

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)
MOXA IKS-6700A Series Ethernet switches

Issued to

Moxa Inc.
New Taipei City, Taiwan

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	D
Humidity	B
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

This Certificate is valid until **2020-12-09**.

Issued at **Høvik** on **2015-12-10**

DNV GL local station: **Kaohsiung**

Approval Engineer: **Nils Jarem**

for **DNV GL**

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.

Product description

IKS-6700A series	Description
IKS-6726A-2GTXSFP-24-T	24V DC Managed Ethernet Switch
IKS-6726A-2GTXSFP-24-24-T	
IKS-6728A-4GTXSFP-24-T	
IKS-6728A-4GTXSFP-24-24-T	
IKS-6726A-2GTXSFP-48-T	48V DC Managed Ethernet Switch
IKS-6726A-2GTXSFP-48-48-T	
IKS-6728A-4GTXSFP-48-T	
IKS-6728A-4GTXSFP-48-48-T	
IKS-6726A-2GTXSFP-HV-T	230V Managed Ethernet Switch
IKS-6726A-2GTXSFP-HV-HV-T	
IKS-6728A-4GTXSFP-HV-T	
IKS-6728A-4GTXSFP-HV-HV-T	

IM-6700A series plugin modules	
Model	Port Interface
IM-6700A-8TX	10/100Base T(X) x 8 Ports
IM-6700A-8SFP	100Base SFP x 8 Ports
IM-6700A-6MSC	Multi-mode, SC Connector x 6 Ports
IM-6700A-6MST	Multi-mode, ST Connector x 6 Ports
IM-6700A-6SSC	Single-mode, SC Connector x 6 Ports
IM-6700A-4MSC2TX	10/100Base T(X) x 2 Ports 。 Multi-mode, SC Connector x 4 Ports
IM-6700A-4MST2TX	10/100Base T(X) x 2 Ports 。 Multi-mode, ST Connector x 4 Ports
IM-6700A-4SSC2TX	10/100Base T(X) x 2 Ports 。 Single-mode, ST Connector x 4 Ports
IM-6700A-2MSC4TX	10/100Base T(X) x 4 Ports 。 Multi-mode, SC Connector x 2 Ports
IM-6700A-2MST4TX	10/100Base T(X) x 4 Ports 。 Multi-mode, ST Connector x 2 Ports
IM-6700A-2SSC4TX	10/100Base T(X) x 4 Ports 。 Single-mode, ST Connector x 2 Ports

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Mounting options for the units are not covered by this certificate.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2015.

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, 4th edition (2002).

Marking of product

The products to be marked with:

- model name
- manufacturer name
- serial number

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