



**Reliability Report
(Q2015-011)**

**IX2120 Product Qualification
High Voltage IC to Drive High Speed MOSFETs
and IGBTs**

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Summary

The IX2120 product has successfully passed IXYS ICD's requirements for product qualification.

Table 1: Device Information

Product Number	IX2120
Package Type	28L SOIC
Assembly Site	Atec, Laguna, Philippines
Test Site	IXYS ICD BEV, Beverly, MA, USA

Table 2: Reliability Test Result

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
HTRB	125°C, 80% WVDC, 1000 hrs	Mil-Std-883 M1005 JESD22-A-108	IX2120 TE3508	105	1
Thermal Shock	0 to 100°C, 10/10 dwells, 15 cycles	Mil-Std-883, M1011	IX2120 TE3508	50	0
Temperature Cycle	-55 to 125°C, 10/10 dwells, 300 cycles	Mil-Std-883, M1010, "B"	IX2120 TE3508 TE3546	50 55	0
Hot Storage	125C, 1000 hrs	JESD22-A103-C	IX2120 TE3508	50	0
MSL	IR Reflow, Level 1	J-STD-020D.1	IX2120 TE3541 TE3546	25 55	0

Table 3: ESD Results – 28L SOIC

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	IX2120 TE3508	+/-1000V	1B

Table 4: FIT Rate Summary

Qual Lot #	Stress Test	# of Devices	# of Fail	Hours Tested	Equivalent Dev. Hours	FIT Rate @ 60% CL
1	HTRB	105	1	1000	26,817,626	75.70*

* HTRB FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 125°C test temperature and 40°C use temperature.

Approvals

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