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Please note, Follow-Up Procedure Revisions or Report Revisions do not include Authorization Pages, Indices, Section General, and/or Appendices unless revisions were required or requested.

Should you have any questions, after reviewing the material, or need to report any inaccuracies, please reach out to your UL representative or find UL contact details for your local Customer Service Department at <https://www.ul.com/about/locations>.

Please find attached the related material

For your convenience, the below describes the related updates:

|                             |
|-----------------------------|
| E341988-A6001-DescriptionUL |
| Figure-6-Total              |
| E341988-A6001-TestRecordUL  |

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Times change, Trust Remains™

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## UL TEST REPORT AND PROCEDURE

|                                    |  |
|------------------------------------|--|
| <b>Standard:</b>                   | UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)<br>CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) |
| <b>Certification Type:</b>         | Component Recognition  |
| <b>CCN:</b>                        | AZOT2, AZOT8 (Audio/video, Information and Communication Technology Equipment)   |
| <b>Complementary CCN:</b>          | N/A  |
| <b>Product:</b>                    | PCIe M.2 2280 SSD  |
| <b>Model:</b>                      | PX25X-M280 (X=A-Z, 0-9)  |
| <b>Rating:</b>                     | I/P: 3.3 Vdc (optional)  |
| <b>Applicant Name and Address:</b> | APACER TECHNOLOGY INC<br>1F 32 ZHONGCHENG RD<br>TUCHENG DISTRICT<br>NEW TAIPEI<br>236 TAIWAN   |

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Nike Huang / Project Handler      Reviewed By: Vincent Lai / Reviewer

### Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

### Product Description

- The equipment under test (EUT), models shown as cover page is a PCIe M.2 2280 SSD for building-in as a component/assembly use in audio/video, information and communication technology equipment.

- The equipment is incorporated with following critical parts:

- 1) ES1 board.

### Model Differences

All models are identical except for model designation for marketing purpose and no safety consideration.

### Test Item Particulars

|  |                                     |
|--|-------------------------------------|
| Product group                                  | built-in component                  |
| Classification of use by                       | --                                  |
| Supply Connection                              | not mains connected:<br>ES1         |
| Supply tolerance                               | None                                |
| Supply connection – type                       | not directly connected to the mains |
| Considered current rating of protective device | N/A                                 |
| Equipment mobility                             | for building-in                     |
| Over voltage category (OVC)                    | not directly connected to the mains |
| Class of equipment                             | Class III                           |
| Special installation location                  | N/A                                 |
| Pollution degree (PD)                          | PD 2                                |
| Manufacturer's specified T <sub>ma</sub> (°C)  | 85                                  |
| IP protection class                            | IPX0                                |
| Power systems                                  | not AC mains                        |
| Altitude during operation (m)                  | 2000 m or less                      |
| Altitude of test laboratory (m)                | 2000 m or less                      |
| Mass of equipment (kg)                         | Max. 8.6                            |

**Technical Considerations**

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of : 85 °C
- The equipment is intended for build-in and supplied from ES1 DC source which is separated from AC mains by double or reinforced insulation.

**Engineering Conditions of Acceptability**

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- Safeguards for electrically-caused fire (for PS) and thermal burn injury (for TS) are to be considered and evaluated when it’s employed in the end-use equipment.
- The equipment is for built-in and shall be supplied from a DC source with double/reinforced insulation to AC mains.
- The accessibility shall be evaluated in the end use application.
- The suitable Symbol/Markings/Instruction and Manual should be provided and evaluated in end product investigation.
- Heating (Thermal Requirements) Test should be considered again in end-product.

**Additional Information**

N/A

**Additional Standards**

The product fulfills the requirements of: N/A

**Markings and Instructions**

| Clause Title   | Marking or Instruction Details  |
|--|---|
| Equipment identification marking – Manufacturer identification | Listee’s or Recognized Company’s name, Trade Name, Trademark or File Number |
| Equipment identification marking – model identification        | Model Number  |

**Special Instructions to UL Representative**

N/A

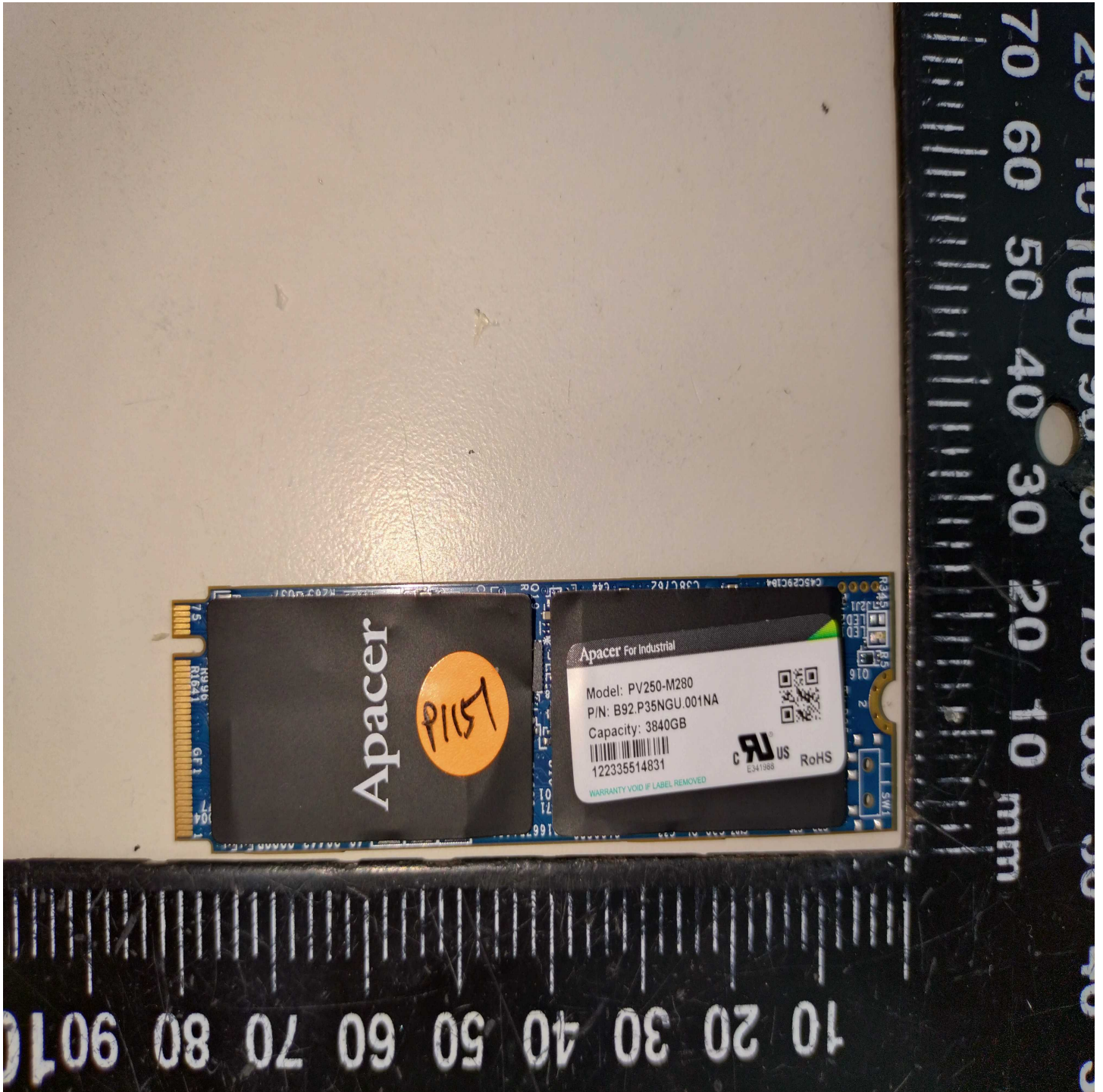
| <b>BD1.0</b> | <b>TABLE: Production-Line Testing Requirements</b>   |                 |                     |            |           |              |
|--------------|--|-----------------|---------------------|------------|-----------|--------------|
| <b>BD1.1</b> | <b>Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.</b>   |                 |                     |            |           |              |
| Model        | Component  | Removable parts | Test probe location | Test V rms | Test V dc | Test Time, s |
| --           | --   | --              | --                  | --         | --        | --           |
| <b>BD1.2</b> | <b>Earthing Continuity Test Exemptions – This test is not required for the following models:</b>   |                 |                     |            |           |              |
|              | All models   |                 |                     |            |           |              |
| <b>BD1.3</b> | <b>Electric Strength Test Exemptions – This test is not required for the following models:</b>   |                 |                     |            |           |              |
|              | All models   |                 |                     |            |           |              |
| <b>BD1.4</b> | <b>Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.</b> |                 |                     |            |           |              |
|              | --   |                 |                     |            |           |              |

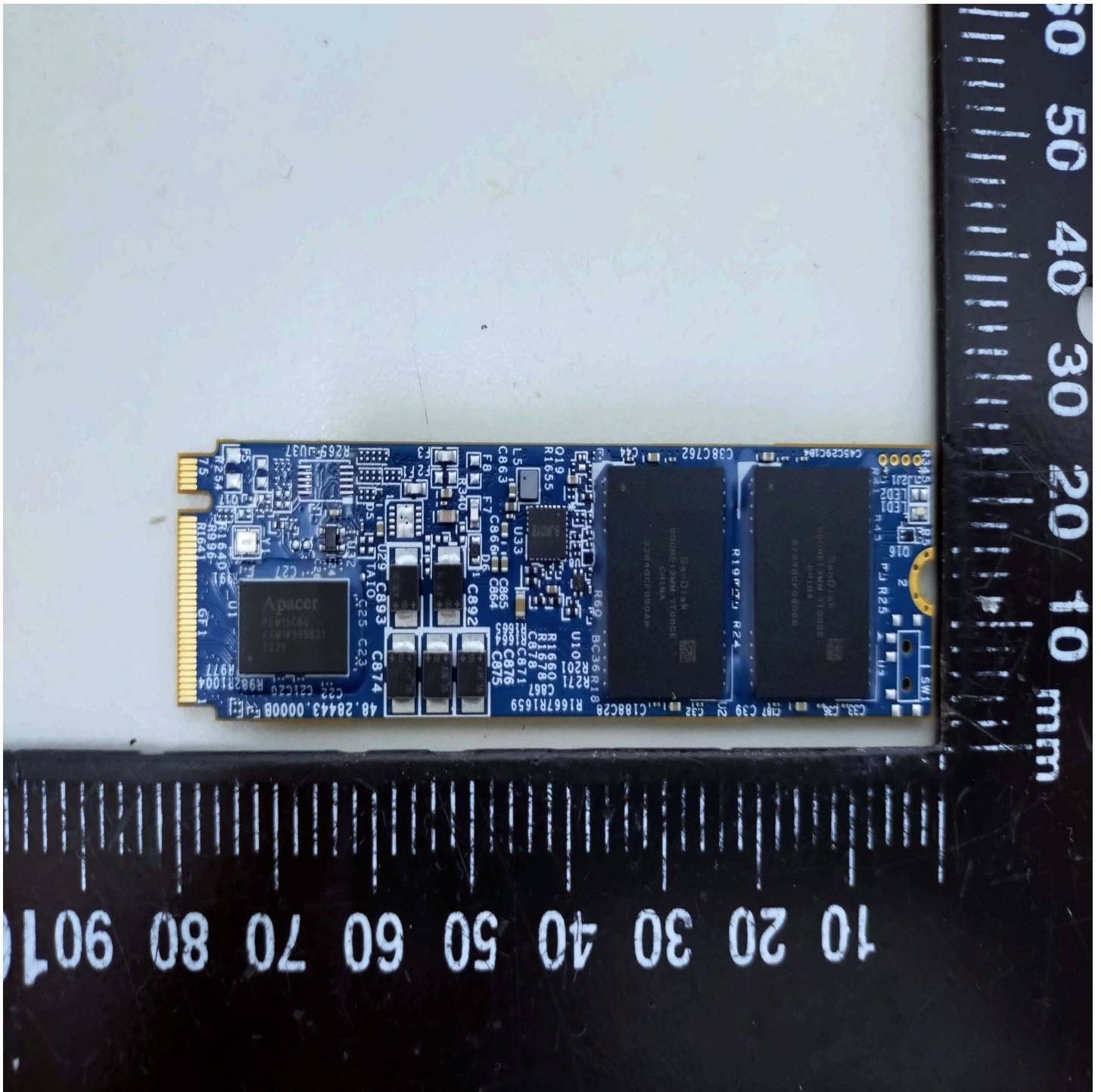
| <b>BE1.0</b> | <b>Sample and Test Specifics for Follow-Up Tests at UL</b> |          |      |            |                |
|--------------|--|----------|------|------------|----------------|
| Model        | Component  | Material | Test | Sample (s) | Test Specifics |
| --           | --   | --       | --   | --         | --             |

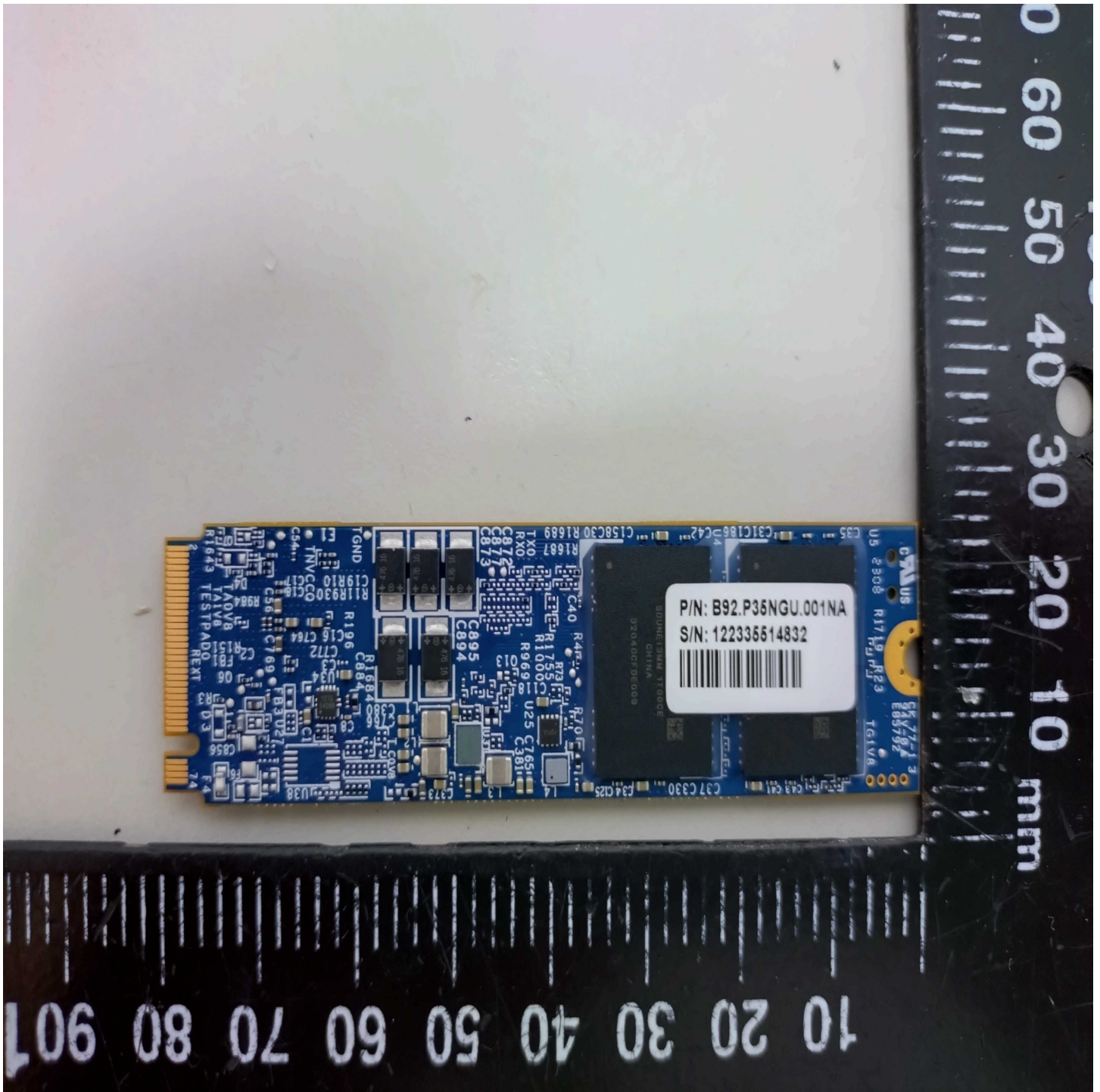
| 4.1.2                       | TABLE: List of critical components |                 |  |                            |                          | Pass          |
|-----------------------------|------------------------------------|-----------------|--|----------------------------|--------------------------|---------------|
| Object / part No.           | Manufacturer/<br>trademark         | Type / model    | Technical data   | Product Category<br>CCN(s) | Mark(s) of<br>conformity | Supplement ID |
| 01. Label                   | Interchangeable                    | Interchangeable | Min 75 degree C, if max<br>surface temperature not<br>specified.   | PGDQ2 or PGJI2             | UL                       |               |
| 01a. Label<br>(Alternate)   | --                                 | --              | Required Markings<br>molded in Enclosure or<br>Permanently Silk-<br>screened on surface of<br>Enclosure. | --                         | --                       |               |
| 02. Printed Wiring<br>Board | Interchangeable                    | Interchangeable | V-1 or better, min 105<br>degree C   | ZPMV2                      | UL                       |               |

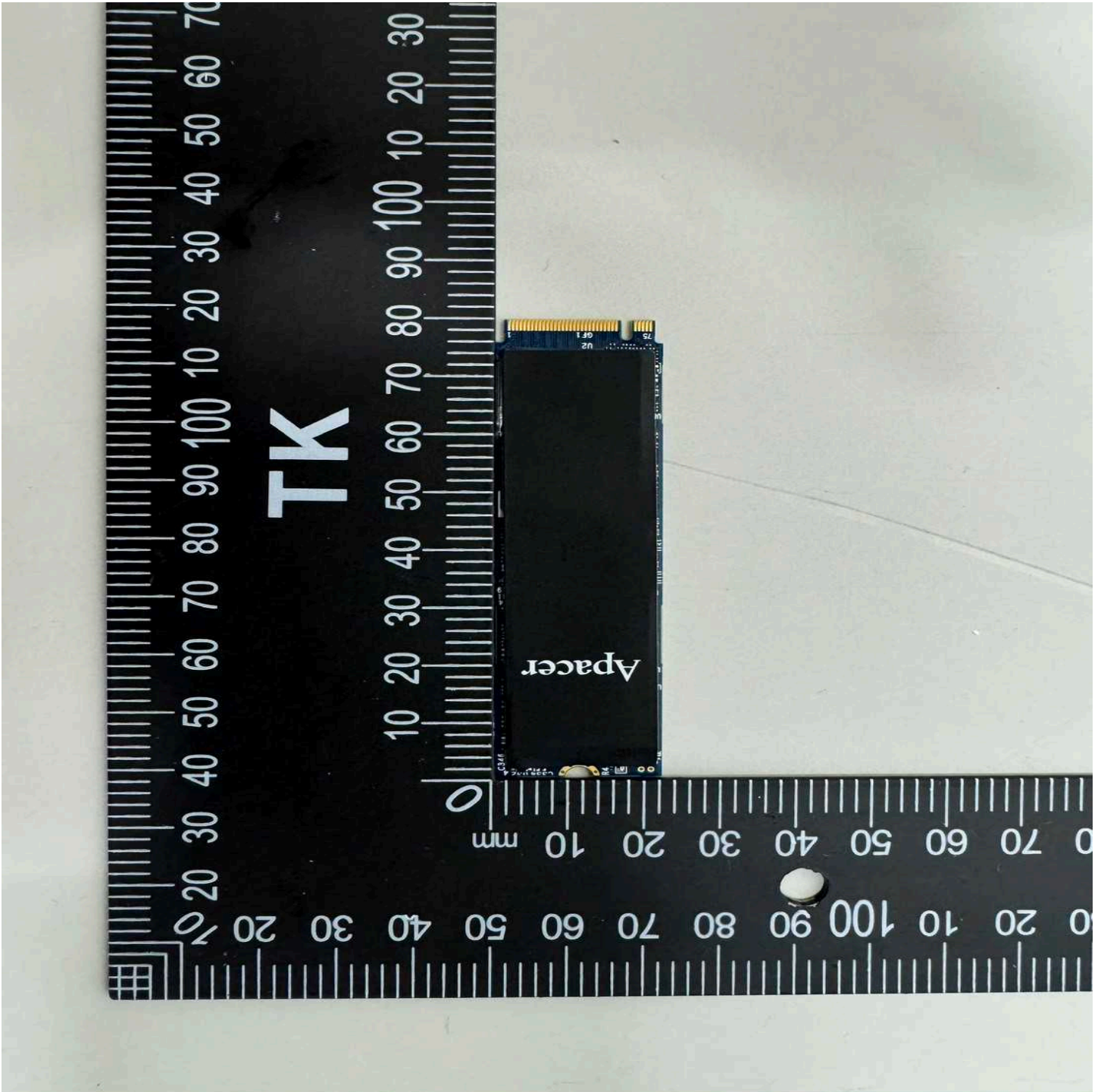
## Enclosures

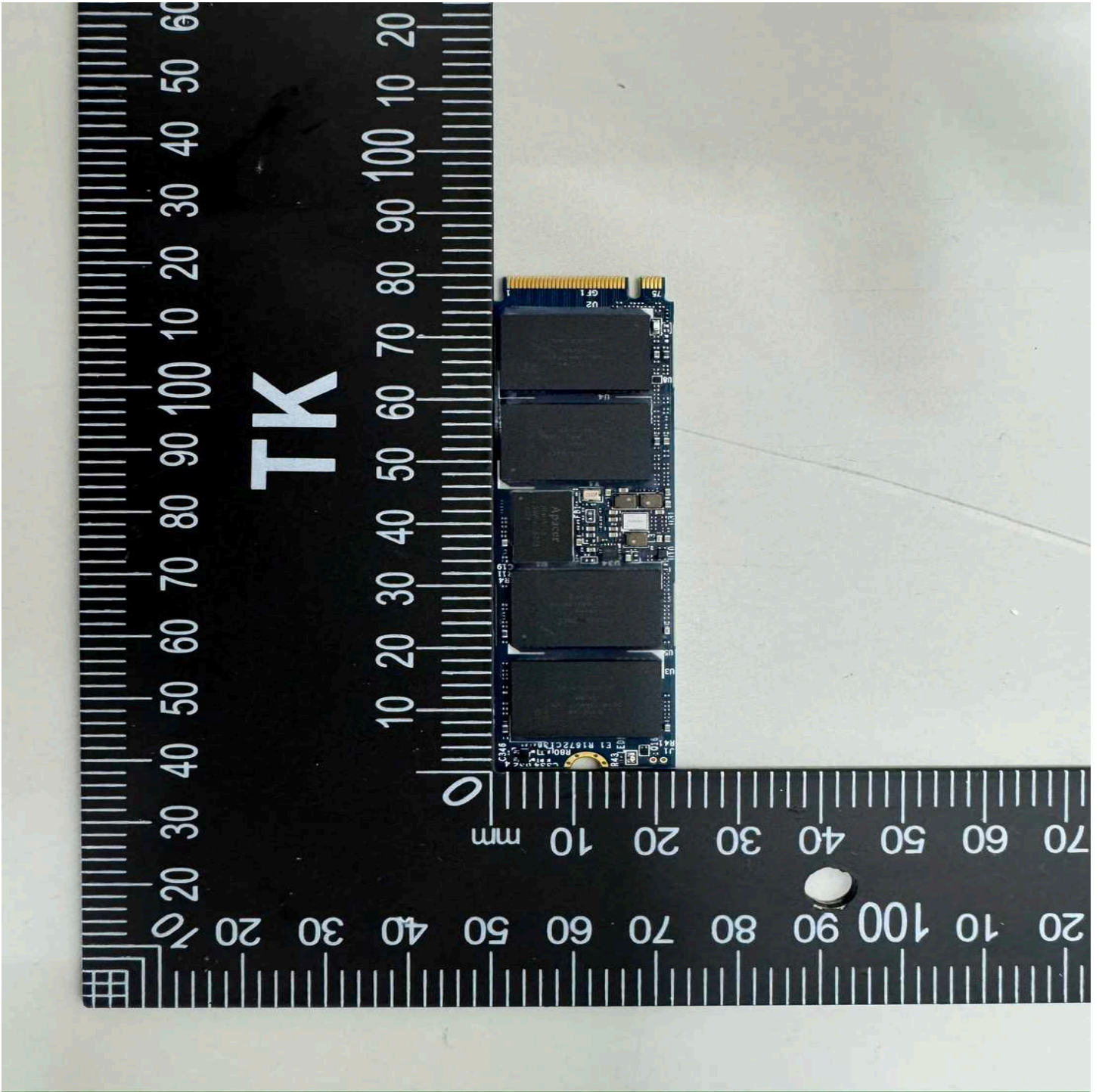
| Type        | Supplement Id | Description                              |
|-------------|---------------|--|
| Photographs | 03-01         | Overall view -1 (main board type A)      |
| Photographs | 03-02         | Overall view -2 (main board type A)      |
| Photographs | 03-03         | Overall view -3 (main board type A)      |
| Photographs | 03-04         | Mainboard overview-1 (main board type B) |
| Photographs | 03-05         | Mainboard overview-2 (main board type B) |
| Photographs | 03-06         | Mainboard overview-3 (main board type B) |

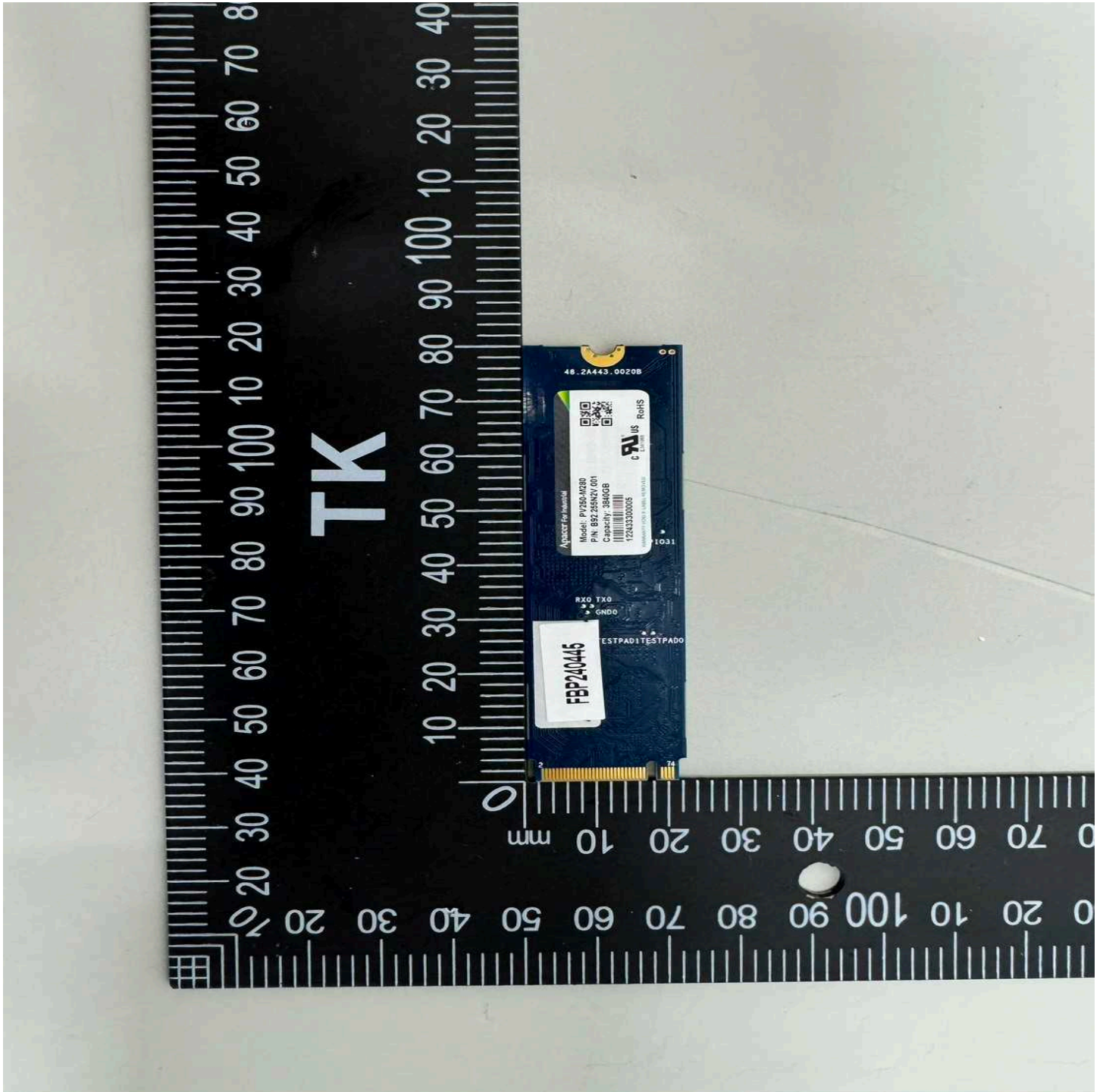












Revision Date: 2024-10-23

**Test Record No. 1**

- The manufacturer submitted representing production samples of PCIe M.2 2280 SSD, Model PX25X-M280 (X=A-Z, 0-9).

- Tests of the product were not considered necessary based upon previous evaluation under the CB scheme. The CB Scheme Test Certificate No. DK-123300-UL, dated 2023-10-31 and Report Ref. No. WL-ITAV-1-23I1502-A0, dated 2023-10-30 were prepared by UL International Demko A/S, Denmark (NCB).

The following tests were conducted:

|   |                               |
|---|-------------------------------|
| <b>Tests performed (name of test and test clause): None</b> | <b>Testing location: None</b> |
|   |                               |
| <b>The following tests were waived: None</b>                | <b>Rationale for Waiving</b>  |
|   |                               |

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

| Type       | Supplement Id | Description |
|------------|---------------|-------------|
| Attachment | 02-01         | CRD         |

Revision Date: 2024-10-23

**Test Record No. 2**

- The manufacturer submitted representative production sample of PCIe M.2 2280 SSD, Model PX25X-M280 (X=A-Z, 0-9), employ the following:

- (1) Add alternate main board, definition main board type B. (Original definition main board type A)
- (2) Change Manufacturer’s specified Tma form 70°C to 85°C.

- Unless otherwise noted in the list of tests, all tests were conducted by UL under the CB Scheme as detailed under CB certificate NO. DK-123300-M1-UL, date 2024-10-23, CB Report reference No. WL-ITAV-1-2311502-A1, date 2024-10-21.

The following tests were conducted:

|   |                               |
|---|-------------------------------|
| <b>Tests performed (name of test and test clause): None</b> | <b>Testing location: None</b> |
|   |                               |
| <b>The following tests were waived: None</b>                | <b>Rationale for Waiving</b>  |
|   |                               |

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

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|------|---------------|-------------|
|      |               |             |