

Automotive Qualification Report
MAX809MEUR

		□	✓	✓	✓	✓	✓	✓
		Lot # 1 (NRHBB2199C)	Lot # 2 (NIKGA970B)	Lot # 1 (NGQCDA1B5D)	Lot # 4 (NDNACA481D)	Lot # 5 (NDNACA497A)	Lot # 6 (IJZAF081DV)	
3-Pin Microprocessor Reset Circuit	Maxim Part Number	MAX809MEUR	MAX488EESA+	MAX3490EESA+	MAX603ESA	MAX603ESA	MA8863TEUK+ (Note 2)	
	Description (Note 1)	AEC-Q100	AEC-Q100	AEC-Q100	Maxim	Maxim	Maxim	
	Operating Temperature	-40C to +105C	-40C to +85C	-40C to +85C	-40C to +85C	-40C to +85C	-40C to +85C	
	Temperature Grade	2	3	3	3	3	3	
	Fab Location	Maxim, Beaverton	Maxim, Beaverton	Maxim, Beaverton	Maxim, Beaverton	Maxim, Beaverton	Maxim, Beaverton	
	Fab Process	S3K (6", 3 um MOS)	S3E, (6", 3 um MOS)	S3E, (6", 3 um MOS)	S3E, (6", 3 um MOS)	S3E, (6", 3 um MOS)	S12, (6", 1.2 um MOS)	
	Die	PW54Z-1Z	RS29Y-6Z	RS17Y-2Z	PW50Z	PW50Z	PW84W	
	Assembly Location	Carsem-M	NSEB Thailand	NSEB Thailand	Anam/Amkor Philippines	Anam/Amkor Philippines	Carsem-M	
	Die Size (mils)	44 x 31	85 x 128	86 x 146	104 x 100	104 x 100	38 x 55	
	Package	3-Lead SOT23	8-Lead NSOIC	8-Lead NSOIC	8-Lead NSOIC	8-Lead NSOIC	5-Lead SOT-23	
	Wire Bond Material	Au .001"	Au .0013"	Au .0013"	Au .0013"	Au .0013"	Au .001"	
	Mold Compound	EME6710S	G600	G600	EME6600CS	EME6600CS	EME6710S	
	Die Attach	84-1LMISR4	AB2200D	AB2200D	84-3J	84-3J	84-1LMISR4	
	Lead Frame	Copper	Copper	Copper	Copper	Copper	Copper	
	Lead Finish	85/15 Sn/Pb	100% Matte Sn	100% Matte Sn	85/15 Sn/Pb	85/15 Sn/Pb	100% Matte Sn	
Reliability Lot Number	A060004, DC 0418	A050022, DC 0526	A050040, DC 0551	R030036, DC 0318	R030099, DC 0328	R000109, DC 0046		
	Failures/Sample Size	Failures/Sample Size	Failures/Sample Size	Failures/Sample Size	Failures/Sample Size	Failures/Sample Size		
AEC-Q100 Rev. F Tests	#	Conditions	+25C	+105C	-40C	+25C	+85C	-40C
MSL 1 - Preconditioning (PC)	A1	240C (Sn/Pb)	0/200			0/154		
		260C (100% Sn)						0/450
=>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	0/50	0/50		0/77		0/135
Autoclave (AC)	A3	121C/85%RH 168 Hours					0/77	No Prec. 0/231
Unbiased HAST (UHAST)	A3	130C/85%RH 96 Hours	0/50	0/50				
Temperature Cycle (TC)	A4	-65 to +150C 1000 Cycles	0/78	0/78		0/77		0/231
=>Wirebond Pull (WBP)		>3 grams	Pending			0/40		
High Temperature Storage (HTSL)	A6	+150C 1000 Hours	0/80	0/80		0/77	0/77	0/135
High Temperature Op Life (HTOL)	B1	+135C 1000 Hours	Pending	Pending	Pending	(Note 5) 0/95	(Note 5) 0/95	(Note 5) 0/95
Early Life Failure Rate (ELFR)	B2	+135C 48 Hours	Pending					
Maxim Infant Mortality (IME)		+135C 12 Hours						
Wire Bond Shear (WBS)	C1							
Wire Bond Pull (WBP)	C2							
Solderability (SD)	C3		0/15					0/45
Physical Dimensions (PD)	C4		0/15					
Lead Integrity (LI)	C6		0/5					
(EM, TDDb, HCI)	D1-3							
Pre- and Post-Stress Electrical (TEST)	E1		All	All	All	All	All	All
Human Body Model ESD (HBM)	E2	JESD22/A114	2000V	2000V				
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	Pending					

(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.

(Note 4) HTOL performed using MAX3490EEPA (PDIP), Lot NGQCDA1B5DA (DC 0344).

(Note 5) HTOL performed using MAX489ECPD (PDIP), Lot NIKHCA800A (Die RS29Y-7Z).

✓ = Complete

□ = Open