

# Product Carbon Footprint Verification Statement

The inventory of Product Carbon Footprint emissions of  
**D-Link Ethernet Switch (8 PORT DGS-1008D V.G1)**  
which is made by  
**D-Link Corporation**

No. 289, Sinhu 3rd. Rd., Neihu District,  
Taipei City 114, Taiwan, R.O.C.

has been verified meeting the requirements of

## ISO/CD 14067-1:2010

For the following activities  
**Business to customer**

Authorized by



Dennis Yang  
Chief Operation Officer of Eastern Asia

Date: 10 November 2010

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Statement TW10/00012PA, continued

SGS has been commissioned by D-Link Corporation (hereinafter referred to as "D-Link"), No. 289, Sinhu 3rd. Rd., Neihu District, Taipei City 114, Taiwan, R.O.C., for the verification the life cycle Greenhouse Gas emissions of product as provided by D-Link in accordance with

**ISO/CD 14067-1:2010**

**Roles and responsibilities**

The management of D-Link is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of the life cycle GHG emissions of product information and the reported life cycle GHG emissions of product.

It is SGS's responsibility to express an independent GHG verification opinion on the life cycle GHG emissions of product.

SGS conducted a third party verification of the provided GHG assertion against the principles of ISO/CD 14067-1:2010, ISO 14064-3: 2006, ISO 14040: 2006 and ISO 14044: 2006 in the period 13 September 2010 to 15 September 2010. The verification was based on the verification scope, objectives and criteria as agreed between D-Link and SGS.

**Level of Assurance**

The level of assurance agreed is that of reasonable assurance.

**Scope**

D-Link has commissioned an independent verification by SGS Taiwan of reported the life cycle GHG emissions of product of D-Link arising from the manufacture network adapter of product activities, to establish conformance with ISO/CD 14067-1:2010 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from full life cycle of the product of greenhouse gases included within the organization's boundary and is based on ISO/CD 14067-1:2010.

- Title or description activities: GHG verification of the life cycle GHG emissions of 8 port Ethernet Switch DGS-1008D V.G1 for D-Link.
- Functional unit : The functional unit is defined as one unit of 8 port Ethernet Switch.

Statement TW10/00012PA, continued

- System boundary : From raw materials, through manufacture, distribution and retail, to consumer use and finally disposal and recycling.
- Use phase : The use profile of 16 hours on-mode and 8 hours off-mode states in Taiwan and UK.
- Life cycle assessment tool and index using : Software applied SimaPro 7.2.4 version, databases applied Ecoinvent 2.2, BUWAL250 · LCA Food DK and Franklin USA 98 databases. IPCC 2007 GWP values are applied in this inventory.
- Cut-off rules : For any impact category, if the sum of various impacts from a specific process/activity is less than 1% of the impact equivalent in that category excluded use phase.
- Allocation rules :
  - Multi-output: The allocations are based on the changes in the resource consumption and pollutant emissions following the changes in the studied system's output product, or function or economical relationship.
  - Multi-input: The allocation is based on actual relationship. For example, the manufacturing process's emissions may be affected by the change in waste flow input.
  - Open loop recycling: For the input of recycled materials or energy during the manufacturing phase of the product system, the transportation between the recycling process and the recycling to material use shall be included in the dataset. For the product which shall be recycled during the manufacturing phase, the transportation towards the recycling process shall be included.
- Manufacturing locations: No. 1, Chunshenhu East Road, Standard Factory Xiangcheng Economical Development Zone Suzhou, Jiangsu, China
- GHG emissions arising from the life cycle of product included: Sources as presented in the inventory spreadsheet provided by D-Link.
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, Substances controlled by the Montreal Protocol, HFCs, PFCs, Fluorinated ethers.
- Directed actions: There is not GHG emissions offsetting be used at any point in the life cycle of the product.
- GHG information for the following production period was verified: 01 May 2010 to 31 July 2010, emissions covered the particular period.
- Intended user of the verification statement: Private

**Objective**

The purposes of this verification exercise are, by review of objective evidence, to independently

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review:

- Whether the life cycle GHG emissions of product are as declared by the organization's GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

**Criteria**

Criteria against which the verification assessment is undertaken are the principles of ISO/CD 14067-1: 2010.

The IPCC 2007 AR4 GWP values are applied in this assessment of life cycle GHG emissions for product.

**Materiality**

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

**Conclusion**

D-Link provided the GHG assertion based on the requirements of ISO/CD 14067-1: 2010. The life cycle GHG information of product for the production period 01 May 2010 to 31 July 2010 disclosing emissions of 62.75 metric kilograms of CO<sub>2</sub> equivalent included use phase, and use phase disclosing emissions of 44.70 metric kilograms of CO<sub>2</sub> equivalent are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting the life cycle GHG emissions of product information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported the life cycle GHG emissions of product.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the life cycle GHG emissions of 8 port Ethernet Switch DGS-1008D V.G1 are fairly stated.

We conducted our verification with regard to the GHG assertion of D-Link which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment

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included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied

In SGS's opinion the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO/CD 14067-1:2010 on GHG quantification, monitoring and reporting.

This statement shall be interpreted with the GHG assertion of D-Link as a whole, where there is a change to the life cycle of the product, GHG emission shall be re-assessed.

Note: This Statement is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Green Gas Verification Services available at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at D-Link Corporation, No. 289, Sinhu 3rd. Rd., Neihu District, Taipei City 114, Taiwan, R.O.C. This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.