



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13769**

This is to certify that the  
**Personal Computer**

with type designation(s)  
**OptiPlex XE2**

Issued to

**Dell Inc.**  
**ROUND ROCK, TX, United States**

is found to comply with  
**Det Norske Veritas' Rules for Classification of Ships and High Speed and Light Craft**  
**Det Norske Veritas' Offshore Standards**

Application  
**Location classes:**

<b>Temperature</b>	<b>A</b>
<b>Humidity</b>	<b>A*</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>B</b>
<b>Enclosure</b>	<b>A / IP20</b>

\* **Special precautions required. See Application/Limitation on page 2.**

This Certificate is valid until **2018-12-31**.

Issued at **Høvik** on **2014-07-01**

DNV local station: **Houston**

Approval Engineer: **Ståle Sneen**

for **Det Norske Veritas AS**

.....  
**Odd Magne Nesvåg**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.  
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.  
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

**Product description**

Dell OptiPlex XE2 Small Form Factor desktop computer, comprising the following units:

Module	Manufacturer	Type	Test report
CPU	Intel	Intel® Core™ I5-4570S Processor (Quad Core, 6MB Cache, 2.90GHz Turbo, w/ HD 4600 Graphics)	E14095.00
RAM	-	2, 4, 6, 8, 16 or 32 GB, 1600MHz DDR3 Non-ECC (maximum 32 GB)	"
Power supply	Chicony	D315E001L-DL 01	"
	Delta	DPS-315CBA	"
Optical device	HLDS	8X DVD+/-RW Drive	"
Hard Disk Drive	Toshiba	1TB 2.5inch SATA (5400rpm) Harddrive	"
Solid State Drive	Toshiba	100GB Solid State Drive SAS Value 2.5in Hot-plug Drive	E14094.00
	Toshiba	200GB Solid State Drive SAS Value 2.5in Hot-plug Drive	"
	Toshiba	400GB Solid State Drive SAS Value 2.5in Hot-plug Drive	"
Drive accessories	Dell	2.5inch Harddrive bracket	E14095.00
	Dell	SATA cable retention bracket	"
EMI AC Filter	OnFILTER	AFEUSKFG-D	"

Tested for nominal voltage: 110 Vac / 60 Hz and 230 Vac / 50 Hz

**Place of manufacture**

PCE Technology de Juarez S.A. de C.V.  
 Chihuahua, Mexico

Dell (China) Co. Ltd.  
 Fujian, China

Dell (Xiamen) Co. Ltd.  
 Fujian, China

Dell Asia Pacific Sdn. Bhd. (APCC2)  
 Penang, Malaysia

Dell International Services India, Pvt. Ltd.  
 Kancheepuram, Tamilnadu, India

Dell Products (Poland) Sp. z o.o.  
 Lodz, Poland

**Application/Limitation**

To comply with the maritime conducted emission requirements on AC Mains, the power ports shall be equipped with an EMI AC filter like OnFILTER model no. AFEUSKFG-D or equivalent.

Humidity class A does not fulfill the minimum requirements given by IACS Unified Requirements E10 and implies that this equipment may only be mounted in locations where special precautions are taken to avoid condensation.

**Approval conditions**

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Product certificate

Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

## **Type Approval documentation**

### **Tests carried out**

Applicable tests according to Standard for Certification No. 2.4, April 2006.

For the bridge mounted components the 'Acoustic noise and signals' and the 'Compass safe distance' were measured according to sections 11.1 and 11.2 of IEC 60945, 4<sup>th</sup> edition (2002).

Standard Compass Safe Distance: 180 cm, Steering Compass Safe Distance: 120 cm.

### **Marking of product**

Manufacturer: Dell  
Brand name: OptiPlex XE2  
Reg Model: D07S  
Reg Type: D07S001  
Serial No. (Service Tag): Unique  
Power supply rating: 100-240V AC 50/60Hz

### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE