

EU-type examination (Module B) certificate

No: 172140392/AA/00

In compliance with the procedure specified in RD_061, Telefication declares as designated Notified Body 0560 for the European Radio Equipment Directive, that the stated product, complies with the essential requirements, in accordance with Article 3 of Directive 2014/53/EU, as indicated under Annex 1 of this certificate, based on the applicable Technical Standards and Specifications as listed under Annex 2 of this Certificate.

Product description: **Personal Locator Beacon**
Trademark: **rescueME**
Type designation: **PLB1**
Hardware / Software version: **01.00 / 01.01**
Variants: --

This certificate is granted to manufacturer:

Name: **Ocean Signal Ltd.**

This certificate remains valid as long as the stated product stays in compliance with the essential requirements of the Radio Equipment Directive.

This certificate has THREE Annexes.



Geesje Geers
Product Assessor



General Conditions

For each product to which this EU-type examination relates, it has complied to the essential requirements as follows:

Article 3.1

Radio equipment shall be constructed so as to ensure:

- C (a) The protection of health and safety of persons and of domestic animals and the protection of property, including the objectives with respect to safety requirements set out in Directive 2014/35/EU, but with no voltage limit applying;
- C (b) An adequate level of electromagnetic compatibility as set out in Directive 2014/30/EU.

Article 3.2

- C Radio equipment shall be so constructed that it both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference.

Article 3.3

Radio equipment within certain categories or classes shall be so constructed that it complies with the following essential requirements:

- NA (a) Radio equipment interworks with accessories, in particular with common chargers;
- NA (b) Radio equipment interworks via networks with other radio equipment;
- NA (c) Radio equipment can be connected to interfaces of the appropriate type throughout the Union;
- NA (d) Radio equipment does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service;.
- NA (e) Radio equipment incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected;
- NA (f) Radio equipment supports certain features ensuring protection from fraud;
- C (g) Radio equipment supports certain features ensuring access to emergency services;
- NA (h) Radio equipment supports certain features in order to facilitate its use by users with a disability;
- NA (i) Radio equipment supports certain features in order to ensure that software can only be loaded into the radio equipment where the compliance of the combination of the radio equipment and software has been demonstrated.

Legend

- C = Conform
- NC = Not Conform
- NA = Not applicable (for this equipment)
- NP = Not performed (for this certificate)

- This EU-type examination certificate is limited to the Radio Equipment Directive.
- This EU-type examination certificate is part of the Conformity Assessment procedure Module B, as described in annex III of the Radio Equipment Directive.
- The validity of this EU-type examination certificate is limited to products, which are equal to the one(s) assessed for this EU-type examination.
- When the manufacturer (or holder of this EU-type examination certificate) is placing the listed products on the European market or the countries of the EEA, he is obliged to label the products with the prescribed CE logo. The CE logo stands for conformity to all applicable Directives. Next to the CE logo the manufacturer has to draw up and issue a Declaration of Conformity, declaring that the product(s) described in this EU type-examination certificate, are in compliance with Directive 2014/53/EU and any other applicable EU harmonization legislation.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.
- Enforcement of a new amending directive voids the validity of this EU-type examination certificate.
- In case any referenced standard in this EU-type examination certificate is withdrawn or superseded and the presumption of conformity with the essential requirements has ceased, investigation by Telefication is needed to determine the validity of this EU-type examination.

Remarks and observations

The following conditions are applicable:

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Documentation lodged for this EU-type examination

Test Reports:

- Public Enterprise Testing Center <>: 12/1094, 31 January 2013
- Public Enterprise Testing Center <>: 12/1089, 30 October 2012
- Public Enterprise Testing Center <>: 12/1090, 24 January 2013
- Public Enterprise Testing Center <>: 14/509, 11 August 2014
- Public Enterprise Testing Center <>: 12/1092, 06 November 2012
- Public Enterprise Testing Center <>: 12/1410, 29 January 2013
- Ocean Signal Ltd.: TA0010, 15 June 2017
- SIEMIC Nanjing [China] Laboratories: 17050002-CE-E V2, 26 June 2017
- SIEMIC Nanjing [China] Laboratories: 17050002-CE-E R, 08 June 2017

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Internal photos
- External photos
- Manual
- Label and label placement
- Risk assessment
- RED declarations
- Cospas-Sarsat certificates: TAC 239 / 260 / 283

Technical Standards and Specifications

The product is compliant with:

Cospas Sarsat T.007	November, 2005	Issue 4
Draft EN 301 489-19	March, 2017	V2.1.0
Draft EN 303 413	March, 2017	V1.1.0
EN 301 489-1	February, 2017	V2.1.1
EN 301 843-1	August, 2012	V1.3.1
EN 302 152-1	January, 2003	V1.1.1
EN 60950-1	2006	
EN 60950-1/A1	March, 2010	
EN 60950-1/A11	March, 2009	
EN 60950-1/A12	February, 2011	
EN 60950-1/A2	August, 2013	
EN 62479	September, 2010	
IEC 61108-1	July, 2003	2nd Ed.

Technical features and characteristics

The product includes the following features and characteristics:

GPS receiver

- Operating frequency range: 1575.42 MHz

406 MHz PLB

- Operating frequency range: 406.040 MHz
- Maximum output power: 5 W rated

Personal Homing Beacon

- Operating frequency range: 121.5 MHz
- Maximum output power: 0.035 W rated

The product as described in this EU-type examination includes the following type designations:

- Product description: Personal Locator Beacon
- Trademark: rescueME
- Type designation: PLB1
- Hardware version: 01.00
- Software version: 01.01



TYPE APPROVAL CERTIFICATE

for a 406 Megahertz Distress Beacon for use with the Cospas-Sarsat Satellite System

Certificate Number: 299

Manufacturer: Ocean Signal Ltd., United Kingdom
Beacon Type: PLB
Beacon Models: rescueME PLB1
Additional Model Names: ARTEX PLB
Test Laboratory: OMEGA Test Centre, Sevastopol, Ukraine
Date of Test: December 2012

Details of the beacon features and battery type are provided overleaf.

The Cospas-Sarsat Council hereby certifies that the 406 MHz Distress Beacon Model identified above is compatible with the Cospas-Sarsat System as defined in documents:

C/S T.001 Specification for Cospas-Sarsat 406 MHz Distress Beacon
Issue 3 – Rev. 13, October 2012
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
Issue 4 – Rev. 7, October 2012

TAC 239 issued on **19 February 2013**
First additional TAC 260 issued on **3 February 2015**
Second additional TAC 283 issued on **27 January 2017**
Third additional TAC 299 issued on **6 February 2018**

Steven W. Lett,
Head of Cospas-Sarsat Secretariat

NOTE, HOWEVER:

1. This certificate does not authorize the operation or sale of any 406 MHz distress beacon. Such authorization may require type acceptance by national administrations in countries where the beacon will be distributed, and may also be subject to national licensing requirements.
2. This certificate is intended only as a formal notification to the above identified manufacturer that the Cospas-Sarsat Council has determined, on the basis of test data of a beacon submitted by the manufacturer, that 406 MHz distress beacons of the type identified herein meet the standards for use with the Cospas-Sarsat System.
3. Although the manufacturer has formally stated that all beacons identified with the above model name(s) will meet the Cospas-Sarsat specification referenced above, this certificate is not a warranty and Cospas-Sarsat hereby expressly disclaims any and all liability arising out of or in connection with the issuance, use or misuse of the certificate.
4. This certificate is subject to revocation by the Cospas-Sarsat Council should the beacon type for which it is issued cease to meet the Cospas-Sarsat specification. A new certificate may be issued after satisfactory corrective action has been taken and correct performance demonstrated in accordance with the Cospas-Sarsat Type Approval Standard.
5. Cospas-Sarsat type approval testing requirements only address the electrical performance of the beacon at 406 MHz. Conformance of the beacon to operational and environmental requirements is the responsibility of national administrations.
6. This certificate authorizes the use of the registered name mark "Cospas-Sarsat" and of registered trademarks for the Programme's logos, for labelling, instruction materials, and marketing of the 406-MHz beacon model identified, but not for other marketing or sales purposes (i.e., not for general uses beyond this specific beacon model).

Certificate Number: 299

Beacon Models: rescueME PLB1

Operating temperature range: -20°C to +55°C (Class 2)

Operating Lifetime: 24 hours

Transmit Frequency: 406.040 MHz

Battery Details: Energizer 123 Photo, Lithium Manganese Dioxide (3 cells)

Beacon Model Features:

- Internal GPS receiver model: Quectel L70;
- Capable to update the encoded position data at variable intervals between 5 minutes and 4 hours;
- Integral antenna;
- Manual activation only;
- Self-test mode, one burst of 520 ms;
- GNSS self-test, no RF-transmission, number of GNSS self-tests is limited to 10 for the battery replacement period of 8 years;
- Strobe-light (1 cd, 24 flashes per minute);
- Approved for operation while placed on ground and above ground only;
- Beacons have not been designed, tested nor type approved for use while immersed in water.

Approved Beacon Message Protocols: Beacon is approved for use with the message protocols indicated with "Yes" and black text below:

USER PROTOCOLS

- No Maritime with MMSI
- No Maritime with Radio Call Sign
- No EPIRB Float Free with Serial Number
- No EPIRB Non Float Free with Serial Number
- No Radio Call Sign
- No Aviation
- No ELT with Serial Number
- No ELT with Aircraft Operator and Serial Number
- No ELT with Aircraft 24-bit Address
- No PLB with Serial Number
- No National (Short Format Message)
- No National (Long Format Message)

USER-LOCATION PROTOCOLS

- Yes Maritime with MMSI
- No Maritime with Radio Call Sign
- No EPIRB Float Free with Serial Number
- No EPIRB Non Float Free with Serial Number
- No Radio Call Sign
- No Aviation
- No ELT with Serial Number
- No ELT with Aircraft Operator and Serial Number
- No ELT with Aircraft 24-bit Address
- No PLB with Serial Number

LOCATION PROTOCOLS

- Yes Standard Location: EPIRB with MMSI
- No Standard Location: EPIRB with Serial Number
- No Standard Location: ELT with 24-bit Address
- No Standard Location: ELT with Aircraft Operator Designator
- No Standard Location: ELT with Serial Number
- Yes Standard Location: PLB with Serial Number
- No National Location: EPIRB
- No National Location: ELT
- Yes National Location: PLB
- No National Location: PLB
- No RLS Location: EPIRB
- No RLS Location: ELT
- No RLS Location: PLB
- No ELT(DT) Location: ELT with Serial Number
- No ELT(DT) Location: ELT with Aircraft Operator and Serial Number



TYPE APPROVAL CERTIFICATE

for a 406 Megahertz Distress Beacon for use with the Cospas-Sarsat Satellite System

Certificate Number: 283

Manufacturer: Ocean Signal Ltd., United Kingdom
Beacon Type: PLB
Beacon Models: rescueME PLB1, rescueME PLB2
Additional Model Names: none
Test Laboratory: OMEGA Test Centre, Sevastopol
Date of Test: December 2012

Details of the beacon features and battery type are provided overleaf.

The Cospas-Sarsat Council hereby certifies that the 406 MHz Distress Beacon Model identified above is compatible with the Cospas-Sarsat System as defined in documents:

C/S T.001 Specification for Cospas-Sarsat 406 MHz Distress Beacon
Issue 3 – Rev. 13, October 2012
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
Issue 4 – Rev. 7, October 2012

TAC 239 issued on **19 February 2013**
First additional TAC 260 issued on **3 February 2015**
Second additional TAC 283 issued on **27 January 2017**


Steven W. Lett,
Head of Cospas-Sarsat Secretariat

NOTE, HOWEVER:

1. This certificate does not authorize the operation or sale of any 406 MHz distress beacon. Such authorization may require type acceptance by national administrations in countries where the beacon will be distributed, and may also be subject to national licensing requirements.
2. This certificate is intended only as a formal notification to the above identified manufacturer that the Cospas-Sarsat Council has determined, on the basis of test data of a beacon submitted by the manufacturer, that 406 MHz distress beacons of the type identified herein meet the standards for use with the Cospas-Sarsat System.
3. Although the manufacturer has formally stated that all beacons identified with the above model name(s) will meet the Cospas-Sarsat specification referenced above, this certificate is not a warranty and Cospas-Sarsat hereby expressly disclaims any and all liability arising out of or in connection with the issuance, use or misuse of the certificate.
4. This certificate is subject to revocation by the Cospas-Sarsat Council should the beacon type for which it is issued cease to meet the Cospas-Sarsat specification. A new certificate may be issued after satisfactory corrective action has been taken and correct performance demonstrated in accordance with the Cospas-Sarsat Type Approval Standard.
5. Cospas-Sarsat type approval testing requirements only address the electrical performance of the beacon at 406 MHz. Conformance of the beacon to operational and environmental requirements is the responsibility of national administrations.

Beacon Models:	rescueME PLB1, rescueME PLB2
Operating temperature range:	-20°C to +55°C (Class 2)
Operating Lifetime:	24 hours
Transmit Frequency:	406.040 MHz
Battery Details:	Energizer 123 Photo, Lithium Manganese Dioxide (3 cells)

Beacon Model Features:

- Internal GPS receiver model: Quectel L70 ⁽¹⁾;
- Capable to update the encoded position data at variable intervals between 5 minutes and 4 hours ⁽¹⁾;
- Integral antenna;
- Manual activation only;
- Self-test mode, one burst of 520 ms ⁽¹⁾ or of 440 ms ⁽²⁾;
- GNSS self-test, no RF-transmission, number of GNSS self-tests is limited to 10 for the battery replacement period of 8 years ⁽¹⁾;
- Strobe-light (1 cd, 24 flashes per minute);
- Approved for operation while placed on ground and above ground only;
- Beacons have not been designed, tested nor type approved for use while immersed in water.

Approved Beacon Message Protocols: Beacon is approved for use with the message protocols indicated with "Yes" and black text below:

USER PROTOCOLS ⁽²⁾	USER-LOCATION ⁽¹⁾ PROTOCOLS	LOCATION PROTOCOLS ⁽¹⁾
Yes Maritime with MMSI	Yes Maritime with MMSI	Yes Standard Location: EPIRB with MMSI
No Maritime with Radio Call Sign	No Maritime with Radio Call Sign	No Standard Location: EPIRB with Serial Number
No EPIRB Float Free with Serial Number	No EPIRB Float Free with Serial Number	No Standard Location: ELT with 24-bit Address
No EPIRB Non Float Free with Serial Number	No EPIRB Non Float Free with Serial Number	No Standard Location: ELT with Aircraft Operator Designator
No Radio Call Sign	No Radio Call Sign	No Standard Location: ELT with Serial Number
No Aviation	No Aviation	Yes Standard Location: PLB with Serial Number
No ELT with Serial Number	No ELT with Serial Number	No National Location: EPIRB
No ELT with Aircraft Operator and Serial Number	No ELT with Aircraft Operator and Serial Number	No National Location: ELT
No ELT with Aircraft 24-bit Address	No ELT with Aircraft 24-bit Address	Yes National Location: PLB
Yes PLB with Serial Number	No PLB with Serial Number	
No National (Short Format Message)		
No National (Long Format Message)		

⁽¹⁾ applicable only to model "rescueME PLB1"

⁽²⁾ applicable only to model "rescueME PLB2"

EU Declaration of Conformity (DoC)

Hereby we,

Name of manufacturer: Ocean Signal Ltd.

declare that this DoC is issued under our sole responsibility and that this product:

Product description: Personal Locator Beacon

Type designation(s): PLB1

Trademark: rescueME

Object of the declaration



is in conformity with the relevant Union harmonization legislation:

Radio Equipment directive: 2014 / 53 / EU and other Union harmonization legislation where applicable:

with reference to the following standards applied:

EN302 152, EN301 843-1, EN62479, EN303 413 v1.1.0,

EN301 489-1 V2.1.1 and -19 V2.1.0, EN60950-1+A2, IEC61108-1 (part)

The Notified Body Telefication B.V., with Notified Body number 0560 performed:
Modules B&C

Where applicable:

The issued EU-type examination certificate: **172140392/AA/00**

Description of accessories and components, including software, which allow the radio equipment to operate as intended and covered by the DoC: Not Applicable

Signed for and on behalf of:

Margate, 3rd May 2017



Place and date of issue

David Sheekey, Product and Approvals Manager

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

Certification

**Issued Under the Authority of the
Federal Communications Commission**

By:

TUV SUD BABT

Ocean Signal Ltd.

Attention: David Sheekey , Product and Approvals Manager

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: XYEPLB1

Name of Grantee: Ocean Signal Ltd.

Equipment Class: Personal Locator Beacons

Notes: Personal Locator Beacon

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	95K	406.039 - 406.041	4.07	1000.0 Hz	16K0G1D
	95K	121.5 - 121.5	0.05	607.5 Hz	3K20A3X

Output power is conducted.