Exar Quarterly
Quality and Reliability Report

May 2009

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Outgoing Quality (PPM) Data

The outgoing quality data are the results of electrical and visual/mechanical inspection on samples of all Exar's products. The results are measured in parts per million (PPM).

Quarter: January 1, 2009 to March 31, 2009

Devices: Exar Products

Summary: All data is first submission data

Total number of lots inspected:	1131
Total number of lots accepted:	1131
Total number of QC samples inspected:	130,915
Total number fail in QC samples:	0

Process average PPM: $= \Sigma r / \Sigma n \times 10^6$ $= 0/130{,}915 \times 10^6$ r = Total number fail in QC samples n = Total number of QC samples inspected	0 PPM

Quarter: January 1, 2009 to March 31, 2009

Devices: Exar Products

Summary: All data is first submission data

Total number of lots inspected:	2,022
Total number of lots accepted:	2,021
Total number of QC samples inspected:	524,128
Total number fail in QC samples:	2

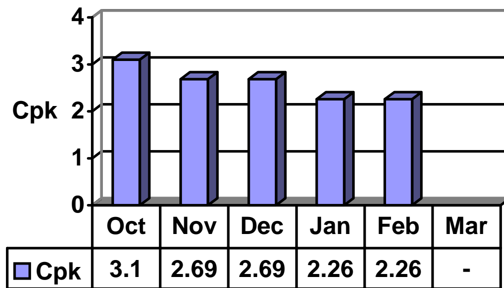
Process average PPM: $= \Sigma r / \Sigma n \times 10^6$ $= 2/524{,}128 \times 10^6$ r = Total number fail in QC samples n = Total number of QC samples inspected	3.81 PPM

SPC – Cpk Trends

Data on Cpk and Cpk trends for critical processes of Exar's assembly subcontractors and foundry fabs are reported in order to assure our customers that our suppliers have an on-going SPC plan to control and continually improve their critical processes. This also serves as an early warning system which keeps processes from becoming marginal.

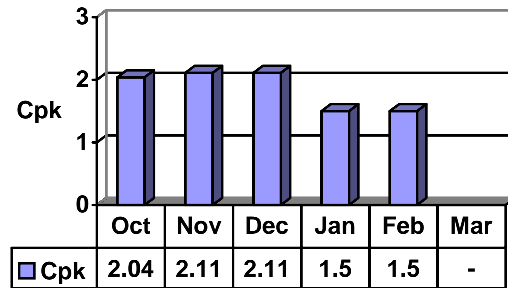
CSM Fab 2, Singapore SPC Program: 2008/2009

Process Technology: 0.6µm CMOS



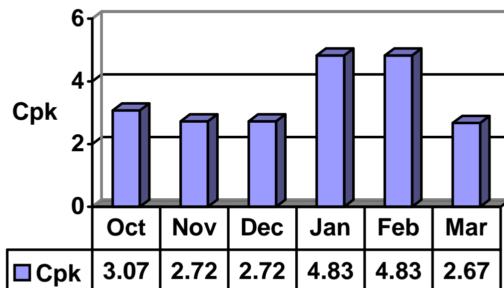
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.1	2.69	2.69	2.26	2.26	-

LSL = 0.60µm USL = 0.74µm



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.04	2.11	2.11	1.5	1.5	-

LSL = 115A USL = 135 A

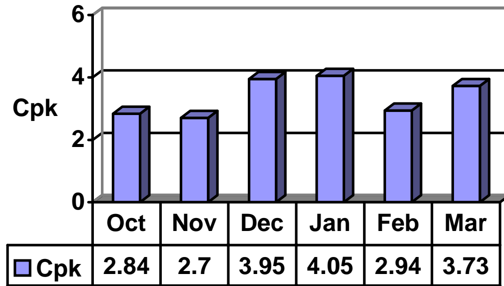


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.07	2.72	2.72	4.83	4.83	2.67

USL = 4400 A

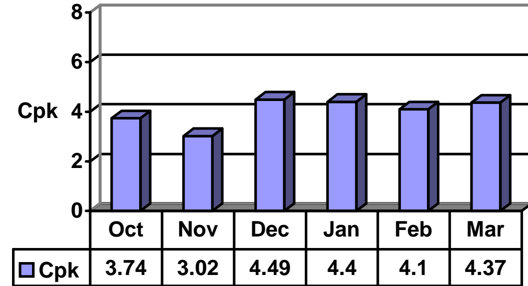
Unisem, Indonesia SPC Program: 2008/2009

Package Technology: LQFP



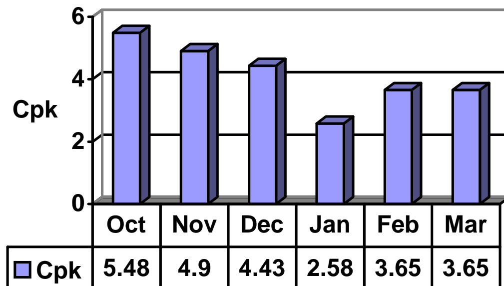
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.84	2.7	3.95	4.05	2.94	3.73

LSL = 6 gms



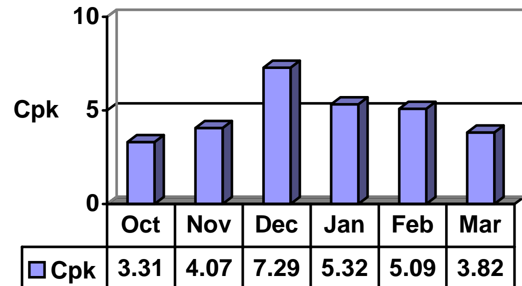
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.74	3.02	4.49	4.4	4.1	4.37

LSL = 20 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	5.48	4.9	4.43	2.58	3.65	3.65

LSL = 300µin USL = 800µin

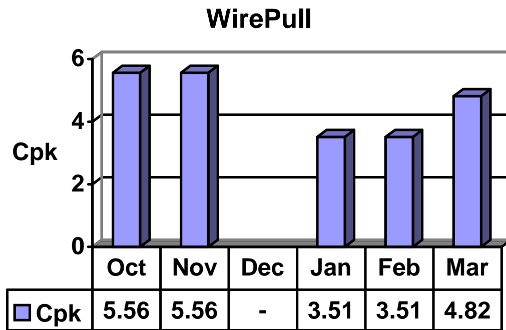


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.31	4.07	7.29	5.32	5.09	3.82

USL = 2.0 mils

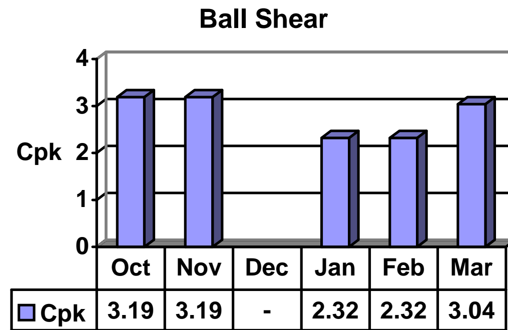
Unisem, Indonesia SPC Program: 2008/2009

Package Technology: PDIP



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	5.56	5.56	-	3.51	3.51	4.82

LSL = 6 gms

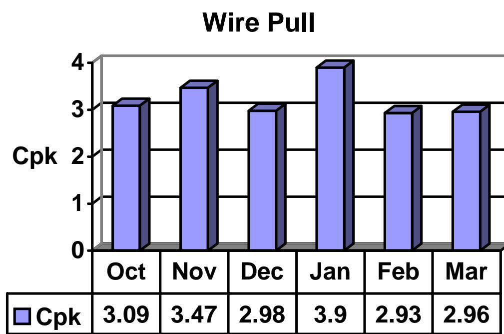


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.19	3.19	-	2.32	2.32	3.04

LSL = 20 gms

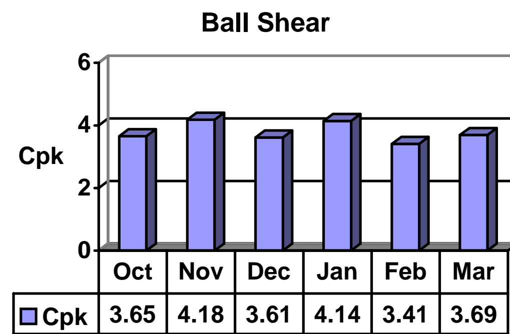
Unisem, Indonesia SPC Program: 2008/2009

Package Technology: PLCC



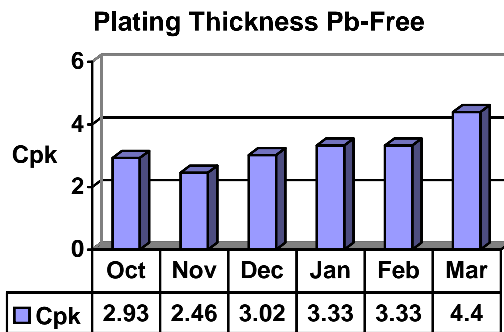
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.09	3.47	2.98	3.9	2.93	2.96

LSL = 6 gms



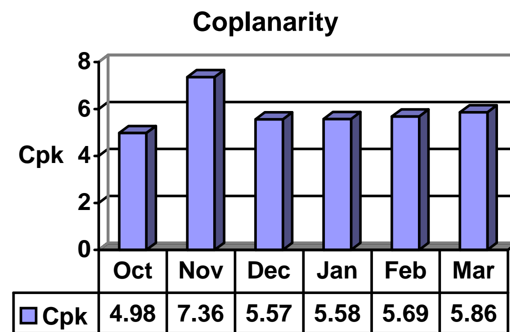
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.65	4.18	3.61	4.14	3.41	3.69

LSL = 20 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.93	2.46	3.02	3.33	3.33	4.4

LSL = 300µin USL = 800µin

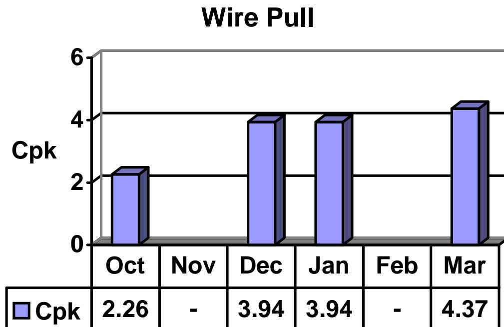


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	4.98	7.36	5.57	5.58	5.69	5.86

USL = 3.0 mils

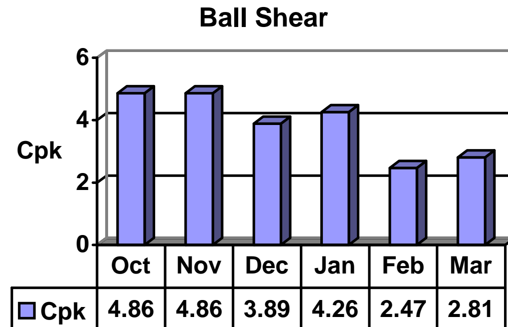
Unisem, Indonesia SPC Program: 2008/2009

Package Technology: SOIC



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.26	-	3.94	3.94	-	4.37

LSL = 6 gms



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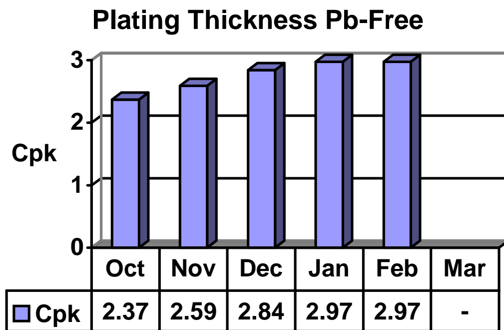
Cpk	4.86	4.86	3.89	4.26	2.47	2.81

LSL = 20 gms

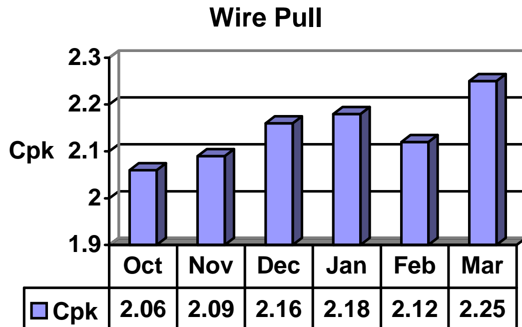


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.37	2.59	2.84	2.97	2.97	-

LSL = 300µin USL = 800µin

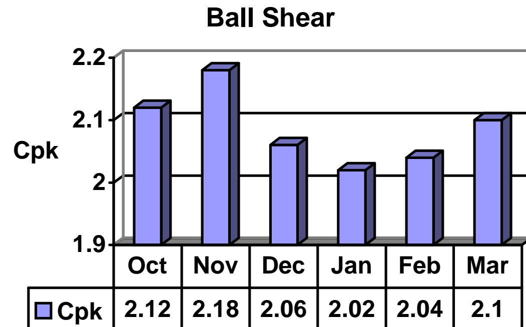
Unisem, Malaysia SPC Program: 2008/2009

Package Technology: NSOIC



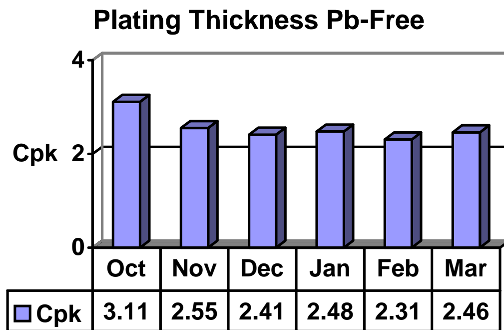
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.06	2.09	2.16	2.18	2.12	2.25

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.12	2.18	2.06	2.02	2.04	2.1

LSL = 20 gms

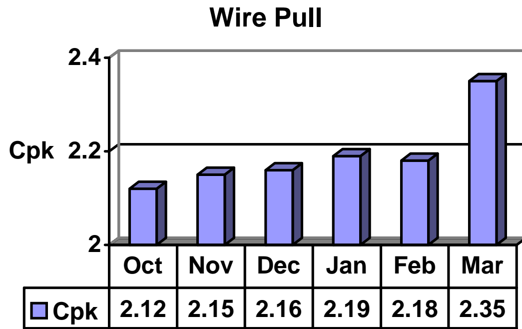


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.11	2.55	2.41	2.48	2.31	2.46

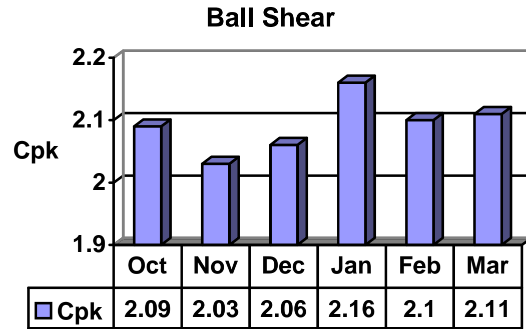
LSL = 300µin USL = 800µin

Unisem, Malaysia SPC Program: 2008/2009

Package Technology: PDIP



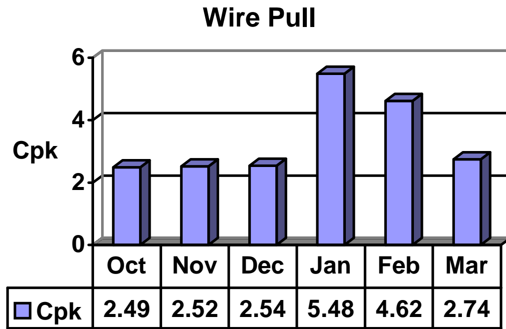
LSL = 6 gms



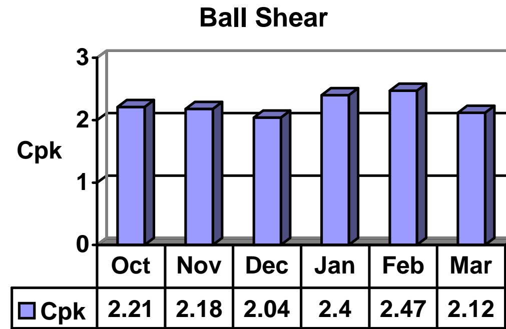
LSL = 20 gms

Unisem, Malaysia SPC Program: 2008/2009

Package Technology: SOT223



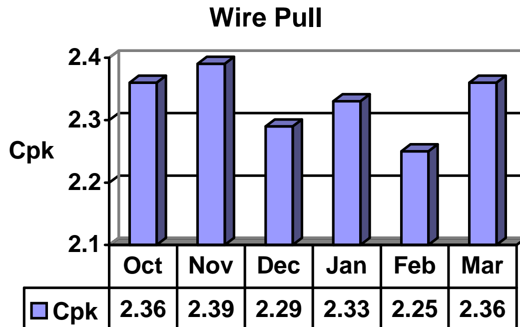
LSL = 6 gms



LSL = 20 gms

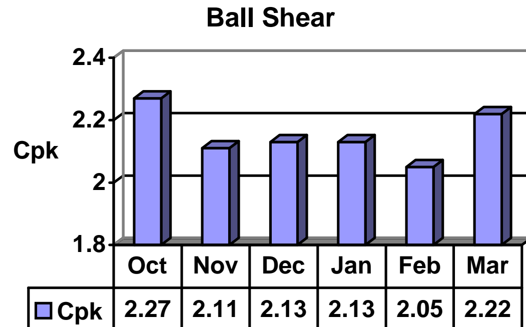
Unisem Malaysia SPC Program: 2008/2009

Package Technology: SOT23



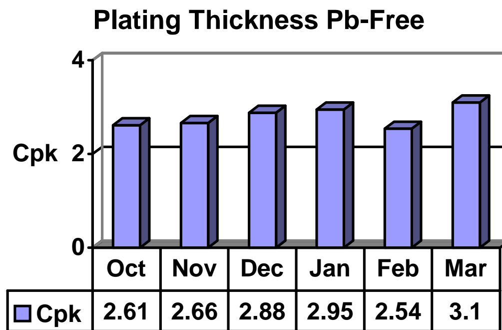
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.36	2.39	2.29	2.33	2.25	2.36

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.27	2.11	2.13	2.13	2.05	2.22

LSL = 20 gms

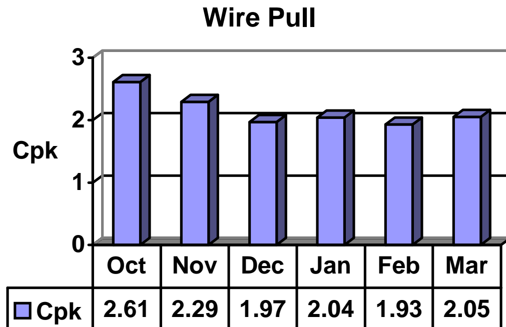


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.61	2.66	2.88	2.95	2.54	3.1

LSL = 300µin USL = 800µin

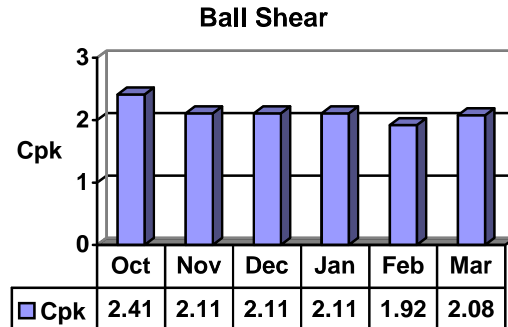
Unisem, Malaysia SPC Program: 2008/2009

Package Technology: MSOP



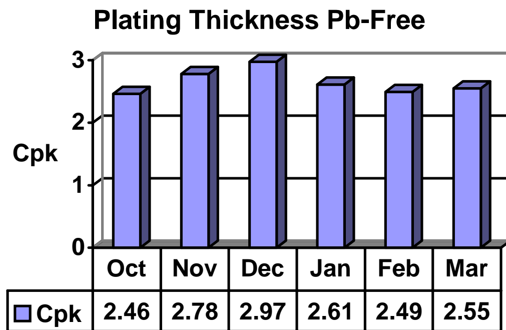
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.61	2.29	1.97	2.04	1.93	2.05

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.41	2.11	2.11	2.11	1.92	2.08

LSL = 20 gms

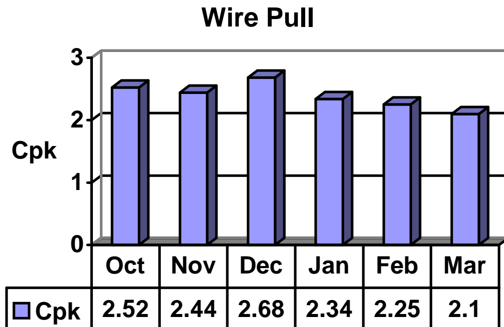


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.46	2.78	2.97	2.61	2.49	2.55

LSL = 300µin USL = 800µin

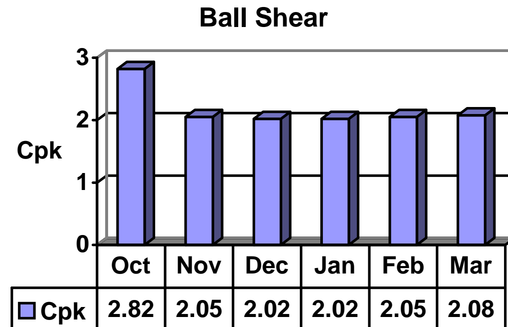
Unisem Malaysia SPC Program: 2008/2009

Package Technology: TSSOP



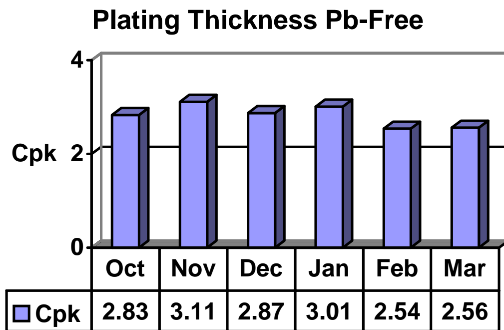
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.52	2.44	2.68	2.34	2.25	2.1

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.82	2.05	2.02	2.02	2.05	2.08

LSL = 20 gms

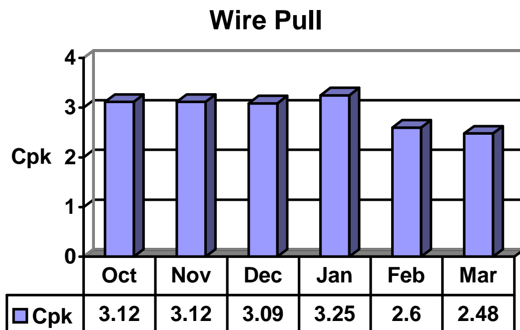


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.83	3.11	2.87	3.01	2.54	2.56

LSL = 300µin USL = 800µin

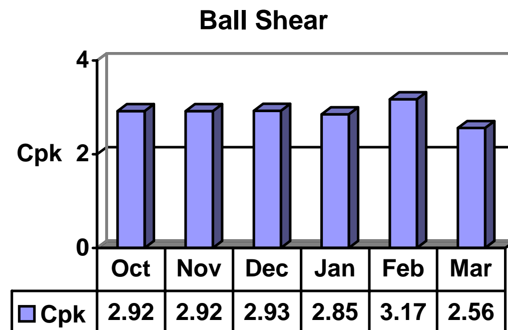
Carsem M, Malaysia Program: 2008/2009

Package Technology: MSOP



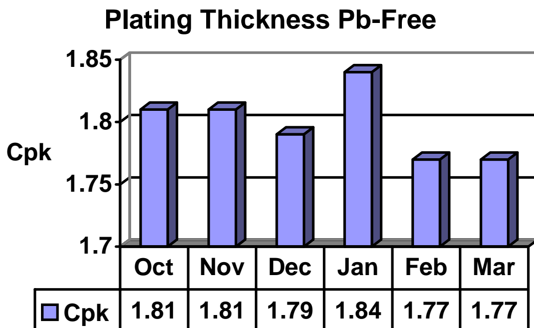
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.12	3.12	3.09	3.25	2.6	2.48

LSL = 6 gms



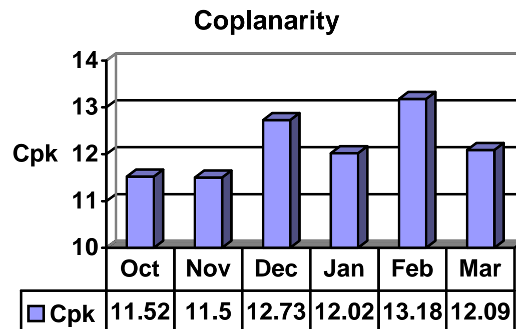
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.92	2.92	2.93	2.85	3.17	2.56

LSL = 20 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.81	1.81	1.79	1.84	1.77	1.77

LSL = 300µin USL = 800µin

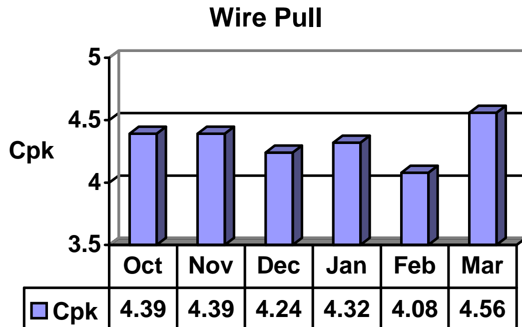


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	11.52	11.5	12.73	12.02	13.18	12.09

USL = 3.0 mils

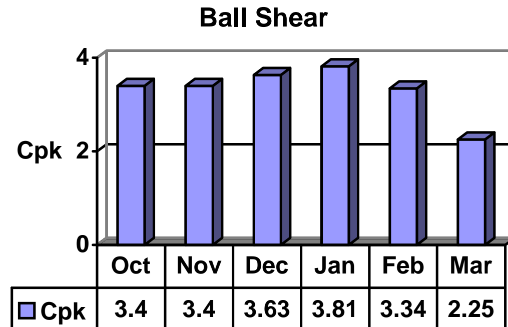
Carsem M, Malaysia Program: 2008/2009

Package Technology: TO220



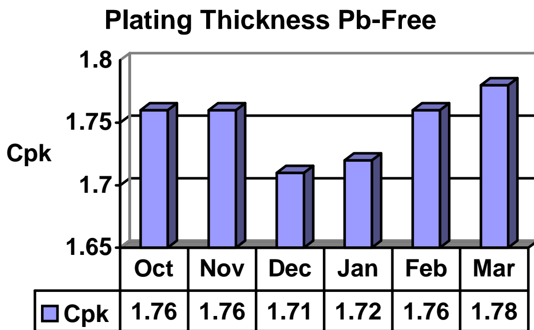
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	4.39	4.39	4.24	4.32	4.08	4.56

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.4	3.4	3.63	3.81	3.34	2.25

LSL = 20 gms

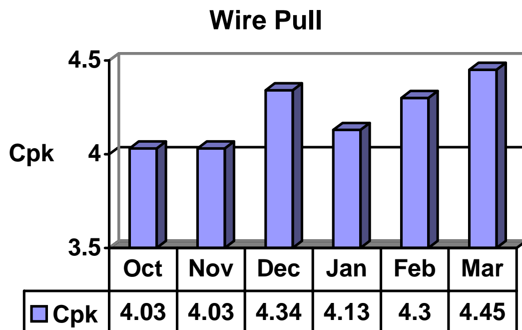


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.76	1.76	1.71	1.72	1.76	1.78

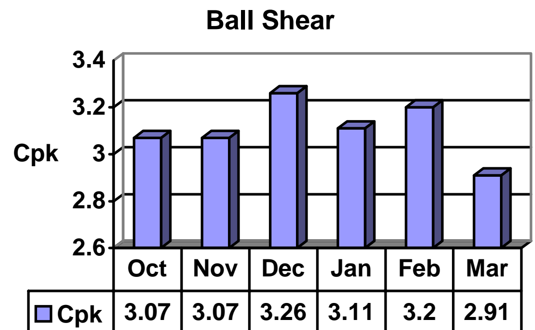
LSL = 300µin USL = 800µin

Carsem M, Malaysia Program: 2008/2009

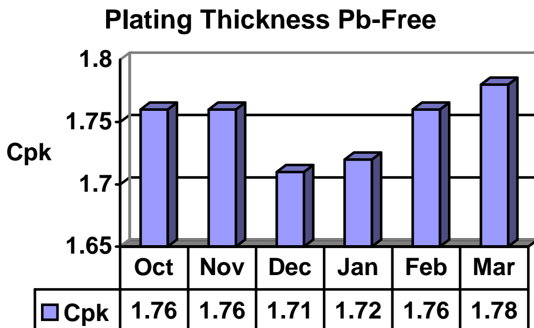
Package Technology: TO263



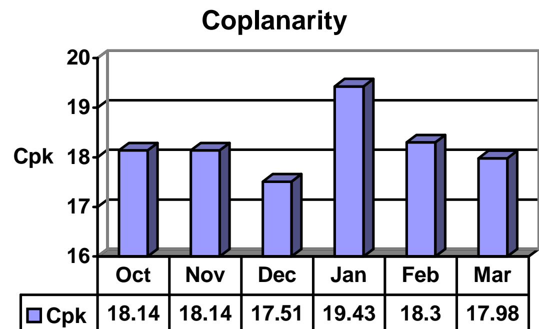
LSL = 6 gms



LSL = 20 gms



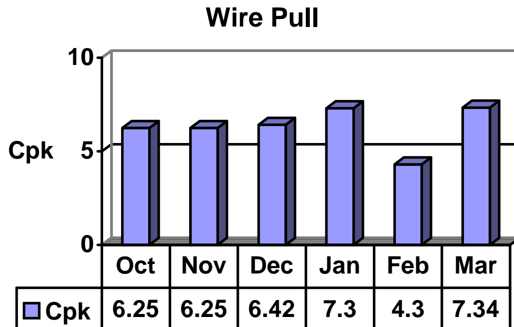
LSL = 300μin USL = 800μin



USL = 3.0 mils

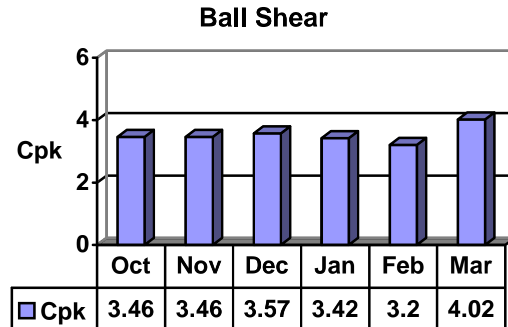
Carsem M, Malaysia Program: 2008/2009

Package Technology: SOT223



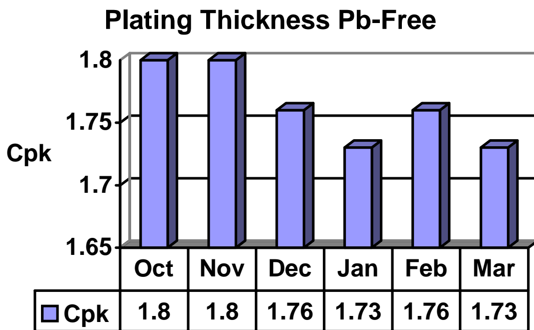
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	6.25	6.25	6.42	7.3	4.3	7.34

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.46	3.46	3.57	3.42	3.2	4.02

LSL = 20 gms

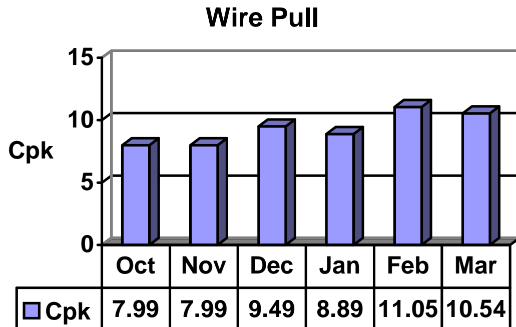


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.8	1.8	1.76	1.73	1.76	1.73

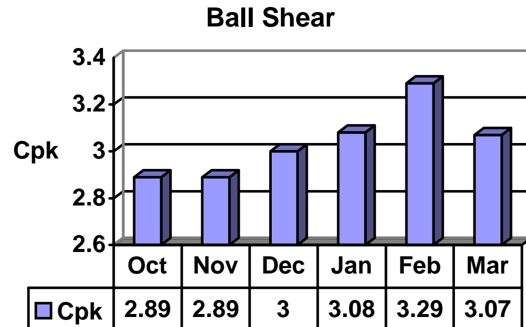
LSL = 300µin USL = 800µin

Carsem M, Malaysia Program: 2008/2009

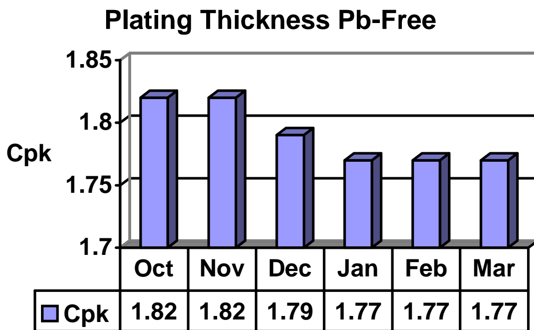
Package Technology: SC70



LSL = 6 gms



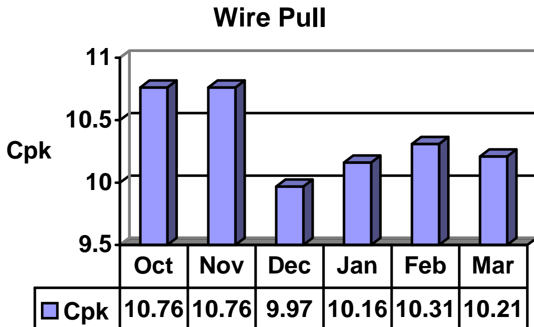
LSL = 20 gms



LSL = 300µin USL = 800µin

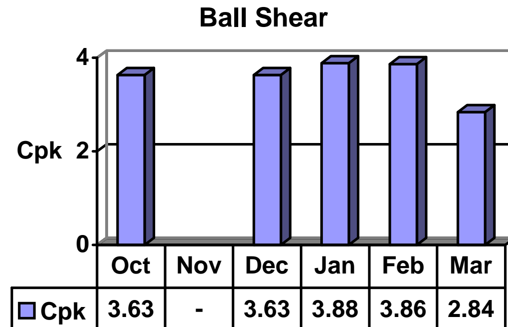
Carsem M, Malaysia Program: 2008/2009

Package Technology: SOT23



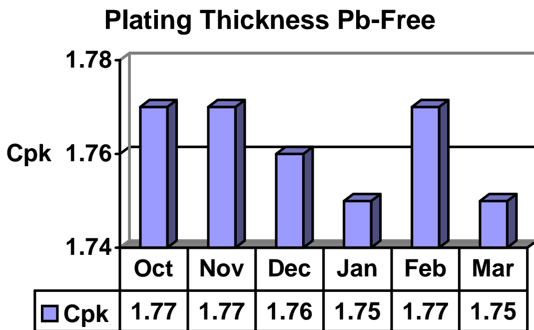
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	10.76	10.76	9.97	10.16	10.31	10.21

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.63	-	3.63	3.88	3.86	2.84

LSL = 20 gms

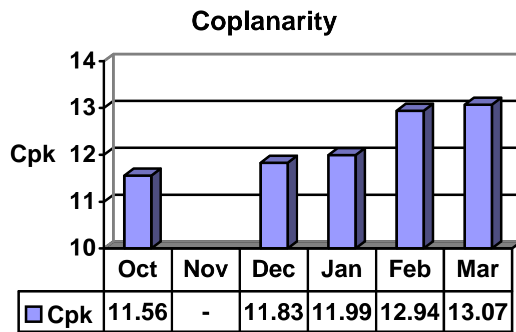


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.77	1.77	1.76	1.75	1.77	1.75

LSL = 300μin USL = 800μin

Carsem S, Malaysia Program: 2008/2009

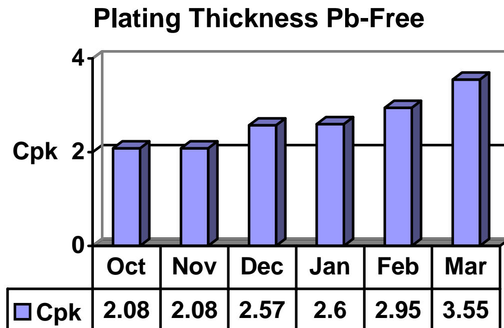
Package Technology: TSSOP



USL = 3.0 mils

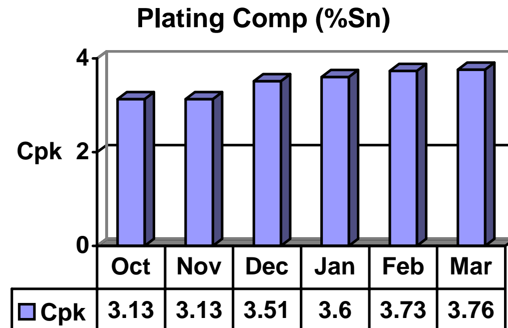
Carsem S, Malaysia Program: 2008/2009

Package Technology: QFP



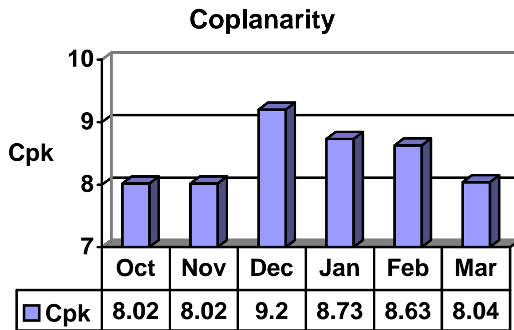
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.08	2.08	2.57	2.6	2.95	3.55

LSL = 300µin USL = 800µin



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.13	3.13	3.51	3.6	3.73	3.76

LSL = 80% USL = 90%

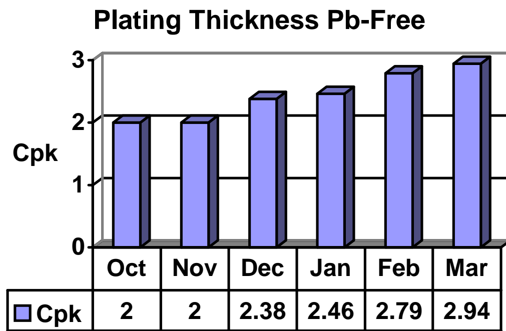


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	8.02	8.02	9.2	8.73	8.63	8.04

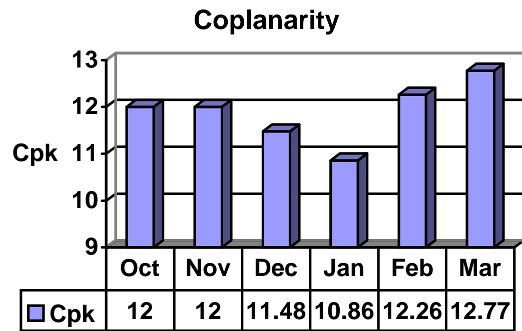
USL = 3.0 mils

Carsem S, Malaysia Program: 2008/2009

Package Technology: SSOP



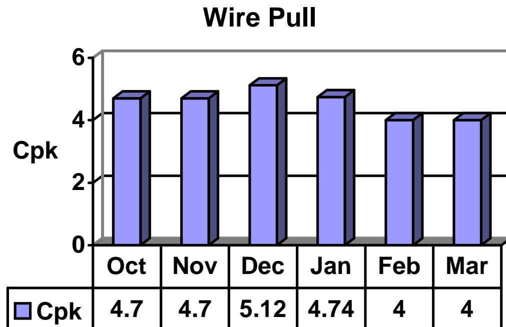
LSL = 300µin USL = 800µin



USL = 3.0 mils

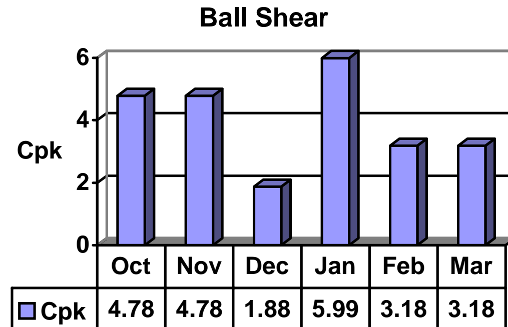
Carsem S, Malaysia Program: 2008/2009

Package Technology: WSOIC



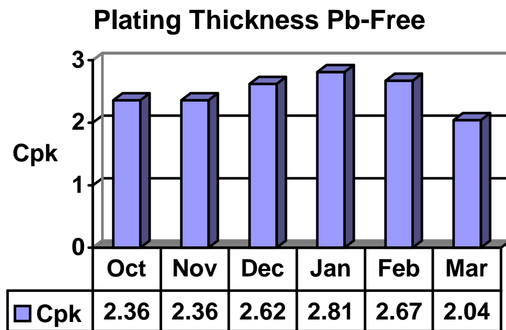
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	4.7	4.7	5.12	4.74	4	4

LSL = 6 gms



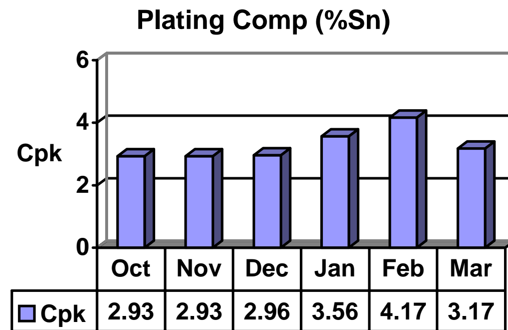
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	4.78	4.78	1.88	5.99	3.18	3.18

LSL = 20 gms



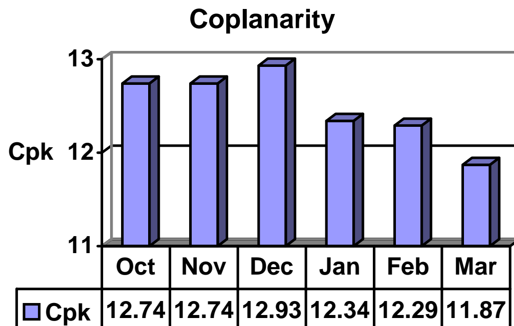
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.36	2.36	2.62	2.81	2.67	2.04

LSL = 300µin USL = 800µin



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.93	2.93	2.96	3.56	4.17	3.17

LSL = 80% USL = 90%

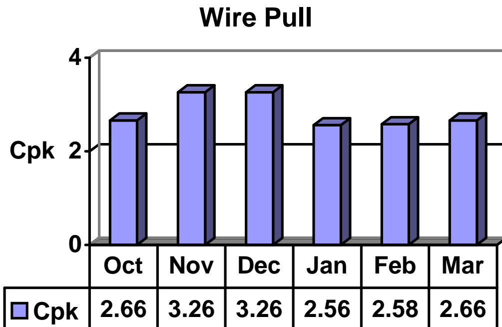


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	12.74	12.74	12.93	12.34	12.29	11.87

USL = 3.0 mils

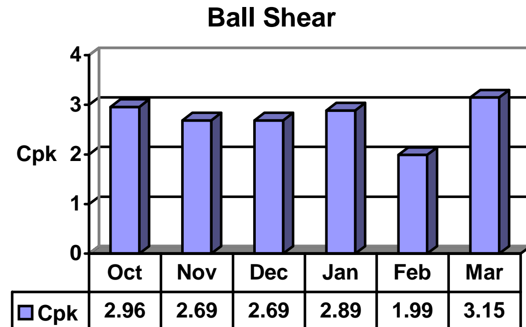
Carsem S, Malaysia Program: 2008/2009

Package Technology: PDIP



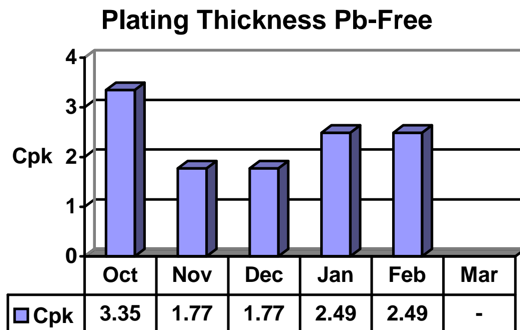
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.66	3.26	3.26	2.56	2.58	2.66

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.96	2.69	2.69	2.89	1.99	3.15

LSL = 20 gms

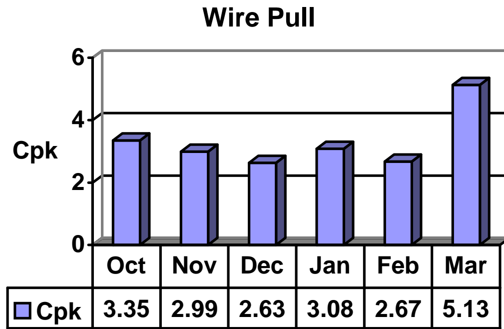


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.35	1.77	1.77	2.49	2.49	-

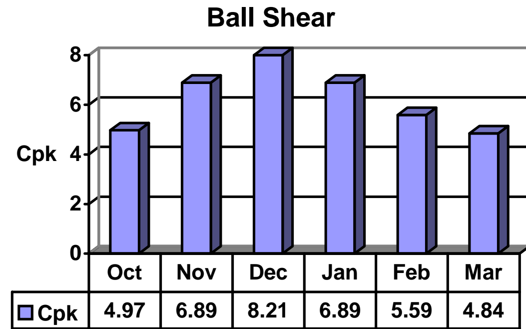
LSL = 300µin USL = 800µin

ASAT, China Program: 2008/2009

Package Technology: BGA



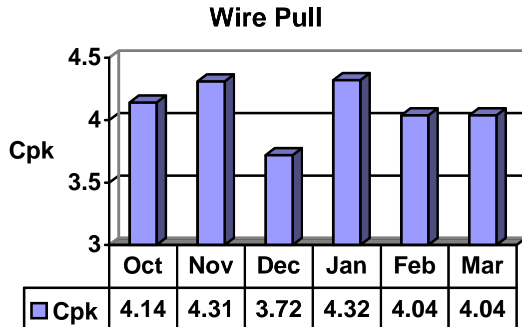
LSL = 6 gms



LSL = 20 gms

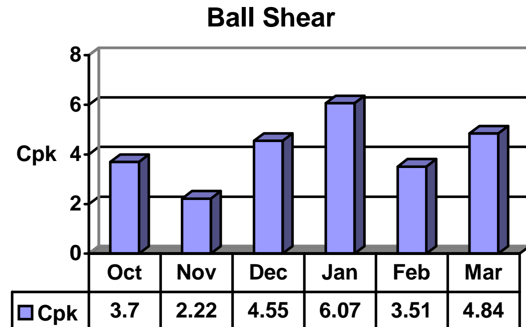
ASAT China Program: 2008/2009

Package Technology: QFP



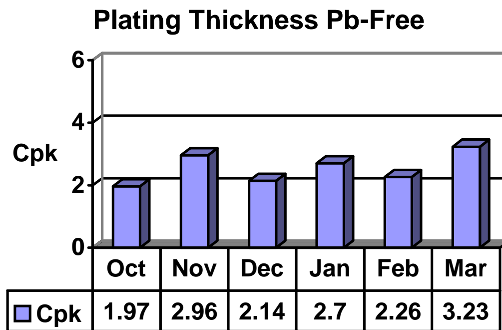
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	4.14	4.31	3.72	4.32	4.04	4.04

LSL = 6 gms



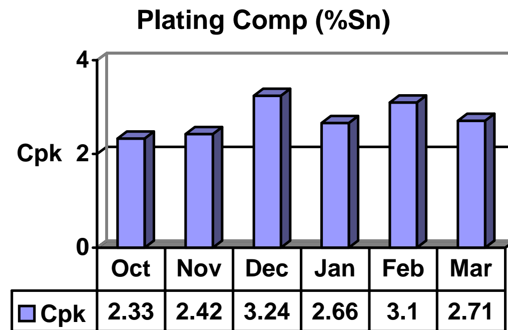
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.7	2.22	4.55	6.07	3.51	4.84

LSL = 20 gms



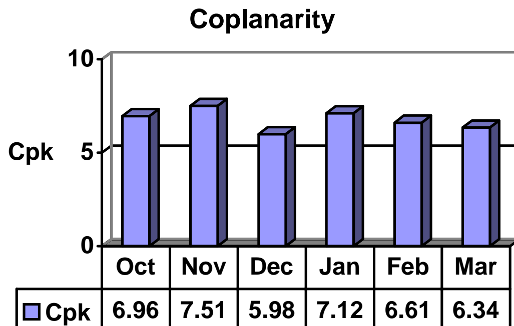
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.97	2.96	2.14	2.7	2.26	3.23

LSL = 300µin USL = 800µin



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	2.33	2.42	3.24	2.66	3.1	2.71

LSL = 80% USL = 90%

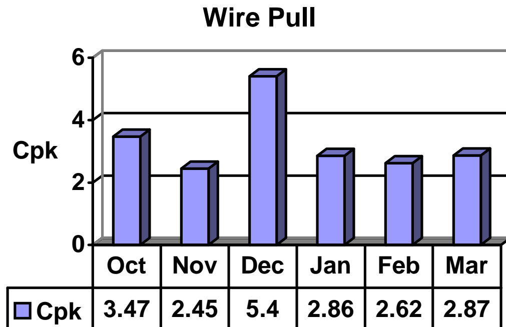


	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	6.96	7.51	5.98	7.12	6.61	6.34

USL = 2.0 mils

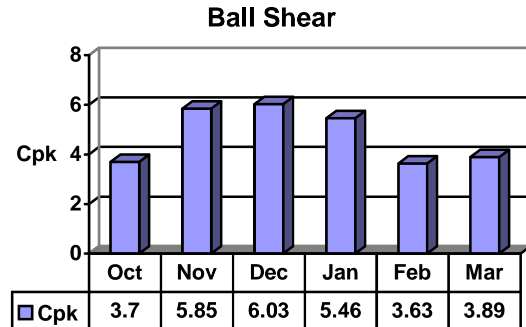
ASAT China Program: 2008/2009

Package Technology: LPCC



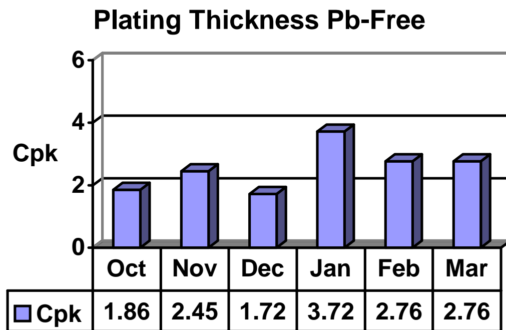
	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.47	2.45	5.4	2.86	2.62	2.87

LSL = 6 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	3.7	5.85	6.03	5.46	3.63	3.89

LSL = 20 gms



	Oct	Nov	Dec	Jan	Feb	Mar
Cpk	1.86	2.45	1.72	3.72	2.76	2.76

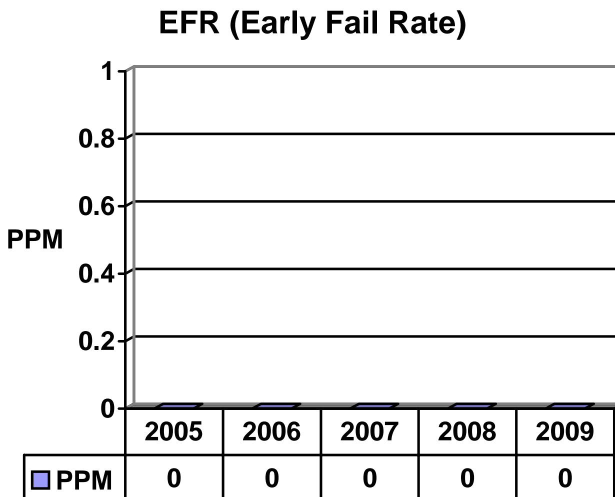
LSL = 300µin USL = 800µin

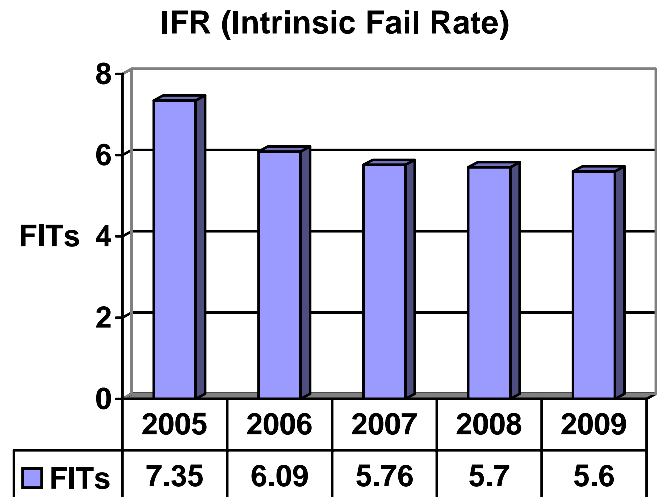
Reliability

Reliability data trends of Exar’s wafer fab processes and package types are reported in order to assure our customers that our foundry fabs and assembly subcontractors are continuing to improve their reliability performance.

Factory: CSM, Singapore

Process: 0.25u/0.35µ CMOS





Year	Sample Size	# Fail	PPM
2005	311	0	0
2006	315	0	0
2007	90	0	0
2008	20	0	0
2009	95	0	0

Year	Sample Size	Device Hours	# Fail
2005	215	122,120	0
2006	270	208,080	0
2007	90	90,000	0
2008	20	20,000	0
2009	95	95,000	0

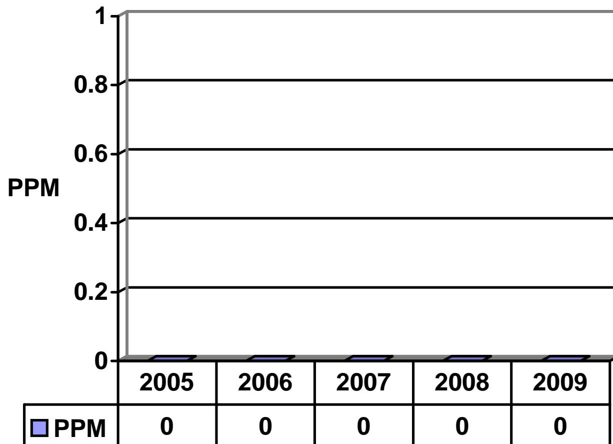
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

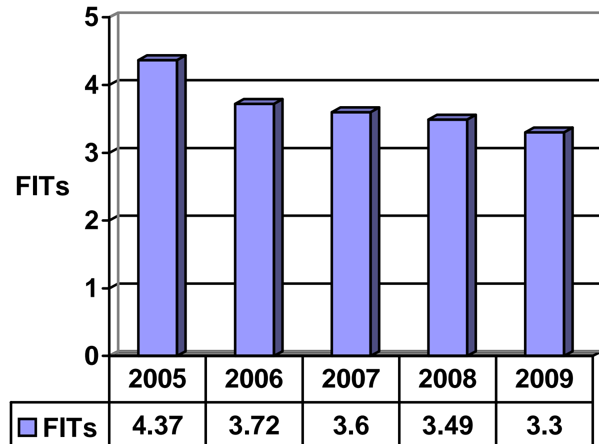
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: CSM Fab 2, Singapore

Process: 0.6µ CMOS





Year	Sample Size	# Fail	PPM
2005	369	0	0
2006	498	0	0
2007	90	0	0
2008	100	0	0
2009	95	0	0

Year	Sample Size	Device Hours	# Fail
2005	323	323,000	0
2006	498	498,000	0
2007	90	90,000	0
2008	100	100,000	0
2009	95	95,000	0

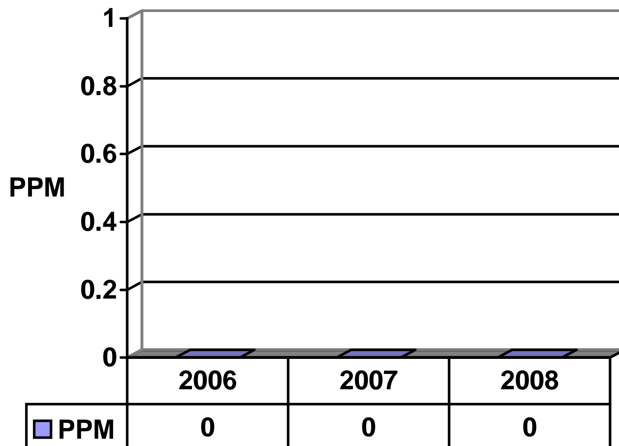
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

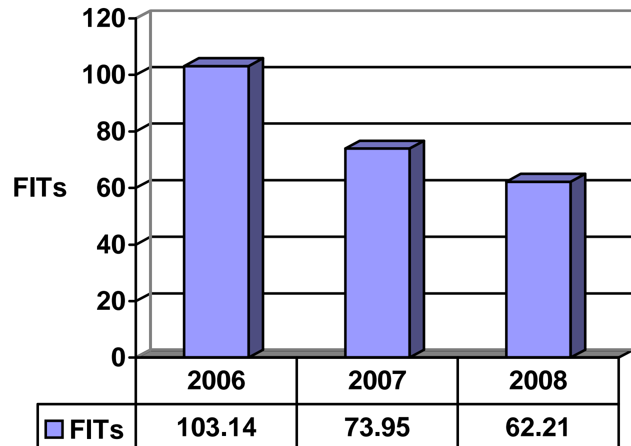
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: CSM, Singapore

Process: 0.18μ CMOS





Year	Sample Size	# Fail	PPM
2006	114	0	0
2007	45	0	0
2008	30	0	0

Year	Sample Size	Device Hours	# Fail
2006	114	114,000	0
2007	45	45,000	0
2008	30	30,000	0

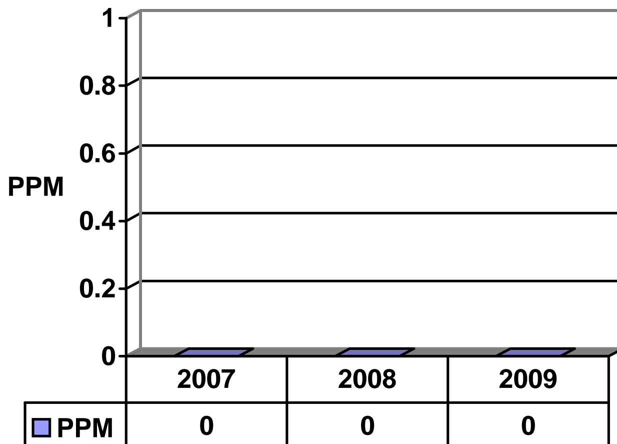
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

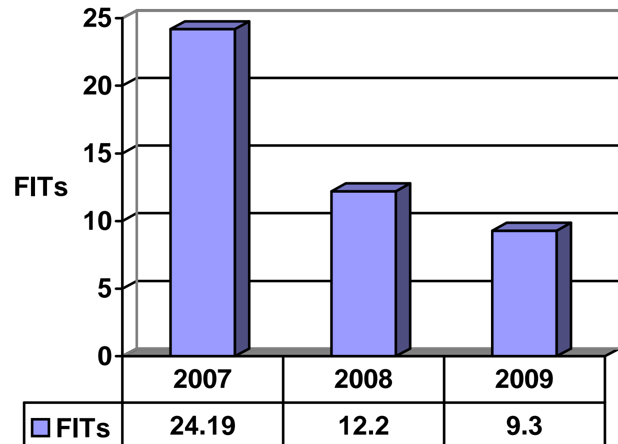
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Jazz, USA

Process: 0.5µ CMOS





Year	Sample Size	# Fail	PPM
2007	486	0	0
2008	311	0	0
2009	465	0	0

Year	Sample Size	Device Hours	# Fail
2007	486	486,000	0
2008	311	311,000	0
2009	465	465,000	0

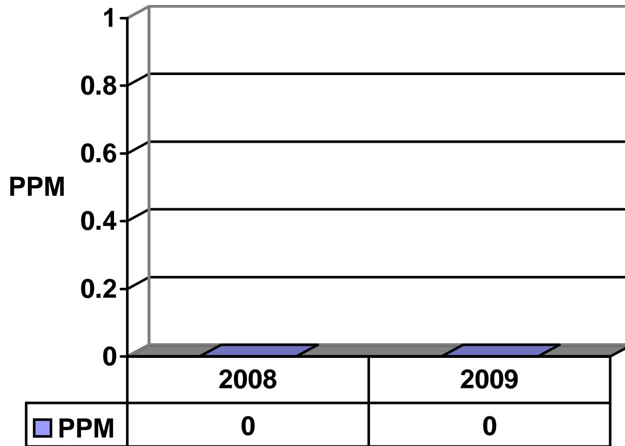
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

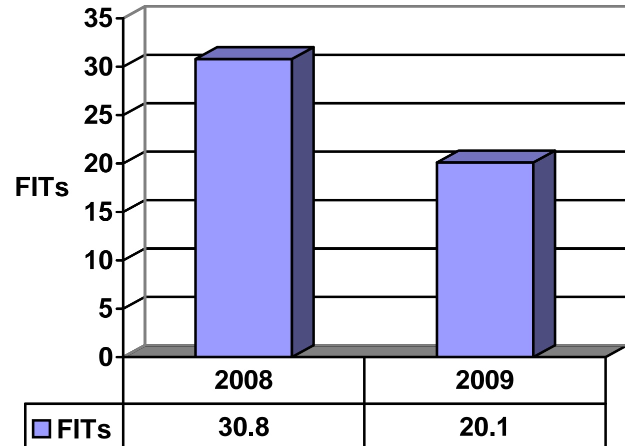
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Polar, USA

Process: 0.5µ BiCMOS





Year	Sample Size	# Fail	PPM
2008	267	0	0
2009	200	0	0

Year	Sample Size	Device Hours	# Fail
2008	387	387,000	0
2009	200	200,000	0

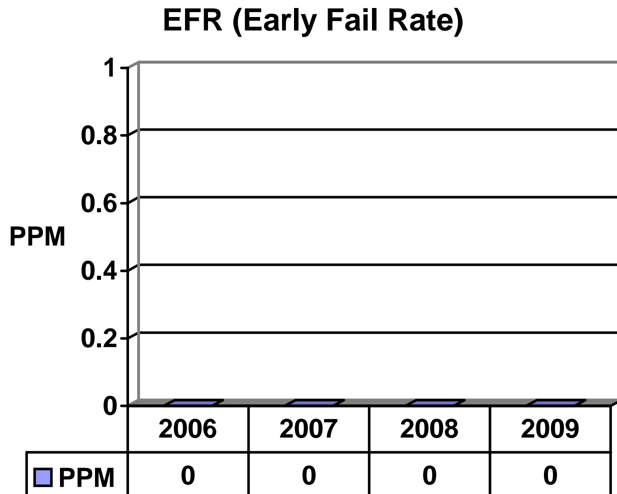
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

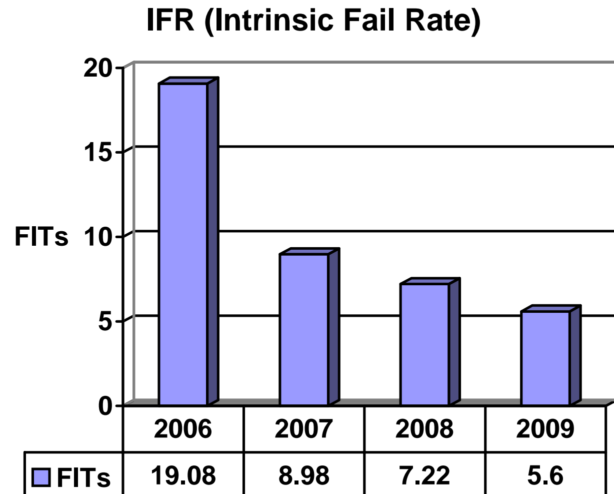
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Episil, Taiwan

Process: 1.2µ / 2µ CMOS





Year	Sample Size	# Fail	PPM
2006	616	0	0
2007	693	0	0
2008	319	0	0
2009	480	0	0

Year	Sample Size	Device Hours	# Fail
2006	616	616,000	0
2007	693	693,000	0
2008	319	559,000	0
2009	480	480,000	0

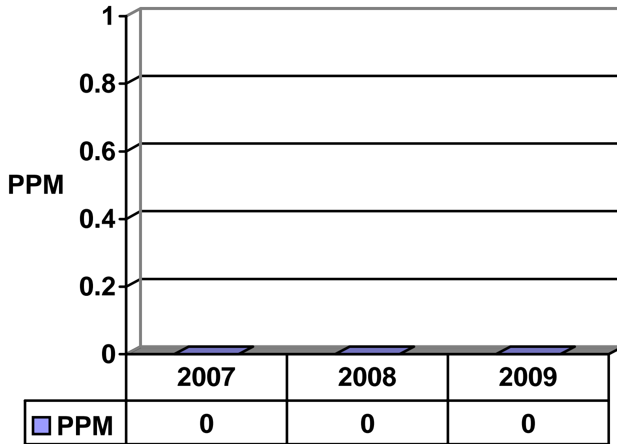
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

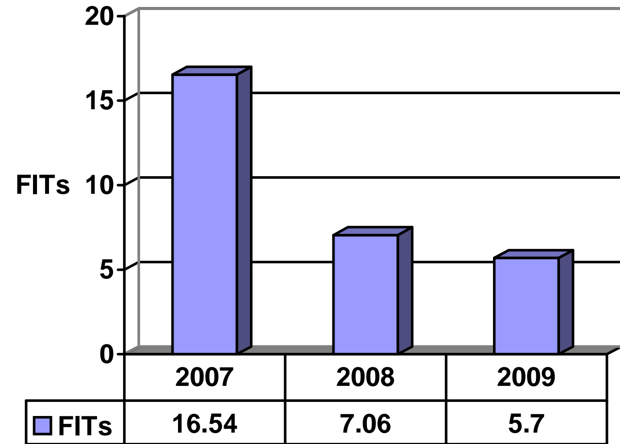
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Silan, China

Process: 2µ CMOS





Year	Sample Size	# Fail	PPM
2007	711	0	0
2008	953	0	0
2009	389	0	0

Year	Sample Size	Device Hours	# Fail
2007	711	711,000	0
2008	953	953,000	0
2009	389	389,000	0

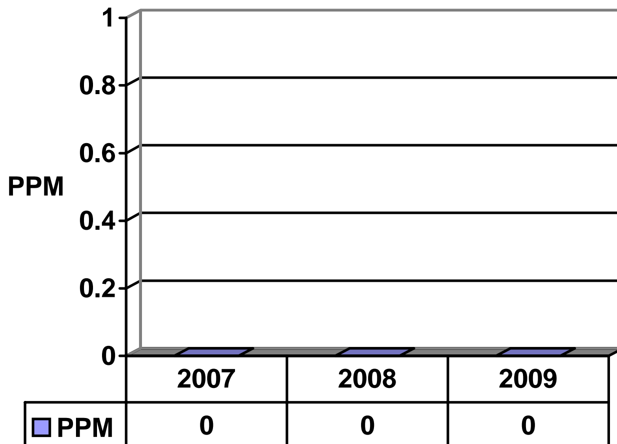
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

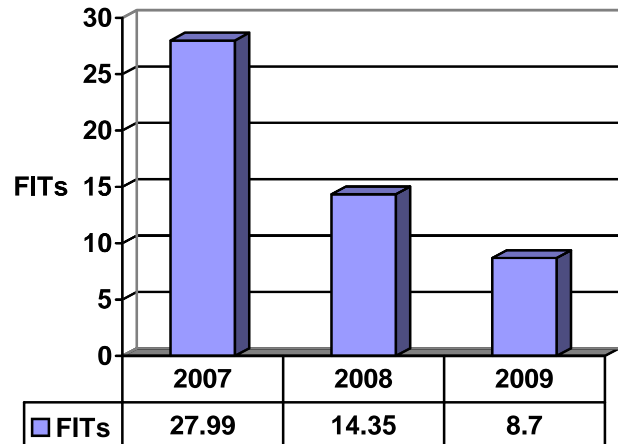
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Silan, China

Process: 5µ CMOS





Year	Sample Size	# Fail	PPM
2007	420	0	0
2008	399	0	0
2009	536	0	0

Year	Sample Size	Device Hours	# Fail
2007	420	420,000	0
2008	399	399,000	0
2009	536	536,000	0

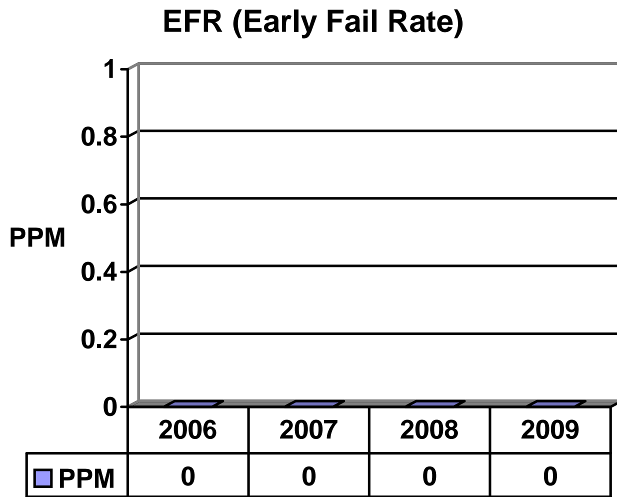
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

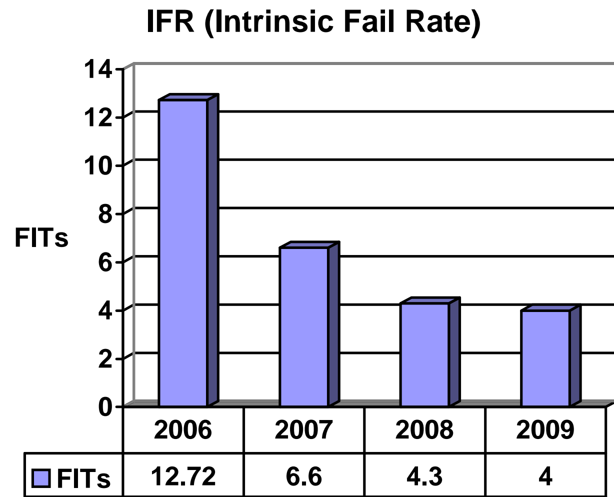
IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: Silan, China

Process: Bipolar





Year	Sample Size	# Fail	PPM
2006	1,600	0	0
2007	856	0	0
2008	721	0	0
2009	397	0	0

Year	Sample Size	Device Hours	# Fail
2006	924	924,000	0
2007	858	856,000	0
2008	721	721,000	0
2009	397	397,000	0

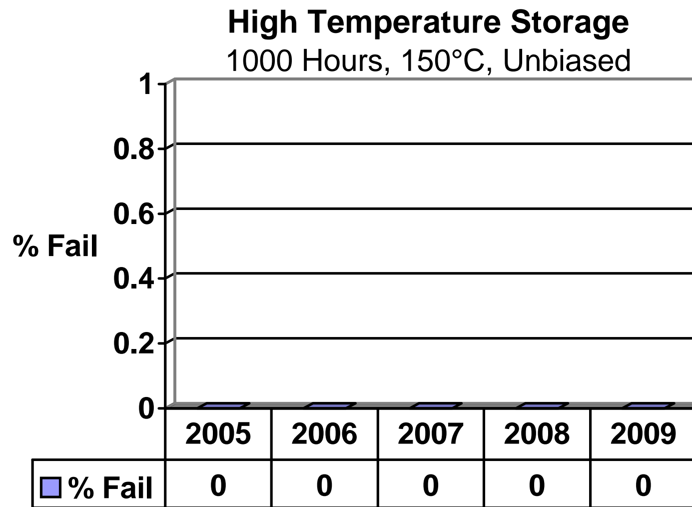
FIT: Failure in Time; 60% CL, 55°C, Ea = .7eV

IFR: Intrinsic Failure Rate > 168 hours @ the test temperature of 125°C or > 72 hours @ 150°C

IFR: Early Failure Rate < 168 hours @ the test temperature of 125°C or < 72 hours @ 150°C

Factory: CSM, Singapore

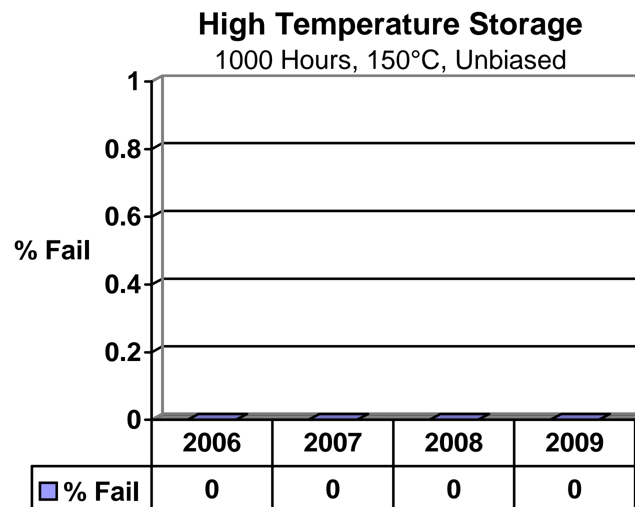
Process: 0.35μ CMOS



Year	Sample Size	# Fail	% Fail
2005	432	0	0
2006	322	0	0
2007	157	0	0
2008	75	0	0
2009	30	0	0

Factory: CSM, Singapore

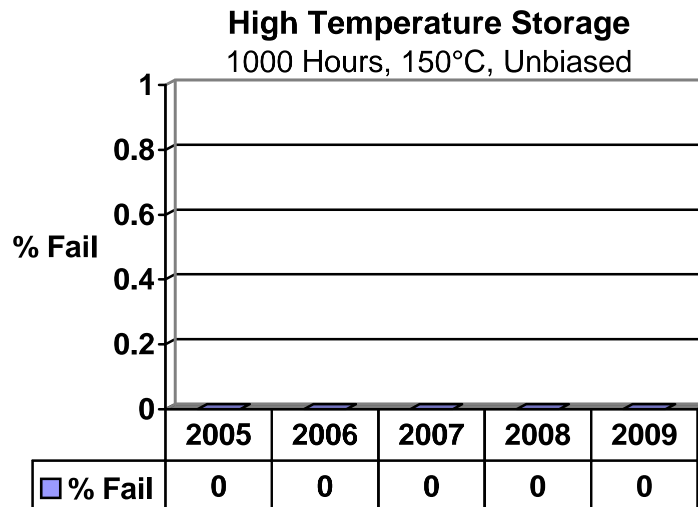
Process: 0.18µ CMOS



Year	Sample Size	# Fail	% Fail
2006	75	0	0
2007	83	0	0
2008	45	0	0
2009	35	0	0

Factory: CSM Fab 2, Singapore

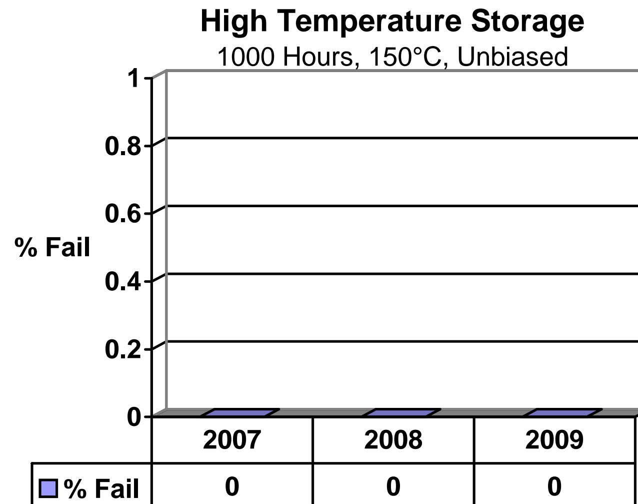
Process: 0.6µ CMOS



Year	Sample Size	# Fail	% Fail
2005	180	0	0
2006	579	0	0
2007	135	0	0
2008	100	0	0
2009	45	0	0

Factory: Jazz, CA USA

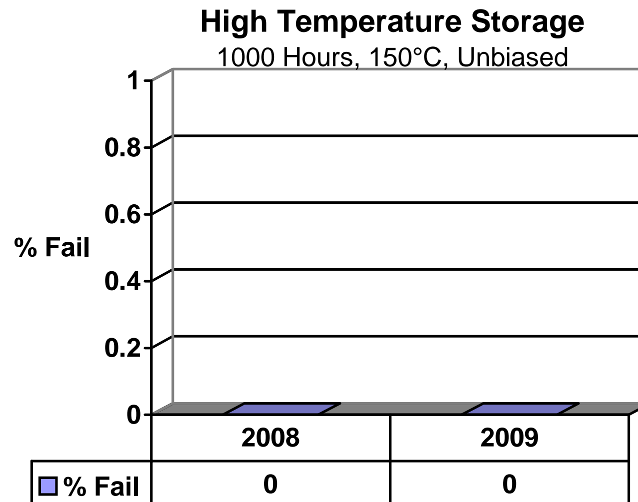
Process: 0.5μ CMOS



Year	Sample Size	# Fail	% Fail
2007	231	0	0
2008	25	0	0
2009	122	0	0

Factory: Episil, Taiwan

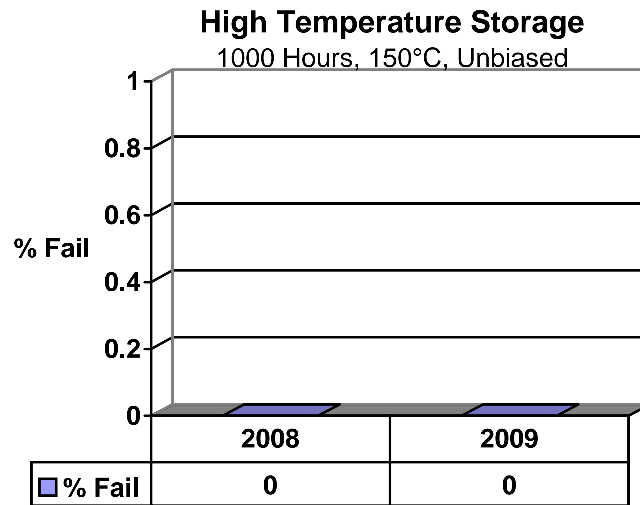
Process: 1.2u CMOS



Year	Sample Size	# Fail	% Fail
2008	80	0	0
2009	100	0	0

Factory: Episil, Taiwan

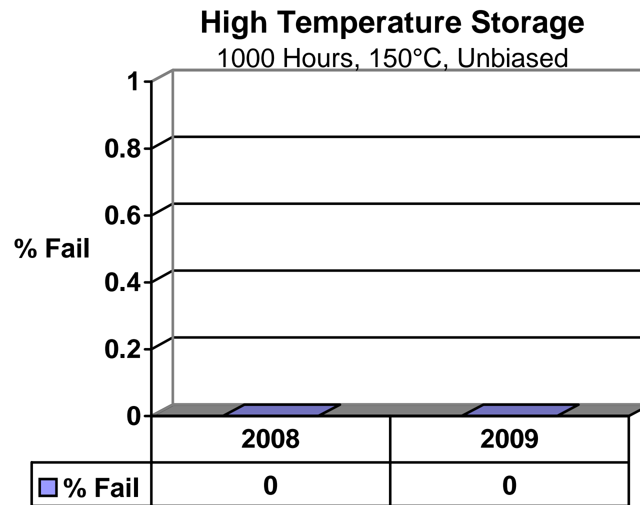
Process: 2u CMOS



Year	Sample Size	# Fail	% Fail
2008	462	0	0
2009	47	0	0

Factory: Silan, China

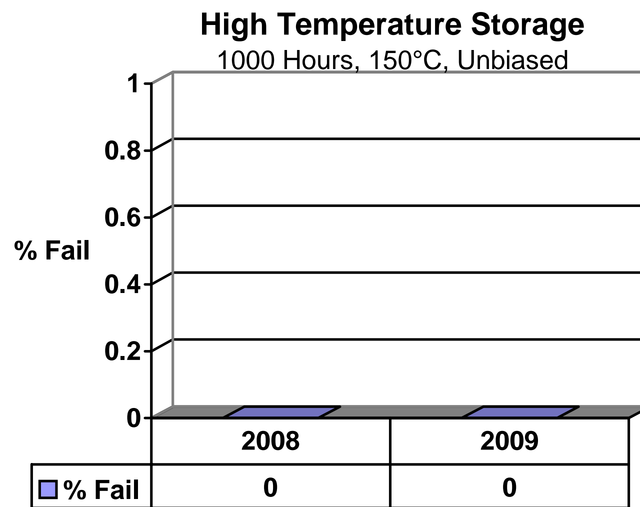
Process: 2u CMOS



Year	Sample Size	# Fail	% Fail
2008	204	0	0
2009	115	0	0

Factory: Silan, China

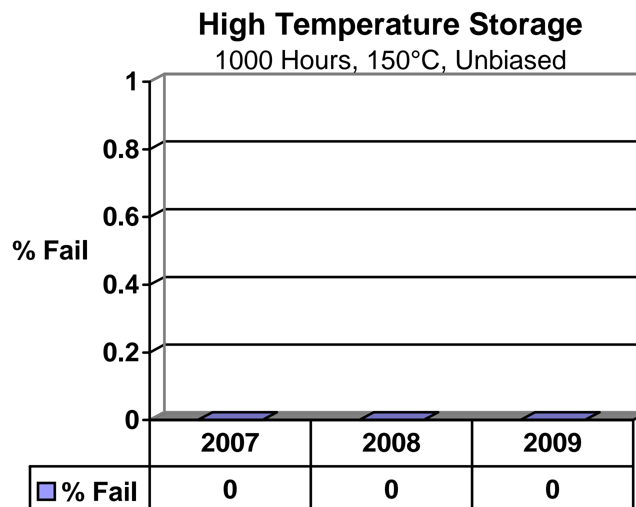
Process: 5u CMOS



Year	Sample Size	# Fail	% Fail
2008	77	0	0
2009	45	0	0

Factory: Silan, China

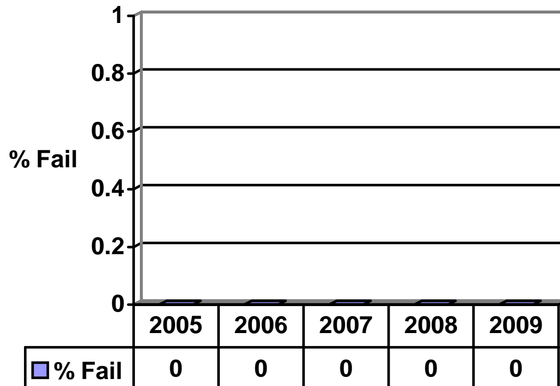
Process: Bipolar



Year	Sample Size	# Fail	% Fail
2007	180	0	0
2008	116	0	0
2009	71	0	0

Package: BGA Families

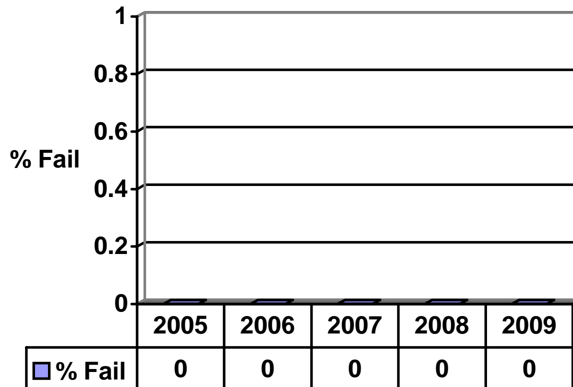
Temperature Cycle



Year	Sample Size	# Fail	% Fail
2005	268	0	0
2006	256	0	0
2007	127	0	0
2008	47	0	0
2009	30	0	0

Conditions:
1000 Hours, -65/150°C.

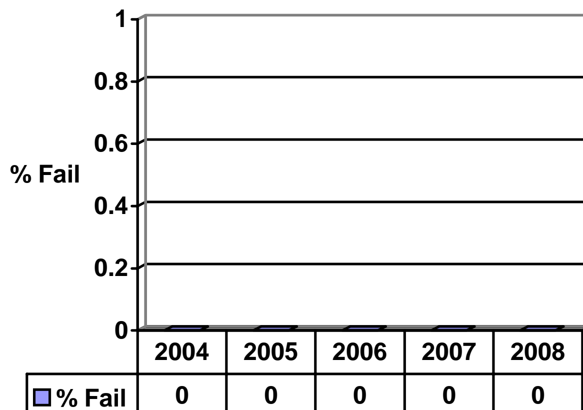
Pressure Pot/UHAST



Year	Sample Size	# Fail	% Fail
2005	151	0	0
2006	212	0	0
2007	97	0	0
2008	68	0	0
2009	30	0	0

Conditions:
168 Hours, 121°C, 100% RH

Temperature Humidity Test

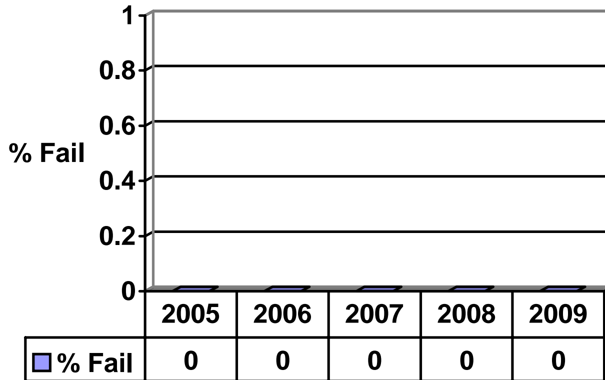


Year	Sample Size	# Fail	% Fail
2004	20	0	0
2005	12	0	0
2006	120	0	0
2007	21	0	0
2008	68	0	0

Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 100 Hours, 130°C, 85% RH

Package: PDIP

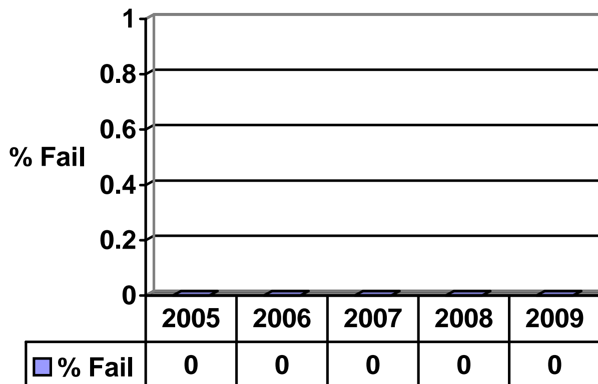
Temperature Cycle



Year	Sample Size	# Fail	% Fail
2005	275	0	0
2006	90	0	0
2007	243	0	0
2008	135	0	0
2009	90	0	0

Conditions:
1000 Hours, -65/150°C

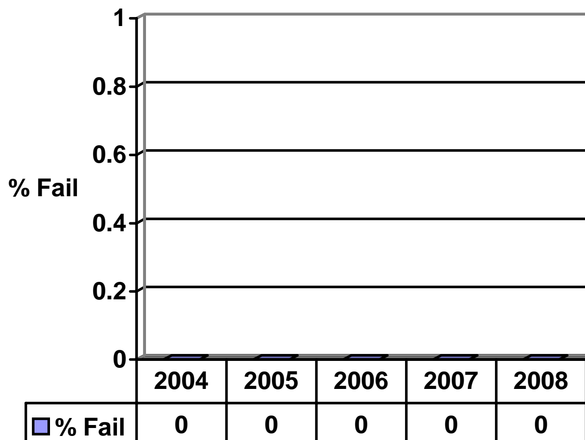
Pressure Pot/UHAST



Year	Sample Size	# Fail	% Fail
2005	540	0	0
2006	225	0	0
2007	353	0	0
2008	135	0	0
2009	135	0	0

Conditions:
96/168 Hours, 121°C, 100% RH / or 96 Hours, 130°C, 85% RH

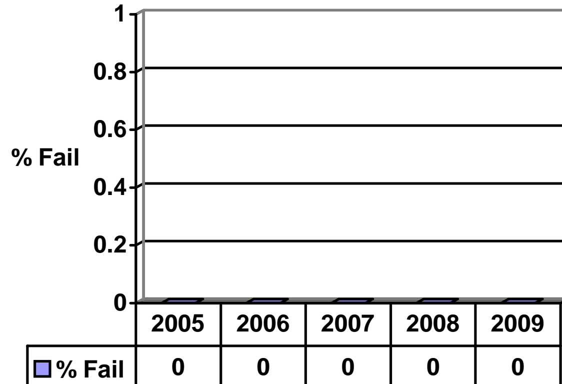
Temperature Humidity Bias Test



Year	Sample Size	# Fail	% Fail
2004	180	0	0
2005	90	0	0
2006	45	0	0
2007	90	0	0
2008	135	0	0

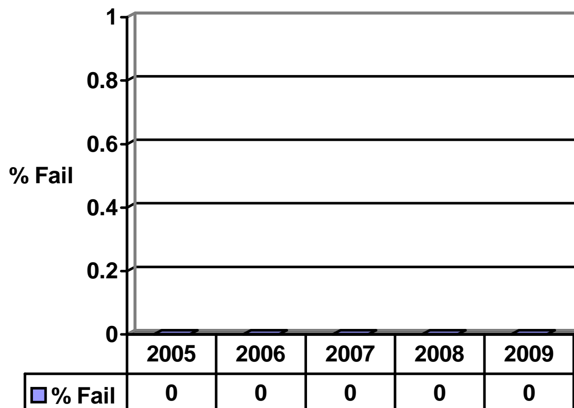
Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 100 Hours, 130°C, 85% RH

Package: PLCC



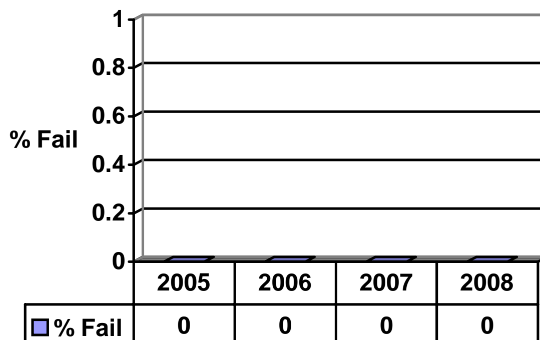
Year	Sample Size	# Fail	% Fail
2005	280	0	0
2006	135	0	0
2007	45	0	0
2008	90	0	0
2009	45	0	0

Conditions:
1000 Hours, -65/150°C



Year	Sample Size	# Fail	% Fail
2005	360	0	0
2006	360	0	0
2007	90	0	0
2008	180	0	0
2009	45	0	0

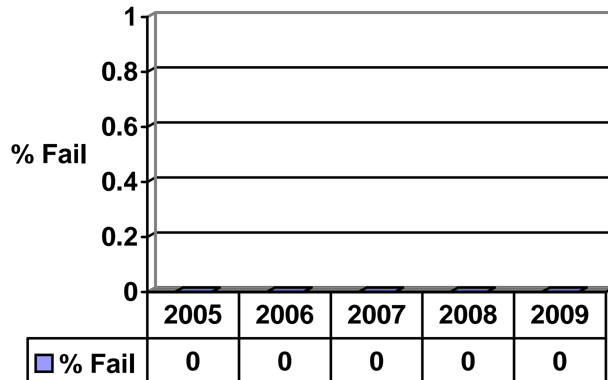
Conditions:
168 Hours, 121°C, 100% RH



Year	Sample Size	# Fail	% Fail
2004	117	0	0
2005	81	0	0
2006	45	0	0
2007	90	0	0
2008	135	0	0

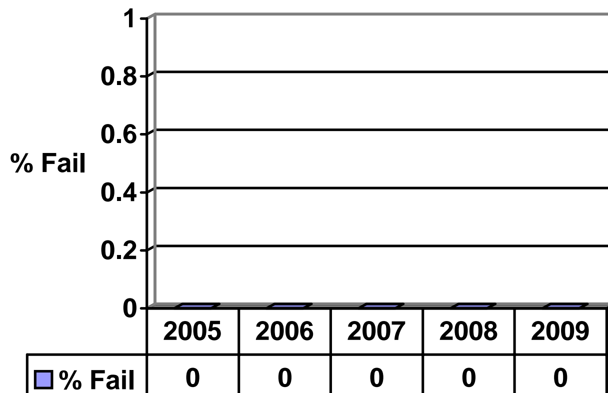
Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 100 Hours, 130°C, 85% RH

Package: T/S/LQFP/N



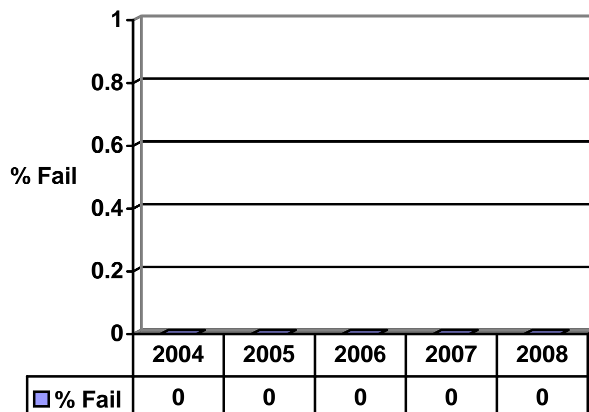
Year	Sample Size	# Fail	% Fail
2005	536	0	0
2006	724	0	0
2007	645	0	0
2008	180	0	0
2009	90	0	0

Conditions:
300/1000 Hours, -65/150°C



Year	Sample Size	# Fail	% Fail
2005	662	0	0
2006	820	0	0
2007	460	0	0
2008	225	0	0
2009	90	0	0

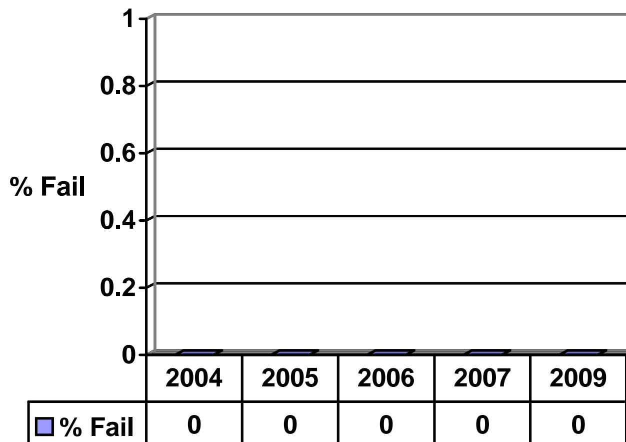
Conditions:
168 Hours, 121°C, 100% RH



Year	Sample Size	# Fail	% Fail
2004	180	0	0
2005	240	0	0
2006	181	0	0
2007	75	0	0
2008	90	0	0

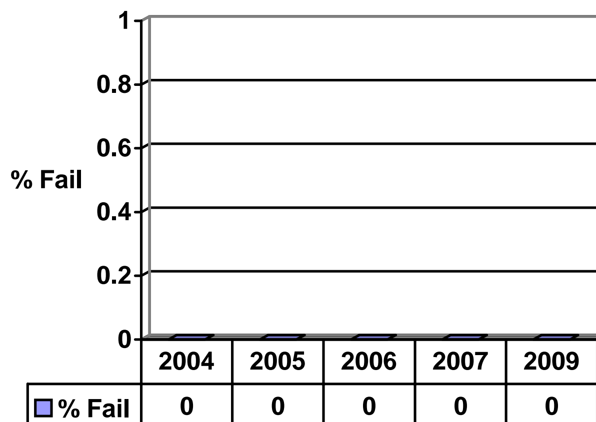
Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 100 Hours, 130°C, 85% RH

Package: TO



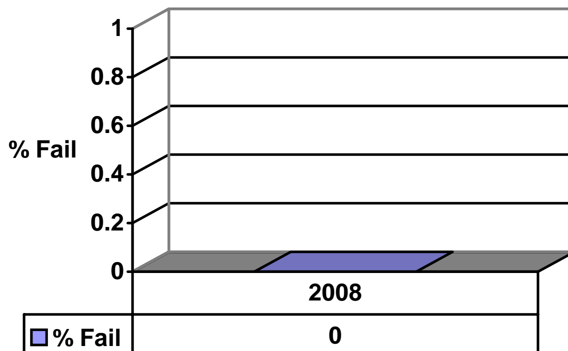
Year	Sample Size	# Fail	% Fail
2004	320	0	0
2005	500	0	0
2006	180	0	0
2007	180	0	0
2009	135	0	0

Conditions:
1000 Hours, -65/150°C



Year	Sample Size	# Fail	% Fail
2004	760	0	0
2005	855	0	0
2006	310	0	0
2007	313	0	0
2009	135	0	0

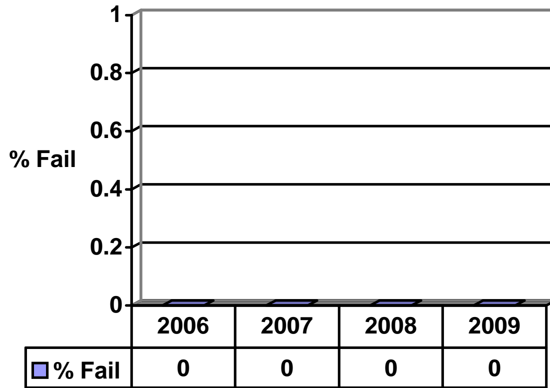
Conditions:
168 Hours, 121°C, 100% RH



Year	Sample Size	# Fail	% Fail
2008	75	0	0

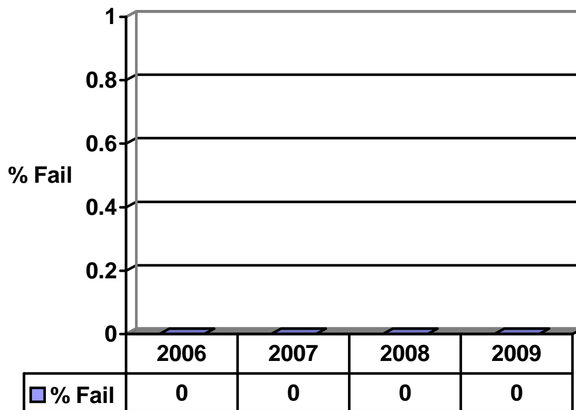
Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 96 Hours, 130°C, 85% RH

Package: SOT, TSOT, SC-70



Year	Sample Size	# Fail	% Fail
2006	77	0	0
2007	908	0	0
2008	1780	0	0
2009	70	0	0

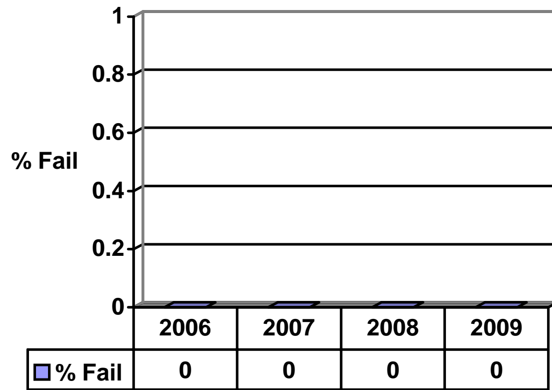
Conditions:
500/1000 Hours, -65/150°C



Year	Sample Size	# Fail	% Fail
2006	77	0	0
2007	915	0	0
2008	836	0	0
2009	70	0	0

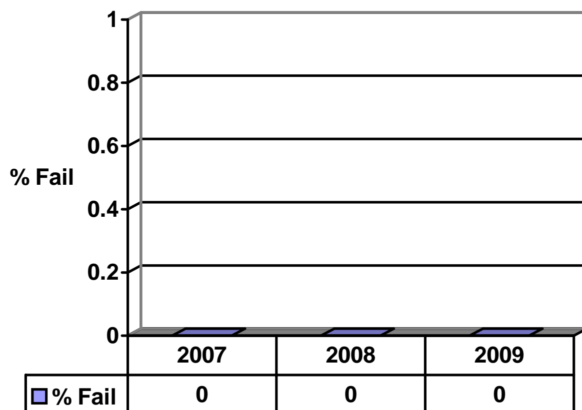
Conditions:
96 Hours, 121°C, 100% RH / or 96 Hours, 130°C, 85% RH

Package: MSOP, TSSOP, SSOP, SOIC



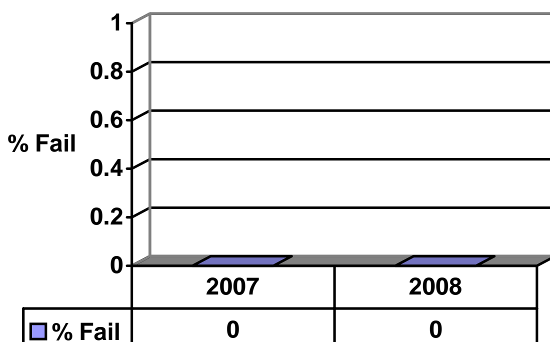
Year	Sample Size	# Fail	% Fail
2006	539	0	0
2007	2731	0	0
2008	2538	0	0
2009	145	0	0

Conditions:
300/1000 Hours, -65/150°C



Year	Sample Size	# Fail	% Fail
2007	1131	0	0
2008	2253	0	0
2009	170	0	0

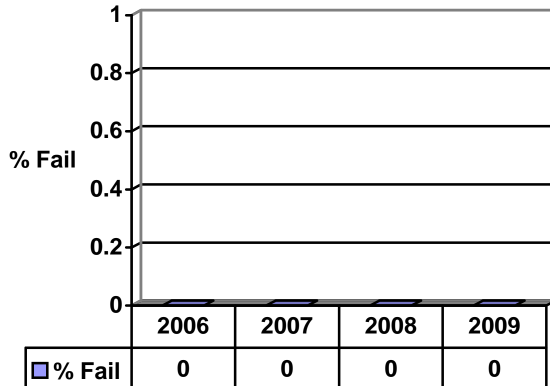
Conditions:
96 Hours, 121°C, 100% RH / or 96 Hours, 130°C, 85% RH



Year	Sample Size	# Fail	% Fail
2007	920	0	0
2008	575	0	0

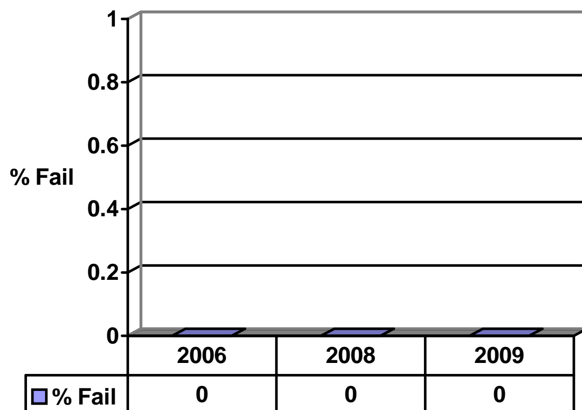
Conditions:
85/85: 1000 Hours, 85°C, 85% RH
or an alternative stress,
HAST: 96 Hours, 130°C, 85% RH

Package: DFN



Year	Sample Size	# Fail	% Fail
2006	231	0	0
2007	77	0	0
2008	45	0	0
2009	55	0	0

Conditions:
1000 Hours, -65/150°C,



Year	Sample Size	# Fail	% Fail
2006	308	0	0
2008	25	0	0
2009	30	0	0

Conditions:
96 Hours, 121°C, 100% RH / or 96 Hours, 130°C, 85% RH