報告編號
Report No.： RT08A64

產品承認報告
PRODUCT QUALIFICATION REPORT

Description : 外製成品

Supplier: N

TXC P/N : 6V12000045(第二次)

Conclusion: ☑ Conditional Approval ☐ Full Approval ☐ Reject

Major Issue:
1.PKG辨識角NG(規格斜角,實物圓角)
2.Date Code爲5月份生產產品,與前次(2008/7/7送樣同Marking)
Minor Issue:
1. 拉力NG(規格20~80gms,實測40~100gms)

RA :
PASS

EVALUATED BY *Rita Wu*

APPROVED BY : *Y.H. Huang*

ISSUED DATE : **17-Nov-08**

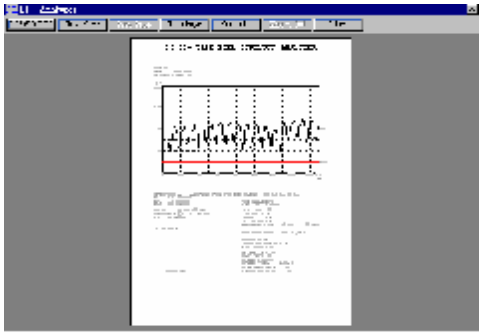
Supplier: N TXC P/N : 6V12000045(第二次)

	CARRIER長	CARRIER寬	CARRIER高	CARRIER帶寬	Bar Code標籤	MARKING	粗細漏測試
規格	6.35±0.1	3.85±0.1	1.40±0.1	12.000	N/A	OK	OK
實測	6.35	3.94	1.4	12.02			
判定	OK	OK	OK	OK			

	SAMPLE長	SAMPLE寬	SAMPLE高	BLANK尺寸	銀面尺寸	拉力測試	推力測試
規格	6.00±0.15	3.50±0.15	1.00±0.15	1.7816*3.9850	1.3294*2.8343	NG	N/A
實測	6.01	3.46	1.07			IR Reflow	Drop Test
判定	OK	OK	OK			OK	OK

	電測	溫測	備註
判定	OK	OK	1.PKG NG(規格斜角,實物圓腳) 2.Date Code爲5月份生產產品,與前次(2008/7/7送樣同Marking)

Taping拉力



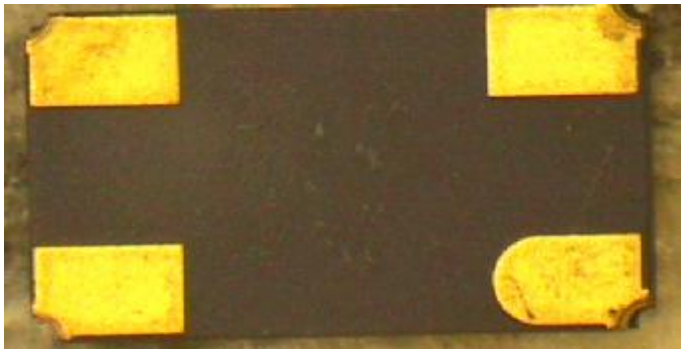
MARKING



PKG



銀面

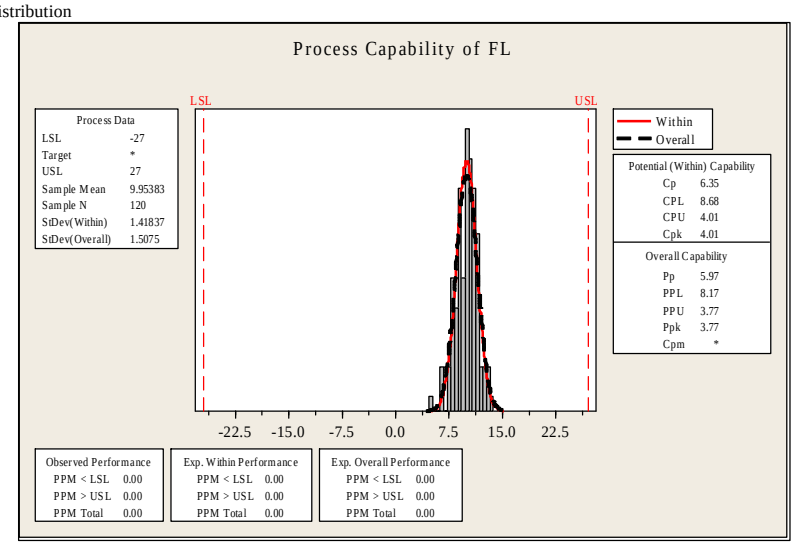


INITIAL ELECTRICAL TEST

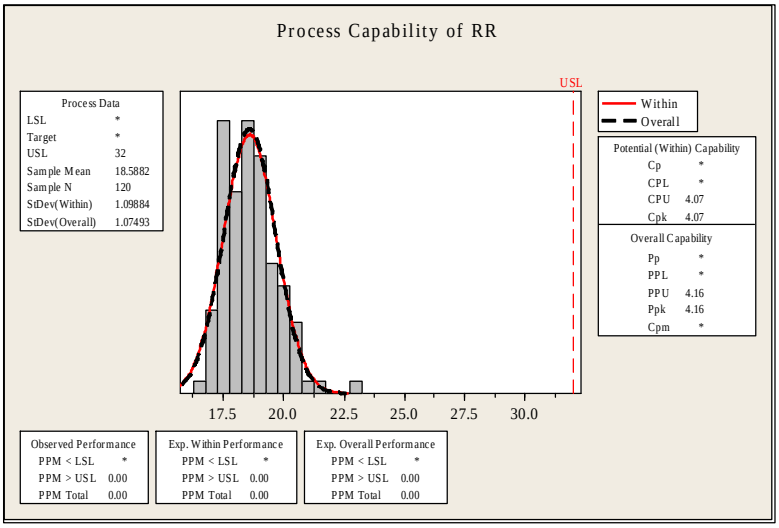
TEST RESULT **OK**

ITEM	FL Tol	RR	C0	C1	L	C0/C1	DLD2	FLD2	RLD2	SPDB	Q	TS
	ppm	Ohms	pF	fF	mH		Ohms	ppm	ohms	db	k	ppm/pF
USL	27	32	5	N/A	N/A	N/A	10	10	N/A	-3	N/A	N/A
LSL	-27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	N/A
Max.	13.51	23.08	1.74	4.46	42.27	411.51	6.00	6.20	24.73	-20.87	180.61	4.73
Min.	4.94	16.68	1.63	4.16	39.41	377.45	0.61	0.74	17.03	-9999.00	134.57	4.42
Mean	9.95	18.59	1.71	4.31	40.82	396.41	1.10	1.10	19.62	-9915.85	166.05	4.57
STD	1.50	1.07	0.01	0.08	0.72	7.61	0.65	0.53	1.36	910.87	8.66	0.08
CPK	3.78	4.17	NA	NA	NA	N/A	4.57	5.55	NA	NA	NA	NA

Frequency Distribution



RR Distribution



EXCEL EXPORT PRINTOUT FORMAT
Run Name 6V12000045

Run Date : 11-¤Q¤@¤ê-2008 5:25 pm
S&A 250B: 9.60 Report: 4.62
Descriptio‹ 6V12000045-N

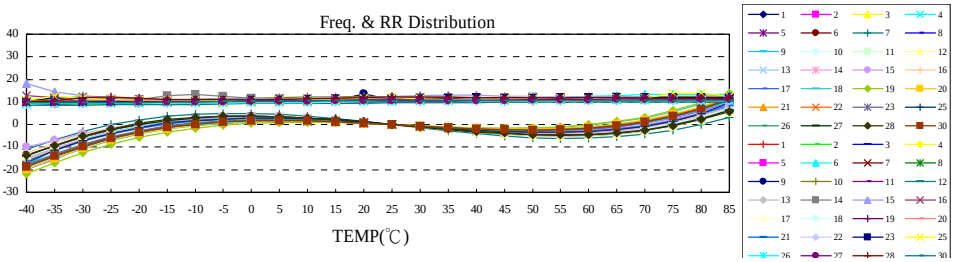
Reference 12000000 (Using Measured FL)
Power: 100.00 uW Into 16.0 ohms
PL: No Load CL: 20.00 pF

ITEM	FR	FL	FL Tol	RR	C0	C1	L	C0/C1	DLD2	FLD2	RLD2	SPDB	Q	TS
	PPM	HZ	ppm	Ohms	pF	fF	mH		Ohms	ppm	ohms	db	k	ppm/pF
	USL		27	32	5	N/A	N/A	N/A	10	10	N/A	-3	N/A	N/A
	LSL		-27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA	NA
Max.	-85.69	12000162.10	13.51	23.08	1.74	4.46	42.27	411.51	6.00	6.20	24.73	-20.87	180.61	4.73
Min.	-97.14	12000059.23	4.94	16.68	1.63	4.16	39.41	377.45	0.61	0.74	17.03	-9999.00	134.57	4.42
AVG	-90.66	12000119.44	9.95	18.59	1.71	4.31	40.82	396.41	1.10	1.10	19.62	-9915.85	166.05	4.57
STD	2.32	18.05	1.50	1.07	0.01	0.08	0.72	7.61	0.65	0.53	1.36	910.87	8.66	0.08
CPK	NA	NA	3.78	4.17	NA	NA	NA	N/A	4.57	5.55	NA	NA	NA	NA
#1	-94.64	12000097.97	8.16	17.69	1.73	4.44	39.65	390.57	2.57	1.12	20.53	-9999.00	168.98	4.70
#2	-89.80	12000102.75	8.56	18.30	1.71	4.21	41.82	405.58	1.06	0.90	19.21	-9999.00	172.31	4.46
#3	-93.89	12000122.36	10.20	20.11	1.74	4.46	39.41	389.58	1.32	1.77	21.80	-9999.00	147.73	4.72
#4	-88.88	12000119.58	9.96	18.79	1.72	4.23	41.58	405.40	1.05	1.03	19.75	-9999.00	166.79	4.49
#5	-87.90	12000113.08	9.42	19.56	1.71	4.17	42.22	410.29	0.97	1.00	20.44	-9999.00	162.77	4.42
#6	-88.68	12000134.58	11.22	18.52	1.73	4.28	41.11	404.86	1.07	0.85	19.50	-9999.00	167.30	4.53
#7	-90.39	12000102.39	8.53	20.38	1.73	4.23	41.57	408.12	0.87	1.31	21.08	-9999.00	153.77	4.48
#8	-90.30	12000127.49	10.62	17.32	1.72	4.32	40.70	397.86	0.94	0.75	18.17	-9999.00	177.19	4.58
#9	-87.72	12000117.47	9.79	18.90	1.70	4.18	42.11	407.41	0.95	0.98	19.81	-9999.00	167.99	4.44
#10	-92.93	12000115.03	9.59	18.87	1.70	4.39	40.09	386.49	1.18	1.05	19.87	-9999.00	160.12	4.66
#11	-88.67	12000136.77	11.40	18.13	1.71	4.28	41.12	399.43	0.89	0.85	18.90	-9999.00	170.95	4.54
#12	-89.07	12000120.40	10.03	20.27	1.73	4.25	41.44	406.87	2.62	2.07	23.19	-9999.00	154.16	4.50
#13	-88.67	12000130.40	10.87	18.71	1.73	4.26	41.26	405.34	1.71	0.92	19.03	-9999.00	166.26	4.52
#14	-91.36	12000125.54	10.46	18.34	1.72	4.36	40.37	394.62	0.95	0.82	19.20	-9999.00	165.98	4.62
#15	-88.17	12000154.66	12.89	18.99	1.72	4.34	40.56	396.43	1.28	1.21	20.23	-9999.00	160.98	4.60
#16	-88.18	12000139.49	11.62	17.72	1.72	4.26	41.31	403.46	1.57	1.15	19.59	-9999.00	175.72	4.51
#17	-89.99	12000124.33	10.36	20.45	1.72	4.30	40.88	398.63	1.19	1.43	21.85	-9999.00	150.70	4.56
#18	-90.63	12000102.98	8.58	18.40	1.71	4.24	41.48	403.59	1.18	0.92	19.43	-9999.00	169.98	4.50
#19	-94.49	12000092.16	7.68	18.00	1.71	4.37	40.25	391.67	1.20	0.94	19.06	-9999.00	168.61	4.64
#20	-86.18	12000162.10	13.51	18.36	1.71	4.27	41.25	401.97	6.00	6.20	24.69	-9999.00	169.41	4.52
#21	-87.48	12000135.31	11.28	19.33	1.71	4.22	41.66	404.71	0.81	1.05	19.94	-9999.00	162.51	4.48
#22	-89.95	12000151.21	12.60	17.77	1.72	4.39	40.11	392.43	0.62	0.88	18.31	-9999.00	170.21	4.65
#23	-93.68	12000105.81	8.82	17.03	1.72	4.39	40.12	391.24	0.78	0.82	17.85	-9999.00	177.61	4.65
#24	-90.30	12000100.13	8.34	18.69	1.72	4.22	41.68	407.98	0.91	0.85	19.54	-9999.00	168.15	4.47
#25	-88.65	12000152.04	12.67	18.68	1.71	4.34	40.53	394.81	0.92	1.05	19.46	-9999.00	163.63	4.60
#26	-86.10	12000145.52	12.13	19.66	1.72	4.21	41.81	408.19	1.07	1.09	20.50	-9999.00	160.31	4.46
#27	-92.52	12000110.40	9.20	18.86	1.73	4.36	40.34	396.22	0.99	1.12	19.88	-9999.00	161.21	4.62
#28	-91.71	12000098.56	8.21	18.78	1.72	4.27	41.16	403.10	1.00	1.19	19.86	-9999.00	165.21	4.53
#29	-88.76	12000123.01	10.25	18.05	1.72	4.27	41.20	402.81	0.88	0.89	18.82	-9999.00	172.10	4.53
#30	-87.14	12000131.58	10.96	18.46	1.70	4.21	41.83	405.26	0.90	0.98	19.24	-9999.00	170.86	4.46
#31	-97.14	12000059.23	4.94	18.88	1.70	4.38	40.21	389.50	1.14	1.03	19.75	-9999.00	160.61	4.64
#32	-95.59	12000075.06	6.25	17.54	1.69	4.36	40.35	387.10	1.03	0.99	18.29	-9999.00	173.45	4.64
#33	-92.91	12000109.68	9.14	17.20	1.71	4.37	40.22	390.14	0.64	0.89	17.82	-9999.00	176.30	4.64
#34	-91.62	12000095.37	7.95	19.04	1.70	4.26	41.33	398.74	0.84	1.05	19.62	-9999.00	163.69	4.52
#35	-88.80	12000128.99	10.75	23.08	1.73	4.27	41.20	404.28	1.33	2.14	24.73	-9999.00	134.57	4.52
#36	-86.63	12000125.38	10.45	20.08	1.71	4.16	42.25	411.51	1.27	1.27	21.46	-9999.00	158.61	4.42
#37	-94.95	12000094.02	7.83	17.20	1.69	4.40	39.99	384.77	0.89	0.81	17.92	-9999.00	175.30	4.67
#38	-89.41	12000108.27	9.02	19.43	1.70	4.23	41.62	403.18	0.90	1.12	20.51	-20.87	161.52	4.49
#39	-92.05	12000122.50	10.21	17.66	1.72	4.38	40.16	391.76	0.84	0.77	18.43	-9999.00	171.42	4.64
#40	-93.13	12000118.80	9.90	17.30	1.72	4.41	39.92	390.03	0.75	0.78	17.89	-9999.00	173.99	4.67
#41	-90.45	12000134.69	11.22	19.73	1.69	4.36	40.38	388.19	0.94	1.17	19.94	-9999.00	154.32	4.63
#42	-91.39	12000132.15	11.01	17.29	1.70	4.38	40.17	387.94	0.86	0.86	18.12	-9999.00	175.21	4.65
#43	-92.36	12000122.05	10.17	17.21	1.70	4.38	40.16	388.85	0.90	0.82	17.54	-9999.00	175.93	4.65
#44	-90.70	12000140.47	11.71	18.05	1.71	4.39	40.10	388.77	0.97	0.93	18.82	-9999.00	167.48	4.66
#45	-91.77	12000089.97	7.50	19.99	1.70	4.25	41.38	399.30	0.90	1.15	20.62	-9999.00	156.05	4.52
#46	-94.74	12000105.30	8.77	17.26	1.71	4.42	39.79	386.01	0.79	0.91	17.95	-9999.00	173.82	4.69
#47	-89.68	12000108.88	9.07	20.31	1.69	4.24	41.53	399.24	1.13	1.27	21.59	-9999.00	154.20	4.50
#48	-92.23	12000119.07	9.92	18.70	1.71	4.37	40.25	390.83	1.19	0.98	19.95	-9999.00	162.24	4.64
#49	-89.69	12000123.58	10.30	19.92	1.70	4.28	41.11	396.22	1.61	1.17	21.18	-9999.00	155.59	4.55
#50	-89.18	12000154.50	12.88	18.63	1.71	4.37	40.25	392.09	0.66	1.01	19.10	-9999.00	162.88	4.64
#51	-90.68	12000105.29	8.77	19.85	1.72	4.27	41.23	402.07	0.87	1.09	20.62	-9999.00	156.58	4.52
#52	-91.26	12000126.47	10.54	18.39	1.72	4.39	40.11	392.37	0.96	0.93	19.12	-9999.00	164.47	4.65
#53	-90.93	12000093.54	7.80	18.98	1.72	4.23	41.58	406.22	1.18	0.93	20.10	-9999.00	165.16	4.49
#54	-90.16	12000108.81	9.07	18.12	1.71	4.26	41.33	401.16	0.82	0.93	18.93	-9999.00	171.93	4.52
#55	-91.62	12000140.92	11.74	19.99	1.71	4.43	39.72	386.72	0.90	1.21	20.60	-9999.00	149.81	4.70
#56	-88.06	12000124.47	10.37	17.59	1.71	4.22	41.74	406.66	0.88	0.88	18.38	-9999.00	178.93	4.47
#57	-88.62	12000130.85	10.90	19.06	1.70	4.27	41.23	399.37	0.75	1.30	19.92	-9999.00	163.11	4.53
#58	-95.00	12000096.47	8.04	17.25	1.72	4.42	39.85	389.99	1.25	1.30	18.64	-9999.00	174.12	4.68
#59	-92.21	12000122.03	10.17	17.38	1.72	4.38	40.13	392.62	1.26	0.97	18.53	-9999.00	174.12	4.65
#60	-90.78	12000108.96	9.08	18.05	1.71	4.27	41.21	401.24	1.02	1.04	19.44	-9999.00	172.13	4.53
#61	-91.93	12000118.99	9.92	19.39	1.72	4.37	40.30	393.15	1.42	1.21	21.13	-9999.00	156.66	4.63
#62	-89.66	12000119.04	9.92	19.00	1.72	4.27	41.23	402.23	0.87	1.03	19.79	-9999.00	163.63	4.52
#63	-94.28	12000096.14	8.01	17.80	1.71	4.38	40.17	390.76	0.91	0.90	18.65	-9999.00	170.10	4.65
#64	-92.75	12000114.48	9.54	17.69	1.70	4.38	40.19	388.99	0.97	0.95	18.76	-9999.00	171.33	4.65
#65	-90.18	12000117.45	9.79	17.45	1.71	4.27	41.18	399.76	0.86	0.82	18.11	-9999.00	177.89	4.53
#66	-88.39	12000132.30	11.03	20.09	1.71	4.28	41.14	399.89	1.09	1.27	20.99	-9999.00	154.42	4.54
#67	-90.88	12000130.42	10.87	17.66	1.73	4.39	40.07	393.67	1.08	0.90	18.65	-9999.00	171.05	4.65
#68	-90.10	12000121.75	10.15	20.32	1.69	4.30	40.96	394.40	0.98	1.33	21.05	-9999.00	151.94	4.56
#69	-88.83	12000123.48	10.29	17.88	1.73	4.28	41.09	404.47	0.61	0.95	18.65	-9999.00	173.26	4.53
#70	-91.01	12000114.15	9.51	17.97	1.70	4.31	40.85	394.28	0.81	0.85	18.92	-9999.00	171.36	4.57
#71	-92.39	12000086.96	7.25	18.83	1.69	4.27	41.22	396.15	0.97	1.00	19.61	-9999.00	164.99	4.54
#72	-89.43	12000107.76	8.98	18.26	1.71	4.21	41.76	404.73	0.92	0.97	19.11	-9999.00	172.40	4.47
#73	-88.99	12000124.64	10.39	18.07	1.71	4.26	41.32	400.67	0.90	0.92	18.99	-9999.00	172.43	4.52
#74	-93.49	12000104.05	8.67	17.82	1.71	4.38	40.17	389.57	0.88	0.95	18.61	-9999.00	169.98	4.65
#75	-91.96	12000110.85	9.24	16.95	1.70	4.33	40.59	391.58	0.97	0.96	17.89	-9999.00	180.47	4.60
#76	-91.32	12000124.96	10.41	18.07	1.69	4.37	40.29	387.35	0.83	1.03	18.80	-9999.00	168.15	4.64
#77	-89.68	12000117.68	9.81	18.61	1.72	4.26	41.30	404.89	1.06	0.97	19.39	-9999.00	167.29	4.51
#78	-89.12	12000123.99	10.33	19.05	1.70	4.24	41.52	401.68	0.99	1.95	20.34	-9999.00	164.33	4.50
#79	-89.98	12000136.31	11.36	20.39	1.71	4.35	40.49	393.46	0.98	1.39	21.58	-9999.00	149.69	4.61
#80	-93.80	12000115.13	9.59	17.30	1.72	4.42	39.83	388.46	0.72	0.84	17.79	-9999.00	173.62	4.68
#81	-90.74	12000114.80	9.57	18.39	1.72	4.30	40.96	401.33	1.10	0.97	19.44	-9999.00	167.88	4.55
#82	-92.96	12000077.51	6.46	18.46	1.70	4.26	41.31	399.31	0.73	0.87	18.94	-9999.00	168.65	4.52
#83	-89.90	12000152.20	12.68	18.53	1.72	4.39	40.06	391.31	0.92	0.99	19.35	-9999.00	162.99	4.65
#84	-93.33	12000105.09	8.76	19.26	1.71	4.37	40.24	389.98	1.00	1.19	20.58	-9999.00	157.49	4.64
#85	-87.70	12000123.81	10.32	19.84	1.70	4.20	41.90	406.06	0.93	1.13	20.90	-9999.00	159.24	4.46
#86	-90.77	12000137.53	11.46	17.52	1.69	4.38	40.16	385.68	0.92	0.89	18.35	-9999.00	172.86	4.66
#87	-92.56	12000130.09	10.84	18.01	1.69	4.43	39.73	382.37	1.10	0.98	18.90	-9999.00	166.33	4.70
#88	-91.44	12000078.22	6.52	18.08	1.71	4.20	41.87	406.21	1.19	0.91	19.06	-9999.00	174.55	4.46
#89	-87.93	12000113.53	9.46	17.61	1.69	4.17	42.20	404.69	0.81	0.74	18.46	-9999.00	180.61	4.43
#90	-87.75	12000136.65	11.39	19.41	1.71	4.24	41.45	401.88	0.99	1.13	20.14	-9999.00	160.97	4.50
#91	-89.88	12000123.90	10.33	17.49	1.71	4.28	41.08	399.49	0.93	0.89	18.32	-9999.00	177.07	4.54
#92	-90.36	12000109.08	9.09	18.57	1.68	4.27	41.22	394.04	1.25	0.97	19.65	-9999.00	167.36	4.54
#93	-91.81	12000121.41	10.12	17.47	1.71	4.37	40.24	390.00	0.89	0.94	18.38	-9999.00	173.61	4.64
#94	-88.17	12000124.53	10.38	18.59	1.73	4.26	41.31	406.28	0.95	0.91	19.43	-9999.00	167.54	4.51
#95	-93.83	12000111.66	9.31	17.61	1.70	4.41	39.87	385.60	1.08	0.90	18.54	-9999.00	170.67	4.69
#96	-92.40	12000107.81	8.98	17.20	1.72	4.35	40.44	396.10	0.78	0.88	18.09	-9999.00	177.23	4.61
#97	-90.02	12000129.78	10.82	19.13	1.72	4.31	40.78	399.58	1.28	1.16	20.25	-9999.00	160.70	4.57
#98	-88.78	12000128.27	10.69	18.64	1.71	4.26	41.27	400.55	0.90	0.90	19.53	-9999.00	166.93	4.52
#99	-90.49	12000138.66	11.55	18.68	1.70	4.38	40.20	388.24	0.98	1.10	19.61	-9999.00	162.27	4.65
#100	-85.69	12000155.22	12.94	17.92	1.71	4.23	41.55	403.16	0.92	0.87	18.84	-9999.00	174.84	4.49
#101	-86.85	12000141.47	11.79	18.75	1.69	4.22	41.66	400.85	0.92	0.99	19.62	-9999.00	167.52	4.49
#102	-92.27	12000121.05	10.09	17.31	1.67	4.40	39.99	378.61	1.06	0.81	18.35	-9999.00	174.13	4.69
#103	-93.36	12000129.10	10.76	16.68	1.70	4.45	39.53	382.56	0.65	0.81	17.03	-9999.00	178.60	4.73
#104	-90.03	12000098.82	8.23	18.93	1.70	4.22	41.73	403.94	0.89	1.09	19.74	-9999.00	166.19	4.48
#105	-90.29	12000118.24	9.85	19.51	1.63	4.28	41.07	380.89	0.99	1.16	20.78	-9999.00	158.73	4.58
#106	-89.31	12000117.08	9.76	18.77	1.68	4.25	41.41	394.62	0.66	1.03	19.35	-9999.00	166.27	4.52
#107	-87.88	12000137.03	11.42	18.53	1.70	4.25	41.40	399.18	0.95	0.98	19.33	-9999.00	168.50	4.51
#108	-92.39	12000133.65	11.14	21.65	1.72	4.44	39.63	387.04	0.68	1.66	22.64	-9999.00	138.03	4.71
#109	-93.62	12000105.51	8.79	19.49	1.70	4.38	40.12	387.80	1.04	1.16	20.39	-9999.00	155.19	4.66
#110	-91.91	12000124.14	10.35	17.52	1.72	4.37	40.24	392.42	1.34	0.92	19.09	-9999.00	173.15	4.64
#111	-89.63	12000119.67	9.97	19.24	1.70	4.26	41.30	399.19	0.97	1.18	20.51	-9999.00	161.84	4.52
#112	-93.40	12000100.91	8.41	17.10	1.71	4.36	40.35	392.28	1.01	0.85	17.95	-9999.00	177.90	4.63
#113	-90.43	12000146.48	12.21	17.48	1.71	4.39	40.09	389.00	1.83	1.01	19.44	-9999.00	172.92	4.66
#114	-94.53	12000102.98	8.58	19.51	1.72	4.43	39.74	387.59	1.19	1.22	20.51	-9999.00	153.55	4.69
#115	-85.73	12000136.75	11.40	19.02	1.69	4.16	42.27	406.91	1.48	1.21	20.86	-9999.00	167.55	4.42
#116	-91.08	12000134.51	11.21	19.80	1.71	4.38	40.18	391.32	1.64	1.03	19.70	-9999.00	152.96	4.64
#117	-88.69	12000114.74	9.56	18.83	1.70	4.20	41.85	403.79	0.67	1.05	19.36	-9999.00	167.54	4.46
#118	-95.22	12000095.12	7.93	18.40	1.67	4.42	39.77	377.45	4.94	2.10	23.68	-9999.00	162.99	4.71
#119	-88.66	12000140.31	11.69	17.84	1.71	4.31	40.86	397.03	1.01	0.94	18.83	-9999.00	172.69	4.57
#120	-88.63	12000134.55	11.21	20.93	1.72	4.28	41.14	403.04	1.04	1.29	21.94	-9999.00	148.16	4.53

FREQUENCY vs. TEMPERATURE TEST

SAMPLE SIZE : 30 PCS (No. 1 ~ No. 30)
TEST DATE : 14-Nov-08
CRITERIA : -10 ℃ ~ 70 ℃ LESS THAN ± 30 **PPM** 32 **Ω**

TEST RESULT : **PASS**



MEASURED DATA

UNIT : PPM

TEMPERATURE FREQUENCY. TEST

No. \ ℃	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
1	-18.7	-14.1	-9.8	-6.3	-3.4	-1.2	0.2	1.2	1.7	1.9	1.6	1.3	0.7	0.0	-0.8	-1.5	-2.1	-2.5	-2.7	-2.5	-1.9	-0.8	0.9	3.3	6.5	10.4
2	-18.0	-13.5	-9.3	-5.8	-3.1	-0.9	0.5	1.4	2.0	2.1	1.8	1.3	0.7	0.0	-0.8	-1.6	-2.5	-2.6	-2.9	-2.7	-2.2	-1.2	0.5	2.9	6.1	10.0
3	-15.8	-11.3	-7.4	-4.0	-1.5	0.4	1.7	2.5	2.9	2.9	2.4	1.8	0.9	0.0	-1.0	-1.9	-2.7	-3.3	-3.8	-3.9	-3.5	-2.6	-1.2	1.0	3.9	7.4
4	-18.4	-13.9	-9.6	-6.1	-3.4	-1.2	0.2	1.3	1.8	1.9	1.7	1.3	0.7	0.0	-0.7	-1.4	-2.1	-2.6	-2.8	-2.6	-2.0	-0.9	0.7	3.1	6.3	10.2
5	-18.3	-13.7	-9.5	-6.0	-3.4	-1.2	0.2	1.1	1.7	1.7	1.5	1.2	0.6	0.0	-0.7	-1.4	-2.0	-2.4	-2.4	-2.2	-1.6	-0.5	1.3	3.8	7.1	11.0
6	-13.7	-9.5	-5.6	-2.4	-0.1	1.7	2.8	3.5	3.6	3.4	2.8	2.0	1.1	0.0	-1.2	-2.2	-3.3	-4.1	-4.7	-4.9	-4.8	-4.1	-2.7	-0.3	2.7	6.4
7	-11.0	-6.8	-3.0	-0.1	2.1	3.7	4.6	4.9	4.9	4.5	3.6	2.6	1.3	0.0	-1.4	-2.8	-4.0	-5.1	-5.8	-6.1	-5.9	-5.5	-4.3	-2.5	-0.1	3.2
8	-19.9	-15.2	-10.1	-6.5	-3.8	-1.8	-0.4	0.7	1.4	1.7	1.6	1.2	0.7	0.0	-0.8	-1.3	-1.9	-2.1	-2.1	-1.8	-1.2	-0.1	1.7	4.2	7.4	11.4
9	-17.9	-11.2	-7.2	-4.0	-1.6	0.3	1.5	2.2	2.4	2.5	2.3	1.7	0.6	0.0	-0.8	-1.7	-2.6	-3.2	-3.7	-3.6	-3.2	-2.5	-0.9	1.3	4.5	7.9
10	-14.5	-10.1	-6.2	-3.0	-0.6	1.3	2.4	3.0	3.2	3.1	2.6	1.6	0.9	0.0	-1.0	-2.0	-3.0	-3.9	-4.5	-4.7	-4.4	-3.8	-2.5	-0.3	2.5	6.1
11	-15.2	-10.8	-6.6	-3.4	-0.8	1.0	2.2	2.9	3.2	3.0	2.6	1.8	1.0	0.0	-1.0	-2.1	-2.9	-3.6	-4.1	-4.1	-3.8	-2.9	-1.5	0.6	3.5	7.1
12	-13.7	-9.3	-5.3	-2.3	0.2	1.9	3.0	3.6	3.7	3.5	2.9	2.1	1.0	0.0	-1.2	-2.3	-3.3	-4.1	-4.7	-5.0	-4.8	-4.1	-2.8	-0.8	2.0	5.5
13	-15.0	-10.4	-6.4	-3.2	-0.7	1.1	2.2	3.0	3.3	3.1	2.6	1.8	0.9	0.0	-1.1	-2.0	-3.0	-3.8	-4.2	-4.5	-4.2	-3.4	-2.1	0.0	2.9	6.7
14	-15.3	-10.7	-6.9	-3.9	-1.7	0.3	2.2	3.4	3.8	3.5	2.9	2.1	1.1	0.0	-0.9	-1.8	-2.6	-3.4	-3.8	-3.8	-3.5	-2.7	-1.3	1.1	4.0	7.6
15	-9.9	-6.9	-4.0	-1.6	0.4	1.8	2.7	3.1	3.3	3.1	2.6	1.8	0.9	0.0	-0.8	-1.5	-2.1	-2.6	-3.0	-3.0	-2.5	-1.6	-0.1	2.2	5.2	9.0
16	-12.8	-8.2	-4.3	-1.5	0.6	2.1	3.2	3.7	3.7	3.4	2.9	2.1	1.1	0.0	-1.2	-2.2	-3.3	-4.1	-4.7	-4.8	-4.5	-3.9	-2.5	-0.5	2.3	6.0
17	-16.2	-11.6	-7.4	-4.1	-1.6	0.4	1.7	2.5	2.8	2.8	2.4	1.8	0.9	0.0	-0.8	-1.7	-2.5	-3.0	-3.3	-3.3	-2.9	-1.9	-0.5	1.9	4.8	8.6
18	-19.8	-15.0	-10.7	-7.0	-4.2	-2.0	-0.5	0.6	1.2	1.5	1.4	1.1	0.6	0.0	-0.6	-1.2	-1.6	-1.7	-1.5	-1.0	-0.1	1.1	3.0	5.7	9.0	13.2
19	-21.8	-16.9	-12.3	-8.7	-5.7	-3.3	-1.7	-0.4	0.5	0.9	1.0	0.8	0.5	0.0	-0.5	-1.0	-1.4	-1.5	-1.5	-1.0	0.0	1.4	3.3	6.1	9.6	14.0
20	-19.9	-14.9	-10.5	-6.9	-3.9	-1.8	-0.2	0.8	1.4	1.6	1.4	1.1	0.6	0.0	-0.6	-1.2	-1.7	-2.0	-2.0	-1.8	-1.1	0.2	2.0	4.7	8.0	12.2
21	-18.6	-13.8	-9.5	-6.0	-3.3	-1.1	0.3	1.2	1.7	1.9	1.7	1.3	0.6	0.0	-0.7	-1.4	-1.9	-2.2	-2.4	-2.0	-1.3	-0.1	1.7	4.3	7.5	11.6
22	-18.4	-13.5	-9.3	-5.8	-3.1	-1.0	0.5	1.4	1.9	2.0	1.8	1.3	0.7	0.0	-0.6	-1.4	-2.0	-2.4	-2.6	-2.4	-1.7	-0.5	1.2	3.7	7.0	11.0
23	-17.7	-13.0	-8.8	-5.4	-2.7	-0.7	0.8	1.6	2.1	2.2	1.9	1.4	0.8	0.0	-0.8	-1.4	-2.1	-2.4	-2.7	-2.6	-1.9	-1.0	0.9	3.5	6.6	10.7
25	-17.0	-11.4	-7.1	-3.9	-1.4	1.0	1.7	2.4	2.9	3.0	2.7	2.5	1.5	0.0	-0.9	-1.8	-2.5	-3.1	-3.5	-3.4	-3.1	-2.2	-0.9	1.4	4.7	9.6
26	-18.4	-13.6	-9.3	-5.9	-3.3	-1.0	0.4	1.3	1.9	2.1	1.8	1.3	0.7	0.0	-0.7	-1.4	-1.9	-2.4	-2.5	-2.3	-1.7	-0.5	1.2	3.8	7.0	11.1
27	-13.8	-9.3	-5.4	-2.3	0.1	1.8	2.9	3.6	3.7	3.4	2.9	2.1	1.1	0.0	-1.1	-2.3	-3.3	-4.0	-4.6	-4.8	-4.6	-3.8	-2.5	-0.3	2.6	6.2
28	-13.6	-9.2	-5.2	-1.9	0.6	2.2	3.2	3.8	3.7	3.5	2.8	2.0	1.0	0.0	-1.0	-2.0	-3.0	-3.7	-4.4	-4.6	-4.5	-3.8	-2.5	-0.6	2.2	5.8
29	-14.1	-9.6	-5.7	-2.4	-0.1	1.8	2.9	3.6	3.7	3.4	3.0	2.1	1.1	0.0	-1.3	-2.1	-3.1	-3.9	-4.5	-4.6	-4.3	-3.6	-2.3	-0.2	2.6	6.3
30	-18.8	-13.8	-9.6	-6.0	-3.3	-1.2	0.2	1.2	1.7	1.8	1.7	1.3	0.7	0.0	-0.8	-1.4	-2.0	-2.4	-2.5	-2.3	-1.7	-0.5	1.2	3.8	7.1	11.2

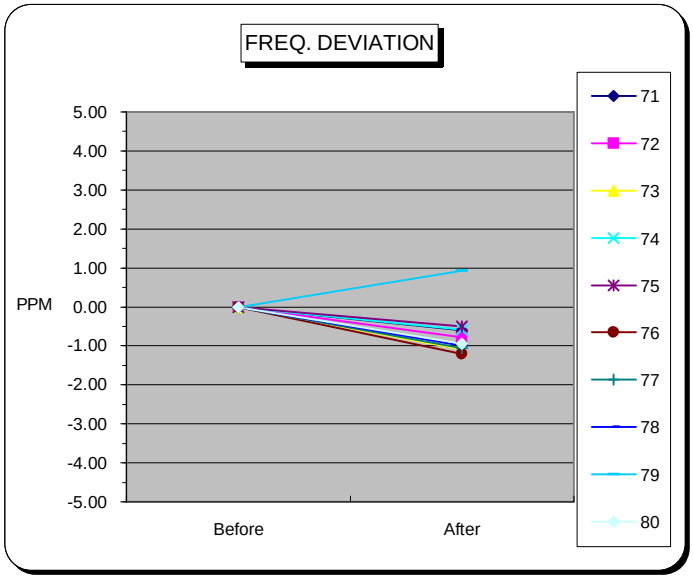
UNIT : OHMS

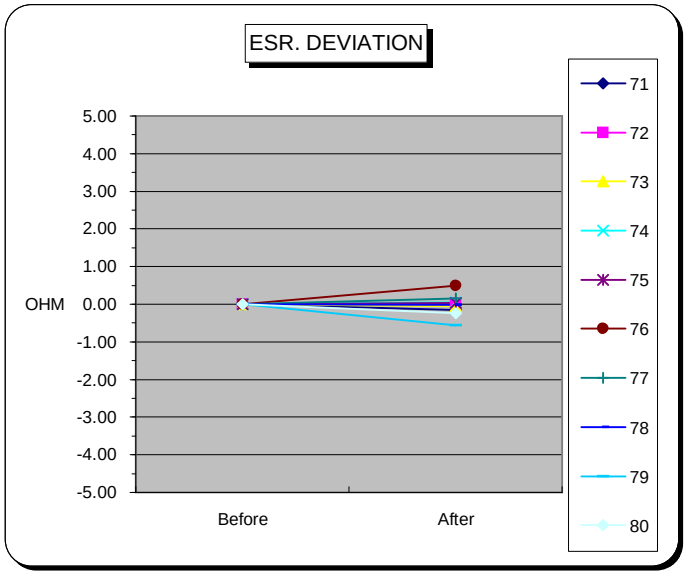
TEMPERATURE CI TEST

No. \ ℃	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
1	9.6	9.7	9.7	9.8	9.9	9.9	10.1	10.2	10.4	10.5	10.6	10.6	10.7	10.7	10.7	10.8	10.8	10.9	10.9	11.1	11.1	11.2	11.3	11.4	11.6	11.9
2	9.0	9.0	9.1	9.2	9.2	9.3	9.4	9.4	9.4	9.6	9.6	9.7	9.7	9.9	9.9	10.0	10.1	10.1	10.1	10.2	10.3	10.3	10.3	10.4	10.4	10.5
3	9.2	9.3	9.4	9.4	9.5	9.5	9.6	9.7	9.8	9.9	10.0	10.0	10.1	10.1	10.1	10.1	10.2	10.2	10.2	10.3	10.4	10.4	10.5	10.5	10.5	10.5
4	9.5	9.6	9.7	9.8	9.8	9.9	10.0	10.1	10.2	10.3	10.5	10.5	10.6	10.6	10.7	10.7	10.7	10.7	10.6	10.8	10.8	10.9	10.9	10.9	11.0	11.0
5	9.6	9.5	9.6	9.7	9.7	9.9	10.0	10.2	10.3	10.5	10.7	10.9	11.0	11.1	11.1	11.1	11.3	11.3	11.3	11.3	11.3	11.4	11.3	11.2	11.2	11.1
6	10.1	10.1	10.2	10.3	10.4	10.4	10.4	10.6	10.7	10.8	10.8	11.0	11.2	11.3	11.4	11.4	11.7	11.6	11.8	12.0	12.4	12.9	13.3	13.5	13.4	13.3
7	9.7	10.0	10.0	9.9	10.0	10.0	10.1	10.2	10.2	10.1	10.3	10.5	10.6	10.7	10.8	11.0	11.2	11.5	12.0	12.0	12.0	12.0	11.8	11.6	11.5	11.5
8	10.6	11.6	12.2	11.0	10.7	10.7	11.1	11.5	11.6	11.6	11.5	11.5	11.5	11.7	11.9	11.7	11.7	11.6	11.5	11.5	11.4	11.3	11.3	11.2	11.2	11.2
9	10.2	11.8	9.9	9.8	9.8	9.9	9.9	10.0	10.0	10.1	10.3	10.7	13.6	10.7	10.7	10.7	10.7	10.7	10.9	11.3	10.9	10.9	10.9	11.0	11.0	11.1
10	10.5	10.9	10.9	10.8	10.8	10.8	10.9	11.1	11.4	11.8	12.1	12.3	12.4	12.3	11.9	11.6	11.6	11.7	11.9	11.9	12.0	12.1	12.2	12.4	12.6	12.7
11	9.5	9.5	9.5	9.7	9.7	9.8	9.9	9.9	10.0	10.0	10.1	10.2	10.2	10.4	10.3	10.4	10.5	10.6	10.7	10.7	10.7	10.8	10.7	10.7	10.7	10.8
12	8.6	8.6	8.7	8.8	8.8	8.9	8.9	9.1	9.3	9.4	9.4	9.5	9.5	9.6	9.5	9.7	9.8	9.8	9.8	9.9	10.0	10.0	10.0	10.0	9.9	10.1
13	9.8	9.8	9.8	9.9	10.0	10.1	10.3	10.3	10.5	10.6	10.6	10.6	10.7	10.8	10.7	10.9	10.8	10.8	11.0	10.9	10.9	11.0	10.9	11.1	11.3	11.2
14	9.8	9.9	9.9	10.5	11.2	12.7	13.5	12.5	11.8	11.4	11.2	11.3	11.4	11.7	12.0	12.0	12.0	12.1	12.1	12.0	12.0	12.1	12.0	12.0	12.0	12.1
15	18.3	14.4	12.7	12.0	11.5	11.2	11.2	11.3	11.4	11.4	11.6	11.8	12.0	12.4	12.9	13.2	13.1	12.5	12.5	12.1	12.2	12.2	12.1	12.0	12.0	12.0
16	12.9	11.9	11.6	11.3	11.0	10.8	10.8	10.6	10.8	10.9	11.0	10.9	10.7	10.9	10.9	10.8	11.0	11.0	11.0	11.0	11.0	11.1	11.1	11.1	11.1	11.1
17	9.4	9.5	9.5	9.5	9.6	9.6	9.7	9.7	9.8	9.9	10.0	10.1	10.3	10.3	10.4	10.5	10.5	10.5	10.6	10.6	10.7	10.7	10.7	10.7	10.7	10.8
18	10.0	10.0	9.8	9.9	9.9	9.9	10.2	10.2	10.3	10.3	10.5	10.6	10.7	10.8	11.0	11.2	11.5	11.9	12.2	11.9	11.7	11.5	11.4	11.3	11.2	11.2
19	9.2	9.1	9.4	9.6	9.8	9.9	10.2	10.4	10.3	10.4	10.3	10.3	10.2	10.1	10.3	10.3	10.3	10.3	10.4	10.5	10.6	10.6	10.7	10.7	10.8	11.0
20	9.5	9.6	9.6	9.7	9.7	9.6	9.8	9.8	9.9	9.9	10.0	10.0	10.2	10.2	10.3	10.3	10.4	10.4	10.5	10.5	10.5	10.6	10.7	10.6	10.7	10.6
21	9.4	9.4	9.4	9.5	9.6	9.6	9.7	9.8	9.9	10.0	10.2	10.2	10.4	10.4	10.5	10.4	10.6	10.7	10.8	10.8	11.0	10.7	10.8	10.7	10.7	10.7
22	9.2	9.3	9.4	9.4	9.5	9.5	9.6	9.7	9.7	9.8	9.8	9.9	10.1	10.1	10.2	10.1	10.2	10.3	10.3	10.3	10.4	10.4	10.5	10.5	10.5	10.4
23	9.9	10.1	10.1	10.1	10.2	10.4	10.5	10.6	10.8	10.9	11.1	11.3	11.3	11.4	11.5	11.5	12.0	11.8	11.8	11.9	11.9	11.9	12.0	11.9	11.9	11.9
25	10.8	12.5	11.7	11.2	10.9	10.7	10.8	10.4	10.7	10.9	11.0	11.2	11.5	11.8	11.5	11.0	11.1	11.2	11.3	11.5	11.5	11.8	11.7	14.0	13.9	12.4
26	9.1	9.3	9.3	9.5	9.4	9.6	9.7	9.7	9.9	10.1	10.0	10.1	10.2	10.3	10.5	10.6	10.7	10.5	10.7	10.7	10.8	10.8	10.8	10.7	10.6	10.6
27	10.0	10.0	10.0	10.1	10.2	10.3	10.3	10.3	10.5	10.5	10.5	10.7	10.8	10.8	10.9	10.9	10.9	10.8	11.0	11.2	11.2	11.4	11.5	11.4	11.4	11.5
28	9.9	10.6	11.9	12.2	11.5	11.2	11.1	11.0	10.9	11.2	11.3	11.7	11.8	12.1	12.1	12.1	12.0	11.9	11.8	11.8	11.9	11.9	11.8	11.8	11.8	11.7
29	9.6	9.8	9.8	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.3	10.4	10.4	10.5	10.6	10.6	10.7	10.7	10.7	10.9	11.1	10.9	11.0	11.0	11.0	11.1
30	9.7	9.7	9.8	9.8	9.7	9.9	10.0	10.1	10.3	10.3	10.5	10.5	10.4	10.4	10.3	10.3	10.4	10.5	10.5	10.4	10.5	10.6	10.6	10.6	10.6	10.5

Drop Test

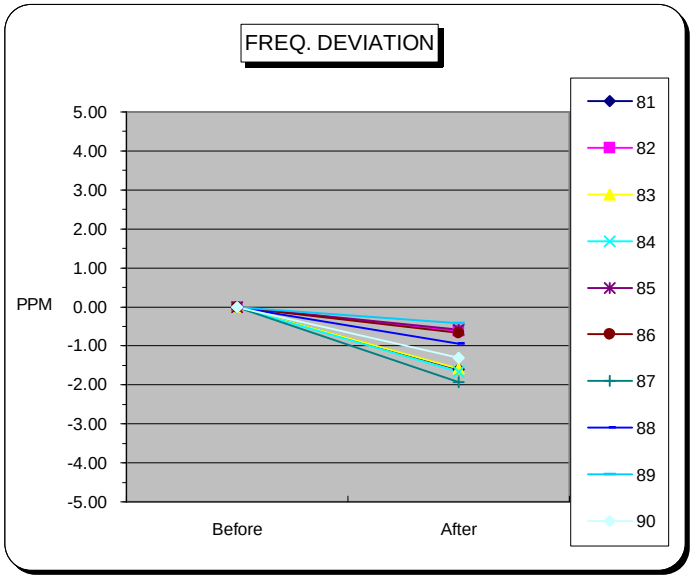
P/N NO.	6V12000045(第二次)
Test Item	75cm*3次
Criteria	Frequency deviation ±4ppm / ESR ±4Ω
Sample Size	10PCS
Test Date	2008/10/28
Test Result	PASS
Inspector	Rita Wu

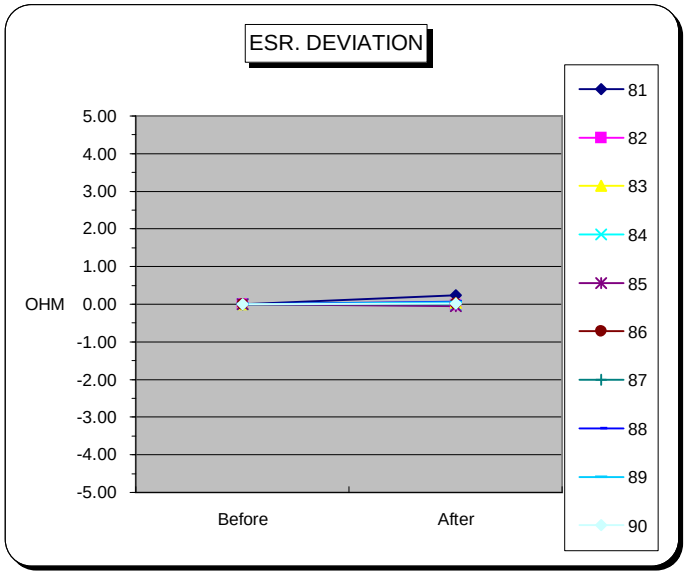




Reflow Test

P/N NO.	6V12000045(第二次)
Test Item	260℃*3次
Criteria	Frequency deviation ±5ppm / ESR ±5Ω
Sample Size	10PCS
Test Date	2008/10/28
Test Result	PASS
Inspector	Rita Wu





RELIABILITY TEST REPORT

TXC P/N : 6V12000045 REV.: A
PRODUCT TYPE : SMD X'TAL 6.0 * 3.5 * 1.0 mm

NOMINAL FREQUENCY : **12.000** MHz CL : 20pF

Sample from lot #: N(匯隆)
Total Quantity: 65pcs

CONFIGURATIONS

BLANK : H612000005 LID : 5.2*2.7*0.1南屏三金
PKG : 6.0*3.5 京瓷 ADHESIVE : B11600001

TEST PURPOSE : 供應商可靠度評估

RELIABILITY TEST DURATION : 2008/11/26~2009/01/13

TEST RESULT : PASS

PREPARED BY : Karen Huang 1/13'09
REVIEWED BY : Chester Ho 1/13'09
APPROVED BY : TM Yen 1/13'08
ISSUED DATE : 13-Jan-09

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SMD X'TAL RELIABILITY TEST RESULT

TXC P/N : 6V12000045

FREQUENCY : 12.000 MHz

	EQUIPMENT / CONDITION / TEST ITEM	TEST CONDITION AND CRITERIA		SAMPLE SIZE	START DATE	FINISH DATE	TEST RESULT
		TEST CONDITION	CRITERIA				
1	FINE LEAK	He BOMBING 4.5 Kg/cm2 FOR 2 HRs	1 × 10-9 Pa.m3/sec	65	2008/11/26	2008/11/26	PASS
2	GROSS LEAK	Standard Sample For Automatic Gross Leak Detector,Test Pressure: 2 Kg / cm2	1.5 × 10-5 Pa.m3/sec	65	2008/11/26	2008/11/26	PASS
3	RESISTANCE TO SOLDER HEAT	260℃± 5℃ , 10 SEC.	±8ppm/±5Ω	10	2008/11/27	2008/11/28	PASS
4	SOLDERABILITY	245℃ ± 5℃ , 5 Sec. (125℃ , 120Sec. PREHEATED)	95% COATED	5	2008/11/28	2009/11/28	PASS
5	Bending (solder strength) test	Bending value specified 3mm:pressure shall be applied for 1mm 5seconds	1.No crack observed at solder joint 2.Fine/Gross Leak pass	5	2008/12/11	2008/12/11	PASS
6	THERMAL SHOCK	-55℃~125℃, Dwell:10 min, 100 Cycles	±10ppm/±5Ω	10	2008/11/28	2008/12/1	PASS
7	VIBRATION	20G, 10~2000Hz, 1.52mm, SWEEP 20 Min., 3 DIRECTION 4HRs.	±5ppm/±5Ω	10	2008/11/27	2008/12/1	PASS
8	MECHANICAL SHOCK	1,000 G , 0.5 mSec. , 3 TIMES FOR ALL 3 DIRECTIONs.	±5ppm/±5Ω	10	2008/12/2	2008/12/4	PASS
9	DROP TEST	75 cm Height, 3 times on concrete floor	±5ppm/±5Ω	10	2008/12/4	2008/12/4	PASS
10	LOW TEMP. STORAGE TEST	-40℃ ± 3℃ , 1000HRS	±5ppm/±5Ω	10	2008/11/25	2009/1/6	PASS
11	HIGH TEMP. STORAGE TEST	125℃ ± 3℃ , 1000HRS	±10ppm/±5Ω	10	2008/11/25	2009/1/6	PASS
12	HIGH TEMP. & HUMIDITY	85℃ ± 3℃ , RH 85% , 1000Hrs .	±10ppm/±5Ω	10	2008/11/25	2009/1/6	PASS
13	AGING TEST	85± 3℃ , Voltage input by specification, 1000 hrs	±3ppm	5	2008/12/1	2009/1/12	PASS

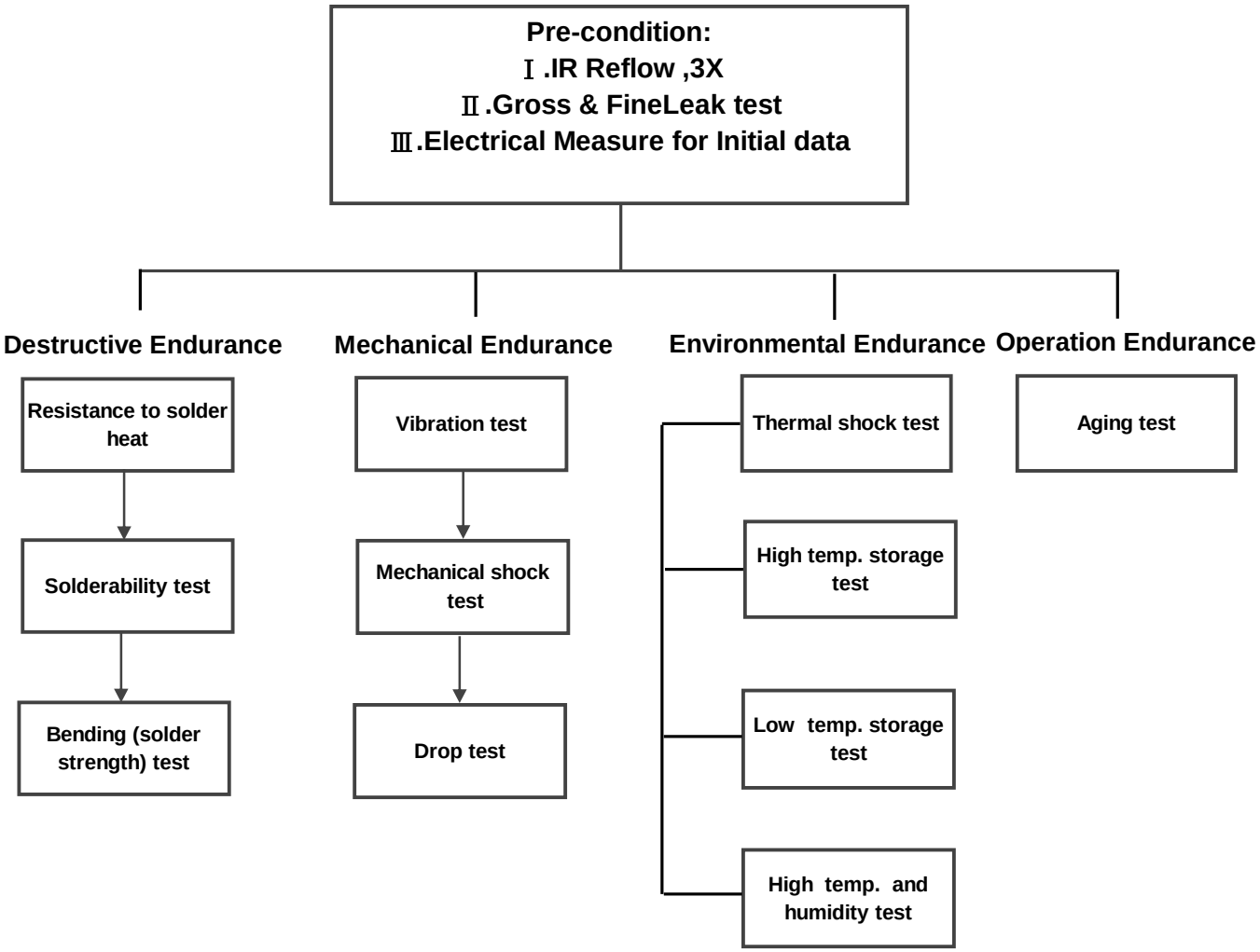
Serial Number : RT08A64

SMD X'TAL(6.0*3.5) RELIABILITY TEST SPECIFICATIONS

	Test item	Test condition	S/S	Criteria	Maker/modle	Test method	Working instruction	Note
1	Pre-condition	I.IR Reflow ,3X II.Gross & FineLeak test III.Electrical Measure for Initial data	65	Per spec.	- FUKUDA(MS-5063) ALCATEL CO.(DGC-152T) Saunders&Associates(250B)	- MIL-STD-883E Method 1014.10 MIL-STD-883E Method 1014.10 -	- OIS-REL021 OIS-REL022 OIS-REL031	
2	High temp. and humidity test	85℃ , RH 85% , 1000hrs	10	±10ppm/ESR ±5Ω	TABEL ESPEC(PH-3F)	EIA-JESD22-A101-B	OIS-REL003	
3	High temp. storage test	125± 3℃ , 1000 hrs	10	±10ppm/ESR ±5Ω	LAB-LINE(3495M-1)	MIL-STD-883E Method 1005.8	OIS-REL004	
4	Low temp. storage test	-40± 3℃ , 1000 hrs	10	±5ppm/ESR ±5Ω	TABEL ESPEC(MC-810)	MIL-STD-883E Method 1013	OIS-REL005	
5	Thermal shock test	-55℃~125℃, Dwell:10 min, 100 cycles	10	±10ppm/ESR ±5Ω	VOTSCH(VT-7012S2)	MIL-STD-883E Method 1011.9	OIS-REL027	
6	Aging test	85± 3℃ , Voltage input by specification, 1000 hrs	5	±3 ppm	PRA(2360)	JIS C6701	OIS-REL007	
7	Vibration test	20G, 10~2000Hz, 1.52mm, Sweep 20 Min., 3 direction 4hrs	10	±5ppm/ESR ±5Ω	IMV CO.(VS-300-2)	MIL-STD-883E Method 2007.3	OIS-REL023	
8	Mechanical shock test	1,000 G , 0.5 mSec. , 3 times for all 3 directions.	10	±5ppm/ESR ±5Ω	MTS(PN484739-01)	MIL-STD-202F Method 213B	OIS-REL012	
9	Drop test (free Drop)	75cm Height, 3 times on concrete floor	10	±5ppm/ESR ±5Ω	TXC(Tool)	JIS C6701	OIS-REL013	
10	Resistance to solder heat	260℃±5℃ , 10 Sec.	10	±8ppm/ESR ±5Ω	TABEI ESPEC(K-1425-14D)	MIL-STD-202F Method 210E	OIS-REL008	
11	Solderability test	245℃±5℃ , 5 Sec. (125℃ , 120Sec. Preheated)	5	95% Coated	TABEI ESPEC(K-1425-14D)	MIL-STD-883E Method 2003.7	OIS-REL019	
12	Bending (solder strength) test	Bending value specified 3mm:pressure shall be applied for 1mm 5seconds	5	1.No crack observed at solder joint 2.Fine/Gross Leak pass	AIKOH(1307)	EIAJ-RCX-0104/101	OIS-REL024	

VER	DESCRIPTION OF CHANGE	ECN NO.	PREPARED BY	REVIEWED BY	APPROVED BY	Date
F	1.原文號QCE-REL003F，與原文號QCE-REL003F/004F/005F/010C合併變更爲QCE-REL003F 2.pre-condition reflow test由2次變更爲3次	ECN-08P051601	Karen Huang	Chester Ho	T.M.Yan	20-May-08

SMD X'TAL(6.0*3.5) RELIABILITY TEST FLOW CHART

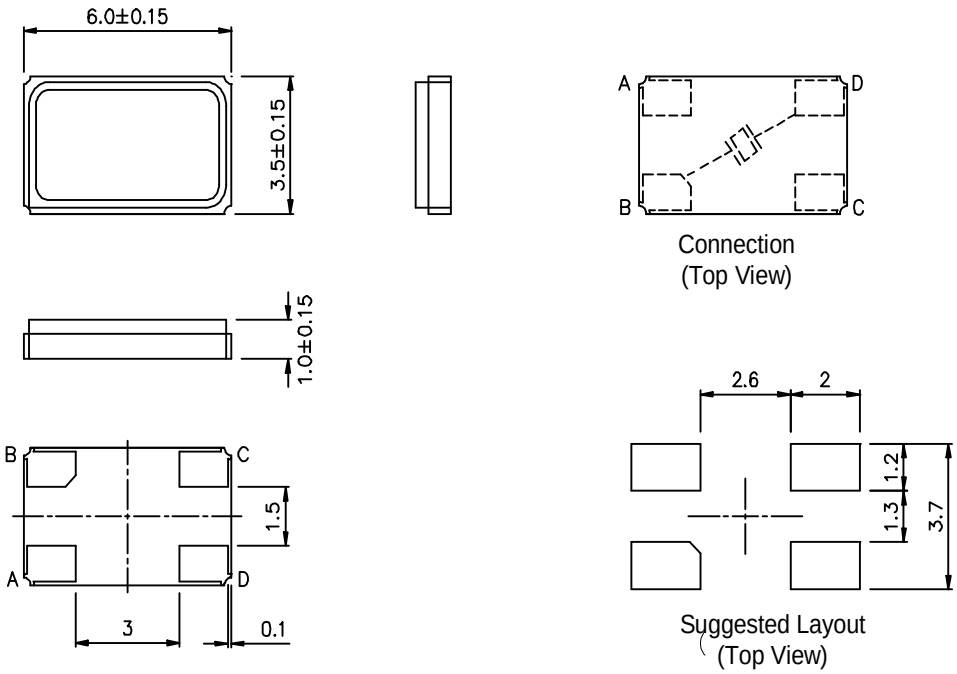


VER	DESCRIPTION OF CHANGE	ECN NO.	PREPARED BY	REVIEWED BY	APPROVED BY	DATE
F	1.原文號QCE-REL003F，與原文號QCE-REL003F/004F/005F/010C合併變更爲QCE-REL003F 2.pre-condition reflow test由2次變更爲3次	ECN-08P051601	Karen Huang	Chester Ho	T.M.Yan	20-May-08

GENERAL SPECIFICATIONS

(1) Holder Type	SMD X'TAL
(2) Normal Frequency	12.000000 MHz
(3) Oscillation Mode	Fundamental Mode
(4) Capacitance	20 pF
(5) Frequency Tolerance @ 25℃	± 27 PPM
(6) Operating Temp. Range	-10℃～ 70 ℃
(7) Frequency Stability over Temp Range	± 27 ppm

Dimensions: 6.0 * 3.5 * 1.0 mm



Pre-condition

Electrical characteristics test

Criteria FREQ. WITHIN ± 27 **PPM** @ 25℃ NOMINAL FREQ. (20pF)
CI UPPER LIMIT 32 Ohm

Sample Size 65

Test Date 2008/11/26

Test Result **PASS**

Inspector Karen Huang ; Thelma

	FL	FL Tol	RR	C0	C1	DLD2	FLD2	TS
	MHz	ppm	Ohm	pF	fF	Ohm	ppm	ppm/Pf
AVG	12.000116	9.65	18.50	1.71	4.32	1.04	19.40	4.58
Max.	12.000155	12.88	23.08	1.73	4.43	2.14	24.73	4.70
Min.	12.000059	4.94	16.95	1.68	4.16	0.74	17.54	4.42
STD	0.000018	1.49	1.13	0.01	0.07	0.24	1.26	0.08

Fine Leak Test

Test Condition He BOMBING 4.5 Kg/cm2 FOR 2 HRs
Standard Sample For Automatic Gross Leak Detector, Test Pressure: 2 Kg / cm 2

Criteria 1 × 10-9 Pa.m3/sec

Sample Size 65

Test Date 2008/11/26

Test Result **PASS**

Inspector Karen Huang ; Thelma

Gross Leak Test

Test Condition He BOMBING 4.5 Kg/cm2 FOR 2 HRs
Standard Sample For Automatic Gross Leak Detector, Test Pressure: 2 Kg / cm 2

Criteria 1.5 × 10-5 Pa.m3/sec

Sample Size 65

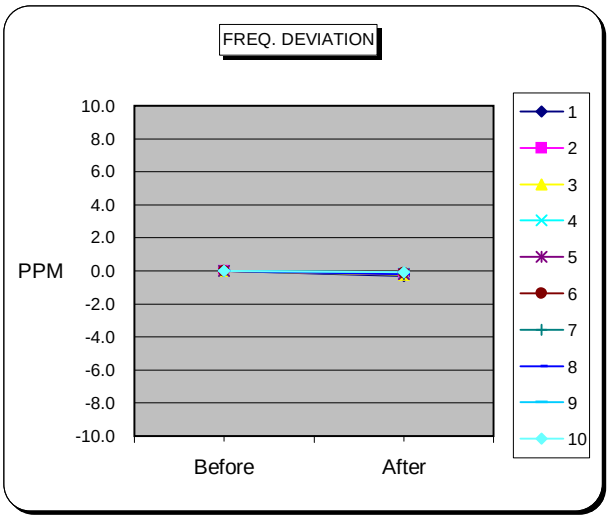
Test Date 2008/11/26

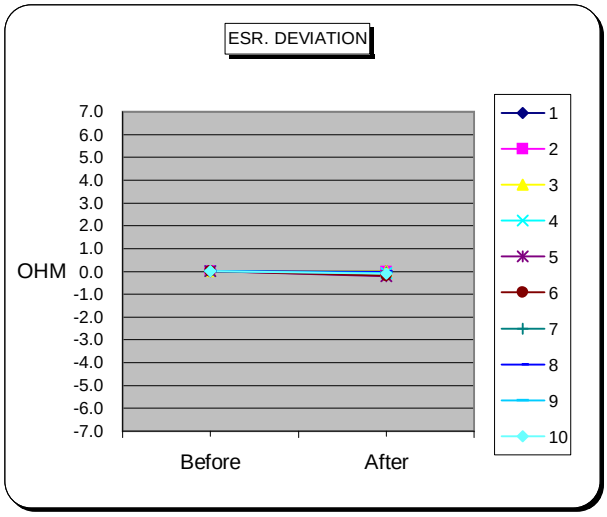
Test Result **PASS**

Inspector Karen Huang ; Thelma

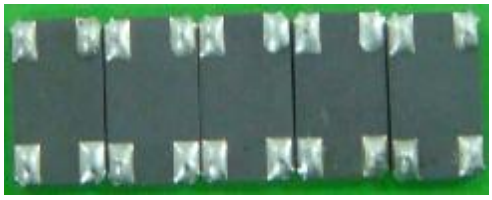
Destructive Endurance

Test Item	Resistance to solder heat
Test Condition	260℃± 5℃ ， 10 SEC.
Criteria	Frequency deviation ±8ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/11/28
Test Result	PASS
Inspector	Karen Huang ; Thelma





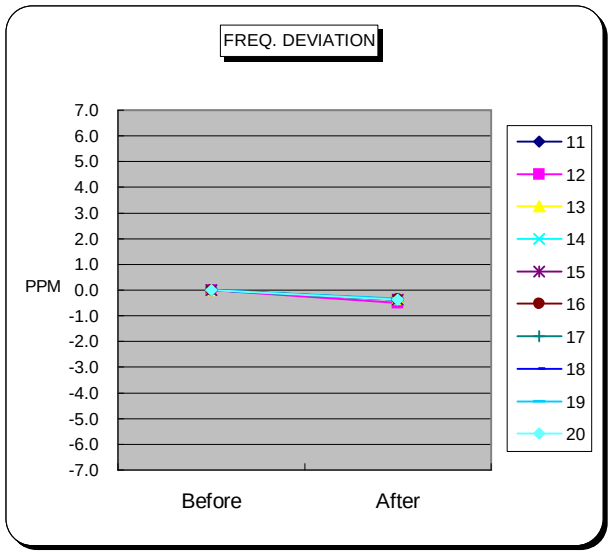
Test Item	Solderability
Test Condition	245℃±5℃， 5 Sec. (125℃， 120Sec. Preheated)
Criteria	95% Coated
Sample Size	5
Test Date	2008/11/28
Test Result	PASS
Inspector	Karen Huang ; Thelma

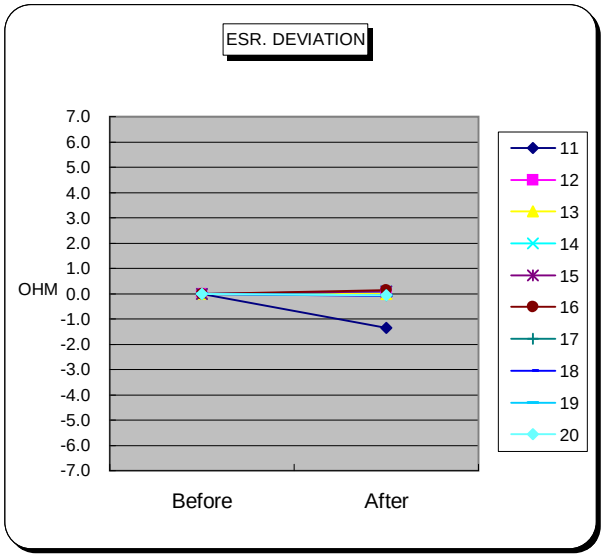


Test Item	Bending (solder strenght) test
Test Condition	Bending value specified 3mm:pressure shall be applied for 1mm 5seconds
Criteria	1.No crack observed at solder joint 2.Fine/Gross Leak pass
Sample Size	5
Test Date	2008/12/11
Test Result	PASS
Inspector	Karen Huang ; Thelma

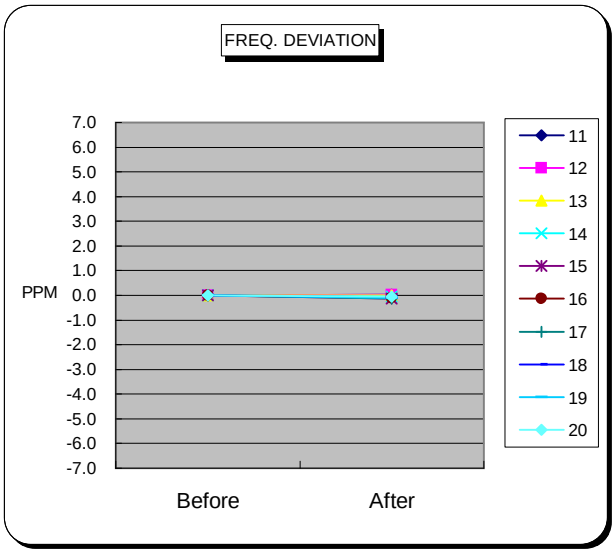
Mechanical Endurance

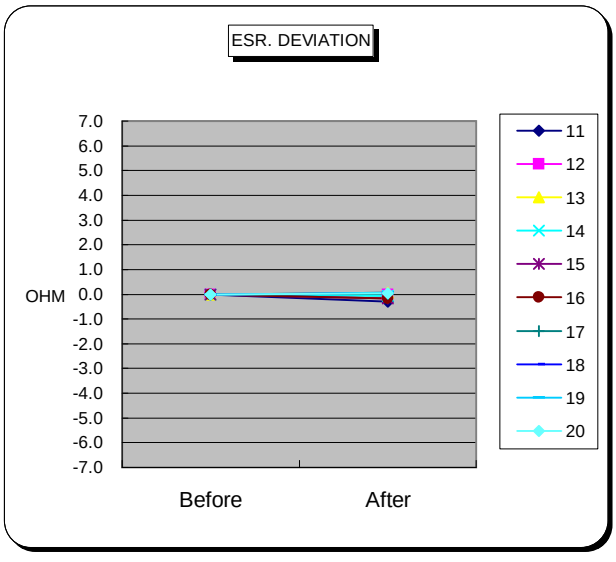
Test Item	Vibration test
Test Condition	20G, 10~2000Hz, 1.52mm, Sweep 20 Min., 3 direction 4hrs.
Criteria	Frequency deviation ±5ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/12/1
Test Result	PASS
Inspector	Karen Huang ; Thelma





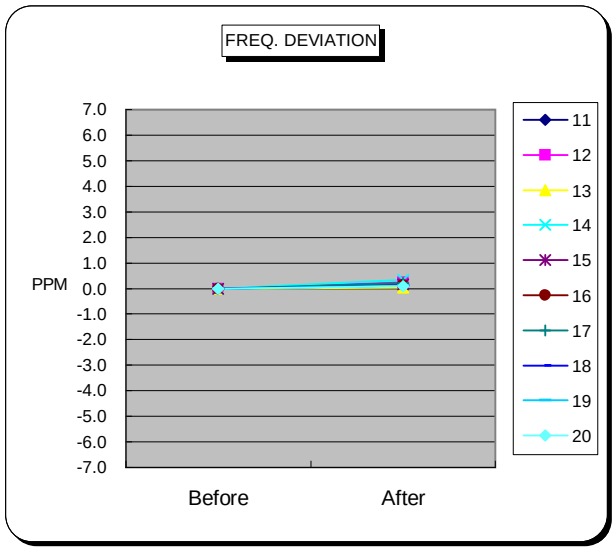
Test Item	Mechanical shock test
Test Condition	1,000 G , 0.5 mSec. , 3 times for all 3 directions.
Criteria	Frequency deviation ±5ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/12/4
Test Result	PASS
Inspector	Karen Huang ; Thelma

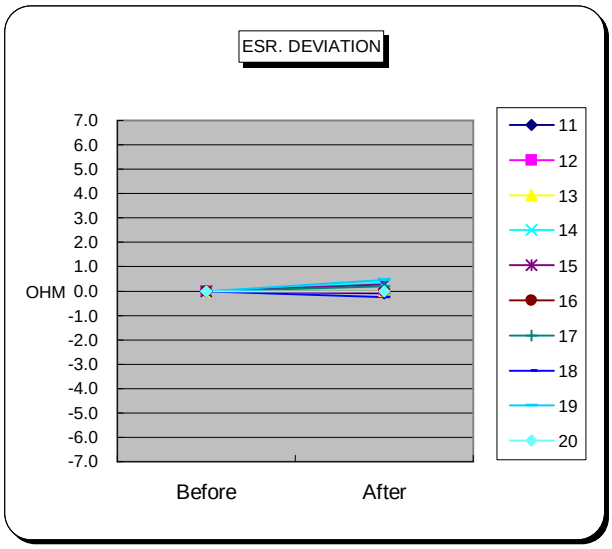




Mechanical Endurance

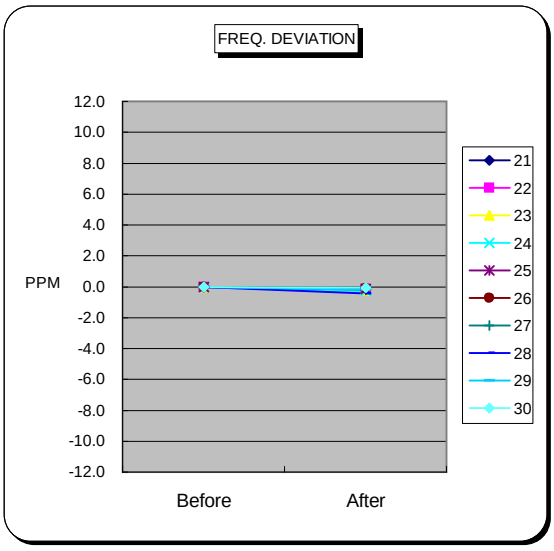
Test Item	Drop test
Test Condition	75cm Height, 3 times on concrete floor
Criteria	Frequency deviation ±5ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/12/4
Test Result	PASS
Inspector	Thelma ; Karen Huang

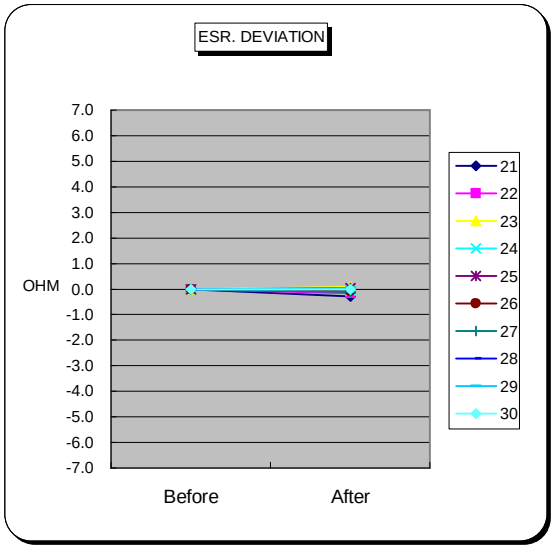




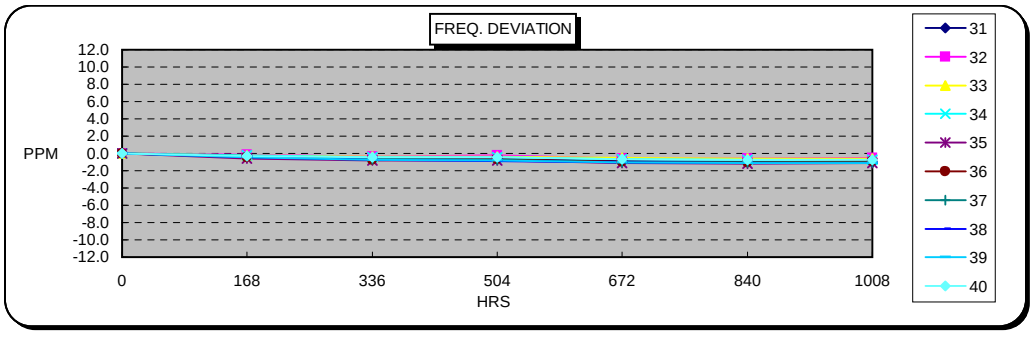
Environmental Endurance

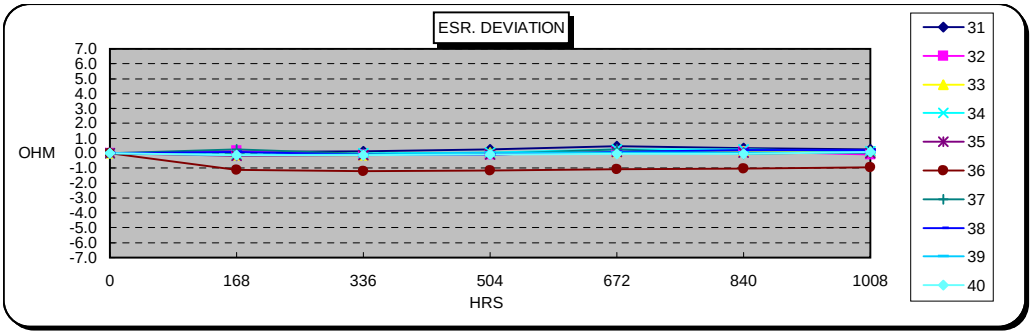
Test Item	Thermal shock test
Test Condition	-55℃~125℃, Dwell:10 min, 100 cycles
Criteria	Frequency deviation ±10ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/12/1
Test Result	PASS
Inspector	Karen Huang ; Thelma





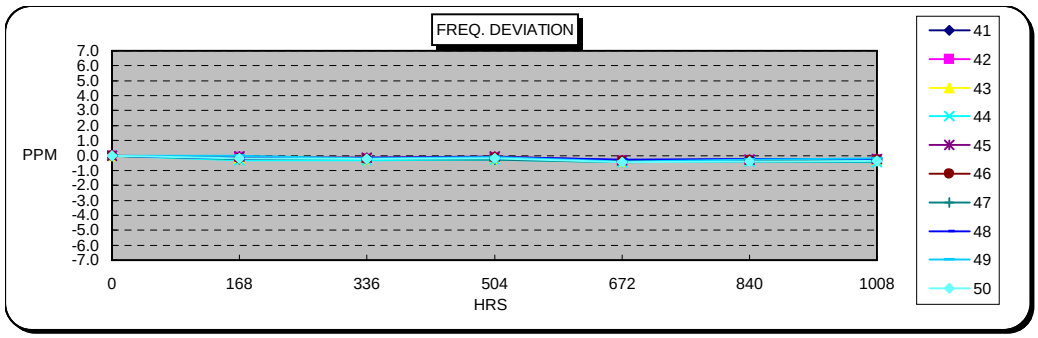
Test Item	High temp. storage test
Test Condition	125± 3℃, 1000 hrs
Criteria	Frequency deviation ±10ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/11/25 ~ 2009/01/16
Test Result	PASS
Inspector	Karen Huang ; Thelma

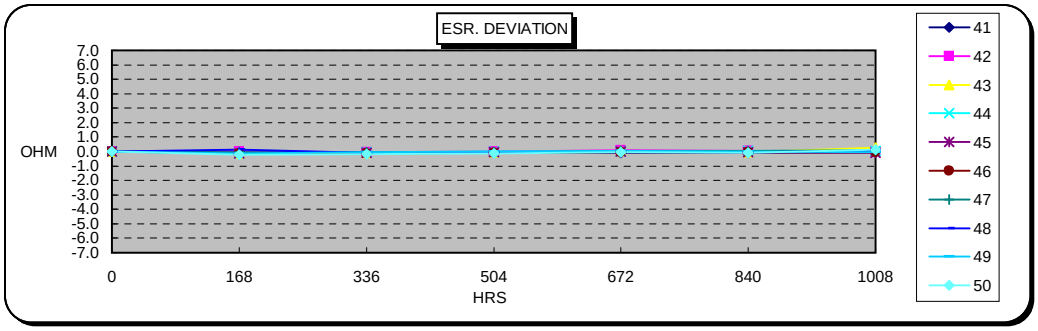




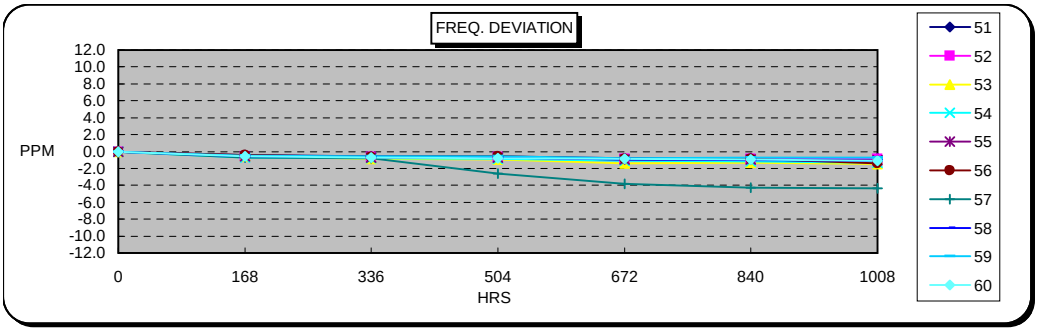
Environmental Endurance

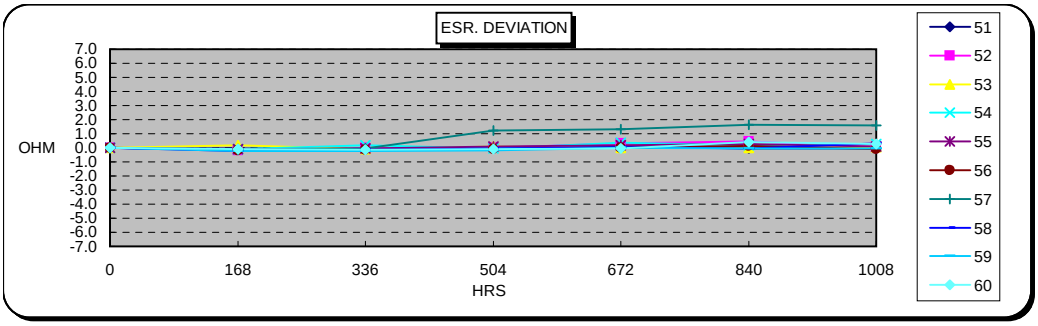
Test Item	Low temp. storage test
Test Condition	-40± 3℃， 1000 hrs
Criteria	Frequency deviation ±5ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/11/25 ~ 2009/01/16
Test Result	PASS
Inspector	Karen Huang ; Thelma





Test Item	High temp. and humidity test
Test Condition	85℃，RH 85%，1000hrs
Criteria	Frequency deviation ±10ppm / ESR ±5Ω
Sample Size	10
Test Date	2008/11/25 ~ 2009/01/16
Test Result	PASS
Inspector	Karen Huang ; Thelma

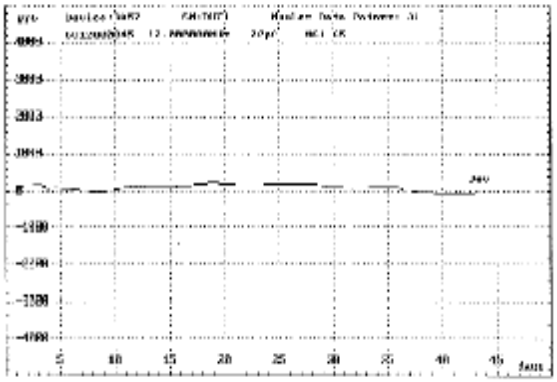




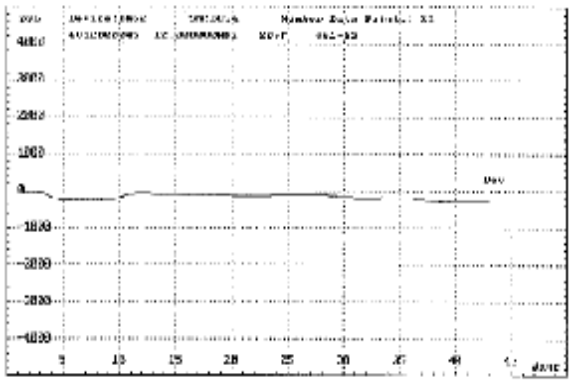
Operation Endurance

Test Item	Aging test
Test Condition	85± 3℃ , Voltage input by specification, 1000 hrs
Criteria	Frequency deviation ± 3ppm
Sample Size	5
Test Date	2008/12/1 ~ 2009/1/12
Test Result	PASS
Inspector	Karen Huang ; Thelma

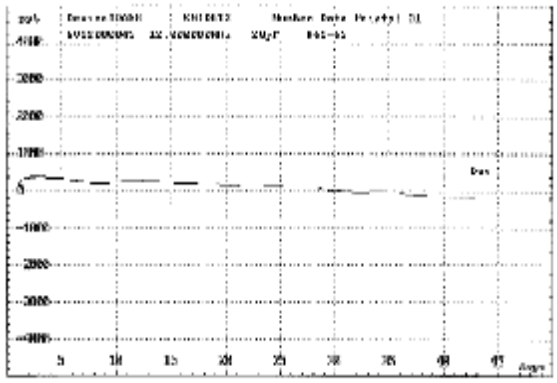
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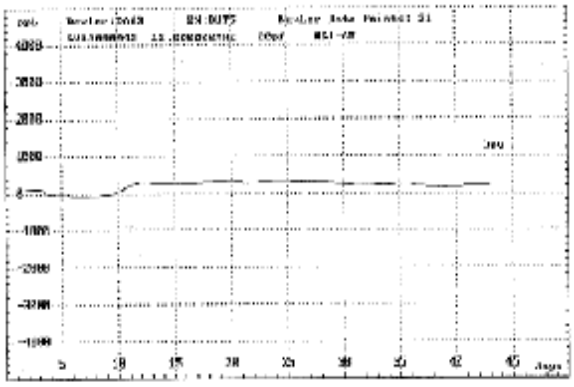
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