



NOTIFIED BODY
No 0191

CERTIFICATE OF TYPE APPROVAL

(EC Certificate of Type Examination - Module B)

(Marine Equipment Directive - 96/98/EC, as amended*¹)

Applicant:-
Ocean Signal Ltd
Unit 4
Ocivan Way
Margate, CT9 4NN
United Kingdom

Manufacturer:-
Ocean Signal Ltd
Unit 4
Ocivan Way
Margate, CT9 4NN
United Kingdom

This is to certify that the applicant has submitted details of a:-

406 MHz EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB) **(Commission Directive 2010/68/EC – Item A.1/5.6)**

Of a type known and designated as:-

- | | | |
|----|---------------------|----------------------|
| a) | Ocean Signal | SafeSea E100 |
| b) | Ocean Signal | SafeSea E100G |

(Comprising component parts and having technical characteristics shown in schedule 1)

and that this has been tested and assessed, and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with:

IEC 61097-2 : 2008 “COSPAS-SARSAT Satellite EPIRBs operating on 406 MHz”

IEC 60945 : 2002 “General Requirements for marine equipment” (Inc. Corrig’ m1:2008)

(being specifications for Technical Characteristics and Methods of Measurements, published by the International Electrotechnical Commission).

It is also RECOGNISED that the equipment conforms to performance standards not inferior to those adopted by the International Maritime Organisation, and which are contained in Resolution A810(19), (as amended by MSC 56(66) & MSC 120(74)), Resolution MSC/Circ 862 (as applicable) and the relevant parts of Resolution A694(17).

SIGNED:

R A Sharp

Authorised Signatory

DATE of ISSUE:

31st December 2010

DATE of EXPIRY :

30th December 2015

Certificate Number:

QQ-MED-17/10-01

EU/USCG Mutual Recognition Agreement
Council Decision 2004/425/EC

This category of equipment is not currently included in the MRA

This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on page 4

Ocean Signal Ltd are currently arranging Module D registration with QinetiQ in accord with standard condition 3, QinetiQ

Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX



Maritime and Coastguard Agency
The MCA is an Executive Agency of
the Department for Transport

*1 Commission Directives 2010/68/EC, 2009/26/EC & 2002/84/EC

Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, QinetiQ Ltd has been Notified to the European Commission by the Maritime and Coastguard Agency as a Body authorised to conduct Conformity Assessment procedures under the provisions of the European Council Directive 96/98/EC (as amended) on Marine Equipment and issue Certificates of Type Approval.

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Certificate of Type Approval - Schedule 1

SafeSea E100, Emergency Position Indicating Radio Beacon SafeSea E100G, Emergency Position Indicating Radio Beacon

The applicant declared that the following units comprise the 406MHz COSPAS-SARSAT, EPIRB equipment of the system designations given on page 1. These units have been assessed & tested, and satisfactory details of these units were included in the technical file.

MAIN UNITS Comprising:-

406MHz EPIRB Beacon	E100	
or 406MHz EPIRB Beacon with integral GPS	E100G	*1
mounted in float-free Auto Housing	ARH100	*2, 3, 4
or Manual Release Housing	MRH100	*5

Optional (Service Replacement):-

Replacement Battery (User replaceable)	LB2E
----- End of List -----	

*NOTES:-

- 1 The E100G EPIRB has an integral GPS receiver module and transmits the 'Long format Message' with precision location co-ordinates.
- 2 With the E100 or E100G mounted in the Float-free auto housing the complete assembly forms an automatic float free release EPIRB (Category 1).
- 3 The float free release case assembly has been tested for correct hydrostatic release at temperatures of -30°C and +70°C.
- 4 The Float-free auto housing is fitted with an Ocean Signal HR1E 'Resettable' Hydrostatic Release Units.
- 5 With the E100 or E100G mounted on the supplied manual Release Bracket or in the MRH100, the complete assembly forms a manual release, carry-off EPIRB (Category 2) complying with Annex 1 of IMO Resolution A810(19) except clause 2.2. Their installation on vessels may be restricted by administrations until the mandatory carriage requirements for Category 1 EPIRBs are satisfied.
- 6 Marine COSPAS-SARSAT 406MHz EPIRBs form a distress alerting component of the Global Maritime Distress & Safety System (GMDSS). The SafeSea E100/E100G series have been granted COSPAS-SARSAT Type Approval certification No.211, dated 28 October 2010.

Technical Characteristics

PARAMETER	PROVISION	COMMENT
FREQUENCY OF OPERATION	406.037MHz and 121.5MHz	TRANSMIT Only
EMISSION CODE	16K0G1D 3K20A3X	
POWER CHARACTERISTIC	5W 50mW	- 406.037MHz - 121.5MHz
GNSS Location Device fitted	E100 - No E100G - Yes (Internal GPS module)	Module tested to relevant tests of EN 61108-1 Average error, Static accuracy <13 metres.
TEMPERATURE RANGE Category 1 & Category 2	-20°C to +55°C.	- Class 2 Note: Hydrostatic release operation tested at -30°C and +70°C
POWER SOURCE	9V lithium Battery Pack (Rated for 5yr life)	Designed to allow User Replacement. Expiry date Labeled. >48hour minimum battery life at -20°C. (3x3 EL123AP cells)

Conditions of Issue of this certificate are printed on page 4.

QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

Certificate Number **QQ-MED-17/10-01**

Certificates of Type Approval
Conditions of Issue

1. Each Certificate will be used in its entirety and not reproduced in part.
2. This certificate remains valid until the date shown (normally 5 years) unless cancelled or revoked, provided:-
 - i) the design and manufacture remain unmodified from the specimen tested and recorded in the Technical Construction File;
 - ii) any conditions contained in the schedule are complied with;
 - iii) Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply;
 - iv) and, the equipment remains satisfactory in service.
3. The mark of conformity may only be affixed to the equipment listed on this certificate and a manufacturer's Declaration of Conformity issued when the production Quality Assurance requirements laid down in Annex B, of the Directive (96/98/EC) is fully complied with and controlled by a written inspection agreement with a Notified Body. The use of the QinetiQ Notified Body Number (0191) in combination with the Wheelmark implies that the manufacturer is Registered with the QinetiQ Quality Assurance Scheme. A Certificate of Registration is issued to the manufacturer and should be made available on request. The manufacturer is responsible for ensuring that certification renewal and periodic surveillance are maintained.
4. USCG Approval Number: A Mutual Recognition Agreement (MRA) on marine equipment exists between the European Commission and the US Coastguard but only applies to equipment types included in the listing of marine equipment annexed to the MRA. For included equipment a USCG Approval number may be issued and can be found under the MED certificate number on the first page and should be used on the main identity label of the equipment. Radio and Radar equipment continues to need separate or additional approval by the USA FCC.
5. This certificate does not confer any approval status to this equipment other than defined by, and tested according to the specifications listed on sheet 1.
6. The labeling requirements of IMO Resolution A694(17) shall be met. Descriptions of each unit of apparatus forming part of the equipment will be as given on this Certificate. Each unit of equipment will be marked with the minimum safe distance at which it should be mounted from a standard and steering magnetic compass.
7. No unit of apparatus shall be advertised or labeled as "approved" or "certified" on behalf of the Maritime and Coastguard Agency, the Department of Transport or the QinetiQ Group in any sense other than that it is a type that has been assessed as satisfactory against the specification;
8. The manufacturer must advise QinetiQ of any intended changes to the design or production of the equipment which might affect the equipment performance.
9. Minor Modifications to the equipment will be considered on a case-by-case basis. QinetiQ will review any factory test results, in consultation if necessary, with the test facility that conducted the original Type Approval testing on the equipment. QinetiQ will advise the manufacturer if any further testing is required to maintain valid certification.
10. If an equipment manufacturer wishes to have the type approved equipment designated under alternative names (e.g. agent/distributor's name and model number), a separate application should be completed and sent to QinetiQ.

QinetiQ Ltd
Marine Approval and Testing Service
Cody Technology Park, Room 1005/A5
Ively Road, Farnborough
Hants, GU14 0LX
United Kingdom