



## **Reliability Report (Q2021-012)**

# **NCD2400 Wide Capacitance Range, Non-Volatile Digital Programmable Capacitor Qualification**

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**IXYS Integrated Circuits Division (a Littelfuse Technology)**

**78 Cherry Hill Drive, Beverly, MA 01915**

**[www.ixysic.com](http://www.ixysic.com)**

### Summary

The NCD2400 Wide Capacitance Range, Non-Volatile Digital Programmable Capacitor has successfully passed IXYS ICD's requirements for product qualification.

**Table 1: Device Information**

Product Number	NCD2400
Package Type	6L DFN
Assembly Site	Unisem, China
Test Site	IXYS ICD BEV, Beverly, MA, USA (Process XH035 XFAB Dresden, Germany)

**Table 2: Reliability Test Result**

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
Temperature Cycle	-65 to 150°C, 10/10 dwells, 500 cycles	JESD22-A104	NCD2400 6L DFN	55	0
Hot Storage	150C, 1250 hrs	JESD22-A103-C	NCD2400 6L DFN	675	0

**Table 3: ESD Results**

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	NCD2400 6L DFN	+/-2000V	1C

**Table 4: FIT Rate Summary**

Qual Lot #	Stress Test	# of Devices	# of Fail	Hours Tested	Equivalent Dev. Hours	FIT Rate @ 60% CL
1	Hot Storage	675	0	1250	14,625,747	62.65*

\* Hot Storage FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 150°C test temperature and 95°C use temperature.



## Approvals

Prepared by: Martha W. Brandt\* 10/28/2021  
Martha W. Brandt Date  
Senior Quality Engineer

Approved by: Ray Spiewak\* 11/1/2021  
Ray Spiewak Date  
Quality Manager

Approved by: James Archibald\* 11/3/2021  
James Archibald Date  
Director Integrated Circuits Device R&D SBU

\*Signature on File