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# Cypress Semiconductor Automotive Product Qualification Report

**QTP# 154910 VERSION \*\*  
May 2017**

<b>Automotive TR20005D Device Family 130nm Technology, TI 300mm Wafer Fab DMOS6</b>	
CY15B101N	1-MBIT (64K X 16) AUTOMOTIVE F-RAM MEMORY
CY15B102N	2-MBIT (128K X 16) AUTOMOTIVE F-RAM MEMORY
CY15B102Q	2-MBIT (256 K X 8) SERIAL (SPI) AUTOMOTIVE F-RAM

**FOR ANY QUESTIONS ON THIS REPORT, PLEASE CONTACT  
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**PACKAGE/PRODUCT QUALIFICATION HISTORY**

<b>QTP Number</b>	<b>Description of Qualification Purpose</b>	<b>Date</b>
154910	Qualification of TI FR130 DMOS6 (300mm wafer fab) Foundry using Automotive TR20005D (TA20005D and TA20P05D, 2Mb Automotive 2T2C F-RAM Product)	May 2017

PRODUCT DESCRIPTION (for qualification)	
Qualification Purpose: Qualify TI FR130 DMOS6 (300mm wafer fab) Foundry using Automotive TR20005D (TA20005D and TA20P05D, 2Mb Automotive 2T2C F-RAM Product)	
Marketing Part #:	CY15B101N/CY15B102N/CY15B102Q
Device Description:	Automotive F-RAM Memory
Cypress Division:	Cypress Semiconductor Corporation – Memory Products Division (MPD)

TECHNOLOGY/FAB PROCESS DESCRIPTION			
Number of Metal Layers:	Proprietary*	Metal Composition:	Proprietary*
Passivation Type and Thickness:	Proprietary*		
Generic Process Technology/Design Rule ( $\mu$ -drawn):	130nm		
Gate Oxide Material/Thickness (MOS):	Proprietary*		
Name/Location of Die Fab (prime) Facility:	Texas Instruments / Dallas		
Die Fab Line ID/Wafer Process ID:	DMOS 6 / E035.1		

\*Texas Instruments' proprietary information is available with signed NDA.

## PACKAGE AVAILABILITY

PACKAGE	WIRE TYPE	ASSEMBLY FACILITY SITE	REFERENCE
8L SOIC (208 mils)	Au	UTL-Thailand (UT)	QTP# 141502
44L TSOP (400 mils)	Au	JCET-China (JT)	QTP# 143603

### MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION

Package Designation:	SZ820
Package Outline, Type, or Name:	8L SOIC (208 mils)
Mold Compound Name/Manufacturer:	G600 / Sumitomo
Mold Compound Flammability Rating:	UL-94 V-0
Mold Compound Alpha Emission Rate:	<0.1
Oxygen Rating Index: >28%	53%
Lead Frame Designation:	FMP
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Matte Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Laser + Wafer Saw
Die Attach Supplier:	Henkel
Die Attach Material:	8600
Bond Diagram Designation	001-97321
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 0.8 mil
Thermal Resistance Theta JA °C/W:	114 °C/W
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	001-97607
Name/Location of Assembly (prime) facility:	UTAC, Thailand (UT)
MSL Level	MSL3
Reflow Profile	260C

### ELECTRICAL TEST / FINISH DESCRIPTION

Test Location:	UTAC, Thailand
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### MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION

Package Designation:	ZW44B
Package Outline, Type, or Name:	44L TSOP II (400 mils)
Mold Compound Name/Manufacturer:	KE G6000DA/Kyocera
Mold Compound Flammability Rating:	UL-94 V-0
Mold Compound Alpha Emission Rate:	<0.1
Oxygen Rating Index: >28%	70%
Lead Frame Designation:	FMP
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	NiPdAu
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	Laser + Wafer Saw
Die Attach Supplier:	Henkel
Die Attach Material:	QMI 509
Bond Diagram Designation	001-93262
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au / 0.8 mil
Thermal Resistance Theta JA °C/W:	107 °C/W
Package Cross Section Yes/No:	Yes
Assembly Process Flow:	002-11253
Name/Location of Assembly (prime) facility:	JCET-China (JT)
MSL Level	MSL3
Reflow Profile	260C

### ELECTRICAL TEST / FINISH DESCRIPTION

Test Location:	CML-R
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## RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Acoustic Microscopy	J-STD-020 Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
Constructional Analysis	Criteria: Meet external and internal characteristics of Cypress package	P
Data Retention (Plastic)	125°C/150°C, non-biased	P
Dye Penetrant Test	Test to determine the existence and extent of cracks, Criteria: No Package Crack	P
Electrostatic Discharge Charge Device Model (ESD-CDM)	AEC-Q100-011 250V, 500V (750V corner pins)	P
Electrostatic Discharge Human Body Model (ESD-HBM)	AEC-Q100-002 500V, 1,000V, 2,000V	P
High Accelerated Saturation Test (HAST)	JEDEC STD 22-A110: 130°C, 85% RH, 3.6V Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
High Temperature Operating Life Early Failure Rate	AEC-Q100-008 and JESD22-A108, 125C Dynamic Operating Condition, Vcc = 3.6V	P
High Temperature Operating Life Latent Failure Rate	AEC-Q100-008 and JESD22-A108, 125C Dynamic Operating Condition, Vcc = 3.6V	P
Lead Integrity	JESD22-B105, MIL STD 883	P
NVM Endurance /Data Retention (Plastic )	AEC-Q100-005, 25°C/125°C/150°C, non-biased	P
NVM Endurance / High Temperature Operating Life	AEC-Q100-008 and JESD22-A108, 125C Dynamic Operating Condition, Vcc = 3.6V	P
Physical Dimension	JESD22B100 and B108	P
Post Temperature Cycle Wire Bond Pull	Mil-Std 883, Method 2011	P
Pressure Cooker	JESD22-A102:121°C /100%RH, 15 PSIG Precondition: JESD22 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
Pre/Post LFR AC/DC Char	AC/DC Critical Parameter Char at 0 hour/1000hrs	P
Solderability	JESD22-B102	P
Static Latch-up	AEC-Q100-004 +/-100mA;+/-140mA, 125°C	P
Temperature Cycle	JESD22- A104, -65°C to 150°C Precondition: JESD22-A113 Moisture Sensitivity Level (192 Hrs., 30 °C, 60% RH, 260°C Reflow)	P
Wire Ball Shear	AEC-Q100-001	P
Wire Bond Pull	Mil-Std 883, Method 2011	P

### RELIABILITY FAILURE RATE SUMMARY

Stress/Test	Device Tested/ Device Hours	# Fails	Activation Energy	Thermal AF <sup>3</sup>	Failure Rate
High Temperature Operating Life Early Failure Rate	13,498 Devices	0	N/A	N/A	0 PPM
High Temperature Operating Life Long Term Failure Rate	331,000 DHRs	0	0.7	55	** FIT

\*\*Insufficient samples to calculate FIT Rate

<sup>1</sup> Assuming an ambient temperature of 55°C and a junction temperature rise of 15°C.

<sup>2</sup> Chi-squared 60% estimations used to calculate the failure rate.

<sup>3</sup> Thermal Acceleration Factor is calculated from the Arrhenius equation

$$AF = \exp \left[ \frac{E_A}{k} \left[ \frac{1}{T_2} - \frac{1}{T_1} \right] \right]$$

where:

$E_A$  = The Activation Energy of the defect mechanism.

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

$T_1$  is the junction temperature of the device under stress and  $T_2$  is the junction temperature of the device at use conditions.



## Reliability Test Data

### QTP #: 154910

Device	Package	Fab Lot#	Assy Lot#	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: ACOUSTIC, MSL3</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	22	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	COMP	22	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	COMP	22	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	COMP	22	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	COMP	22	0	
FM28V102A7 (FP28V102D) 44L TSOP		2635000	611645084	JT-China	COMP	22	0	
<b>STRESS: BALL SHEAR</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	10	0	
<b>STRESS: BOND PULL</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	10	0	
<b>STRESS: CONSTRUCTIONAL ANALYSIS</b>								
FM25V20A (FTP25V20B) 8L SOIC		2443004	611503131	UT-Thailand	COMP	5	0	
<b>STRESS: DATA RETENTION, 125C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	500	30	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	1000	30	0	
<b>STRESS: DATA RETENTION, 150C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	500	30	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	1000	30	0	
<b>STRESS: DYE PENETRANT</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	COMP	15	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	COMP	15	0	
<b>STRESS: ENDURANCE AND DATA RETENTION, 25C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	74	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	

## Reliability Test Data

### QTP #: 154910

Device	Package	Fab Lot#	Assy Lot#	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: ENDURANCE AND DATA RETENTION, 125C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	79	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	79	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	500	79	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	79	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
<b>STRESS: ENDURANCE AND DATA RETENTION, 150C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	79	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	79	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
<b>STRESS: ENDURANCE AND LATENT FAILURE RATE, 125C</b>								
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611627196	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2628001	611629751	UT-Thailand	500	80	0	
FM25V20A7 (FPP25V20D) 8L SOIC		2629051	611627197	UT-Thailand	500	80	0	
<b>STRESS: ESD-CHARGE DEVICE MODEL</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	250	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	250	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	500	3	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	250	3	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	250	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	250	3	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	500	3	0	

## Reliability Test Data

### QTP #: 154910

Device	Package	Fab Lot#	Assy Lot#	Assy Loc	Duration	Samp	Rej	Failure Mechanism
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#### **STRESS: ESD-HUMAN BODY CIRCUIT**

CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611600876	UT-Thailand	500	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611600876	UT-Thailand	1000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611600876	UT-Thailand	2000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2602005	611602793	UT-Thailand	500	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2602005	611602793	UT-Thailand	1000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2602005	611602793	UT-Thailand	2000	3	0
CY15B102N (7A1502B06D) 44L TSOP	2553000	611607532	JT-China	500	3	0
CY15B102N (7A1502B06D) 44L TSOP	2553000	611607532	JT-China	1000	3	0
CY15B102N (7A1502B06D) 44L TSOP	2553000	611607532	JT-China	2000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617892	UT-Thailand	500	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617892	UT-Thailand	1000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617892	UT-Thailand	2000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617893	UT-Thailand	500	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617893	UT-Thailand	1000	3	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617893	UT-Thailand	2000	3	0

#### **STRESS: HIGH ACCELERATED SATURATION TEST (130C, 85%RH, with MSL3 Preconditioning)**

CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611600876	UT-Thailand	96	80	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611600876	UT-Thailand	192	80	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2602005	611602793	UT-Thailand	96	80	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2602005	611602793	UT-Thailand	192	80	0
CY15B102N (7A1502B06D) 44L TSOP	2553000	611607532	JT-China	96	79	0
CY15B102N (7A1502B06D) 44L TSOP	2553000	611607532	JT-China	192	79	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617892	UT-Thailand	96	79	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617892	UT-Thailand	192	79	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617893	UT-Thailand	96	30	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2538007	611617893	UT-Thailand	192	30	0

#### **STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 125C**

CY15B102Q7 (7A1502B9D) 8L SOIC	2553000	611627196	UT-Thailand	96	3500	0
CY15B102Q7 (7A1502B9D) 8L SOIC	2628001	611629751	UT-Thailand	96	3283	0
FM25V20A7 (FPP25V20D) 8L SOIC	2629051	611627197	UT-Thailand	96	3500	0
CY15B102N (7A1502B06D) 44L TSOP	2629051	611701517	JT-China	96	2565	0
FM28V202A7 FP28V202D) 44L TSOP	2635000	611645220	JT-China	96	650	0

## Reliability Test Data

### QTP #: 154910

Device	Package	Fab Lot#	Assy Lot#	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, 125C</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	77	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	77	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	77	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	77	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	500	100	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	100	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	77	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	77	0	
<b>STRESS: LEAD INTEGRITY</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	5	0	
<b>STRESS: PRESSURE COOKER TEST (121C,100%RH) , with MSL3 Preconditioning</b>								
FM25V20A (FTP25V20B) 8L SOIC		2444010	611503700	UT-Thailand	168	80	0	
FM25V20A (FTP25V20B) 8L SOIC		2444010	611503700	UT-Thailand	288	80	0	
FM25V20A (FTP25V20B) 8L SOIC		2445005	611503699	UT-Thailand	168	80	0	
FM25V20A (FTP25V20B) 8L SOIC		2445005	611503699	UT-Thailand	288	80	0	
FM25V20A (FTP25V20B) 8L SOIC		2443004	611503131	UT-Thailand	168	80	0	
FM25V20A (FTP25V20B) 8L SOIC		2443004	611503131	UT-Thailand	288	80	0	
<b>STRESS: PHYSICAL DIMENSION</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	10	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	COMP	10	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	COMP	30	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	COMP	10	0	
<b>STRESS: POST TCT BOND PULL</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	5	0	
<b>STRESS: PRE/POST LFR CRITICAL PARAMETERS</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	0	32	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	32	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	0	32	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	32	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	0	32	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611606523	UT-Thailand	1000	32	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	0	32	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	32	0	

## Reliability Test Data

### QTP #: 154910

Device	Package	Fab Lot#	Assy Lot#	Assy Loc	Duration	Samp	Rej	Failure Mechanism
<b>STRESS: STATIC LATCH-UP (+/-140mA 125C)</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	6	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	COMP	6	0	
<b>STRESS: STATIC LATCH-UP (+/-100mA 125C)</b>								
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	COMP	6	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	COMP	6	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	COMP	6	0	
<b>STRESS: SOLDERABILITY</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	COMP	15	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	COMP	15	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	COMP	15	0	
<b>STRESS: TEMPERATURE CYCLE CONDITION C (-65C TO 150C) , with MSL3 Preconditioning</b>								
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	500	85	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2553000	611600876	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	500	85	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2602005	611602793	UT-Thailand	1000	80	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	500	83	0	
CY15B102N (7A1502B06D) 44L TSOP		2553000	611607532	JT-China	1000	82	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	500	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617892	UT-Thailand	1000	80	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	500	30	0	
CY15B102Q7 (7A1502B9D) 8L SOIC		2538007	611617893	UT-Thailand	1000	30	0	

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DMOS 6

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**	5726289	JYF	Initial Release