

Product Environmental Report

ViewFinity S80PB

02/16/2024



At Samsung, we work to integrate eco-conscious technology and innovation in all our products. By considering sustainability at every step of the product life cycle, we aim to empower our customers to join us in our journey to build a better tomorrow together.



[1]



[2]



[3]



[4]

* Certification acquisition
: S27B80*P, S32B80*P

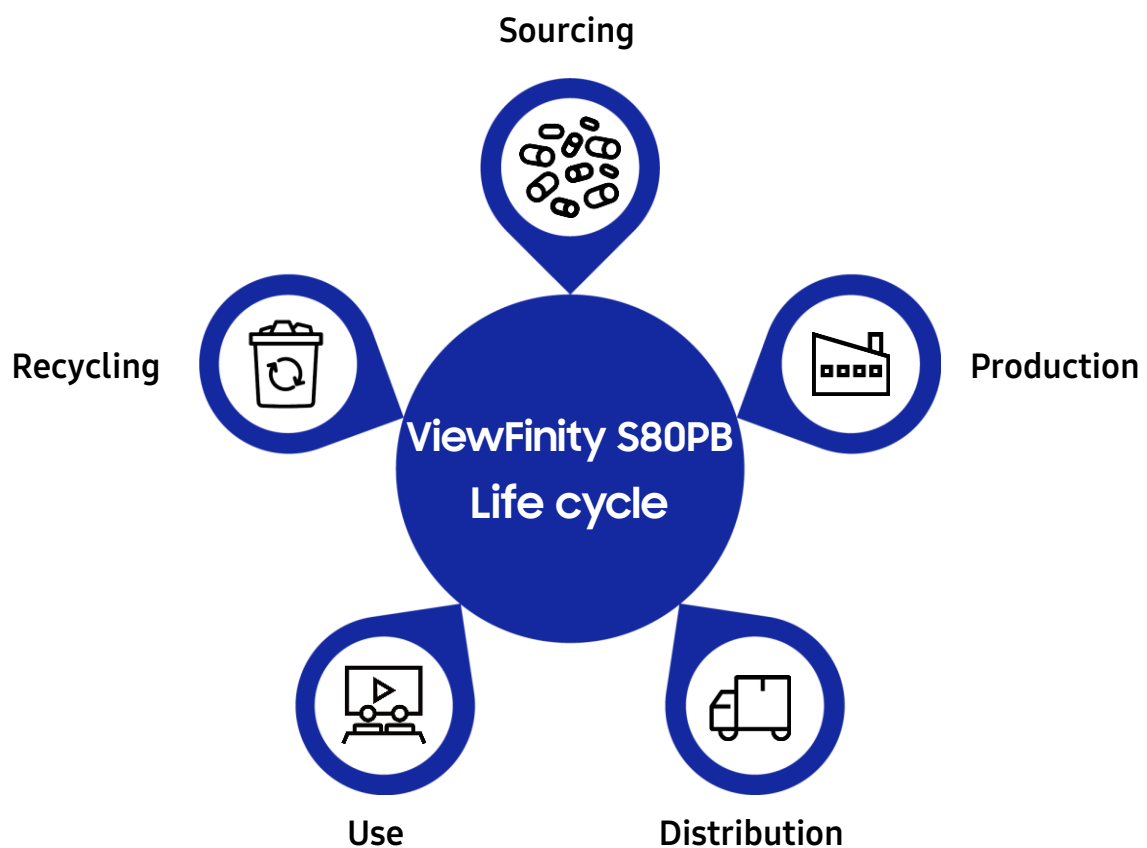
* Certification acquisition [2] [3]
: S27B80*P, S32B80*P

* Certification acquisition
: S27B80*P, S32B80*P

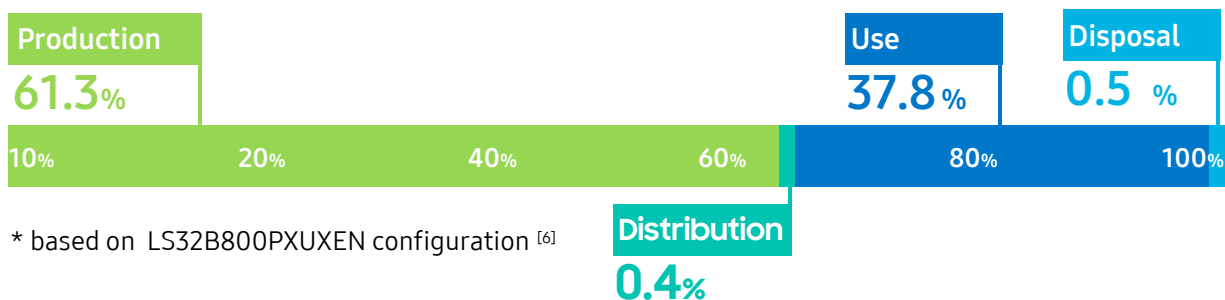
Product Carbon Footprint

At Samsung Electronics, we assess a product's entire life cycle, including the sourcing, production, distribution, product use, and recycling phases, to understand the environmental impacts of our products.

At the production stage, we are aiming to expand the development and application of recycled materials with a lower carbon footprint. At the distribution stage, we are working to minimize packaging volume and weight to reduce carbon emissions. Through improving product energy efficiency, we are trying to improve the environmental impact at the use stage.



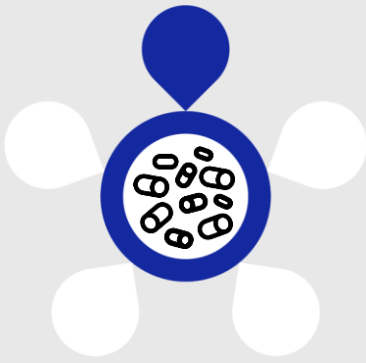
ViewFinity S32B80*P Life Cycle carbon emissions : 366 kg CO₂eq. ^[5]



* based on LS32B800PXUXEN configuration ^[6]

※ The figure above calculates the environmental impact of one product over the entire life cycle as CO₂ emissions. ^[6]

Sourcing



Samsung Electronics is committed to improving resource circulation throughout the life cycle of electronic products, from raw materials to disposal and recycling.

To build toward a circular system, we are endeavoring to use recycled materials and collecting e-waste to extract materials for reuse. By 2030, we aim for 50% of the plastic used in our DX products to incorporate recycled resin. By 2050, we will see this figure increase to 100%.

Samsung Electronics uses the recycled materials for parts in the ViewFinity S80PB products. In addition, we are trying to manage its supply chain so that minerals used in its products are mined in accordance with OECD due diligence guidelines.

Plastic



S80PB's rear cover contains a minimum of 10% recycled content, consisting of 5% post consumer recycled polycarbonate (PC) and 5% ocean-bound polyethylene terephthalate(PET).

Stand : 35% of the plastics used in the stand of the product is ABS post consumer recycled material.^[7]

Responsible minerals



For internationally disputed minerals such as tantalum, tin, tungsten, and gold, we elect to only use minerals supplied by smelters that have obtained global third-party certifications. Minerals that raise human rights violations or environmental destruction issues during mining are included in the management^[8] list and are avoided in our management of the mineral supply chain.



Chemical Mgmt.

To prevent hazardous substances from entering our products, we rigorously inspect manufactured parts and raw materials through our chemical management system.

Our standards for the "Product Environment Management Substances Operation Rules" ^[9]are based on global regulations and standards. We voluntarily established reduction plans for the use of potentially hazardous substances as well as legally regulated substances.

Production



We are expanding the use of renewable energy at our business most sites around the world.

Energy infrastructure and regulations vary widely by jurisdiction and require region-specific transition plans.



Renewable Energy

We plan to run all operations of the DX division on renewable energy by 2027.^[10]

We are constantly trying to reduce waste and expand recycling. Company-wide, we plan to obtain a platinum-level Zero Waste to Landfill certification, issued by safety certification organization Underwriters Laboratories (UL), for all global operations by 2025.

Most sites that produce Samsung Electronics TV, audio, and display products have been certified for environmental management (ISO14001) and energy management (ISO50001).^[10]



Reducing material & Scrap recycling

Samsung Electronics is increasing the efficiency of using raw materials to reduce environmental impact during the production stage. We are using External Gas Molding (EGM) technology, which uses air instead of plastic to shape parts, thus reducing the amount of plastic used in the injection process.



Distribution



To reduce the environmental impact of our product packaging, we are replacing plastic packaging and vinyl wraps with paper and recycled materials.

We are also reducing the volume and weight of packaging to mitigate greenhouse gas emissions in the transportation and shipping process.



Upcycle
Packaging

Plastic
band
removal

100%

Metal staple
removal

100%

We plan to remove plastic from packages (except cushions) of all TV, audio, and display products by 2030 and replace them with paper.

Recycled Packaging Materials are applied to accessory bags and stand bags, which are subsidiary materials for product packaging. ^[12]

The plastic band that binds the accessory cable has been changed to a paper band.

Recyclability of the paper box was enhanced by removing the metal staples used in the side joints of the box. ^[13]



Use



Environmental experts support product development at Samsung Electronics so we can empower our customers to use our products more sustainably. During the product development phase, our stress tests help ensure the longevity and consistent performance of our products.



Energy
Efficiency

To reduce greenhouse gas emissions during the use of our key products, we set our plan to reduce power consumption by an avg. of 30% by 2030, compared to products with the same specifications in 2019. ^[14]

* Power consumption of S32B80*P ^[15]



Repair &
Reuse

For the parts of TV and display products that have been replaced by modules, we are changing the design so that they can be separately repaired. ^[16]



Recycling



To promote the circular economy and a low-carbon society, we are expanding responsible recycling in more than 50 countries around the world.

Samsung's local recycling programs provide collection services tailored to each region for customers disposing e-waste, and we take back electrical and electronic waste regardless of product brand.



Repair &
Reuse

We are trying to reuse parts to reduce waste even in the repair process of TV and display products. In 2022, about 550,000 parts were recovered from 36 countries, and 230,000 of them have been reused after quality verification.



Upcycle
Packaging

Upcycle packaging is designed to allow consumers to upcycle the box that is usually discarded after transporting the product. By removing promotional stickers that were attached to the box surface and reducing ink usage, packaging recyclability was increased, and we are striving to reduce the impact on the environment.

Customers can make their own props such as magazine stands and pet products using dot patterns printed on the surface of the packaging box. We are diversifying props designed through campaigns and contests and releasing drawings of props. ^[17]



Endnotes

Disclaimer

1. The Carbon Trust of the U.K. calculated greenhouse gas generated in the entire process from production to disposal of products in accordance with evaluation standards, and Samsung obtained a "carbon footprint" certification that evaluates carbon emissions of products.

Certification model: S27B80*P, S32B80*P

※ In particular, "Carbon Footprint-Reducing CO₂" certification can be obtained when carbon generation is reduced compared to previous equivalent models.

2. Energy star is a program in which the Environmental Protection Agency (EPA) of the United States certifies that it is an energy-efficient product among various electrical and electronic products.

Certification acquisition model: S27B80*P, S32B80*P

※ In model name notation, ' * ' consists of numbers (0 to 9) or alphabets (A to Z).

3. EPEAT (Electronic Product Environmental Assessment Tool) is an eco-friendly certification system for electronic products in the United States and is certified in three grades: Gold, Silver, and Bronze by evaluating various items such as prohibition of the use of harmful substances, energy efficiency of products, ease of decomposition and recycling of products and packaging materials, and corporate social responsibility.

Certification acquisition grade: EPEAT (Silver)

Certification acquisition model: S27B80*P, S32B80*P

※ In model name notation, ' * ' consists of numbers (0 to 9) or alphabets (A to Z).

4. TCO (TCO Certified) is the certification for products with less environmental impact given by TCO, the Swedish confederation of professional employees.

Certification acquisition model: S27B80*P, S32B80*P

5. Guidelines and conditions applied to the calculation of carbon emissions

- PAS 2050:2011 – Specification for the assessment of the life cycle greenhouse gas emissions of goods and services
- Product Carbon Footprints : Requirements for Certification v2
- Database : Ecolnvent 3.8, Korea LCI DB

6. Life Cycle Assessment System Boundary

- Production: Pre-manufacturing (parts and materials that make up the product) and assembling the product at Samsung Electronics
- Distribution: Distribution from Vietnam to the Netherlands
- Use: Used for 4 years
- Disposal: Waste disposal of parts and materials

7. Environmental Claim Validation (ECV) verification was obtained from UL for recycled materials.

Verification method: Environmental Claim Validation Procedure for Recycled Content, UL 2809 – Fifth Edition

- Rear cover : Contains a minimum of 10% recycled content, consisting of 5% post consumer recycled polycarbonate (PC) and 5% ocean-bound polyethylene terephthalate (PET).
- Stand : ABS post consumer recycled material 35%

※ ABS : Acrylonitrile Butadiene Styrene

8. Samsung Electronics operates a mineral management process based on OECD due diligence guidelines for responsible minerals.

https://www.samsung.com/global/sustainability/people/supply_chain/#anchor_4

9. Product Environment Management Substances Operation Rules

<https://www.samsung.com/global/sustainability/digital-library/policy-document/>

Endnotes

10. Details of the conversion of renewable energy

Samsung Electronics joined RE100, a global initiative, to reduce indirect carbon emissions (Scope 2) caused by power use and decided to push for the conversion of renewable energy to used power by 2050. First, Samsung Electronics is pushing to achieve its renewable energy target at all overseas operations by 2027. For our sites in the US, China, and Europe that have already reached this goal, we plan to expand direct power purchase agreements (PPAs) centering on the regions equipped with active renewable energy policies and systems. The DX division is pushing to achieve its renewable energy target by 2027, both at home and abroad.

<https://www.samsung.com/global/sustainability/planet/climate-action/#anchor2>

11. Samsung Electronics adopts global standards such as environmental management (ISO14001) and energy management system (ISO50001), mandates all workplaces to obtain the certification, and recommends partner companies to obtain related international certifications to spread environmental safety management, which is reflected in the comprehensive evaluation of partner companies.

Except for one small production subsidiary in South Africa (SSAP), all of Samsung Electronics' workplaces have obtained the certification as of 2021, and 86% of partners that are subject to comprehensive evaluation.

12. The recycled materials applied to the product packaging materials are as follows.

- Subsidiary Materials Containing 50% Recycled Plastics: Accessories Bag
- Subsidiary Materials Containing 10% Recycled Plastics: Stand Bag

13. Recyclability of paper boxes was increased by removing metal staples and replacing them with glue. The reduction of box assembly process time also reduced energy consumption in the manufacturing process.

14. We plan to reduce power consumption by an avg. of 30% in 2030 compared to the same performance model in 2019 by applying low power technology to representative models of seven major electronic products such as TVs, monitors, smartphones, refrigerators, washing machines, air conditioners, and PCs. We are conducting twice/yearly implementation checks on the annual improvement goals of the representative models for each product line, and we are trying to spread the energy efficiency technology applied to the representative models horizontally to other models.

15. Average power consumption of S32B80*P is 33.0 W.

Measurement criteria model: LS32B800PXUXEN

Power consumption measurement criteria: Regulation (EU) No 2019/2021 (as amended) and EN 50564:2011

Power consumption is calculated based on the power measured in our laboratory based on the initial shipment status product.

Different countries have different regulatory conditions or measurement standards, and measurement methods may be updated to change measurements when each country's regulatory conditions change.

The model name/model code of the product may vary by region or country where Samsung Electronics sells the product.

16. By applying about 230,000 single-product repairs in 102 countries of about 49 subsidiaries in 2022, we are trying to reduce the burden of repair costs on consumers by reducing about \$151 compared to the previous average repair costs, as well as reducing environmental impact by extending the life of products. (availability may vary by country)

Endnotes

17. Providing drawings for upcycle packaging

www.samsung-upcyclepackaging.com

Recycling

Samsung established waste collection systems in each region as we work tirelessly to enhance the collection and recycling of waste products. We also offer product take-back and recycling services for Samsung products in countries with local take-back legislation. We are always looking to expand to additional locations.

<https://www.samsung.com/global/sustainability/digital-library/policy-document/>

Environmental Strategy

Samsung Electronics announced the New Environmental Strategy in September 2022 with the aim of addressing global environmental issues through our innovative technologies. This paradigm shift is essential for our sustainable growth and will create meaningful momentum to reinforce our competitiveness.

The New Environmental Strategy was developed based on our commitment to achieve net zero by 2050, joining the world's effort to combat climate change, maximize resource circularity to advance towards a circular economy, and continuously address environmental challenges with technological innovation. This effort is expected to bring positive change to the broader ecosystem of the ICT industry as we engage in the manufacturing and supply of an extensive range of products and services.

Corporate Sustainability Management

Samsung is constantly striving to deliver innovative products and services across the value chain. This is rooted in our core values in economy, society and environment. Therefore, we monitor the financial and non-financial impacts that we exert on society in order to maximize our positive impacts while minimizing any negative ones.

<https://www.samsung.com/global/sustainability/main/>



Carbon Footprint Label

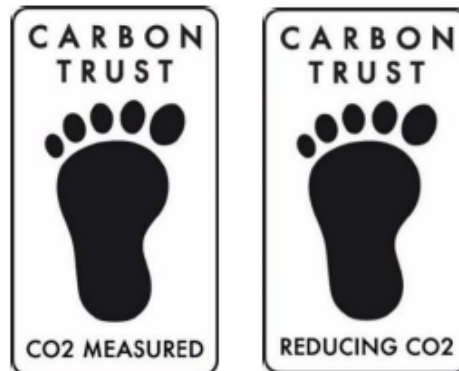
Samsung Electronics

has measured the product carbon footprint of their

UHD Monitor LS27B80*****, LS32B80*****

Carbon Trust Assurance has certified that this project has met all the requirements for using the Carbon Trust Carbon Footprint Label.

A full description of the scope of certification and a detailed list of certified Carbon Footprint results and reductions can be found in the associated Certification Letter CERT-13303.



Awarded: 21/06/2022

Valid Until: 20/06/2024

for and on behalf of Carbon Trust Assurance Ltd,

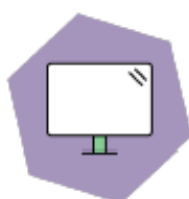
A handwritten signature in black ink, appearing to read "Hugh Jones".

Hugh Jones,
Managing Director



CERTIFICATE

TCO Certified, generation 9 for displays



Brand name: Samsung
Model name: S27B800PXU

Certification date: 2022-03-24
Expiry date: 2025-03-24

Toward sustainable IT products

TCO Certified is the world-leading sustainability certification for IT products. It is an easy-to-use tool that helps you get environmental and social sustainability right. Criteria are mandatory, tough, and apply globally. Compliance is always independently verified.

For more information, visit tcocertified.com.

No. D922030177

Bahar Kimanos
Certification process
TCO Development

This certificate confirms that a sample of the certified product, as stated herein, has been tested and approved as to its compliance with the criteria document valid at the time of the laboratory test. The certified product may, subject to the use of the unique combination of brand name, type/model name and sales name as stated in this certificate, be marked and sold with the TCO Certified label in accordance with the agreement.



Appendix to certificate No. D922030177 -2

Brand name: Samsung

Model name(s):
S27B800PXU

Separate power supply: No



15%

Recycled plastic



6.7 kg

Total weight of product



Energy consumption

On mode: 27.3 Watt

Sleep mode: 0.5 Watt

Off mode: 0.5 Watt



Aspect ratio: 16:9

Panel size: 27 in

Min. resolution width: 3840 px

Min. resolution height: 2160 px

Type of stand: Pivot

Sales name(s):

S27B800PXC, S27B800PXE, S27B800PXI, S27B800P XK, S27B800PXM, S27B800PXP, S27B800PXW,
S27B804PXN, S27B806PXN

Model name type key(s)

1st *: N/A

2nd *: N/A

Additional information:

For products delivered without stand; the emission criteria 4.2 and 4.3 is not covered.

Bahar Kimanos
Certification process
TCO Development

Appendix to certificate No. D922030177 -2



Panels:

BOE MV270QUM-N53

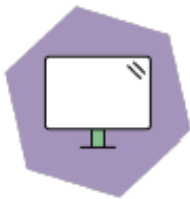
A handwritten signature in black ink, appearing to read 'Bahar Kimanos'.

Bahar Kimanos
Certification process
TCO Development



CERTIFICATE

TCO Certified, generation 9 for displays



Brand name: Samsung
Model name: S32B800PXU

Certification date: 2022-03-24
Expiry date: 2025-03-24

Toward sustainable IT products

TCO Certified is the world-leading sustainability certification for IT products. It is an easy-to-use tool that helps you get environmental and social sustainability right. Criteria are mandatory, tough, and apply globally. Compliance is always independently verified.

For more information, visit tcocertified.com.

Bahar Kimanos
Certification process
TCO Development

No. D922030178

This certificate confirms that a sample of the certified product, as stated herein, has been tested and approved as to its compliance with the criteria document valid at the time of the laboratory test. The certified product may, subject to the use of the unique combination of brand name, type/model name and sales name as stated in this certificate, be marked and sold with the TCO Certified label in accordance with the agreement.



Appendix to certificate No. D922030178 -2

Brand name: Samsung

Model name(s):
S32B800PXU

Separate power supply: No



13%
Recycled plastic



7.5 kg
Total weight of product



Energy consumption
On mode: 36.5 Watt
Sleep mode: 0.5 Watt
Off mode: 0.5 Watt



Aspect ratio: 16:9
Panel size: 31.5 in
Min. resolution width: 3840 px
Min. resolution height: 2160 px
Type of stand: Pivot

Sales name(s):

S32B800PXC, S32B800PXE, S32B800PXI, S32B800PKK, S32B800PXM, S32B800PXP, S32B800PXW,
S32B804PXN, S32B806PXN

Model name type key(s)

1st *: N/A

2nd *: N/A

Additional information:

For products delivered without stand; the emission criteria 4.2 and 4.3 is not covered.

Bahar Kímanos
Certification process
TCO Development

Appendix to certificate No. D922030178 -2






Panels:

SAMSUNG / CY-MB315HLEV1H

A handwritten signature in black ink, appearing to read 'Bahar Kimanos'.

Bahar Kimanos
Certification process
TCO Development

Prüfbericht-Nr.: Test Report No.:	CN225BUV 001	Auftrags-Nr.: Order No.:	168361064	Seite 1 von 18 Page 1 of 18
Kunden-Referenz-Nr.: Client Reference No.:	N/A	Auftragsdatum: Order date:	2022.03.03	
Auftraggeber: Client:	Samsung Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea			
Prüfgegenstand: Test item:	LCD Monitor			
Bezeichnung / Typ-Nr.: Identification / Type No.:	*S32B80***** (* may be alphanumeric or blank or "/" or "-", for marketing purpose only, no technical difference) (trademark: SAMSUNG)			
Auftrags-Inhalt: Order content:	TÜV Rheinland ISO 9241-307 mark approval			
Prüfgrundlage: Test specification:	ISO 9241-307:2008 for artificial information			
Wareneingangsdatum: Date of receipt:	2022.03.03			
Prüfmuster-Nr.: Test sample No.:	A003221065-003			
Prüfzeitraum: Testing period:	2022.03.11 - 2022.03.11			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
Geprüft von: Vincent Tu Tested by:			Genehmigt von: Iris Du Authorized by:	
Datum: 2022.03.17 Date:			Ausstellungsdatum: 2022.03.17 Issue date:	
Stellung / Position: Project Engineer			Stellung / Position: Reviewer	
Sonstiges / Other:				
LCD panel and LCD panel manufacturer: CY-MB315HLEV1H (SAMSUNG)				
The test result is valid for the Intended context of use as mentioned on page 3 of this test report and for the following content and perception in accordance with ISO 9241-307: artificial information				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Test item complete and undamaged <i>Prüfmuster vollständig und unbeschädigt</i>		
<p>* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet</p> <p>Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested</p>				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Appendix

SAMSUNG

Samsung Electronics Co., Ltd
129, Samsung-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, Korea

Declaration of REACH Substances of Very High Concern (SVHCs) Disclosure

Model: LS32B804PXNXGO

Dear Customer:

The European Regulation 1907/2006 on the *Registration, Evaluation, Authorization, and Restriction of Chemicals* (REACH) entered into force on 1st June, 2007.¹

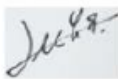
Article 33 of REACH requires suppliers to inform recipients and respond to consumer enquiries if an article contains more than 0.1% (by weight per article) of any substance on the candidate list of Substances of Very High Concern (SVHC).²

Samsung Electronics Co. Ltd (the "SEC") hereby declares the presence of substances on the SVHC candidate list which are contained in a quantity of more than 0.1% (w/w) in the above product and / or its packaging³ placed on the European Community market by the SEC and its subsidiaries.

The substances on the REACH SVHC candidate list in concentrations greater than 0.1% by weight per article are listed below.

Substance name	CAS No.	Application
Lead	7439-92-1	ASSY PCB MAIN ASSY ACCESSORY

Signature:

YongSup LEE 
Global Customer Satisfaction Team

Date: 2023-05-08

Name : YONGSUP LEE
Job position/Title : CL3/Product Quality Group

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:396:0001:0849:EN:PDF>

² SVHC = Substances of Very High Concern. Considered as candidates for inclusion in Annex XIV of REACH.

The latest revision to the candidate list was published by the European Chemicals Agency on 17th January 2022 at: <https://echa.europa.eu/candidate-list-table>

³ Reference: ECHA Guidance on requirements for substances in Articles.



Samsung Electronics Co.Ltd
129 Samsung-Ro, Maetan-3dong, Yeongtong-gu, Suwon-si,
Gyeonggi-do, Korea

Declaration of RoHS Compliance for LS32B804PXNXGO

Samsung Electronics Co. Ltd (the "Company") hereby declares that LS32B804PXNXGO placed on the European Community market by the Company and its subsidiaries are compliant with Directive 2011/65/EU on the Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment.

RoHS compliant means that where the product falls under the scope of the EU RoHS Directive, this product does not contain the following substances:

- Lead (0,1 %)
- Mercury (0,1 %)
- Cadmium (0,01 %)
- Hexavalent chromium (0,1 %)
- Polybrominated biphenyls (PBB) (0,1 %)
- Polybrominated diphenyl ethers (PBDE) (0,1 %)
- Bis(2-ethylhexyl) phthalate (DEHP) (0,1 %)
- Butyl benzyl phthalate (BBP) (0,1 %)
- Dibutyl phthalate (DBP) (0,1 %)
- Diisobutyl phthalate (DIBP) (0,1 %)

In excess of the indicated maximum concentration values by weight in homogenous materials, unless the substance is subject to an exemption specified in the Directive¹. All products are compliant with the CE marking and further information requirements as foreseen by Directive 2011/65/EU.

This declaration represents the Company's knowledge and belief which is partially based on information provided by third party suppliers.

Further details about Samsung Electronics' RoHS compliance programme can be found in the accompanying FAQ document or at:

http://www.samsung.com/uk/aboutsamsung/samsungelectronics/corporatecitizenship/data_corner.html

Signature : YongSup LEE

Product Quality Group

Date : 2023-05-08

SAMSUNG Electronics Co.,Ltd.

¹ http://ec.europa.eu/environment/waste/rohs_eee/index_en.htm