

## Standard Product Flows – Multi-Chip Modules

XTREME Semiconductor offers four different product-testing flows: XTREME Class K, XTREME Class H, Military Temp and Industrial Temp. The table below exhibits the test that will be performed on a 100% to all products. Qualification testing is available by purchase order.

Screening Test	MIL-STD-883 Method	Product Flows							
		Class K	Condition	Class H	Condition	Mil-Temp	Condition	Ind-Temp	Condition
Die Lot Acceptance	XTREME spec	Yes		No		No		No	
Glassivation Thickness	5007	Yes		No		No		No	
Metallization Thickness	5007	Yes		No		No		No	
SEM Inspection	2018	Yes		No		No		No	
Element Evaluation	MIL-PRF-38534	By P.O.	Class K	By P.O.	Class H	NA		NA	
Wire Bond Monitor	2011	Yes		Yes		No		No	
100% Wire Bond Pull	2023	Yes		No		No		No	
Die Shear Monitor	2019	Yes		Yes		No		No	
Pre-Cap Visual Inspection	2017	Yes	Class K	Yes	Class H	No		No	
QA Inspection	2017	Yes	Class K	Yes	Class H	No		No	
Temperature Cycling	1010	Yes	C	Yes	C	Yes		No	
Constant Acceleration or Mechanical Shock	2001 or 2002	Yes		Yes		Yes		No	
PIND Test	2020	Yes	A or B	No		No		No	
Serialization	NA	Yes		No		No		No	
Pre Burn-in Electrical Test	Detail DWG	Yes		Yes		No		No	
Dynamic Burn-in I	1015	Yes	D, 160 hrs	Yes	D, 160 hrs	Yes	D, 48 hrs	No	D, 48 hrs
Interim Electrical Test	Detail DWG	Yes		No		No		No	
Deltas <sup>3</sup>		Yes		No		No		No	
Dynamic Burn-in II	1015	Yes	D, 160hrs	No		No		No	
Final Electrical Test	Detail DWG	Yes		Yes		Yes		Yes	
Deltas <sup>3</sup>		Yes		No		No		No	
PDA			2% <sup>2</sup>	10%		No		No	
High Temp Electrical Test		Yes <sup>1</sup>		Yes		Yes		No	
Low Temp Electrical Test		Yes <sup>1</sup>		Yes		Yes		No	
Fine Leak Test	1014	Yes	A1	Yes	A1	Yes		No	
Gross Leak Test	1014	Yes	C1	Yes	C1	Yes		No	
Radiographic Inspection	2012	Yes	2 views	No		No		No	
External Visual	2009	Yes		Yes		No		No	
Final QA Review	NA	Yes		Yes		Yes		Yes	
Groups A, B, C, and D QCI	MIL-PRF-38534	By P.O.	Class K	By P.O.	Class H	NA		NA	

1. Read and record
2. PDA based on quantity into second burn-in and Delta failures from second burn-in only.
3. Delta parameter values measured after burn-in will be compared with the Delta parameter values measured prior to that burn-in.