



**2010 Q1 RELIABILITY REPORT**

**TABLE OF CONTENTS**

<b>1.0</b>	<b>OVERVIEW OF CYPRESS SEMICONDUCTOR TOTAL QUALITY MANAGEMENT SYSTEM</b>	<b>2</b>
<b>2.0</b>	<b>DEVICE RELIABILITY</b>	<b>3</b>
<b>2.1</b>	<b>EARLY FAILURE RATE SUMMARY</b>	<b>3</b>
<b>2.2</b>	<b>LONG TERM FAILURE RATE SUMMARY</b>	<b>4</b>
<b>2.3</b>	<b>DATA RETENTION SUMMARY</b>	<b>5</b>
<b>3.0</b>	<b>PACKAGE RELIABILITY</b>	<b>6</b>
<b>3.1</b>	<b>PRESSURE COOKER TEST</b>	<b>7</b>
<b>3.2</b>	<b>HAST (HIGHLY ACCELERATED STRESS TEST)</b>	<b>8</b>
<b>3.3</b>	<b>TEMPERATURE CYCLE</b>	<b>9</b>
<b>3.4</b>	<b>HIGH TEMPERATURE STORAGE</b>	<b>10</b>
	<b>APPENDIX A: FAILURE RATE CALCULATION</b>	<b>11</b>
	<b>APPENDIX B: TEMPERATURE CYCLING STRESS MODELS</b>	<b>15</b>
	<b>APPENDIX C: EQUIVALENCE OF STRESS TEST CONDITIONS</b>	<b>17</b>
	<b>APPENDIX D: RELIABILITY DATA</b>	<b>18</b>



## 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 2010. 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
0.25um	11,368	0	Insufficient	0	None
B53	15,158	0	Insufficient	0	None
C8	651,069	0	8	0	None
C9	2,942,276	12	14	198	Fab defect-12 (see Note 2)
L8	92,471	0	Insufficient	0	None
LL65	636,480	0	0	0	None
P26	14,400	0	Insufficient	0	None
R4	152,589	0	0	0	None
R5	14,400	0	Insufficient	0	None
R7	513,024	0	0	0	None
R8	570,467	0	9	0	None
R9	763,801	3	16	193	Fab defect-3 (see Note 3)
R95	724,143	0	7	0	None
S4	3,108,779	0	2	0	None
S8	1,046,314	2	9	82	Fab defect-2 (see Note 4)
<b>Grand Total</b>	<b>11,256,741</b>	<b>17</b>	<b>5</b>	<b>64</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 200925019 – Continuous improvement on CMI fab process cleans, included metal etch cleans  
 4) CAR 200930051 – Fab continuous Process Clean improvements

## 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.

<b>Test</b>	:	High Temperature Operating Life Test (HTOL)
<b>Conditions</b>	:	Dynamic Operating Conditions, VCC nominal +15% 150°C or 125°C.
<b>Duration</b>	:	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)
<b>Failure</b>	:	A failure is any device that fails to meet data sheet electrical requirements.
<b>Fit Rate</b>	:	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
0.25um	122,947	0	Insufficient	None
B53	38,105	0	Insufficient	None
C8	725,158	0	7	None
C9	290,000	0	19	None
L8	450,876	0	12	None
LL65	247,905	0	0	None
R4	68,440	0	Insufficient	None
R5	174,000	0	0	None
R7	308,200	0	17	None
R8	183,280	0	29	None
R95	329,073	0	16	None
S4	2,255,033	0	2	None
S8	2,862,135	0	2	None
<b>Grand Total</b>	<b>8,055,152</b>	<b>0</b>	<b>0</b>	<b>None</b>

Note: 1) Insufficient data – interpret as insufficient accumulated life-time hours to project a 60%confidence bound for a zero-fails sample.

## 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	3,686	2,106,673	0	0	None
S8	3,936	3,317,913	0	0	None
0.25um	320	240,000	0	0	None
<b>Grand Total</b>	<b>7,622</b>	<b>5,424,586</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.

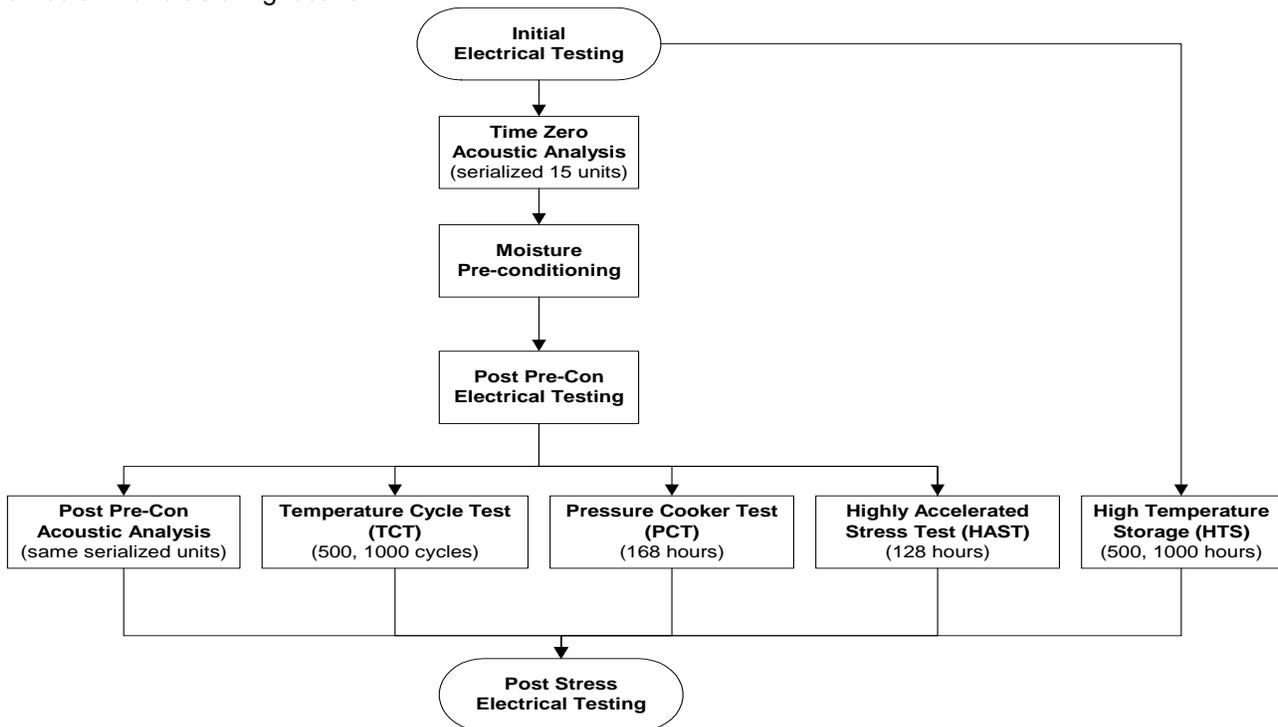


Figure 1. Cypress Package Reliability Stress Flow



### 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)	350	0	0	0
FBGA (1.0-1.27)	422	0	0	0
FBGA (1.0-1.27, Pb-free)	355	0	0	0
FLIPCHIP CSP (Pb-Free)	225	0	0	0
PBGA (1.27)	30	0	0	0
PBGA (1.27, Pb-free)	25	0	0	0
PDIP (Pb-Free)	90	0	0	0
PLCC	30	0	0	0
PLCC (Pb-Free)	60	0	0	0
PQFP (Pb-free)	30	0	0	0
QFN (0.4mm, Saw Type, Pb-free)	30	0	0	0
QFN (0.6mm, Punch Type, Pb-Free)	90	0	0	0
QFN (0.6mm, Saw Type, Pb-Free)	2520	0	0	0
QFN (COL, 0.6mm, Saw Type, Pb-free)	518	0	0	0
QFN (Punch Type, Pb-Free)	630	0	0	0
QFN (Saw Type, Pb-free)	310	0	0	0
QSOP (Pb-Free)	86	0	0	0
SNC (Pb-Free)	280	0	0	0
SOIC	30	0	0	0
SOIC (J-Lead)	30	0	0	0
SOIC (J-Lead, Pb-Free)	357	0	0	0
SOIC (Pb-Free)	569	0	0	0
SSOP	60	0	0	0
SSOP (Pb-Free)	1066	0	0	0
TQFP	60	0	0	0
TQFP (Pb-Free)	899	0	0	0
TSOP (Pb-free)	359	0	0	0
TSOP I (Pb-Free)	118	0	0	0
TSOP II (Pb-Free)	903	0	0	0
TSSOP	90	0	0	0
TSSOP (Pb-Free)	287	0	0	0
VFBGA (0.75-0.8, 0.3mm)	60	0	0	0
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	447	0	0	0
<b>Grand Total</b>	<b>11,416</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)	279	0	0	None
FBGA (1.0-1.27)	139	0	0	None
FBGA (1.0-1.27, Pb-free)	76	0	0	None
FLIPCHIP CSP (Pb-Free)	73	0	0	None
PDIP (Pb-Free)	80	0	0	None
PLCC	30	0	0	None
PLCC (Pb-Free)	30	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	25	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	85	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	730	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	258	0	0	None
QFN (Punch Type, Pb-Free)	362	0	0	None
QFN (Saw Type, Pb-free)	455	0	0	None
QSOP (Pb-Free)	55	0	0	None
SNC (Pb-Free)	84	0	0	None
SOIC	25	0	0	None
SOIC (J-Lead)	25	0	0	None
SOIC (J-Lead, Pb-Free)	362	0	0	None
SOIC (Pb-Free)	388	0	0	None
SSOP	30	0	0	None
SSOP (Pb-Free)	616	0	0	None
TQFP (Pb-Free)	400	0	0	None
TSOP (Pb-free)	498	0	0	None
TSOP I (Pb-Free)	83	0	0	None
TSOP II (Pb-Free)	584	0	0	None
TSSOP	85	0	0	None
TSSOP (Pb-Free)	104	0	0	None
VFBGA (0.75-0.8, 0.3mm)	55	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	344	0	0	None
<b>Grand Total</b>	<b>6360</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)	786	0	0	None
FBGA (1.0-1.27)	628	0	0	None
FBGA (1.0-1.27, Pb-free)	936	0	0	None
FLIPCHIP CSP (Pb-Free)	528	0	0	None
PBGA (1.27)	180	0	0	None
PBGA (1.27, Pb-free)	58	0	0	None
PBGA (Cavity/Heat Sink, Pb-free)	60	0	0	None
PDIP (Pb-Free)	728	0	0	None
PLCC	60	0	0	None
PLCC (Pb-Free)	198	0	0	None
PQFP (Pb-free)	139	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	132	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	182	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	9,476	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	694	0	0	None
QFN (Punch Type, Pb-Free)	628	0	0	None
QFN (Saw Type, Pb-free)	1,895	0	0	None
QSOP (Pb-Free)	256	0	0	None
SNC (Pb-Free)	339	0	0	None
SOIC	58	0	0	None
SOIC (J-Lead)	140	0	0	None
SOIC (J-Lead, Pb-Free)	1,143	0	0	None
SOIC (Pb-Free)	2,136	0	0	None
SSOP	133	0	0	None
SSOP (Pb-Free)	3,133	0	0	None
TQFP	278	0	0	None
TQFP (10mm X 10mm)	160	0	0	None
TQFP (Pb-Free)	1,481	0	0	None
TSOP (Pb-free)	1,342	0	0	None
TSOP I (Pb-Free)	530	0	0	None
TSOP II (Pb-Free)	2,248	0	0	None
TSSOP	417	0	0	None
TSSOP (Pb-Free)	542	0	0	None
VFBGA (0.75-0.8, 0.3mm)	199	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	1,635	0	0	None
<b>Grand Total</b>	<b>33,478</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 or 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)	384	0	0	None
FBGA (1.0-1.27)	524	0	0	None
FBGA (1.0-1.27, Pb-free)	336	0	0	None
PBGA (1.27)	60	0	0	None
PBGA (1.27, Pb-free)	60	0	0	None
PDIP (Pb-Free)	340	0	0	None
PLCC	60	0	0	None
PLCC (Pb-Free)	120	0	0	None
PQFP (Pb-free)	57	0	0	None
QFN (0.4mm, Saw Type, Pb-free)	140	0	0	None
QFN (0.6mm, Punch Type, Pb-Free)	176	0	0	None
QFN (0.6mm, Saw Type, Pb-Free)	1,235	0	0	None
QFN (COL, 0.6mm, Saw Type, Pb-free)	508	0	0	None
QFN (Punch Type, Pb-Free)	294	0	0	None
QFN (Saw Type, Pb-free)	664	0	0	None
QSOP (Pb-Free)	175	0	0	None
SNC (Pb-Free)	280	0	0	None
SOIC	60	0	0	None
SOIC (J-Lead)	58	0	0	None
SOIC (J-Lead, Pb-Free)	609	0	0	None
SOIC (Pb-Free)	1,262	0	0	None
SSOP	120	0	0	None
SSOP (Pb-Free)	800	0	0	None
TQFP	200	0	0	None
TQFP (10mm X 10mm)	79	0	0	None
TQFP (For L65 Data only)*	231	0	0	None
TQFP (Pb-Free)	688	0	0	None
TSOP (Pb-free)	619	0	0	None
TSOP I (Pb-Free)	180	0	0	None
TSOP II (Pb-Free)	623	0	0	None
TSSOP	173	0	0	None
TSSOP (Pb-Free)	450	0	0	None
VFBGA (0.75-0.8, 0.3mm)	199	0	0	None
VFBGA (0.75-0.8, 0.3mm, Pb-Free)	873	0	0	None
<b>Grand Total</b>	<b>12,637</b>	<b>0</b>	<b>0.00%</b>	<b>None</b>

\* 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 :

$T_u$  = use environment junction temperature (°K)  
 $T_t$  = test environment junction temperature (°K)  
 $E_a$  = failure mechanism activation energy (0.9 for corrosion)  
 $k$  = Boltzman's Constant ( $8.62 \times 10^{-5}$  eV/°Kelvin)  
 $RH_u$  = use environment relative humidity  
 $RH_t$  = 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 (RHj) is

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

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: 04/04/09  
To: 4/4/2010

### Summary Detail -- EFR Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATION	SS	REJECT	FA	COMMENTS
<b>B53</b>												
	DCD	MR093068	R1	CYRF6936-40LFXC	125	3.8	96	96	300	0		
<b>Summary for Technology: B53</b>			1	records				<b>B53</b>	<b>300</b>	<b>0</b>		
<b>Sum</b>												
<b>C9</b>												
	MID	093204	R1	7C1321NC-RZW	150	3.77	48	48	4695	0		
	MID	093204	R2	7C1321NC-RZW	150	3.77	48	48	4708	1	093204-2E1	Particle defect (Metal 1 lines shorting)
	MID	093204	R3	7C1321NC-RZW	150	3.77	48	48	4670	0		
	MID	MR092069	R1	CY7C1041DV33-10ZSXIT	150	3.77	48	48	8000	1	MR092069-1E1	NVD
	MID	MR093071	R1	CY7C1041DV33-10ZSXI	125	3.77	96	96	5400	0		
	MID	MR093071	R2	CY7C1041DV33-10ZSXI	125	3.77	96	96	5400	10	MR093071-2E	Particle defect
	MID	MR094038	R1	CY7C1021DV33-10ZSXI	150	3.77	48	48	5885	0		
	MID	MR094038	R2	CY7C1041DV33-10ZSXI	150	3.77	48	48	3798	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		
	MID	MR101066	R1	CY7C1018DV33-10VXIT	150	4.5	48	48	3562	0		
	MID	MR101066	R1A	CY7C1018DV33-10VXIT	150	4.5	48	48	1250	0		
	MID	MR101066	R2	CY7C1041DV33-10ZSXI	150	4.5	48	48	3921	0		
	MID	MR101066	R3	CY7C1041DV33-10ZSXI	150	4.5	48	48	3925	0		
<b>Summary for Technology: C9</b>			14	records				<b>C9</b>	<b>60729</b>	<b>12</b>		
<b>Sum</b>												
<b>L8</b>												
	CCD	064302	R11F	CY2FLEXO-HV	125	3.96	96	96	48	0		
	CCD	064302	R11F - Split 1	CY2FLEXO-HV	125	3.96	96	96	750	0		
	CCD	064302	R11F - Split 2	CY2FLEXO-HV	125	3.96	96	96	750	0		
	DCD	084102	R1E - Split 4	CY2545C208	150	2.07	48	48	297	0		
<b>Summary for Technology: L8</b>			4	records				<b>L8</b>	<b>1845</b>	<b>0</b>		
<b>Sum</b>												

**R8**

MID	092506	R1	CY62167DV	125	2.4	96	96	1684	0
MID	092506	R2	CY62167DV	125	2.4	96	96	3341	0
MID	092506	R3	CY62167DV	125	2.4	96	96	5714	0
MID	MR084082	R1	7G62164DK-**GZTIB	125	2.4	96	96	8	0
MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	96	96	299	0
MID	MR092066	R1	7G62164DK-**GZTIB	125	2.4	48	48	489	0

**Summary for Technology: R8**

**Sum**

**6 records**

**R8 11535 0**

**S8**

CCD	080902	R1B (Reg-On)	CY8C3866AXI-040ES2	150	2.07	48	48	51	0
CCD	080902	R1B-Split 2	CY8C3866AXI-040ES2	150	2.07	48	48	278	0
CCD	080902	R2 (Reg-On)	CY8C3866AXI-040ES2	150	2.07	48	48	47	0
CCD	080902	R2-Split 2	CY8C3866AXI-040ES2	150	2.07	48	48	22	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	2.07	48	48	465	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	2.07	48	48	541	0
MID	082703	R3	7C1408B1C	150	3.3	12	12	324	0
MID	082703	R4	7C1408B1C	150	3.3	48	48	1233	0
MID	082704	R1A-Reg-On	7C1404B1CC-**RZWCB	150	3.3	48	48	45	0
MID	082704	R1A-Split 1	7C1404B1CC-**RZWCB	150	3.3	48	48	746	0
MID	082704	R1A-Split 2	7C1404B1CC-**RZWCB	150	3.3	24	24	1041	0
MID	082704	R1A-Split 2	7C1404B1CC-**RZWCB	150	3.3	24	24	1054	0
MID	082704	R3A-Split 1	7C1404B6CC-**RZWCB	150	3.3	48	48	1481	0
MID	082704	R3A-Split 2	7C1404B6CC-**RZWCB	150	3.3	48	48	294	0
MID	082704	R3B	7C1404E1CC-**RZWIB	150	3.3	48	48	50	0
MID	082704	R3C	7C1404B6CC-**RZWCB	150	3.3	48	48	1557	1
MID	082704	R4	7C1404B1CC-**RZWCB	150	3.3	48	48	1136	0
DCD	090402	R1-Split 1	CYONS2000-LBXC	125	3.8	72	72	500	0
DCD	090402	R1-Split 2	CYONS2000-LBXC	125	3.8	72	72	494	0
MID	090604	R1	CY7C1401	150	3.3	48	48	1153	0
MID	090604	R1-Reg-On	CY7C1401	150	3.6	48	48	50	0
MID	090604	R2A-Reg-On	7C1404B1CC-RZWCB	150	3.6	48	48	45	0
MID	090604	R2A-Split 1	7C1404B1CC-RZWCB	150	3.6	48	48	746	0
MID	090604	R2A-Split 2	7C1404B1CC-RZWCB	150	3.6	24	24	1054	0
MID	090604	R2A-Split 2	7C1404B1CC-RZWCB	150	3.6	24	24	1041	0
MID	090604	R3	CY14B101LA	150	3	48	48	688	0
CCD	090706	R1	CY8C204665-24LQXIES	150	2.1	48	48	1000	0

082704-3CE1 Unfiled VIA caused DB failure

CCD	090706	R1-Reg-On	CY8C204665-24LQXIES	150	5	48	48	45	0
CCD	090706	R1-Reg-On	CY8C205665-24PVXIES	150	5.5	48	48	45	0
CCD	090706	R2	CY8C204665-24LQXIES	150	2.1	48	48	1000	0
CCD	090706	R3	CY8C204665-24LQXIES	150	2.1	48	48	1000	0
CCD	091801	R1-Split 1	CY8C20466-24LQXIES	150	2.1	48	48	555	0
CCD	091801	R1-Split 2	CY8C20466-24LQXIES	150	2.1	48	48	193	0
CCD	091801	R2B	CY8C20466-24LQXIES	150	2.1	48	48	750	0
MID	094701	R1	CY7C1401	150	3.6	48	48	50	0
MID	094701	R1	CY7C1401	150	3.3	48	48	1153	0
CCD	100102	R1-Split 1	CY8CTMA300EES-48LTXI	150	2.07	48	48	500	0
CCD	100102	R1-Split 2	CY8CTMA300EES-48LTXI	150	2.07	48	48	500	0
CCD	100102	R1-Split 3	CY8CTMA300EES-48LTXI	150	2.07	48	48	449	1
CCD	100102	R1-Split 4	CY8CTMA300EES-48LTXI	150	2.07	48	48	50	0
CCD	100102	R2D	CY8CTMA300DES-48LTXI	150	5.75	48	48	47	0
CCD	100102	R5-Split 4	CY8CTMA300EES-48LTXI	150	0	48	48	150	0
CCD	100102	R2D	CY8CTMA300DES-48LTXI	150	5.75	48	48	47	0
CCD	MR092077	R1	CY8CTMG200-32LQXIT	150	2.1	48	48	366	0
CCD	MR094068	R1	CY8CTMG200-32LQXI	125	2.1	96	96	294	0

**Summary for Technology: S8**

**Sum**

**45 records**

**S8 24330 2**

**C8**

DCD	91804	R1-Split 2	CYWB0224ABS-BVXI	125	3.8	96	96	629	0
DCD	91804	R1-Split 3	CYWB0224ABS-BVXI	125	3.8	120	120	451	0
DCD	92015	R1-Split 1	CYWB0124AB-BVXI	125	3.8	120	120	626	0
DCD	92015	R1-Split 2	CYWB0124AB-BVXI	125	3.8	120	120	626	0
DCD	92015	R1-Split 3	CYWB0124AB-BVXI	125	3.8	96	96	463	0
DCD	92015	R2- Split 1	CYWB0124AB-BVXI	125	3.8	96	96	484	0
DCD	92015	R2- Split 2	CYWB0124AB-BVXI	125	3.8	96	96	626	0
DCD	92015	R2- Split 3	CYWB0124AB-BVXI	125	3.8	96	96	603	0
MID	92902	R1A- Split 1	CY7C68320C	150	3.8	24	24	170	0
MID	92902	R1C - Split 1	CY7C68320C	150	3.8	24	24	170	0
MID	92902	R2 - Split 1	CY7C68320C	150	3.8	24	24	402	0
MID	92902	R3B-Split 1	CY7C68320C	150	3.8	24	24	261	0
MID	92902	R1- Split 2	CY7C68320C	150	3.8	24	24	877	0
MID	92902	R1B- Split 2	CY7C68320C	150	3.8	24	24	885	0
MID	92902	R1C- Split 2	CY7C68320C	150	3.8	24	24	711	0
MID	92902	R2- Split 2	CY7C68320C	150	3.8	24	24	476	0
MID	92902	R2A- Split 2	CY7C68320C	150	3.8	24	24	720	0

MID	92902	R2B- Split 2	CY7C68320C	150	3.8	24	24	842	0	
MID	92902	R2C- Split 2	CY7C68320C	150	3.8	24	24	489	0	
MID	92902	R3- Split 2	CY7C68320C	150	3.8	24	24	966	0	
MID	92902	R3A- Split 2	CY7C68320C	150	3.8	24	24	751	0	
MID	92902	R3B- Split 2	CY7C68320C	150	3.8	24	24	660	0	
MID	92902	R2B- Split 3	CY7C68320C	150	3.8	24	24	37	0	
MID	92902	R3B- Split 3	CY7C68320C	150	3.8	24	24	660	0	
MID	92902	R3B- Split 4	CY7C68320C	150	3.8	24	24	197	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	
<b>Summary for Technology: C8</b>		<b>29</b>	<b>records</b>					<b>C8</b>	<b>17064</b>	<b>0</b>
<b>Sum</b>										
<b>R4</b>										
MID	091302	R2- Split 1	CY62256NLL-55SNXET	125	5.75	96	96	120	0	
MID	091302	R2- Split 2	CY62256NLL-55SNXET	125	5.75	96	96	2900	0	
<b>Summary for Technology: R4</b>		<b>2</b>	<b>records</b>					<b>R4</b>	<b>3020</b>	
<b>R5</b>										
MID	MR094065	R1	CY7C1399BN-12VXI	150	3.8	48	48	300	0	
<b>Summary for Technology: R5</b>		<b>1</b>	<b>records</b>					<b>R5</b>	<b>300</b>	<b>0</b>
<b>Sum</b>										
<b>R7</b>										
MID	093307	R1	7A122001GC-**RZWEB	150	2.75	48	48	3367	0	
MID	093307	R2	7A122001GC-**RZWEB	150	2.75	48	48	3033	0	
MID	093307	R3	7A122001GC-**RZWEB	150	2.75	48	48	942	0	
MID	093307	R4	7A122001GC-**RZWEB	150	2.75	48	48	3346	0	
<b>Summary for Technology: R7</b>		<b>4</b>	<b>records</b>					<b>R7</b>	<b>10688</b>	<b>0</b>
<b>Sum</b>										
<b>R95</b>										
MID	091602	R3	CY62187E	125	1.85	24	24	1411	0	
MID	091602	R3	CY62187E	125	1.85	96	96	1403	0	
MID	093904	R4	CY62187E	125	1.85	24	24	1411	0	
MID	093904	R4	CY62187E	125	1.85	96	96	1403	0	
MID	MR084080	R3	CY62146ELL-45ZSXAT	125	1.85	48	48	526	0	
MID	MR091066	R1	CY62167EV30LL-45BVI	125	1.85	96	96	3836	0	
MID	MR092047	R1	CY62157ELL-55ZSXE	125	1.85	96	96	79	0	

MID	MR092047	R2	CY62157ELL-55ZSXE	125	1.85	96	96	79	0
MID	MR092047	R3	CY62157ELL-55ZSXE	125	1.85	96	96	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

**Summary for Technology: R95**

**Sum**

**11 records**

**R95 16961 0**

**R9**

MID	083906	R2	CY7C1313	125	2.25	96	96	1797	0
MID	MR091069	R1	7C1480BC-RAZCB	150	2.25	48	48	3484	2
MID	MR092068	R1	CY7C1313TV18-250BZC	125	2.7	96	96	1922	1
MID	MR092068	R2	CY7C1313TV18-250BZC	125	2.7	96	96	1669	0
MID	MR092068	R3	CY7C1313TV18-250BZC	125	2.7	96	96	1348	0
MID	MR093073	R2	7C1450XC-**RAZCB	150	2.25	48	48	2312	0
MID	MR093073	R1	7C1370XC-**RAZIB	150	2.25	48	48	3026	0

MR091069-1E1 Particle Defect (Metal 1 lines shorting)

MR092068-1E1 NVD

**Summary for Technology: R9**

**Sum**

**7 records**

**R9 15558 3**

**S4**

CCD	075103	R5	CY8CPWR01-56TXI	125	5.5	96	96	366	0
CCD	075103	R4- Split 1	CY8CLED04G01-56LTXI	125	5.5	96	96	207	0
CCD	075103	R4- Split 2	CY8CLED04G01-56LTXI	125	5.5	96	96	100	0
CCD	075103	R4- Split 3	CY8CLED04G01-56LTXI	125	5.5	96	96	822	0
CCD	082007	R2	CY7C53120E4-40SXIES	125	3.8	96	96	999	0
DCD	083908	R1B	CY241V8AKSXC-45	150	3.8	48	48	500	0
MID	090404	R4- Split 1	CY8C20234-12LKXA	125	5.5	48	48	1400	0
MID	090404	R4- Split 2	CY8C20234-12LKXA	125	5.5	48	48	1399	0
MID	090404	R5-Split 2	CY8C20234-12LKXA	125	5.5	48	48	2718	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	091305	R2- Split 1	CY8C24494-24PVXI	125	5.5	96	96	699	0
CCD	091305	R2- Split 2	CY8C24494-24PVXI	125	5.5	96	96	95	0
MID	092201	R1	CY8C24894-24LFXA	125	5.5	48	48	3497	0

MID	092201	R2	CY8C24894-24LFXA	125	5.5	48	48	3515	0
MID	092201	R3	CY8C24894-24LFXA	125	5.5	48	48	3495	0
MID	092201	R4-Split 1	CY8C20234-12LKXA	125	5.5	48	48	1400	0
MID	092201	R4-Split 2	CY8C20234-12LKXA	125	5.5	48	48	1399	0
MID	092201	R5- Split 2	CY8C20234-12LKXA	125	5.5	48	48	2718	0
MID	092201	R6(1)- Split 1	CY8C20234-12LKXA	150	5.5	60	60	288	0
MID	092201	R6(1)- Split 4	CY8C20234-12LKXA	150	5.5	60	60	4196	0
MID	092701	R1	CY8C22345-12PVXE	125	5.5	72	72	835	0
MID	092701	R1	CY8C22345-12PVXE	125	5.5	96	96	2874	0
MID	092701	R2	CY8C22345-12PVXE	125	5.5	72	72	3664	0
MID	092701	R3	CY8C22345-12PVXE	125	5.5	48	48	3782	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	CY8CLE04D01-56LTXI	125	5.5	96	96	1610	0
MID	100605	R1	CY8CTMG120- 56LFXA	125	5.5	48	48	3497	0
MID	100605	R2	CY8CTMG120- 56LFXA	125	5.5	48	48	3519	0
MID	100605	R3	CY8CTMG120- 56LFXA	125	5.5	48	48	3495	0
MID	100606	R1	CY8CTMA120- 56LFXA	125	5.5	48	48	3497	0
MID	100606	R2	CY8CTMA120- 56LFXA	125	5.5	48	48	3519	0
MID	100606	R3	CY8CTMA120- 56LFXA	125	5.5	48	48	3495	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	5	5.5	96	96	259	0
CCD	MR093064	R1	CY8C204344-12LQXI	125	5.5	96	96	299	0
CCD	MR094048	R1	CY8C24533-24PVXI	125	5.5	110	110	299	0
CCD	MR094063	R1	CY8C21534-24PVXA	125	5.5	48	48	297	0
CCD	MR094069	R1	CY8C21534-12PVXET	125	5.5	48	48	195	0
CCD	MR101052	R1	CY8C27243-24PVXIT	125	5.5	96	96	300	0

Summary for Technology: S4

51 records

Sum

S4 89700 0

0.25um

MID	MR093039	R1	STK14CA8-RF45	125	3.6	120	120	100	0
CCD	MR092078	R1	STK14CA8-RF45	125	3.6	96	96	100	0

Summary for Technology: 0.25um

2 records

Sum

0.25Um 200 0

**P26**

DCD	MR092056	R1	CY7C63723C-PXC	150	5.5	48	48	300	0
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**Summary for Technology: P26**

**Sum**

<b>1</b>	<b>record</b>						<b>P26</b>	<b>300</b>	<b>0</b>
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**LL65**

MID	091706	R12A	CY7C1563KV18-450BZC	125	2.05	96	96	758	0
MID	091706	R12A(1)	CY7C1563KV18-450BZC	125	2.05	96	96	580	0
MID	091706	R11A	7C15631KO-GBBCB	125	2.05	96	96	1213	0
MID	091706	R11A(1)	7C15631KO-GBBCB	125	2.05	96	96	1035	0
MID	091706	R8	CY7C15631KV18-450BZC	125	2.05	96	96	2148	0
MID	091706	R8A(1)	CY7C15631KV18-450BZC	125	2.05	96	96	227	0
MID	092401	R1	CY7C1563KV18	125	1.5	96	96	2208	0
MID	093202	R1	CY7C15631KV18-450BZC	125	2.2	96	96	596	0
MID	093202	R2	CY7C15631KV18-450BZC	125	2.2	96	96	712	0
MID	093202	R3	CY7C15631KV18-450BZC	125	2.2	96	96	1795	0
MID	100405	R1	CY7C15632KV18	125	1.45	96	96	1325	0

**Summary for Technology: LL65**

**Sum**

<b>11</b>	<b>records</b>							<b>12597</b>	<b>0</b>
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## Summary Detail -- LFR Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATION	SS	REJECT	FA	COMMENTS
	DCD	MR093068	R1	CYRF6936-40LFXC	125	3.8	168	72	300	0		
	DCD	RR093003	R1	CYP15G0401DXB-BGX	125	5.5	1000	832	22	0		
<b>Summary for Technology: B53</b>			<b>2</b>	<b>records</b>								
<b>Sum</b>								<b>B53</b>	<b>322</b>	<b>0</b>		
<b>L8</b>												
	DCD	084102	R1E	CY2545C208	150	2.07	80	32	116	0		
	DCD	084102	R1E	CY2545C208	150	2.07	500	420	116	0		
	CCD	064302	R11	CY2FLEXO-LV	125	2.35	168	72	624	0		
	CCD	064302	R11	CY2FLEXO-LV	125	2.35	1000	832	624	0		
<b>Summary for Technology: L8</b>			<b>4</b>	<b>records</b>								
<b>Sum</b>								<b>L8</b>	<b>1480</b>	<b>0</b>		
<b>C8</b>												
	DCD	092015	R1	CYWB0124AB-BVXI	125	3.8	168	72	116	0		
	DCD	092015	R1	CYWB0124AB-BVXI	125	3.8	1048	880	116	0		
	MID	092902	R3	CY7C68320C	150	3.8	408	408	80	0		
	MID	092902	R2	CY7C68320C	150	3.8	408	408	80	0		
	MID	092902	R1	CY7C68320C	150	3.8	408	408	80	0		
	DCD	MR084078	R1	CYWB0124AB-BVXI	125	3.8	1000	832	300	0		
	DCD	MR091049	R1	CYWB0124AB-BVXI	125	3.8	168	72	300	0		
	DCD	MR091049	R1	CYWB0124AB-BVXI	125	3.8	1000	832	300	0		
	DCD	MR092065	R1	CYWB0224ABS-BVXI	125	3.8	168	72	297	0		
	CBD	MR093063	R1	CY7C68013A-56PVXC	125	3.8	168	72	300	0		
	CBD	MR093063	R1	CY7C68013A-56PVXC	125	3.8	1000	832	300	0		
<b>Summary for Technology: C8</b>			<b>11</b>	<b>records</b>								
<b>Sum</b>								<b>C8</b>	<b>2269</b>	<b>0</b>		
<b>C9</b>												
	MID	MR092069	R1	CY7C1041DV33-10ZSXIT	150	3.77	80	32	500	0		
	MID	MR092069	R1	CY7C1041DV33-10ZSXIT	150	3.77	500	420	500	0		



**Summary for Technology: C9**

**Sum**

**2 records**

**C9 1000 0**

**R4**

MID	091302	R2	CY62256NLL-55SNXET	150	5.75	80	32	118	0
MID	091302	R2	CY62256NLL-55SNXET	150	5.75	500	420	118	0

**Summary for Technology: R4**

**Sum**

**2 records**

**R4 236 0**

**R5**

MID	MR094065	R1	CY7C1399BN-12VXI	150	3.8	80	32	300	0
MID	MR094065	R1	CY7C1399BN-12VXI	150	3.8	500	420	300	0

**Summary for Technology: R5**

**Sum**

**2 records**

**R5 600 0**

**R7**

MID	093307	R3A	7A122001GC-**RZWEB	150	2.75	80	32	540	0
MID	093307	R3A	7A122001GC-**RZWEB	150	2.75	500	420	530	0

**Summary for Technology: R7**

**Sum**

**2 records**

**R7 1070 0**

**R8**

MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	168	72	299	0
MID	MR091063	R1	CY62157DV30LL-55ZSXI	125	2.4	1000	832	298	0

**Summary for Technology: R8**

**Sum**

**2 records**

**R8 597 0**

**S4**

CCD	075103	R3	CY8CLED04D01-56LTXI	125	5.5	1000	832	210	0
CCD	075103	R4	CY8CLED04G01-56LTXI	125	5.5	1000	580	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	081902	R2A	CY8C20334-12SPI	125	5.5	1000	832	178	0
CCD	081902	R3A	CY8C20334-12SPI	125	5.5	1000	832	178	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	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
CCD	MR091047	R1	CY8C21334-24PVXI	125	5.5	1000	832	296	0
CCD	MR091047	R1	CY8C21334-24PVXI	125	5.5	168	72	300	0
CCD	MR091048	R1	CY8C24223A-24PVXI	125	5.5	1000	832	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	832	299	0
CCD	MR094048	R1	CY8C24533-24PVXI	125	5.5	192	96	299	0
CCD	MR094048	R1	CY8C24533-24PVXI	125	5.5	1000	808	285	0
CCD	MR094063	R1	CY8C21534-24PVXA	125	5.5	1000	832	6	0

Summary for Technology: S4

34 records

Sum

S4

6733

0

S8

CCD	080902	R1B	CY8C3866AXI-040ES2	150	2.07	128	80	125	0
CCD	080902	R1B	CY8C3866AXI-040ES2	150	2.07	500	420	116	0
CCD	080902	R2	CY8C3866AXI-040ES2	150	2.07	500	420	124	0
CCD	080902	R2	CY8C3866AXI-040ES2	150	2.07	80	32	125	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	2.07	500	420	125	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	2.07	80	32	127	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	084605	R2-Split 2	CY8C20566-24PVXI	150	2.1	500	420	285	0
CCD	085008	R1	CY8C20566-24PVXI	150	2.1	500	420	399	0
CCD	085008	R1	CY8C20566-24PVXI	150	2.1	80	32	399	0
CCD	085008	R3A-Split 2	CY8C20566-24PVXI	150	2.1	500	420	285	0
CCD	090301	R1A (1)	CY8C20466-24LQXI	150	2.1	524	444	60	0
CCD	090301	R1B	CY8C20566-24PVXI	150	2.1	500	420	60	0
CCD	090301	R1C	CY8C20566-24PVXI	150	2.1	500	420	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	N/A	150	3.3	500	420	118	0
MID	090604	R2A	N/A	150	3.3	80	32	118	0
CCD	090706	R1	CY8C204665-24LQXIES	150	2.1	500	420	399	0
CCD	090706	R1	CY8C204665-24LQXIES	150	2.1	80	32	400	0
CCD	090706	R2	CY8C204665-24LQXIES	150	2.1	92	44	400	0
CCD	090706	R2(1)	CY8C204665-24LQXIES	150	2.1	500	420	444	0
CCD	090706	R3	CY8C204665-24LQXIES	150	2.1	500	420	400	0
CCD	090706	R3	CY8C204665-24LQXIES	150	2.1	80	32	400	0
MID	094701	R1	CY7C1401	150	3.3	80	32	120	0
MID	094701	R1	CY7C1401	150	3.3	500	420	120	0
CCD	100102	R2B	CY8CTMA300DES-48LTXI	150	5.75	500	420	120	0
CCD	100102	R2B	CY8CTMA300DES-48LTXI	150	5.75	80	32	120	0
CCD	100102	R3	CY8CTMA300DES-48LTXI	150	5.75	500	420	120	0
CCD	100102	R3	CY8CTMA300DES-48LTXI	150	5.75	80	32	120	0
CCD	MR091065	R5	CY8C20466-24LQXI	150	2.1	500	420	375	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
CCD	MR094068	R1	CY8CTMG200-32LQXI	125	2.1	192	96	254	0
CCD	MR094068	R1	CY8CTMG200-32LQXI	125	2.1	216	120	40	0
<b>Summary for Technology: S8</b>		<b>46</b>	<b>records</b>						
<b>Sum</b>							<b>S8</b>	<b>9185</b>	<b>0</b>
<b>R95</b>									
MID	084612	R3	CY62177EV30LL	150	1.85	432		100	0
MID	084612	R2	CY62177EV30LL	150	1.85	432		99	0

MID	084612	R1	CY62177EV30LL	150	1.85	432		100	0
MID	091602	R3	CY62187E	125	1.85	168		400	0
MID	093904	R4	CY62187E	125	1.85	168		400	0
MID	092605	R1	CY62177EV30LL	150	1.85	432		100	0
MID	092605	R2	CY62177EV30LL	150	1.85	432		99	0
MID	092605	R3	CY62177EV30LL	150	1.85	432		100	0

**Summary for Technology: R95**

**Sum**

**8 records**

**R95 1398 0**

**0.25um**

MID	MR092078	R1	STK14CA8-RF45	125	3.6	168	168	100	0
MID	MR092078	R1	STK14CA8-RF45	125	3.6	1000	1000	100	0
MID	MR093039	R1	STK14CA8-RF45	125	3.6	168	168	100	0
MID	MR093039	R1	STK14CA8-RF45	125	3.6	1000	1000	100	0

**Summary for Technology: 0.25um**

**Sum**

**4 records**

**400 0**

**LL65**

MID	091706	R3A	CY7C1512KV18-*BZCES	125	2.05	1000	832	178	0
MID	091706	R4	CY7C1512KV18-*BZCES	150	2.05	500	420	178	0
MID	093202	R1	CY7C15631KV18-450BZC	125	2.2	168	72	190	0
MID	093202	R3	CY7C15631KV18-450BZC	125	2.2	500	420	184	0

**Summary for Technology: LL65**

**Sum**

**4 records**

**LL65 730 0**

## Summary Detail -- DRET Performance Over Time

TECHNOLOGY	DIVISION	EVALNUM	TV	DEVICE	TEMP	VOLT	READOUT	DURATION	SS	REJECT	FA	COMMENTS
S4												
	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		
	DCD	083406	R1	7C638115AK-RAPZC	150	0	1000	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	524	524	77	0		
	CCD	090703	R1A	CY8C27443-24PVXIES	175	0	408	120	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	MR091047	R1	CY8C21334-24PVXI	150	0	1000	500	62	0		
	CCD	MR091047	R1	CY8C21334-24PVXI	175	0	408	120	80	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	150	0	1000	500	80	0		
	CCD	MR091048	R1	CY8C24223A-24PVXI	175	0	408	120	80	0		
	CCD	MR092046	R1	CY8C24533-24PVXI	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	120	80	0		
	CCD	MR092073	R1	CY8C21334-24PVXI	150	0	500	500	74	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	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	R1	CY8C21534-24PVXI	150	0	1000	500	63	0		

CCD	MR093048	R1A	CY8C21534-24PVXI	150	0	500	500	67	0
CCD	MR093048	R1A	CY8C21534-24PVXI	150	0	1000	500	67	0
CCD	MR093064	R1	CY8C204344-12LQXI	175	0	288	288	78	0
CCD	MR093064	R1	CY8C204344-12LQXI	150	0	500	500	80	0
CCD	MR093064	R1	CY8C204344-12LQXI	175	0	408	120	75	0
CCD	MR093064	R1	CY8C204344-12LQXI	150	0	1000	500	79	0
CCD	MR094048	R1	CY8C24533-24PVXI	175	0	288	288	80	0
CCD	MR094048	R1	CY8C24533-24PVXI	175	0	408	120	80	0
CCD	MR094048	R1	CY8C24533-24PVXI	150	0	500	500	80	0
CCD	MR094048	R1	CY8C24533-24PVXI	150	0	1000	500	80	0
CCD	MR094063	R1	CY8C21534-24PVXA	150	0	500	500	77	0
CCD	MR094063	R1	CY8C21534-24PVXA	150	0	1000	500	77	0
CCD	MR101052	R1	CY8C27243-24PVXIT	175	0	288	288	80	0
CCD	MR101059	R1	CY8C20434-12LQXIT	175	0	288	288	80	0
CCD	MR101059	R1	CY8C20434-12LQXIT	175	0	408	120	80	0
CCD	MR101059	R1	CY8C20434-12LQXIT	150	0	500	500	80	0

**Summary for Technology: S4**

**Sum**  
**S8**

**48**                      **records**

**S4**                      **3686**                      **0**

CCD	080902	R1A	CY8C3866AXI-040ES2	150	0	1000	500	77	0
CCD	080902	R1A	CY8C3866AXI-040ES2	150	0	500	500	77	0
CCD	080902	R2	CY8C3866AXI-040ES2	150	0	1000	500	80	0
CCD	080902	R2	CY8C3866AXI-040ES2	150	0	500	500	80	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	0	1000	500	77	0
CCD	080902	R3	CY8C3866AXI-040ES2	150	0	500	500	77	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	N/A	150	0	1000	500	80	0
MID	082704	R3A	N/A	150	0	500	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	R3	CY8C20566-24PVXI	150	0	1500	500	80	0
CCD	084605	R3	CY8C20566-24PVXI	150	0	2000	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	R1	CYONS2000-LBXC	150	0	1500	500	41	0
DCD	090402	R1A	CYONS2000-LBXC	150	0	500	500	77	0

DCD	090402	R1A	CYONS2000-LBXC	150	0	1000	500	73	0
DCD	090402	R1A	CYONS2000-LBXC	150	0	1500	500	61	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	090706	R1	CY8C204665-24LQXIES	150	0	1000	500	77	0
CCD	090706	R1	CY8C204665-24LQXIES	150	0	1446	446	77	0
CCD	090706	R1	CY8C204665-24LQXIES	150	0	500	500	77	0
CCD	090706	R2	CY8C204665-24LQXIES	150	0	1000	500	80	0
CCD	090706	R2	CY8C204665-24LQXIES	150	0	1500	500	80	0
CCD	090706	R2	CY8C204665-24LQXIES	150	0	500	500	80	0
CCD	090706	R3	CY8C204665-24LQXIES	150	0	1000	500	80	0
CCD	090706	R3	CY8C204665-24LQXIES	150	0	1500	500	80	0
CCD	090706	R3	CY8C204665-24LQXIES	150	0	500	500	80	0
MID	094701	R1	CY7C1401	150	0	500	500	80	0
MID	094701	R1	CY7C1401	150	0	1000	500	79	0
MID	094701	R1	CY7C1401	150	0	1500	500	79	0
CCD	100102	R2C	CY8CTMA300DES-48LTXI	150	0	1000	500	77	0
CCD	100102	R2C	CY8CTMA300DES-48LTXI	150	0	524	524	77	0
CCD	MR093069	R1	CY8C20546-24PVXI	175	0	288	288	80	0
CCD	MR093069	R1	CY8C20546-24PVXI	175	0	408	120	80	0
CCD	MR093069	R1	CY8C20546-24PVXI	150	0	500	500	79	0
CCD	MR093069	R1	CY8C20546-24PVXI	150	0	1000	500	79	0
CCD	MR094068	R1	CY8CTMG200-32LQXI	175	0	288	288	80	0
CCD	MR094068	R1	CY8CTMG200-32LQXI	175	0	408	120	80	0
CCD	MR094068	R1	CY8CTMG200-32LQXI	150	0	500	500	80	0
CCD	RR094002	R1	CY8C20466-24LQXI	150	0	168	168	209	0
<b>Summary for Technology: S8</b>		<b>49</b>	<b>records</b>				<b>S8</b>	<b>3936</b>	<b>0</b>
<b>Sum</b>									
<b>0.25um</b>									
MID	MR092078	R1	STK14CA8-RF45	150	0	500	500	80	0
MID	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
<b>Summary for Technology: 0.25um</b>		<b>4</b>	<b>records</b>					<b>320</b>	<b>0</b>
<b>Sum</b>									

## 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		
BK48DJALL	G	MR093034	R1A	CY62177DV30LL-55BAXI	110	3.6	128	30	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>				<b>7 records</b>							
<b>Sum</b>								FBGA (0.75-0.8, 0.3mm, Pb-free)	<b>279</b>	<b>0</b>	
<b>FBGA (1.0-1.27)</b>											
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	130	2.05	256	68	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	130	2.05	128	71	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>				<b>2 records</b>							
<b>Sum</b>								<b>139</b>	<b>0</b>		
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW165GAALL	RA	094002	R1	CY7C1512KO	130	1.8	264	76	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>				<b>1 records</b>							
<b>Sum</b>								<b>76</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 records</b>							
<b>Sum</b>								<b>73</b>	<b>0</b>		
<b>PDIP (Pb-Free)</b>											
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	130	5.5	128	25	0		
PZ183EAAGN	X	MR093045	R1	CP6238BM	130	5.5	128	30	0		
PZ283AAGN	X	MR092030	R1	CY8C24423A-24PXI	130	5.25	128	25	0		
<b>Summary for Package Family: PDIP (Pb-Free)</b>				<b>3 records</b>							
<b>Sum</b>								<b>80</b>	<b>0</b>		
<b>PLCC</b>											
J28SEGAGB	M	MR101008	R1	CY7B923-JC	130	5.5	128	30	0		
<b>Summary for Package Family: PLCC</b>				<b>1 records</b>							
<b>Sum</b>								<b>30</b>	<b>0</b>		
<b>PLCC (Pb-Free)</b>											
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	130	5.5	128	30	0		
<b>Summary for Package Family: PLCC (Pb-Free)</b>				<b>1 records</b>							
<b>Sum</b>								<b>30</b>	<b>0</b>		
<b>QFN (0.4mm, Saw Type, Pb-free)</b>											
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>1 records</b>							
<b>Sum</b>								<b>25</b>	<b>0</b>		
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>											
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	130	5.25	128	25	0		
LK32AABAGL	L	MR093051	R1A	CY8C20434-12LKXI	130	5.25	128	30	0		
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	130	5.25	128	30	0		
<b>Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)</b>				<b>3 records</b>							
<b>Sum</b>								<b>85</b>	<b>0</b>		



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

LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	130	5.25	128	26	0
LQ24ABAAAL	AT	MR091040	R1	CP6836ATT	130	5.25	128	24	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	130	5.25	128	25	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	130	5.25	128	24	0
LQ24ADAAGL	CA	MR093018	R1A	CY8CTST200-24LQXIT	130	5.25	128	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	130	5.25	128	24	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	130	5.25	128	25	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	130	5.25	128	30	0
LQ32AFDPGL	RA	MR094027	R1	CY8C20434-12LQXI	130	5.25	128	28	0
LQ32AFDPGL	RA	MR094027	R1A	CY8C20434-12LQXI	130	5.25	128	30	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
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	130	5.25	128	25	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	130	5.25	128	27	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	130	5.25	128	28	0
LQ32DAGLL	R	085008	R4	CY8C20466-24LQXI	130	5.25	128	77	0
LQ32DAGLL	R	085008	R5	CY8C20466-24LQXI	130	5.25	128	77	0

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

18 records

Sum 730 0

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

LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	130	5.25	128	27	0
LG16AAAAAL	M	090404	R1	CY8C20234-12LKXI	130	5.25	96	77	0
LG16AAAAAL	M	090404	R2	CY8C20234-12LKXI	130	5.25	96	77	0
LG16AAAAAL	M	090404	R3	CY8C20234-12LKXI	130	5.25	96	77	0

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

4 records

Sum 258 0

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

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
LY40ABGAGL	L	MR091030	R1	CS7067AT	130	3.63	128	23	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	130	3.63	128	29	0
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

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

8 records

Sum 362 0

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

LT32BAAAGL	CA	MR101041	R1	CG7032AA	130	5.25	128	30	0
LT32BAABGL	RA	092002	R1	CY8C21434-24LTXI	130	5.25	128	75	0
LT32BAABGL	RA	MR091009	R1	CG7032AA	130	5.25	128	25	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	130	5.25	128	25	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	130	5.25	128	30	0
LT32BAAGGL	M	MR092051	R1	CG6644FA	130	5.25	128	27	0
LT48BAAAAN	MB	100102	R1	CY8CTMA300EES-48LTXI	130	5.5	128	80	0
LT56ABAAGL	CA	075103	R4	CY8CLED04G01-56LTXI	130	5	128	80	0
LT56ABAAGL	CA	075103	R3	CY8CLED04D01-56LTXI	130	5	128	83	0

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

9 records

Sum 455 0

**QSOP (Pb-Free)**

SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	130	5.5	128	25	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	130	5.25	128	30	0

Summary for Package Family: QSOP (Pb-Free)

2 records

Sum 55 0

**SNC (Pb-Free)**

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

Summary for Package Family: SNC (Pb-Free)

3 records



<b>Sum</b>								<b>84</b>	<b>0</b>
<b>SOIC</b>									
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	130	3.63	128	25	0
<b>Summary for Package Family: SOIC</b>				<b>1 records</b>					
<b>Sum</b>								<b>25</b>	<b>0</b>
<b>SOIC (J-Lead)</b>									
V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	130	5.5	128	25	0
<b>Summary for Package Family: SOIC (J-Lead)</b>				<b>1 records</b>					
<b>Sum</b>								<b>25</b>	<b>0</b>
<b>SOIC (J-Lead, Pb-Free)</b>									
VZ24	X	091906	R1	7C197B	130	5.5	128	77	0
VZ24	X	091906	R2	7C197BN	130	5.5	128	72	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	130	3.63	128	25	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	130	3.6	128	30	0
VZ28315PLL	R	092003	R2	CY7C192-15VXC	130	5.5	128	77	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	130	3.63	128	25	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	130	3.65	128	29	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	130	3.63	128	27	0
<b>Summary for Package Family: SOIC (J-Lead, Pb-Free)</b>				<b>8 records</b>					
<b>Sum</b>								<b>362</b>	<b>0</b>
<b>SOIC (Pb-Free)</b>									
SZ1615DGN	M	MR092037	R1	CS6803AAT	130	5.5	128	25	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	130	3.63	128	25	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	130	3.63	128	25	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	130	3.8	128	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	130	3.8	128	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	130	3.8	128	29	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	130	5.5	128	25	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	130	5.25	128	25	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	130	5.5	128	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	130	5.5	128	30	0
SZ324517BL	R	MR101019	R1	CG6727AMT	130	3.6	128	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	130	5.5	128	25	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	130	5.5	128	29	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	130	3.63	128	30	0
<b>Summary for Package Family: SOIC (Pb-Free)</b>				<b>14 records</b>					
<b>Sum</b>								<b>388</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 records</b>					
<b>Sum</b>								<b>30</b>	<b>0</b>
<b>SSOP (Pb-Free)</b>									
SP2814GAL	T	MR093027	R1	CS6835AT	130	5.25	128	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	130	5.25	128	29	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	110	5.25	264	25	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	130	5.25	128	25	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	130	5.25	128	25	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	130	5.25	128	30	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	130	5.25	128	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	130	5.25	128	30	0
SP483ACGAN	R	085008	R1	CY8C20566-24PVXI	130	5.25	128	77	0
SP483ACGAN	R	085008	R2	CY8C20566-24PVXI	130	5.25	128	77	0
SP483ACGAN	R	085008	R2	CY8C20566-24PVXI	130	5.25	256	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	130	5.25	256	77	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	130	5.25	128	25	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	130	3.6	128	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	130	5.5	128	29	0
<b>Summary for Package Family: SSOP (Pb-Free)</b>				<b>15 records</b>					
<b>Sum</b>								<b>616</b>	<b>0</b>
<b>TQFP (Pb-Free)</b>									
AZ100RUBLN	R	092902	R1	CY7C68320C	130	3.63	96	80	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	130	3.6	128	25	0



AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	130	3.63	128	30	0
AZ100RULN	R	092902	R2	CY7C68320C	130	3.63	96	80	0
AZ100RULN	R	092902	R3	CY7C68320C	130	3.63	96	80	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	130	5.5	128	30	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	130	3.63	128	25	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	130	3.63	128	25	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	130	5.25	128	25	0
<b>Summary for Package Family: TQFP (Pb-Free)</b>				<b>9 records</b>					
<b>Sum</b>								<b>400</b>	<b>0</b>
<b>TSOP (Pb-free)</b>									
ZT28R2BBLN	R	091302	R2A	7C622565EK-**RZTIB	130	5.5	128	80	0
ZT28R2BBLN	R	091302	R2A	7C622565EK-**RZTIB	130	5.5	256	79	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNNLL-70ZXCT	130	5.5	128	24	0
ZT28R4BGL	R	MR092063	R1A	CY7C1399BN-12ZXCT	130	3.63	128	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	130	3.63	128	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	130	5.5	264	29	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	110	3.6	128	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	110	5.5	264	30	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	130	3.6	128	29	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	130	3.6	128	30	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	130	3.6	96	45	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	130	3.6	96	34	0
ZT48AKAALL	T	MR092070	R6A	7C62167FC-**TZTIB	130	5.5	264	28	0
<b>Summary for Package Family: TSOP (Pb-free)</b>				<b>13 records</b>					
<b>Sum</b>								<b>498</b>	<b>0</b>
<b>TSOP I (Pb-Free)</b>									
ZB32RHBALN	R	MR092014	R1	CG7086AMT	130	3.6	128	24	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	130	3.6	128	30	0
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	110	3.6	264	29	0
<b>Summary for Package Family: TSOP I (Pb-Free)</b>				<b>3 records</b>					
<b>Sum</b>								<b>83</b>	<b>0</b>
<b>TSOP II (Pb-Free)</b>									
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	130	3.6	128	23	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
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	N/A	130	3.3	256	79	0
ZW444GALL	R	090604	R2	N/A	130	3.3	128	79	0
ZW444RAGN	R	MR093015	R1	CY62137VNNLL-70ZSXAT	130	3.6	96	30	0
ZW444YBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	130	5.5	128	30	0
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	130	3.3	128	80	0
ZW444ZALL	G	082703	R3	N/A	130	3.3	128	45	0
<b>Summary for Package Family: TSOP II (Pb-Free)</b>				<b>11 records</b>					
<b>Sum</b>								<b>584</b>	<b>0</b>
<b>TSSOP</b>									
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	130	3.63	128	30	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
<b>Summary for Package Family: TSSOP</b>				<b>3 records</b>					
<b>Sum</b>								<b>85</b>	<b>0</b>
<b>TSSOP (Pb-Free)</b>									
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	130	6	128	24	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	130	3.63	128	25	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	130	3.8	128	25	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	130	2.8	128	30	0
<b>Summary for Package Family: TSSOP (Pb-Free)</b>				<b>4 records</b>					
<b>Sum</b>								<b>104</b>	<b>0</b>
<b>VFBGA (0.75-0.8, 0.3mm)</b>									
BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	110	3.6	264	25	0
BV48DAAAL	RA	MR101001	R1	CY62147EV30LL-45BVI	110	3.6	264	30	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm)</b>				<b>2 records</b>					

								55	0
<b>Sum</b>									
<b>VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>									
BZ100DGALL	RA	MR084073	R1A	CYWB0124AB-BVXIT	110	3.63	264	15	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	110	3.6	264	23	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	130	3.63	128	30	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	110	3.6	264	25	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	110	3.6	264	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	110	3.6	264	30	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	110	3.6	264	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	130	5.5	264	28	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	110	3.6	264	25	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	110	3.6	264	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	110	3.6	264	24	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	110	3.63	128	30	0
BZ56IAAAGL	AT	MR084071	R1	CY7C68053-56BAXIT	110	3.63	264	24	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>									
<b>Sum</b>									
								<b>344</b>	<b>0</b>

# 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>											
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	150	0	1000	30	0		
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	150	0	500	30	0		
BK48CDGLL	G	MR091060	R1	CY7C1041CV33-10BAXA	150	0	1000	80	0		
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	150	0	1000	30	0		
BK48DJALL	G	MR093034	R1	CY62177DV30LL-55BAXI	150	0	1000	30	0		
BK48DJALL	G	MR093034	R1	CY62177DV30LL-55BAXI	150	0	500	30	0		
BK48DLALL	G	093904	R1	C Y62187E	150	0	500	77	0		
BK48DLALL	G	093904	R1	C Y62187E	150	0	1000	77	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>			<b>8 records</b>					<b>384</b>	<b>0</b>		
<b>Sum</b>											
<b>FBGA (1.0-1.27)</b>											
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	150	0	1000	30	0		
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	150	0	500	30	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	500	77	0		
BB165ALLE	G	MR091059	R1	CY7C1312BV18-200BZC	150	0	1000	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		
BB165AVLE	RA	MR093067	R1	CY7C1313TV18-250BZC	150	0	500	15	0		
BB165AVLE	RA	MR093067	R1	CY7C1313TV18-250BZC	150	0	1000	15	0		
BB165BUALE	G	093202	R3	CY7C15631KV18-450BZC	150	0	500	80	0		
BB165BUALE	G	093202	R3	CY7C15631KV18-450BZC	150	0	1000	80	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>			<b>12 records</b>					<b>524</b>	<b>0</b>		
<b>Sum</b>											
<b>FBGA (1.0-1.27, Pb-free)</b>											
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	150	0	1000	78	0		
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	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	500	30	0		
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	150	0	1000	30	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	500	29	0		
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	1000	29	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>			<b>8 records</b>					<b>336</b>	<b>0</b>		
<b>Sum</b>											
<b>PBGA (1.27)</b>											
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	150	0	1000	30	0		
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	150	0	500	30	0		
<b>Summary for Package Family: PBGA (1.27)</b>			<b>2 records</b>					<b>60</b>	<b>0</b>		
<b>Sum</b>											
<b>PBGA (1.27, Pb-free)</b>											
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	150	0	1000	30	0		
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	150	0	500	30	0		
<b>Summary for Package Family: PBGA (1.27, Pb-free)</b>			<b>2 records</b>					<b>60</b>	<b>0</b>		
<b>Sum</b>											
<b>PDIP (Pb-Free)</b>											
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		
PZ283AAAGN	X	MR091044	R1	CG6993AM	150	0	1000	80	0		
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	150	0	1000	30	0		
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	150	0	500	30	0		
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	150	0	1000	80	0		
<b>Summary for Package Family: PDIP (Pb-Free)</b>			<b>8 records</b>								

<b>Sum</b>								<b>340</b>	<b>0</b>
<b>PLCC</b>									
J28SEGAGB	M	MR101008	R1	CY7B923-JC	150	0	500	30	0
J28SEGAGB	M	MR101008	R1	CY7B923-JC	150	0	1000	30	0
<b>Summary for Package Family: PLCC</b>				<b>2 records</b>					
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>PLCC (Pb-Free)</b>									
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	150	0	500	30	0
JZ32RBGAN	M	MR093054	R1	CY7C421-20JXC	150	0	1000	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	150	0	500	30	0
JZ52SFGAN	M	MR094046	R1	CY7C136-25JXCT	150	0	1000	30	0
<b>Summary for Package Family: PLCC (Pb-Free)</b>				<b>4 records</b>					
<b>Sum</b>								<b>120</b>	<b>0</b>
<b>PQFP (Pb-free)</b>									
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	150	0	500	29	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	150	0	1000	28	0
<b>Summary for Package Family: PQFP (Pb-free)</b>				<b>2 records</b>					
<b>Sum</b>								<b>57</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>									
LN32AAAAAL	CA	MR091052	R1	CP7052BTT	150	0	1000	80	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	150	0	500	30	0
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	150	0	1000	30	0
<b>Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)</b>				<b>3 records</b>					
<b>Sum</b>								<b>140</b>	<b>0</b>
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>									
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	150	0	1000	30	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	150	0	500	30	0
LK32AABAGL	L	MR093051	R1	CG7047AA	150	0	500	30	0
LK32AABAGL	L	MR093051	R1	CG7047AA	150	0	1000	26	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	150	0	500	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	150	0	1000	30	0
<b>Summary for Package Family: QFN (0.6mm, Punch Type, Pb-Free)</b>				<b>6 records</b>					
<b>Sum</b>								<b>176</b>	<b>0</b>
<b>QFN (0.6mm, Saw Type, Pb-Free)</b>									
LQ24AAAAAL	RA	092407	R1	CY8CTMG200-24LQXI	150	0	500	80	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	150	0	500	80	0
LQ24AAAAAL	RA	092407	R4	CY8CTMG200-24LQXI	150	0	1000	78	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	150	0	500	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	150	0	1000	30	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	150	0	1000	80	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	150	0	500	30	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	150	0	1000	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	150	0	1000	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	150	0	500	30	0
LQ24ADAAGL	CA	084701	R1	CY8CTST200-24LQXI	150	0	1500	75	0
LQ24ADAAGL	CA	MR093018	R1	CY8CTST200-24LQXIT	150	0	1000	27	0
LQ24ADAAGL	CA	MR093018	R1	CY8CTST200-24LQXIT	150	0	500	27	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	150	0	500	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	150	0	1000	30	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	150	0	500	77	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	150	0	1000	77	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	150	0	500	77	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	150	0	1000	77	0
LQ32AFPDGL	RA	MR094027	R1	CY8C20434-12LQXI	150	0	1000	30	0
LQ32AFPDGL	RA	MR094027	R1	CY8C20434-12LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	150	0	1000	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	150	0	1000	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	150	0	500	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	150	0	1000	30	0



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

**27 records**

**1235 0**

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

LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	150	0	1000	30	0
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	150	0	500	30	0
LG16AAAAAL	M	084404	R1	CY7C64316-16LKXC	150	0	1500	75	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	150	0	1000	30	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	150	0	500	30	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

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

**9 records**

**508 0**

**Sum**

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

LY32AAAAGR	L	MR092041	R1	CY8C21434-24LFXI	150	0	500	30	0
LY32AAAAGR	L	MR092041	R1	CY8C21434-24LFXI	150	0	1000	30	0
LY32AAAAGR	L	MR093017	R1	CP6759AMT	150	0	1000	27	0
LY32AAAAGR	L	MR093017	R1	CP6759AMT	150	0	500	27	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	150	0	1000	30	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	150	0	500	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	500	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	1000	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	150	0	500	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	150	0	1000	30	0

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

**10 records**

**294 0**

**Sum**

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

LT32BAAAGL	CA	MR101041	R1	CG7032AA	150	0	1000	30	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	500	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1500	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1000	80	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	1000	30	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	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
LT32BAAAGL	M	MR092051	R1	CG6644FA	150	0	1000	30	0
LT32BAAAGL	M	MR092051	R1	CG6644FA	150	0	500	30	0
LT32BBACGL	AE	MR094061	R1	CY7C63833-LTXC	150	0	1000	30	0
LT32BBACGL	AE	MR094061	R1	CY7C63833-LTXC	150	0	500	30	0
LT48ABAAGR	CA	NR093002	R3	CY8CTMG200-48LTXI	150	0	500	77	0
LT48ABAAGR	CA	NR093002	R3	CY8CTMG200-48LTXI	150	0	1000	77	0

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

**14 records**

**664 0**

**Sum**

**QSOP (Pb-Free)**

SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	150	0	500	30	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	150	0	1000	30	0
SQ2414ABGN	R	MR093057	R1	CY7C60223-QXC	150	0	1000	26	0
SQ2414ABGN	R	MR093057	R1	CY7C60223-QXC	150	0	500	29	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	121	0	500	30	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	121	0	1000	30	0

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

**6 records**

**175 0**

**Sum**

**SNC (Pb-Free)**

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

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

**6 records**



<b>Sum</b>								<b>280</b>	<b>0</b>
<b>SOIC</b>									
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	150	0	500	30	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	150	0	1000	30	0
<b>Summary for Package Family: SOIC</b>				<b>2 records</b>					
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>SOIC (J-Lead)</b>									
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>2 records</b>					
<b>Sum</b>								<b>58</b>	<b>0</b>
<b>SOIC (J-Lead, Pb-Free)</b>									
VZ24	X	091906	R1	7C197B	150	0	1000	75	0
VZ24	X	091906	R2	7C197BN	150	0	1000	77	0
VZ28313BLN	R	MR091045	R1	CY7C1399BN-12VXCT	150	0	1000	79	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	500	30	0
VZ28313BLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	1000	30	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	150	0	1000	29	0
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	150	0	500	29	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	150	0	1000	30	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	150	0	500	30	0
VZ3649BALN	R	MR091046	R1	CG7119AM	150	0	1000	80	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	150	0	1000	30	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	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
<b>Summary for Package Family: SOIC (J-Lead, Pb-Free)</b>				<b>14 records</b>					
<b>Sum</b>								<b>609</b>	<b>0</b>
<b>SOIC (Pb-Free)</b>									
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	150	0	1000	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	150	0	500	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	150	0	1000	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	150	0	500	30	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	150	0	1000	30	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	150	0	1000	80	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	150	0	500	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	150	0	1000	30	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	150	0	1000	30	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	150	0	500	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	150	0	500	29	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	150	0	1000	29	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	150	0	1000	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	150	0	500	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	150	0	500	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	150	0	1000	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	150	0	500	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	150	0	1000	30	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	150	0	1000	80	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	150	0	500	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	150	0	1000	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	150	0	1000	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	150	0	500	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	150	0	1000	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	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
SZ324517BL	R	MR101019	R1	CG6727AMT	150	0	1000	30	0
SZ324517BL	R	MR101019	R1	CG6727AMT	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
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	150	0	1000	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	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
<b>Summary for Package Family: SOIC (Pb-Free)</b>				<b>39 records</b>					
<b>Sum</b>								<b>1262</b>	<b>0</b>
<b>SSOP</b>									
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	150	0	500	30	0
O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	150	0	1000	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	150	0	500	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	150	0	1000	30	0
<b>Summary for Package Family: SSOP</b>				<b>4 records</b>					
<b>Sum</b>								<b>120</b>	<b>0</b>
<b>SSOP (Pb-Free)</b>									
SP2814GAL	T	MR093027	R1	CS6835AT	150	0	500	30	0
SP2814GAL	T	MR093027	R1	CS6835AT	150	0	1000	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	150	0	1000	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	150	0	500	30	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	150	0	1000	80	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	500	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	150	0	1000	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	500	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	1000	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	150	0	1000	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	150	0	500	30	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	150	0	1000	30	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	150	0	500	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	150	0	500	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	150	0	1000	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	150	0	1000	30	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	150	0	500	30	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
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	150	0	500	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	150	0	1000	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	150	0	500	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	150	0	1000	30	0
<b>Summary for Package Family: SSOP (Pb-Free)</b>				<b>25 records</b>					
<b>Sum</b>								<b>800</b>	<b>0</b>
<b>TQFP</b>									
A32LXGXGB	Q	MR091043	R1	CY29948ACT	150	0	1000	80	0
A32LXGXGB	Q	MR101025	R1	CY29948AC	150	0	500	30	0
A32LXGXGB	Q	MR101025	R1	CY29948AC	150	0	1000	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	500	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	1000	30	0
<b>Summary for Package Family: TQFP</b>				<b>5 records</b>					
<b>Sum</b>								<b>200</b>	<b>0</b>
<b>TQFP (10mm X 10mm)</b>									
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	150	0	1000	79	0
<b>Summary for Package Family: TQFP (10mm X 10mm)</b>				<b>1 records</b>					
<b>Sum</b>								<b>79</b>	<b>0</b>
<b>TQFP (Pb-Free)</b>									
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	150	0	500	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	150	0	1000	30	0
AZ100RUBLN	R	092902	R1	CY7C68320C	150	0	1000	80	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	150	0	1000	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	150	0	500	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	150	0	500	30	0

AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	150	0	1000	30	0
AZ128BGAL	G	MR101013	R1	CY7C68013A-128AXC	150	0	1000	30	0
AZ128BGAL	G	MR101013	R1	CY7C68013A-128AXC	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
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	150	0	500	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	150	0	1000	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	150	0	1000	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	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	500	30	0
AZ32GXGAN	G	MR092045	R1	CY29940AXC	150	0	1000	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	150	0	1000	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	150	0	500	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	150	0	500	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	150	0	1000	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	150	0	1000	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	150	0	500	30	0
AZ52AAGAL	Q	MR094014	R1	CY29972AXI	150	0	500	30	0
AZ52AAGAL	Q	MR094014	R1	CY29972AXI	150	0	1000	29	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	150	0	1000	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	150	0	500	30	0
AZ100 (For L65 Data only)*	-	MR094074	R1	8M SRAM	150	0	1000	77	0
AZ100 (For L65 Data only)*	-	MR094074	R2	8M SRAM	150	0	1000	77	0
AZ100 (For L65 Data only)*	-	MR094074	R3	8M SRAM	150	0	1000	77	0

\*Data were generated by Cypress Foundry Supplier

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

**32 records**

**Sum** **919** **0**

**TSOP (Pb-free)**

ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	150	0	500	30	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	150	0	1000	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	150	0	500	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	150	0	1000	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	150	0	500	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	150	0	1000	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	150	0	1000	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	150	0	500	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	150	0	500	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	150	0	1000	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	150	0	1000	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	150	0	500	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	150	0	500	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	150	0	1000	30	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	150	0	1000	29	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	150	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	150	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	150	0	1000	30	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	150	0	1000	30	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	150	0	500	25	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	150	0	1000	25	0

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

**21 records**

**Sum** **619** **0**

**TSOP I (Pb-Free)**

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
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	150	0	1000	30	0
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	150	0	500	30	0

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

**6 records**

**Sum** **180** **0**

**TSOP II (Pb-Free)**

ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	1000	30	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	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	MR091056	R1	CY7C1019DV33-10ZSXI	150	0	1000	79	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	150	0	500	30	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	150	0	1000	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNNL-70ZSXA	150	0	1000	30	0
ZW444YBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	150	0	1000	30	0
ZW444YBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	150	0	500	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	150	0	1000	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	150	0	500	30	0
ZW54BGALL	G	MR092043	R1A	CG7116AM	150	0	500	30	0
ZW54BGALL	G	MR092043	R1A	CG7116AM	150	0	1000	30	0
ZW54CABLR	G	093403	R1	N/A	150	0	1000	77	0
ZW54CABLR	G	093403	R1	N/A	150	0	500	77	0

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

**Sum** **16 records** **623** **0**

**TSSOP**

Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	150	0	1000	27	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	150	0	500	27	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	150	0	500	30	0
Z1620GBAGN	RA	MR092022	R1	CY2309ZC-1HT	150	0	1000	30	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	150	0	500	30	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	150	0	1000	29	0

**Summary for Package Family: TSSOP**

**Sum** **6 records** **173** **0**

**TSSOP (Pb-Free)**

ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	150	0	1000	30	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	150	0	500	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	150	0	1000	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	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	500	30	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	500	30	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	150	0	1000	30	0
ZZ2014BGN	T	MR094067	R1	CY25404ZXI007T	150	0	1000	30	0
ZZ2014BGN	T	MR094067	R1	CY25404ZXI007T	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

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

**Sum** **15 records** **450** **0**

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

BV48ABEAL	A	MR091041	R1	CY62167EV30LL-45BVI	150	0	1000	80	0
BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	150	0	500	30	0
BV48ABEAL	AT	MR092012	R1	CY62167EV30LL-45BVI	150	0	1000	30	0
BV48DAAAL	RA	MR101001	R1	CY62147EV30LL-45BVIT	150	0	500	30	0
BV48DAAAL	RA	MR101001	R1	CY62147EV30LL-45BVIT	150	0	1000	29	0

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

**Sum** **5 records** **199** **0**

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

BZ100BABLL	RA	MR101006	R1	CYDMX256A16-90BVXI	150	0	500	30	0
BZ100BABLL	RA	MR101006	R1	CYDMX256A16-90BVXI	150	0	1000	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	1000	31	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	500	31	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	150	0	1000	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	150	0	500	30	0
BZ48ABLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	1000	30	0

BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	500	30	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	500	30	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	150	0	1000	29	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	150	0	500	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	150	0	1000	30	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	150	0	500	30	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	150	0	1000	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	150	0	1000	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	150	0	1000	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	150	0	500	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	150	0	1000	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	150	0	500	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	150	0	1000	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	150	0	500	29	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	150	0	1000	29	0
BZ56BGALL	RA	RR091013	R1	CY7C68013A-56BAXC	150	0	500	77	0
BZ56BGALL	RA	RR091013	R1	CY7C68013A-56BAXC	150	0	1000	77	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>				<b>26 records</b>					
<b>Sum</b>								<b>873</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>											
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	121	0	168	30	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		
BK48DJALL	G	MR093034	R1A	CY62177DV30LL-55BAXI	121	0	168	30	0		
BK48DLALL	G	093904	R1	C Y62187E	121	0	168	77	0		
BK48DLALL	G	093904	R2	CY62187E	150	0	168	77	0		
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>			<b>7 records</b>								
<b>Sum</b>								<b>350</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		
BB165ALLE	G	MR092076	R1A	CY7C1315BV18-200BZC	121	0	168	30	0		
BB165AVLE	RA	MR092058	R1	CY7C1313TV18-250BZC	121	0	168	27	0		
BB165AVLE	RA	MR093067	R1	CY7C1313TV18-250BZC	121	0	168	30	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	121	0	288	75	0		
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	121	0	168	76	0		
<b>Summary for Package Family: FBGA (1.0-1.27)</b>			<b>8 records</b>								
<b>Sum</b>								<b>422</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	R2A	CY7C1512KV18-*BZCES	121	0	288	70	0		
BW165GAALL	RA	094002	R1	CY7C1512KO	121	0	168	75	0		
BW165GAALL	RA	094002	R1	CY7C1512KO	121	0	288	71	0		
BW165GAALL	RA	094002	R1(1)	CY7C1512KO	121	0	288	1	0		
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>			<b>7 records</b>								
<b>Sum</b>								<b>355</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		
FN30AGAN	AU	081902	R2	CY8C20634-12FDXIT	121	0	168	75	0		
<b>Summary for Package Family: FLIPCHIP CSP (Pb-Free)</b>			<b>3 records</b>								
<b>Sum</b>								<b>225</b>	<b>0</b>		
<b>PBGA (1.27)</b>											
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	121	0	168	30	0		
<b>Summary for Package Family: PBGA (1.27)</b>			<b>1 records</b>								
<b>Sum</b>								<b>30</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 records</b>								
<b>Sum</b>								<b>25</b>	<b>0</b>		
<b>PDIP (Pb-Free)</b>											
PZ183DBGN	RA	MR093007	R1	CY7C63723C-PXC	121	0	168	30	0		
PZ183EAAGN	X	MR093045	R1	CP6238BM	121	0	168	30	0		
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	121	0	168	30	0		
<b>Summary for Package Family: PDIP (Pb-Free)</b>			<b>3 records</b>								
<b>Sum</b>								<b>90</b>	<b>0</b>		
<b>PLCC</b>											
J28SEGAGB	M	MR101008	R1	CY7B923-JC	121	0	168	30	0		
<b>Summary for Package Family: PLCC</b>			<b>1 records</b>								
<b>Sum</b>								<b>30</b>	<b>0</b>		
<b>PLCC (Pb-Free)</b>											
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>2 records</b>					
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>PQFP (Pb-free)</b>									
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	121	0	168	30	0
<b>Summary for Package Family: PQFP (Pb-free)</b>				<b>1 records</b>					
<b>Sum</b>								<b>30</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>									
LN32AAAAAL	CA	MR092048	R1	CP7052BTT	121	0	168	30	0
<b>Summary for Package Family: QFN (0.4mm, Saw Type, Pb-free)</b>				<b>1 records</b>					
<b>Sum</b>								<b>30</b>	<b>0</b>
<b>QFN (0.6mm, Punch Type, Pb-Free)</b>									
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	121	0	168	30	0
LK32AABAGL	L	MR093051	R1	CG7047AA	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>90</b>	<b>0</b>
<b>QFN (0.6mm, Saw Type, Pb-Free)</b>									
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
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	121	0	168	29	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	121	0	168	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	121	0	168	30	0
LQ24ADAAGL	CA	MR093018	R1A	CY8CTST200-24LQXIT	121	0	168	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	121	0	168	30	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	121	0	168	77	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	121	0	168	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	121	0	168	77	0
LQ32AFPDGL	RA	MR094027	R1	CY8C20434-12LQXI	121	0	168	30	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	121	0	288	75	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	121	0	288	77	0
LQ32DAGLL	CA	090301	R2B (1)	CY8C20466-24LQXI	121	0	168	77	0
LQ32DAGLL	CA	MR092054	R1	CY8C20466-24LQXI	121	0	168	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	121	0	168	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	121	0	168	30	0
LQ32DAGLL	CA	MR094047	R2	CY8CTMG201-32LQXI	121	0	168	100	0
LQ32DAGLL	CA	MR094047	R2	CY8CTMG201-32LQXI	121	0	336	99	0
LQ32DAGLL	CA	MR094047	R4	CY8CTMG201-32LQXI	121	0	168	100	0
LQ32DAGLL	CA	MR094047	R4	CY8CTMG201-32LQXI	121	0	336	100	0
LQ32DAGLL	R	085008	R4	CY8C20466-24LQXI	121	0	168	77	0
LQ32DAGLL	R	085008	R5	CY8C20466-24LQXI	121	0	168	77	0
LQ32EPDAGL	RA	MR094047	R1	CY8CTST200-32LQXIT	121	0	336	100	0
LQ32EPDAGL	RA	MR094047	R1	CY8CTST200-32LQXIT	121	0	168	100	0
LQ32EPDAGL	RA	MR094047	R3	CY8C20466-24LQXI	121	0	168	100	0
LQ32EPDAGL	RA	MR094047	R3	CY8C20466-24LQXI	121	0	336	100	0
LQ32EPDAGL	RA	MR094047	R5	CY8C20446-24LQXI	121	0	336	100	0
LQ32EPDAGL	RA	MR094047	R5	CY8C20446-24LQXI	121	0	168	100	0
LQ32EPDAGL	RA	MR094047	R6	CY8C20466-24LQXI	121	0	168	100	0
LQ32EPDAGL	RA	MR094047	R6	CY8C20466-24LQXI	121	0	336	100	0
LQ32EPDAGL	RA	MR094047	R7	CY8C20466-24LQXI	121	0	168	100	0
LQ32EPDAGL	RA	MR094047	R7	CY8C20466-24LQXI	121	0	336	100	0
<b>Summary for Package Family: QFN (0.6mm, Saw Type, Pb-Free)</b>				<b>34 records</b>					
<b>Sum</b>								<b>2520</b>	<b>0</b>
<b>QFN (COL, 0.6mm, Saw Type, Pb-free)</b>									
LG16AAAAAL	LG	MR092053	R1	CY8C20180-LDX2I	121	0	168	30	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	121	0	168	30	0
LG16AAAAAL	MB	093905	R1	CY8C20246-24LKXI	121	0	288	68	0
LG16AAAAAL	MB	093905	R1	CY8C20246-24LKXI	121	0	168	78	0
LG16AAAAAL	MB	093905	R2	CY8C20246-24LKXI	121	0	288	70	0



LG16AAAAAL	MB	093905	R2	CY8C20246-24LKXI	121	0	168	80	0
LG16AAAAAL	MB	093905	R4	CY8C20246-24LKXI	121	0	288	75	0
LG16AAAAAL	MB	093905	R4	CY8C20246-24LKXI	121	0	168	87	0

**Summary for Package Family: QFN (COL, 0.6mm, Saw Type, Pb-free)** **8 records**

**Sum** **518** **0**

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

LY32AAAGR	L	MR092041	R1	CY8C21434-24LFXI	121	0	168	30	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	121	0	168	30	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	121	0	168	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	121	0	168	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	121	0	168	30	0
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	96	80	0
LY56DGAGL	L	090405	R2	CY8C24894-24LFXI	121	0	168	80	0
LY56DGAGL	L	090405	R3	CY8C24894-24LFXI	121	0	168	80	0
LY56DGAGL	L	090405	R3	CY8C24894-24LFXI	121	0	96	80	0

**Summary for Package Family: QFN (Punch Type, Pb-Free)** **11 records**

**Sum** **630** **0**

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

LT32BAAAGL	CA	MR101041	R1	CG7032AA	130	0	168	30	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	MR092034	R1	CY8C21434-24LTXI	121	0	168	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	121	0	168	30	0
LT32BAAAGL	M	MR092051	R1	CG6644FA	121	0	168	30	0
LT32BBACGL	AE	MR094061	R1	CY7C63833-LTXC	121	0	168	30	0

**Summary for Package Family: QFN (Saw Type, Pb-free)** **7 records**

**Sum** **310** **0**

**QSOP (Pb-Free)**

SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	121	0	168	30	0
SQ2414ABGN	R	MR093057	R1	CY7C60223-QXC	121	0	168	26	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	121	0	168	30	0

**Summary for Package Family: QSOP (Pb-Free)** **3 records**

**Sum** **86** **0**

**SNC (Pb-Free)**

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
SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	121	0	168	80	0
SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	121	0	288	80	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	121	0	168	30	0

**Summary for Package Family: SNC (Pb-Free)** **6 records**

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

**SOIC**

S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	121	0	168	30	0
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**Summary for Package Family: SOIC** **1 records**

**Sum** **30** **0**

**SOIC (J-Lead)**

V32418BLL	R	MR092028	R1	CY7C109BNL-15VC	121	0	168	30	0
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**Summary for Package Family: SOIC (J-Lead)** **1 records**

**Sum** **30** **0**

**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
VZ28313BLN	R	MR093023	R1	CY7C1399BN-12VXCT	121	0	168	30	0
VZ28315PLL	R	092003	R1	CY7C192-15VXC	121	0	168	77	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	121	0	168	30	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	121	0	168	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	121	0	168	30	0

**Summary for Package Family: SOIC (J-Lead, Pb-Free)** **7 records**

**Sum** **357** **0**

**SOIC (Pb-Free)**

SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	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	MR092025	R1	CY23EP09SXC-1HT	121	0	168	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	121	0	168	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	121	0	168	30	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	121	0	168	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	121	0	168	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	121	0	168	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	121	0	168	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	121	0	168	30	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	121	0	168	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	121	0	168	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	121	0	168	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	121	0	168	29	0
SZ324517BL	R	MR101019	R1	CG6727AMT	121	0	168	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	121	0	168	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	121	0	168	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	121	0	168	30	0

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

**19 records**

**Sum** **569** **0**

**SSOP**

O483ABXAGN	R	MR092029	R1	CY2318ANZPVC-11T	121	0	168	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	121	0	168	30	0

**Summary for Package Family: SSOP**

**2 records**

**Sum** **60** **0**

**SSOP (Pb-Free)**

SP2814GAL	T	MR093027	R1	CS6835AT	121	0	168	28	0
SP2814HAL	M	MR093052	R1	CS6835AT	121	0	168	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	121	0	168	30	0
SP2824HAN	T	MR092070	R2	CY24242OXCT	121	0	168	30	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	121	0	168	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	121	0	168	29	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	0	0	168	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	121	0	168	30	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	121	0	288	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	121	0	288	76	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	121	0	288	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	121	0	288	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	121	0	288	77	0
SP483EBBAL	R	090604	R1	CY7C1401	121	0	288	82	0
SP483EBBAL	R	090604	R1	CY7C1401	121	0	288	82	0
SP483EBBAL	R	094502	R1	CY7C1401	121	0	288	82	0
SP483EBBAL	R	094502	R1	CY7C1401	121	0	168	82	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	121	0	168	30	0
SP483EBBAL	R-CML	MR092004	R1	CY8C29666-24PVXIT	121	0	168	30	0
SP483HAAGR	M	MR093024	R1A	CY14B101L-SP45XCT	121	0	168	27	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	121	0	168	30	0

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

**21 records**

**Sum** **1066** **0**

**TQFP**

A32LXGXGB	Q	MR101025	R1	CY29948AC	121	0	168	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	121	0	168	30	0

**Summary for Package Family: TQFP**

**2 records**

**Sum** **60** **0**

**TQFP (Pb-Free)**

AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	121	0	168	29	0
AZ100RUBLN	R	092902	R1	CY7C68320C	121	0	96	80	0
AZ100RUBLN	R	092902	R1A	CY7C68320C	121	0	168	80	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	121	0	168	30	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	96	80	0
AZ100RULN	R	092902	R3	CY7C68320C	121	0	168	80	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	121	0	168	30	0
AZ128BGAL	G	MR101013	R1	CY7C68013A-128AXC	0	0	168	30	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	121	0	168	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	121	0	168	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	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
AZ32GXGAN	G	MR093031	R1	CY29940AXC	121	0	168	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	121	0	168	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	121	0	168	30	0
AZ52AAGAL	Q	MR094014	R1	CY29972AXI	121	0	168	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	121	0	168	30	0
<b>Summary for Package Family: TQFP (Pb-Free)</b>				<b>20 records</b>					
<b>Sum</b>								<b>899</b>	<b>0</b>
<b>TSOP (Pb-free)</b>									
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	121	0	168	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	121	0	168	30	0
ZT28R4BGL	R	MR092063	R1A	CY7C1399BN-12ZXCT	121	0	168	30	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	121	0	168	30	0
ZT32RABALL	T	MR092070	R5	CY62128BNLL-55ZXIT	121	0	168	30	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	121	0	168	30	0
ZT32RABALL	T	MR094044	R1	CY62128BNLL-55ZXI	121	0	168	30	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	121	0	168	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	121	0	168	29	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	121	0	168	30	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	121	0	96	30	0
ZT48AKAALL	T	MR092070	R6A	7C62167FC-**TZTIB	121	0	168	30	0
<b>Summary for Package Family: TSOP (Pb-free)</b>				<b>12 records</b>					
<b>Sum</b>								<b>359</b>	<b>0</b>
<b>TSOP I (Pb-Free)</b>									
ZB32RHBALN	R	MR092014	R1	CG7086AMT	121	0	168	30	0
ZB32RHBALN	R	MR093065	R1	CY62128EV30LL-45ZAXIT	121	0	168	30	0
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	121	0	288	29	0
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	121	0	168	29	0
<b>Summary for Package Family: TSOP I (Pb-Free)</b>				<b>4 records</b>					
<b>Sum</b>								<b>118</b>	<b>0</b>
<b>TSOP II (Pb-Free)</b>									
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	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
ZW444GALL	R	082704	R1	CY7C1404B	121	0	288	80	0
ZW444GALL	R	082704	R1	CY7C1404B	121	0	168	80	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	121	0	96	29	0
ZW444RAGN	R	MR093015	R1	CY62137VNULL-70ZSXAT	121	0	168	28	0
ZW444YBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	121	0	168	30	0
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	121	0	288	80	0
ZW444ZALL	G	082703	R1	CY14B108L-ZS25XIES	121	0	168	80	0
ZW444ZALL	G	082703	R3	N/A	121	0	288	43	0
ZW444ZALL	G	082703	R3	N/A	121	0	168	45	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	121	0	168	30	0
ZW544AALL	G	RR093012	R1	CY7C1069AV33-10ZXC	121	0	168	25	0
ZW544AALL	G	RR093012	R2	CY7C1069AV33-10ZXCT	121	0	168	25	0
ZW544AALL	G	RR093016	R1	CY7C1069AV33-10ZXC	121	0	168	27	0
ZW544AALL	G	RR093016	R2	CY7C1069AV33-10ZXC	121	0	168	27	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	121	0	168	30	0
ZW54CABLR	G	093403	R1	N/A	121	0	168	77	0
ZW54CABLR	G	093403	R3	N/A	121	0	168	77	0
<b>Summary for Package Family: TSOP II (Pb-Free)</b>				<b>20 records</b>					
<b>Sum</b>								<b>903</b>	<b>0</b>

**TSSOP**

Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	121	0	168	30	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**

**3 records**

**Sum** **90** **0**

**TSSOP (Pb-Free)**

ZZ0812BGL	T	MR092023	R1A	CY2304NZZXI-1	121	0	168	77	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	121	0	168	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	121	0	168	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	121	0	168	30	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	121	0	168	30	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	121	0	168	30	0
ZZ2014BGN	T	MR094067	R1	CY25404ZXI007T	121	0	168	30	0
ZZ2817ABGL	RA	MR093005	R1	CY24272ZXCT	121	0	168	30	0

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

**8 records**

**Sum** **287** **0**

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

BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	121	0	168	30	0
BV48DAAALE	RA	MR101001	R1	CY62147EV30LL-45BVIT	121	0	168	30	0

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

**2 records**

**Sum** **60** **0**

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

BZ100BABLL	RA	MR101006	R1	CYDMX256A16-90BVXI	121	0	168	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	121	0	168	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	121	0	168	30	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	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
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	121	0	168	30	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	121	0	168	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	121	0	96	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	121	0	168	28	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	121	0	96	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	121	0	168	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	121	0	168	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	121	0	168	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	121	0	168	30	0

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

**15 records**

**Sum** **447** **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>												
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	-65	0	500	30	0			
BK48ACAALL	AT	MR092075	R1	CY7C67200-48BAXI	-65	0	1000	30	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	500	29	0			
BK48CDGLL	G	MR092042	R1	CY7C1041CV33-10BAXAT	-65	0	1000	29	0			
BK48DJALL	G	MR093034	R1A	CY62177DV30LL-55BAXI	-65	0	500	30	0			
BK48DJALL	G	MR093034	R1A	CY62177DV30LL-55BAXI	-65	0	1000	28	0			
BK48DLALL	G	093904	R1	C Y62187E	150	0	500	77	0			
BK48DLALL	G	093904	R1	C Y62187E	150	0	1000	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	500	76	0			
BK48DLALL	G	093904	R3	CY62187	150	0	1000	76	0			
<b>Summary for Package Family: FBGA (0.75-0.8, 0.3mm, Pb-free)</b>			<b>14 records</b>									
<b>Sum</b>								<b>786</b>	<b>0</b>			
<b>FBGA (1.0-1.27)</b>												
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	-65	0	500	30	0			
BB165AFBLE	AT	MR092076	R1	CY7C1315BV18-200BZC	-65	0	1000	30	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			
BB165AVLE	RA	MR093067	R1	CY7C1313TV18-250BZC	-65	0	500	42	0			
BB165AVLE	RA	MR093067	R1	CY7C1313TV18-250BZC	-65	0	1000	41	0			
BB165BILE	RA	AR1001018	R1	7C1414YC-**RABBC	150	0	100	19	0			
BB165BILE	RA	AR1001018	R1	7C1414YC-**RABBC	150	0	1000	19	0			
BB165BILE	RA	AR1001018	R1	7C1414YC-**RABBC	150	0	500	19	0			
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	150	0	1000	77	0			
BB165BUALE	G	091706	R3A	CY7C1512KV18-*BZCES	150	0	500	77	0			
<b>Summary for Package Family: FBGA (1.0-1.27)</b>			<b>15 records</b>									
<b>Sum</b>								<b>628</b>	<b>0</b>			
<b>FBGA (1.0-1.27, Pb-free)</b>												
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	-65	0	500	80	0			
BW100AAALL	AT	MR091061	R1	CYP15G0101DXB-BBXI	-65	0	1000	80	0			
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	-165	0	500	30	0			
BW100AAALL	AT	MR092039	R1	CYP15G0101DXB-BBXC	-165	0	1000	30	0			
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	-65	0	500	30	0			
BW100CAGL	G	MR092052	R1	CY7B994V-2BBXIT	-65	0	1000	30	0			
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	1000	30	0			
BW100EAGL	G	MR093033	R1	CYP15G0101DXB-BBXI	150	0	500	30	0			
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	150	0	500	78	0			
BW165BJALL	G	091706	R2A	CY7C1512KV18-*BZCES	150	0	1000	78	0			
BW165GAALL	RA	094002	R1	CY7C1512KO	121	0	500	76	0			
BW165GAALL	RA	094002	R1	CY7C1512KO	121	0	1000	76	0			
BW165GAALL	RA	094002	R2	CY7C1512KO	150	0	500	72	0			
BW165GAALL	RA	094002	R2	CY7C1512KO	150	0	1000	72	0			
BW165GAALL	RA	094002	R3	CY7C1512KO	150	0	500	72	0			
BW165GAALL	RA	094002	R3	CY7C1512KO	150	0	1000	72	0			
<b>Summary for Package Family: FBGA (1.0-1.27, Pb-free)</b>			<b>16 records</b>									
<b>Sum</b>								<b>936</b>	<b>0</b>			
<b>FLIPCHIP CSP (Pb-Free)</b>												
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
FN30AGAN	AU	081902	R2	CY8C20634-12FDXIT	150	0	1000	76	0
FN30AGAN	AU	081902	R2	CY8C20634-12FDXIT	150	0	500	78	0
FN30AGAN	AU	081902	R3	CY8C20634-12FDXIT	150	0	500	83	0
FN30AGAN	AU	081902	R3	CY8C20634-12FDXIT	150	0	1000	83	0
<b>Summary for Package Family: FLIPCHIP CSP (Pb-Free)</b>				<b>7 records</b>					
<b>Sum</b>								<b>528</b>	<b>0</b>
<b>PBGA (1.27)</b>									
BG119ADALE	AT	MR084081	R1	CY7C1354C-166BGC	-65	0	1000	40	0
BG119ADALE	AT	MR084081	R2	CY7C1354C-166BGC	-65	0	1000	40	0
BG119ADALE	AT	MR084081	R3	CY7C1354C-166BGC	-65	0	1000	40	0
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	-65	0	1000	30	0
BG119SALE	G	MR093058	R1	CY7C1354C-166BGC	-65	0	500	30	0
<b>Summary for Package Family: PBGA (1.27)</b>				<b>5 records</b>					
<b>Sum</b>								<b>180</b>	<b>0</b>
<b>PBGA (1.27, Pb-free)</b>									
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	-65	0	500	29	0
BY119YALL	G	MR092050	R1	CY7C1062DV33-10BGXI	-65	0	1000	29	0
<b>Summary for Package Family: PBGA (1.27, Pb-free)</b>				<b>2 records</b>					
<b>Sum</b>								<b>58</b>	<b>0</b>
<b>PBGA (Cavity/Heat Sink, Pb-free)</b>									
BJ256L2GL	G	MR093066	R1	CYV15G0204TRB-BGXC	-65	0	1000	30	0
BJ256L2GL	G	MR093066	R1	CYV15G0204TRB-BGXC	-65	0	500	30	0
<b>Summary for Package Family: PBGA (Cavity/Heat Sink, Pb-free)</b>				<b>2 records</b>					
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>PDIP (Pb-Free)</b>									
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
PZ283AAAGN	X	MR091044	R1	CG6993AM	-165	0	1000	80	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	-65	0	1000	30	0
PZ283AAAGN	X	MR092030	R1	CY8C24423A-24PXI	-65	0	500	30	0
PZ283ACAGL	X	MR091039	R1	CY7C199CN-15PXC	-65	0	1000	68	0
PZ286EAAGN	X	092014	R5	7C62256NEC-**-XPZC	150	-65	1000	80	0
PZ286EAAGN	X	092014	R5	7C62256NEC-**-XPZC	150	-65	500	80	0
PZ286EAAGN	X	092014	R6	7C62256NEC-**-XPZC	150	-65	1000	80	0
PZ286EAAGN	X	092014	R6	7C62256NEC-**-XPZC	150	-65	500	80	0
PZ286EAAGN	X	092014	R7	7C62256NEC-**-XPZC	150	-65	1000	80	0
<b>Summary for Package Family: PDIP (Pb-Free)</b>				<b>13 records</b>					
<b>Sum</b>								<b>728</b>	<b>0</b>
<b>PLCC</b>									
J28SEGAGB	M	MR101008	R1	CY7B923-JC	-65	0	500	30	0
J28SEGAGB	M	MR101008	R1	CY7B923-JC	-65	0	1000	30	0
<b>Summary for Package Family: PLCC</b>				<b>2 records</b>					
<b>Sum</b>								<b>60</b>	<b>0</b>
<b>PLCC (Pb-Free)</b>									
JZ28SBGAN	M	MR091037	R1	CY7B933-JXC	-65	0	1000	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>5 records</b>					
<b>Sum</b>								<b>198</b>	<b>0</b>
<b>PQFP (Pb-free)</b>									
NZ52DXGAN	G	MR091025	R1	CY7C136-55NXCT	-65	0	1000	79	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	-65	0	500	30	0
NZ52DXGAN	G	MR093032	R1	CY7C136-55NXC	-65	0	1000	30	0
<b>Summary for Package Family: PQFP (Pb-free)</b>				<b>3 records</b>					
<b>Sum</b>								<b>139</b>	<b>0</b>
<b>QFN (0.4mm, Saw Type, Pb-free)</b>									



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

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

**3 records**  
**132 0**

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

LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	-65	0	1000	30	0
LK32AABAGL	L	MR092044	R1	CY8C20434-12LKXIT	-65	0	500	30	0
LK32AABAGL	L	MR093051	R1	CG7047AA	-65	0	1000	31	0
LK32AABAGL	L	MR093051	R1	CG7047AA	-65	0	500	31	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	-65	0	500	30	0
LK32AABAGL	L	MR094033	R1	CY8C20434-12LKXI	-65	0	1000	30	0

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

**6 records**  
**182 0**

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

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
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	-65	0	1000	30	0
LQ24AAAAAL	RA	MR094012	R1	CP7126ATT	-65	0	500	30	0
LQ24ABAAL	AT	MR091040	R1	CP6836ATT	-165	0	1000	80	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	-65	0	500	30	0
LQ24ABAAL	AT	MR092009	R1	CY8C20324-12LQXI	-65	0	1000	30	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	-65	0	500	29	0
LQ24ABAAL	AT	MR093047	R1	CY8C20324-12LQXI	-65	0	1000	29	0
LQ24ADAAGL	CA	MR093018	R1	CY8CTST200-24LQXIT	-65	0	1000	30	0
LQ24ADAAGL	CA	MR093018	R1	CY8CTST200-24LQXIT	-65	0	500	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	-65	0	500	30	0
LQ24ADAAGL	CA	MR094043	R1	CY8CTST200-24LQXI	-65	0	1000	30	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	-65	0	500	72	0
LQ24ADAAGL	CA	NR093002	R1	CY8CTST200-24LQXIT	-65	0	1000	72	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	-65	0	1000	77	0
LQ24ADAAGL	CA	NR093002	R2	CY8CTST200-24LQXIT	-65	0	500	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	150	0	500	77	0
LQ24AEAAGL	M	091203	R1	CY8C203345-12LQXIKM	150	0	1000	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
LQ32ACAAGL	M	084609	R1	CY24292LFXI	150	0	1000	80	0
LQ32ACAAGL	M	084609	R2	CY24292LFXC	150	0	1000	79	0
LQ32ACAAGL	M	084609	R3	CY24292LFXC	150	0	1000	80	0
LQ32AFPDGL	RA	MR094027	R1	CY8C20434-12LQXI	-65	0	500	29	0
LQ32AFPDGL	RA	MR094027	R1	CY8C20434-12LQXI	-65	0	1000	29	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	150	0	500	150	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	150	0	200	150	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	150	0	100	150	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	125	-40	500	199	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	150	0	400	150	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	125	-40	50	200	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	125	-40	100	200	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	150	0	500	150	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	125	-40	200	200	0
LQ32CCAAL	CA	RR092023	R2	CY8C20434-12LQXIKCT	125	-40	400	199	0
LQ32DAGLL	CA	090301	R1A (1)	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	CA	090301	R1B (1)	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	CA	090301	R1C (1)	CY8C20466-24LQXI	150	0	1000	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
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	500	30	0
LQ32DAGLL	CA	MR093044	R1	CY8C20466-24LQXI	-65	0	1000	27	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	-65	0	1000	30	0
LQ32DAGLL	CA	MR094035	R1	CY8C20466-24LQXI	-65	0	500	30	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	125	-40	500	162	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	150	0	200	150	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	150	0	400	150	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	150	0	50	150	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	125	-40	400	162	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	125	-40	200	162	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	150	0	500	150	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	125	-40	50	162	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	150	0	100	150	0
LQ32DAGLL	CA	RR092023	R1	CY8C20446-24LQXIT	125	-40	100	162	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	125	-40	500	200	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	125	-40	100	200	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	150	0	500	150	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	125	-40	400	200	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	125	-40	50	200	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	150	0	400	150	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	150	0	100	150	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	125	-40	200	200	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	150	0	200	150	0
LQ32DAGLL	CA	RR092023	R3	CY8C20446-24LQXIT	150	0	50	150	0
LQ32DAGLL	CA	RR092025	R1	CY8C20446-24LQXIT	150	0	500	77	0
LQ32DAGLL	CA	RR092025	R1	CY8C20446-24LQXIT	150	0	1000	77	0
LQ32DAGLL	CA	RR092025	R1	CY8C20446-24LQXIT	150	0	100	77	0
LQ32DAGLL	CA	RR092025	R2	CY8C20446-24LQXIT	150	0	100	67	0
LQ32DAGLL	CA	RR092025	R2	CY8C20446-24LQXIT	150	0	1000	67	0
LQ32DAGLL	CA	RR092025	R2	CY8C20446-24LQXIT	150	0	500	67	0
LQ32DAGLL	CA	RR092025	R3	CY8C20446-24LQXIT	150	0	100	79	0
LQ32DAGLL	CA	RR092025	R3	CY8C20446-24LQXIT	150	0	1000	79	0
LQ32DAGLL	CA	RR092025	R3	CY8C20446-24LQXIT	150	0	500	79	0
LQ32DAGLL	CA	RR092025	R4	CY8C20446-24LQXIT	150	0	500	80	0
LQ32DAGLL	CA	RR092025	R4	CY8C20446-24LQXIT	150	0	1000	79	0
LQ32DAGLL	CA	RR092025	R4	CY8C20446-24LQXIT	150	0	100	80	0
LQ32DAGLL	CA	RR092025	R5	CY8CTMG200-32LQXIT	150	0	1000	80	0
LQ32DAGLL	CA	RR092025	R5	CY8CTMG200-32LQXIT	150	0	500	80	0
LQ32DAGLL	CA	RR092025	R5	CY8CTMG200-32LQXIT	150	0	100	80	0
LQ32DAGLL	CA	RR092025	R6	CY8CTMG201-32LQXI	150	0	100	80	0
LQ32DAGLL	CA	RR092025	R6	CY8CTMG201-32LQXI	150	0	500	80	0
LQ32DAGLL	CA	RR092025	R6	CY8CTMG201-32LQXI	150	0	1000	80	0
LQ32DAGLL	CA	RR092025	R7	CY8C20446-24LQXIT	150	0	1000	80	0
LQ32DAGLL	CA	RR092025	R7	CY8C20446-24LQXIT	150	0	100	80	0
LQ32DAGLL	CA	RR092025	R7	CY8C20446-24LQXIT	150	0	500	80	0
LQ32DAGLL	R	085008	R4	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	R	085008	R4	CY8C20466-24LQXI	150	0	500	77	0
LQ32DAGLL	R	085008	R5	CY8C20466-24LQXI	150	0	500	77	0
LQ32DAGLL	R	085008	R5	CY8C20466-24LQXI	150	0	1000	77	0
LQ32DAGLL	R	RR092019	R1	CY8C20446-24LQXIT	150	0	100	73	0
LQ32DAGLL	R	RR092019	R1	CY8C20446-24LQXIT	150	0	500	73	0
LQ32DAGLL	R	RR092019	R1	CY8C20446-24LQXIT	150	0	1000	73	0
LQ32EPDAGL	RA	AR0931017	R1	CY8CTMG200-32LQXIT	150	0	500	18	0

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

100 records

9476 0

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

LG16AAAAL	LG	MR092053	R1	CY8C20180-LDX2I	-65	0	1000	29	0
LG16AAAAL	LG	MR092053	R1	CY8C20180-LDX2I	-65	0	500	29	0



LG16AAAAAL	M	090404	R1	CY8C20234-12LKXI	150	0	1000	81	0
LG16AAAAAL	M	090404	R2	CY8C20234-12LKXI	150	0	1000	85	0
LG16AAAAAL	M	090404	R3	CY8C20234-12LKXI	150	0	1000	81	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	-65	0	500	29	0
LG16AAAAAL	M	MR093061	R1	CY8C20224-12LKXI	-65	0	1000	29	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

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

11 records  
694 0

QFN (Punch Type, Pb-Free)

LY32AAAGR	L	MR091032	R1	CS6624AA	-65	0	1000	80	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	500	30	0
LY32AAAGR	L	MR093017	R1	CP6759AMT	-65	0	1000	30	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	-65	0	500	27	0
LY40ABGAGL	L	MR094051	R1	CYRF6936B-40LFXC	-65	0	1000	27	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	500	30	0
LY40CGAGR	L	MR092032	R1	CYRF69103-40LFXC	150	0	1000	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	-65	0	500	30	0
LY48CGAGL	L	MR093046	R1	CY8C27643-24LFXIT	-65	0	1000	30	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

Summary for Package Family: QFN (Punch Type, Pb-Free)  
Sum

14 records  
628 0

QFN (Saw Type, Pb-free)

LT32BAAAGL	CA	MR101041	R1	CG7032AA	-65	0	1000	30	0
LT32BAAAGL	CA	MR101041	R1	CG7032AA	-65	0	500	30	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	500	80	0
LT32BAABGL	RA	093803	R3	CY8C24423A5-24LTXIKA	150	0	1000	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	RA	MR092034	R1	CY8C21434-24LTXI	150	0	1000	30	0
LT32BAABGL	RA	MR092034	R1	CY8C21434-24LTXI	150	0	500	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	-65	0	1000	30	0
LT32BAABGL	RA	MR093003	R1	CY8C21434-24LTXI	-65	0	500	30	0
LT32BAAAGL	M	MR092051	R1	CG6644FA	-65	0	1000	28	0
LT32BAAAGL	M	MR092051	R1	CG6644FA	-65	0	500	28	0
LT32BBACGL	AE	MR094061	R1	CY7C63833-LTXC	-65	0	1000	30	0
LT48ABAAGR	CA	NR093002	R3	CY8CTMG200-48LTXI	-65	0	1000	77	0
LT48ABAAGR	CA	NR093002	R3	CY8CTMG200-48LTXI	-65	0	500	77	0
LT48BAAAAAN	M	100102	R3	CY8CTMA300EES-48LTXI	150	0	500	80	0
LT48BAAAAAN	MB	100102	R1	CY8CTMA300EES-48LTXI	150	0	500	80	0
LT48BAAAAAN	MB	100102	R1	CY8CTMA300EES-48LTXI	150	0	1000	80	0
LT48BAAAAAN	MB	100102	R2A	CY8CTMA300EES-48LTXI	0	0	500	76	0
LT56ABAAGL	CA	075103	R3	CY8CLED04D01-56LTXI	150	0	1000	90	0
LT68ABCAGL	AE	084005	R1	CY8C24994-24LTXI	150	0	1000	80	0



LT68ABCAGL	AE	084005	R4	CY8C24994-24LTXI	150	0	1000	80	0
<b>Summary for Package Family: QFN (Saw Type, Pb-free)</b>				<b>31 records</b>					
<b>Sum</b>								<b>1895</b>	<b>0</b>
<b>QSOP (Pb-Free)</b>									
SQ2414ABGN	R	MR091002	R1	CY7C63743C-QXC	-65	0	1000	80	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	-65	0	500	29	0
SQ2414ABGN	R	MR092005	R1	CY7C63743C-QXC	-65	0	1000	29	0
SQ2414ABGN	R	MR093057	R1	CY7C60223-QXC	-65	0	500	30	0
SQ2414ABGN	R	MR093057	R1	CY7C60223-QXC	-65	0	1000	30	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	-65	0	500	29	0
SQ2414ABGN	R	MR101024	R1	CY7C63743C-QXC	-65	0	1000	29	0
<b>Summary for Package Family: QSOP (Pb-Free)</b>				<b>7 records</b>					
<b>Sum</b>								<b>256</b>	<b>0</b>
<b>SNC (Pb-Free)</b>									
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
SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	150	0	500	80	0
SY2831BBLN	R	091302	R2	7C622565EK-**RSYIB	150	0	1000	80	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	1000	30	0
SY2831BBLN	R	MR092021	R1	CY62256NLL-70SNXCT	150	0	500	30	0
<b>Summary for Package Family: SNC (Pb-Free)</b>				<b>8 records</b>					
<b>Sum</b>								<b>339</b>	<b>0</b>
<b>SOIC</b>									
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	-65	0	500	29	0
S0815PBAGN	RA	MR092027	R1	CY2305SC-1HT	-65	0	1000	29	0
<b>Summary for Package Family: SOIC</b>				<b>2 records</b>					
<b>Sum</b>								<b>58</b>	<b>0</b>
<b>SOIC (J-Lead)</b>									
V243GAAGN	X	090302	R4	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	30	0
<b>Summary for Package Family: SOIC (J-Lead)</b>				<b>3 records</b>					
<b>Sum</b>								<b>140</b>	<b>0</b>
<b>SOIC (J-Lead, Pb-Free)</b>									
VZ24	X	091906	R1	7C197B	150	0	1000	76	0
VZ24	X	091906	R2	7C197BN	-65	0	1000	76	0
VZ24	X	091906	R3	CY7C197BN-15VC	150	0	1000	77	0
VZ28313BLLN	R	MR091045	R1	CY7C1399BN-12VXCT	-165	0	1000	79	0
VZ28313BLLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	500	30	0
VZ28313BLLN	R	MR092026	R1	CY7C1399BN-12VXCT	150	0	1000	30	0
VZ28313BLLN	R	MR093023	R1	CY7C1399BN-12VXCT	-65	0	500	30	0
VZ28313BLLN	R	MR093023	R1	CY7C1399BN-12VXCT	-65	0	1000	30	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
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	-65	0	500	30	0
VZ32420BLL	R	MR092036	R1	CY7C1019DV33-10VXI	-65	0	1000	28	0
VZ3649BALN	R	MR091046	R1	CG7119AM	-165	0	1000	80	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	-65	0	500	30	0
VZ3649BALN	R	MR101012	R1	CY7C1049DV33-10VXI	-65	0	1000	29	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	-65	0	1000	30	0
VZ444ACBLN	RA	MR093008	R1	CY7C1021DV33-10VXI	-65	0	500	30	0
<b>Summary for Package Family: SOIC (J-Lead, Pb-Free)</b>				<b>21 records</b>					



Free)

Sum 1143 0

SOIC (Pb-Free)

SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	-65	0	1000	30	0
SZ0815TAGN	T	MR093035	R1	CY25403SXC-006T	-65	0	500	30	0
SZ1615DGN	M	AR0912014	R1	CS6803AAT	150	0	500	15	0
SZ1615DGN	M	AR0912014	R1	CS6803AAT	150	0	1000	15	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	-65	0	500	30	0
SZ1615DGN	M	MR092037	R1	CS6803AAT	-65	0	1000	28	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	-165	0	500	27	0
SZ1615DGN	M	MR092038	R1	CS6803AAT	-165	0	1000	25	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	-65	0	1000	79	0
SZ1615FAL	T	MR091058	R1	CY23EP09SXC-1HT	-65	0	500	79	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	1000	30	0
SZ1615FAL	T	MR092025	R1	CY23EP09SXC-1HT	150	0	500	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	-65	0	500	30	0
SZ1615FAL	T	MR092070	R4	CY23EP09SXC-1HT	-65	0	1000	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	-65	0	1000	30	0
SZ1615FAL	T	MR094049	R1	CY2309CSXC-1T	-65	0	500	30	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	-65	0	500	30	0
SZ1615KBGN	RA	MR101022	R1	CY2308SXI-2	-65	0	1000	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	-65	0	1000	30	0
SZ1615KDGN	RA	MR093002	R1	CY2308SXC-1	-65	0	500	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	-65	0	500	30	0
SZ1615KDGN	RA	MR094006	R1	CY2308SXC-1T	-65	0	1000	30	0
SZ183CBGAN	RA	MR091003	R1	CY7C63723C-SXC	-65	0	1000	69	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	-65	0	1000	30	0
SZ183CBGAN	RA	MR092024	R1	CY7C63723C-SXC	-65	0	500	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	-65	0	1000	30	0
SZ2035BAL	R	MR092003	R1	CY8C27243-24SXI	-65	0	500	30	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	-65	0	500	80	0
SZ24315BGN	RA	MR091054	R1	CY7C63823-SXC	-65	0	1000	80	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	-65	0	1000	26	0
SZ24315BGN	RA	MR093011	R1	CY7C63743C-SXC	-65	0	500	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	-65	0	1000	30	0
SZ24315BGN	RA	MR101023	R1	CY7C63743C-SXC	-65	0	500	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	-65	0	500	30	0
SZ28327BBL	R	MR093040	R1	CY2314ANZSXC-1	-65	0	1000	29	0
SZ323ABAGS	M-PHIL	NR074002	R1	CY14B101L-SZ45XC	150	0	1000	74	0
SZ323ABAGS	M-PHIL	NR074002	R1	CY14B101L-SZ45XC	150	0	500	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
SZ324513BN	R	AR0904005	R1	CY62128BNLL-55SXIT	150	0	1000	20	0
SZ324513BN	R	AR0909005	R1	CY62128BNLL-55SXI	150	0	1000	20	0
SZ324513BN	R	AR0909005	R1	CY62128BNLL-55SXI	150	0	500	20	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	-65	0	500	30	0
SZ324513BN	R	MR092006	R1	CY7C53120E2-10SXI	-65	0	1000	30	0
SZ324517BL	R	MR101019	R1	CG6727AMT	-65	0	500	30	0
SZ324517BL	R	MR101019	R1	CG6727AMT	-65	0	1000	28	0
SZ32457BLN	R	AR0911005	R1	CY62128ELL-45SXIT	150	0	1000	12	0
SZ32457BLN	R	AR0911005	R1	CY62128ELL-45SXIT	150	0	500	12	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	-65	0	1000	30	0
SZ32457BLN	R	MR093019	R1	CY62128ELL-45SXIT	-65	0	500	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	-65	0	500	30	0
SZ32457BLN	R	MR094007	R1	CY62128EV30LL-45SXI	-65	0	1000	30	0
SZ815CGAN	M	AR0936020	R1	CY8C21123-24SXI	150	0	1000	14	0
SZ815CGAN	M	AR0936020	R1	CY8C21123-24SXI	150	0	500	14	0
SZ815CGAN	M	AR0950020	R1	CY8C24123A-24SXI	150	0	500	14	0
SZ815CGAN	M	AR0950020	R1	CY8C24123A-24SXI	150	0	1000	14	0
SZ815DAGN	M	AR0921019	R1	CY27020SXCT	150	0	500	15	0
SZ815DAGN	M	AR0921019	R1	CY27020SXCT	150	0	1000	15	0
SZ815DAGN	M	AR0935019	R1	CY27020SXCT	150	0	500	15	0



SZ815DAGN	M	AR0935019	R1	CY27020SXCT	150	0	1000	15	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	500	15	0
SZ815DAGN	M	AR0939020	R1	CY27020SXCT	150	0	1000	15	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	-65	0	1000	30	0
SZ815DAGN	M	MR093056	R1	CY2303SXCT	-65	0	500	30	0
SZ815KAGN	M	AR0934019	R1	CY27022SXCT	150	0	500	14	0
SZ815KAGN	M	AR0934019	R1	CY27022SXCT	150	0	1000	14	0

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

**68 records**

**Sum 2136 0**

<b>SSOP</b>									
O2822XAGB	M	AR0907018	R1	CY2310ANZPVC-1T	150	0	1000	13	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	500	30	0
O483ABXAGN	R	MR093014	R1	CY2318ANZPVC-11T	-65	0	1000	30	0

**Summary for Package Family:**

**5 records**

**SSOP Sum 133 0**

**SSOP (Pb-Free)**

SP2814GAL	T	MR093027	R1	CS6835AT	-65	0	500	29	0
SP2814GAL	T	MR093027	R1	CS6835AT	-65	0	1000	29	0
SP2814HAL	M	MR093052	R1	CS6835AT	-65	0	500	30	0
SP2814HAL	M	MR093052	R1	CS6835AT	-65	0	1000	30	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	-65	0	1000	80	0
SP28214GL	T	MR091057	R1	CY7C64215-28PVXC	-65	0	500	80	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	100	77	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	500	77	0
SP28214GL	T	RR093015	R1	CY8C21534-24PVXI	0	0	300	77	0
SP2822BGL	M	MR091042	R1	CP6801ATT	-165	0	1000	75	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	-65	0	500	30	0
SP2822BGL	M	MR092057	R1	CY8C29466-24PVXIES	-65	0	1000	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
SP282ABAGN	RA	AR0904013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0906013	R1	CY8C27443-24PVXIT	150	0	1000	17	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	500	17	0
SP282ABAGN	RA	AR0914013	R1	CY8C21534-24PVXIT	150	0	1000	17	0
SP282ABAGN	RA	AR0923013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0923013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0930013	R1	CY8C27443-24PVXIT	150	0	500	20	0
SP282ABAGN	RA	AR0930013	R1	CY8C27443-24PVXIT	150	0	1000	20	0
SP282ABAGN	RA	AR0937013	R1	CY8C27443-24PVXI	150	0	1000	20	0
SP282ABAGN	RA	AR0937013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR0949013	R1	CY8C27443-24PVXI	150	0	1000	20	10
SP282ABAGN	RA	AR0949013	R1	CY8C27443-24PVXI	150	0	500	20	0
SP282ABAGN	RA	AR1003013	R1	CY8C21534-24PVXIT	150	0	500	20	0
SP282ABAGN	RA	AR1003013	R1	CY8C21534-24PVXIT	150	0	1000	20	0
SP282ABAGN	RA	AR1003013	R1	CY8C21534-24PVXIT	150	0	100	20	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	1000	28	0
SP282ABAGN	RA	MR092035	R1	CY8C24423A-24PVXIT	150	0	500	28	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	-65	0	500	30	0
SP282ABAGN	RA	MR094029	R1	8C215345AK-**RASPI	-65	0	1000	30	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	-65	0	500	30	0
SP282ABAGN	RA	MR101017	R1	CY8C24533-24PVXI	-65	0	1000	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	-65	0	500	30	0
SP282ABAGN	RA	MR101021	R1	CY8C24533-24PVXI	-65	0	1000	30	0

SP483ACGAN	R	085008	R1	CY8C20566-24PVXI	0	0	1000	77	0
SP483ACGAN	R	085008	R2	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	085008	R3	CY8C20566-24PVXI	0	0	1000	77	0
SP483ACGAN	R	090301	R1A	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R1B	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R1C	CY8C20566-24PVXI	150	0	1000	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	150	0	500	77	0
SP483ACGAN	R	090301	R2B	CY8C20566-24PVXI	150	0	1000	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	500	80	0
SP483EBBAL	R	094502	R1	CY7C1401	150	0	1000	80	0
SP483EBBAL	R	AR0907003	R1	CY8C29666-24PVXIT	150	0	1000	19	0
SP483EBBAL	R	AR0916003	R1	CY8C29666-24PVXIT	150	0	500	20	0
SP483EBBAL	R	AR0916003	R1	CY8C29666-24PVXIT	150	0	1000	20	0
SP483EBBAL	R	AR0921003	R1	CY8C29666-24PVXI	150	0	1000	20	0
SP483EBBAL	R	AR0921003	R1	CY8C29666-24PVXI	150	0	500	20	0
SP483EBBAL	R	AR0929003	R1	CY8C29666-24PVXIT	150	0	500	19	0
SP483EBBAL	R	AR0929003	R1	CY8C29666-24PVXIT	150	0	1000	19	0
SP483EBBAL	R	AR0930003	R1	CY8C29666-24PVXIT	150	0	1000	18	0
SP483EBBAL	R	AR0930003	R1	CY8C29666-24PVXIT	150	0	500	18	0
SP483EBBAL	R	AR0931003	R1	CY8C29666-24PVXIT	150	0	500	18	0
SP483EBBAL	R	AR0931003	R1	CY8C29666-24PVXIT	150	0	1000	18	0
SP483EBBAL	R	AR0937003	R1	CY8C29666-24PVXI	150	0	500	20	0
SP483EBBAL	R	AR0937003	R1	CY8C29666-24PVXI	150	0	1000	20	0
SP483EBBAL	R	AR0940003	R1	CY8C29666-24PVXIT	150	0	500	20	0
SP483EBBAL	R	AR0940003	R1	CY8C29666-24PVXIT	150	0	1000	20	0
SP483EBBAL	R	AR0942003	R1	CY8C29666-24PVXI	150	0	1000	16	0
SP483EBBAL	R	AR0942003	R1	CY8C29666-24PVXI	150	0	500	17	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	-65	0	1000	29	0
SP483EBBAL	R	MR094019	R1	CY8C29666-24PVXIT	-65	0	500	29	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
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	-65	0	1000	30	0
SP483HAAGR	M	MR093024	R1	CY14B101L-SP45XCT	-65	0	500	30	0
SP483LBALL	R	094502	R2	CY7C1401	150	0	500	77	0
SP483LBALL	R	094502	R2	CY7C1401	150	0	1000	77	0
SP483LBALL	R	094502	R3	CY7C1401	150	0	500	77	0
SP483LBALL	R	094502	R3	CY7C1401	150	0	1000	77	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	-65	0	500	30	0
SP563DBBGN	R	MR093010	R1	CY7C66113C-PVXC	-65	0	1000	30	0

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

**82 records**

**Sum** **3133** **10**

<b>TQFP</b>									
A32LXGXGB	Q	MR091043	R1	CY29948ACT	-65	0	500	79	0
A32LXGXGB	Q	MR091043	R1	CY29948ACT	-65	0	1000	79	0
A32LXGXGB	Q	MR101025	R1	CY29948AC	-65	0	500	30	0
A32LXGXGB	Q	MR101025	R1	CY29948AC	-65	0	1000	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	500	30	0
A52AEGAGE	Q	MR092010	R1	CY29976AXI	150	0	1000	30	0

**Summary for Package Family:**

**6 records**

**TQFP**

**Sum** **278** **0**

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

AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	-65	0	1000	80	0
AS64CGAGB	Q	MR091053	R1	CY7C4285V-15ASC	-65	0	500	80	0

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

**2 records**

**Sum** **160** **0**

<b>TQFP (Pb-Free)</b>									
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	-65	0	1000	30	0
AZ100KGAN	G	MR092064	R1	CY7C09169AV-12AXC	-65	0	500	30	0

AZ100RUBLN	R	092902	R1	CY7C68320C	150	0	500	90	0
AZ100RUBLN	R	092902	R1A	CY7C68320C	150	0	1000	80	0
AZ100RUBLN	R	MR091026	R1	CY7C1350G-133AXC	-65	0	1000	79	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	-65	0	500	30	0
AZ100RUBLN	R	MR093041	R1	CY7C1353G-100AXC	-65	0	1000	30	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
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	-65	0	500	30	0
AZ100SEGL	R	MR093062	R1	CY37064P100-125AXC	-65	0	1000	30	0
AZ128BGAL	G	MR101013	R1	CY7C68013A-128AXC	0	0	500	30	0
AZ128BGAL	G	MR101013	R1	CY7C68013A-128AXC	0	0	1000	27	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	-65	0	500	30	0
AZ144AAAGR	Q	MR092060	R1	CY7C057V-12AXC	-65	0	1000	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	-65	0	1000	30	0
AZ144AAAGR	Q	MR093060	R1	CY7C057V-15AXCT	-65	0	500	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	-65	0	500	30	0
AZ32BXGAN	Q	MR093053	R1	CY7C4211-15AXC	-65	0	1000	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
AZ32GXGAN	G	MR093031	R1	CY29940AXC	-65	0	1000	30	0
AZ32GXGAN	G	MR093031	R1	CY29940AXC	-65	0	500	30	0
AZ32LXGAN	Q	MR091022	R1	CY29946AXCT	-65	0	1000	79	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	-65	0	1000	30	0
AZ44SFBGLN	R	MR093042	R1	CY7C53120E2-10AXI	-65	0	500	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	-165	0	1000	30	0
AZ44SGBGAN	RA	MR092001	R1	CY8C29566-24AXI	-165	0	500	30	0
AZ52AAGAL	Q	MR094014	R1	CY29972AXI	-65	0	1000	28	0
AZ52AAGAL	Q	MR094014	R1	CY29972AXI	-65	0	500	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	-65	0	500	30	0
AZ52ASGAL	Q	MR092008	R1	CY7B9973V-AXC	-65	0	1000	30	0

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

**36 records**

**Sum** **1481** **0**

**TSOP (Pb-free)**

ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	-65	0	500	30	0
ZT28R2BBLN	R	MR092018	R1	CY62256VNULL-70ZXCT	-65	0	1000	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	-65	0	500	30	0
ZT28R2BBLN	R	MR094026	R1	CY62256NLL-55ZXI	-65	0	1000	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	-65	0	500	30	0
ZT28R4BGL	R	MR092063	R1	CY7C1399BN-12ZXC	-65	0	1000	28	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	-65	0	1000	29	0
ZT28R4BGL	R	MR093043	R1	CY7C1399BN-12ZXCT	-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
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	-65	0	1000	28	0
ZT32RABALL	T	MR093038	R1	CY62138FV30LL-45ZXIT	-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
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	-65	0	1000	30	0
ZT32RAEDLN	RA	MR093006	R1	CY62128ELL-45ZXIT	-65	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	-65	0	500	30	0
ZT32RAEDLN	RA	MR094004	R1	CY62128ELL-45ZXIT	-65	0	1000	30	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	-65	0	1000	27	0
ZT32RBBALL	T	MR092059	R1	CY62128ELL-45ZXAT	-65	0	500	30	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	500	74	0



ZT48AJAALL	T	091202	R3	CY62177EV30LL	150	0	1000	74	0
ZT48AKAALL	T	084612	R1	CY62177EV30LL	150	0	1000	79	0
ZT48AKAALL	T	084612	R2	CY62177EV30LL	150	0	1000	85	0
ZT48AKAALL	T	084612	R3	CY62177EV30LL	150	0	1000	85	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	-65	0	1000	25	0
ZT48AKAALL	T	MR092070	R6	CS7132ATT	-65	0	500	25	0

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

**Sum** **31 records** **1342** **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	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
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	-65	0	1000	30	0
ZB32RKALL	T	MR101003	R1	CY62128EV30LL-45ZAXIT	-65	0	500	30	0

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

**Sum** **10 records** **530** **0**

**TSOP II (Pb-Free)**

ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	500	30	0
ZW324CBLL	T	MR092015	R1	CY62148EV30LL-45ZSXI	150	0	1000	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	MR091056	R1	CY7C1019DV33-10ZSXI	-65	0	1000	80	0
ZW324GALL	T	MR091056	R1	CY7C1019DV33-10ZSXI	-65	0	500	80	0
ZW324GALL	T	MR094045	R1	CY7C1019DV33-10ZSXI	-65	0	500	30	0
ZW444AHBLL	R	085004	R1	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AHBLL	R	085004	R2	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AHBLL	R	085004	R3	CY7C1021DV33-10ZSXI	150	0	1000	80	0
ZW444AMLN	R	MR091013	R1	CY62147DV30LL-55ZSXET	-65	0	1000	77	0
ZW444GALL	R	082704	R1	CY7C1404B	150	0	500	75	0
ZW444GALL	R	082704	R1	CY7C1404B	150	0	1000	74	0
ZW444GALL	R	082704	R2	7C1404B1CC-**RZWC	150	0	1000	77	0
ZW444RAGN	R	MR093015	R1	CY62137VNL-70ZSXAT	-65	0	1000	30	0
ZW444RAGN	R	MR093015	R1	CY62137VNL-70ZSXAT	-65	0	500	30	0
ZW444YBBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	-65	0	500	30	0
ZW444YBBLL	R	MR094059	R1	CY7C1041BNL-15ZXC	-65	0	1000	30	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	7C1408B8BC-**GZWIB	150	0	500	77	0
ZW444ZALL	G	082703	R2	7C1408B8BC-**GZWIB	150	0	1000	77	0
ZW444ZALL	G	082703	R3	7C1408B8BC-**GZWIB	150	0	1000	77	0
ZW444ZALL	G	082703	R3	7C1408B8BC-**GZWIB	150	0	500	77	0
ZW544AALL	G	MR091027	R1	CS6729AT	-65	0	1000	80	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	-65	0	1000	30	0
ZW544AALL	G	MR093026	R1	CY7C1069AV33-10ZXC	-65	0	500	30	0
ZW544AALL	G	RR093012	R1	CY7C1069AV33-10ZXC	150	0	500	45	0
ZW544AALL	G	RR093016	R1	CY7C1069AV33-10ZXC	150	0	500	50	0
ZW544AALL	G	RR093016	R2	CY7C1069AV33-10ZXC	150	0	500	50	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	-65	0	500	30	0
ZW54BGALL	G	MR092043	R1	CY7C1061DV33-10ZSXIT	-65	0	1000	30	0
ZW54CABLR	G	093403	R1	7C1408B7CC-**GZWCB	150	0	1000	77	0
ZW54CABLR	G	093403	R1	7C1408B7CC-**GZWCB	150	0	500	77	0
ZW54CABLR	G	093403	R2	7C1408B7CC-**GZWCB	150	0	1000	77	0
ZW54CABLR	G	093403	R2	7C1408B7CC-**GZWCB	150	0	500	77	0
ZW54CABLR	G	093403	R3	7C1408B7CC-**GZWCB	150	0	1000	77	0
ZW54CABLR	G	093403	R3	7C1408B7CC-**GZWCB	150	0	500	77	0

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

**Sum** **38 records** **2248** **0**

**TSSOP**

Z0811XAGB	M	MR091036	R1	CY2304NZZI-1T	-65	0	1000	79	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	-65	0	500	30	0
Z0811XAGB	M	MR093020	R1	CY2304NZZI-1T	-65	0	1000	30	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	500	29	0
Z1620GBAGN	RA	MR093013	R1	CY2309ZC-1HT	-65	0	1000	29	0

Summary for Package Family:

9 records

**TSSOP**

Sum **417** **0**

**TSSOP (Pb-Free)**

ZZ0812BGL	T	AR0921015	R1	CYIFS781BZXCT	150	0	1000	15	0
ZZ0812BGL	T	AR0921015	R1	CYIFS781BZXCT	150	0	500	15	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	1000	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	500	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	100	28	0
ZZ0812BGL	T	MR092023	R1	CYIFS781BZXCT	-65	0	300	28	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	-65	0	500	30	0
ZZ0812BGL	T	MR092070	R3	CY24905ZXCT	-65	0	1000	29	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	-65	0	500	30	0
ZZ0812BGL	T	MR093049	R1	CYIFS781BZXCT	-65	0	1000	30	0
ZZ0812BGL	T	MR094050	R1	CYIFS781BZXCT	-65	0	500	30	0
ZZ1614HAN	T	AR0904015	R1	CY23FS04ZXI-3	150	0	1000	15	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	-65	0	1000	30	0
ZZ1620GBAN	RA	MR092020	R1	CY2309ZXC-1HT	-65	0	500	30	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	-65	0	1000	29	0
ZZ2014BGN	T	MR092070	R1	CY25404ZXI-003T	-65	0	500	29	0
ZZ2014BGN	T	MR094067	R1	CY25404ZXI007T	-65	0	1000	28	0
ZZ2014BGN	T	MR094067	R1	CY25404ZXI007T	-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

Summary for Package Family: TSSOP (Pb-Free)

20 records

Sum **542** **0**

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

BV48ABEALE	A	MR091041	R1	CY62167EV30LL-45BVI	-165	0	1000	79	0
BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	-65	0	1000	30	0
BV48ABEALE	AT	MR092012	R1	CY62167EV30LL-45BVI	-65	0	500	30	0
BV48DAAALE	RA	MR101001	R1	CY62147EV30LL-45BVIT	-65	0	500	30	0
BV48DAAALE	RA	MR101001	R1	CY62147EV30LL-45BVIT	-65	0	1000	30	0

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

5 records

Sum **199** **0**

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

BZ100BABLL	RA	MR101006	R1	CYDMX256A16-90BVXI	-65	0	500	30	0
BZ100BABLL	RA	MR101006	R1	CYDMX256A16-90BVXI	-65	0	1000	29	0
BZ100DAALL	G	MR091028	R1	CS7129AMT	-65	0	1000	79	0
BZ100DGALL	RA	MR091015	R1	CYWB0124AB-BVXI	-65	0	1000	77	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	1000	30	0
BZ100DGALL	RA	MR093022	R1	CYWB0124AB-BVXI	150	0	500	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	-65	0	500	30	0
BZ100HAALL	RA	MR092061	R1	CYWB0224ABS-BVXI	-65	0	1000	28	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	1000	28	0
BZ48ABBLL	AT	MR092011	R1	CY62127DV30LL-55BVXIT	150	0	500	30	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	-65	0	500	30	0
BZ48ABCALL	AT	MR093059	R1	CG6851AM	-65	0	1000	28	0
BZ48ABCALL	AT	MR093070	R1	CG6851AM	-65	0	500	30	0

BZ48ABCALL	AT	MR093070	R1	CG6851AM	-65	0	1000	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	-65	0	500	30	0
BZ48ABCALL	AT	MR094054	R1	CY62126EV30LL-45BVXI	-65	0	1000	30	0
BZ48ABEALL	AT	MR091034	R1	CY62167EV30LL-45BVXI	-65	0	1000	80	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	-65	0	1000	29	0
BZ48ATALL	RA	MR094071	R1	CY62157DV30LL-55BVXI	-65	0	500	29	0
BZ48CFAALL	G	MR091029	R1	CY62157EV30LL-45BVXI	-65	0	1000	80	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	-65	0	500	30	0
BZ48CFBALL	G	MR093025	R1	CY62157EV30LL-45BVXA	-65	0	1000	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	-65	0	1000	30	0
BZ48CHAALL	G	MR092031	R1	CY62126EV30LL-55BVXE	-65	0	500	30	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	-65	0	500	29	0
BZ48CRALL	G	MR094024	R1	CY62167EV30LL-45BVXI	-65	0	1000	28	0
BZ48DAGLL	RA	090502	R1	CY62137FV30LL-45BVXI	150	0	1000	77	0
BZ48DAGLL	RA	090502	R2	CY62137FV30LL-45BVXI	150	0	500	80	0
BZ48DAGLL	RA	090502	R2	CY62137FV30LL-45BVXI	150	0	1000	80	0
BZ48DAGLL	RA	090502	R3	CY62137FV30LL-45BVXI	150	0	500	80	0
BZ48DAGLL	RA	090502	R3	CY62137FV30LL-45BVXI	150	0	1000	80	0
BZ48DAGLL	RA	090502	R4	CY62137FV30LL-45BVXI	150	0	1000	74	0
BZ48DAGLL	RA	MR091033	R1	CY62137FV30LL-45BVXIT	-65	0	1000	80	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	-65	0	500	30	0
BZ48DAGLL	RA	MR092016	R1	CY62137FV30LL-45BVXIT	-65	0	1000	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	-65	0	1000	30	0
BZ56BGALL	RA	MR093036	R1	CY7C68013A-56BAXC	-65	0	500	30	0
<b>Summary for Package Family: VFBGA (0.75-0.8, 0.3mm, Pb-Free)</b>					<b>37 records</b>				
<b>Sum</b>								<b>1635</b>	<b>0</b>