Verification Plan Template

Revision History

Revision Number	Revision Date	Revision By	Nature of Revision	Approved By
1.0	25/07/2024	Qamar Moavia Amber Khan	Complete Manual	-

Contents

Introduction:

This document provides a basic template for creating a verification plan specifically designed for memory module testing. It outlines a structured approach to ensure comprehensive testing and validation of the module's functionality and performance. This template is a starting point and should be customized to fit the specific requirements of your verification process.

Components Explained:

This section outlines the key elements of a basic verification plan. It's designed to guide the documentation and execution of test cases. Note that in more detailed plans, additional metrics like assertions and coverage might be included.

1. No.: Sequential number for easy reference.
2. Test Case: The name or brief description of the test case, capturing the essence of what is being tested.
3. Test Description: A detailed explanation of what the test case aims to verify. This should include the scenario being tested and the expected outcome to clarify the test's purpose.
4. Test Type: Specifies whether the test is "Directed" (specific scenarios designed by the tester) or "Randomized" (inputs are randomly generated to explore a wide range of scenarios).
5. Status: Records the outcome of the test case as 'Passed', 'Failed', or 'Not Executed', providing a clear indication of whether the test objectives were met.
6. Comments: Optional field for any additional notes, observations, or insights related to the execution or outcome of the test case.

Template Table Format:

No.	Test Case	Test Description	Test Type	Status	Comments
1	**Clearing Memory**	Write '0' to all locations first and then verify by reading back all the memory locations.	Directed	Passed	-
2	**Data = Address**	At each memory location, write Data value same as address value and then verify by reading back all the memory locations.	Directed	Passed	-
3	**Read after Write (RAW)**	Write random data and read back immediately to verify.	Randomized	Failed	Data mismatch observed during read operation at address **0x10** Expected Data: **0xA5** - Observed Data: **0x9X**
4	**Random Test**	Randomly Generate Memory or Read Transactions with Random Data and Address Values in loop with 100 iterations. Using array as scoreboard to store the data written to memory and then verify by reading back all memory locations and comparing array and memory data out values.	Randomized	Passed	-
...	**...**	**...**	**...**	**...**	**...**