598	0.1964	775.0960	775.6720
Resistivity	Ohm-cm	1 to 100	12.3900	0.4142	11.9800	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	1.4800	3.0293	0	15
TTV	um	0 to 25	0.2988	0.0712	0.0948	0.4003
Bow	um	0 to 50	2.5355	1.0782	0.2918	5.4926
Warp	um	0 to 50	9.4959	2.4455	5.7882	15.0430
LOT STATISTICAL SUMMARY						
Lot Number :	71137035312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0059	299.9862	300.0044
Thickness	um	750 to 800	774.9431	1.9248	769.4640	775.7250
Resistivity	Ohm-cm	1 to 100	11.8301	1.5983	7.0350	12.8000
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	1.4911	0	6
TTV	um	0 to 25	0.3346	0.0406	0.2440	0.3996
Bow	um	0 to 50	2.6226	0.9846	0.2457	4.0776
Warp	um	0 to 50	8.9757	1.5842	6.4800	12.2010
LOT STATISTICAL SUMMARY						
Lot Number :	71137069309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9992	0.0053	299.9869	300.0086
Thickness	um	750 to 800	774.7346	0.5884	773.2030	775.2740
Resistivity	Ohm-cm	1 to 100	11.7305	1.7659	9.4650	20.2200
Particle @ 0.2um	ea/wafer	0 to 30	4.5600	5.2048	0	20
TTV	um	0 to 25	0.1846	0.0811	0.1008	0.4163
Bow	um	0 to 50	1.6117	2.1174	0.0571	8.2122
Warp	um	0 to 50	9.8611	3.3256	5.6368	17.7074
LOT STATISTICAL SUMMARY						
Lot Number :	71140001301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0016	0.0009	300.0005	300.0026
Thickness	um	750 to 800	775.0388	0.6438	773.9660	775.7580
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	2.3600	1.9339	0	7
TTV	um	0 to 25	0.2057	0.1159	0.0705	0.3703
Bow	um	0 to 50	2.9313	1.4249	1.4378	7.0976
Warp	um	0 to 50	9.1312	1.1710	7.2119	11.5062

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71140001303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0012	0.0014	299.9996	300.0026
Thickness	um	750 to 800	775.2707	0.1126	775.0940	775.4320
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	3.2400	4.5760	0	19
TTV	um	0 to 25	0.1676	0.0631	0.1140	0.2914
Bow	um	0 to 50	5.4706	1.6283	1.6002	7.5863
Warp	um	0 to 50	10.1585	1.5742	7.2385	12.7693
LOT STATISTICAL SUMMARY						
Lot Number :	71140001304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0025	0.0004	300.0018	300.0029
Thickness	um	750 to 800	774.6989	0.5349	774.0090	775.3130
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	1.2400	1.5885	0	6
TTV	um	0 to 25	0.2187	0.1098	0.1084	0.3788
Bow	um	0 to 50	4.8405	1.4852	1.7571	7.4018
Warp	um	0 to 50	8.4949	1.1239	6.0284	10.8175
LOT STATISTICAL SUMMARY						
Lot Number :	71140001305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0018	0.0001	300.0017	300.0019
Thickness	um	750 to 800	774.7814	0.5842	774.0030	775.5200
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	1.7200	1.5948	0	7
TTV	um	0 to 25	0.1988	0.0742	0.1068	0.3363
Bow	um	0 to 50	5.0723	1.3474	2.4081	8.6577
Warp	um	0 to 50	8.8948	1.4404	6.4592	12.5184
LOT STATISTICAL SUMMARY						
Lot Number :	71140001308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9978	0.0006	299.9972	299.9985
Thickness	um	750 to 800	775.3770	0.2102	774.9490	775.6320
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	1.8800	2.0273	0	7
TTV	um	0 to 25	0.1660	0.0141	0.1419	0.2014
Bow	um	0 to 50	4.5549	1.5208	0.5367	6.5432
Warp	um	0 to 50	8.3360	1.5394	4.9920	10.6250

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71140001309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9983	0.0005	299.9980	299.9994
Thickness	um	750 to 800	775.1742	0.2059	774.8540	775.7970
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	0.9600	1.2069	0	4
TTV	um	0 to 25	0.1980	0.0253	0.1363	0.2289
Bow	um	0 to 50	1.9620	1.9371	0.0178	6.8166
Warp	um	0 to 50	6.8384	2.2331	3.8874	11.5192
LOT STATISTICAL SUMMARY						
Lot Number :	71140001310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9987	0.0002	299.9981	299.9994
Thickness	um	750 to 800	775.0726	0.1723	774.8660	775.6390
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	1.2400	1.3626	0	5
TTV	um	0 to 25	0.2231	0.0248	0.1652	0.2810
Bow	um	0 to 50	1.6489	1.7597	0.0371	7.4416
Warp	um	0 to 50	7.2010	2.0427	4.1029	10.7757
LOT STATISTICAL SUMMARY						
Lot Number :	71140001312					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9982	0.0002	299.9981	299.9992
Thickness	um	750 to 800	775.1035	0.0893	774.8500	775.2220
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	0.7200	1.0214	0	4
TTV	um	0 to 25	0.2252	0.0780	0.1268	0.3410
Bow	um	0 to 50	3.1016	2.3690	0.0886	6.6312
Warp	um	0 to 50	9.0448	0.8682	7.5596	10.4280
LOT STATISTICAL SUMMARY						
Lot Number :	71140001314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9993	0.0002	299.9991	299.9995
Thickness	um	750 to 800	775.1728	0.1106	775.0810	775.4950
Resistivity	Ohm-cm	1 to 100	9.4350	0.9243	8.5200	10.3500
Particle @ 0.2um	ea/wafer	0 to 30	1.1600	1.7000	0	8
TTV	um	0 to 25	0.1701	0.0188	0.1444	0.2084
Bow	um	0 to 50	1.4480	0.8220	0.0506	2.7366
Warp	um	0 to 50	8.4251	1.2111	6.6157	10.7050

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71141096301					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9932	0.0007	299.9926	299.9939
Thickness	um	750 to 800	774.9264	0.4608	774.3310	775.4530
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.3200	1.6258	0	6
TTV	um	0 to 25	0.2956	0.0298	0.2506	0.3574
Bow	um	0 to 50	4.8616	1.0760	3.0494	6.5111
Warp	um	0 to 50	8.6893	1.4628	6.1823	11.3473
LOT STATISTICAL SUMMARY						
Lot Number :	71141096302					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9957	0.0007	299.9937	299.9964
Thickness	um	750 to 800	774.9982	0.4197	774.3730	775.4110
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.5200	3.1901	0	15
TTV	um	0 to 25	0.2709	0.0766	0.1141	0.4278
Bow	um	0 to 50	6.1958	1.8027	0.0773	8.5631
Warp	um	0 to 50	10.6897	2.1887	5.0409	14.1112
LOT STATISTICAL SUMMARY						
Lot Number :	71141096303					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9949	0.0020	299.9937	299.9983
Thickness	um	750 to 800	775.2182	0.2924	774.8240	775.8520
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.7600	1.5078	0	6
TTV	um	0 to 25	0.1923	0.1342	0.0528	0.3676
Bow	um	0 to 50	3.8641	2.6360	0.4918	8.8371
Warp	um	0 to 50	8.2381	1.8461	5.6131	13.2151
LOT STATISTICAL SUMMARY						
Lot Number :	71141096304					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9960	0.0020	299.9925	299.9983
Thickness	um	750 to 800	775.6009	0.3196	775.1680	776.0860
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	4.4400	6.3448	0	24
TTV	um	0 to 25	0.1004	0.0240	0.0524	0.1476
Bow	um	0 to 50	5.7915	2.6944	1.4550	8.9626
Warp	um	0 to 50	9.7444	2.3835	5.3995	13.3250

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71141096305					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9940	0.0010	299.9925	299.9948
Thickness	um	750 to 800	773.7935	1.4335	772.5460	776.0480
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.5200	1.8055	0	6
TTV	um	0 to 25	0.1326	0.0297	0.0960	0.2248
Bow	um	0 to 50	5.2899	2.6982	1.5286	8.7976
Warp	um	0 to 50	8.5652	2.3992	4.8362	12.0771
LOT STATISTICAL SUMMARY						
Lot Number :	71141096306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9956	0.0010	299.9943	299.9969
Thickness	um	750 to 800	775.5259	0.5745	774.5240	775.9500
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	2.0400	2.2818	0	8
TTV	um	0 to 25	0.1414	0.0764	0.0678	0.3006
Bow	um	0 to 50	5.1601	1.1118	3.1751	7.2496
Warp	um	0 to 50	8.1214	1.5565	5.6354	10.7341
LOT STATISTICAL SUMMARY						
Lot Number :	71141096307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9953	0.0011	299.9939	299.9969
Thickness	um	750 to 800	775.0234	0.6841	774.3110	776.1450
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	0.8800	1.2689	0	4
TTV	um	0 to 25	0.2701	0.1141	0.0994	0.4453
Bow	um	0 to 50	5.8932	1.7172	2.8690	8.2598
Warp	um	0 to 50	8.9352	1.8812	5.2138	11.5297
LOT STATISTICAL SUMMARY						
Lot Number :	71141096308					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9954	0.0034	299.9921	299.9993
Thickness	um	750 to 800	775.6773	0.4854	775.0620	776.3050
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.4000	1.4434	0	5
TTV	um	0 to 25	0.2049	0.1073	0.0929	0.3705
Bow	um	0 to 50	5.7597	1.3464	0.5611	7.7247
Warp	um	0 to 50	8.9662	1.1979	5.9169	11.4240

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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71141096309					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9949	0.0005	299.9943	299.9954
Thickness	um	750 to 800	775.1969	0.1284	774.8390	775.3890
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.2400	1.3317	0	4
TTV	um	0 to 25	0.2582	0.0523	0.1567	0.3386
Bow	um	0 to 50	4.5308	0.7501	3.1278	5.7275
Warp	um	0 to 50	8.1137	0.9319	6.3199	9.9727
LOT STATISTICAL SUMMARY						
Lot Number :	71141096310					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9975	0.0040	299.9933	300.0019
Thickness	um	750 to 800	774.9626	0.1888	774.7170	775.4740
Resistivity	Ohm-cm	1 to 100	9.7013	1.0190	8.5200	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	0.9600	1.1719	0	5
TTV	um	0 to 25	0.2185	0.0927	0.0998	0.3326
Bow	um	0 to 50	4.2225	1.3778	1.3768	6.2980
Warp	um	0 to 50	8.4008	2.8296	3.4098	15.1796
LOT STATISTICAL SUMMARY						
Lot Number :	71141096311					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9967	0.0037	299.9929	300.0003
Thickness	um	750 to 800	776.0448	0.3066	775.5120	776.5050
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.7200	1.5144	0	5
TTV	um	0 to 25	0.1103	0.0174	0.0796	0.1480
Bow	um	0 to 50	5.5357	0.8005	2.4987	6.5822
Warp	um	0 to 50	9.6905	1.7020	7.2373	12.3803
LOT STATISTICAL SUMMARY						
Lot Number :	71141096313					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9965	0.0012	299.9954	299.9985
Thickness	um	750 to 800	775.6233	0.4992	775.0260	776.4720
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	1.0400	1.4283	0	5
TTV	um	0 to 25	0.2067	0.1219	0.0555	0.3760
Bow	um	0 to 50	5.0645	0.8043	3.9811	7.3862
Warp	um	0 to 50	8.2003	1.2579	6.5150	11.9937



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Part Number : 12PW002ZS Delivery Number : S201710130002

LOT STATISTICAL SUMMARY						
Lot Number :	71141096314					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9960	0.0029	299.9934	299.9996
Thickness	um	750 to 800	774.8262	0.3515	774.2350	775.4100
Resistivity	Ohm-cm	1 to 100	9.9105	1.0400	8.8810	10.9400
Particle @ 0.2um	ea/wafer	0 to 30	0.8400	1.5460	0	7
TTV	um	0 to 25	0.2966	0.0266	0.2447	0.3365
Bow	um	0 to 50	3.7471	0.9275	2.0983	5.5900
Warp	um	0 to 50	9.1969	3.1966	6.4009	17.5955
LOT STATISTICAL SUMMARY						
Lot Number :	701230C0306					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0002	0.0034	299.9929	300.0112
Thickness	um	750 to 800	774.7675	0.3007	774.3640	775.2900
Resistivity	Ohm-cm	1 to 100	8.4498	0.9903	6.8890	10.2100
Particle @ 0.2um	ea/wafer	0 to 30	6.7600	7.8171	0	27
TTV	um	0 to 25	0.1604	0.0880	0.0853	0.4388
Bow	um	0 to 50	3.7073	1.9113	0.4494	8.3223
Warp	um	0 to 50	9.7307	4.7998	4.3007	29.7607
LOT STATISTICAL SUMMARY						
Lot Number :	702300F6320					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	299.9944	0.0066	299.9854	300.0033
Thickness	um	750 to 800	772.2012	2.5195	769.3660	775.1590
Resistivity	Ohm-cm	1 to 100	9.6482	1.9483	7.0350	11.9400
Particle @ 0.2um	ea/wafer	0 to 30	3.7200	5.8632	0	29
TTV	um	0 to 25	0.2390	0.0763	0.1454	0.4260
Bow	um	0 to 50	2.7894	1.5013	0.3569	7.0807
Warp	um	0 to 50	9.8440	4.2481	5.3544	23.5720
LOT STATISTICAL SUMMARY						
Lot Number :	702340B5307					
Parameter	UOM	Customer Spec	Average	Standard Deviation	Minimum	Maximum
Diameter	mm	299.8 to 300.2	300.0016	0.0046	299.9934	300.0096
Thickness	um	750 to 800	774.5281	0.8330	772.4890	775.4820
Resistivity	Ohm-cm	1 to 100	11.0281	2.7389	9.3920	20.2200
Particle @ 0.2um	ea/wafer	0 to 30	4.3600	2.8850	0	11
TTV	um	0 to 25	0.1846	0.0566	0.0525	0.3002
Bow	um	0 to 50	1.9546	1.2804	0.0682	4.2906
Warp	um	0 to 50	8.2784	1.8963	5.0370	13.3331