

This is a high level comparison between JEDEC JESD625B (January 2012) and ANSI/ESD S20.20-2014

JEDEC JESD625B, issued in 2012, places both documents on a similar technical path but they are not technically equal.

Here are some of the major differences:

1. Scope – JEDEC JESD625B lists applicable users as Semiconductor Manufacturers/Processing and Test Facilities. Parts distributors and users of semiconductor products can use either JEDEC JESD625B or ANSI/ESD S20.20. ANSI/ESD S20.20 was designed for anyone that has to handle unprotected ESD sensitive devices. JEDEC JESD625B does not address isolated conductors which is an important consideration for any ESD control plan. JEDEC's focus is on the semiconductor industry.
2. JEDEC JESD625B's limits for static fields are different than listed in ANSI/ESD S20.20. Our limit for process required insulators closer than 1 inch is much lower than Jedec's. Their limit for process required insulators < 12 inches from ESD sensitive devices is more stringent than ANSI/ESD S20.20's. Ours was derived through testing and experimental work. Theirs was randomly selected as ½ of our limit without data (I was involved when this decision was made by them).
3. ANSI/ESD S20.20 requires a walking test. This test provides the user with data that supports the claim that 100 volt HBM sensitive devices can be protected from damage. JEDEC JESD625B has no walking test and therefore has not evidence that devices are actually protected.
4. ANSI/ESD S20.20 requires product qualification JEDEC JESD625B does not even though they set limits for the audits.
5. JEDEC JESD625B is more prescriptive then ANSI/ESD S20.20. As an example, training records in JEDEC JESD625B must be kept at least 2 years and they have specific requirements related to auditing – auditor name, date, results etc. (our Compliance Verification). ANSI/ESD S20.20 on the other hand is designed to work with any company's Quality Management System (QMS). Every companies QMS will specify these things and we did not want to create an exception to a company's guidelines by imposing arbitrary limits.