



**Reliability Report
(Q2017-005)**

**IX4340NE Product Qualification
5A, 18V Gate Driver**

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Summary

The IX4340NE product has successfully passed IXYS ICD's requirements for product qualification.

Table 1: Device Information

Product Number	IX4340NE
Package Type	8L SOICN with Exposed Pad
Assembly Site	Greatek, Taiwan
Test Site	IXYS ICD AV, Aliso Viejo, USA

Table 2: Reliability Test Result

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
HTOL	125°C, 80% WVDC, 1000 hrs	Mil-Std-883 M1005 JESD22-A-108	IX4340NE GE0079	96	0
HAST	130°C, 85%, 18.8PSI, 96 hrs	JESD22- A110-C	IX4340NE GE0079	75	0
MSL	IR Reflow, Level 1	J-STD-020D.1	IX4340NE GE0079	25	0

Table 3: ESD Results – 8L SOICN

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JS-001-2012	IX4340NE GE0079	+/-4000V	3A

Table 4: FIT Rate Summary

Qual Lot #	Stress Test	# of Devices	# of Fail	Hours Tested	Equivalent Dev. Hours	FIT Rate @ 60% CL
1	HTOL	96	0	1000	24,518,973	37.52*
1	HAST	75	0	96	10,308,856	89.24**

* 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.

** HAST FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 130°C test temperature and 40°C use temperature.

Approvals

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