Please note that Cypress is an Infineon Technologies Company.
The document following this cover page is marked as “Cypress” document as this is the company that originally developed the product. Please note that Infineon will continue to offer the product to new and existing customers as part of the Infineon product portfolio.

Continuity of document content
The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

Continuity of ordering part numbers
Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

Cypress Semiconductor
Package Qualification Report

QTP# 054502 VERSION*B
July 2019

28/32-Lead SOJ, 20/24/28-Lead SOIC
28-Lead SNC Packages (300mils)
NiPdAu, MSL3, 260C Reflow
CML-R

FOR ANY QUESTIONS ON THIS REPORT, PLEAE CONTACT
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PACKAGE QUALIFICATION HISTORY

QUAL REPORT		DESCRIPTION OF QUALIFICATION PURPOSE		DATE COMP.
054502		28/32-Lead SOJ, 20/24/28 Lead SOIC and 28-Lead SNC packages with 300 mils body size using Kyocera KE-G3000DA (for non-SRAMs), KE-G6000DA (for SRAMs) Mold Compound, NiPdAu Leadframe, @ 260 Solder Reflow, MSL3, CML-R		Dec 05

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	V32
Package Outline, Type, or Name:	32-Lead Plastic Small Outline J-Bend Package (SOJ)
Mold Compound Name/Manufacturer:	Kyocera - KE G3000DA with PMC (for non-SRAMs) Kyocera - KE G6000DA (for SRAMs)
Mold Compound Flammability Rating:	N/A
Oxygen Rating Index: >28%	None
Leadframe Material:	Copper
Lead Finish, Composition / Thickness:	NiPdAu
Die Backside Preparation Method/Metallization:	Backgrinding
Die Separation Method:	100% Sawing
Die Attach Supplier:	Dexter
Die Attach Material:	QMI 509
Die Attach Method:	Epoxy
Bond Diagram Designation	10-02612
Wire Bond Method:	Thermosonic
Package Cross Section Yes/No:	No
Name/Location of Assembly (prime) facility:	Cypress Philippines (CML-R)
MSL Level	3
Reflow Profile	260C

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	CML-R

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENTS

Stress/Test	Test (Temp/Bias	Result P/F
High Temperature Storage	150°C±5°C, no bias	P
Pressure Cooker	121°C, 100%RH, 15 Psig Precondition: JESD22 Moisture Sensitivity MSL3 192 Hrs 30°C/60%RH+3IR-Reflow, 260°C+0, -5°C	P
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65 C to 150 C Precondition: JESD22 Moisture Sensitivity MSL3 192 Hrs 30°C/60%RH+3IR-Reflow, 260°C+0, -5°C	P
Acoustic Microscopy	J-STD-020	P
X-Ray	MIL-STD-883, Method 32012	P

Reliability Test Data

QTP #: 054502

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: ACOUSTIC							
CY7C188 (7C188BT)	2206290	610548061	CML-R	COMP	15	0	
CY7C188 (7C188BT)	2206290	610548062	CML-R	COMP	15	0	
CY7C188 (7C188BT)	2206290	610548063	CML-R	COMP	15	0	
STRESS: FLAMMABILITY							
CY7C188 (7C188BT)	2206290	610548061	CML-R	COMP	3	0	
STRESS: HIGH TEMPERATURE STORAGE, 150C, NO BIAS							
CY7C109 (7C109MC)	4520821	610528421	CML-R	500	45	0	
CY7C109 (7C109MC)	4520821	610528421	CML-R	1000	45	0	
STRESS: PRESSURE COOKER TEST (121C, 100%RH, 15 Psig) PRE COND 192 HR 30C/60%RH, MSL3							
CY7C188 (7C188BT)	2206290	610548061	CML-R	168	50	0	
STRESS: TC COND. C –65C TO 150C PRE COND 192 HR 30C/60%RH, MSL3							
CY7C188 (7C188BT)	2206290	610548061	CML-R	300	50	0	
CY7C188 (7C188BT)	2206290	610548062	CML-R	300	50	0	
CY7C188 (7C188BT)	2206290	610548063	CML-R	300	50	0	
STRESS: X-RAY							
CY7C188 (7C188BT)	2206290	610548061	CML-R	COMP	15	0	
CY7C188 (7C188BT)	2206290	610548062	CML-R	COMP	15	0	

Document History Page

Document Title: QTP# 054502: 28/32-Lead SOJ, 20/24/28-Lead SOIC 28-Lead SNC Packages (300mils) NiPdAu, MSL3, 260C Reflow CML-R
Document Number: 001-89482

Rev.	ECN No.	Orig. of Change	Description of Change
**	4142872	HSTO	Initial Spec Release Initiate report as per memo LGQ-654.
*A	4517626	HSTO	Align qualification report based on the new template in the front page
*B	6628259	HSTO DCON	Update Cypress logo Update Contact Person Update “MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION” table. Removed Distribution and posting information from Document History page.