

Memory Update with Parameter values



You are finalizing the test cases for the Software Requirements before testing begins. I will provide you with a set of Software Requirements and their linked Test Cases descriptions (one or more).

Your task is to ensure every aspect of the Software Requirement is fully covered by its linked test cases. Specifically, Make sure that the test cases cover all operation types unless the Software Requirement explicitly restricts this. Consider whether specific modes, scenarios, or edge cases mentioned in the requirements are fully covered. I will give you detailed information about the parameter values, their interpretations and possible combinations so you could refer them for coverage analysis. Stick to the scope of the software requirement. For each test case, provide the following ratings:

Meaningfulness of the Link:

High: The test case clearly and directly validates the software requirement, ensuring the requirement is fully tested and adding significant value to the verification process. The link between them is strong and logical.

Medium: The test case generally supports the software requirement, but there may be a need for better alignment or more specific test details to fully cover the requirement.

Low: The test case is poorly aligned or irrelevant to the software requirement, making the link weak or unclear.

Completeness of the Link:

High: The link between the software requirement and the test case is fully detailed, covering all necessary aspects needed for thorough testing. No significant test scenarios or details are missing.

Medium: The link is somewhat complete but lacks some critical test scenarios or clarifications that would improve the coverage and understanding of the requirement.

Low: The link is significantly incomplete or lacks essential test scenarios, making it difficult to see how the test case fully validates the software requirement.

Please use this template for your answers:

1. **Meaningfulness Rating (High/Medium/Low):**

2. **Reason for Meaningfulness Rating:**

3. **Completeness Rating (High/Medium/Low):**

4. **Reason for Completeness Rating:**

5. **Overall Quality of the Link (High/Medium/Low):**

6. **Reason for Overall Quality Rating:** 7. Missing Test cases if any.

. I will now give you detailed information on the parameter and their possible values. Always refer to it for coverage.



Understood! I'll carefully assess each test case you provide against the Software Requirements, checking for thorough coverage, alignment with requirement details, and the inclusion of all

necessary scenarios. Please provide the parameters and their possible values, and I'll keep them as a reference for evaluating the test cases.



SWRS-2988 - Command Parameter PA

Description

The 4-bit parameter PA defines the physical address with which the controller addresses the Sensor ICs.

PA-Value Interpretation

0x0 broadcast: All Sensor ICs on bus are addressed and switch to PDCM. The sensor ICs will respond to BRCs.

Parameter DSI3_physicalAddress unicast: Sensor IC is addressed and responds to the CRM.

Not 0x0 AND not Parameter DSI3_physicalAddress ignore: Sensor IC ignores the command.

SWRS-1299 - Possible 'Memory Access' "1. Read unicast

2. Read broadcast

3. Write unicast

4. Write broadcast"

SWRS-16616 - Error: err_discPhysAddrMismatch

Description

The physical address detected during the discovery mode does not match to the physical address stored in the non volatile memory area.

Value Interpretation

(0x0) - Default also "No error detected

"

(0x1) Error detected

SWRS-16579 - Error: err_burstGenerationStopped

Description

If a running measurement is aborted by a CRM received during the burst generation, the burst generation is stopped automatically. The error indicates, that an incomplete burst has been sent out.

Value Interpretation

(0x0) "No error detected

"

(0x1) - Default also Error detected

"SWRS-16368 - Direct Measurement

" The Direct Measurement starts AFTER the Burst Activation.

"SWRS-16369 - Indirect Measurement

" The Indirect Measurement starts AFTER the activation of measurement without burst Extract Burst Information (Case: Indirect)

SWRS-14787 - CRM_CMD 0x4 Parameter BurstSensor

Description

The 2-bit parameter BurstSensor defines the transducer excitation mode of all Sensors addressed with PA.

BurstSensor-Value Interpretation

0x0 = 0b00 burst only: Sensor excites the transducer immediately, echo events will NOT be reported.
 0x1 = 0b01 direct: Sensor excites the transducer, echo events will be reported.
 0x2 = 0b10 not used: Sensor rejects command with the status "invalid".
 0x3 = 0b11 indirect: Sensor performs no transducer excitation, "listening mode", echo events will be reported.

CRM_CMD 0x8 Operation Flag

Value Interpretation

0b0 read operation is requested.
 0b1 write operation is requested. The written data can be used to update the NVM.

CRM_RSP 0x8 Flag KeyRequest

KeyRequest-Value Interpretation

0b0 NO key requested
 0b1 key requested

SWRS-2998 - CRM_RSP Parameter CrmStatus

Description

The 2-bit parameter CrmStatus reports the following status with the respective values:

Status-Value Interpretation

0x0 = 0b00 status-value not used
 0x1 = 0b01 valid: previous CRM command was valid and the command will be performed.
 0x2 = 0b10 invalid: previous CRM command was not valid and the command will not be performed.
 0x3 = 0b11 blocked: previous CRM command was valid but it cannot be performed, because the Sensor is blocked by a task.



Thank you for providing these parameter details. With this reference, I'll analyze the Software Requirements and linked Test Cases to ensure all aspects, including operation types, address modes (unicast/broadcast), error handling, and measurement types, are thoroughly covered. I'll use these interpretations to validate the test coverage and identify any missing test cases for comprehensive validation.

Please provide the first set of Software Requirements and their linked Test Cases for evaluation.

Elmos Chat GPT workspace chats aren't used to train our models. ChatGPT can make mistakes.