

Standard Product Flows – Monolithic Products

XTREME Semiconductor offers five different product-testing flows: XTREME Class S, QML-Q, XTREME Class B, Military Temp and Industrial Temp. The table below exhibits the test that will be performed on a 100% to all products. For XTREME Class S and B products, qualification testing is available by purchase order.

Screening Test	MIL-STD-883 Method XTREME spec	Product Flows									
		Class S	Condition	QML Q	Condition	Class B	Condition	Mil- Temp	Condition	Ind-Temp	Condition
Die Lot Acceptance		Yes		No		No		No		No	
Glassivation Thickness	5007	Yes		No		No		No		No	
Metallization Thickness	5007	Yes		No		No		No		No	
SEM Inspection	2018	Yes		No		No		No		No	
Wire Bond Monitor	2011	Yes		Yes		Yes		No		No	
100% Wire Bond Pull	2023	Yes		No		No		No		No	
Die Shear Monitor	2019	Yes		Yes		Yes		No		No	
Pre-Cap Visual Inspection	2017	Yes	A	Yes	B	Yes	B	No		No	
QA Inspection	2017	Yes	A	Yes	B	Yes	B	No		No	
Temperature Cycling	1010	Yes	C	Yes	C	Yes	C	Yes		No	
Constant Acceleration	2001	Yes		Yes		Yes		Yes		No	
PIND Test	2020	Yes	A or B	No		No		No		No	
Serialization	NA	Yes		No		No		No		No	
Pre Burn-in Electrical Test	Detail DWG	Yes ¹		Yes		Yes		No		No	
Static Burn-in I	1015	Yes	A, 72 hrs	No		No		No		No	
Interim Electrical Test	Detail DWG	Yes ¹		No		No		No		No	
Deltas		Yes ¹		No		No		No		No	
Dynamic Burn-in II	1015	Yes	D, 240 hrs	Yes	D, 160 hrs	Yes	D, 160 hrs	yes	D, 48 hrs	yes	D, 48 hrs
Final Electrical Test	Detail DWG	Yes ¹		Yes		Yes		Yes		Yes	
Deltas		Yes		No		No		No		No	
High Temp Electrical Test		Yes ¹		Yes		Yes		Yes		Yes	
Low Temp Electrical Test		Yes ¹		Yes		Yes		Yes		Yes	
Fine Leak Test	1014	Yes	A1	Yes	A1	Yes		Yes		Yes	
Gross Leak Test	1014	Yes	C1	Yes	C1	Yes		Yes		Yes	
Radiographic Inspection	2012	Yes	2 views	No		No		No		No	
External Visual	2009	Yes		Yes		Yes		No		No	
Final QA Review	NA	Yes		Yes		Yes		Yes		Yes	
Groups A, B, C, and D QCI	MIL-PRF-38535	By P.O.	Class S	Yes	QML Q	By P.O.	Class B	NA		NA	

1. Read and record