



## 2009 Q4 RELIABILITY REPORT

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## 1.0 OVERVIEW OF CYPRESS SEMICONDUCTOR, INC. TOTAL QUALITY MANAGEMENT SYSTEM

This report summarizes Cypress Semiconductor Product Reliability for the period of the 1<sup>st</sup> quarter of 2009. It includes data from devices fabricated at both internal Cypress and external subcontractor wafer fabrication and assembly facilities.

Cypress Semiconductor has established aggressive reliability objectives. The quality standard at Cypress is zero defects, driven by a culture requiring continuous improvement in quality and reliability.

Product reliability is assured by a total quality management system. The quality management system is described in detail in the Cypress Semiconductor Quality Manual (Cypress Semiconductor Document Number 90-00001). Key reliability-related programs of the total quality management system are: (1) design rule review and approval; (2) control of raw materials and vendor quality; (3) manufacturing statistical process controls; (4) "Maverick Lot" yield limits; (5) formal training and certification of manufacturing personnel; (6) qualification of new products and manufacturing processes; (7) continuous reliability monitoring; (8) formal failure analysis and corrective action; and (9) competitive benchmarking.

Product Reliability data is accumulated as a result of new product Qualification Test Plan activities (Cypress Semiconductor Document Number 25-00040) as well as from the Reliability Monitor Program (Cypress Semiconductor Document Number 25-00008). All reliability test samples are obtained from standard production material. Sample selection is based on generic product families. These generic products are designed with very similar design rules and manufactured from a core set of processes.

Reliability strategy requires that every failure that occurs during reliability testing be subjected to failure analysis (Cypress Semiconductor Document Number 25-00039) to determine the failure mechanism. Corrective action is then implemented to prevent future failures, resulting in continuous improvement in product reliability.

Sabbas Daniel  
Executive Vice-President, Quality

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## 2.0 PRODUCT RELIABILITY

In product stress testing, the main emphasis is on the useful life section of the bathtub curve. The test methodology used to predict the useful life period is a life test under a dynamic bias and at temperatures of 125°C or 150°C at the maximum specified use voltage of the product. The duration at these temperatures is 1,000 and 500 hours, respectively.

At Cypress, product reliability tests are performed as part of both the qualification processes and the standard reliability monitoring program. Each fab site and technology family from each product line is sampled. These reliability tests utilize the following stress factors to accelerate failure: temperature, current and /or voltage. The product reliability tests currently employed at Cypress include Early Failure Rate (EFR) and Long Term Failure Rate (LFR).

### 2.1 EARLY FAILURE RATE SUMMARY

Early Failure Rate Determination: High Temperature Operating Life testing (HTOL), for as long as 96 hours, is used to estimate device early failure rate. This stress will typically correspond to the first 2000 hours of device operation in a system environment. The remainder of the device's lifetime is characterized with extended LFR testing (See Section 3)

**Test** : High Temperature Operating Life Test (HTOL)  
**Conditions** : Dynamic Operating Conditions, VCC nominal + 15%, 150°C or 125°C.  
**Duration** : 48 hours HTOL at 150°C or 96 hours at 125°C.  
 (Refer to Appendix C for derating factor calculation)  
**Failure** : A failure is any device that fails to meet data sheet electrical requirements.

**Table 1. Early Failure Rate Summary**

Technology	Device Hours	# Failed	FIT Rate	PPM	Failure Mode
B53	15,158	0	Insufficient	0	None
C9	2,511,360	13	17	248	Fab defect-13 (see Note 2)
L8	11,179	0	Insufficient	0	None
R8	396,480	0	14	0	None
C8	305,525	0	18	0	None
S8	540,513	1	11	86	Fab defect-1 (see Note 3)
R95	1,145,155	0	5	0	None
R9	1,718,924	0	3	0	None
S4	1,599,540	0	3	0	None
0.25um	15,640	0	Insufficient	0	None
P26	14,400	0	Insufficient	0	None
<b>Grand Total</b>	<b>8,273,875</b>	<b>14</b>	<b>6</b>	<b>73</b>	<b>See above</b>

Notes: 1) Insufficient data – interpret as insufficient accumulated life-time hours to project a 60%confidence bound for a zero-fails sample.  
 2) CAR 200813026 – Tungsten particle reduction in the Local Interconnect layers and improved test screens  
 3) CAR 200930051– Process Clean improvement



## 2.2 LONG TERM FAILURE RATE SUMMARY

A High Temperature Operating Life test (HTOL) is used to estimate long-term reliability. By operating the devices at accelerated temperature and voltage, hundreds of thousands of use hours can be compressed into hundreds of test hours.

- Test** : High Temperature Operating Life Test (HTOL)
- Conditions** : Dynamic Operating Conditions, VCC nominal +15% 150°C or 125°C.
- Duration** : A minimum of 80 hours at 150°C or 168 hours at 125°C  
Generally 500 hours at 150°C or 1000 hours at 125°C.  
(Refer to Appendix C for derating factor calculation)
- Failure** : A failure is any device that fails to meet data sheet electrical requirements.
- Fit Rate** : Derated to 55° C ambient, with 60% upper confidence bound for 0 failures, Ea =0.7ev (Refer to Appendix A)

**Table 2. Long Term Failure Rate Summary**

Technology	Device Hours	# Failed	FIT Rate	Failure Mode
B53	393,124	0	14	None
L8	522,185	0	10	None
C8	729,057	0	7	None
C9	290,000	0	19	None
R8	655,331	0	8	None
R9	242,010	0	22	None
S4	2,753,479	0	2	None
S8	1,675,651	0	3	None
0.25um	166,947	0	32	None
R95	242,010	0	22	None
R7	204,000	0	26	None
<b>Grand Total</b>	<b>7,873,794</b>	<b>0</b>	<b>0</b>	<b>None</b>

## 2.3 DATA RETENTION SUMMARY

A high-temperature, non-biased bake test ensures that data retention meets established reliability goals. The devices are baked without bias at either 165°C for plastic-packaged devices, or 250°C for hermetically-packaged devices. DRET is performed on programmed devices to establish a failure rate for cell charge loss. The reliability at nominal system ambient temperature is related to the failure rate at elevated temperatures through the Arrhenius equation.

**Test** : Data Retention Testing (DRET)  
**Conditions** : High temperature non-biased bake  
**Duration** : A minimum of 500 hours at 150°C or 168 hours at 165°C  
 Generally 1000 hours at 150°C or 500 hours at 165°C.  
**Failure** : Devices are programmed with a worst case program pattern before being subjected to data retention testing. The memory pattern is verified at each readpoint and any device with altered bits is classified a failure.

**Table 3. Data Retention Summary**

Technology	Sample Size	Device-Hours	# Failed	PPM	Failure Mode
S4	3,830	2,242,146	0	0	None
S8	2,796	2,409,917	0	0	None
0.25um	320	240,000	0	0	None
<b>Grand Total</b>	<b>6,626</b>	<b>4,652,064</b>	<b>0</b>	<b>0</b>	<b>None</b>

### 3.0 PACKAGE RELIABILITY

Package-level reliability testing refers to the assessment of the overall reliability of the device in packaged form. This consists of subjecting packaged samples to reliability tests that expose the various sample sets to different stress conditions, after which the samples are tested for any degradation.

At Cypress, package reliability tests are performed as part of the qualification processes and as part of the standard reliability monitoring program. The reliability test employed is chosen based on the failure mechanism, as different stress tests accelerate different failure mechanisms. These reliability tests utilize one or more of the following stress factors to accelerate failure: temperature, moisture or humidity, current, voltage, and pressure. The package reliability tests currently employed at Cypress include Pressure Cooker Test (PCT), Highly Accelerated Stress Test (HAST), Temperature Cycle Test (TCT), and High Temperature Storage (HTS). Figure 1 shows the Cypress package reliability stress flow.

Surface-mount samples are preconditioned per Jedec Std JESD22-A113 prior to package reliability testing. This is required prior to TCT, PCT and HAST testing. Preconditioning simulates the board mounting process of the customer. It normally consists of a temperature cycle to simulate exposure to different temperatures during shipping, a bake to drive away the moisture inside the packages of the samples, a soak to drive a controlled amount of moisture into the package, and three cycles of convection reflow. Packages are soaked and reflowed based on their shipping moisture sensitivity classification. The samples are tested (acoustic and electrical) after preconditioning, failures from which are considered as preconditioning failures and not reliability failures. Preconditioning failures should be taken seriously, since these imply that the samples are not robust enough to withstand the board mounting process.

Cypress conducts all major classes of package reliability tests on each of its package families. The package characteristics and assembly locations are the primary considerations when grouping packages into package families. A package family may consist of a group of 44-lead to 144-lead TQFP packages manufactured at a particular manufacturing location.

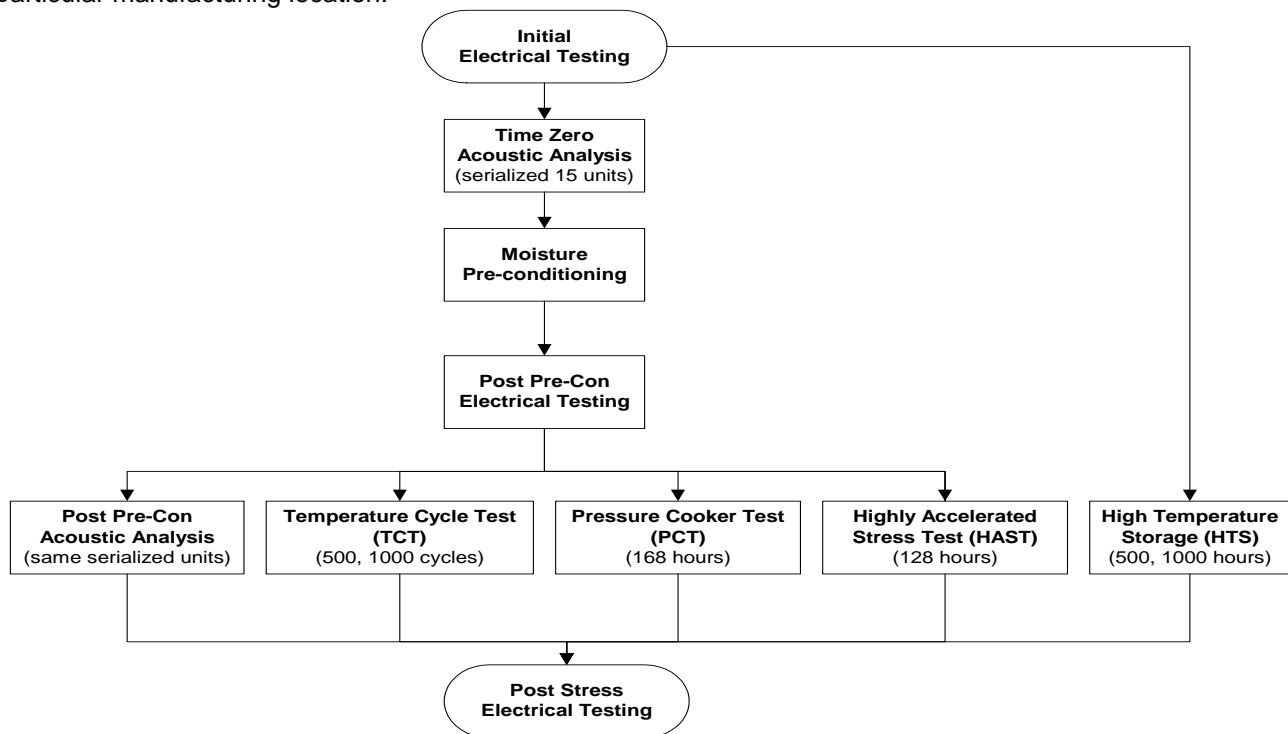


Figure 1. Cypress Package Reliability Stress Flow



### 3.1 PRESSURE COOKER TEST (PCT)

The Pressure Cooker Test is a highly accelerated packaging stress test used to ensure environmental durability of epoxy-packaged parts. Passivation cracks, ionic contamination, and corrosion susceptibility are all accelerated by this stress.

- Conditions** : 15 PSIG, 121°C, No bias, for a minimum of 168 hours.
- Pre-Conditioning** : 5 cycles Temperature Cycle -65/+150, 24 hr Bake 125°C, Moisture loading to qualified MSL level
- Failure Modes** : Parametric shifts, high leakage, and/or catastrophic
- Failure Mechanism** : Die corrosion or contaminants such as foreign material on or within the package materials. Poor package sealing.

**Table 4. Pressure Cooker Test Failure Rate Summary**

Package	Sample Size	# Failed	Defects %	Failure Mode
FBGA (0.75-0.8, 0.3mm, Pb-free)	320	0	0	None
FBGA (1.0-1.27)	388	0	0	None
FBGA (1.0-1.27, Pb-free)	427	0	0	None
FLIPCHIP CSP (Pb-Free)	150	0	0	None
PBGA (1.27)	258	0	0	None
PBGA (1.27, Pb-free)	25	0	0	None
PDIP (Pb-Free)	407	0	0	None
PLCC	80	0	0	None
PLCC (Pb-Free)	140	0	0	None
PQFP (Pb-free)	110	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	110	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	136	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	1,676	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	1,293	0	0	None
QFN (Punch Type, Pb-Free)	918	0	0	None
QFN (Saw Type, Pb-free)	600	0	0	None
QSOP (Pb-Free)	110	0	0	None
RTSOP (Pb-free)	80	0	0	None
SNC (Pb-Free)	360	0	0	None
SOIC	110	0	0	None
SOIC (J-Lead)	258	0	0	None
SOIC (J-Lead, Pb-Free)	487	0	0	None
SOIC (Pb-Free)	1,269	0	0	None
SSOP	60	0	0	None
SSOP (Pb-Free)	2,481	0	0	None
TQFP	110	0	0	None
TQFP (10mm X 10mm)	78	0	0	None
TQFP (Pb-Free)	996	0	0	None
TSOP (Pb-free)	1,145	0	0	None
TSOP I (Pb-Free)	140	0	0	None
TSOP II (Pb-Free)	1,087	0	0	None
TSSOP	170	0	0	None
TSSOP (Pb-Free)	417	0	0	None
VFBGA (0.75-0.8, 0.3mm)	109	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	787	0	0	None
<b>Grand Total</b>	<b>17,292</b>	<b>0</b>	<b>0.00%</b>	<b>See above</b>



### 3.2 HIGHLY ACCELERATED STRESS TEST (HAST)

Cypress uses HAST to accelerate temperature, humidity, bias failure mechanisms. This change was necessary because our package reliability had improved to the point where the old 85°C/85% R.H. temperature-humidity-bias testing would not induce failures. Failures are necessary to judge progress and compare packaging changes. HAST testing has been shown to be at least twenty times more accelerated than 85°C/85% R.H. temperature-humidity-bias testing.

- Conditions** : Present Conditions: 130°C / 85% RH minimum power dissipation, for a minimum of 128 hours.
- Pre-Conditioning** : 5 cycles Temperature Cycle –65/+150, 24 hr Bake 125°C, Moisture loading to qualified MSL level
- Failure Modes** : Parametric shifts, high leakage, and/or catastrophic
- Failure Mechanism** : Die corrosion or contaminants such as foreign material on or within the package materials. Poor package sealing.

**Table 5. Highly Accelerated Stress Test (HAST) Failure Rate Summary**

Package	Sample Size	# Failed	Defects %	Failure Mode
FBGA (0.75-0.8, 0.3mm, Pb-free)	249	0	0	None
FBGA (1.0-1.27)	68	0	0	None
FBGA (1.0-1.27, Pb-free)	77	0	0	None
FLIPCHIP CSP (Pb-Free)	73	0	0	None
PDIP (Pb-Free)	332	0	0	None
PLCC (Pb-Free)	55	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	97	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	105	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	767	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	288	0	0	None
QFN (Punch Type, Pb-Free)	383	0	0	None
QFN (Saw Type, Pb-free)	430	0	0	None
QSOP (Pb-Free)	50	0	0	None
RTSOP (Pb-free)	25	0	0	None
SNC (Pb-Free)	129	0	0	None
SOIC	50	0	0	None
SOIC (J-Lead)	264	0	0	None
SOIC (J-Lead, Pb-Free)	408	0	0	None
SOIC (Pb-Free)	832	0	0	None
SSOP	30	0	0	None
SSOP (Pb-Free)	1,042	0	0	None
TQFP	25	0	0	None
TQFP (Pb-Free)	400	0	0	None
TSOP (Pb-free)	598	0	0	None
TSOP I (Pb-Free)	391	0	0	None
TSOP II (Pb-Free)	629	0	0	None
TSSOP	110	0	0	None
TSSOP (Pb-Free)	231	0	0	None
VFPGA (0.75-0.8, 0.3mm)	25	0	0	None
VFPGA (0.75-0.8, 0.3mm, Pb-Free)	471	0	0	None
<b>Grand Total</b>	<b>8634</b>	<b>0</b>	<b>0.00%</b>	<b>None</b>





### 3.3 TEMPERATURE CYCLE TEST (TC)

Differences in thermal expansion coefficients are accentuated by cycling devices through temperature extremes. If the materials do not expand and contract equally, large stresses can develop. The Temperature Cycle test stresses mechanical integrity by exposing a device to alternating temperature extremes. Weakness and thermal expansion mismatches in die interconnections, die attach, and wire bonds are often detected with this accelerated test.

- Condition** : MIL-STD-883D, Method 1010, Condition B, -55°C to 125°C  
MIL-STD-883D, Method 1010, Condition C, -65°C to 150°C  
(Refer to Appendix C for derating factor calculation)
- Pre-Conditioning** : 5 cycles Temperature Cycle -65/+150, 24 hr Bake 125°C, Moisture loading to qualified MSL level
- Duration** : 500 cycles minimum at Condition C,  
1000 cycles minimum at Condition B
- Failure Mode** : Parametric shifts and catastrophic failures
- Failure Mechanism** : Wire bond, cracked or lifted die and package failure.

**Table 6. Temperature Cycling Failure Rate Summary**

Package	Sample Size	# Failed	Defects %	Failure Mode
FBGA (0.75-0.8, 0.3mm, Pb-free)	728	0	0	None
FBGA (1.0-1.27)	762	0	0	None
FBGA (1.0-1.27, Pb-free)	730	0	0	None
FLIPCHIP CSP (Pb-Free)	142	0	0	None
PBGA (1.27)	300	0	0	None
PBGA (1.27, Pb-free)	58	0	0	None
PBGA (Cavity/Heat Sink)	151	0	0	None
PBGA (Cavity/Heat Sink, Pb-free)	30	0	0	None
PDIP (Pb-Free)	985	0	0	None
PLCC	80	0	0	None
PLCC (Pb-Free)	512	0	0	None
PQFP (Pb-free)	218	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	132	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	200	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	3,887	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	1,397	0	0	None
QFN (Punch Type, Pb-Free)	1,596	0	0	None
QFN (Saw Type, Pb-free)	3,193	0	0	None
QSOP (Pb-Free)	374	0	0	None
RTSOP (Pb-free)	160	0	0	None
SNC (Pb-Free)	494	0	0	None
SOIC	218	0	0	None
SOIC (J-Lead)	697	0	0	None
SOIC (J-Lead, Pb-Free)	1,472	0	0	None
SOIC (Pb-Free)	3,330	0	0	None
SSOP	148	0	0	None
SSOP (Pb-Free)	4,511	0	0	None
TQFP	218	0	0	None
TQFP (10mm X 10mm)	160	0	0	None
TQFP (Pb-Free)	1,604	0	0	None
TSOP (Pb-free)	2,157	0	0	None
TSOP I (Pb-Free)	627	0	0	None
TSOP II (Pb-Free)	2,702	0	0	None
TSSOP	810	0	0	None
TSSOP (Pb-Free)	1,167	0	0	None
VFBGA (0.75-0.8, 0.3mm)	376	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	2,724	0	0	None
<b>Grand Total</b>	<b>36,326</b>	<b>0</b>	<b>0.00%</b>	<b>See above</b>



### 3.4 HIGH TEMPERATURE STORAGE (HTS)

A high-temperature, non-biased bake test is performed to determine the effect on devices of long-term storage at elevated temperatures without any electrical stresses applied. The devices are baked without bias at either 150°C or 165°C for plastic-packaged devices. The reliability at nominal system ambient temperature is related to the failure rate at elevated temperatures through the Arrhenius equation.

**Test** : High Temperature Storage (HTS)  
**Conditions** : High temperature non-biased bake  
**Duration** : A minimum of 500 hours tested up to 1000 hours at 150°C  
**Failure Mode** : Parametric shifts and catastrophic failures  
**Failure Mechanism** : Lifted ball bonds due to gross intermetallic growth

**Table 7. High Temperature Storage Failure Rate Summary**

Package	Sample Size	# Failed	Defects %	Failure Mode
FBGA (0.75-0.8, 0.3mm, Pb-free)	324	0	0	None
FBGA (1.0-1.27)	494	0	0	None
FBGA (1.0-1.27, Pb-free)	555	0	0	None
PBGA (1.27)	30	0	0	None
PBGA (1.27, Pb-free)	30	0	0	None
PBGA (Cavity/Heat Sink)	80	0	0	None
PDIP (Pb-Free)	740	0	0	None
PLCC	234	0	0	None
PLCC (Pb-Free)	280	0	0	None
PQFP (Pb-free)	217	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	220	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	280	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	1,206	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	510	0	0	None
QFN (Punch Type, Pb-Free)	874	0	0	None
QFN (Saw Type, Pb-free)	750	0	0	None
QSOP (Pb-Free)	220	0	0	None
RTSOP (Pb-free)	160	0	0	None
SNC (Pb-Free)	440	0	0	None
SOIC	220	0	0	None
SOIC (J-Lead)	218	0	0	None
SOIC (J-Lead, Pb-Free)	860	0	0	None
SOIC (Pb-Free)	2,442	0	0	None
SSOP	120	0	0	None
SSOP (Pb-Free)	1,529	0	0	None
TQFP	220	0	0	None
TQFP (65nm Die)*	231	0	0	None
TQFP (10mm X 10mm)	79	0	0	None
TQFP (Pb-Free)	1,119	0	0	None
TSOP (Pb-free)	1,418	0	0	None
TSOP I (Pb-Free)	280	0	0	None
TSOP II (Pb-Free)	883	0	0	None
TSSOP	253	0	0	None
TSSOP (Pb-Free)	820	0	0	None
VFBGA (0.75-0.8, 0.3mm)	220	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	1,553	0	0	None

\*Data were generated by Cypress Foundry Supplier

## APPENDIX A: FAILURE RATE CALCULATION

### Thermal Acceleration Factors

Acceleration factors (AF) for thermal stresses (Early Failure Rate, Latent Failure Rate, Data Retention and High Temperature Storage) are calculated from the Arrhenius equation)

$$AF = \exp \left( \frac{E_a}{k} \left( \frac{1}{T_u} - \frac{1}{T_t} \right) \right)$$

where :

$E_a$  = Activation Energy of the defect mechanism

$k$  = Boltzmann's constant =  $8.62 \times 10^{-5}$  eV/Kelvin

$T_t$  is the junction temperature of the device under stress

$T_u$  is the junction temperature of the device at use conditions

While there is no substitute for experimentally determining the activation energy, obtaining this information is very difficult because few devices fail stress tests. In the absence of experimental data, the following literature values are used.

## APPENDIX A: FAILURE RATE CALCULATION (cont.)

### Temperature-Humidity Acceleration Factors

Cypress estimates acceleration factors for temperature-humidity stresses (Pressure Cooker Test and Highly Accelerated Stress Test) from a model developed by Hallberg and Peck ("Quality and Reliability Engineering International". Vol. 7, 1991).

$$AF = \left( \frac{RH_t}{RH_u} \right)^{-3} \exp \frac{E_a}{k} \left( \left( \frac{1}{T_u} - \frac{1}{T_t} \right) \right)$$

where :

- T<sub>u</sub> = use environment junction temperature (°K)
- T<sub>t</sub> = test environment junction temperature (°K)
- E<sub>a</sub> = failure mechanism activation energy (0.9 for corrosion)
- k = Boltzman's Constant (8.62 x 10<sup>-5</sup> eV/°Kelvin)
- RH<sub>u</sub> = use environment relative humidity
- RH<sub>t</sub> = test environment relative humidity
- AF = acceleration factor

The Hallberg and Peck model requires the stress junction temperature and relative humidity as well as the use temperature and relative humidity. To estimate the use relative humidity, we assume that the device room temperature is 35 °C (95 °F) and the room relative humidity is 100%. From any Handbook of Chemistry and Physics, the vapor pressure of water VP (water) at 35 °C is 41.175 mm Hg. If we assume that the device will operate with a junction temperature of 70 °C (VP (water) at 70 °C is 233.7 mm Hg), the junction relative humidity (RH<sub>j</sub>) is

$$RH_j = 100\% \left( \frac{41.175}{233.7} \right) = 17.6\%$$

The operating conditions of the devices are then 70 °C and 17.6% relative humidity.

Our Pressure Cooker Test (PCT) submits the devices to a temperature of 121 °C and 100% relative humidity. Using the Hallberg and Peck model, the acceleration factor for the PCT stress can be calculated:

$$AF = \left( \frac{17.6}{100} \right)^{-3} \exp \frac{0.9}{k} \left( \left( \frac{1}{343} - \frac{1}{394} \right) \right) = 9,433$$

## APPENDIX A: FAILURE RATE CALCULATION (cont.)

The acceleration factor for HAST is calculated similarly, except that junction temperature heating effects must be included when estimating the relative humidity at the die surface. Assuming an average junction temperature rise of 5°C, the relative humidity at the die surface during 130 C HAST testing can be calculated.

$$VP (130^{\circ}C) = 2026.10 \text{ mm Hg}$$

$$VP (135^{\circ}C) = 2347.26 \text{ mm Hg}$$

$$RH_j = 85\% \left( \frac{2026.10}{2347.26} \right) = 73.4\%$$

$$AF = \left( \frac{17.6}{73.4} \right)^{-3} \exp \frac{0.9}{k} \left[ \left( \frac{1}{343} - \frac{1}{408} \right) \right] = 9,261$$

Similarly, for 140°C HAST testing,

$$VP (140^{\circ}C) = 2710.92 \text{ mm Hg}$$

$$VP (145^{\circ}C) = 3116.76 \text{ mm Hg}$$

$$RH_j = 85\% \left( \frac{2710.92}{3116.76} \right) = 73.9\%$$

$$AF = \left( \frac{17.6}{73.9} \right)^{-3} \exp \frac{0.9}{k} \left[ \left( \frac{1}{343} - \frac{1}{418} \right) \right] = 17,433$$



## APPENDIX A: FAILURE RATE CALCULATION (cont.)

### Failure Rate Calculation

For all but LFR test, Cypress reports the failure rate in terms of ppm. Early life reliability is reported in terms of ppm defective expected during the first year of use under typical use conditions. No upper confidence bound will be used for this estimate. The ppm defective is the ratio of the number of rejects to the number of samples and expressed in ppm.

$$PPM = \left( \frac{\text{Total Rejects}}{\text{Total Samples}} \right) \times 1,000,000$$

Intrinsic, or later life reliability, shall be reported using the exponential model, in terms of FITs, with a 60% upper confidence bound for 0 failures or the demonstrated FIT estimate in the case there are failures.

$$FR (FIT) = \chi^2_{\alpha, 2n+2} / (2 * AF * Device Hours) * 10^9$$

where:

$\chi^2_{\alpha, 2n+2}$  = Chi square factor for  $2n + 2$  degrees of freedom at 60% confidence level.

$n$  = number of failure.

AF = Thermal Acceleration factor and is calculated per Arrhenius equation assuming a 0.7eV activation energy.

Voltage acceleration factor is not included in failure rate calculation even though voltage acceleration may be used during stress. Typical use conditions shall be considered to be 55°C ambient with a 15°C temperature rise at the junction. Thus, use junction temperature is 70°C.

## APPENDIX B: TEMPERATURE CYCLING STRESS MODELS

Two acceleration factor (AF) models are used to model temperature cycle failures. The model proposed by Zelenka [1] and others uses the epoxy molding temperature ( $T_{\text{mold}} = 170 \text{ }^\circ\text{C}$ ) and the minimum temperature reached during temperature cycling, ( $T_{\text{min}}$ ).

$$AF_{\text{brittle}} = \left( \frac{T_{\text{mold}} - T_{\text{min, stress}}}{T_{\text{mold}} - T_{\text{min, stress}}} \right)^m$$

The model constant,  $m$ , is experimentally calculated for each failure mechanism. The acceleration factor is labeled 'brittle' because the derivation of this equation assumes brittle fracture mechanics. Basically, the model assumed that cracks advance a little every time the maximum stress is reached. The maximum stress is assumed to be proportional to the difference in temperature between the minimum and maximum stress temperatures. For plastic-encapsulated devices, the stress is minimum during molding, ( $T_{\text{mold}}$ ), and maximum during the lowest temperature reached during temperature cycling, ( $T_{\text{min}}$ ).

The model constant,  $m$ , is a function of the failure mechanism.

Thin film cracking	$m = 12$ (Blish and Vaney [2])
Al/Au Intermetallic fractures	$m = 4$
Chip-out (cratering) bond failures	$m = 7$ (Dunn and McPherson [3])

For ductile materials, dislocation movement dominates the fracture mechanics and a different model is used.

The second, and most widely accepted model, uses the difference between the minimum and maximum temperatures during temperature cycle testing ( $T_{\text{min}}$  and  $T_{\text{max}}$ ) to calculate an acceleration factor.

$$AF_{\text{ductile}} = \left( \frac{T_{\text{max, stress}} - T_{\text{min, stress}}}{T_{\text{max, use}} - T_{\text{min, use}}} \right)^m$$

The model constant, 'm', is again experimentally calculated for each failure mechanism.

Coffin and Manson [4] developed this model from empirical observations of metal fatigue. In ductile materials, if the applied stress is high enough, dislocations are produced. At the high temperature condition of the temperature cycling stress, dislocations are forced towards one metal surface. At the low temperature, the dislocations try to glide back to their original position, but many cannot because they became entangled with other dislocations. After many cycles, these tangles grow until cracking, and finally failure, occurs. Both minimum and maximum temperatures are important, because both contribute to dislocation movement and entanglement. This model is recommended for any failures involving ductile materials. Model constants for ductile failure follow.

Wirebond breakage	$m = 5.16$ (Cypress experimentation)
Solder Fatigue	$m = 2$ (Blish and Vaney [2])



## APPENDIX B: TEMPERATURE CYCLING STRESS MODELS (cont.)

Our commercial devices are specified to operate between 0°C and 70 °C. Using this information, the acceleration factor, AF, between use and Military Condition C stress testing (-65°C to 150°C), for the brittle, thin film cracking failure mechanism and ductile, wire bond breakage failure mechanism can be calculated.

$$\text{AF brittle} = \left( \frac{170 - (-65)}{170 - 0} \right)^{12} = 49$$

$$\text{AF ductile} = \left( \frac{150 - (-65)}{70 - 0} \right)^{5.16} = 327$$

### References:

- [1] R.L. Zelenka, IEEE/IRPS, pp. 30-34, 1991
- [2] R.C. Blish and P.R. Vaney, IEEE/IRPS, pp 22-29, 1991
- [3] C.F. Dunn and J.W. McPherson, IEEE/IRPS, pp 252-258, 1990
- [4] S.S. Manson, thermal Stress and Low-Cycle Fatigue, (Robert Krieger : Malabar, Florida), 1981.



## APPENDIX C: EQUIVALENCE OF DIFFERENT STRESS TEST CONDITIONS

During stress testing, more than one set of test conditions were used. To account for this difference, stress test hours or cycles at the lower stress condition were derated and then added to the total for the most severe stress test condition.

### Dynamic (HTOL)

HTOL (EFR/LFR) test is performed at 150 °C and 125 °C. Using the Arrhenius equation (Appendix A) and an activation energy of 0.7 eV, the derating factor, DF, between 125°C and 150 °C can be calculated.

$$DF \text{ (between 125C and 150C)} = \exp \left( \frac{0.6}{k} \left( \frac{1}{150 + 15 + 273} - \frac{1}{125 + 15 + 273} \right) \right) = 0.326$$

The derating calculation assumes a 15 °C rise due to junction heating.

### Temperature Cycling

Two different temperature cycling conditions were used to measure reliability, -65°C to 150°C and -55°C to 125°C. Using the brittle failure mechanism model with  $m = 12$ , the derating factor between -65°C to 150°C and -55°C to 125°C is calculated.

$$DF = \left( \frac{170 - (-55)}{170 - (-65)} \right)^{12} = 1.685$$

Using the ductile failure mechanism model with  $m = 5.16$ , the derating factor between -65°C to 150°C and -55°C to 125°C is obtained.

$$DF = \left( \frac{125 - (-55)}{150 - (-65)} \right)^{5.16} = 2.501$$

### HAST

The derating factor between two HAST conditions, 140 °C / 85%RH and 130 °C / 85% RH is simply the ratio of the acceleration factors (See Appendix A)

$$DF = \frac{9,261}{17,433} = 0.531$$

## APPENDIX D: RELIABILITY DATA

From: 01/03/09  
To: 01/03/2010

### Summary Detail -- EFR Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATION	SS	REJECT	FA	COMMENTS
<b>B53</b>	MID	MR093068	R1	CYRF6936-40LFXC	125	3.8	96	96	300	0		
	<b>Summary for Technology: B53</b>			<b>1</b>	<b>records</b>				<b>300</b>	<b>0</b>		
<b>C9</b>	MID	093204	R1	7C1321NC-RZWI	150	3.77	48	48	4695	0		
	MID	093204	R2	7C1321NC-RZWI	150	3.77	48	48	4708	1	093204-2E1	Particle defect (Metal 1 lines shorting)
	MID	093204	R3	7C1321NC-RZWI	150	3.77	48	48	4670	0		
	MID	MR091067	R1	CY7C1041DV33-10ZSXI	150	3.77	48	48	4916	1	MR091067-1E1	No Visual Defect
	MID	MR091067	R2	CY7C1041DV33-10ZSXI	150	3.77	48	48	3142	0		
	MID	MR092069	R1	CY7C1041DV33-10ZSXI	150	3.77	48	48	8000	1	MR092069-1E1	No Visual Defect
	MID	MR093071	R1	CY7C1041DV33-10ZSXI	150	3.77	48	48	5400	0		
	MID	MR093071	R2	CY7C1041DV33-10ZSXI	150	3.77	48	48	5390	10	MR093071-2E1	Particle Defect (W Flakes)
	MID	MR094038	R1	CY7C1041DV33-10ZSXI	150	3.77	48	48	5884	0		
	MID	MR094038	R3	CY7C1041DV33-10ZSXI	150	3.77	48	48	1844	0		
	MID	MR094038	R4	CY7C1041DV33-10ZSXI	150	3.77	48	48	3671	0		
<b>Summary for Technology: C9</b>			<b>11</b>	<b>records</b>					<b>52320</b>	<b>13</b>		
<b>L8</b>	DCD	084102	R1A	CY2545C208	150	3.8	48	48	135	0		
	CCD	064302	R9	CY2FLEXO-HV	125	3.96	96	96	45	0		
	CCD	064302	R11F	CY2FLEXO-HV	125	3.96	96	96	48	0		
<b>Summary for Technology: L8</b>			<b>3</b>	<b>records</b>					<b>228</b>	<b>0</b>		
<b>R8</b>	MID	084907	R1	CY62167D	125	2.4	96	96	1885	0		
	MID	084907	R2	7G62164DK-GZTIB	125	2.4	96	96	1852	0		
	MID	MR084082	R1	7G62164DK-**GZTIB	125	2.4	96	96	8	0		
	MID	MR084082	R1	7G62164DK-**GZTIB	125	2.4	96	96	3314	0		
	MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	96	96	299	0		
	MID	MR092066	R1	7G62164DK-GZTIB	125	2.75	96	96	489	0		
<b>Summary for Technology: R8</b>			<b>6</b>	<b>records</b>					<b>7847</b>	<b>0</b>		
<b>C8</b>	CCD	082609	R1A	CY7C656305-56LFXC	150	3.8	48	48	1000	0		
	CCD	082609	R1B	CY7C656305-56LFXC	125	3.8	96	96	1000	0		
	CCD	082609	R1C	CY7C656305-56LFXC	125	3.8	24	24	1000	0		
	DCD	MR091049	R1	CYWB0124AB-BVXI	125	3.8	96	96	300	0		



DCD	MR092065	R1	CYWB0224ABS-BVXI	125	3.8	120	120	300	0
CBD	MR093063	R1	CY7C68013A-56PVXC	125	3.8	96	96	300	0
DCD	MR094073	R1	CY7C68053-56PVXI	150	3.8	60	60	1364	0
DCD	MR094073	R2	CY7C68053-56PVXI	150	3.8	48	48	1318	0

**Summary for Technology: C8**

**Sum S8** **8 records** **6582** **0**

MID	071904	R4	CY24C16L-3SXIES	125	2.7	120	120	1	0
MID	082703	R3	7C1408B8BC-GZWIB	150	3.3	12	12	324	0
MID	082703	R4	7C1408B1C	150	3.3	48	48	1233	0
MID	082704	R1A	7C1404B1CC-RZWCB	150	3.6	48	48	45	0
MID	082704	R3B	7C1404E1CC-RZWIB	150	5.5	48	48	50	0
MID	082704	R3C	C1404B6CC-RZWCB	150	3.3	48	48	1557	1
MID	082704	R4	7C1404B1CC-RZWCB	150	3.3	48	48	1135	0
CCD	090301	R1A	CY8C20566-24PVXI	150	2.1	48	48	375	0
CCD	090301	R1A (1)	CY8C20466-24LQXI	150	2.1	48	48	375	0
CCD	090301	R1B	CY8C20566-24PVXI	150	2.1	48	48	375	0
CCD	090301	R1B (1)	CY8C20466-24LQXI	125	2.1	48	48	375	0
CCD	090301	R1C	CY8C20566-24PVXI	150	2.1	48	48	375	0
CCD	090301	R1C (1)	CY8C20466-24LQXI	150	2.1	48	48	375	0
CCD	090301	R2B	CY8C20566-24PVXI	150	2.1	48	48	375	0
CCD	090301	R2B	CY8C20566-24PVXI	150	2.1	48	48	34	0
CCD	090301	R2B (1)	CY8C20466-24LQXI	150	2.1	48	48	375	0
MID	090604	R1	CY7C1401	150	3.6	48	48	50	0
MID	090604	R1	CY7C1401	150	3.3	48	48	1153	0
MID	090604	R2A	7C1404B1CC-RZWCB	150	3.6	48	48	45	0
MID	090604	R3	CY14B101LA	150	3	48	48	688	0
CCD	MR091065	R5	CY8C20466-24LQXI	150	2.1	48	48	392	0
CCD	MR091065	R4	CY8C20466-24LQXI	150	2.1	48	48	1000	0
CCD	MR091065	R5	CY8C20466-24LQXI	150	2.1	48	48	608	0
CCD	MR092077	R1	CY8CTMG200-32LQXIT	150	2.1	48	48	366	0

082704-3CE1

082704-3CE1 -Via Void, not completely filled by W

**Summary for Technology: S8**

**Sum R95** **24 records** **11681** **2**

MID	084612	R1	CY62177EV30LL	150	1.85	24	24	4249	0
MID	084612	R2	CY62177EV30LL	150	1.85	24	24	3732	0
MID	084612	R3	CY62177EV30LL	150	1.85	24	24	3298	0
MID	091602	R3	CY62187E	125	1.85	24	24	1411	0
MID	091602	R3	CY62187E	125	1.85	96	72	1403	0
MPD	093904	R4	CY62187E	125	1.85	24	24	1411	0
MPD	093904	R4	CY62187E	125	1.85	96	96	1403	0
DCD	MR091066	R1	CY62167EV30LL-45BVI	125	1.85	96	96	3836	0
MID	MR092047	R1	CY62157ELL-55ZSX	125	1.85	48	48	80	0
MID	MR092047	R2	CY62157ELL-55ZSX	125	1.85	48	48	79	0
MID	MR092047	R3	CY62157ELL-55ZSXET	125	1.85	48	48	80	0
MID	MR092067	R1	CY62157EV30LL-45ZSXI	125	1.85	96	96	6234	0
MID	MR092067	R2	CY62157EV30LL-45ZSXI	125	1.85	48	48	499	0
MID	MR084080	R3	CY62146ELL-45ZSXAT	125	1.85	48	48	526	0
MID	MR084080	R2	CY62146ELL-45ZSXA	125	1.85	48	48	6187	0

**Summary for Technology: R95**

**Sum R9** **15 records** **34428** **0**

MID	083906	R2	CY7C1313	125	2.25	96	96	1797	0
MID	084612	R1	CY62177EV30LL	150	1.85	24	24	4249	0
MID	084612	R2	CY62177EV30LL	150	1.85	24	24	3732	0
MID	084612	R3	CY62177EV30LL	150	1.85	24	24	3298	0
MID	090704	R4	7C15121YC-GBBCB	150	2.7	96	96	1569	0
MID	091602	R3	CY62187E	125	1.85	24	24	1411	0
MID	091602	R3	CY62187E	125	1.85	96	96	1403	0

	MPD	093904	R4	CY62187E	125	1.85	24	24	1411	0
	MPD	093904	R4	CY62187E	125	1.85	96	96	1403	0
	DCD	MR091066	R1	CY62167EV30LL-45BVI	125	1.85	96	96	3836	0
	MID	MR092067	R1	CY62157EV30LL-45ZSXI	125	1.85	96	96	6234	0
	MID	MR092067	R2	CY62157EV30LL-45ZSXI	125	1.85	48	48	499	0
	MID	MR093073	R2	7C1450XC-RAZCB	150	2.25	48	48	2359	0
	MID	MR093073	R1	7C1370XC-RAZIB	150	2.25	48	48	3026	0
	MID	MR092068	R1	CY7C1313TV18-250BZC	125	2.7	96	96	1921	0
	MID	MR092068	R2	CY7C1313TV18-250BZC	125	2.7	96	96	1669	0
	MID	MR092068	R3	CY7C1313TV18-250BZC	125	2.7	96	96	1348	0
<b>Summary for Technology: R9</b>			<b>17</b>	<b>records</b>					<b>41165</b>	<b>0</b>
<b>Sum</b>										
<b>S4</b>										
	CCD	075103	R3	CY8CLED04D01-56LTXI	125	5.5	96	96	540	0
	CCD	075103	R5	CY8CPWR01-56TXI	125	5.5	96	96	366	0
	CCD	081805	R1B	CY8C21534-24PVXI	125	5.5	96	96	997	0
	CCD	081805	R1C	CY8C21534-24PVXI	125	5.5	96	96	956	0
	CCD	081805	R2	CY8C21534-24PVXI	125	5.5	96	96	1880	0
	CCD	082007	R2	CY7C53120E4-40SXIES	125	5.5	96	96	999	0
	DCD	083908	R1A	CY241V08KSXC-41	150	3.8	48	48	500	0
	DCD	083908	R1B	CY241V8AKSXC-45	150	3.8	48	48	500	0
	DCD	083908	R1C	CY241V8AKSXC-45	150	3.8	48	48	500	0
	MID	090405	R4	CY8C24894-24LFXA	125	5.5	48	48	3497	0
	MID	090405	R5	CY8C24894-24LFXA	125	5.5	48	48	3515	0
	MID	090405	R6	CY8C24894-24LFXA	125	5.5	48	48	3495	0
	CCD	090702	R1	CY8C27443-24PVXI	125	5.75	96	96	1500	0
	CCD	090703	R1	CY8C27443-24PVXIES	125	5.75	96	96	1500	0
	CCD	090802	R1A	CY8C20634	125	5.5	96	96	778	0
	CCD	090802	R2A	CY8C20634	125	5.5	96	96	762	0
	CCD	091305	R1	CY8C27443-24PVXI	125	5.5	120	120	797	0
	CCD	092901	R1	CY8C205344-12PVXI	125	5.5	96	96	3276	0
	CCD	092901	R2	CY8C205345-12PVXI	150	5.5	60	60	3019	0
	CCD	093003	R1A	CY8C28433-24PVXIES	125	5.25	96	96	573	0
	CCD	093003	R1B	CY8C28433-24PVXIES	125	5.25	96	96	588	0
	CCD	093003	R1C	CY8C28433-24PVXIES	125	5.25	96	96	566	0
	DCD	093801	R1	CY8CLED04D01-56LTXI	125	5.5	96	96	1610	0
	CCD	MR091047	R1	CY8C21334-24PVXI	125	5.5	96	96	300	0
	CCD	MR091048	R1	CY8C24223A-24PVXI	125	5.5	96	96	299	0
	DCD	MR091064	R1	CY25100KSXCF	150	3.8	48	48	1497	0
	CCD	MR092046	R1	CY8C24533-24PVXI	125	5.5	96	96	300	0
	CCD	MR092073	R1	CY8C21334-24PVXI	125	5.5	96	96	285	0
	CCD	MR093048	R1	CY8C21534-24PVXI	125	5.5	96	96	259	0
	CCD	MR094048	R1	CY8C24533-24PVXI	125	5.5	110	110	299	0
	CCD	MR093064	R1	CY8C204344-12LQXI	125	5.5	96	96	299	0
<b>Summary for Technology: S4</b>			<b>31</b>	<b>records</b>					<b>36252</b>	<b>0</b>
<b>Sum</b>										
<b>0.25um</b>										
	MID	080304	R1	CYIL1SM4000AA-GDCES	150	2.5	48	48	89	0
	MID	MR093039	R1	STK14CA8-RF45	125	3.6	120	120	100	0
	CCD	MR092078	R1	STK14CA8-RF45	125	3.6	96	96	100	0
<b>Summary for Technology: 0.25um</b>			<b>3</b>	<b>records</b>					<b>289</b>	<b>0</b>
<b>Sum</b>										
<b>P26</b>	DCD	MR092056	R1	CY7C63723C-PXC	150	5.5	48	48	300	0
<b>Summary for Technology: P26</b>			<b>1</b>	<b>records</b>					<b>300</b>	<b>0</b>
<b>Sum</b>										

# Summary Detail -- LFR Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATION	SS	REJECT	FA	COMMENTS
<b>B53</b>												
	CCD	MR083072	R1	CYRF6936-40LFXC	125	3.8	1048	880	100	0		
	CCD	MR083072	R1	CYRF6936-40LFXC	125	3.8	1072	904	3	0		
	CCD	MR083072	R2	CYRF6936-40LFXC	125	3.8	168	72	196	0		
	CCD	MR083072	R2	CYRF6936-40LFXC	125	3.8	1048	880	196	0		
	CCD	MR083072	R2	CYRF6936-40LFXC	125	3.8	1072	904	4	0		
	CCD	MR084068	R1	CYRF6936-40LFXC	125	3.8	168	72	297	0		
	CCD	MR084068	R1	CYRF6936-40LFXC	125	3.8	1000	832	296	0		
	DCD	MR093068	R1	CYRF6936-40LFXC	125	3.8	168	72	300	0		
<b>Summary for Technology: B53</b>			<b>8</b>	<b>records</b>					<b>1392</b>	<b>0</b>		
<b>Sum</b>												
<b>L8</b>												
	CCD	064302	R11	CY2FLEXO-LV	125	2.35	168	72	624	0		
	CCD	064302	R11	CY2FLEXO-LV	125	2.35	1000	832	624	0		
	CCD	064302	R9A	CY2FLEXO-LV	125	2.35	168	72	116	0		
	CCD	064302	R9A	CY2FLEXO-LV	125	2.35	1000	832	116	0		
	DCD	084102	R1E	CY2545C208	150	2.07	80	32	116	0		
	DCD	084102	R1E	CY2545C208	150	2.07	500	420	116	0		
<b>Summary for Technology: L8</b>			<b>6</b>	<b>records</b>					<b>1712</b>	<b>0</b>		
<b>Sum</b>												
<b>C8</b>												
	CCD	082609	R1A	CY7C656305-56LFXC	150	3.8	500	420	180	0		
	CCD	082609	R1A	CY7C656305-56LFXC	150	3.8	80	32	180	0		
	CBD	092902	R1	CY7C68320C	150	3.8	408	384	80	0		
	CBD	092902	R2	CY7C68320C	150	3.8	408	384	80	0		
	CBD	092902	R3	CY7C68320C	150	3.8	408	384	80	0		
	DCD	MR084078	R1	CYWB0124AB-BVXI	125	3.8	1000	832	300	0		
	DCD	MR091049	R1	CYWB0124AB-BVXI	125	3.8	1000	832	300	0		
	DCD	MR091049	R1	CYWB0124AB-BVXI	125	3.8	168	72	300	0		
	CBD	MR093063	R1	CY7C68013A-56PVXC	125	3.8	1000	832	300	0		
	CBD	MR093063	R1	CY7C68013A-56PVXC	125	3.8	168	72	300	0		
	DCD	MR092065	R1	CYWB0224ABS-BVXI	125	3.8	168	72	297	0		
<b>Summary for Technology: C8</b>			<b>11</b>	<b>records</b>					<b>2397</b>	<b>0</b>		
<b>Sum</b>												
<b>C9</b>												
	MID	MR092069	R1	CY7C1041DV33-10ZSXIT	150	3.77	500	420	500	0		
	MID	MR092069	R1	CY7C1041DV33-10ZSXIT	150	3.77	80	32	500	0		
<b>Summary for Technology: C9</b>			<b>2</b>	<b>records</b>					<b>1000</b>	<b>0</b>		
<b>Sum</b>												
<b>R8</b>												
	MID	082401	R1	CY62167DV30	125	2.4	1024	856	178	0		
	MID	084907	R1	CY62167D	125	2.4	168	72	200	0		
	MID	084907	R2	7G62164DK-GZTIB	125	2.4	168	72	200	0		
	MID	MR083077	R1	7G62162DK-GBZIB	125	2.4	1000	832	296	0		
	MID	MR083077	R1	7G62162DK-GBZIB	125	2.4	1024	856	1	0		
	MID	MR084075	R1	CY62177DV30LL-55BAXIT	125	3.8	1000	832	300	0		
	MID	MR084075	R1	CY62177DV30LL-55BAXIT	125	3.8	168	72	300	0		
	MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	1000	832	298	0		
	MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	168	72	299	0		
<b>Summary for Technology: R8</b>			<b>9</b>	<b>records</b>					<b>2072</b>	<b>0</b>		
<b>Sum</b>												
<b>R9</b>												
	MID	083910	R1	7A62147FC-RZWEB	125	1.85	1000	832	80	0		



MID	084612	R1	CY62177EV30LL	150	1.85	432	408	100	0
MID	084612	R2	CY62177EV30LL	150	1.85	432	408	99	0
MID	084612	R3	CY62177EV30LL	150	1.85	432	408	100	0
MID	091602	R3	CY62187E	125	1.85	168	72	400	0
MPD	093904	R4	CY62187E	125	1.85	168	72	400	0

**Summary for Technology: R9**

<b>Sum</b>		<b>6</b>	<b>records</b>					<b>1179</b>	<b>0</b>
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**S4**

CCD	075103	R2	CY8CLED04DOCD1-56ES	125	38	1000	832	210	0
CCD	075103	R3	CY8CLED04D01-56LTXI	125	5.5	1000	832	210	0
CCD	075103	R3	CY8CLED04D01-56LTXI	125	5.5	168	72	538	0
CCD	075103	R3	CY8CLED04D01-56LTXI	125	5.5	500	420	210	0
CCD	075103	R4	CY8CLED04G01-56LTXI	125	5.5	1000	832	207	0
CCD	075103	R4	CY8CLED04G01-56LTXI	125	5.5	420	324	207	0
CCD	081805	R1B	CY8C21534-24PVXI	125	5.5	1000	832	188	0
CCD	081805	R1B	CY8C21534-24PVXI	125	5.5	168	72	188	0
CCD	082007	R2	CY7C53120E4-40SXIES	125	5.5	1000	832	30	0
CCD	082007	R2	CY7C53120E4-40SXIES	125	5.5	168	72	30	0
DCD	082406	R1	CY22389KFZXC	150	3.8	500	420	120	0
DCD	082406	R1	CY22389KFZXC	150	3.8	80	32	80	0
DCD	083908	R1A	CY241V08KSXC-41	150	3.8	500	420	116	0
DCD	083908	R1A	CY241V08KSXC-41	150	3.8	80	32	116	0
CCD	090802	R1A	CY8C20634	125	5.5	168	72	120	0
CCD	090802	R2A	CY8C20634	125	5.5	168	72	120	0
CCD	093003	R1A	CY8C28433-24PVXIES	125	5.25	1000	832	60	0
CCD	093003	R1A	CY8C28433-24PVXIES	125	5.25	168	72	60	0
CCD	093003	R1B	CY8C28433-24PVXIES	125	5.25	1000	832	60	0
CCD	093003	R1B	CY8C28433-24PVXIES	125	5.25	168	72	60	0
CCD	093003	R1C	CY8C28433-24PVXIES	125	5.25	1000	832	60	0
CCD	093003	R1C	CY8C28433-24PVXIES	125	5.25	168	72	60	0
MID	MR083076	R2	CY8C24423A-12PVXE	125	5.5	1000	832	500	0
CCD	MR084048	R1	CY8C24423A-24PVXI	125	5.5	1000	832	295	0
CCD	MR084051	R1	CY8C26443-24PVXIT	125	5.5	1000	832	300	0
CCD	MR084076	R1	CS6835AT	125	5.5	1000	832	293	0
CCD	MR091047	R1	CY8C21334-24PVXI	125	5.5	1000	832	296	0
CCD	MR091047	R1	CY8C21334-24PVXI	125	5.5	168	72	296	0
CCD	MR091048	R1	CY8C24223A-24PVXI	125	5.5	1000	832	299	0
CCD	MR091048	R1	CY8C24223A-24PVXI	125	5.5	168	72	299	0
DCD	MR091064	R1	CY25100KSXCF	150	3.8	500	420	453	0
DCD	MR091064	R1	CY25100KSXCF	150	3.8	80	32	454	0
CCD	MR092046	R1	CY8C24533-24PVXI	125	5.5	1000	832	295	0
CCD	MR092046	R1	CY8C24533-24PVXI	125	5.5	168	72	300	0
CCD	MR092073	R1	CY8C21334-24PVXI	125	5.5	1000	832	285	0
CCD	MR092073	R1	CY8C21334-24PVXI	125	5.5	168	72	285	0
CCD	MR093048	R1	CY8C21534-24PVXI	125	5.5	1000	832	259	0
CCD	MR093048	R1	CY8C21534-24PVXI	125	5.5	168	72	259	0
CCD	MR093064	R1	CY8C204344-12LQXI	125	5.5	168	72	299	0
CCD	MR093064	R1	CY8C204344-12LQXI	125	5.5	1000	500	299	0

**Summary for Technology: S4**

<b>Sum</b>		<b>40</b>	<b>records</b>					<b>8816</b>	<b>0</b>
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**S8**

MID	071904	R2	CY24C16L-3SXIES	150	2.1	500	420	116	0
MID	071904	R4	CY24C16L-3SXIES	125	2.7	500	420	116	0
MID	071904	R4	CY24C16L-3SXIES	125	2.7	80	32	116	0
MID	082703	R3	7C1408B8BC-GZWIB	150	3.3	500	420	114	0
MID	082703	R3	7C1408B8BC-GZWIB	150	3.3	80	32	119	0
MID	082703	R4	7C1408B1C	150	3.3	500	420	240	0
MID	082703	R4	7C1408B1C	150	3.3	80	32	240	0
MID	082704	R1A	7C1404B1CC-RZWCB	150	3.3	500	420	118	0
MID	082704	R1A	7C1404B1CC-RZWCB	150	3.3	80	32	118	0

MID	082704	R3A	7C1404B6CC-RZWCB	150	3.3	500	420	147	0
MID	082704	R3A	7C1404B6CC-RZWCB	150	3.3	80	32	148	0
MID	082704	R3C	7C1404B6CC-RZWCB	150	3.3	500	420	186	0
MID	082704	R3C	7C1404B6CC-RZWCB	150	3.3	80	32	186	0
MID	082704	R4	7C1404B1CC-RZWCB	150	3.3	500	420	119	0
MID	082704	R4	7C1404B1CC-RZWCB	150	3.3	80	32	120	0
CCD	083401	R5A	CY8C20466-24LQXI	150	2.1	500	420	390	0
CCD	084605	R2	CY8C20566-24PVXI	150	2.1	80	32	390	0
CCD	090301	R1A	CY8C20566-24PVXI	150	2.1	395	315	60	0
CCD	090301	R1A	CY8C20566-24PVXI	150	2.1	500	420	60	0
CCD	090301	R1A	CY8C20566-24PVXI	150	2.1	80	32	120	0
CCD	090301	R1A (1)	CY8C20466-24LQXI	150	2.1	184	104	60	0
CCD	090301	R1A (1)	CY8C20466-24LQXI	150	2.1	524	340	60	0
CCD	090301	R1A (1)	CY8C20466-24LQXI	150	2.1	80	32	60	0
CCD	090301	R1B	CY8C20566-24PVXI	150	2.1	247	167	60	0
CCD	090301	R1B	CY8C20566-24PVXI	150	2.1	500	420	60	0
CCD	090301	R1B	CY8C20566-24PVXI	150	2.1	80	32	60	0
CCD	090301	R1B (1)	CY8C20466-24LQXI	150	2.1	184	104	60	0
CCD	090301	R1B (1)	CY8C20466-24LQXI	150	2.1	80	32	60	0
CCD	090301	R1C	CY8C20566-24PVXI	150	2.1	395	315	60	0
CCD	090301	R1C	CY8C20566-24PVXI	150	2.1	500	420	60	0
CCD	090301	R1C	CY8C20566-24PVXI	150	2.1	80	32	60	0
CCD	090301	R1C (1)	CY8C20466-24LQXI	150	2.1	184	104	60	0
CCD	090301	R1C (1)	CY8C20466-24LQXI	150	2.1	80	32	60	0
MID	090604	R1	CY7C1401	150	3.3	500	420	120	0
MID	090604	R1	CY7C1401	150	3.3	80	32	120	0
MID	090604	R2A	7C1404B1CC-RZWCB	150	3.3	500	420	118	0
MID	090604	R2A	7C1404B1CC-RZWCB	150	3.3	80	32	118	0
CCD	MR091065	R5	CY8C20466-24LQXI	150	2.1	500	420	375	0
CCD	MR091065	R5	CY8C20466-24LQXI	150	2.1	80	32	392	0
CCD	MR092077	R1	CY8CTMG200-32LQXIT	150	2.1	500	420	366	0
CCD	MR092077	R1	CY8CTMG200-32LQXIT	150	2.1	80	32	366	0
<b>Summary for Technology: S8</b>		<b>41</b>	<b>records</b>					<b>5978</b>	<b>0</b>
<b>Sum</b>									
<b>0.25um</b>									
MID	080304	R1	CYL1SM4000AA-GDCES	150	2.5	500	420	88	0
MID	MR092078	R1	STK14CA8-RF45	125	3.6	168	72	100	0
MID	MR092078	R1	STK14CA8-RF45	125	3.6	1000	832	100	0
MID	MR093039	R1	STK14CA8-RF45	125	3.6	168	72	100	0
MID	MR093039	R1	STK14CA8-RF45	125	3.6	1000	832	100	0
<b>Summary for Technology: 0.25um</b>		<b>5</b>	<b>records</b>					<b>488</b>	<b>0</b>
<b>Sum</b>									
<b>R95</b>									
MID	083910	R1	7A62147FC-RZWEB	125	1.85	1000	832	80	0
MID	084612	R1	CY62177EV30LL	150	1.85	432	408	100	0
MID	084612	R2	CY62177EV30LL	150	1.85	432	408	99	0
MID	084612	R3	CY62177EV30LL	150	1.85	432	408	100	0
MID	091602	R3	CY62187E	125	1.85	168	72	400	0
MPD	093904	R4	CY62187E	125	1.85	168	72	400	0
<b>Summary for Technology: R95</b>		<b>6</b>	<b>records</b>					<b>1179</b>	<b>0</b>
<b>Sum</b>									
<b>R7</b>									
MID	MR084083	R1	7A132101GC-RZWEB	150	2.3	408	384	500	0
<b>Summary for Technology: R7</b>		<b>1</b>	<b>records</b>					<b>500</b>	<b>0</b>
<b>Sum</b>									



# Summary Detail -- DRET Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATIO	SS	REJECT	FA	COMMENTS
S4	CCD	075103	R2A	CY8CLED04DOCD1-56ES	150	0	1000	500	82	0		
	CCD	075103	R4	CY8CLED04G01-56LTXI	150	0	1000	500	80	0		
	CCD	075103	R4	CY8CLED04G01-56LTXI	150	0	500	500	80	0		
	CCD	075103	R5	CY8CPWR01-56TXI	150	0	1000	500	80	0		
	CCD	075103	R5	CY8CPWR01-56TXI	150	0	500	500	80	0		
	CCD	083201	R1	CY7C63813-PXC	150	0	1000	500	77	0		
	CCD	083201	R1	CY7C63813-PXC	150	0	500	500	77	0		
	DCD	083406	R1	7C638115AK-RAPZC	150	0	1000	500	77	0		
	DCD	083406	R1	7C638115AK-RAPZC	150	0	500	500	77	0		
	MID	090405	R1	CY8C24894-24LFXI	150	0	1008	508	80	0		
	CCD	090702	R1	CY8C27443-24PVXI	150	0	1000	500	77	0		
	CCD	090702	R1	CY8C27443-24PVXI	150	0	500	500	77	0		
	CCD	090703	R1	CY8C27443-24PVXIES	150	0	500	500	77	0		
	CCD	090703	R1A	CY8C27443-24PVXIES	175	0	408	408	77	0		
	CCD	092107	R20	CY8C24494-24PVXI	150	0	1000	500	80	0		
	CCD	092107	R20	CY8C24494-24PVXI	150	0	524	524	80	0		
	CCD	092107	R20A	CY8C24494-24PVXI	150	0	1000	500	80	0		
	CCD	092107	R20A	CY8C24494-24PVXI	150	0	524	524	80	0		
	CCD	093003	R1A	CY8C28433-24PVXIES	150	0	500	500	77	0		
	CCD	MR084076	R1	CS6835AT	150	0	1000	500	80	0		
	CCD	MR091047	R1	CY8C21334-24PVXI	150	0	1000	500	62	0		
	CCD	MR091047	R1	CY8C21334-24PVXI	175	0	288	288	80	0		
	CCD	MR091047	R1	CY8C21334-24PVXI	175	0	408	120	80	0		
	CCD	MR091047	R1	CY8C21334-24PVXI	150	0	500	500	62	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	150	0	1000	500	80	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	175	0	288	288	80	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	175	0	408	120	80	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	150	0	500	500	80	0		
	CCD	MR092046	R1	CY8C24533-24PVXI	150	0	1000	500	79	0		
	CCD	MR092046	R1	CY8C24533-24PVXI	175	0	288	288	80	0		
	CCD	MR092046	R1	CY8C24533-24PVXI	175	0	408	288	80	0		
	CCD	MR092046	R1	CY8C24533-24PVXI	150	0	500	500	80	0		
	CCD	MR092073	R1	CY8C21334-24PVXI	150	0	1000	500	74	0		
	CCD	MR092073	R1	CY8C21334-24PVXI	175	0	288	288	77	0		
	CCD	MR092073	R1	CY8C21334-24PVXI	175	0	408	120	77	0		
	CCD	MR092073	R1	CY8C21334-24PVXI	150	0	500	500	74	0		
	CCD	MR093048	R1	CY8C21534-24PVXI	150	0	1000	500	63	0		
	CCD	MR093048	R1	CY8C21534-24PVXI	175	0	288	288	69	0		
	CCD	MR093048	R1	CY8C21534-24PVXI	175	0	408	120	69	0		
	CCD	MR093048	R1	CY8C21534-24PVXI	150	0	500	500	63	0		
	CCD	MR093048	R1A	CY8C21534-24PVXI	150	0	1000	500	67	0		
	CCD	MR093048	R1A	CY8C21534-24PVXI	150	0	500	500	67	0		
	CCD	MR093064	R1	CY8C204344-12LQXI	150	0	1000	500	79	0		
	CCD	MR093064	R1	CY8C204344-12LQXI	150	0	500	500	80	0		
	CCD	MR093064	R1	CY8C204344-12LQXI	175	0	288	288	78	0		
	CCD	MR093064	R1	CY8C204344-12LQXI	175	0	408	120	75	0		
	CCD	MR094048	R1	CY8C24533-24PVXI	150	0	1000	500	80	0		
	CCD	MR094048	R1	CY8C24533-24PVXI	150	0	500	500	80	0		
	CCD	MR094048	R1	CY8C24533-24PVXI	175	0	288	288	80	0		
	CCD	MR094048	R1	CY8C24533-24PVXI	175	0	408	120	80	0		

Summary for Technology: S4  
Sum

50 records

3830 0



S8

MID	071904	R3	CY24C16L-3SXIES	150	0	1000	500	77	0
MID	071904	R4	CY24C16L-3SXIES	150	0	1000	500	76	0
MID	071904	R4	CY24C16L-3SXIES	150	0	1500	500	75	0
MID	071904	R4	CY24C16L-3SXIES	150	0	500	500	76	0
MID	082703	R4	7C1408B1C	150	0	1000	500	77	0
MID	082703	R4	7C1408B1C	150	0	500	500	77	0
MID	082704	R1	CY7C1404B	150	0	1000	500	80	0
MID	082704	R1	CY7C1404B	150	0	500	500	80	0
MID	082704	R3A	7C1404B6CC-RZWCB	150	0	1000	500	80	0
MID	082704	R3A	7C1404B6CC-RZWCB	150	0	500	500	80	0
CCD	083401	R4A	CY8C20566-24PVXI	150	0	1000	500	75	0
CCD	083401	R4A	CY8C20566-24PVXI	150	0	1500	500	69	0
CCD	083401	R5	CY8C20566-24PVXI	150	0	1000	500	78	0
CCD	084605	R2	CY8C20566-24PVXI	150	0	1000	500	80	0
CCD	084605	R2	CY8C20566-24PVXI	150	0	1500	500	80	0
CCD	084605	R2	CY8C20566-24PVXI	150	0	2000	500	80	0
CCD	084605	R2	CY8C20566-24PVXI	150	0	500	500	80	0
CCD	084605	R3	CY8C20566-24PVXI	150	0	1000	500	80	0
CCD	084605	R3	CY8C20566-24PVXI	150	0	1500	500	80	0
CCD	084605	R3	CY8C20566-24PVXI	150	0	2000	500	80	0
CCD	084605	R3	CY8C20566-24PVXI	150	0	500	500	80	0
DCD	090402	R1	CYONS2000-LBXC	150	0	1000	500	77	0
DCD	090402	R1	CYONS2000-LBXC	150	0	500	500	77	0
DCD	090402	R1A	CYONS2000-LBXC	150	0	500	500	77	0
MID	090604	R1	CY7C1401	150	0	1000	500	79	0
MID	090604	R1	CY7C1401	150	0	1500	500	79	0
MID	090604	R1	CY7C1401	150	0	500	500	80	0
MID	090604	R2	7C1404B1CC-RZWCB	150	0	1000	500	80	0
MID	090604	R2	7C1404B1CC-RZWCB	150	0	500	500	80	0
CCD	RR094002	R1	CY8C20466-24LQXI	150	0	168	168	209	0
CCD	MR093069	R1	CY8C20546-24PVXI	150	0	1000	500	79	0
CCD	MR093069	R1	CY8C20546-24PVXI	150	0	500	500	79	0
CCD	MR093069	R1	CY8C20546-24PVXI	175	0	288	288	80	0
CCD	MR093069	R1	CY8C20546-24PVXI	175	0	408	288	80	0

Summary for Technology: S8

Sum 34 records 2796 0

0.25um

CCD	MR092078	R1	STK14CA8-RF45	150	0	500	500	80	0
CCD	MR092078	R1	STK14CA8-RF45	150	0	1000	500	80	0
MID	MR093039	R1	STK14CA8-RF45	150	0	500	500	80	0
MID	MR093039	R1	STK14CA8-RF45	150	0	1000	500	80	0

Summary for Technology: 0.25

Sum 4 records 320 0



FROM: 1/3/2  
009  
TO: 01/03/2010

## Summary Detail -- HAST Performance Over Time

BUILDKIT	ASSY SITE	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	SS	REJECT	FA	COMMENTS
<b>FBGA (0.75-0.8, 0.3mm, Pb-free)</b>											
BK48DLALL	G	093904	R1	C Y62187E	130	3.6	264	76	0		
BK48DLALL	G	093904	R2	CY62187E	150	3.6	128	75	0		
BK48DJALL	G	MR083050	R1	CY62177DV30LL-55BAXI	130	3.6	128	25	0		
BK48DQBLL	G	MR084056	R1	CG7081AM	110	3.6	264	23	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	110	3.65	264	25	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	110	3.65	264	25	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>								<b>6</b>	<b>records</b>		
<b>Sum</b>										<b>249</b>	<b>0</b>
<b>FBGA (1.0-1.27)</b>											
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	130	2.05	128	71	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	130	2.05	256	68	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>68</b>	<b>0</b>
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	130	1.98	128	78	0		
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	130	1.98	256	77	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>77</b>	<b>0</b>
<b>FLIPCHIP CSP (Pb-Free)</b>											
FN30A	AU	090802	R1	CY8C20634-12FDXIT	130	5.25	96	73	0		
<b>Summary for Package Family: FLIPCHIP CSP (Pb-Free)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>73</b>	<b>0</b>
<b>PDIP (Pb-Free)</b>											
PZ286EAAGN	X	092014	R1	CY62256NLL-70PXC	130	5.5	128	77	0		
PZ183DBGN	RA	MR084050	R1	CS6632AF	130	5.5	128	70	0		
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	130	5.5	128	80	0		
PZ283AAAGN	X	MR091044	R1	CG6993AM	130	5.25	128	25	0		
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	130	5.25	128	25	0		
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	130	5.5	128	25	0		
PZ183EAAGN	X	MR093045	R1	CP6238BM	130	5.5	128	30	0		
<b>Summary for Package Family: PDIP (Pb-Free)</b>								<b>7</b>	<b>records</b>		
<b>Sum</b>										<b>332</b>	<b>0</b>
<b>PLCC (Pb-Free)</b>											
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	130	5.5	128	25	0		
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	130	5.5	128	30	0		
<b>Summary for Package Family: PLCC (Pb-Free)</b>								<b>2</b>	<b>records</b>		
<b>Sum</b>										<b>55</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>											
LN32AAAAAL	CA-THAILAND	MR083049	R1	CP7052ATT	130	5.25	128	25	0		
LN32AAAAAL	CA	MR084040	R1	CP7052ATT	130	5.25	128	24	0		
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	130	5.25	128	23	0		
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	130	5.25	128	25	0		
<b>Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)</b>								<b>4</b>	<b>records</b>		
<b>Sum</b>										<b>97</b>	<b>0</b>
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>											
LK32AABAG	L	MR084008	R1	CY8C20434-12LKXI	130	5.25	128	25	0		



LK32AABAGL	L	MR091011	R1	CY8C20434-12LXXIT	130	5.25	128	25	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LXXIT	130	5.25	128	25	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LXXI	130	5.25	128	30	0
<b>Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>105</b>	<b>0</b>

<b>QFN (0.6mm, Saw Type, Pb-Free)</b>									
LQ32ACAAGL	MB	083909	R1	CY8C204345-12LQXI	130	5.25	128	77	0
LQ32ACAAGL	MB	083909	R2	CY8C204345-12LQXI	130	5.25	128	77	0
LQ24AAAAAL	RA	084602	R4	CY8C20324-12LQXI	130	5.25	128	39	0
LQ32ACAAGL	M	084609	R1	CY24292LFXI	130	3.63	128	77	0
LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	130	5.25	128	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	130	5.25	128	77	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	130	5.25	128	76	0
LQ24ABAAL	AT-THAILAND	MR083053	R1	CY8C20324-12LQXI	130	5.25	128	39	0
LQ24ABAAL	AT	MR084039	R1	CY8C20324-12LQXI	130	5.25	128	5	0
LQ24ABAAL	AT	MR084039	R1	CY8C20324-12LQXI	130	5.25	128	20	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	130	5.25	128	24	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	130	5.25	128	25	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	130	5.25	128	25	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	130	5.25	128	27	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	130	5.25	128	24	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	130	5.25	128	26	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	130	5.25	128	28	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	130	5.25	128	24	0
<b>Summary for Package Family: QFN (0.6mm, Saw Type, Pb-Free)</b>				<b>18</b>	<b>records</b>				
<b>Sum</b>								<b>767</b>	<b>0</b>

<b>QFN (COL, 0.6mm, Saw Type, Pb-free)</b>									
LG16AAAAAL	M	084404	R4	CY8C20246-24LXXI	130	5.25	128	30	0
LG16AAAAAL	M	090404	R1	CY8C20234-12LXXI	130	5.25	96	77	0
LG16AAAAAL	M	090404	R2	CY8C20234-12LXXI	130	5.25	96	77	0
LG16AAAAAL	M	090404	R3	CY8C20234-12LXXI	130	5.25	96	77	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	130	5.25	128	27	0
<b>Summary for Package Family: QFN (COL, 0.6mm, Saw Type, Pb-free)</b>				<b>5</b>	<b>records</b>				
<b>Sum</b>								<b>288</b>	<b>0</b>

<b>QFN (Punch Type, Pb-Free)</b>									
LY56DGAGL	L	090405	R1	CY8C24894-24LFXI	130	5.25	96	77	0
LY56DGAGL	L	090405	R2	CY8C24894-24LFXI	130	5.25	96	77	0
LY56DGAGL	L	090405	R3	CY8C24894-24LFXI	130	5.25	96	77	0
LY32AAAGR	L	MR084015	R1	CY8C21434-24LFXI	130	5.25	128	25	0
LY68AGAAGL	L	MR091024	R1	CY8CLED04-68LFXI	130	5.25	128	25	0
LY40ABGAGL	L	MR091030	R1	CS7067AT	130	3.63	128	23	0
LY32AAAGR	L	MR091032	R1	CS6624AA	130	5.25	128	24	0
LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	130	5.25	128	25	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	130	5.25	128	30	0
<b>Summary for Package Family: QFN (Punch Type, Pb-Free)</b>				<b>9</b>	<b>records</b>				
<b>Sum</b>								<b>383</b>	<b>0</b>

<b>QFN (Saw Type, Pb-free)</b>									
LT56ABAAGL	CA-Malaysia	075103	R2(1)	CY8CLED04DOCD1-56ES	130	5.5	128	20	0
LT56ABAAGL	CA	075103	R3	CY8CLED04D01-56LTXI	130	5	128	83	0
LT56ABAAGL	C	075103	R4	CY8CLED04G01-56LTXI	130	5	128	80	0
LT48ABAAGR	CA	083701	R3	CYWUSB6934-48LTXC	130	5	128	40	0
LT32BAABGL	RA	092002	R1	CY8C21434-24LTXI	130	5.25	128	75	0
LT32BAAGL	CA	MR084041	R1	CG7032AA	130	5.25	128	25	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	130	5.25	128	25	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	130	5.25	128	25	0
LT32BAAGL	M	MR092051	R1	CG6644FA	130	5.25	128	27	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	130	5.25	128	30	0



**Summary for Package Family: QFN (Saw Type, Pb-free)**  
**Sum**

**10 records** **430 0**

**QSOP (Pb-Free)**

SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	130	5.5	128	25	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	130	5.5	128	25	0

**Summary for Package Family: QSOP (Pb-Free)**

**2 records** **50 0**

**RTSOP (Pb-free)**

ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	130	5.5	128	25	0
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**Summary for Package Family: RTSOP (Pb-free)**

**1 records** **25 0**

**SNC (Pb-Free)**

SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	130	5.5	128	45	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	130	5.5	128	25	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	130	5.5	96	30	0
SY2831AHN	R	MR094002	R1	CY62256NLL-55SNXET	130	5.5	96	29	0

**Summary for Package Family: SNC (Pb-Free)**

**4 records** **129 0**

**SOIC**

S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	130	3.8	128	25	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	130	3.63	128	25	0

**Summary for Package Family: SOIC**

**2 records** **50 0**

**SOIC (J-Lead)**

V243GAAAGN	X	090302	R1	CY7C197BN-15VC	130	5.5	128	80	0
V243GAAAGN	X	090302	R2	CY7C197BN-15VC	130	5.5	128	80	0
V243GAAAGN	X	090302	R4	CY7C197BN-15VC	130	5.5	128	79	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	130	5.5	128	25	0

**Summary for Package Family: SOIC (J-Lead)**

**4 records** **264 0**

**SOIC (J-Lead, Pb-Free)**

VZ24	X	091906	R1	7C197B	130	5.5	128	77	0
VZ24	X	091906	R2	7C197BN	130	5.5	128	72	0
VZ28315PLL	R	092003	R2	CY7C192-15VXC	130	5.5	128	77	0
VZ3646BGLL	R	MR084001	R1	CY7C1049CV33-10VXCT	130	3.65	128	25	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	130	3.63	128	25	0
VZ3649BALN	R	MR091046	R1	CG7119AM	130	3.65	128	25	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	130	3.63	128	25	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	130	3.63	128	25	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	130	3.63	128	27	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	130	3.6	128	30	0

**Summary for Package Family: SOIC (J-Lead, Pb-Free)**

**10 records** **408 0**

**SOIC (Pb-Free)**

SZ815VAGN	M	071904	R3	CY24C16L-3SXIES	130	3.63	128	77	0
SZ183CGAN	RA-CML	MR082012	R1	CY7C63723C-SXC	130	5.5	256	24	0
SZ183CBGAN	RA	MR083019	R1A	CY7C63723C-SXC	130	5.5	256	25	0
SZ1615FAL	T-TAIWAN	MR083041	R1	CY23EP09SXC-1H	110	3.63	264	25	0
SZ2035BAL	R	MR084005	R1	CY8C24223A-24SXI	130	5.25	128	40	0
SZ2035BAL	R	MR084005	R1A	CY8C24223A-24SXI	130	5.25	128	17	0
SZ1615BKGN	RA	MR084020	R1	CY2309SXC-1HT	130	3.8	128	25	0
SZ24315BGN	RA	MR084029	R1	CY7C63743C-SXC	130	5.5	128	46	0
SZ24312BGN	R	MR084033	R1	CY7C63743C-SXC	130	5.5	128	40	0
SZ24312BGN	R	MR084033	R2	CY7C63743C-SXC	130	5.5	128	40	0
SZ815PABGN	RA	MR084061	R1	CY25560SXCT	130	3.63	128	25	0
SZ1615FAL	T	MR084072	R1	CY2309CSXC-1T	130	3.63	128	25	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	130	5.25	128	25	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	130	5.5	128	25	0
SZ32457BLN	R	MR091004	R1	CY62128ELL-45SXIT	130	3.8	128	25	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	130	3.8	128	25	0

SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	130	3.8	128	25	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	130	5.25	128	25	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	130	5.5	128	25	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	130	3.63	128	25	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	130	5.5	128	25	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	130	3.63	128	25	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	130	3.8	128	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	130	5.5	128	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	130	5.5	128	25	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	130	3.63	128	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	130	3.8	128	29	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	130	5.5	128	29	0
<b>Summary for Package Family: SOIC (Pb-Free)</b>				<b>28</b>	<b>records</b>				
<b>Sum</b>								<b>832</b>	<b>0</b>
<b>SSOP</b>									
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	130	3.63	128	30	0
<b>Summary for Package Family: SSOP</b>				<b>1</b>	<b>records</b>				
<b>Sum</b>								<b>30</b>	<b>0</b>
<b>SSOP (Pb-Free)</b>									
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	130	5.25	128	77	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	130	5.25	128	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	130	5.25	128	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	130	5.25	256	77	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	130	5.25	128	76	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	130	5.25	128	77	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	130	5.25	256	80	0
SP28214GL	T-TAIWAN	MR083036	R1	CY8C9520A-24PVXI	110	5.25	264	25	0
SP483HAAGR	M	MR084043	R1	CY14B101L-SP45XC	130	3.63	128	77	0
SP2822BGL	M	MR084059	R1	CY8C29466-24PVXA	130	5.25	96	76	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	130	5.25	128	25	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	130	5.25	96	25	0
SP2822BGL	M	MR091042	R1	CP6801ATT	130	5.25	96	25	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	110	5.25	264	25	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	130	5.25	128	25	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	130	5.25	128	25	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	130	5.25	128	25	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	130	5.5	128	29	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	130	3.6	128	30	0
SP2814GAL	T	MR093027	R1	CS6835AT	130	5.25	128	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	130	5.25	128	29	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	130	5.25	128	30	0
<b>Summary for Package Family: SSOP (Pb-Free)</b>				<b>22</b>	<b>records</b>				
<b>Sum</b>								<b>1042</b>	<b>0</b>
<b>TQFP</b>									
A32LXGXGB	Q	MR091043	R1	CY29948ACT	130	3.63	128	25	0
<b>Summary for Package Family: TQFP</b>				<b>1</b>	<b>records</b>				
<b>Sum</b>								<b>25</b>	<b>0</b>
<b>TQFP (Pb-Free)</b>									
AZ100RUBLN	R	092902	R1	CY7C68320C	130	3.63	96	80	0
AZ100RULN	R	092902	R2	CY7C68320C	130	3.63	96	80	0
AZ100RULN	R	092902	R3	CY7C68320C	130	3.63	96	80	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	130	3.6	128	25	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	130	5.25	128	25	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	130	3.63	128	25	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	130	3.63	128	25	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	130	3.63	128	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	130	5.5	128	30	0
<b>Summary for Package Family: TQFP (Pb-Free)</b>				<b>9</b>	<b>records</b>				
<b>Sum</b>								<b>400</b>	<b>0</b>
<b>TSOP (Pb-free)</b>									
ZT48AKAALL	T	084612	R2	CY62177EV30LL	130	3.6	96	34	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	130	3.6	96	45	0



ZT28R2BBLN	R	091302	R2A	7C622565EK-**RZTIB	130	5.5	128	80	0
ZT28R2BBLN	R	091302	R2A	7C622565EK-**RZTIB	130	5.5	256	79	0
ZT32RABALL	T	MR084057	R1	CY62128BNLL-55ZXI	110	5.5	264	25	0
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	130	5.5	128	25	0
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	130	3.6	128	25	0
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	130	3.6	264	25	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNLL-70ZXCT	130	5.5	128	24	0
ZT28R4BGL	R	MR092063	R1A	CY7C1399BN-12ZXCT	130	3.63	128	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	130	5.5	264	29	0
ZT48AKAALL	T	MR092070	R6A	7C62167FC-**TZTIB	130	5.5	264	28	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	130	3.6	128	29	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	110	3.6	128	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	130	3.63	128	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	130	3.6	128	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	110	5.5	264	30	0

**Summary for Package Family: TSOP (Pb-free)**

**Sum** **17 records** **598** **0**

**TSOP I (Pb-Free)**

ZB32RHALN	R	093104	R1	CY62138FV30LL-45ZAXI	130	3.6	128	78	0
ZB32RHALN	R	093104	R2	CY62138FV30LL-45ZAXI	130	3.6	96	78	0
ZB32RHALN	R	093104	R3	CY62138FV30LL-45ZAXI	130	3.6	128	78	0
ZB32RHALN	R	093104	R3	CY62138FV30LL-45ZAXI	130	3.6	96	78	0
ZB32RHBALN	R	MR091031	R1	CG7086AM	130	3.6	128	25	0
ZB32RHBALN	R	MR092014	R1	CG7086AMT	130	3.6	128	24	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	130	3.6	128	30	0

**Summary for Package Family: TSOP I (Pb-Free)**

**Sum** **7 records** **391** **0**

**TSOP II (Pb-Free)**

ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	130	3.3	128	80	0
ZW444ZALL	G	082703	R3	7C1408B8BC-**GZWIB	130	3.3	128	45	0
ZW444GALL	R	082704	R1	CY7C1404B	130	3.3	128	79	0
ZW444GALL	R	082704	R1	CY7C1404B	130	3.3	256	79	0
ZW444GALL	R	090604	R2	7C1404B1CC-**RZWCB	130	3.3	128	79	0
ZW444GALL	R	090604	R2	7C1404B1CC-**RZWCB	130	3.3	256	79	0
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	130	3.6	96	25	0
ZW544AALL	G	MR091027	R1	CS6729AT	130	3.65	128	25	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	130	3.63	128	25	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	130	3.6	128	23	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	130	3.6	96	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	110	3.6	128	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	110	3.63	264	30	0

**Summary for Package Family: TSOP II (Pb-Free)**

**Sum** **13 records** **629** **0**

**TSSOP**

Z1620GBAGN	RA	MR091055	R1	CY2309ZC-1HT	130	3.8	128	25	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	130	3.8	128	25	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	130	3.8	128	30	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	130	3.63	128	30	0

**Summary for Package Family: TSSOP**

**Sum** **4 records** **110** **0**

**TSSOP (Pb-Free)**

ZZ1619GAN	RA	MR084065	R1	CY2309CZXI-1H	130	3.68	128	77	0
ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	130	3.8	128	25	0
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	130	3.63	128	25	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	130	3.8	128	25	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	130	6	128	24	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	130	3.63	128	25	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	130	2.8	128	30	0

**Summary for Package Family: TSSOP (Pb-Free)**

**Sum** **7 records** **231** **0**



**VFBGA (0.75-0.8, 0.3mm)**

BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	110	3.6	264	25	0
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Sum for Package Family: VFBGA (0.75-0.8, 0.3mm)

<b>Sum</b>			<b>1</b>	<b>records</b>				<b>25</b>	<b>0</b>
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**VFBGA (0.75-0.8, 0.3mm, Pb-Free)**

BZ56GABGL	RA-CML	MR083005	R1	CY7C68053-56BAXIT	110	3.63	264	38	0
BZ48ABDALL	AT-CARSEM	MR083060	R1	CY62137EV30LL-45BVXI	130	3.6	264	25	0
BZ56BGALL	RA	MR084011	R1	CY7C68013A-56BAXC	130	3.63	128	25	0
BZ100DGALL	RA	MR084012	R1	CYWB0124AB-BVXIT	130	3.63	128	25	0
BZ48DAGLL	RA	MR084034	R1	CY62137FV30LL-45BVXIT	130	3.6	128	29	0
BZ56IAAAGL	AT	MR084071	R1	CY7C68053-56BAXIT	110	3.63	264	24	0
BZ100DGALL	RA	MR084073	R1	CYWB0124AB-BVXIT	130	3.63	128	15	0
BZ100DGALL	RA	MR084073	R1A	CYWB0124AB-BVXIT	110	3.63	264	15	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	110	3.6	264	23	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	110	3.6	264	25	0

BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	110	3.6	264	24	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	110	3.6	264	25	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	130	3.63	128	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	130	5.5	264	28	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	110	3.63	128	30	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	110	3.6	264	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	110	3.6	264	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	110	3.6	264	30	0

Sum for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)

<b>Sum</b>			<b>18</b>	<b>records</b>				<b>471</b>	<b>0</b>
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# Summary Detail -- HTS Performance Over Time

BUILDKIT	ASSY SITE	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	SS	REJECT	FA	COMMENTS
<b>FBGA (0.75-0.8, 0.3mm, Pb-free)</b>											
BK48DLALL	G	093904	R1	C Y62187E	150	0	1000	77	0		
BK48DLALL	G	093904	R1	C Y62187E	150	0	500	77	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	150	0	1000	80	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	150	0	1000	30	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	150	0	1000	30	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	150	0	500	30	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>								<b>6</b>	<b>records</b>		
<b>Sum</b>										<b>324</b>	<b>0</b>
<b>FBGA (1.0-1.27)</b>											
BB100CAALE	G	MR091023	R1	CYP15G0101DXB-BBC	150	0	1000	80	0		
BB100CAALE	G	MR091023	R1	CYP15G0101DXB-BBC	150	0	500	80	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	1000	77	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	500	77	0		
BB165ALLE	G	MR092017	R1	CY7C1312BV18-200BZC	150	0	1000	30	0		
BB165ALLE	G	MR092017	R1	CY7C1312BV18-200BZC	150	0	500	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	150	0	1000	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	150	0	500	30	0		
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	150	0	1000	30	0		
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	150	0	500	30	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>								<b>10</b>	<b>records</b>		
<b>Sum</b>										<b>494</b>	<b>0</b>
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW165BJALL	G	091706	R1A	CY7C1512KV18-"BZCES	150	0	1000	70	0		
BW165BJALL	G	091706	R1A	CY7C1512KV18-"BZCES	150	0	500	70	0		
BW100EAGL	G	MR084067	R1	CYP15G0101DXB-BBXC	150	0	1000	79	0		
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXC	150	0	1000	78	0		
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXC	150	0	500	80	0		
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	150	0	1000	30	0		
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	150	0	500	30	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	150	0	1000	30	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	150	0	500	30	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXC	150	0	1000	29	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXC	150	0	500	29	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>								<b>11</b>	<b>records</b>		
<b>Sum</b>										<b>555</b>	<b>0</b>
<b>PBGA (1.27)</b>											
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	150	0	500	30	0		
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	150	0	1000	30	0		
<b>Summary for Package Family: PBGA (1.27)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>30</b>	<b>0</b>
<b>PBGA (1.27, Pb-free)</b>											
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	150	0	500	30	0		
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	150	0	1000	30	0		
<b>Summary for Package Family: PBGA (1.27, Pb-free)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>30</b>	<b>0</b>
<b>PBGA (Cavity/Heat Sink)</b>											
BL256L2GE	G	MR084066	R1	CYP15G0401DXB-BGI	150	0	1000	80	0		
<b>Summary for Package Family: PBGA (Cavity/Heat Sink)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>80</b>	<b>0</b>
<b>PDIP (Pb-Free)</b>											
PZ243AAAGN	X	MR084028	R1	CY7C63743C-PXC	150	0	1000	80	0		
PZ183DBGN	RA	MR091008	R1	CY7C63723C-PXC	150	0	1000	80	0		
PZ183DBGN	RA	MR091008	R1	CY7C63723C-PXC	150	0	500	80	0		





PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	150	0	1000	80	0
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	150	0	500	80	0
PZ283AAAGN	X	MR091044	R1	CG6993AM	150	0	1000	80	0
PZ283AAAGN	X	MR091044	R1	CG6993AM	150	0	500	80	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	150	0	1000	30	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	150	0	500	30	0
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	150	0	1000	30	0
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	150	0	500	30	0
PZ183EAAGN	X	MR093045	R1	CP6238BM	150	0	1000	30	0
PZ183EAAGN	X	MR093045	R1	CP6238BM	150	0	500	30	0

**Summary for Package Family: PDIP (Pb-Free)**

**Sum** **740** **0**

**PLCC**

J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	150	0	2000	78	0
J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	150	0	2500	78	0
J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	150	0	3000	78	0

**Summary for Package Family: PLCC**

**Sum** **234** **0**

**PLCC (Pb-Free)**

JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	150	0	1000	80	0
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	150	0	500	80	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	150	0	1000	30	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	150	0	500	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	150	0	1000	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	150	0	500	30	0

**Summary for Package Family: PLCC (Pb-Free)**

**Sum** **280** **0**

**PQFP (Pb-free)**

NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	150	0	1000	80	0
NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	150	0	500	80	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	150	0	1000	28	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	150	0	500	29	0

**Summary for Package Family: PQFP (Pb-free)**

**Sum** **217** **0**

**QFN (0.4mm, Saw Type, Pb-free)**

LN32AAAAAL	CA	MR091052	R1	CP7052BTT	150	0	1000	80	0
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	150	0	500	80	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	150	0	1000	30	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	150	0	500	30	0

**Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)**

**Sum** **220** **0**

**QFN (0.6mm, Punch Type, Pb-Free)**

LK32AABAGL	L	MR091011	R1	CY8C20434-12LKXIT	150	0	500	80	0
LK32AABAGL	L	MR091011	R1	CY8C20434-12LKXIT	150	0	1000	80	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	150	0	1000	30	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	150	0	500	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	150	0	500	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	150	0	1000	30	0

**Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)**

**Sum** **280** **0**

**QFN (0.6mm, Saw Type, Pb-Free)**

LQ32ACAAGL	M	084609	R1	CY24292LFXI	150	0	1000	80	0
LQ32ACAAGL	M	084609	R1	CY24292LFXI	150	0	500	80	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	1000	76	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	1500	75	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	500	77	0
LQ24AAAAAL	RA	092407	R1	CY8CTMG200-24LQXI	150	0	500	80	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	150	0	1000	78	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	150	0	500	80	0

LQ24ABAAL	AT	MR091040	R1	CP6836ATT	150	0	1000	80	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	150	0	500	80	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	150	0	1000	30	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	150	0	1000	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	150	0	1000	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	150	0	1000	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	150	0	500	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	150	0	1000	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	150	0	500	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	150	0	1000	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	150	0	1000	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	150	0	500	30	0
<b>Summary for Package Family: QFN (0.6mm, Saw Type, Pb-Free)</b>				<b>24</b>	<b>records</b>				
<b>Sum</b>								<b>1206</b>	<b>0</b>

**QFN (COL, 0.6mm, Saw Type, Pb-free)**

LG16AAAAAL	M	084404	R1	CY7C64316-16LKXC	150	0	1000	77	0
LG16AAAAAL	MB	093905	R1	CY8C20246-24LKXI	150	0	1000	66	0
LG16AAAAAL	MB	093905	R1	CY8C20246-24LKXI	150	0	500	77	0
LG16AAAAAL	MB	093905	R4	CY8C20246-24LKXI	150	0	1000	80	0
LG16AAAAAL	MB	093905	R4	CY8C20246-24LKXI	150	0	500	90	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	150	0	1000	30	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	150	0	500	30	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	150	0	1000	30	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	150	0	500	30	0
<b>Summary for Package Family: QFN (COL, 0.6mm, Saw Type, Pb-free)</b>				<b>9</b>	<b>records</b>				
<b>Sum</b>								<b>510</b>	<b>0</b>

**QFN (Punch Type, Pb-Free)**

LY68AGABGL	L	MR084009	R1	CS6656AAT	150	0	1000	80	0
LY68AGABGL	L	MR084009	R1	CS6656AAT	150	0	500	80	0
LY68AGAAGL	L	MR091024	R1	CY8CLEDD04-68LFXI	150	0	1000	80	0
LY68AGAAGL	L	MR091024	R1	CY8CLEDD04-68LFXI	150	0	500	80	0
LY40ABGAGL	L	MR091030	R1	CS7067AT	150	0	1000	80	0
LY40ABGAGL	L	MR091030	R1	CS7067AT	150	0	500	80	0
LY32AAAGR	L	MR091032	R1	CS6624AA	150	0	1000	80	0
LY32AAAGR	L	MR091032	R1	CS6624AA	150	0	500	80	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	1000	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	500	30	0
LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	150	0	1000	30	0
LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	150	0	500	30	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	150	0	1000	27	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	150	0	500	27	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	150	0	1000	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	150	0	500	30	0
<b>Summary for Package Family: QFN (Punch Type, Pb-Free)</b>				<b>16</b>	<b>records</b>				
<b>Sum</b>								<b>874</b>	<b>0</b>

**QFN (Saw Type, Pb-free)**

LT56ABAAGL	CA-Malaysia	075103	R2	CY8CLEDD04DOCD1-56ES	150	0	1000	90	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1000	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1500	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	500	80	0
LT32BAAGL	CA	MR084041	R1	CG7032AA	150	0	1000	80	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	150	0	1000	80	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	150	0	500	80	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	1000	30	0



LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	500	30	0
LT32BAAGGL	M	MR092051	R1	CG6644FA	150	0	1000	30	0
LT32BAAGGL	M	MR092051	R1	CG6644FA	150	0	500	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	150	0	1000	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	150	0	500	30	0
<b>Summary for Package Family: QFN (Saw Type, Pb-free)</b>				<b>13</b>	<b>records</b>				
<b>Sum</b>								<b>750</b>	<b>0</b>
<b>QSOP (Pb-Free)</b>									
SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	150	0	1000	80	0
SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	150	0	500	80	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	150	0	1000	30	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	150	0	500	30	0
<b>Summary for Package Family: QSOP (Pb-Free)</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>220</b>	<b>0</b>
<b>RTSOP (Pb-free)</b>									
ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	150	0	500	80	0
ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	150	0	1000	80	0
<b>Summary for Package Family: RTSOP (Pb-free)</b>				<b>2</b>	<b>records</b>				
<b>Sum</b>								<b>160</b>	<b>0</b>
<b>SNC (Pb-Free)</b>									
SY2831BBLN	R	091302	R1	7C622565EK-**RSYIB	150	0	1000	80	0
SY2831BBLN	R	091302	R1	7C622565EK-**RSYIB	150	0	500	80	0
SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	150	0	1000	80	0
SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	150	0	500	80	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	1000	30	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	500	30	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	150	0	1000	30	0
SY2831AHN	R	MR094002	R1	CY62256NLL-55SNXET	150	0	1000	30	0
<b>Summary for Package Family: SNC (Pb-Free)</b>				<b>8</b>	<b>records</b>				
<b>Sum</b>								<b>440</b>	<b>0</b>
<b>SOIC</b>									
S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	150	0	1000	80	0
S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	150	0	500	80	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	150	0	1000	30	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	150	0	500	30	0
<b>Summary for Package Family: SOIC</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>220</b>	<b>0</b>
<b>SOIC (J-Lead)</b>									
V243GAAAGN	X	090302	R1	CY7C197BN-15VC	150	0	500	80	0
V243GAAAGN	X	090302	R1	CY7C197BN-15VC	150	0	1000	80	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	150	0	500	30	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	150	0	1000	28	0
<b>Summary for Package Family: SOIC (J-Lead)</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>218</b>	<b>0</b>
<b>SOIC (J-Lead, Pb-Free)</b>									
VZ24	X	091906	R1	7C197B	150	0	1000	75	0
VZ24	X	091906	R1	7C197B	150	0	500	75	0
VZ24	X	091906	R2	7C197BN	150	0	1000	77	0
VZ24	X	091906	R2	7C197BN	150	0	500	77	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	150	0	1000	79	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	150	0	500	79	0
VZ3649BALN	R	MR091046	R1	CG7119AM	150	0	1000	80	0
VZ3649BALN	R	MR091046	R1	CG7119AM	150	0	500	80	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	1000	30	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	500	30	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	150	0	1000	30	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	150	0	500	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	150	0	1000	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	150	0	500	30	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	150	0	1000	29	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	150	0	500	29	0



Summary for Package Family: SOIC (J-Lead, Pb-Free)  
Sum

SOIC (Pb-Free)

SZ183CBGAN	RA-CML	MR082012	R1	CY7C63723C-SXC	150	0	1500	80	0
SZ183CBGAN	RA-CML	MR083019	R1	CY7C63723C-SXC	150	0	2000	80	0
SZ183CBGAN	RA-CML	MR083019	R1	CY7C63723C-SXC	150	0	2500	80	0
SZ815PABGN	RA	MR084061	R1	CY25560SXCT	150	0	1000	80	0
SZ1615FAL	T	MR084072	R1	CY2309CSXC-1T	150	0	1000	80	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	150	0	1000	80	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	150	0	500	80	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	150	0	1000	80	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	150	0	500	80	0
SZ32457BLN	R	MR091004	R1	CY62128ELL-45SXIT	150	0	1000	80	0
SZ32457BLN	R	MR091004	R1	CY62128ELL-45SXIT	150	0	500	80	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	150	0	1000	80	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	150	0	500	80	0
SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	150	0	1000	80	0
SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	150	0	500	80	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	150	0	1000	80	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	150	0	500	80	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	150	0	1000	80	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	150	0	500	80	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	150	0	1000	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	150	0	500	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	150	0	1000	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	150	0	500	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	150	0	1000	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	150	0	500	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	150	0	1000	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	150	0	500	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	150	0	1000	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	150	0	500	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	150	0	1000	29	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	150	0	500	29	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	150	0	1000	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	150	0	500	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	150	0	1000	27	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	150	0	500	27	0
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	150	0	1000	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	150	0	1000	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	150	0	500	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	150	0	1000	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	150	0	500	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	150	0	1000	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	150	0	500	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	150	0	1000	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	150	0	500	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	150	0	1000	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	150	0	500	30	0

Summary for Package Family: SOIC (Pb-Free)  
Sum

O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	150	0	1000	30	0
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	150	0	500	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	150	0	1000	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	150	0	500	30	0

Summary for Package Family: SSOP  
Sum

2009 Q4 RELIABILITY REPORT	4	records	120	0
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16 records 860 0

50 records 2442 0

4 records 120 0

**SSOP (Pb-Free)**

SP483AGAN	R	084703	R1	CY8C20566-24PVXI	150	0	1000	75	0
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	150	0	1500	74	0
SP483HAAGR	M-PHILS	MR082071	R1	CY14B101L-SP45XC	150	0	1500	72	0
SP483HAAGR	M-PHILS	MR082071	R1	CY14B101L-SP45XC	150	0	2000	68	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	150	0	2000	80	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	150	0	2500	80	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	150	0	1000	80	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	150	0	500	80	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	150	0	1000	80	0
SP2822BGL	M	MR091042	R1	CP6801ATT	150	0	1000	80	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	150	0	1000	80	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	150	0	500	80	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	150	0	1000	30	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	150	0	500	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	1000	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	500	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	150	0	1000	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	150	0	500	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	150	0	1000	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	150	0	500	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	150	0	1000	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	150	0	500	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	150	0	1000	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	150	0	500	30	0
SP2814GAL	T	MR093027	R1	CS6835AT	150	0	1000	30	0
SP2814GAL	T	MR093027	R1	CS6835AT	150	0	500	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	150	0	1000	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	150	0	500	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	150	0	1000	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	150	0	500	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	150	0	1000	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	150	0	500	30	0

**Summary for Package Family: SSOP (Pb-Free)**

**Sum** **32** **records** **1529** **0**

**TQFP**

A32LXGXB	Q	MR091043	R1	CY29948ACT	150	0	1000	80	0
A32LXGXB	Q	MR091043	R1	CY29948ACT	150	0	500	80	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	1000	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	500	30	0

**Summary for Package Family: TQFP**

**Sum** **4** **records** **220** **0**

**TQFP (10mm X 10mm)**

AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	150	0	500	79	0
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	150	0	1000	79	0

**Summary for Package Family: TQFP (10mm X 10mm)**

**Sum** **1** **records** **79** **0**

**TQFP (Pb-Free)**

AZ100RUBLN	R	092902	R1	CY7C68320C	150	0	1000	80	0
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	150	0	1000	80	0
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	150	0	500	80	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	150	0	1000	79	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	150	0	500	80	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	150	0	1000	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	150	0	500	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	150	0	1000	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	150	0	500	30	0
AZ32GXGAN	G	MR092033	R1	CY29940AXCT	150	0	1000	30	0
AZ32GXGAN	G	MR092033	R1	CY29940AXCT	150	0	500	30	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	150	0	1000	30	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	150	0	500	30	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	150	0	1000	30	0



AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	150	0	500	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	150	0	1000	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	150	0	500	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	150	0	1000	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	150	0	500	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	150	0	1000	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	150	0	500	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	150	0	1000	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	150	0	500	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	150	0	1000	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	150	0	500	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	150	0	1000	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	150	0	500	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	150	0	1000	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	150	0	500	30	0
AZ100 (65nm Die)*	-	MR094074	R1	8M SRAM	150	0	1000	77	0
AZ100 (65nm Die)*	-	MR094074	R2	8M SRAM	150	0	1000	77	0
AZ100 (65nm Die)*	-	MR094074	R3	8M SRAM	150	0	1000	77	0

\*Data were generated by Cypress Foundry Supplier

**Summary for Package Family: TQFP (Pb-Free)**

**Sum** **32 records** **1350 0**

**TSOP (Pb-free)**

ZT48AKAALL	T	084612	R1	CY62177EV30LL	150	0	1000	80	0
ZT48AJAALL	T	091202	R4	CY62177EV30LL	150	0	1000	79	0
ZT48AJAALL	T	091202	R4	CY62177EV30LL	150	0	500	80	0
ZT28R2BBLN	R	MR084060	R1	CY62256VNULL-70ZXC	150	0	1000	80	0
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	150	0	1000	80	0
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	150	0	500	80	0
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	150	0	1000	80	0
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	150	0	500	80	0
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	150	0	1000	80	0
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	150	0	500	80	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	150	0	1000	30	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	150	0	500	30	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	150	0	1000	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	150	0	1000	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	150	0	500	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	150	0	1000	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	150	0	500	30	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	150	0	1000	25	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	150	0	500	25	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	150	0	1000	29	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	150	0	500	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	150	0	1000	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	150	0	500	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	150	0	1000	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	150	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	150	0	1000	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	150	0	500	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	150	0	1000	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	150	0	500	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	150	0	1000	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	150	0	500	30	0

**Summary for Package Family: TSOP (Pb-free)**

**Sum** **31 records** **1418 0**

**TSOP I (Pb-Free)**

ZB32RHBALN	R	MR091031	R1	CG7086AM	150	0	1000	80	0
ZB32RHBALN	R	MR091031	R1	CG7086AM	150	0	500	80	0
ZB32RHBALN	R	MR092014	R1	CG7086AMT	150	0	1000	30	0
ZB32RHBALN	R	MR092014	R1	CG7086AMT	150	0	500	30	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	150	0	1000	30	0



ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	150	0	500	30	0
<b>Summary for Package Family: TSOP I (Pb-Free)</b>									
<b>Sum</b>								<b>280</b>	<b>0</b>
<b>TSOP II (Pb-Free)</b>									
ZW54CABLR	G	093403	R1	N/A	150	0	1000	77	0
ZW54CABLR	G	093403	R1	N/A	150	0	500	77	0
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	150	0	1000	80	0
ZW544AALL	G	MR091027	R1	CS6729AT	150	0	1000	80	0
ZW544AALL	G	MR091027	R1	CS6729AT	150	0	500	80	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	150	0	1000	79	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	150	0	500	80	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	1000	30	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	500	30	0
ZW54BGALL	G	MR092043	R1A	CG7116AM	150	0	1000	30	0
ZW54BGALL	G	MR092043	R1A	CG7116AM	150	0	500	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	150	0	1000	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	150	0	1000	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	150	0	500	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	150	0	1000	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	150	0	500	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	150	0	1000	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	150	0	500	30	0
<b>Summary for Package Family: TSOP II (Pb-Free)</b>									
<b>Sum</b>								<b>883</b>	<b>0</b>
<b>TSSOP</b>									
Z0811XAGB	M	MR084064	R1	CY2304NZZI-1	150	0	1000	80	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	150	0	1000	30	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	150	0	500	30	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	150	0	1000	29	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	150	0	500	30	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	150	0	1000	27	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	150	0	500	27	0
<b>Summary for Package Family: TSSOP</b>									
<b>Sum</b>								<b>253</b>	<b>0</b>
<b>TSSOP (Pb-Free)</b>									
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	150	0	500	80	0
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	150	0	1000	80	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	150	0	1000	30	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	150	0	500	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCCT	150	0	1000	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCCT	150	0	500	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	150	0	1000	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	150	0	500	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	150	0	1000	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	150	0	500	30	0
ZZ1619GAN	RA	MR084065	R1	CY2309CZXI-1H	150	0	1000	80	0
ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	150	0	500	80	0
ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	150	0	1000	80	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	150	0	1000	30	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	150	0	500	30	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	150	0	1000	30	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	150	0	500	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	150	0	500	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	150	0	1000	30	0
<b>Summary for Package Family: TSSOP (Pb-Free)</b>									
<b>Sum</b>								<b>820</b>	<b>0</b>
<b>VFBGA (0.75-0.8, 0.3mm)</b>									
BV48ABEALE	A	MR091041	R1	CY62167EV30LL-45BVI	150	0	1000	80	0
BV48ABEALE	A	MR091041	R1	CY62167EV30LL-45BVI	150	0	500	80	0
BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	150	0	1000	30	0



BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	150	0	500	30	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm)</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>220</b>	<b>0</b>
<b>VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>									
BZ100DGALL	RA	MR084073	R1	CYWB0124AB-BVXIT	150	0	1000	80	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	150	0	1000	80	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	150	0	500	80	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	150	0	1000	80	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	150	0	500	80	0
BZ48CFAALL	G	MR091029	R1	CY62157EV30LL-45BVXI	150	0	500	80	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	150	0	1000	80	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	150	0	500	80	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	150	0	1000	80	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	150	0	500	80	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	1000	30	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	500	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	150	0	1000	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	150	0	500	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	150	0	1000	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	150	0	1000	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	150	0	500	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	1000	31	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	500	31	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	150	0	1000	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	150	0	1000	29	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	150	0	500	29	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	150	0	1000	30	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	150	0	500	30	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	150	0	1000	29	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	150	0	500	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	150	0	1000	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	150	0	500	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	150	0	1000	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	150	0	500	30	0
BZ56BGALL	RA	RR091013	R1	CY7C68013A-56BAXC	150	0	1000	77	0
BZ56BGALL	RA	RR091013	R1	CY7C68013A-56BAXC	150	0	500	77	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>				<b>32</b>	<b>records</b>				
<b>Sum</b>								<b>1553</b>	<b>0</b>



## Summary Detail -- PCT Performance Over Time

BUILDKIT	ASSY SITE	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	SS	REJECT	FA	COMMENTS
<b>FBGA (0.75-0.8, 0.3mm, Pb-free)</b>											
BK48DLALL	G	093904	R1	C Y62187E	121	0	168	77	0		
BK48DLALL	G	093904	R2	CY62187E	150	0	168	77	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	121	0	168	78	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	121	0	168	29	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	121	0	96	29	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	121	0	168	30	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>								<b>6</b>	<b>records</b>		
<b>Sum</b>										<b>320</b>	<b>0</b>
<b>FBGA (1.0-1.27)</b>											
BB100CAALE	G	MR091023	R1	CYP15G0101DXB-BBC	121	0	168	77	0		
BB100CAALE	G	MR091023	R1A	CYP15G0101DXB-BBC	121	0	168	77	0		
BB165ALLE	G	MR092017	R1	CY7C1312BV18-200BZC	121	0	168	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	121	0	168	27	0		
BB165ALLE	G	MR092076	R1A	CY7C1315BV18-200BZC	121	0	168	30	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	121	0	288	71	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	121	0	168	76	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>								<b>7</b>	<b>records</b>		
<b>Sum</b>										<b>388</b>	<b>0</b>
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	121	0	168	78	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	121	0	168	30	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	121	0	168	30	0		
BW165BJALL	G	091706	R1A	CY7C1512KV18-*BZCES	121	0	288	64	0		
BW165BJALL	G	091706	R1A	CY7C1512KV18-*BZCES	121	0	168	77	0		
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	121	0	168	78	0		
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	121	0	288	70	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>								<b>7</b>	<b>records</b>		
<b>Sum</b>										<b>427</b>	<b>0</b>
<b>FLIPCHIP CSP (Pb-Free)</b>											
FN30A	AU	090802	R1	CY8C20634-12FDXIT	121	0	96	75	0		
FN30A	AU	090802	R2	CY8C20634-12FDXIT	121	0	96	75	0		
<b>Summary for Package Family: FLIPCHIP CSP (Pb-Free)</b>								<b>2</b>	<b>records</b>		
<b>Sum</b>										<b>150</b>	<b>0</b>
<b>PBGA (1.27)</b>											
BG119ADALE	AT	MR084081	R1	CY7C1354C-166BGC	121	0	168	80	0		
BG119ADALE	AT	MR084081	R2	CY7C1354C-166BGC	121	0	168	80	0		
BG119ADALE	AT	MR084081	R3	CY7C1354C-166BGC	121	0	168	68	0		
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	121	0	168	30	0		
<b>Summary for Package Family: PBGA (1.27)</b>								<b>4</b>	<b>records</b>		
<b>Sum</b>										<b>258</b>	<b>0</b>
<b>PBGA (1.27, Pb-free)</b>											
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	121	0	168	25	0		
<b>Summary for Package Family: PBGA (1.27, Pb-free)</b>								<b>1</b>	<b>records</b>		
<b>Sum</b>										<b>25</b>	<b>0</b>
<b>PDIP (Pb-Free)</b>											
PZ286EAAGN	X	092014	R1	CY62256NLL-70PXC	121	0	168	77	0		
PZ183DBGN	RA	MR091008	R1	CY7C63723C-PXC	121	0	168	80	0		



PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	121	0	168	80	0
PZ283AAAGN	X	MR091044	R1	CG6993AM	121	0	168	80	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	121	0	168	30	0
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	121	0	168	30	0
PZ183EAAGN	X	MR093045	R1	CP6238BM	121	0	168	30	0
<b>Summary for Package Family: PDIP (Pb-Free)</b>				<b>7 records</b>					
<b>Sum</b>								<b>407</b>	<b>0</b>
<b>PLCC</b>									
J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	121	0	672	80	0
<b>Summary for Package Family: PLCC</b>				<b>1 records</b>					
<b>Sum</b>								<b>80</b>	<b>0</b>
<b>PLCC (Pb-Free)</b>									
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	121	0	168	80	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	121	0	168	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	121	0	168	30	0
<b>Summary for Package Family: PLCC (Pb-Free)</b>				<b>3 records</b>					
<b>Sum</b>								<b>140</b>	<b>0</b>
<b>PQFP (Pb-free)</b>									
NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	121	0	168	80	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	121	0	168	30	0
<b>Summary for Package Family: PQFP (Pb-free)</b>				<b>2 records</b>					
<b>Sum</b>								<b>110</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>									
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	121	0	168	80	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	121	0	168	30	0
<b>Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)</b>				<b>2 records</b>					
<b>Sum</b>								<b>110</b>	<b>0</b>
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>									
LK32AABAGL	L	MR091011	R1	CY8C20434-12LKXIT	121	0	168	76	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	121	0	168	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	121	0	168	30	0
<b>Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)</b>				<b>3 records</b>					
<b>Sum</b>								<b>136</b>	<b>0</b>
<b>QFN (0.6mm, Saw Type, Pb-Free)</b>									
LQ32ACAAGL	M	084609	R1	CY24292LFXI	121	0	168	80	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	121	0	168	75	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	121	0	168	77	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	121	0	288	76	0
LQ24ADAAGL	CA	084701	R2	CY8C20366-24LQXI	121	0	168	76	0
LQ24ADAAGL	CA	084701	R3	CY8C20346-24LQXI	121	0	168	75	0
LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	121	0	168	77	0
LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	121	0	288	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	121	0	168	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	121	0	288	77	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	121	0	168	76	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	121	0	288	75	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	121	0	168	77	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	121	0	288	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	121	0	168	77	0
LQ24AAAAAL	RA	092407	R1	CY8CTMG200-24LQXI	121	0	168	80	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	121	0	168	80	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	121	0	288	78	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	121	0	168	80	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	121	0	168	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	121	0	168	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	121	0	168	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	121	0	168	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	121	0	168	29	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	121	0	168	30	0



LQ24ADAAGL CA MR094043 R1 CY8CTST200-24LQXI 121 0 168 30 0  
**Summary for Package Family: QFN (0.6mm, Saw Type, Pb-Free)**  
**Sum 1676 0**

**QFN (COL, 0.6mm, Saw Type, Pb-free)**

LG16AAAAAL M 084404 R1 CY7C64316-16LKXC 121 0 168 76 0  
 LG16AAAAAL M 084404 R1 CY7C64316-16LKXC 121 0 288 73 0  
 LG16AAAAAL M 084404 R2 CY8CTST200-16LGXI 121 0 168 76 0  
 LG16AAAAAL M 084404 R3 CY7C64315-16LKXC 121 0 168 72 0  
 LG16AAAAAL M 090404 R1 CY8C20234-12LKXI 121 0 168 80 0  
 LG16AAAAAL M 090404 R1 CY8C20234-12LKXI 121 0 96 80 0  
 LG16AAAAAL M 090404 R2 CY8C20234-12LKXI 121 0 168 79 0  
 LG16AAAAAL M 090404 R2 CY8C20234-12LKXI 121 0 96 79 0  
 LG16AAAAAL M 090404 R3 CY8C20234-12LKXI 121 0 168 80 0  
 LG16AAAAAL M 090404 R3 CY8C20234-12LKXI 121 0 96 80 0  
 LG16AAAAAL MB 093905 R1 CY8C20246-24LKXI 121 0 168 78 0  
 LG16AAAAAL MB 093905 R1 CY8C20246-24LKXI 121 0 288 68 0  
 LG16AAAAAL MB 093905 R2 CY8C20246-24LKXI 121 0 168 80 0  
 LG16AAAAAL MB 093905 R2 CY8C20246-24LKXI 121 0 288 70 0  
 LG16AAAAAL MB 093905 R4 CY8C20246-24LKXI 121 0 168 87 0  
 LG16AAAAAL MB 093905 R4 CY8C20246-24LKXI 121 0 288 75 0  
 LG16AAAAAL LG MR092053 R1 CY8C20180-LDX2I 121 0 168 30 0  
 LG16AAAAAL M MR093061 R1 CY8C20224-12LKXI 121 0 168 30 0  
**Summary for Package Family: QFN (COL, 0.6mm, Saw Type, Pb-free)**  
**Sum 1293 0**

**QFN (Punch Type, Pb-Free)**

LY56DGAGL L 090405 R1 CY8C24894-24LFXI 121 0 168 80 0  
 LY56DGAGL L 090405 R1 CY8C24894-24LFXI 121 0 96 80 0  
 LY56DGAGL L 090405 R2 CY8C24894-24LFXI 121 0 168 80 0  
 LY56DGAGL L 090405 R2 CY8C24894-24LFXI 121 0 96 80 0  
 LY56DGAGL L 090405 R3 CY8C24894-24LFXI 121 0 168 80 0  
 LY56DGAGL L 090405 R3 CY8C24894-24LFXI 121 0 96 80 0  
 LY68AGABGL L MR084009 R1 CS6656AAT 121 0 168 78 0  
 LY68AGAAAGL L MR091024 R1 CY8CLEDD04-68LFXI 121 0 168 80 0  
 LY40ABGAGL L MR091030 R1 CS7067AT 121 0 168 80 0  
 LY32AAAGR L MR091032 R1 CS6624AA 121 0 168 80 0  
 LY40CGAGR L MR092032 R1 CYRF69103-40LFXC 121 0 168 30 0  
 LY32AAAGR L MR092041 R1 CY8C21434-24LFXI 121 0 168 30 0  
 LY32AAAGR L MR093017 R1 CP6759AMT 121 0 168 30 0  
 LY48CGAGL L MR093046 R1 CY8C27643-24LFXIT 121 0 168 30 0  
**Summary for Package Family: QFN (Punch Type, Pb-Free)**  
**Sum 918 0**

**QFN (Saw Type, Pb-free)**

LT56ABAAGL CA-Malaysia 075103 R2 CY8CLEDD04DOCD1-56ES 121 0 288 90 0  
 LT56ABAAGL CA 075103 R3 CY8CLEDD04D01-56LTXI 121 0 168 90 0  
 LT56ABAAGL CA 075103 R3 CY8CLEDD04D01-56LTXI 121 0 288 90 0  
 LT32BAABGL RA 092002 R1 CY8C21434-24LTXI 121 0 168 80 0  
 LT32BAABGL RA 093803 R1 CY8C24423A5-24LTXIKA 121 0 168 80 0  
 LT32BAABGL RA MR091009 R1 CG7032AA 121 0 168 80 0  
 LT32BAABGL RA MR092034 R1 CY8C21434-24LTXI 121 0 168 30 0  
 LT32BAAGGL M MR092051 R1 CG6644FA 121 0 168 30 0  
 LT32BAABGL RA MR093003 R1 CY8C21434-24LTXI 121 0 168 30 0  
**Summary for Package Family: QFN (Saw Type, Pb-free)**  
**Sum 600 0**

**QSOP (Pb-Free)**

SQ2414ABGN R MR091002 R1 CY7C63743C-QXC 121 0 168 80 0  
 SQ2414ABGN R MR092005 R1 CY7C63743C-QXC 121 0 168 30 0  
**Summary for Package Family: QSOP (Pb-Free)**  
**Sum 110 0**



**RTSOP (Pb-free)**

ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	121	0	168	80	0
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**Summary for Package Family: RTSOP (Pb-free)**

<b>Sum</b>			<b>1</b>	<b>records</b>				<b>80</b>	<b>0</b>
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**SNC (Pb-Free)**

SY2831BBLN	R	091302	R2	7C622565EK-***RSYIB	121	0	168	80	0
SY2831BBLN	R	091302	R2	7C622565EK-***RSYIB	121	0	288	80	0
SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	121	0	168	80	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	121	0	168	30	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	121	0	168	30	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	121	0	96	30	0
SY2831AHN	R	MR094002	R1	CY62256NLL-55SNXET	121	0	96	30	0

**Summary for Package Family: SNC (Pb-Free)**

<b>Sum</b>			<b>7</b>	<b>records</b>				<b>360</b>	<b>0</b>
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**SOIC**

S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	121	0	168	80	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	121	0	168	30	0

**Summary for Package Family: SOIC**

<b>Sum</b>			<b>2</b>	<b>records</b>				<b>110</b>	<b>0</b>
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**SOIC (J-Lead)**

V243GAAAGN	X	090302	R1	CY7C197BN-15VC	121	0	168	77	0
V243GAAAGN	X	090302	R2	CY7C197BN-15VC	121	0	168	71	0
V243GAAAGN	X	090302	R4	CY7C197BN-15VC	121	0	168	80	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	121	0	168	30	0

**Summary for Package Family: SOIC (J-Lead)**

<b>Sum</b>			<b>4</b>	<b>records</b>				<b>258</b>	<b>0</b>
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**SOIC (J-Lead, Pb-Free)**

VZ24	X	091906	R1A	CY7C197BN	121	0	168	80	0
VZ24	X	091906	R2A	CY7C197BN-15VC	121	0	168	80	0
VZ28315PLL	R	092003	R1	CY7C192-15VXC	121	0	168	77	0
VZ28313BLL	R	MR091045	R1	CY7C1399BN-12VXCT	121	0	168	80	0
VZ3649BALN	R	MR091046	R1	CG7119AM	121	0	168	80	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	121	0	168	30	0
VZ444ACBLL	RA	MR093008	R1	CY7C1021DV33-10VXI	121	0	168	30	0
VZ28313BLL	R	MR093023	R1	CY7C1399BN-12VXCT	121	0	168	30	0

**Summary for Package Family: SOIC (J-Lead, Pb-Free)**

<b>Sum</b>			<b>8</b>	<b>records</b>				<b>487</b>	<b>0</b>
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**SOIC (Pb-Free)**

SZ815VAGN	M	071904	R3	CY24C16L-3SXIES	121	0	288	77	0
SZ815VAGN	M	071904	R4	CY24C16L-3SXIES	121	0	168	77	0
SZ815VAGN	M	071904	R4	CY24C16L-3SXIES	121	0	288	77	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	121	0	168	80	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	121	0	168	80	0
SZ32457BLL	R	MR091004	R1	CY62128ELL-45SXIT	121	0	168	80	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	121	0	168	80	0
SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	121	0	168	79	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	121	0	168	80	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	121	0	168	80	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	121	0	168	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	121	0	168	29	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	121	0	168	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	121	0	168	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	121	0	168	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	121	0	168	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	121	0	168	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	121	0	168	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	121	0	168	30	0
SZ32457BLL	R	MR093019	R1	CY62128ELL-45SXIT	121	0	168	30	0
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	121	0	168	30	0
SZ28327BLL	R	MR093040	R1	CY2314ANZSXC-1	121	0	168	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	121	0	168	30	0



SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	121	0	168	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	121	0	168	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	121	0	168	30	0
<b>Summary for Package Family: SOIC (Pb-Free)</b>				<b>26</b>	<b>records</b>				
<b>Sum</b>								<b>1269</b>	<b>0</b>
<b>SSOP</b>									
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	121	0	168	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	121	0	168	30	0
<b>Summary for Package Family: SSOP</b>				<b>2</b>	<b>records</b>				
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>SSOP (Pb-Free)</b>									
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	121	0	168	76	0
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	121	0	288	76	0
SP483ACGAN	R	084703	R2	CY8CTMG200-48PVXI	121	0	168	77	0
SP483ACGAN	R	084703	R2	CY8CTMG200-48PVXI	121	0	168	76	0
SP483ACGAN	R	084703	R2	CY8CTMG200-48PVXI	121	0	288	75	0
SP483ACGAN	R	084703	R3	CY8C20546-24PVXI	121	0	168	76	0
SP483ACGAN	R	084703	R3	CY8C20546-24PVXI	121	0	168	77	0
SP483ACGAN	R	084703	R3	CY8C20546-24PVXI	121	0	288	75	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	121	0	168	77	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	121	0	288	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	121	0	168	76	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	121	0	288	76	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	121	0	168	77	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	121	0	288	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	121	0	168	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	121	0	288	77	0
SP483EBBAL	R	090604	R1	CY7C1401	121	0	168	82	0
SP483EBBAL	R	090604	R1	CY7C1401	121	0	288	82	0
SP483EBBAL	R	094502	R1	CY7C1401	121	0	168	82	0
SP483EBBAL	R	094502	R1	CY7C1401	121	0	288	82	0
SP483HAAGR	M-PHILS	MR082071	R1	CY14B101L-SP45XC	121	0	504	79	0
SP483HAAGR	M-PHILS	MR082071	R1	CY14B101L-SP45XC	121	0	672	78	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	121	0	672	80	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	121	0	168	80	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	121	0	168	80	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	121	0	96	80	0
SP2822BGL	M	MR091042	R1	CP6801ATT	121	0	96	80	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	121	0	168	80	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	121	0	168	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	121	0	168	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	121	0	168	30	0
SP2824HAN	T	MR092070	R2	CY24242OXC	121	0	168	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	121	0	168	30	0
SP483HAAGR	M	MR093024	R1A	CY14B101L-SP45XCT	121	0	168	27	0
SP2814GAL	T	MR093027	R1	CS6835AT	121	0	168	28	0
SP2814HAL	M	MR093052	R1	CS6835AT	121	0	168	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	121	0	168	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-***RASPI	121	0	168	29	0
<b>Summary for Package Family: SSOP (Pb-Free)</b>				<b>38</b>	<b>records</b>				
<b>Sum</b>								<b>2481</b>	<b>0</b>
<b>TQFP</b>									
A32LXGXGB	Q	MR091043	R1	CY29948ACT	121	0	168	80	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	121	0	168	30	0
<b>Summary for Package Family: TQFP</b>				<b>2</b>	<b>records</b>				
<b>Sum</b>								<b>110</b>	<b>0</b>
<b>TQFP (10mm X 10mm)</b>									
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	121	0	168	78	0
<b>Summary for Package Family: TQFP (10mm X 10mm)</b>				<b>1</b>	<b>records</b>				
<b>Sum</b>								<b>78</b>	<b>0</b>
<b>TQFP (Pb-Free)</b>									
AZ100RUBLN	R	092902	R1	CY7C68320C	121	0	96	80	0



AZ100RUBLN	R	092902	R1A	CY7C68320C	121	0	168	80	0	
AZ100RULN	R	092902	R2	CY7C68320C	121	0	96	80	0	
AZ100RULN	R	092902	R2A	CY7C68320C	121	0	168	80	0	
AZ100RULN	R	092902	R3	CY7C68320C	121	0	168	80	0	
AZ100RULN	R	092902	R3	CY7C68320C	121	0	96	80	0	
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	121	0	168	80	0	
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	121	0	168	77	0	
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	121	0	168	30	0	
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	121	0	168	30	0	
AZ32GXGAN	G	MR092033	R1	CY29940AXCT	121	0	168	30	0	
AZ32GXGAN	G	MR092045	R1	CY29940AXC	121	0	168	30	0	
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	121	0	168	30	0	
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	121	0	168	29	0	
AZ32GXGAN	G	MR093031	R1	CY29940AXC	121	0	168	30	0	
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	121	0	168	30	0	
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	121	0	168	30	0	
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	121	0	168	30	0	
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	121	0	168	30	0	
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	121	0	168	30	0	
<b>Summary for Package Family: TQFP (Pb-Free)</b>				<b>20</b>	<b>records</b>					
<b>Sum</b>								<b>996</b>	<b>0</b>	
<b>TSOP (Pb-free)</b>										
ZT48AKAALL	T	084612	R1	CY62177EV30LL	121	0	168	80	0	
ZT48AKAALL	T	084612	R1	CY62177EV30LL	121	0	96	80	0	
ZT48AKAALL	T	084612	R2	CY62177EV30LL	121	0	168	80	0	
ZT48AKAALL	T	084612	R2	CY62177EV30LL	121	0	96	80	0	
ZT48AKAALL	T	084612	R3	CY62177EV30LL	121	0	168	80	0	
ZT48AKAALL	T	084612	R3	CY62177EV30LL	121	0	96	80	0	
ZT48AJAALL	T	091202	R1	CY62177EV30LL	121	0	168	70	0	
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	121	0	168	80	0	
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	121	0	168	77	0	
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	121	0	168	79	0	
ZT28R2BBLN	R	MR092018	R1	CY62256VLL-70ZXCT	121	0	168	30	0	
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	121	0	168	30	0	
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	121	0	96	30	0	
ZT28R4BGL	R	MR092063	R1A	CY7C1399BN-12ZXCT	121	0	168	30	0	
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	121	0	168	30	0	
ZT48AKAALL	T	MR092070	R6A	7C62167FC-**TZTIB	121	0	168	30	0	
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	121	0	168	30	0	
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	121	0	168	30	0	
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	121	0	168	30	0	
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	121	0	168	29	0	
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	121	0	168	30	0	
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	121	0	168	30	0	
<b>Summary for Package Family: TSOP (Pb-free)</b>				<b>22</b>	<b>records</b>					
<b>Sum</b>								<b>1145</b>	<b>0</b>	
<b>TSOP I (Pb-Free)</b>										
ZB32RHBALN	R	MR091031	R1	CG7086AM	121	0	168	80	0	
ZB32RHBALN	R	MR092014	R1	CG7086AMT	121	0	168	30	0	
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	121	0	168	30	0	
<b>Summary for Package Family: TSOP I (Pb-Free)</b>				<b>3</b>	<b>records</b>					
<b>Sum</b>								<b>140</b>	<b>0</b>	
<b>TSOP II (Pb-Free)</b>										
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	121	0	168	80	0	
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	121	0	288	80	0	
ZW444ZALL	G	082703	R3	N/A	121	0	168	45	0	
ZW444ZALL	G	082703	R3	N/A	121	0	288	43	0	
ZW444GALL	R	082704	R1	CY7C1404B	121	0	168	80	0	
ZW444GALL	R	082704	R1	CY7C1404B	121	0	288	80	0	
ZW54CABLR	G	093403	R1	N/A	121	0	168	77	0	
ZW54CABLR	G	093403	R3	N/A	121	0	168	77	0	
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	121	0	168	79	0	



ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	121	0	96	79	0
ZW544AALL	G	MR091027	R1	CS6729AT	121	0	168	80	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	121	0	168	80	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	121	0	168	30	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	121	0	168	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNL-70ZSXAT	121	0	168	28	0
ZW444RAGN	R	MR093015	R1	CY62137VNL-70ZSXAT	121	0	96	29	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	121	0	168	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	121	0	168	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	121	0	168	30	0

**Summary for Package Family: TSOP II (Pb-Free)**  
**Sum**

**19 records**  
**1087 0**

**TSSOP**

Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	121	0	168	30	0
Z1620GBAGN	RA	MR091055	R1	CY2309ZC-1HT	121	0	168	80	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	121	0	168	30	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	121	0	168	30	0

**Summary for Package Family: TSSOP**  
**Sum**

**4 records**  
**170 0**

**TSSOP (Pb-Free)**

ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	121	0	168	80	0
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	121	0	168	80	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	121	0	168	30	0
ZZ0812BGL	T	MR092023	R1A	CY2304NZZXI-1	121	0	168	77	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	121	0	168	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXC	121	0	168	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXC	121	0	168	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXC	121	0	168	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXC	121	0	168	30	0

**Summary for Package Family: TSSOP (Pb-Free)**  
**Sum**

**9 records**  
**417 0**

**VFBGA (0.75-0.8, 0.3mm)**

BV48ABEAL	A	MR091041	R1	CY62167EV30LL-45BVI	121	0	168	79	0
BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	121	0	168	30	0

**Summary for Package Family: VFBGA (0.75-0.8, 0.3mm)**  
**Sum**

**2 records**  
**109 0**

**VFBGA (0.75-0.8, 0.3mm, Pb-Free)**

BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	121	0	168	80	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	121	0	168	80	0
BZ48CFAALL	G	MR091029	R1	CY62157EV30LL-45BVXI	121	0	168	80	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	121	0	168	80	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	121	0	168	80	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	121	0	168	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	121	0	168	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	121	0	168	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	121	0	96	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	121	0	168	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	121	0	168	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	121	0	168	28	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	121	0	96	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	121	0	168	30	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	121	0	168	29	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	121	0	168	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	121	0	168	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	121	0	168	30	0

**Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)**  
**Sum**

**18 records**  
**787 0**

## Summary Detail -- TCT Performance Over Time

BUILDKIT	ASSY SITE	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	SS	REJECT	FA	COMMENTS
<b>FBGA (0.75-0.8, 0.3mm, Pb-free)</b>											
BK48DLALL	G	093904	R1	C Y62187E	150	0	1000	77	0		
BK48DLALL	G	093904	R1	C Y62187E	150	0	500	77	0		
BK48DLALL	G	093904	R2	CY62187E	150	0	1000	77	0		
BK48DLALL	G	093904	R2	CY62187E	150	0	500	77	0		
BK48DLALL	G	093904	R3	CY62187	150	0	1000	76	0		
BK48DLALL	G	093904	R3	CY62187	150	0	500	76	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	-65	0	1000	75	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	-65	0	500	75	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	-65	0	1000	29	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	-65	0	500	29	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	-65	0	1000	30	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	-65	0	500	30	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>											
<b>Sum</b>			<b>12</b>	<b>records</b>				<b>728</b>	<b>0</b>		
<b>FBGA (1.0-1.27)</b>											
BB165BUALE	G	091706	R3A	CY7C1512KV18-"BZCES	150	0	1000	77	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-"BZCES	150	0	500	77	0		
BB172BALE	G	MR084070	R1A	CY7C0852V-133BBI	-65	0	1000	137	0		
BB172BALE	G	MR084070	R1A	CY7C0852V-133BBI	-65	0	500	137	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	1000	77	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	500	77	0		
BB165ALLE	G	MR092017	R1	CY7C1312BV18-200BZC	-65	0	1000	30	0		
BB165ALLE	G	MR092017	R1	CY7C1312BV18-200BZC	-65	0	500	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	-65	0	1000	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	-65	0	500	30	0		
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	-65	0	1000	30	0		
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	-65	0	500	30	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>											
<b>Sum</b>			<b>12</b>	<b>records</b>				<b>762</b>	<b>0</b>		
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW165BJALL	G	091706	R1A	CY7C1512KV18-"BZCES	150	0	1000	77	0		
BW165BJALL	G	091706	R1A	CY7C1512KV18-"BZCES	150	0	500	77	0		
BW165BJALL	G	091706	R2A	CY7C1512KV18-"BZCES	150	0	1000	78	0		
BW165BJALL	G	091706	R2A	CY7C1512KV18-"BZCES	150	0	500	78	0		
BW100EAGL	G	MR084067	R1	CYP15G0101DXB-BBXC	-65	0	1000	80	0		
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	-65	0	1000	80	0		
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	-65	0	500	80	0		
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	-165	0	1000	30	0		
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	-165	0	500	30	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	-65	0	1000	30	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	-65	0	500	30	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	1000	30	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	500	30	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>											
<b>Sum</b>			<b>13</b>	<b>records</b>				<b>730</b>	<b>0</b>		





**FLIPCHIP CSP (Pb-Free)**

FN30A	AU	090802	R1	CY8C20634-12FDXIT	150	0	158	66	0
FN30A	AU	090802	R1	CY8C20634-12FDXIT	150	0	500	66	0
FN30A	AU	090802	R2	CY8C20634-12FDXIT	150	0	500	76	0

Summary for Package Family: FLIPCHIP CSP (Pb-Free)

**Sum** **2 records** **142** **0**

**PBGA (1.27)**

BG119ADALE	AT	MR084081	R1	CY7C1354C-166BGC	-65	0	1000	40	0
BG119ADALE	AT	MR084081	R1	CY7C1354C-166BGC	-65	0	500	40	0
BG119ADALE	AT	MR084081	R2	CY7C1354C-166BGC	-65	0	1000	40	0
BG119ADALE	AT	MR084081	R2	CY7C1354C-166BGC	-65	0	500	40	0
BG119ADALE	AT	MR084081	R3	CY7C1354C-166BGC	-65	0	1000	40	0
BG119ADALE	AT	MR084081	R3	CY7C1354C-166BGC	-65	0	500	40	0
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	-65	0	1000	30	0
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	-65	0	500	30	0

Summary for Package Family: PBGA (1.27)

**Sum** **8 records** **300** **0**

**PBGA (1.27, Pb-free)**

BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	-65	0	500	29	0
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	-65	0	1000	29	0

Summary for Package Family: PBGA (1.27, Pb-free)

**Sum** **2 records** **58** **0**

**PBGA (Cavity/Heat Sink)**

BL256L2GE	G	MR084066	R1	CYP15G0401DXB-BGI	-65	0	500	76	0
BL256L2GE	G	MR084066	R1	CYP15G0401DXB-BGI	-65	0	1000	75	0

Summary for Package Family: PBGA (Cavity/Heat Sink)

**Sum** **2 records** **151** **0**

**PBGA (Cavity/Heat Sink, Pb-free)**

BJ256L2GL	G	MR093066	R1	CYV15G0204TRB-BGXC	-65	0	500	30	0
BJ256L2GL	G	MR093066	R1	CYV15G0204TRB-BGXC	-65	0	1000	30	0

Summary for Package Family: PBGA (Cavity/Heat Sink, Pb-free)

**Sum** **1 records** **30** **0**

**PDIP (Pb-Free)**

PZ286EAAGN	X	092014	R5	7C62256NEC-**XPZC	150	-65	500	80	0
PZ286EAAGN	X	092014	R6	7C62256NEC-**XPZC	150	-65	500	80	0
PZ243AAAGN	X	MR084028	R1	CY7C63743C-PXC	-65	0	1000	80	0
PZ183DBGN	RA	MR084050	R1	CS6632AF	-65	0	1000	99	0
PZ183DBGN	RA	MR091008	R1	CY7C63723C-PXC	-65	0	1000	80	0
PZ183DBGN	RA	MR091008	R1	CY7C63723C-PXC	-65	0	500	80	0
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	-65	0	1000	68	0
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	-65	0	500	78	0
PZ283AAAGN	X	MR091044	R1	CG6993AM	-165	0	1000	80	0
PZ283AAAGN	X	MR091044	R1	CG6993AM	-165	0	500	80	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	-65	0	1000	30	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	-65	0	500	30	0
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	-65	0	1000	30	0
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	-65	0	500	30	0
PZ183EAAGN	X	MR093045	R1	CP6238BM	-65	0	1000	30	0
PZ183EAAGN	X	MR093045	R1	CP6238BM	-65	0	500	30	0

Summary for Package Family: PDIP (Pb-Free)

**Sum** **16 records** **985** **0**

**PLCC**

J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	-65	0	2000	81	0
J32RBGAAGB	X-MMT	MR083024	R1	CY7B991V-5JI	-65	0	2500	80	0

Summary for Package Family: PLCC

**Sum** **1 records** **80** **0**

**PLCC (Pb-Free)**

JZ52SFGAN	M	MR084046	R1	7C136GT-**MJXCT	-65	0	1000	80	0
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JZ52SFGAN	M	MR084074	R1	CY7C131-25JXCT	-65	0	1000	77	0
JZ52SFGAN	M	MR084074	R1	CY7C131-25JXCT	-65	0	500	77	0
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	-65	0	1000	80	0
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	-65	0	500	80	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	-65	0	1000	30	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	-65	0	500	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	-65	0	1000	29	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	-65	0	500	29	0
<b>Summary for Package Family: PLCC (Pb-Free)</b>				<b>9</b>	<b>records</b>				
<b>Sum</b>								<b>512</b>	<b>0</b>
<b>PQFP (Pb-free)</b>									
NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	-65	0	1000	79	0
NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	-65	0	500	79	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	-65	0	1000	30	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	-65	0	500	30	0
<b>Summary for Package Family: PQFP (Pb-free)</b>				<b>4</b>	<b>records</b>				
<b>Sum</b>								<b>218</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>									
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	-160	0	500	73	0
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	-160	0	1000	72	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	-65	0	500	30	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	-65	0	1000	30	0
<b>Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)</b>				<b>3</b>	<b>records</b>				
<b>Sum</b>								<b>132</b>	<b>0</b>
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>									
LK32AABAGL	L	MR091011	R1	CY8C20434-12LKXIT	-65	0	500	80	0
LK32AABAGL	L	MR091011	R1	CY8C20434-12LKXIT	-65	0	1000	80	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	-65	0	500	30	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	-65	0	1000	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	-65	0	500	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	-65	0	1000	30	0
<b>Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)</b>				<b>5</b>	<b>records</b>				
<b>Sum</b>								<b>200</b>	<b>0</b>
<b>QFN (0.6mm, Saw Type, Pb-Free)</b>									
LQ32ACAAGL	MB	083909	R1	CY8C204345-12LQXI	150	0	1000	80	0
LQ32ACAAGL	MB	083909	R2	CY8C204345-12LQXI	150	0	1000	80	0
LQ32ACAAGL	MB	083909	R3	CY8C204345-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R1	CY8C20324-12LQXI	150	0	1000	77	0
LQ24AAAAAL	RA	084602	R1	CY8C20324-12LQXI	150	0	500	77	0
LQ24AAAAAL	RA	084602	R2	CY8C20324-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R3	CY8C20324-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R4	CY8C20324-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R4	CY8C20324-12LQXI	150	0	500	80	0
LQ24AAAAAL	RA	084602	R5	CY8C20324-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R5	CY8C20324-12LQXI	150	0	500	80	0
LQ24AAAAAL	RA	084602	R6	CY8C20324-12LQXI	150	0	1000	80	0
LQ24AAAAAL	RA	084602	R6	CY8C20324-12LQXI	150	0	500	80	0
LQ32ACAAGL	M	084609	R1	CY24292LFXI	150	0	1000	80	0
LQ32ACAAGL	M	084609	R1	CY24292LFXI	150	0	500	80	0
LQ32ACAAGL	M	084609	R2	CY24292LFXC	150	0	1000	79	0
LQ32ACAAGL	M	084609	R2	CY24292LFXC	150	0	500	79	0
LQ32ACAAGL	M	084609	R3	CY24292LFXC	150	0	1000	80	0
LQ32ACAAGL	M	084609	R3	CY24292LFXC	150	0	500	80	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	1000	77	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	500	77	0
LQ24ADAAGL	CA	084701	R2	CY8C20366-24LQXI	150	0	1000	77	0
LQ24ADAAGL	CA	084701	R2	CY8C20366-24LQXI	150	0	500	77	0
LQ24ADAAGL	CA	084701	R3	CY8C20346-24LQXI	150	0	1000	76	0
LQ24ADAAGL	CA	084701	R3	CY8C20346-24LQXI	150	0	500	76	0



LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	150	0	500	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	150	0	500	77	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	150	0	1000	73	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	150	0	500	73	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	150	0	500	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	150	0	1000	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	150	0	500	77	0
LQ24AEAAGL	M	091203	R2	CY8C203345-12LQXIKM	150	0	1000	77	0
LQ24AEAAGL	M	091203	R2	CY8C203345-12LQXIKM	150	0	500	77	0
LQ24AEAAGL	M	091203	R3	CY8C203345-12LQXIKM	150	0	1000	75	0
LQ24AEAAGL	M	091203	R3	CY8C203345-12LQXIKM	150	0	500	75	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	150	0	500	80	0
LQ24AAAAAL	RA	092407	R5	CY8CTMG200-24LQXI	150	0	500	78	0
LQ24AAAAAL	RA	092407	R6	CY8CTMG200-24LQXI	150	0	500	80	0
LQ24AAAAAL	RA	AR0930015	R1	CY8C20324-12LQXI	150	0	1000	18	0
LQ32EPDAGL	RA	AR0931017	R1	CY8CTMG200-32LQXIT	150	0	500	18	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	-165	0	1000	80	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	-165	0	500	80	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	-65	0	1000	30	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	-65	0	500	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	-65	0	1000	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	-65	0	500	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	-65	0	1000	27	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	-65	0	500	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	-65	0	1000	29	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	-65	0	500	29	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	-65	0	1000	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	-65	0	500	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	-65	0	1000	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	-65	0	500	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	-65	0	1000	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	-65	0	500	30	0

Summary for Package Family: QFN (0.6mm, Saw Type, Pb-Free)

Sum **60 records** **3887 0**

QFN (COL, 0.6mm, Saw Type, Pb-free)

LG16AAAAAL	M	084404	R1	CY7C64316-16LKXC	150	0	1000	77	0
LG16AAAAAL	M	084404	R1	CY7C64316-16LKXC	150	0	500	77	0
LG16AAAAAL	M	084404	R2	CY8CTST200-16LGXI	150	0	1000	77	0
LG16AAAAAL	M	084404	R2	CY8CTST200-16LGXI	150	0	500	78	0
LG16AAAAAL	M	084404	R3	CY7C64315-16LKXC	150	0	1000	73	0
LG16AAAAAL	M	084404	R3	CY7C64315-16LKXC	150	0	500	73	0
LG16AAAAAL	M	090404	R1	CY8C20234-12LKXI	150	0	1000	81	0
LG16AAAAAL	M	090404	R1	CY8C20234-12LKXI	150	0	500	82	0
LG16AAAAAL	M	090404	R2	CY8C20234-12LKXI	150	0	1000	85	0
LG16AAAAAL	M	090404	R2	CY8C20234-12LKXI	150	0	500	85	0
LG16AAAAAL	M	090404	R3	CY8C20234-12LKXI	150	0	1000	81	0
LG16AAAAAL	M	090404	R3	CY8C20234-12LKXI	150	0	500	81	0
LG16AAAAAL	MB	093905	R1	CY8C20246-24LKXI	150	0	500	78	0
LG16AAAAAL	MB	093905	R2	CY8C20246-24LKXI	150	0	500	80	0
LG16AAAAAL	MB	093905	R3	CY8C20246-24LKXI	150	0	500	85	0
LG16AAAAAL	MB	093905	R4	CY8C20246-24LKXI	150	0	500	88	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	-65	0	1000	29	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	-65	0	500	29	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	-65	0	1000	29	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	-65	0	500	29	0

Summary for Package Family: QFN (COL, 0.6mm, Saw Type, Pb-free)

Sum **20 records** **1397 0**

**QFN (Punch Type, Pb-Free)**

LY56DGAGL	L	080904	R1	CY7C66113C-LFXC	150	0	1000	80	0
LY56DGAGL	L	080904	R2	CY7C66113C-LFXC	150	0	1000	80	0
LY40ABGAGL	L	084603	R1	CYRF6936A-40LFXC	125	0	1000	77	0
LY40ABGAGL	L	084603	R1	CYRF6936A-40LFXC	125	0	500	77	0
LY40ABGAGL	L	084603	R2	CYRF6936A-40LFXC	125	0	1000	77	0
LY40ABGAGL	L	084603	R2	CYRF6936A-40LFXC	125	0	500	77	0
LY40ABGAGL	L	084603	R3	CYRF6936A-40LFXC	125	0	1000	77	0
LY40ABGAGL	L	084603	R3	CYRF6936A-40LFXC	125	0	500	77	0
LY56DGAGL	L	090405	R1	CY8C24894-24LFXI	150	0	500	85	0
LY56DGAGL	L	090405	R2	CY8C24894-24LFXI	150	0	500	85	0
LY56DGAGL	L	090405	R3	CY8C24894-24LFXI	150	0	500	85	0
LY68AGAAGL	L	MR091024	R1	CY8CLE04-68LFXI	-65	0	1000	80	0
LY68AGAAGL	L	MR091024	R1	CY8CLE04-68LFXI	-65	0	500	80	0
LY40ABGAGL	L	MR091030	R1	CS7067AT	-65	0	1000	80	0
LY40ABGAGL	L	MR091030	R1	CS7067AT	-65	0	500	80	0
LY32AAAGR	L	MR091032	R1	CS6624AA	-65	0	1000	80	0
LY32AAAGR	L	MR091032	R1	CS6624AA	-65	0	500	80	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	1000	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	500	30	0
LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	-165	0	1000	29	0
LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	-165	0	500	30	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	-65	0	1000	30	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	-65	0	500	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	-65	0	1000	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	-65	0	500	30	0
<b>Summary for Package Family: QFN (Punch Type, Pb-Free)</b>				<b>25</b>	<b>records</b>			<b>1596</b>	<b>0</b>
<b>Sum</b>									

**QFN (Saw Type, Pb-free)**

LT56ABAAGL	CA-Malaysia	075103	R2	CY8CLE04DOCD1-56ES	150	0	1000	90	0
LT56ABAAGL	CA-Malaysia	075103	R2	CY8CLE04DOCD1-56ES	150	0	1500	90	0
LT56ABAAGL	CA	075103	R3	CY8CLE04D01-56LTXI	150	0	1000	90	0
LT56ABAAGL	CA	075103	R3	CY8CLE04D01-56LTXI	150	0	500	90	0
LT48ABAAGR	CA	083701	R1	CYWUSB6934-48LTXC	150	0	1000	77	0
LT48ABAAGR	CA	083701	R2	CYWUSB6934-48LTXC	150	0	1000	77	0
LT48ABAAGR	CA	083701	R3	CYWUSB6934-48LTXC	150	0	1000	77	0
LT32BAAGGL	M	083907	R1	CY8C21434-24LTXI	150	0	1000	80	0
LT32BAAGGL	M	083907	R2	CY8C21434-24LTXI	150	0	1000	80	0
LT68ABCAGL	AE	084005	R1	CY8C24994-24LTXI	150	0	1000	80	0
LT68ABCAGL	AE	084005	R4	CY8C24994-24LTXI	150	0	1000	80	0
LT40ACAAGL	AE	084006	R1	CYRF6936-40LTXC	150	0	1000	80	0
LT40ACAAGL	AE	084006	R1	CYRF6936-40LTXC	150	0	500	80	0
LT40ACAAGL	AE	084006	R2	CYRF6936-40LTXC	150	0	1000	80	0
LT40ACAAGL	AE	084006	R2	CYRF6936-40LTXC	150	0	500	80	0
LT40ACAAGL	AE	084006	R3	CYRF6936-40LTXC	150	0	1000	80	0
LT40ACAAGL	AE	084006	R3	CYRF6936-40LTXC	150	0	500	80	0
LT40ACAAGL	AE	084006	R4	CYRF6936-40LTXC	150	0	1000	80	0
LT40ACAAGL	AE	084006	R4	CYRF6936-40LTXC	150	0	500	80	0
LT40ACAAGL	AE	084006	R5	CYRF6936-40LTXC	150	0	1000	80	0
LT40ACAAGL	AE	084006	R5	CYRF6936-40LTXC	150	0	500	80	0
LT40ACAAGL	AE	084006	R6	CYRF6936-40LTXC	150	0	1000	80	0
LT48ABBAAL	MB	090603	R3	CYWUSB6934-48LTXC	150	0	1000	77	0
LT32BAABGL	RA	092002	R1	CY8C21434-24LTXI	150	0	500	80	0
LT32BAABGL	RA	092002	R2	CY8C21434-24LTXI	150	0	500	80	0
LT32BAABGL	RA	092002	R3	CY8C21434-24LTXI	150	0	500	80	0
LT32BAABGL	RA	093308	R1	CY8C21434-24LTXI	150	0	500	76	0
LT32BAABGL	RA	093308	R4	CY8C21434-24LTXI	150	0	500	75	0
LT32BAABGL	RA	093803	R1	CY8C24423A5-24LTXIKA	150	0	1000	80	0
LT32BAABGL	RA	093803	R1	CY8C24423A5-24LTXIKA	150	0	500	80	0
LT32BAABGL	RA	093803	R2	CY8C24423A5-24LTXIKA	150	0	1000	80	0
LT32BAABGL	RA	093803	R2	CY8C24423A5-24LTXIKA	150	0	500	80	0

LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1000	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	500	80	0
LT32BAABGL	RA	AR0930014	R1	CY8C21434-24LTXIT	150	0	500	19	0
LT32BAABGL	RA	AR0933017	R1	CY7C63833-LTXCT	150	0	1000	19	0
LT32BAABGL	CA	MR084041	R1	CG7032AA	-65	0	1000	80	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	-65	0	1000	80	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	-65	0	500	80	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	1000	30	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	500	30	0
LT32BAAGGL	M	MR092051	R1	CG6644FA	-65	0	1000	28	0
LT32BAAGGL	M	MR092051	R1	CG6644FA	-65	0	500	28	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	-65	0	1000	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	-65	0	500	30	0

Summary for Package Family: QFN (Saw Type, Pb-free)

Sum **45 records** **3193** **0**

**QSOP (Pb-Free)**

SQ2414ABGN	R	MR084027	R1	CY7C60223-QXC	-65	0	1000	78	0
SQ2414ABGN	R	MR084027	R1	CY7C60223-QXC	-65	0	800	78	0
SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	-65	0	1000	80	0
SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	-65	0	500	80	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	-65	0	500	29	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	-65	0	1000	29	0

Summary for Package Family: QSOP (Pb-Free)

Sum **6 records** **374** **0**

**RTSOP (Pb-free)**

ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	-65	0	500	80	0
ZY28R2BLN	R	MR091010	R1	CY62256NLL-70ZRXIT	-65	0	1000	80	0

Summary for Package Family: RTSOP (Pb-free)

Sum **2 records** **160** **0**

**SNC (Pb-Free)**

SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	150	0	1000	80	0
SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	150	0	500	80	0
SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	-65	0	1000	75	0
SY2831BBLN	R	MR091007	R1	CY62256NLL-70SNXCT	-65	0	500	80	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	1000	30	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	500	30	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	-65	0	1000	30	0
SY2831AHN	R	MR093009	R1	CY62256NLL-55SNXET	-65	0	500	30	0
SY2831AHN	R	MR094002	R1	CY62256NLL-55SNXET	-65	0	1000	29	0
SY2831AHN	R	MR094002	R1	CY62256NLL-55SNXET	-65	0	500	30	0

Summary for Package Family: SNC (Pb-Free)

Sum **10 records** **494** **0**

**SOIC**

S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	-65	0	500	80	0
S0815PBAGN	RA	MR091017	R1	CY2305SI-1HT	-65	0	1000	80	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	-65	0	1000	29	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	-65	0	500	29	0

Summary for Package Family: SOIC

Sum **4 records** **218** **0**

**SOIC (J-Lead)**

V243GAAAGN	X	090302	R1	CY7C197BN-15VC	150	0	500	80	0
V243GAAAGN	X	090302	R1	CY7C197BN-15VC	150	0	1000	79	0
V243GAAAGN	X	090302	R2	CY7C197BN-15VC	150	0	500	80	0
V243GAAAGN	X	090302	R2	CY7C197BN-15VC	150	0	1000	80	0
V243GAAAGN	X	090302	R3	CY7C197BN-15VC	150	0	1000	78	0
V243GAAAGN	X	090302	R3	CY7C197BN-15VC	150	0	500	80	0
V243GAAAGN	X	090302	R4	CY7C197BN-15VC	150	0	1000	80	0
V243GAAGN	X	090302	R4	CY7C197BN-15VC	150	0	500	80	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	150	0	500	30	0
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	150	0	1000	30	0

Summary for Package Family: SOIC (J-Lead)

Sum **10 records** **218** **0**



<b>Sum</b>								<b>697</b>	<b>0</b>
<b>SOIC (J-Lead, Pb-Free)</b>									
VZ24	X	091906	R1	7C197B	150	0	1000	76	0
VZ24	X	091906	R1	7C197B	150	0	500	76	0
VZ24	X	091906	R2	7C197BN	-65	0	1000	76	0
VZ24	X	091906	R2	7C197BN	-65	0	500	76	0
VZ24	X	091906	R3	CY7C197BN-15VC	150	0	1000	77	0
VZ24	X	091906	R3	CY7C197BN-15VC	150	0	500	77	0
VZ28315PLL	R	092003	R1	CY7C192-15VXC	150	0	1000	77	0
VZ28315PLL	R	092003	R1	CY7C192-15VXC	150	0	500	77	0
VZ28315PLL	R	092003	R2	CY7C192-15VXC	150	0	1000	77	0
VZ28315PLL	R	092003	R2	CY7C192-15VXC	150	0	500	77	0
VZ28315PLL	R	092003	R3	CY7C192-15VXC	150	0	1000	75	0
VZ28315PLL	R	092003	R3	CY7C192-15VXC	150	0	500	75	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	-165	0	1000	79	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	-165	0	500	79	0
VZ3649BALN	R	MR091046	R1	CG7119AM	-165	0	1000	80	0
VZ3649BALN	R	MR091046	R1	CG7119AM	-165	0	500	80	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	1000	30	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	500	30	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	-65	0	1000	28	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	-65	0	500	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	-65	0	1000	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	-65	0	500	30	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	-65	0	1000	30	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	-65	0	500	30	0

**Summary for Package Family: SOIC (J-Lead, Pb-Free)**

<b>Sum</b>			<b>24</b>	<b>records</b>				<b>1472</b>	<b>0</b>
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<b>SOIC (Pb-Free)</b>									
SZ815VAGN	M	071904	R3	CY24C16L-3SXIES	150	0	1000	77	0
SZ815VAGN	M	071904	R4	CY24C16L-3SXIES	150	0	1000	76	0
SZ815VAGN	M	071904	R4	CY24C16L-3SXIES	150	0	500	76	0
SZ1615DGN	M	AR0844035	R1	CY7C63803-SXC	150	0	1000	15	0
SZ32457BLN	R	AR0845005	R1	CY62128ELL-45SXIT	150	0	1000	11	0
SZ32457BLN	R	AR0851005	R1	CY62128ELL-45SXIT	150	0	1000	17	0
SZ32457BLN	R	AR0851005	R1	CY62128ELL-45SXIT	150	0	500	17	0
SZ32457BLN	R	AR0852005	R1	CY62128ELL-45SXIT	150	0	1000	17	0
SZ32457BLN	R	AR0852005	R1	CY62128ELL-45SXIT	150	0	500	17	0
SZ324513BN	R	AR0904005	R1	CY62128BNLL-55SXIT	150	0	1000	20	0
SZ324513BN	R	AR0904005	R1	CY62128BNLL-55SXIT	150	0	500	20	0
SZ1615DGN	M	AR0904020	R1	CS6803AAT	150	0	1000	15	0
SZ1615DGN	M	AR0904020	R1	CS6803AAT	150	0	500	15	0
SZ324513BN	R	AR0909005	R1	CY62128BNLL-55SXI	150	0	1000	20	0
SZ324513BN	R	AR0909005	R1	CY62128BNLL-55SXI	150	0	500	20	0
SZ32457BLN	R	AR0911005	R1	CY62128ELL-45SXIT	150	0	1000	12	0
SZ32457BLN	R	AR0911005	R1	CY62128ELL-45SXIT	150	0	500	12	0
SZ1615DGN	M	AR0912014	R1	CS6803AAT	150	0	1000	15	0
SZ1615DGN	M	AR0912014	R1	CS6803AAT	150	0	500	15	0
SZ815DAGN	M	AR0921019	R1	CY27020SXCT	150	0	1000	15	0
SZ815DAGN	M	AR0921019	R1	CY27020SXCT	150	0	500	15	0
SZ815KAGN	M	AR0934019	R1	CY27022SXCT	150	0	1000	14	0
SZ815KAGN	M	AR0934019	R1	CY27022SXCT	150	0	500	14	0
SZ815DAGN	M	AR0935019	R1	CY27020SXCT	150	0	1000	15	0
SZ815DAGN	M	AR0935019	R1	CY27020SXCT	150	0	500	15	0
SZ815CGAN	M	AR0936020	R1	CY8C21123-24SXI	150	0	1000	14	0
SZ815CGAN	M	AR0936020	R1	CY8C21123-24SXI	150	0	500	14	0
SZ815DAGN	M	AR0938031	R1	CY2907FX8	150	0	1000	15	0
SZ815DAGN	M	AR0938031	R1	CY2907FX8	150	0	500	15	0
SZ815DAGN	M	AR0939020	R1	CY27020SXCT	150	0	1000	15	0
SZ815DAGN	M	AR0939020	R1	CY27020SXCT	150	0	500	15	0
SZ183CGAN	RA-CML	MR082012	R1	CY7C63723C-SXC	-65	0	2000	74	0
SZ323ABAGS	M-PHILS	MR082050	R1	CY14B101L-SZ45XCT	-65	0	1000	80	0



SZ323ABAGS	M-PHILS	MR082050	R1	CY14B101L-SZ45XCT	-65	0	500	80	0
SZ815PABGN	RA	MR084061	R1	CY25560SXCT	-65	0	1000	80	0
SZ1615FAL	T	MR084072	R1	CY2309CSXC-1T	-65	0	1000	80	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	-65	0	1000	79	0
SZ2035BAL	R	MR091001	R1	CY8C27243-24SXI	-65	0	500	80	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	-65	0	1000	69	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	-65	0	500	79	0
SZ32457BLN	R	MR091004	R1	CY62128ELL-45SXIT	-65	0	1000	79	0
SZ32457BLN	R	MR091004	R1	CY62128ELL-45SXIT	-65	0	500	79	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	-65	0	1000	78	0
SZ1615BKGN	RA	MR091016	R1	CY2308SXC-2T	-65	0	500	80	0
SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	-65	0	1000	80	0
SZ1615EGN	M	MR091020	R1	CY2309SXI-1HT	-65	0	500	80	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	-65	0	1000	80	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	-65	0	500	80	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	-65	0	1000	79	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	-65	0	500	79	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	-65	0	1000	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	-65	0	500	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	-65	0	1000	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	-65	0	500	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	-65	0	1000	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	-65	0	500	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	-65	0	1000	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	-65	0	500	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	-165	0	1000	25	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	-165	0	500	27	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	-65	0	1000	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	-65	0	500	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	-65	0	1000	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	-65	0	500	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	-65	0	1000	26	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	-65	0	500	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	-65	0	1000	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	-65	0	500	30	0
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	-65	0	1000	30	0
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	-65	0	500	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	-65	0	1000	29	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	-65	0	500	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	-65	0	1000	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	-65	0	500	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	-65	0	1000	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	-65	0	500	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	-65	0	1000	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	-65	0	500	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	-65	0	1000	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	-65	0	500	30	0
SZ323ABAGS	M-PHIL	NR074002	R1	CY14B101L-SZ45XC	150	0	1000	74	0
SZ323ABAGS	M-PHIL	NR074002	R1	NR074002	150	0	500	74	0
SZ324516LL	R	RR084008	R4	CG6727AM	150	0	1000	77	0
<b>Summary for Package Family: SOIC (Pb-Free)</b>			<b>85</b>	<b>records</b>					
<b>Sum</b>								<b>3330</b>	<b>0</b>
<b>SSOP</b>									
O2822XAGB	M	AR0907018	R1	CY2310ANZPVC-1T	150	0	1000	13	0
O2822XAGB	M	AR0907018	R1	CY2310ANZPVC-1T	150	0	500	15	0
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	-65	0	1000	30	0
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	-65	0	500	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	-65	0	1000	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	-65	0	500	30	0
<b>Summary for Package Family: SSOP</b>			<b>6</b>	<b>records</b>					



Sum								148	0
<b>SSOP (Pb-Free)</b>									
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	150	0	1000	77	0
SP483AGAN	R	084703	R1	CY8C20566-24PVXI	150	0	500	77	0
SP483ACGAN	R	084703	R2	CY8CTMG200-48PVXI	150	0	1000	77	0
SP483ACGAN	R	084703	R2	CY8CTMG200-48PVXI	150	0	500	77	0
SP483ACGAN	R	084703	R3	CY8C20546-24PVXI	150	0	1000	77	0
SP483ACGAN	R	084703	R3	CY8C20546-24PVXI	150	0	500	77	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	150	0	500	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	150	0	500	77	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	150	0	500	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	150	0	500	77	0
SP483EBBAL	R	090604	R1	CY7C1401	150	0	1000	80	0
SP483EBBAL	R	090604	R1	CY7C1401	150	0	500	80	0
SP483EBBAL	R	094502	R1	CY7C1401	150	0	1000	80	0
SP483EBBAL	R	094502	R1	CY7C1401	150	0	500	80	0
SP282ABAGN	RA	AR0840012	R1	CY8C24423A-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0840012	R1	CY8C24423A-24PVXI	150	0	500	20	0
SP483EBBAL	R	AR0845003	R1	CY8C29666-24PVXIT	150	0	1000	15	0
SP282ABAGN	RA	AR0848012	R1	CY8C24423A-24PVXI	150	0	1000	17	0
SP282ABAGN	RA	AR0848012	R1	CY8C24423A-24PVXI	150	0	500	17	0
SP282ABAGN	RA	AR0848019	R1	CY8C24423A-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0848019	R1	CY8C24423A-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0848021	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0848021	R1	CY8C27443-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0851012	R1	CY8C21534-24PVXI	150	0	1000	17	0
SP282ABAGN	RA	AR0851012	R1	CY8C21534-24PVXI	150	0	500	17	0
SP282ABAGN	RA	AR0904013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0904013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0906013	R1	CY8C27443-24PVXIT	150	0	1000	17	0
SP282ABAGN	RA	AR0906013	R1	CY8C27443-24PVXIT	150	0	500	17	0
SP483EBBAL	R	AR0907003	R1	CY8C29666-24PVXIT	150	0	1000	19	0
SP483EBBAL	R	AR0907003	R1	CY8C29666-24PVXIT	150	0	500	19	0
SP282ABAGN	RA	AR0909013	R1	CY8C24533-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0909013	R1	CY8C24533-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0914013	R1	CY8C21534-24PVXIT	150	0	1000	17	0
SP282ABAGN	RA	AR0914013	R1	CY8C21534-24PVXIT	150	0	500	17	0
SP483EBBAL	R	AR0916003	R1	CY8C29666-24PVXIT	150	0	1000	20	0
SP483EBBAL	R	AR0916003	R1	CY8C29666-24PVXIT	150	0	500	20	0
SP483EBBAL	R	AR0921003	R1	CY8C29666-24PVXI	150	0	1000	20	0
SP483EBBAL	R	AR0921003	R1	CY8C29666-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0923013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0923013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP483EBBAL	R	AR0929003	R1	CY8C29666-24PVXIT	150	0	1000	19	0
SP483EBBAL	R	AR0929003	R1	CY8C29666-24PVXIT	150	0	500	19	0
SP483EBBAL	R	AR0930003	R1	CY8C29666-24PVXIT	150	0	1000	18	0
SP483EBBAL	R	AR0930003	R1	CY8C29666-24PVXIT	150	0	500	18	0
SP282ABAGN	RA	AR0930013	R1	CY8C27443-24PVXIT	150	0	1000	20	0
SP282ABAGN	RA	AR0930013	R1	CY8C27443-24PVXIT	150	0	500	20	0
SP483EBBAL	R	AR0931003	R1	CY8C29666-24PVXIT	150	0	1000	18	0
SP483EBBAL	R	AR0931003	R1	CY8C29666-24PVXIT	150	0	500	18	0
SP483EBBAL	R	AR0937003	R1	CY8C29666-24PVXI	150	0	1000	20	0
SP483EBBAL	R	AR0937003	R1	CY8C29666-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0937013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0937013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP483EBBAL	R	AR0940003	R1	CY8C29666-24PVXIT	150	0	1000	20	0
SP483EBBAL	R	AR0940003	R1	CY8C29666-24PVXIT	150	0	500	20	0
SP483EBBAL	R	AR0942003	R1	CY8C29666-24PVXI	150	0	500	17	0



SP483HAAGR	M-PHILS	MR082071	R1	CY14B101L-SP45XC	-65	0	2000	70	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	-65	0	2000	80	0
SP28215BGL	RA-CML	MR083021	R1	CY8C21534-24PVXI	-65	0	2500	80	0
SP483HAAGR	M	MR084043	R1	CY14B101L-SP45XC	-65	0	1000	73	0
SP483HAAGR	M	MR084043	R1	CY14B101L-SP45XC	-65	0	500	75	0
SP483HAAGR	M	MR084043	R1	CY14B101L-SP45XC	-65	0	800	75	0
SP2822BGL	M	MR084059	R1	CY8C29466-24PVXA	-65	0	1000	57	0
SP2822BGL	M	MR084059	R1	CY8C29466-24PVXA	-65	0	500	57	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	-65	0	1000	80	0
SP483EBBAL	R	MR091005	R1	CY8C27643-24PVXI	-65	0	500	80	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	-65	0	1000	80	0
SP2822BGL	M	MR091006	R1	CY8C27443-12PVXE	-65	0	500	80	0
SP2822BGL	M	MR091042	R1	CP6801ATT	-165	0	1000	75	0
SP2822BGL	M	MR091042	R1	CP6801ATT	-165	0	500	77	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	-65	0	1000	80	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	-65	0	500	80	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	-65	0	1000	29	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	-65	0	500	29	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	1000	28	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	500	28	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	-65	0	1000	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	-65	0	500	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	150	0	1000	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	150	0	500	30	0
SP2824HAN	T	MR092070	R2A	CY8C24533-24PVXI	-65	0	1000	30	0
SP2824HAN	T	MR092070	R2A	CY8C24533-24PVXI	-65	0	500	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	-65	0	1000	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	-65	0	500	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	-65	0	1000	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	-65	0	500	30	0
SP2814GAL	T	MR093027	R1	CS6835AT	-65	0	1000	29	0
SP2814GAL	T	MR093027	R1	CS6835AT	-65	0	500	29	0
SP2814HAL	M	MR093052	R1	CS6835AT	-65	0	1000	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	-65	0	500	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	-65	0	1000	29	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	-65	0	500	29	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	-65	0	1000	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	-65	0	500	30	0
SP483AGAN	R	RR084008	R1	CS6681AM	150	0	1000	75	0
SP563BGAL	R	RR084008	R2	CY7C68301C-56PVXC	150	0	1000	75	0
SP483HAAGR	M	RR084019	R1	CY14B101L-SP45XCT	150	0	1000	14	0
SP483HAAGR	M	RR084019	R2	CY14B101L-SP45XC	150	0	1000	15	0
SP483HAAGR	M	RR084019	R3	CY14B101L-SP45XCT	150	0	1000	15	0
SP483HAAGR	M	RR084019	R4	CY14B101L-SP45XCT	150	0	1000	13	0
SP483HAAGR	M	RR084019	R5	CY14B101L-SP45XCT	150	0	1000	15	0
SP483HAAGR	M	RR084019	R6	CY14B101L-SP45XCT	150	0	1000	15	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	100	77	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	300	77	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	500	77	0
<b>Summary for Package Family: SSOP (Pb-Free)</b>			<b>109</b>	<b>records</b>				<b>4511</b>	<b>0</b>
<b>Sum</b>									
<b>TQFP</b>									
A32LXGXGB	Q	MR091043	R1	CY29948ACT	-65	0	500	79	0
A32LXGXGB	Q	MR091043	R1	CY29948ACT	-65	0	1000	79	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	1000	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	500	30	0
<b>Summary for Package Family: TQFP</b>			<b>4</b>	<b>records</b>					
<b>Sum</b>								<b>218</b>	<b>0</b>
<b>TQFP (10mm X 10mm)</b>									
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	-65	0	500	80	0
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	-65	0	1000	80	0
<b>Summary for Package Family: TQFP (10mm X 10mm)</b>			<b>2</b>	<b>records</b>					



Sum

160 0

**TQFP (Pb-Free)**

AZ100RUBLN	R	092902	R1	CY7C68320C	150	0	500	90	0
AZ100RUBLN	R	092902	R1A	CY7C68320C	150	0	1000	80	0
AZ100RULN	R	092902	R2	CY7C68320C	150	0	500	80	0
AZ100RULN	R	092902	R2A	CY7C68320C	150	0	1000	80	0
AZ100RULN	R	092902	R3	CY7C68320C	150	0	500	80	0
AZ100RULN	R	092902	R3A	CY7C68320C	150	0	1000	80	0
AZ128SABLL	R	MR084054	R1	7C681000BC-**-RAZC	-165	0	1000	79	0
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	-65	0	1000	79	0
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	-65	0	500	80	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	-65	0	1000	79	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	-65	0	500	79	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	-165	0	1000	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	-165	0	500	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	-65	0	1000	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	-65	0	500	30	0
AZ32GXGAN	G	MR092033	R1	CY29940AXCT	-65	0	1000	30	0
AZ32GXGAN	G	MR092033	R1	CY29940AXCT	-65	0	500	30	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	-65	0	1000	29	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	-65	0	500	29	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	-65	0	1000	30	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	-65	0	500	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	-65	0	1000	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	-65	0	500	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	-65	0	1000	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	-65	0	500	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	-65	0	1000	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	-65	0	500	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	-65	0	1000	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	-65	0	500	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	-65	0	1000	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	-65	0	500	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	-65	0	1000	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	-65	0	500	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	-65	0	1000	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	-65	0	500	30	0

Summary for Package Family: TQFP (Pb-Free)

Sum

1604 0

**TSOP (Pb-free)**

ZT48AKAALL	T	084612	R1	CY62177EV30LL	150	0	1000	79	0
ZT48AKAALL	T	084612	R1	CY62177EV30LL	150	0	500	85	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	150	0	1000	85	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	150	0	500	85	0
ZT48AKAALL	T	084612	R3	CY62177EV30LL	150	0	1000	85	0
ZT48AKAALL	T	084612	R3	CY62177EV30LL	150	0	500	85	0
ZT48AJAALL	T	091202	R1	CY62177EV30LL	150	0	1000	75	0
ZT48AJAALL	T	091202	R1	CY62177EV30LL	150	0	500	76	0
ZT48AJAALL	T	091202	R2	CY62177EV30LL	150	0	1000	76	0
ZT48AJAALL	T	091202	R2	CY62177EV30LL	150	0	500	76	0
ZT48AJAALL	T	091202	R3	CY62177EV30LL	150	0	1000	74	0
ZT48AJAALL	T	091202	R3	CY62177EV30LL	150	0	500	74	0
ZT28R2BBLN	R	MR084060	R1	CY62256VNULL-70ZXC	-65	0	1000	80	0
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	-65	0	1000	80	0
ZT28R2BBLN	R	MR091012	R1	CY62256NLL-55ZXIT	-65	0	500	80	0
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	-65	0	1000	80	0
ZT32RAEBLN	RA	MR091014	R1	CY62128EV30LL-45ZXI	-65	0	500	80	0
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	-65	0	1000	80	0
ZT32RABALL	T	MR091021	R1	CY62128EV30LL-45ZXI	-65	0	500	80	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	-65	0	1000	30	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	-65	0	500	30	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	-65	0	1000	27	0



ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	-65	0	500	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	-65	0	1000	28	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	-65	0	500	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	-65	0	1000	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	-65	0	500	30	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	-65	0	1000	25	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	-65	0	500	25	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	-65	0	1000	30	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	-65	0	500	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	-65	0	1000	28	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	-65	0	500	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	-65	0	1000	29	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	-65	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	-65	0	1000	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	-65	0	500	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	-65	0	1000	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	-65	0	500	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	-65	0	1000	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	-65	0	500	30	0

**Summary for Package Family: TSOP (Pb-free)**

**Sum** **2157** **0**

**TSOP I (Pb-Free)**

ZB32RHAALN	R	093104	R4	CY62138FV30LL-45ZAXI	150	0	500	90	0
ZB32RHAALN	R	093104	R5	CY62138FV30LL-45ZAXI	150	0	500	90	0
ZB32RHAALN	R	093104	R6	CY62138FV30LL-45ZAXI	150	0	500	90	0
ZB32RHBALN	R	MR091031	R1	CG7086AM	-65	0	1000	80	0
ZB32RHBALN	R	MR091031	R1	CG7086AM	-65	0	500	80	0
ZB32RHBALN	R	MR092014	R1	CG7086AMT	150	0	1000	30	0
ZB32RHBALN	R	MR092014	R1	CG7086AMT	150	0	500	30	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	-65	0	1000	30	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	-65	0	500	30	0
ZB32RHALL	R	RR084008	R5	CY62128DV30LL-55ZAXIT	150	0	1000	77	0

**Summary for Package Family: TSOP I (Pb-Free)**

**Sum** **627** **0**

**TSOP II (Pb-Free)**

ZW444GALL	R	071304	R9	7C1404B6BC-**RZWCB	150	0	1000	79	0
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	150	0	1000	80	0
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	150	0	500	80	0
ZW444ZALL	G	082703	R2	N/A	150	0	1000	77	0
ZW444ZALL	G	082703	R2	N/A	150	0	500	77	0
ZW444ZALL	G	082703	R3	N/A	150	0	1000	77	0
ZW444ZALL	G	082703	R3	N/A	150	0	500	77	0
ZW444GALL	R	082704	R1	CY7C1404B	150	0	1000	74	0
ZW444GALL	R	082704	R1	CY7C1404B	150	0	500	75	0
ZW444GALL	R	082704	R2	7C1404B1CC-**RZWC	150	0	1000	77	0
ZW444GALL	R	082704	R2	7C1404B1CC-**RZWC	150	0	500	77	0
ZW444AHBLL	R	085004	R1	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AHBLL	R	085004	R1	CY7C1021DV33-10ZSXI	150	0	500	80	0
ZW444AHBLL	R	085004	R2	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AHBLL	R	085004	R2	CY7C1021DV33-10ZSXI	150	0	500	80	0
ZW444AHBLL	R	085004	R3	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AHBLL	R	085004	R3	CY7C1021DV33-10ZSXI	150	0	500	80	0
ZW54CABLR	G	093403	R1	N/A	150	0	1000	77	0
ZW54CABLR	G	093403	R1	N/A	150	0	500	77	0
ZW54CABLR	G	093403	R2	N/A	150	0	1000	77	0
ZW54CABLR	G	093403	R2	N/A	150	0	500	77	0
ZW54CABLR	G	093403	R3	N/A	150	0	1000	77	0
ZW54CABLR	G	093403	R3	N/A	150	0	500	77	0
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	-65	0	1000	77	0
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	-65	0	500	78	0
ZW544AALL	G	MR091027	R1	CS6729AT	-65	0	1000	80	0
ZW544AALL	G	MR091027	R1	CS6729AT	-65	0	500	80	0



ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	-65	0	1000	80	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	-65	0	500	80	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	1000	30	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	500	30	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	-65	0	1000	30	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	-65	0	500	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	-65	0	1000	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	-65	0	500	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	-65	0	1000	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	-65	0	500	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	-65	0	1000	30	0
ZW324CBLL	T	MR093030	R1	CY62148EV30LL-45ZSXI	-65	0	500	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	-65	0	1000	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	-65	0	500	30	0
ZW444AMBLN	R	RR084008	R3	CS6673ATT	150	0	1000	75	0
<b>Summary for Package Family: TSOP II (Pb-Free)</b>				<b>42</b>	<b>records</b>				
<b>Sum</b>								<b>2702</b>	<b>0</b>

<b>TSSOP</b>									
Z0811XAGB	M	MR084064	R1	CY2304NZZI-1	-65	0	1000	77	0
Z0811XAGB	M	MR084064	R1	CY2304NZZI-1	-65	0	300	79	0
Z0811XAGB	M	MR084064	R1	CY2304NZZI-1	-65	0	500	79	0
Z0811XAGB	M	MR084064	R1	CY2304NZZI-1	-65	0	800	79	0
Z0811XAGB	M	MR091036	R1	CY2304NZZI-1T	-65	0	1000	79	0
Z0811XAGB	M	MR091036	R1	CY2304NZZI-1T	-65	0	500	79	0
Z1620GBAGN	RA	MR091055	R1	CY2309ZC-1HT	-65	0	1000	80	0
Z1620GBAGN	RA	MR091055	R1	CY2309ZC-1HT	-65	0	500	80	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	-65	0	1000	30	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	-65	0	500	30	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	-65	0	1000	29	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	-65	0	500	29	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	-65	0	1000	30	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	-65	0	500	30	0
<b>Summary for Package Family: TSSOP</b>				<b>14</b>	<b>records</b>				
<b>Sum</b>								<b>810</b>	<b>0</b>

<b>TSSOP (Pb-Free)</b>									
ZZ1614HAN	T	AR0904015	R1	CY23FS04ZXI-3	150	0	1000	15	0
ZZ1614HAN	T	AR0904015	R1	CY23FS04ZXI-3	150	0	500	15	0
ZZ0812BGL	T	AR0921015	R1	CYIFS781BZXCT	150	0	1000	15	0
ZZ0812BGL	T	AR0921015	R1	CYIFS781BZXCT	150	0	500	15	0
ZZ0812BGL	T	MR084024	R1	CY25100ZXC38T	-65	0	1000	79	0
ZZ0812BGL	T	MR084024	R1	CY25100ZXC38T	-65	0	800	79	0
ZZ1619GAN	RA	MR084065	R1	CY2309CXI-1H	-65	0	1000	80	0
ZZ1619GAN	RA	MR084065	R1	CY2309CXI-1H	-65	0	500	80	0
ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	-65	0	1000	80	0
ZZ1620GBAN	RA	MR091018	R1	CY2309ZXC-1HT	-65	0	500	80	0
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	-65	0	1000	80	0
ZZ0812BGL	T	MR091019	R1	CY25100ZXC38T	-65	0	500	80	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	-65	0	1000	30	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	-65	0	500	30	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	100	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	1000	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	300	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	500	28	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	-65	0	1000	29	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	-65	0	500	29	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	-65	0	1000	29	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	-65	0	500	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	-65	0	1000	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	-65	0	500	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	-65	0	1000	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	-65	0	500	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	-65	0	1000	30	0



ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	-65	0	500	30	0
<b>Summary for Package Family: TSSOP (Pb-Free)</b>									
<b>Sum</b>			<b>28</b>	<b>records</b>				<b>1167</b>	<b>0</b>
<b>VFBGA (0.75-0.8, 0.3mm)</b>									
BV48AACALE	AT	MR084063	R1	CY62157DV30LL-70BVI	-65	0	1000	80	0
BV48ABEALE	A	MR091041	R1	CY62167EV30LL-45BVI	-165	0	1000	79	0
BV48ABEALE	A	MR091041	R1	CY62167EV30LL-45BVI	-165	0	500	80	0
BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	-65	0	1000	30	0
BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	-65	0	500	30	0
BV48BNALE	G	RR084014	R1	CY62167DV30LL-55BVI	150	0	500	77	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm)</b>									
<b>Sum</b>			<b>6</b>	<b>records</b>				<b>376</b>	<b>0</b>
<b>VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>									
BZ48CNAALL	G	083301	R3A	CY62167DV	150	0	500	80	0
BZ48CNAALL	G	083301	R3B	CY62167DV	150	0	500	80	0
BZ48DAGLL	RA	090502	R1	CY62137FV30LL-45BVXI	150	0	1000	77	0
BZ48DAGLL	RA	090502	R1	CY62137FV30LL-45BVXI	150	0	500	77	0
BZ48DAGLL	RA	090502	R2	CY62137FV30LL-45BVXI	150	0	1000	80	0
BZ48DAGLL	RA	090502	R2	CY62137FV30LL-45BVXI	150	0	500	80	0
BZ48DAGLL	RA	090502	R3	CY62137FV30LL-45BVXI	150	0	1000	80	0
BZ48DAGLL	RA	090502	R3	CY62137FV30LL-45BVXI	150	0	500	80	0
BZ48DAGLL	RA	090502	R4	CY62137FV30LL-45BVXI	150	0	1000	74	0
BZ48DAGLL	RA	090502	R4	CY62137FV30LL-45BVXI	150	0	500	75	0
BZ100DGALL	RA	MR084069	R1	CYWB0124AB-BVXIT	-65	0	1000	60	0
BZ100DGALL	RA	MR084069	R2	CYWB0124AB-BVXIT	-65	0	1000	80	0
BZ100DGALL	RA	MR084069	R3	CYWB0124AB-BVXIT	-65	0	1000	78	0
BZ56IAAAGL	AT	MR084071	R1	CY7C68053-56BAXIT	-65	0	1000	77	0
BZ100DGALL	RA	MR084073	R1	CYWB0124AB-BVXIT	-65	0	1000	80	0
BZ100DGALL	RA	MR084073	R1	CYWB0124AB-BVXIT	-65	0	500	80	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	-65	0	1000	77	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	-65	0	500	80	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	-65	0	1000	79	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	-65	0	500	79	0
BZ48CFAALL	G	MR091029	R1	CY62157EV30LL-45BVXI	-65	0	1000	80	0
BZ48CFAALL	G	MR091029	R1	CY62157EV30LL-45BVXI	-65	0	500	80	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	-65	0	1000	80	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	-65	0	500	80	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	-65	0	1000	80	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	-65	0	500	80	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	1000	28	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	500	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	-65	0	1000	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	-65	0	500	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	-65	0	1000	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	-65	0	500	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	-65	0	1000	28	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	-65	0	500	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	1000	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	500	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	-65	0	1000	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	-65	0	500	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	-65	0	1000	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	-65	0	500	30	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	-65	0	1000	28	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	-65	0	500	30	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	-65	0	1000	30	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	-65	0	500	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	-65	0	1000	28	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	-65	0	500	29	0



BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	-65	0	1000	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	-65	0	500	30	0
BZ48CNAALL	G	RR084006	R1	CY62167DV30LL-55BVXIT	150	0	1000	14	0
BZ48CNAALL	G	RR084006	R2	CY62167DV30LL-55BVXI	150	0	1000	12	0
BZ48CNAALL	G	RR084006	R3	CY62167DV30LL-55BVXI	150	0	1000	14	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>									
<b>Sum</b>			<b>51</b>	<b>records</b>				<b>2724</b>	<b>0</b>