



## 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

**Manufacturer:-**  
Ocean Signal Ltd  
Unit 4  
Ocivan Way  
Margate  
CT9 4NN

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

**9 GHZ SEARCH AND RESCUE RADAR TRANSPONDER**  
**(COMMISSION DIRECTIVE 2009/26/EC – ITEM A.1/4.18)**

Of system type known and designated as:-

**Ocean Signal      SafeSea S100 SART**

(Comprising component parts and having technical characteristics shown in schedule 1)  
and that these have been assessed, tested and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with the relevant parts of:

**IEC 61097-1 : 2007 "Part 1, Radar Transponder - Marine Search and Rescue (SART)"**  
**IEC 60945 : 2002 "General Requirements for marine equipment"**

(being Operational requirements - Methods of testing and test results, performance specification, published by the International Electrotechnical Commission and by the British Standards Institution as BS EN61097-1 :2007 and BS EN60945 :2002)

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 A.530(13), A802(19) and the relevant parts of Resolution A694(17).

**SIGNED:**

**R Sharp**

**Authorised Signatory**

**DATE of ISSUE:**      **11<sup>th</sup> November 2010**

**DATE of EXPIRY :**      **10<sup>th</sup> November 2015**

**Certificate Number:**      **QQ-MED-16/10-01**

**This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on the attached schedule. Ocean Signal Ltd are currently establishing Module D registration with QinetiQ in accord with standard condition 3. A certificate of registration will be issued.**

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



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

\*1 Commission Directives 2009/26/EC, 2008/67/EC & 2002/84/EC

*Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, the QinetiQ Group PLC (formerly known as DERA) 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 on Marine Equipment and issue Certificates of Type Approval.*



# Certificate of Type Approval - Schedule 1

## Ocean Signal Ltd. Safe Sea S100 SART

The applicant declared that the following units comprise the Search And Rescue Transponder equipment of the system designation given at a) on sheet 1. This unit has been assessed & tested, and satisfactory details of these units were included in the technical file.

### MAIN UNIT Comprising:-

SART Main Unit	S100
Battery Unit	Li/FeS <sub>2</sub>
Stated software version	01.00.00

----- End of List.

### \*NOTES:-

- 1.. This is the first MED certification for this designated device.
- 2 The manufacturer supplied a comprehensive technical construction file.
- 3 The new generation of device meets the revised performance standard IEC 61097-1 : 2007.

### Technical Characteristics

FREQUENCY OF OPERATION	<b>TRANSMIT:</b>	9.2 to 9.5 GHz
	<b>RECEIVE:</b>	9.2 to 9.5 GHz
CHANNELS	<b>N/A</b>	Swept response covers transmit frequency band
EMISSION CODE	<b>300MXON</b>	12 sweep response
DSC CLASS	<b>None</b>	
RF POWER OUTPUT	<b>400mW</b>	Fixed
Power Supply	<b>Lithium /SO2 Primary Battery</b>	Internal primary battery specified and labelled for replacement at 5 year intervals
Temperature Range & IEC 945 Class -	<b>-20°C to +55°C Portable</b>	Operational

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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) the equipment remains satisfactory in service and the regulations and standards cited in the appropriate Directives do not change.
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 annual renewal and surveillance are maintained.
4. 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.
5. The labelling 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.
6. No unit of apparatus shall be advertised or labelled 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;
7. The manufacturer must advise QinetiQ of any intended changes to the design or production of the equipment which might affect the equipment performance.
8. 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.
9. 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



