



SIMRAD LIMITED
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CT9 4NP UNITED KINGDOM
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FAX +44 (0)1843 290471

10 March, 2005

FCC identifier: **QYSSA50**
FCC Confirmation Number: **EA576113**

To whom it may concern,

The Simrad SA50 SART is manufactured by Simrad Ltd using an electronic design licensed from Sevenstar Ltd. A formal agreement is in place between Sevenstar and Simrad Ltd. The attached letter from Sevenstar confirms this agreement.

The electronics package is manufactured without design change, but is contained in a Simrad designed external case.

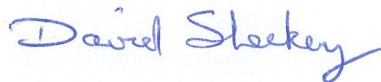
The Sevenstar model has existing FCC approval under identifier number RIKS701.

The Simrad model has had additional testing carried out by Qinetiq Ltd in the UK to verify that the changes to the casing did not affect the radiated performance of the SART. Both the original Sevenstar test report and the Qinetiq report have been submitted in this application.

The Simrad SA50 has been submitted for European approval under the Marine Equipment Directive and the Type Examination certificate is also attached. In particular this certificate reference that the SA50 is compliant with IMO resolutions A.802(19) and A.694(17). The requirements of ITU-R M.682-3 are incorporated into the international standard IEC61097-1:1992 also referenced on the above mentioned certificate. The Simrad SA50 thus meets the requirements of CFR47 parts 80.1101(6)(6) and 80.1101(10)(i).

The Simrad SA50 is designed to mount in the canopy of the liferaft to meet the requirement to raise the unit to 1metre above sea level. In situations where this is not possible, or the canopy support does not give the required height, an optional mounting pole, MPS50, is available.

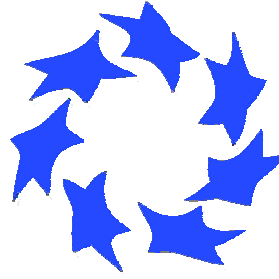
Yours Sincerely



David Sheekey
Product Manager – Radio

david.sheekey@simrad.com

SevenStar Electronics



Unit 7, Richards Close
Wootton Bassett
Wiltshire SN4 7LE
United Kingdom
(+44) (0) 1793 852829

Email: info@sevenstarelectronics.com

Web: www.sevenstarelectronics.com

28th July 2004

To whom it may concern

Please note that this information is confidential and should not be disclosed to a third party.

Dear sir/madam

Please accept this as official notification that SevenStar Electronics Ltd, whose registered address is shown above, has licensed certain of its Intellectual Property to Simrad Ltd of Star Lane, Margate.

The IP in question pertains to a marine Search And Rescue Transponder (SART), SevenStar type number S.701, operating in the 9GHz radar band. Under the terms of the license agreement, Simrad are allowed to manufacture the identical circuit board and antenna assembly as that used in the S.701 SART already Type Approved (EU MED and FCC) by SevenStar Electronics Ltd. Simrad Ltd will then package the assembly in their own casing, using their own battery pack, switch and other mechanical arrangements, and will operate in the marketplace independently of SevenStar.

To the best of my knowledge, Simrad have made no material changes whatsoever to the board and antenna assembly other than the method of PCB mounting. I have included internal photographs of SevenStar's circuit board/antenna assembly for your examination and comparison.

Yours faithfully

C R Watts
Managing Director
SevenStar Electronics Ltd



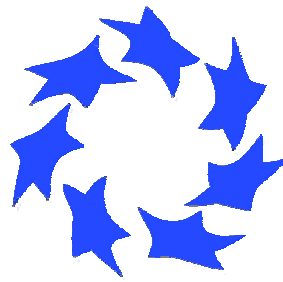
Co. Registration No: 4482935

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VAT Registration No: 824 5627 23



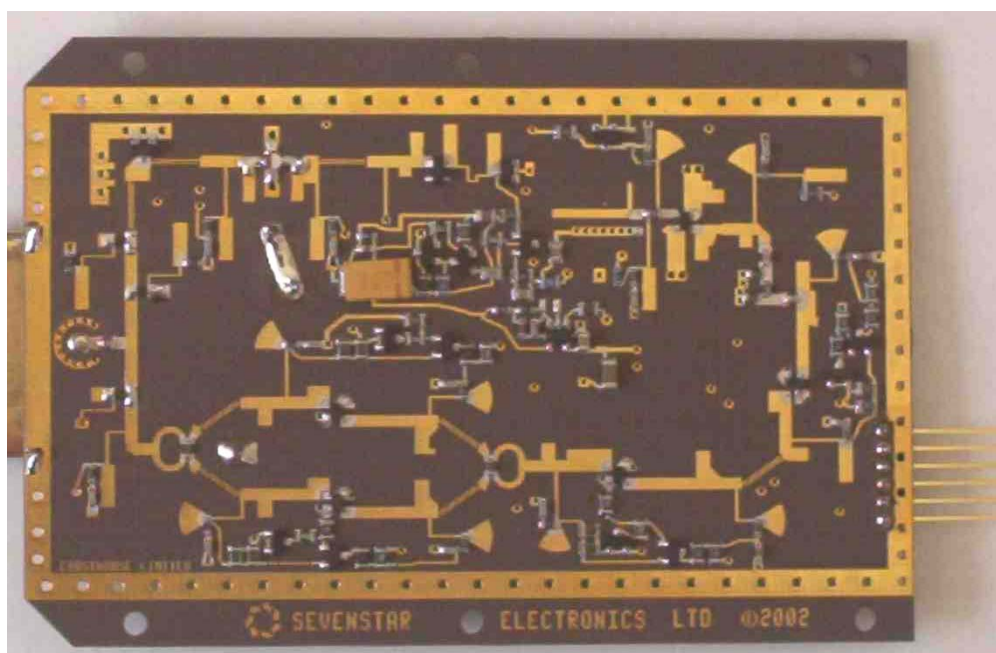
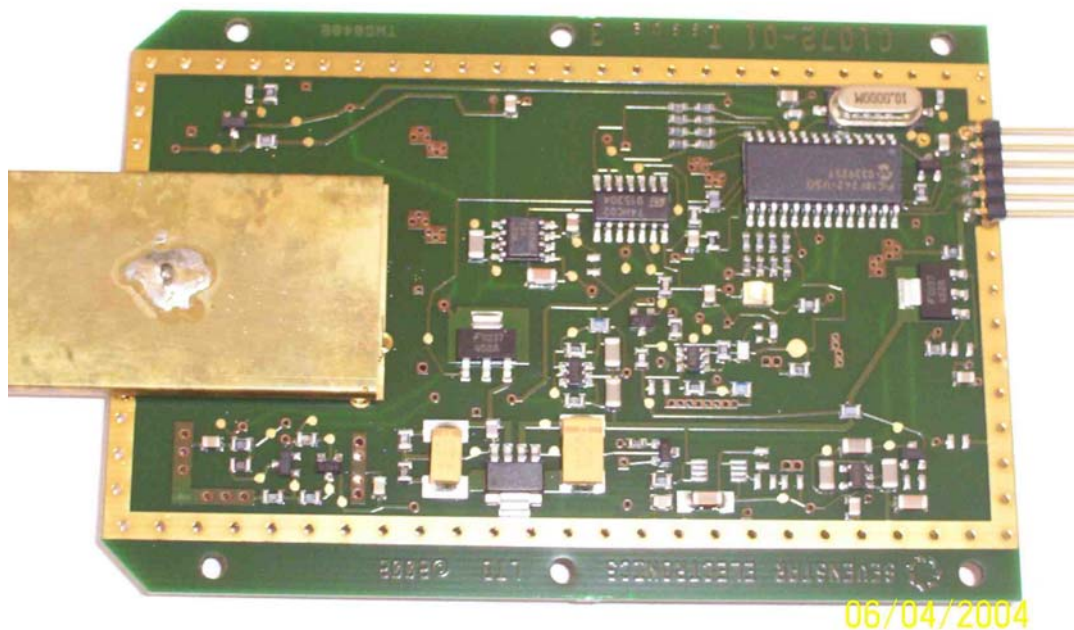
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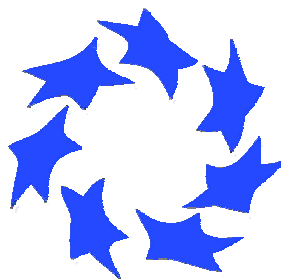
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VAT Registration No: 824 5627 23



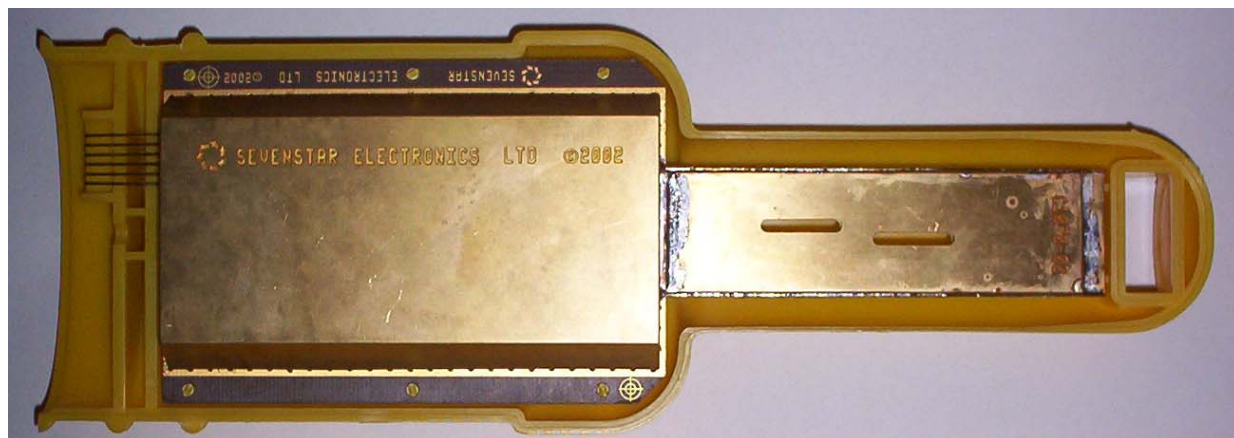
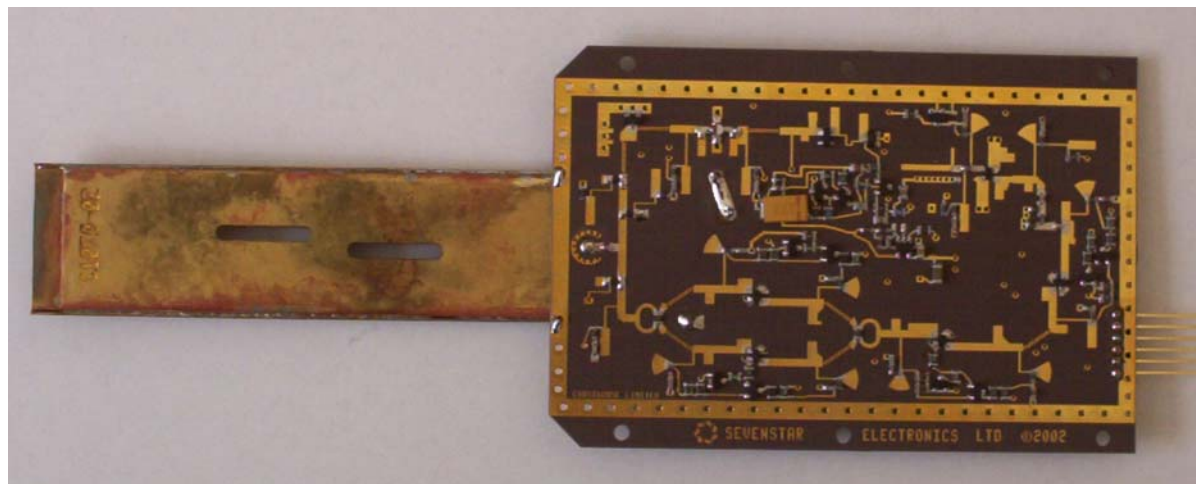
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Co. Registration No: 4482935

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CERTIFICATE OF TYPE APPROVAL

(EC Certificate of Type Examination - Module B)
(Marine Equipment Directive - 96/98/EC)

Applicant:-
Simrad Ltd
Star Lane, Margate
Kent, CT9 4NP
United Kingdom

Manufacturer:-
Simrad Ltd
Star Lane, Margate
Kent, CT9 4NP
United Kingdom

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

9 GHZ SEARCH AND RESCUE RADAR TRANSPONDER
(COMMISSION DIRECTIVE 2002/75/EC – ITEM A.1/4.18)

Of system type known and designated as:-

SIMRAD – SA50 SART

(Comprising component parts and having technical characteristics shown in shedule 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:

BS EN 61097-1 : 1993 "Maritime Search and Rescure Transponders"

BS EN 60945 : 1997 "General Requirements for marine equipment" - EMC Clauses

(being specifications for Technical Characteristics and Methods of measurements, published by the
British Standards Institute and equivalent to IEC 61097-1:1992 and IEC 60945:1996).

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 A802(19)
and the relevant parts of Resolution A694(17).

SIGNED:

Notified Body 0191

DATE of ISSUE: 22nd November 2004

DATE of EXPIRY: 21st November 2009

P J Goddard Authorised Signatory

Certificate Number: QQ-MED-36/04-01

**This Certificate is Valid until expiry date shown, subject to the
standard conditions of issue printed on the attached schedule**
Simrad Ltd are Module D registered with QinetiQ,
ref; Certificate DQAS-04/01-SNL001 & 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 of Transport

*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

SIMRAD – SA50 SART

The applicant declared that the following units comprise the Radio equipment of the system designation given above. These units have been assessed & tested, and satisfactory details of these units were included in the technical file. These units form systems consistent with the Item Description A1/4.18, given in Annex A1 of Commission Directive 2002/75/EC.

MAIN UNIT Comprising:-

Transponder

SA50 SART

INTERNAL BATTERIES:

Battery Pack Type

Lithium (pack of 2 Cells)

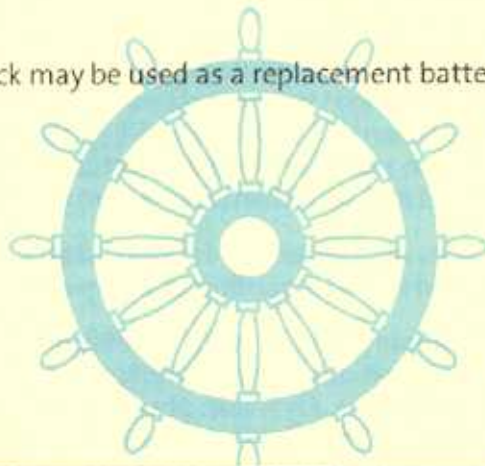
Pack Designation

LTB4

-----End of List.

*NOTES:-

1. The above battery pack may be used as a replacement battery during servicing.



Technical Characteristics

FREQUENCY OF OPERATION	TRANSMIT:	9.2 to 9.5 GHz
	RECEIVE:	9.2 to 9.5 GHz
CHANNELS	N/A	Swept response covers transmit frequency band
EMISSION CODE	300MP0NAN	12 sweep response
DSC CLASS	None	
RF POWER OUTPUT	400mW to 1W	Fixed
IEC 61162-1 SERIAL PORTS	None	Not require for this equipment.
Temperature Range & IEC 945 Class	20°C to +55°C Portable	Operational
Power Supply	6V DC	Internal Lithium primary cells, not user replaceable.

Conditions of Issue of this certificate are printed the reverse of this sheet.

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

Certificate Number

QQ-MED-36/04-01

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) 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 is a declaration from the manufacturer that it is Registered with the QinetiQ Quality Assurance Scheme. A certificate of Registration is issued 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. 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.