



NIPPON KAIJI KYOKAI

Certificate

Certificate No. TA12105M

OF TYPE APPROVAL

Manufacturer: Pole Star Space Applications Ltd.

Place of Manufacturing: Exegon Ltd., 1-3, Poulsons Yard, Strattons Walk, Melksham, Wiltshire SN12 6JL, United Kingdom

Product description: Ship Security Alert System

Model: DSAS Mk2

Approval No.: 12A012

Specification & documents: As shown on the attached sheet (-1/2)

Testing items & approval conditions: As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned type of article has been tested with satisfactory results in accordance with the requirements specified in the International Standards IEC60945.

This certificate is valid until 5 March 2017.

Issued at Tokyo on 6 March 2012.

T. Narisawa
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

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Attached sheet - 1/2 to Certificate No. TA12105M

1. Ratings

Power Supply: DC24V

2. Components

- Inmarsat Isat Data Pro satellite transceiver (Sky wave IDP-690)
- DSAS Mk2 power pack with multistage charger
- Normally closed (N/C) alert activation points

3. Documentation

- DSAS Mk2 Ship Security Alert System Installation Guide (Doc. No. PS-TN-DSAS-MK2-SIG_V1.0)
- Catalog of IDP 600 Series
- POLE STAR PCB-E184 (Jan. 31, 2012)
- Test Report TL 1587-ENV Pole Star Ship Alert System (27, Jan. 2012)
- Test Report TL 1587 Pole Star Ship Alert System (27, Jan. 2012)
- Inmarsat Type Approval Certificate UE Model : IDP 690 (Certificate Number IDP/SW/004)

-- To be continued --

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Attached sheet - 2/2 to Certificate No. TA12105M

4. Test items: The following tests listed below have been carried out and found satisfactory results.

ENVIRONMENTAL TESTS	IEC60945 Ed.4.0
External examination	4.1, 4.2
Operation test and performance test	6
Excessive Conditions test	7.2
Dry heat test (+70°C x 16Hr)	8.2.2
Damp heat test	8.3.1
Low temperature test (-25°C x 16Hr)	8.4.2
Vibration test	8.7
Salt mist test	8.12
Conducted emission test	9.2
Radiated emission test	9.3
Conducted radio frequency disturbance immunity test	10.3
Radiated radio frequency immunity test	10.4
Fast transients immunity test	10.5
Surge immunity test	10.6
Power supply short-term variation test	--
Power supply failure test	--
Electrostatic discharge immunity test	10.9
Acoustic noise and signals test	11.1
Compass safe distance test	11.2

-- The end --