TYPE APPROVAL CERTIFICATE

This is to certify:

That the Maritime Computer

with type designation(s)
Maritime Panel Computers: PPC-080T-BT-01, PPC-120T-BT-01

Issued to
Data Respons Solutions AS
Høvik, **Norway**

is found to comply with
  DNV 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.

Location classes:
Temperature	**B***
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**A**

  * Tested at -15°C

Issued at **Høvik** on **2021-09-07**
This Certificate is valid until **2026-05-25**.
DNV local station: **Oslo Maritime and CAP**

Approval Engineer: **Martin Skårerverket**

for **DNV**

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Marta Alonso Pontes
Head of Section

Product description

MARITIME PANEL COMPUTERS:

PPC-080T-BT-01: Panel size: 8" industrial grade panel
PPC-120T-BT-01: Panel size: 12" industrial grade panel
Features:

- Intel® Atom Bay Trail E3845 Quad-Core embedded SoC
- DDR3 memory- 4GB
- PCAP touch screen
- Mini Displayport for external monitor
- 4 gigabit LAN ports
- Internal solid state storage
- 2 USB ports (1xUSB 3.0, 1xUSB 2.0)
- RJ45 output for RS232/422/485
- Flush, VESA or drop-in mounting
- Front IP 65

Power input: 24V DC

Compass safe distances: Standard   Steering
         PPC-080T-BT-01:   70 cm   45 cm
         PPC-120T-BT-01:   65 cm   45 cm

Tested firmware versions: AMI Bios 5.010

Place of Manufacture

Data Respons Solutions AS
Industriveien 25
NO-2020 Skedsmokorset
Norway

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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

<u>Product certificate</u>
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.

<u>Software control</u>
All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board. Certification of modified functionality may be required for the particular vessel.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.
Applicable tests for protected equipment according to IEC 60945, 4th edition (2002); except salt mist test (8.12).

Marking of product

Manufacture:	Data Respons Solutions AS
Model number:	As listed under product description
Serial number:	Unique for each delivered item
Power supply:	24V DC

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