

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Network and Communication Components**with type designation(s)
EDS-518E series, EDS-G205-1GTXSFP series

Issued to

Moxa Inc.
New Taipei City, Taiwanis found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft**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 relevant rules
shall be provided upon installation on board**Issued at **Høvik** on **2017-09-11**This Certificate is valid until **2022-09-10**.for **DNV GL**DNV GL local station: **Kaohsiung**Approval Engineer: **Nils Jarem**

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.



Job Id: **262.1-026384-1**
Certificate No: **TAA00001BT**

Product description

EDS-518E series: 14+4G-port Gigabit managed Ethernet switches	
EDS-518E-4GTXSFP	4xCombo Port: 10/100/1000BaseT(X) or 100/1000BaseSFP
EDS-518E-4GTXSFP-T	14x10/100BaseT(X) ports
EDS-518E-MM-SC-4GTXSFP	4xCombo Port: 10/100/1000BaseT(X) or 100/1000BaseSFP
EDS-518E-MM-SC-4GTXSFP-T	12x10/100BaseT(X) port; 2xMulti-Mode SC Connector
EDS-518E-MM-ST-4GTXSFP	4xCombo Port: 10/100/1000BaseT(X) or 100/1000BaseSFP
EDS-518E-MM-ST-4GTXSFP-T	12x10/100BaseT(X) port; 2xMulti-Mode ST Connector
EDS-518E-SS-SC-4GTXSFP	4xCombo Port: 10/100/1000BaseT(X) or 100/1000BaseSFP
EDS-518E-SS-SC-4GTXSFP-T	12x10/100BaseT(X) port; 2xSingle-Mode SC Connector
EDS-G205-1GTXSFP series: 5G-port full Gigabit unmanaged Ethernet switches	
EDS-G205-1GTXSFP	1xCombo Port: 10/100/1000BaseT(X) or 100/1000BaseSFP
EDS-G205-1GTXSFP-T	4x10/100/1000BaseT(X) port

T suffix: Wide temperature

Nominal voltages: 12V DC, 24V DC, 48V DC.

Compass safe distances:

Standard compass: 60 cm

Steering compass: 50 cm

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

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

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:

- manufacturer name
- model name
- serial number
- power supply ratings

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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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE