

## Regulatory and certification documents package

**Regulatory Model Number(s):** st2000NX0273, st1000NX0333, st2000NX0263, st1000NX0323, st2000NX0433, st1000NX0453, st2000NX0343, st1000NX0373, st2000NX0323, st1000NX0463, st2000NX0463, st2000NX0443, st1000NX0463, st2000NX0463, st1000NX0473, st2000NX0463, st2000NX0463, st1000NX0473, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0473, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0473, st2000NX0463, st200NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st2000NX0463, st200NX0463, st200N

ST2000NX0253, ST2000NX0333, ST2000NX0453

### Series Name(s): Enterprise Capacity 2.5 v3 (SAS)

### Internal Name: Avenger

| Date          | Comments:                                |
|---------------|--|
| June 14, 2017 | Package generated.                       |
| Feb. 26, 2018 | Updated BSMI DoC                         |
| Nov. 01, 2018 | Updated CE DoC with new RoHS statement   |
| July 02, 2019 | Updated CE DoC with new EN62368 standard |

#### Contents:

- Australia/New Zealand RCM mark SDoC (Supplier Declaration of Conformity)
- Australia/New Zealand TRS (Test Results Summary)
- Canada ICES TRS (Test Results Summary)
- CB Certificate
- CE DoC (Declaration of Conformity)
- CE Mark TRS (Test Results Summary)
- Korea RRL Certificate
- Korea TRS (Test Results Summary)
- UL/cUL safety
- TUV safety
- Taiwan BSMI certificate
- Taiwan CoT (Certificate of Test)



# Supplier's Declaration of Conformity

Declaration of Conformity as a registered and responsible supplier under the Australian Communications and Media Authority (ACMA) regulatory arrangements for Regulatory Compliance Mark (RCM) and it's placement.

Responsible Supplier Name: Seagate Technology Australia Pty Ltd Responsible Supplier Number: E806

Seagate Technology Australia Pty. Limited Level 7, 91 Phillip St PARRAMATTA NSW 2150 AUSTRALIA

Declare under our sole responsibility that the following product(s):

#### Hard Disc Data Storage Drive

Model: Enterprise Capacity 2.5 HDD v3 SAS Disc Drive ST2000NX0273, ST2000NX0343, ST2000NX0323, ST2000NX0353 ST2000NX0263, ST2000NX0333, ST1000NX0333, ST1000NX0373 ST1000NX0323, ST1000NX0363, ST2000NX0383, ST1000NX0413 ST2000NX0373, ST2000NX0433, ST2000NX0453, ST1000NX0453 ST1000NX0473, ST1000NX0403, ST2000NX0443, ST2000NX0463 ST1000NX0463

to which this declaration relates is in conformity with the following standard(s):

| Title                            |                             | Test Regulation                    |
|----------------------------------|-----------------------------|------------------------------------|
| Australian/New Zealand Standard  |                             | d AS/NZS CISPR 32: 2013            |
| (Name of the Au                  | thorized Person)            | Sam Zavaglia                       |
| (Title of the Authorized Person) |                             | Senior Field Applications Engineer |
| (Date of Issue)                  | 24 <sup>th</sup> November 2 | 2016                               |
| (Signature)                      | ASK.                        | ~                                  |



KOREAN STANDARD KN 22 with RRA Public Notification 2014-8 and RRA Announce 2014-37 EUROPEAN STANDARD EN 55032: 2012/AC: 2013 AS/NZS CISPR 32: 2013 EUROPEAN STANDARD EN 55022: 2010/AC: 2011 AS/NZS CISPR 22: 2009 + A1: 2010

## VCCI V-3/2014.04 CAN/CSA-CISPR 22-10: 2010

#### Class B Limit

| COMPANY NAME<br>COMPANY ADDRESS<br>NAME OF EQUIPMENT | Seagate Technology LLC<br>1280 Disc Drive<br>Shakopee MN 55379<br>Enterprise Capacity 2.5 HDD v3 S  | SAS Disc Drive  |   |
|--|---|---|---|
| MODEL NUMBER(S)                                      | 5xxE Format Size<br>ST2000NX0273 – Standard<br>ST1000NX0333 – Standard<br>ST2000NX0343 – SED<br>ST2000NX0353 – SED w/FIPS<br>ST2000NX0383 – SED-ISE<br>ST1000NX0373 – SED<br>ST1000NX0413 – SED-ISE | <u>4Kn Format Size</u><br>ST2000NX0263 – Standard<br>ST2000NX0323 – SED<br>ST2000NX0333 – SED w/FIPS<br>ST2000NX0373 – SED-ISE<br>ST1000NX0323 – Standard<br>ST1000NX0363 – SED<br>ST1000NX0403 – SED-ISE | 512n Format Size<br>ST2000NX0433 – Standard<br>ST2000NX0443 – SED<br>ST2000NX0453 – SED w/FIPS<br>ST2000NX0463 – SED-ISE<br>ST1000NX0453 – Standard<br>ST1000NX0463 – SED<br>ST1000NX0473 - SED-ISE |
| SERIAL NUMBER(S)                                     | S46009RA, S47008BL  |   |   |
| TEST REPORT NUMBER                                   | NC1404080.1 Rev B   |   |   |
| TEST DATE(S)   | 05 – 06 May 2014  |   |   |
|  |   |   |   |

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the requirements of Korean Standard KN22 "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement" with Technical Requirements for Electromagnetic Interference RRA Public Notification 2014-8 and Test Methods for Electromagnetic Interference RRA Announce 2014-37", AS/NZS CISPR 22: 2009 + A1: 2010, AS/NZS CISPR 32: 2013, VCCI V-3/2014.04, CAN/CSA-CISPR 22-10: 2010 European Standard EN 55032: 2012/AC: 2013: "Electromagnetic compatibility of multimedia equipment - Emission requirements" (CISPR 32: 2012) and European Standard EN 55022: 2010: "Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment" including AC: 2011.

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV SÜD America's New Brighton and Taylors Falls Labs maintain A2LA accreditation to ISO/IEC 17025 for the specific tests listed in A2LA Certificate #2955.11 as Electrical Testing Laboratories, and are recognized by the National RRA under Phase I of the APEC Tel MRA, Identification Number US0080.

Issue Date: 17 November 2016

Tested by: 1 Cadubourks

Greg S Jakubowski Senior EMC Technician

Approved by:

Joel T. Sohneiger

Joel T Schneider Senior EMC Engineer

Not Transferable

Ref. Certif. No.



DE 3 - 501255

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

1370

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

| Product<br>Produit   | Disk drives   |  |
|--|---|--|
| Name and address of the applicant<br>Nom et adresse du demandeur   | Seagate Technology LLC<br>1280 Disc Drive<br>Shakopee, MN 55379-1863, USA   |  |
| Name and address of the manufacturer<br>Nom et adresse du fabricant  | Seagate Technology LLC, 1280 Disc Drive, Shakopee, MN<br>55379-1863, USA  |  |
| Name and address of the factory<br>Nom et adresse de l'usine   | Seagate Technology (Thailand) Ltd., 90 Moo 15 Tambo<br>Sungnoen Amphur, Sungnoen, Nakhon Ratchasima 30<br>THAILAND<br>For further information please see attachment |  |
| Ratings and principal characteristics<br>Valeurs nominales et caractéristiques principales   | Rated Input Voltage:<br>Rated Frequency:<br>Rated Input Current:<br>Protection Class:<br>Degree of Protection:  | +5Vdc/+12Vdc<br>dc<br>0.60 A/0.30 A (SAS)<br>0.50 A/0.30 A (SATA)<br>III<br>IPX0 |
| Trade mark (if any)<br>Marque de fabrique (si elle existe)   | Seagate   |  |
| Type of Manufacturer's Testing Laboratories used<br>Type de programme du laboratoire d'essais constructeur   | WMT   |  |
| Model/type Ref.<br>Ref. de type  | Enterprise Capacity 2.5 HDD v3 Family:  |  |
| Additional information (if necessary)<br>Information complémentaire (si nécessaire)  |   |  |
| A sample of the product was tested and found<br>to be in conformity with<br>Un échantillon de ce produit a été essayé et a été<br>considéré conforme à la                                  | IEC 60950-1(ed.2);am1;am2   |  |
| as shown in the Test Report Ref. No.<br>which forms part of this certificate<br>comme indiqué dans le Rapport d'essais numéro<br>de référence qui constitue une partie de ce<br>certificat | 092-1404665-100   |  |
| This CB Test Certificate is issued by the National   | Certification Body  |  |

This CB Test Certificate is issued by the National Certification Body Ce Certificat d'essai OC est établi par l'Organisme **National de Certification** 

Date,

2015-03-16 CB 15 02 41780 584

William P. Wellez

William P. Weller



TÜV SÜD Product Service GmbH · Certification Body · Ridlerstrasse 65 · D-80339 München

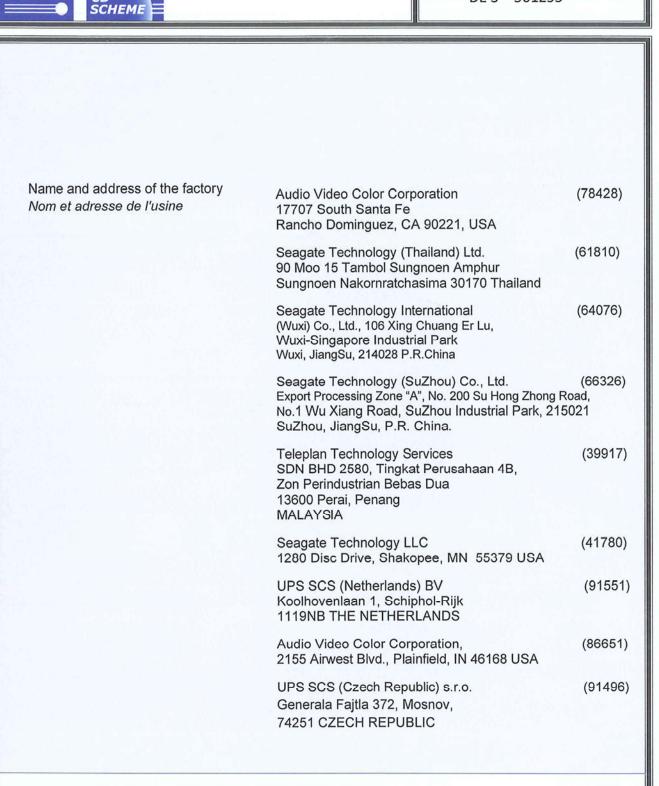
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Ref. Certif. No.

DE 3 - 501255



Date, 2015-03-16 CB 15 02 41780 584

William P. Welles



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Ref. Certif. No.



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| Madalifi     | CanacitulOD | Interface | Format | Disc / | Cache               | Part<br>Number   | SED                   | Board | FIPS Label | ISE     |
|--------------|-------------|-----------|--------|--------|---------------------|--|-----------------------|-------|------------|---------|
| Model #      | Capacity/GB | Interface | Format | Heads  | (MB)                |  | Enabled               | Туре  | affixed    | Enabled |
| T2000NX0263  | 2000        | SAS       | 4Kn    | 5/10   | 128                 | 1FM202-XXX   | No                    | RQAJ  | No         | No      |
| T2000NX0323  | 2000        | SAS       | 4Kn    | 5/10   | 128                 | 1FM212-XXX   | Yes                   | RQAJ  | No         | No      |
| T2000NX0373  | 2000        | SAS       | 4Kn    | 5/10   | 128                 | 1FM232-XXX   | Yes                   | RQAJ  | No         | Yes     |
| T2000NX0333  | 2000        | SAS       | 4Kn    | 5/10   | 128                 | 1FM222-XXX   | Yes                   | RQAJ  | Yes        | No      |
| T2000NX0273  | 2000        | SAS       | 5xxE   | 5/10   | 128                 | 1FM201-XXX   | No                    | RQAJ  | No         | No      |
| T2000NX0343  | 2000        | SAS       | 5xxE   | 5/10   | 128                 | 1FM211-XXX   | Yes                   | RQAJ  | No         | No      |
| T2000NX0383  | 2000        | SAS       | 5xxE   | 5/10   | 128                 | 1FM231-XXX   | Yes                   | RQAJ  | No         | Yes     |
| T2000NX0353  | 2000        | SAS       | 5xxE   | 5/10   | 128                 | 1FM221-XXX   | Yes                   | RQAJ  | Yes        | No      |
| ST2000NX0433 | 2000        | SAS       | 512n   | 5/10   | 128                 | 1VD200-XXX   | No                    | RQAJ  | No         | No      |
| ST2000NX0443 | 2000        | SAS       | 512n   | 5/10   | 128                 | 1VD210-XXX   | Yes                   | RQAJ  | No         | No      |
| ST2000NX0463 | 2000        | SAS       | 512n   | 5/10   | 128                 | 1VD230-XXX   | Yes                   | RQAJ  | No         | Yes     |
| ST2000NX0453 | 2000        | SAS       | 512n   | 5/10   | 128                 | 1VD220-XXX   | Yes                   | RQAJ  | Yes        | No      |
| T2000NX0243  | 2000        | SATA      | 4Kn    | 5/10   | 128                 | 1FM102-XXX   | No                    | SQAJ  | No         | No      |
| T2000NX0283  | 2000        | SATA      | 4Kn    | 5/10   | 128                 | 1FM112-XXX   | Yes                   | SQAJ  | No         | No      |
| T2000NX0393  | 2000        | SATA      | 4Kn    | 5/10   | 128                 | 1FM132-XXX   | Yes                   | SQAJ  | No         | Yes     |
| T2000NX0293  | 2000        | SATA      | 4Kn    | 5/10   | 128                 | 1FM122-XXX   | Yes                   | SQAJ  | Yes        | No      |
| T2000NX0253  | 2000        | SATA      | 5xxE   | 5/10   | 128                 | 1FM101-XXX   | No                    | SQAJ  | No         | No      |
| T2000NX0303  | 2000        | SATA      | 5xxE   | 5/10   | 128                 | 1FM111-XXX   | Yes                   | SQAJ  | No         | No      |
| T2000NX0363  | 2000        | SATA      | 5xxE   | 5/10   | 128                 | 1FM131-XXX   | Yes                   | SQAJ  | No         | Yes     |
| T2000NX0313  | 2000        | SATA      | 5xxE   | 5/10   | 128                 | 1FM121-XXX   | Yes                   | SQAJ  | Yes        | No      |
| ST2000NX0403 | 2000        | SATA      | 512n   | 5/10   | 128                 | 1VD100-XXX   | No                    | SQAJ  | No         | No      |
| ST2000NX0413 | 2000        | SATA      | 512n   | 5/10   | 128                 | 1VD110-XXX   | Yes                   | SQAJ  | No         | No      |
| ST2000NX0423 | 2000        | SATA      | 512n   | 5/10   | 128                 | 1VD130-XXX   | Yes                   | SQAJ  | No         | Yes     |
| T1000NX0323  | 1000        | SAS       | 4Kn    | 3/5    | 128                 | 1FN202-XXX   | No                    | SQAJ  | No         | No      |
| T1000NX0363  | 1000        | SAS       | 4Kn    | 3/5    | 128                 | 1FN212-XXX   | Yes                   | RQAJ  | No         | No      |
| T1000NX0403  | 1000        | SAS       | 4Kn    | 3/5    | 128                 | 1FN232-XXX   | Yes                   | RQAJ  | No         | Yes     |
| T1000NX0333  | 1000        | SAS       | 5xxE   | 3/5    | 128                 | 1FN201-XXX   | No                    | RQAJ  | No         | No      |
| T1000NX0373  | 1000        | SAS       | 5xxE   | 3/5    | 128                 | 1FN211-XXX   | Yes                   | RQAJ  | No         | No      |
| ST1000NX0413 | 1000        | SAS       | 5xxE   | 3/5    | 128                 | 1FN231-XXX   | Yes                   | RQAJ  | No         | Yes     |
| ST1000NX0453 | 1000        | SAS       | 512n   | 3/5    | 128                 | 1VE200-XXX   | No                    | RQAJ  | No         | No      |
| ST1000NX0463 | 1000        | SAS       | 512n   | 3/5    | 128                 | 1VE210-XXX   | Yes                   | RQAJ  | No         | No      |
| ST1000NX0473 | 1000        | SAS       | 512n   | 3/5    | 128                 | 1VE230-XXX   | Yes                   | RQAJ  | No         | Yes     |
| T1000NX0303  | 1000        | SATA      | 4Kn    | 3/5    | 128                 | 1FN102-XXX   | No                    | SQAJ  | No         | No      |
| T1000NX0343  | 1000        | SATA      | 4Kn    | 3/5    | 128                 | 1FN112-XXX   | Yes                   | SQAJ  | No         | No      |
| T1000NX0383  | 1000        | SATA      | 4Kn    | 3/5    | 128                 | 1FN132-XXX   | Yes                   | SQAJ  | No         | Yes     |
| T1000NX0313  | 1000        | SATA      | 5xxE   | 3/5    | 128                 | 1FN101-XXX   | No                    | SQAJ  | No         | No      |
| T1000NX0353  | 1000        | SATA      | 5xxE   | 3/5    |                     | 1FN111-XXX   | Yes                   | SQAJ  | No         | No      |
| ST1000NX0393 | 1000        | SATA      | 5xxE   | 3/5    | 128                 | 1FN131-XXX   | Yes                   | SQAJ  | No         | Yes     |
| ST1000NX0423 | 1000        | SATA      | 512n   | 3/5    | 128                 | 1VE100-XXX   | No                    | SQAJ  | No         | No      |
| ST1000NX0423 | 1000        | SATA      | 512n   | 3/5    |                     | 1VE110-XXX   | Yes                   | SQAJ  | No         | No      |
| ST1000NX0443 | 1000        | SATA      | 512n   | 3/5    |                     | 1VE130-XXX   | Yes                   | SQAJ  | No         | Yes     |
|              |             | UNIT      |        |        | : FIPS =<br>ISE = I | Federal Informa<br>Instant Secure En<br>Self Encrypted D | tion Processi<br>rase |       |            |         |

Date, 2015-03-16 CB 15 02 41780 584

Willeam P. Wellez



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#### Conditions of Acceptability:

1. Disc drives are to be supplied by a reliably SELV power supply.

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- 2. Suitable enclosure (fire/mechanical) to be provided/evaluated when disc drive is installed in the end use product.
- 3. Disc drives were evaluated for operation with a T<sub>MRA</sub> of 55°C. Temperature tests should be considered in the end use product.
- 4. Locked rotor tests of the spindle motor were conducted in accordance with Annex B of IEC 60950-1.

Date, 2015-03-16 CB 15 02 41780 584

William P. Welles

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**Product Service** 

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstrasse 65 • D-80339 München

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## **EU Declaration of Conformity**

#### **Product Safety and EMC Compliance**

The product(s) meets the requirements of The Electromagnetic Compatibility (EMC) Directive 2014/30/EU by application of the following standards:

| EN55032:2012                          | Electromagnetic compatibility of multimedia equipment — Emission requirements – class B.  |
|---------------------------------------|---|
| EN55024:2010                          | Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement   |
| EN 61000-3-2:2014<br>EN61000-3-3:2013 | Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)<br>Limitation of Voltage Changes, Voltage Fluctuations and Flicker in Low-Voltage<br>Supply Systems for Equipment with Rated Current $\leq 16$ Amps per Phase |

# The product(s) meets the requirements of The Low Voltage Directive (LVD) 2014/35/EU by application of the following standard:

EN 62368-1:2014 Audio/video, information and communication technology equipment - Part 1: Safety requirements (IEC 62368-1:2014, Modified)

EN 60950-1:2006 /A11:2009 /A1:2010 /A12:2011/A2:2013 Information Technology Equipment - Safety- (Second Edition) Part 1: General Requirements

#### Product Environmental Compliance, EU/China RoHS Declaration of Conformity

#### Conformity with Harmonized Standards/Technical Specifications:

- Directive 2011/65/EU RoHS "Recast" (RoHS 2) as amended by Directive (EU) 2015/863 and further amended by Directive 2018/739 and Directive 2018/740 EN 50581:2012
- 2. Management Methods for Controlling Pollution by Electronic Information Products, Ministry of Information Industry Order No. 39 (China RoHS)
- 3. Management Methods for the Restriction of the Use of Hazardous Substances in electrical and Electronic Products, Ministry of Industry and Information Technology Order No. 32 effective July 1, 2016 (China RoHS 2)
- 4. Joint JEDEC/ECA Standard, Definition of "Low-Halogen" for Electronic Products, JS709B

| 6(a)-I  | Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight<br>and in batch hot dip galvanized steel components containing up to 0.2% lead by weight     |
|---------|--|
| 6(b)-II | Lead as an alloying element in aluminum for machining purposes up to 0.4% lead by weight   |
| 6c      | Copper alloy up to 0.4% lead by weight   |
| 7a      | Lead in high melting temperature type solders (i.e. lead-based solder alloys containing 85 % by weight or more lead  |
| 7(c)-I  | Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (e.g. piezoelectronic devices) or in a glass or ceramic matrix compound |

Seagate products rely on the following RoHS 2 exemptions for compliance:

#### **Due Diligence**

For parts and materials in Seagate products procured from external suppliers, we rely on the representations of our suppliers regarding the presence of RoHS 2 substances in these parts and materials. Our supplier contracts require compliance with our chemical substance restrictions, and our suppliers document their compliance with our requirements by providing material content declarations for all parts and materials for Seagate products. Current supplier declarations include disclosure of any substances regulated by RoHS 2 in such parts or materials.

Seagate also has internal systems in place to ensure ongoing compliance and all laws and regulations. These systems include standard operating procedures that ensure that product safety, EMC and environmental compliance requirements are followed and an internal auditing process to ensure compliance with all standard operating procedures.

#### Year to Begin Affixing Mark: 2014

| Manufacturer's Name:<br>Manufacturer's Address:<br>(And Importer) | Seagate Technology, LLC<br>10200 South De Anza Blvd.<br>Cupertino, California 95014-3029 U.S.A.                                |                           |  |  |
|---|--|---------------------------|--|--|
| European Contact:   | Director of Operations<br>Seagate Singapore Int'l HQ Pte. Ltd<br>Koolhovenlaan 1<br>1119 NB Schiphol - Rijk<br>The Netherlands |                           |  |  |
| Type of Equipment:  | Hard Disc Drive  |                           |  |  |
| Product Name: (Internal)  | Enterprise Capacity 2.5 HDD v3 (Avenger SAS)   |                           |  |  |
| <b>Regulatory Model Number(s)</b>                                 | :ST2000NX0273  | 1FM201-XXX (5xxE Format)  |  |  |
|   | ST1000NX0333   | 1FN201-XXX (5xxE Format)  |  |  |
|   | ST2000NX0263   | 1FM202-XXX (4Kn Format)   |  |  |
|   | ST1000NX0323   | 1FN202-XXX (4Kn Format)   |  |  |
|   | ST2000NX0433   | 1VD200-XXX (512n Format)  |  |  |
|   | ST1000NX0453   | 1VE200-XXX (512n Format)  |  |  |
|   | Enterprise Capacity 2.5  |                           |  |  |
|   | ST2000NX0343   | 1FM211-XXX (5xxE Format)  |  |  |
|   | ST1000NX0373   | 1FN211-XXX (5xxE Format)  |  |  |
|   | ST2000NX0323   | 1FM212-XXX (4Kn Format)   |  |  |
|   | ST1000NX0363   | 1FN212-XXX (4Kn Format)   |  |  |
|   | ST2000NX0443   | 1VD210-XXX (512n Format)  |  |  |
|   | ST1000NX0463   | 1VE210-XXX (512n Format)  |  |  |
|   | Enterprise Capacity 2.5  |                           |  |  |
|   | ST2000NX0383   | 1FM231-XXX (5xxE Format)  |  |  |
|   | ST1000NX0413   | 1FN231-XXX (5xxE Format)  |  |  |
|   | ST2000NX0373   | 1FM232-XXX (4Kn Format)   |  |  |
|   | ST1000NX0403   | 1FN232-XXX (4Kn Format)   |  |  |
|   | ST2000NX0463 1VD230-XXX (512r  |                           |  |  |
|   | ST1000NX0473 1VE230-XXX (512n Form   |                           |  |  |
|   | Enterprise Capacity 2.5  |                           |  |  |
|   | ST2000NX0353   | 1FM221-XXX (5xxE Format)) |  |  |
|   | ST2000NX0333   | 1FM222-XXX (4Kn Format)   |  |  |
|   | ST2000NX0453   | 1VD220-XXX (512n Format)  |  |  |

This product or products are in conformity with the relevant Union harmonization legislation. This declaration of conformity is issued under the sole responsibility of Seagate Technology LLC.

|                    | DocuSigned by:      |
|--------------------|---------------------|
|                    | Matt Brown          |
| Date: 09:37:44 PDT | (Signature)<br>B4C5 |

Matthew C. Brown Vice President Operations and Technology



| TEST RESULT SUMMARY<br>KOREAN STANDARD KN 22 with RRA Public Notification 2014-8<br>and RRA Announce 2014-37<br>EUROPEAN STANDARD EN 55032: 2012/AC: 2013<br>AS/NZS CISPR 32: 2013<br>EUROPEAN STANDARD EN 55022: 2010/AC: 2011<br>AS/NZS CISPR 22: 2009 + A1: 2010 |   |   |   |  |
|---|---|---|---|--|
| VCCI V-3/2014.04<br>CAN/CSA-CISPR 22-   | -10: 2010   |   |   |  |
| Class B Limit   |   |   |   |  |
| COMPANY NAME<br>COMPANY ADDRESS   | Seagate Technology LLC<br>1280 Disc Drive<br>Shakopee MN 55379  |   |   |  |
| NAME OF EQUIPMENT   | Enterprise Capacity 2.5 HDD v3 S  | AS Disc Drive   |   |  |
| MODEL NUMBER(S)   | 5xxE Format Size<br>ST2000NX0273 – Standard<br>ST1000NX0333 – Standard<br>ST2000NX0343 – SED<br>ST2000NX0353 – SED w/FIPS<br>ST2000NX0383 – SED-ISE<br>ST1000NX0373 – SED<br>ST1000NX0413 – SED-ISE | <u>4Kn Format Size</u><br>ST2000NX0263 – Standard<br>ST2000NX0323 – SED<br>ST2000NX0333 – SED w/FIPS<br>ST2000NX0373 – SED-ISE<br>ST1000NX0323 – Standard<br>ST1000NX0363 – SED<br>ST1000NX0403 – SED-ISE | 512n Format Size<br>ST2000NX0433 - Standard<br>ST2000NX0443 - SED<br>ST2000NX0453 - SED w/FIPS<br>ST2000NX0463 - SED-ISE<br>ST1000NX0453 - Standard<br>ST1000NX0463 - SED<br>ST1000NX0473 - SED-ISE |  |
| SERIAL NUMBER(S)  | S46009RA, S47008BL  |   |   |  |
| TEST REPORT NUMBER  | NC1404080.1 Rev B   |   |   |  |

TEST DATE(S) 05 - 06 May 2014

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the requirements of Korean Standard KN22 "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement" with Technical Requirements for Electromagnetic Interference RRA Public Notification 2014-8 and Test Methods for Electromagnetic Interference RRA Announce 2014-37", AS/NZS CISPR 22: 2009 + A1: 2010, AS/NZS CISPR 32: 2013, VCCI V-3/2014.04, CAN/CSA-CISPR 22-10: 2010 European Standard EN 55032: 2012/AC: 2013: "Electromagnetic compatibility of multimedia equipment - Emission requirements" (CISPR 32: 2012) and European Standard EN 55022: 2010: "Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment" including AC: 2011.

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV SÜD America's New Brighton and Taylors Falls Labs maintain A2LA accreditation to ISO/IEC 17025 for the specific tests listed in A2LA Certificate #2955.11 as Electrical Testing Laboratories, and are recognized by the National RRA under Phase I of the APEC Tel MRA, Identification Number US0080.

Issue Date: 17 November 2016

Tested by: Jadubaur h

Greg S Jakubowski Senior EMC Technician

Approved by:

Joel T. Sohneiler

Joel T Schneider Senior EMC Engineer

Not Transferable



## EUROPEAN STANDARD EN 55024: 2010 KOREAN STANDARD KN 24 with RRA Public Notification 2014-9 and RRA Announce 2014-38

| COMPANY NAME<br>COMPANY ADDRESS | Seagate Technology LLC<br>1280 Disc Drive<br>Shakopee MN 55379  |   |   |
|---------------------------------|---|---|---|
| EQUIPMENT NAME                  | Enterprise Capacity 2.5 HDD v3 S  | SAS Disc Drive  |   |
| MODEL NUMBER(S)                 | 5xxE Format Size<br>ST2000NX0273 – Standard<br>ST1000NX0333 – Standard<br>ST2000NX0343 – SED<br>ST2000NX0353 – SED w/FIPS<br>ST2000NX0383 – SED-ISE<br>ST1000NX0373 – SED<br>ST1000NX0413 – SED-ISE | <u>4Kn Format Size</u><br>ST2000NX0263 – Standard<br>ST2000NX0323 – SED<br>ST2000NX0333 – SED w/FIPS<br>ST2000NX0373 – SED-ISE<br>ST1000NX0323 – Standard<br>ST1000NX0363 – SED<br>ST1000NX0403 – SED-ISE | 512n Format Size<br>ST2000NX0433 – Standard<br>ST2000NX0443 – SED<br>ST2000NX0453 – SED w/FIPS<br>ST2000NX0453 – SED-ISE<br>ST1000NX0453 – Standard<br>ST1000NX0463 – SED<br>ST1000NX0473 - SED-ISE |
| SERIAL NUMBER(S)                | S46009RA, S47008BL  |   |   |
| TEST REPORT NUMBER              | NC1404080.5 Rev A   |   |   |
| TEST DATE(S)                    | 08-09 May 2014  |   |   |

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the electromagnetic compatibility requirements of European Standard EN 55024: 2010: "Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement", and with Korean Standard KN 24: "Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement" with RRA Public Notification 2014-9 and RRA Announce 2014-38.

Testing was performed with the EUT operating on 220 VAC, 60 Hz power.

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV SÜD America's New Brighton, Taylors Falls, and Millville Labs maintain A2LA accreditation to ISO/IEC 17025 for the specific tests listed in A2LA Certificate #2955.11 as Electrical Testing Laboratories, and are recognized by the National RRA under Phase I of the APEC Tel MRA, Identification Number US0080.

Issue Date: 12 February 2015 Te

Tested by:

Approved by:

Michael J Westman, Senior EMC Technician

Sid Insixiengmay, EMC Technician Not Transferable



### **EUROPEAN STANDARD EN 61000-3-2: 2014 EUROPEAN STANDARD EN 61000-3-3: 2013**

| COMPANY NAME    | Seag  |
|-----------------|-------|
| COMPANY ADDRESS | 1280  |
|                 | Ohata |

ate Technology LLC Disc Drive Shakopee MN 55379

EQUIPMENT NAME

Enterprise Capacity 2.5 HDD v3 SAS Disc Drive

MODEL NUMBER(S)

5xxE Format Size ST2000NX0273 – Standard ST1000NX0333 - Standard ST2000NX0343 - SED ST2000NX0353 - SED w/FIPS ST2000NX0383 - SED-ISE ST1000NX0373 - SED ST1000NX0413 - SED-ISE

4Kn Format Size ST2000NX0263 - Standard ST2000NX0323 - SED ST2000NX0333 - SED w/FIPS ST2000NX0373 - SED-ISE ST1000NX0323 - Standard ST1000NX0363 - SED ST1000NX0403 - SED-ISE

512n Format Size ST2000NX0433 - Standard ST2000NX0443 - SED ST2000NX0453 - SED w/FIPS ST2000NX0463 - SED-ISE ST1000NX0453 - Standard ST1000NX0463 - SED ST1000NX0473 - SED-ISE

SERIAL NUMBER(S) S46009RA, S47008BL

TEST REPORT NUMBER NC1404080.7 Rev A

TEST DATE 09 May 2014

TÜV SÜD America Inc. as an independent testing laboratory, declares that the equipment tested as specified above complies with the requirements of European Standard EN 61000-3-2: 2014: "Electromagnetic Compatibility - Part 3-2: Limits - Limits for Harmonic Current Emissions (Equipment Input Current ≤16 Amps Per Phase)" and with European Standard EN 61000-3-3: 2013: "Electromagnetic Compatibility - Part 3-3: Limits - Limitation of Voltage Changes, Voltage Fluctuations and Flicker in Public Low-Voltage Supply Systems for Equipment with Rated Current ≤16 Amps Per Phase and not Subject to Conditional Connection".

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED • engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect . tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

Issue Date: 20 February 2015

Tested hy:

Sid C Insixiengmay EMC Technician

Not Transferable

Approved by:

Report

Michael J Westman Senior EMC Technician

Test Report NC1404080.7 Rev A TÜV SÜD AMERICA INC 1775 Old Hwy 8 NW, Suite 104

Page 1 of 17 New Brighton MN 55112-1891 USA Tel: 651 631 2487 Fax: 651 638 0285 Ver. 140328

# 방송통신기자재등의 적합등록 필증

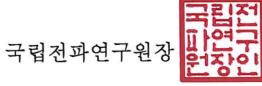
Registration of Broadcasting and Communication Equipments

| 상호 또는 성명<br>Trade Name or Registrant           | SEAGATE TECHNOLOGY LLC   |
|--|--|
| 기자재 명칭<br><i>Equipment Name</i>                | Enterprise Capacity 2.5 HDD v3 SAS Disc Drive  |
| 기본모델명<br>Basic Model Number                    | ST2000NX0273   |
| 파생모델명<br>Series Model Number                   | ST1000NX0333, ST2000NX0343, ST2000NX0353, ST1000NX0373,<br>ST2000NX0263, ST2000NX0323, ST2000NX0333, ST1000NX0323,<br>ST1000NX0363, ST1000NX0473, ST1000NX0453, ST1000NX0403,<br>ST2000NX0463, ST2000NX0433, ST2000NX0373, ST1000NX0463,<br>ST1000NX0413, ST2000NX0453, ST2000NX0443, ST2000NX0383 |
| 등록번호<br><i>Registration No.</i>                | MSIP-REM-STX-ST2000NX0273  |
| 제조자/제조(조립)국가<br>Manufacturer/Country of Origin | SEAGATE TECHNOLOGY LLC, Seagate Technology International Ltd.<br>/ 미국, 중국, 태국  |
| 등록연월일<br>Date of Registration                  | 2014-06-03   |
| 기타<br>Others                                   |  |

위 기자재는「전파법」제58조의2 제3항에 따라 등록되었음을 증명합니다.

It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Waves Act.

2015년(Year) 03월(Month) 19일(Date)



Director General of National Radio Research Agency

※ 적합등록 방송통신기자재는 반드시 "적합성평가표시" 를 부착하여 유통하여야 합니다. 위반시 과태료 처분 및 등록이 취소될 수 있습니다.



| and RRA Ann<br>EUROPEAN STAND<br>AS/NZS CISPR 32: 2 | D KN 22 with RRA Public<br>ounce 2014-37<br>ARD EN 55032: 2012/AC:<br>2013<br>ARD EN 55022: 2010/AC:<br>2009 + A1: 2010   | : 2013  |   |
|---|---|---|---|
| COMPANY NAME<br>COMPANY ADDRESS                     | Seagate Technology LLC<br>1280 Disc Drive<br>Shakopee MN 55379  |   |   |
| NAME OF EQUIPMENT                                   | Enterprise Capacity 2.5 HDD v3 S  | AS Disc Drive   |   |
| MODEL NUMBER(S)                                     | 5xxE Format Size<br>ST2000NX0273 – Standard<br>ST1000NX0333 – Standard<br>ST2000NX0343 – SED<br>ST2000NX0353 – SED w/FIPS<br>ST2000NX0383 – SED-ISE<br>ST1000NX0373 – SED<br>ST1000NX0413 – SED-ISE | <u>4Kn Format Size</u><br>ST2000NX0263 – Standard<br>ST2000NX0323 – SED<br>ST2000NX0333 – SED w/FIPS<br>ST2000NX0373 – SED-ISE<br>ST1000NX0323 – Standard<br>ST1000NX0363 – SED<br>ST1000NX0403 – SED-ISE | 512n Format Size<br>ST2000NX0433 – Standard<br>ST2000NX0443 – SED<br>ST2000NX0453 – SED w/FIPS<br>ST2000NX0463 – SED-ISE<br>ST1000NX0453 – Standard<br>ST1000NX0463 – SED<br>ST1000NX0473 - SED-ISE |
| SERIAL NUMBER(S)                                    | S46009RA, S47008BL  |   |   |
| TEST REPORT NUMBER                                  | NC1404080 1 Rev B   |   |   |

TEST DATE(S) 05 - 06 May 2014

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the requirements of Korean Standard KN22 "Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement" with Technical Requirements for Electromagnetic Interference RRA Public Notification 2014-8 and Test Methods for Electromagnetic Interference RRA Announce 2014-37", AS/NZS CISPR 22: 2009 + A1: 2010, AS/NZS CISPR 32: 2013, VCCI V-3/2014.04, CAN/CSA-CISPR 22-10: 2010 European Standard EN 55032: 2012/AC: 2013: "Electromagnetic compatibility of multimedia equipment - Emission requirements" (CISPR 32: 2012) and European Standard EN 55022: 2010: "Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment" including AC: 2011.

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV SÜD America's New Brighton and Taylors Falls Labs maintain A2LA accreditation to ISO/IEC 17025 for the specific tests listed in A2LA Certificate #2955.11 as Electrical Testing Laboratories, and are recognized by the National RRA under Phase I of the APEC Tel MRA, Identification Number US0080.

Issue Date: 17 November 2016

Tested by: Jadubaur h

Greg S Jakubowski Senior EMC Technician

Joel T. Sohneiler

Approved by:

Joel T Schneider Senior EMC Engineer

Not Transferable



EUROPEAN STANDARD EN 55024: 2010 KOREAN STANDARD KN 61000-4-2 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-3 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-4 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-5 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-6 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-8 with RRA Notice No. 2013-4 KOREAN STANDARD KN 61000-4-11 with RRA Notice No. 2013-4

COMPANY NAME COMPANY ADDRESS Seagate Technology LLC 1280 Disc Drive Shakopee MN 55379

Enterprise Capacity 2.5 HDD v3 SAS Disc Drive

ST2000NX0273, ST1000NX0333, ST2000NX0343, ST2000NX0353,

ST1000NX0373, ST2000NX0263, ST2000NX0323, ST2000NX0333,

EQUIPMENT NAME

MODEL NUMBER(S) TESTED

SERIAL NUMBER(S) TESTED

TEST REPORT NUMBER

TEST DATE(S)

S46009RA, S47008BL NC1404080.5

08-09 May 2014

ST1000NX0323, ST1000NX0363

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the electromagnetic compatibility immunity requirements of European Standard EN 55024: 2010: "Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement", and with the Korean Standards as listed.

Testing was performed with the EUT operating on 220 VAC, 60 Hz power.

Models ST2000NX0343 & ST1000NX0373 (5xxE format size) are identical to models ST2000NX0273 & ST1000NX0333 (5xxE format size) except that an SED ((S)elf (E)ncrypting (D)rive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.

Model ST2000NX0353 (5xxE format size) is identical to model ST2000NX0273 (5xxE format size) except that it is a SED with FIPS (Federal Information Processing System) version with a security label which will detect tampering placed over a part of the drive.

Models ST2000NX0263 & ST2000NX0323 (4Kn format size) are identical to models ST2000NX0273 & ST1000NX0333 (5xxE format size) except for the format size which has no influence on current draw or drive configuration.

Models ST1000NX0323 & ST1000NX0363 (4Kn format size) are identical to models ST2000NX0273 & ST1000NX0333 (5xxE format size) except that an SED ((S)elf (E)ncrypting (D)rive) has additional firmware that performs security functions as well as enables an SED engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.

Model ST2000NX0333 (4Kn format size) is identical to model ST2000NX0273 (5xxE format size) except that it is a SED with FIPS (Federal Information Processing System) version with a security label which will detect tampering placed over a part of the drive.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV SÜD America's New Brighton Laboratory is accredited to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and holds A2LA Accreditation under Certificate #2955.11, and KCC Registration Number US0080.

Issue Date: 15 May 2014

Tested by:

Approved by:

Michael J Westman, Senior EMC Technician

Sid Insixiengmay, EMC Technician Not Transferable



### **EUROPEAN STANDARD EN 61000-3-2: 2014 EUROPEAN STANDARD EN 61000-3-3: 2013**

| COMPANY NAME    | Seag  |
|-----------------|-------|
| COMPANY ADDRESS | 1280  |
|                 | Ohats |

ate Technology LLC Disc Drive Shakopee MN 55379

EQUIPMENT NAME

Enterprise Capacity 2.5 HDD v3 SAS Disc Drive

MODEL NUMBER(S)

5xxE Format Size ST2000NX0273 – Standard ST1000NX0333 - Standard ST2000NX0343 - SED ST2000NX0353 - SED w/FIPS ST2000NX0383 - SED-ISE ST1000NX0373 - SED ST1000NX0413 - SED-ISE

4Kn Format Size ST2000NX0263 - Standard ST2000NX0323 - SED ST2000NX0333 - SED w/FIPS ST2000NX0373 - SED-ISE ST1000NX0323 - Standard ST1000NX0363 - SED ST1000NX0403 - SED-ISE

512n Format Size ST2000NX0433 - Standard ST2000NX0443 - SED ST2000NX0453 - SED w/FIPS ST2000NX0463 - SED-ISE ST1000NX0453 - Standard ST1000NX0463 - SED ST1000NX0473 - SED-ISE

SERIAL NUMBER(S) S46009RA, S47008BL

TEST REPORT NUMBER NC1404080.7 Rev A

TEST DATE 09 May 2014

TÜV SÜD America Inc. as an independent testing laboratory, declares that the equipment tested as specified above complies with the requirements of European Standard EN 61000-3-2: 2014: "Electromagnetic Compatibility - Part 3-2: Limits - Limits for Harmonic Current Emissions (Equipment Input Current ≤16 Amps Per Phase)" and with European Standard EN 61000-3-3: 2013: "Electromagnetic Compatibility - Part 3-3: Limits - Limitation of Voltage Changes, Voltage Fluctuations and Flicker in Public Low-Voltage Supply Systems for Equipment with Rated Current ≤16 Amps Per Phase and not Subject to Conditional Connection".

Models ST2000NX0273 Standard and ST1000NX0333 Standard (both 5xxE format size) are identical to the remaining models except for format size, which has no influence on current draw or drive configuration, and have no security features enabled. All drives, regardless of format size, are physically and electrically identical. The listed security features are enabled through firmware, and also in no way alters the physical or electrical properties of the drives.

- SED (Self Encrypting Drive) has additional firmware that performs security functions as well as enables an SED • engine which is built into the ASIC. The SED engine is bypassed (not used) in a base drive and is used only by an SED drive.
- SED with FIPS (Federal Information Processing System) version has a security label which will detect . tampering placed over a part of the drive.
- SED-ISE (Instant Secure Erase) version enables via firmware a feature that performs a security function of deleting the complete drive with one keystroke.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

Issue Date: 20 February 2015

Tested hy:

Sid C Insixiengmay EMC Technician

Not Transferable

Approved by:

Report

Michael J Westman Senior EMC Technician

Test Report NC1404080.7 Rev A TÜV SÜD AMERICA INC 1775 Old Hwy 8 NW, Suite 104

Page 1 of 17 New Brighton MN 55112-1891 USA Tel: 651 631 2487 Fax: 651 638 0285 Ver. 140328

# CERTIFICATE OF COMPLIANCE

| Certificate Number | 20150224-E145123 |
|--------------------|------------------|
| Report Reference   | E145123-A29-UL   |
| Issue Date         | 2015-FEBRUARY-24 |

Issued to: SEAGATE TECHNOLOGY L L C 1280 DISC DR SHAKOPEE MN 55379-1863

This is to certify that COMPONENT - INFORMATION TECHNOLOGY representative samples of EQUIPMENT INCLUDING ELECTRICAL BUSINESS EQUIPMENT AND HIGH-TECHNOLOGY COMPONENTS See Addendum Page For Models/Product

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

| Standard(s) for Safety: | UL 60950-1 - Standard for Information Technology<br>Equipment - Safety - Part 1: General Requirements. |
|-------------------------|--|
| Additional Information: | See the UL Online Certifications Directory at<br>www.ul.com/database for additional information        |

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Barhly

Bruce Mahrenholz, Assistant Chiel Engineer, Global Inspection and Field Services UL LLC



Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <u>www.ul.com/contactus</u>

# CERTIFICATE OF COMPLIANCE

Certificate Number Report Reference Issue Date 20150224-E145123 E145123-A29-UL 2015-FEBRUARY-24

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models/Product

Hard Drive:

#### SAS Drive:

1FM202-XXX, 1FM212-XXX, 1FM222-XXX, 1FM201-XXX, 1FM211-XXX, 1FM221-XXX, 1FN202-XXX, 1FN212-XXX, 1FN201-XXX, 1FN211-XXX, 1FM232-XXX, 1FM231-XXX, 1VD200-XXX, 1VD210-XXX, 1VD230-XXX, 1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VE200-XXX, 1VE210-XXX, 1VE230-XXX where each X in -XXX may be any alphanumeric character indicating SELV changes.

#### SATA Drive:

1FM102-XXX, 1FM112-XXX, 1FM122-XXX, 1FM101-XXX, 1FM111-XXX, 1FM121-XXX, 1FN102-XXX, 1FN112-XXX, 1FN101-XXX, 1FN111-XXX, 1FM132-XXX, 1FM131-XXX, 1VD100-XXX, 1VD110-XXX, 1VD130-XXX, 1FN132-XXX, 1FN131-XXX, 1VE100-XXX, 1VE110-XXX, 1VE130-XXX where each X in -XXX may be any alphanumeric character indicating SELV changes.

Barthally Iz, Assistant Chief Engineer, Global Inspection and Field Services



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Page 2 of 2

UL LLC



### TEST REPORT IEC 62368-1

## Audio/video, information and communication technology equipment Part 1: Safety requirements

| Report Number:  | E145123-A29   |
|---|---|
| Date of issue:  | 2014-05-06  |
| Total number of pages   | 51  |
| Applicant's name:   | SEAGATE TECHNOLOGY L L C  |
| Address:  | 1280 DISC DR, SHAKOPEE , MN 55379, USA  |
| Test specification:   |   |
| Standard:   | IEC 62368-1 (First Edition) : 2010  |
| Test procedure:   | Informative   |
| Non-standard test method:   | N/A   |
| Test Report Form No:  | IEC62368_1A   |
| Test Report Form(s) Originator :  | Underwriters Laboratories Inc.  |
| Master TRF:   | Dated 2010-07   |
|   | for Conformity Testing and Certification of Electrotechnical<br>), Geneva, Switzerland. All rights reserved.  |
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| If this Test Report Form is used by n<br>the CB Scheme procedure shall be n | on-IECEE members, the IECEE/IEC logo and the reference to amoved.   |
|   | leport unless signed by an approved CB Testing Laboratory and<br>ued by an NCB in accordance with IECEE 02.   |
| Test item description:  | Hard Drive  |
| Trade Mark:   | Seagate   |
| Manufacturer:   | SEAGATE TECHNOLOGY L L C  |
| Model/Type reference:   | SAS Drive:<br>1FM202-XXX, 1FM212-XXX, 1FM222-XXX, 1FM201-XXX, 1FM211-XXX,<br>1FM221-XXX, 1FN202-XXX, 1FN212-XXX, 1FN201-XXX, 1FN211-XXX,<br>1FM232-XXX, 1FN231-XXX, 1VD200-XXX, 1VD210-XXX, 1VD230-XXX,<br>1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VD210-XXX, 1VD230-XXX,<br>1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VD200-XXX, 1VD210-XXX,<br>1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VD210-XXX, 1VD230-XXX,<br>1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VD210-XXX, 1VD230-XXX,<br>1VD220-XXX, 1FN122-XXX, 1FN101-XXX, 1VD210-XXX,<br>1VD220-XXX, 1FM112-XXX, 1FM112-XXX, 1FM101-XXX, 1FM111-XXX,<br>1FM121-XXX, 1FN102-XXX, 1FN112-XXX, 1FN101-XXX, 1FN111-XXX,<br>1FM132-XXX, 1FM131-XXX, 1VD100-XXX, 1VD110-XXX, 1VD130-XXX, |

| Ratings:: | 1FN132-XXX, 1FN131-XXX, 1VE100-XXX, 1VE110-XXX, 1VE130-XXX where<br>each X in -XXX may be any alphanumeric character indicating SELV changes,<br>1FM202-XXX, 1FM212-XXX, 1FM222-XXX, 1FM201-XXX, 1FM211-XXX,<br>1FM221-XXX, 1FN202-XXX, 1FN212-XXX, 1FN201-XXX, 1FN211-XXX,<br>1FM232-XXX, 1FN231-XXX, 1VD200-XXX, 1VD210-XXX, 1VD230-XXX,<br>1VD220-XXX, 1FN232-XXX, 1FN231-XXX, 1VE200-XXX, 1VE210-XXX,<br>1VE230-XXX |
|-----------|---|
|           | 5 V dc, 0.6 A<br>12 V dc, 0.3 A   |
|           | 1FM102-XXX, 1FM112-XXX, 1FM122-XXX, 1FM101-XXX, 1FM111-XXX,<br>1FM121-XXX, 1FN102-XXX, 1FN112-XXX, 1FN101-XXX, 1FN111-XXX,<br>1FM132-XXX, 1FM131-XXX, 1VD100-XXX, 1VD110-XXX, 1VD130-XXX,<br>1FN132-XXX, 1FN131-XXX, 1VE100-XXX, 1VE110-XXX, 1VE130-XXX<br>5 V dc, 0.5 A  |
|           | 12 V dc, 0.3 A  |

| Test                       | ing procedure and testing location:                              |  |               |  |  |  |  |
|----------------------------|--|--|---------------|--|--|--|--|
|                            | CB Testing Laboratory:   | UL Northbrook  |               |  |  |  |  |
| Testing location/ address: |  | 333 Pfingsten Road, Northbrook, IL 60062                                     |               |  |  |  |  |
|                            | Associated CB Laboratory:  |  |               |  |  |  |  |
| Test                       | ing location/ address:   |  |               |  |  |  |  |
|                            | Tested by (name + signature):                                    |  |               |  |  |  |  |
|                            | Approved by (name + signature) :                                 |  |               |  |  |  |  |
|                            | Testing procedure: TMP   |  |               |  |  |  |  |
| Test                       | ing location/ address:   |  |               |  |  |  |  |
|                            | Tested by (name + signature):                                    |  |               |  |  |  |  |
|                            | Approved by (name + signature) :                                 |  |               |  |  |  |  |
| X                          | Testing procedure: WMT   |  | J.            |  |  |  |  |
| Test                       | ing location/ address:   | SEAGATE TECHNOLOGY L L C, 1280 DISC DR,<br>SHAKOPEE, MN 55379, UNITED STATES |               |  |  |  |  |
|                            | Tested by (name + signature):                                    | Scott Shepler  | Scott Shepler |  |  |  |  |
|                            | Witnessed by (name + signature).:                                | n/a  |               |  |  |  |  |
|                            | Approved by (name + signature):                                  | David Piecuch  | Dard Paral    |  |  |  |  |
|                            | Testing procedure: SMT   |  |               |  |  |  |  |
| Test                       | ing location/ address:   |  | 121           |  |  |  |  |
|                            | Tested by (name + signature):                                    |  |               |  |  |  |  |
|                            | Approved by (name + signature):                                  |  |               |  |  |  |  |
|                            | Supervised by (name + signature) :                               |  |               |  |  |  |  |
|                            | Testing procedure: RMT   |  |               |  |  |  |  |
| Test                       | ing location/ address:   |  |               |  |  |  |  |
|                            |  |  |               |  |  |  |  |
|                            | Tested by (name + signature):                                    |  |               |  |  |  |  |
|                            | Tested by (name + signature):<br>Approved by (name + signature): |  |               |  |  |  |  |

| List of Atlachments (including a total number of p   | ages in each atlachment):   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| Summary of testing:  |   |  |  |  |  |  |
| Tests performed (name of test and test clause):  | Testing location:   |  |  |  |  |  |
| Annex B.2.5 Input Test [**1.6.2],  | SEAGATE TECHNOLOGY L L C, 1280 DISC DR,                               |  |  |  |  |  |
| 5.4.1.5, 9.4.1.2 Heating Test [**4.5.1],   | SHAKOPEE, MN 55379, UNITED STATES                                     |  |  |  |  |  |
| Annex B.4.3 Motor Tests [**Annex B.7] (For reference only)   |   |  |  |  |  |  |
| The following test was conducted as part<br>of Report E145123-A20<br>F.3.8 Durability of Marking Test [**1.7.11]<br>(**These are the test names and clauses<br>from UL/IEC 60950-1, Second Edition.) | UNDERWRITERS LABORATORIES<br>333 Pfingsten Road, Northbrook, IL 60062 |  |  |  |  |  |
| Summary of compliance with National Difference   | 15  |  |  |  |  |  |
| List of countries addressed:   |   |  |  |  |  |  |
| US The product fulfils the requirements of IEC 62368, First Edition.   |   |  |  |  |  |  |



# CERTIFICATE

No. B 15 02 41780 582

Holder of Certificate:

## icate: Seagate Technology LLC

1280 Disc Drive Shakopee, MN 55379-1863 USA

Production Facility(ies):

**Certification Mark:** 





Product:

**Disk drives** 

Model(s):

Parameters:

## Enterprise Capacity 2.5 HDD v3 Family:

61810, 64076, 78428, 41780, 86651, 66326, 39917, 91551, 91496

Rated Input Voltage: Rated Frequency: Rated Input Current:

Protection Class: Degree of Protection: +5Vdc/+12Vdc dc 0.60 A/0.30 A (SAS) 0.50 A/0.30 A (SATA) III IPX0

### Tested according to: EN 60950-1:2006/A2:2013

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.:

092-1404665-100

Valid until:

2019-06-20

Date, 2015-03-19 Page 1 of 2

William p. Weller



TÜV

## Attachment 1 Bauart Certificate: B 15 02 41780 582

#### Firma / firm: Seagate Technology LLC, 1280 Disc Drive, Shakopee, MN 55379 USA

File No.

**CERTIFICAT** 

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CERTIFICATE

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092-1404665-100

America

SUD

Standard(s)

EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013

Type of Component/Equipment

Disc Drive (Information Technology Equipment) :

| Model #      | Capacity/GB | Interface | Format | Disc /<br>Heads | Cache<br>(MB)    | Part Number            | SED<br>Enabled | Board Type | FIPS Label<br>affixed | ISE<br>Enabled |
|--------------|-------------|-----------|--------|-----------------|------------------|------------------------|----------------|------------|-----------------------|----------------|
| ST2000NX0263 | 2000        | SAS       | 4Kn    | 5/10            | 128              | 1FM202-XXX             | No             | RQAJ       | No                    | No             |
| ST2000NX0323 | 2000        | SAS       | 4Kn    | 5/10            | 128              | 1FM212-XXX             | Yes            | RQAJ       | No                    | No             |
| ST2000NX0373 | 2000        | SAS       | 4Kn    | 5/10            | 128              | 1FM232-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST2000NX0333 | 2000        | SAS       | 4Kn    | 5/10            | 128              | 1FM222-XXX             | Yes            | RQAJ       | Yes                   | No             |
| ST2000NX0273 | 2000        | SAS       | 5xxE   | 5/10            | 128              | 1FM201-XXX             | No             | RQAJ       | No                    | No             |
| ST2000NX0343 | 2000        | SAS       | 5xxE   | 5/10            | 128              | 1FM211-XXX             | Yes            | RQAJ       | No                    | No             |
| ST2000NX0383 | 2000        | SAS       | 5xxE   | 5/10            | 128              | 1FM231-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST2000NX0353 | 2000        | SAS       | 5xxE   | 5/10            | 128              | 1FM221-XXX             | Yes            | RQAJ       | Yes                   | No             |
| ST2000NX0433 | 2000        | SAS       | 512n   | 5/10            | 128              | 1VD200-XXX             | No             | RQAJ       | No                    | No             |
| ST2000NX0443 | 2000        | SAS       | 512n   | 5/10            | 128              | 1VD210-XXX             | Yes            | RQAJ       | No                    | No             |
| ST2000NX0463 | 2000        | SAS       | 512n   | 5/10            | 128              | 1VD230-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST2000NX0453 | 2000        | SAS       | 512n   | 5/10            | 128              | 1VD220-XXX             | Yes            | RQAJ       | Yes                   | No             |
| ST2000NX0243 | 2000        | SATA      | 4Kn    | 5/10            | 128              | 1FM102-XXX             | No             | SQAJ       | No                    | No             |
| ST2000NX0283 | 2000        | SATA      | 4Kn    | 5/10            | 128              | 1FM112-XXX             | Yes            | SQAJ       | No                    | No             |
| ST2000NX0393 | 2000        | SATA      | 4Kn    | 5/10            | 128              | 1FM132-XXX             | Yes            | SQAJ       | No                    | Yes            |
| ST2000NX0293 | 2000        | SATA      | 4Kn    | 5/10            | 128              | 1FM122-XXX             | Yes            | SQAJ       | Yes                   | No             |
| ST2000NX0253 | 2000        | SATA      | 5xxE   | 5/10            | 128              | 1FM101-XXX             | No             | SQAJ       | No                    | No             |
| ST2000NX0303 | 2000        | SATA      | 5xxE   | 5/10            | 128              | 1FM111-XXX             | Yes            | SQAJ       | No                    | No             |
| ST2000NX0363 | 2000        | SATA      | 5xxE   | 5/10            | 128              | 1FM131-XXX             | Yes            | SQAJ       | No                    | Yes            |
| ST2000NX0303 | 2000        | SATA      | 5xxE   | 5/10            | 128              | 1FM121-XXX             | Yes            | SQAJ       | Yes                   | No             |
| ST2000NX0403 | 2000        | SATA      | 512n   | 5/10            | 128              | 1VD100-XXX             | No             | SQAJ       | No                    | No             |
| ST2000NX0403 | 2000        | SATA      | 512n   | 5/10            | 120              | 1VD110-XXX             | Yes            | SQAJ       | No                    | No             |
| ST2000NX0423 | 2000        | SATA      | 512n   | 5/10            | 128              | 1VD130-XXX             | Yes            | SQAJ       | No                    | Yes            |
| ST1000NX0323 | 1000        | SAS       | 4Kn    | 3/5             | 128              | 1FN202-XXX             | No             | SQAJ       | No                    | No             |
| ST1000NX0363 | 1000        | SAS       | 4Kn    | 3/5             | 128              | 1FN212-XXX             | Yes            | RQAJ       | No                    | No             |
| ST1000NX0403 | 1000        | SAS       | 4Kn    | 3/5             | 128              | 1FN232-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST1000NX0333 | 1000        | SAS       | 5xxE   | 3/5             | 128              | 1FN201-XXX             | No             | RQAJ       | No                    | No             |
| ST1000NX0373 | 1000        | SAS       | 5xxE   | 3/5             | 128              | 1FN211-XXX             | Yes            | RQAJ       | No                    | No             |
| ST1000NX0413 | 1000        | SAS       | 5xxE   | 3/5             | 128              | 1FN231-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST1000NX0453 | 1000        | SAS       | 512n   | 3/5             | 128              | 1VE200-XXX             | No             | RQAJ       | No                    | No             |
| ST1000NX0463 | 1000        | SAS       | 512n   | 3/5             | 128              | 1VE210-XXX             | Yes            | RQAJ       | No                    | No             |
| ST1000NX0473 | 1000        | SAS       | 512n   | 3/5             | 128              | 1VE230-XXX             | Yes            | RQAJ       | No                    | Yes            |
| ST1000NX0303 | 1000        | SATA      | 4Kn    | 3/5             | 128              | 1FN102-XXX             | No             | SQAJ       | No                    | No             |
| ST1000NX0343 | 1000        | SATA      | 4Kn    | 3/5             | 128              | 1FN112-XXX             | Yes            | SQAJ       | No                    | No             |
| ST1000NX0343 | 1000        | SATA      | 4Kn    | 3/5             |                  | 1FN132-XXX             | Yes            | SQAJ       | No                    | Yes            |
| ST1000NX0303 | 1000        | SATA      | 5xxE   | 3/5             | 128              | 1FN101-XXX             | No             | SQAJ       | No                    | No             |
| ST1000NX0353 | 1000        | SATA      | 5xxE   | 3/5             | 128              | 1FN111-XXX             | Yes            | SQAJ       | No                    | No             |
| ST1000NX0393 | 1000        | SATA      | 5xxE   | 3/5             | 128              | 1FN131-XXX             | Yes            | SQAJ       | No                    | Yes            |
| ST1000NX0393 | 1000        | SATA      | 512n   | 3/5             | 120              | 1VE100-XXX             | No             | SQAJ       | No                    | No             |
| ST1000NX0423 | 1000        | SATA      | 512n   | 3/5             | 128              | 1VE110-XXX             | Yes            | SQAJ       | No                    | No             |
| ST1000NX0443 | 1000        | SATA      | 512n   | 3/5             | 128              | 1VE130-XXX             | Yes            | SQAJ       | No                    | Yes            |
| 011000000443 | 1000        | VAIA      |        |                 |                  | tion Processing System | 103            |            |                       | 100            |
|              | 1           |           | 1      | 105 - 1         | nstant Secure Er |                        |                |            |                       | 1              |

Conditions of Acceptability:

- Disc drives are to be supplied by a reliably SELV power supply. 1.
- 2.
- Suitable enclosure (fire/mechanical) to be provided/evaluated when disc drive is installed in the end use product. Disc drives were evaluated for operation with a  $T_{MRA}$  of 55°C. Temperature tests should be considered in the end use product. Locked rotor tests of the spindle motor were conducted in accordance with Annex B of EN 60950-1. 3.
- 4.

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#### 編 符合性聲明書 報驗義務人代碼 號 Code of the applicant Number **Declaration of Conformity** D33027 1712130929 本符合性聲明書應依商品檢驗法規定備齊相關技術文件後始得簽具 Please check all the related technical documents in accordance with the Commodity Inspection Act before signing the form. 報驗義務人:台灣希捷科技股份有限公司(Seagate Technology Taiwan, Ltd.) **Obligatory** Applicant 地址:臺北市松山區復興北路 363號 14樓 B 室 Address 電話: 886-2-2514-2201 Telephone 商品中(英)文名稱:硬式磁碟機 HDD Commodity Name 商品型式 (或型號): ST2000NX0273, ST1000NX0333, ST2000NX0343, ST2000NX0353, ST2000NX0383, Commodity Type (Model) ST1000NX0373, ST1000NX0413, ST2000NX0263, ST2000NX0323, ST2000NX0333, ST2000NX0373, ST1000NX0323, ST1000NX0363, ST1000NX0403, ST2000NX0433, ST2000NX0453, ST1000NX0453, ST1000NX0463, ST1000NX0473, ST2000NX0443, ST2000NX0463 符合之檢驗標準及版次:CNS 13438/ Complete 2006 Class B; Section 5 "Marking of presence" of CNS 15663 (2013.7) Standard(s) and version 試驗報告編號: NC 1404080.3 Rev A(EMC)/14040058 and 14040056 (RoHS) Test Report Number 試驗室名稱及代號: TUV SUD America Inc. (EMC)/ Environmental Monitoring Technologies, Inc. (RoHS) Testing laboratory name and designation number SL2-IN-E-027R 符合性聲明檢驗標識及識別號碼: 或 The form of the DoC marking appears like this or D33027 RoHS RoHS 茲聲明上述商品符合商品檢驗法符合性聲明之規定,若因違反本聲明書所聲明之內 容,願意擔負相關法律責任。 I hereby declare that the listed commodity conforms to Declaration of Conformity requirements stipulated in the Commodity Inspection Act. I agree to take any legal obligations should violations against the Declaration of Conformity occur. 報驗義務人:台灣希捷科技股份有限公司/Géraldine Hottier-Fayon (簽章) Obligatory Applicant The Board Chairman of Seagate Technology Taiwan (Signature) 中 華 威 106 年 12 13 民 月 H DATE (year) (month) (day)

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313150000G-E5Z-332 (TCO 11-27-17)