



Myth or Fact: Aged Product Indicates Diminished Performance?



Aged Product Indicates Diminished Performance?

■ The electronics component industry has a long history of disposing of aged components (product older than 2 years has been widely considered “aged”) due to fears of product failure. This fear, leading to premature product disposal, has resulted in significant financial loss.

Research conducted by manufacturers, distributors and other organizations has shown that aged product performs just as well as new and restricting their sale can unnecessarily result in disruptions in the supply chain.

Additionally, rigorous industry testing methods under harsh and unfavorable conditions have shown that the **Solderability, Packaging and Storage Integrity** of aged product **has not** been compromised.



“Research conducted by manufacturers, distributors and other organizations has shown that *aged* product performs just as well as new...”

SOLDERABILITY

Several testing studies have shown that with aged product, solderability degradation was not an issue, “No indication of solderability degradation was observed in LTS or laboratory aged samples.”^[1]

PACKAGING AND STORAGE

Component and device storage for extended periods of time have always been a general topic of concern, however, rigorous high temperature and humidity testing results from several establishments and studies have shown that it is not a valid concern in terms of storage, shelf-life and handling.

[1] R. R. Madsen, (2008, May). Component Reliability After Long Term Storage, *Texas Instruments, Application Report*, 9.



PACKAGING AND STORAGE (CONT.)

■ "Results show that current packaging material (mold compound and leadframe) is sufficiently robust to protect the active integrated circuits for many decades and permit standard reflow solder assembly beyond 15 years."

Additionally, "Packing materials designed for long term storage are effective for more than five years."^[2]

[2] R. R. Madsen, (2008, May). Component Reliability After Long Term Storage, *Texas Instruments, Application Report*, 1 Abstract.



THE VERDICT

■ "Because of the advances made in the engineering, design, manufacturing technology, handling, and storage, general date code restrictions are not justified. Component age does not adversely affect component performance to the manufacturers specification." As evidenced by several reports and conclusion drawn by ECIA, that "Component warranties are not affected by the age of components at the time of sale."^[3].

[3] ECIA PUBLICATION (2002, December). *Managing Date Code Restrictions on Orders for Electronic Components*, An Industry Position Paper, Revision: December 2002



“Component age does not adversely affect component performance to the manufacturers specification.”



WHAT ABOUT HIGHLY REGULATED INDUSTRIES?

■ The verdict applies there as well, such as in Mil-Aero. “Extensive study by industry leaders, NASA and the U.S. military have shown substantial evidence that in modern storage environments, time intervals of five years or longer between manufacture of components and shipment to OEMs pose virtually no risk to the quality or reliability of electronic products.”^[4]

[4] AN-40-015 Rev.: A (02/21/17) M160453. *Impact of Date Code Age Restrictions on Quality, Service, and Value*, Mini-Circuits, 1



“Component age does not adversely affect component performance to the manufacturers specification.”



SUMMARY OF RESULTS

■ The electronics component industry has developed new materials, processes, quality control standards, storage and handling standards that have now all but eliminated any questions or concerns regarding aged components past the typical 2-year time period.

ENSURING PERFORMANCE

■ [WALDOM ELECTRONICS](#) stands by the reliability of aged product and has updated and expanded its [Product Return Policy](#). We now offer a *Twenty-Four (24) months / 2 Year Product Return Guarantee* for defective product(s) within warranty, from date of purchase that includes available components sold through our [SM&E Recovery Program](#).



WALDOM ELECTRONICS.



“Component age does not adversely affect component performance to the manufacturers specification.”



WALDOM ELECTRONICS.

Purchase with **CONFIDENCE!**

Searching for a source to purchase inventory from a wide-variety of popular, long tail or hard-to-source products from manufacturers that you typically would not have access to? Searching to purchase products that carry a 2-Year Product Warranty?

Search No Further!

Extended 2-Year Product Warranty



Purchase With Confidence!

THE WALDOM COMMITMENT

Why did we increase our warranty period for defective and/or out-of-spec product? We strive for continuous improvements in our strict quality control and receiving procedures for Slow-Moving and Excess (SM&E) inventory.

We are confident in our industry-leading performance in both product and shipment quality!



WALDOM ELECTRONICS INC.

★★★★★ WARRANTY CERTIFICATE ★★★★★

24 MONTH PRODUCT WARRANTY

WALDOM ELECTRONICS, INC. must be notified within twenty-four (24) months of the date of the invoice of any product that is believed not to meet manufacturer's specifications. Waldom may require samples for inspection prior to issuing an RMA. Defective product must be returned in its original packaging and condition of delivery and may not be altered in any way. Waldom will provide shipping instructions for product return. Full credit for the returned product will be issued upon quality inspection and verification of count by Waldom's Receiving Department.



Dan Heinen
Dan Heinen - Waldom Electronics Director of Quality

WARRANTY

Purchase With Confidence!

WHY WALDOM?

Waldom is your "Distributor's Distributor", a [Master Distributor](#) of both electronic and electrical components, selling exclusively to Distributors, never the end user or the OEMs. We are proudly partnered with over [40 industry leading Manufacturers](#), selling globally to a network of over 2,500 Distributors. With 215,000 plus parts in stock and available at reduced MOQs, Waldom is your source for reliable, high-quality components.

A significant part of our inventory also includes Waldom Product Recovery, comprised of saleable commercial-grade components that may be past their original warranty. As evidenced above, distributors can "Purchase with Confidence" that Waldom stands behind customer purchases with its [2-Year Product Warranty](#) providing in-stock inventory at below factory minimum order quantities with same-day shipments.

LEADING INDUSTRY MANUFACTURER PARTNERS



AUTHORIZED MASTER DISTRIBUTOR



215K+

Unique Part
Numbers In Stock

\$400M

Available Inventory



WALDOM ELECTRONICS.

GET STARTED TODAY!

Reach out to any one of our Waldom Electronics Associates
or email us: sales@waldom.com

For any further questions regarding our updated policy, please contact:

Dan Heinen, *Waldom Electronics Director of Quality*
Office: 815-490-4212 | Email: dan@waldom.com



Extended 2-Year Product Warranty