

Automotive Qualification Report
MAX3378EEUD

		✓	✓	✓	✓	✓	✓	✓	✓		
		Lot # 1 (S8N4CQ002H)	Lot # 2 (S2HAC3032G)	Lot # 3 (SOKAD3044B)	Lot # 4 (SV8BNA008BX)	Lot # 5 (NL4ACX001)					
±15kV ESD-Protected, 1µA, 16Mbps, Dual/Quad Low-Voltage Level Translator	Maxim Part Number	MAX3378EEUD	MAX1793EUE25+	MAX1792EUA25/33/50	MAX893LESA	MAX1664CUP (Note 2)					
	Description (Note 1)	AEC-Q100	AEC-Q100	AEC-Q100	Maxim	Maxim					
	Operating Temperature	-40C to +85C	-40C to +85C	-40C to +85C	-40C to +85C	0C to +70C					
	Temperature Grade	3	3	3	3	4					
	Fab Location	Maxim, San Jose	Maxim, San Jose	Maxim, San Jose	Maxim, San Jose	Maxim, Beaverton					
	Fab Process	B8 (8", 0.8um MOS)	B8 (8", 0.8um MOS)	B8 (8", 0.8um MOS)	B8 (8", 0.8 um MOS)	S12 (6", 1.2 um MOS)					
	Die	RT40Z-4Z	PY28Z	PY27Z	PX81Z-1Z	PX22Z					
	Assembly Location	Anam/Amkor Philippines	NSEB Thailand	Anam/Amkor Philippines	NSEB, Thailand	Anam/Amkor Philippines					
	Die Size (mils)	80 x 61	60 x 72	60 x 60	41 x 103	84 x 141					
	Package	14 TSSOP	16-Lead TSSOP-EP	8uMAX (Exposed Paddle)	8 NSOIC	20 TSSOP					
	Wire Bond Material	Au .001"	Au .0012"	Au .001"	Au .0013"	Au .0013"					
	Mold Compound	EME7351T	KMC184-7	EME7050B	EME6600CS	EME7351T					
	Die Attach	84-1LMISR4	84-1LMISR4	84-1LMISR4	84-1LMISR4	84-1LMISR4					
	Lead Frame	Copper	Copper	Copper	Copper	Copper					
	Lead Finish	85/15 Sn/Pb	100% Matte Sn	85/15 Sn/Pb	85/15 Sn/Pb	85/15 Sn/Pb					
Reliability Lot Number	A050024, DC0534	A050034, DC 0548	A050006, DC 0514	R030115, DC 0331/43	R010274, DC 9810/21/24						
		Failures/Sample Size		Fails/Sample Size		Failures/Sample Size		Failures/Sample Size			
AEC-Q100 Rev. F Tests	#	Conditions	+25C	+85C	-40C	+25C	+85C	-40C	+25C	+70C	-40C
MSL 1 - Preconditioning (PC)	A1	240C (Sn/Pb)	0/214			0/215			0/450		
		260C (100% Sn)				0/215					
=>CSAM		J-STD-020C (1 lot)	0/22								
Temperature Humidity-Bias (THB)	A2	85C/85%RH 1000 Hours									
Biased HAST (HAST)	A2	130C/85%RH 96 Hours	0/48	0/48		0/40	0/40		0/70		
Autoclave (AC)	A3	121C/85%RH 168 Hours									
Unbiased HAST (UHAST)	A3	130C/85%RH 96 Hours	0/78	0/78		0/47	0/47				
Temperature Cycle (TC)	A4	-65 to +150C 1000 Cycles	0/71	0/71					0/221		
=>Wirebond Pull (WBP)		>3 grams	0/60								
High Temperature Storage (HTSL)	A6	+150C 1000 Hours	0/26	0/26		0/79	0/79		0/130		
High Temperature Op Life (HTOL)	B1	+135C 1000 Hours	0/44	0/44	0/44	0/75	0/75	0/75	0/75	0/75	0/75
Early Life Failure Rate (ELFR)	B2	+135C 48 Hours									
Maxim Infant Mortality (IME)		+135C 12 Hours							0/8615		
Wire Bond Shear (WBS)	C1		(Note 1)								
Wire Bond Pull (WBP)	C2		(Note 1)						0/603		
Solderability (SD)	C3		0/15						0/45		
Physical Dimensions (PD)	C4		0/10						0/45		
Lead Integrity (LI)	C6		0/5						0/45		
(EM, TDDb, HCI)	D1-3										
Pre- and Post-Stress Electrical (TEST)	E1		All	All	All	All	All	All	All	All	All
Human Body Model ESD (HBM)	E2	JESD22/A114	1000V	1000V							
Machine Model ESD (MM)	E2	JESD22/A115									
Charged Device Model ESD (CDM)	E3	AEC-Q100-011	750V	750V							
Latch-Up (LU)	E4	JESD78, Class II	0/12	0/12							

(Note 1) AEC-Q100 test performed per Rev. F guidelines. Maxim tests performed to internal specification 10-3006.

(Note 2) Tests performed on three assembly lots.

(Note 3) Monitor data from assembly subcontractor.

✓ = Complete

□ = Open