

TYPE APPROVAL CERTIFICATE**This is to certify:****That the Peripheral Equipment**

with type designation(s)

**IP29-8-maritime (Analogue Adapters), IP811-maritime (VoIP-PBX and Gateway),
IP111-maritime (IP-Telephone)**

Issued to

**innovaphone AG
Sindelfingen, Germany**

is 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.****Temperature A****Humidity B****Vibration A****EMC B****Enclosure Required protection according to DNV GL Rules shall be provided upon
installation on board**Issued at **Hamburg** on **2019-05-13**This Certificate is valid until **2024-05-12**.for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Didier Girardin****Joannis Papanuskas
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: **262.1-025101-3**
Certificate No: **TAA0000252**
Revision No: **2**

Product description

Type	Designation	HW vers.	Firmware Vers.
IP29-8-maritime	Analogue Adapter	6xx	Version 12r2
IP811 -maritime	VoIP-PBX and gateway	6xx	Version 12r2
IP111-maritime 1)	IP-Telefon	7xx	Version 12r2

IP811 full featured VoIP-PBX and gateway, including reverse proxy and SBC functionalities and redundancy features, driven by a 800 MHz CPU with 2 GB RAM and 32 MB Flash. The device meets all the requirements of a PBX and Unified Communications platform, such as voicemail, announcements, call distribution (ACD), up to 10 party conferencing (expandable), etc.

Interfaces: five ISDN BRI, two Gigabit Ethernet ports and internal mSATA SSD slot.

Power supply: Power over Ethernet according to IEEE 802.3af, Class 3 and Energy Efficient according to IEEE 802.3az

IP29 full featured analogue telephone adapter and VoIP gateway, including among others support for OPUS, G.722, Fax-over-IP according T.38, etc. The device is driven by a 400 MHz CPU with 0.25 GB RAM and 32 MB Flash.

Interfaces: eight analog (FXS) ports and one Fast Ethernet port.

Power supply: Power over Ethernet according to IEEE 802.3af, Class 3 and Energy Efficient according to IEEE 802.3az

IP111 full featured IP phone with a large colour display, 2 x 6 function keys, can support latest features for Telephony and Unified Communications. The device supports G.711, G.722, G.729A, and OPUS.

Interfaces: two Fast Ethernet ports.

Power supply: Power over Ethernet according to IEEE 802.3af, Class 1 and Energy Efficient according to IEEE 802.3az

Place of manufacture

for IP811-maritime and IP29-8-maritime:

Coronex Electronic GmbH
Halskestraße 1
40880 Ratingen

for IP111-maritime:

Vtech (Dongguan) Communications Limited
Xia Ling Bei Management Zone,
Liabu Town, Dongguan City, Guangdong Province,
V.R. China

Application/Limitation

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.

Instruction Manual to be observed with regard to appropriate installation and usage of shielded cables according to Type approval

Standard compass:

for IP811-maritime and IP29-8-maritime:

Compass safe distances 0.2 m
(TR-323521-2_Attachment_02)

for IP111-maritime:

Compass safe distances **1.7 m**
(TR-323521-2_Attachment_02)

Product certificate

If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

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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 DNVGL 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 class guideline DNVGL-CG-0339, November 2016
- IP111-maritime tested according IEC 60945 (2002) ¹⁾

Marking of product

The products to be marked with:

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

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