

PART 80 COMPLIANCE REPORT

REVISIONS			
Revision Level	Approval	Date	Description
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ACR ELECTRONICS INC
 5757 Ravenswood Road
 FT. Lauderdale Fl.
 (954) 981-3333

DRAWN. Bill Cox	9/4/2000
CHECKED.	

ENG Bill Cox	9/21/2000
APVD	

**Amended [2]
 ACR South Africa
 TELLUSART MKII
 FCC Part 80.1101
 Compliance Report**



A	18560	Sheet 1
SIZE	CODE IDENT NO	Of 4

Compliance Report

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To: John Flood, ACR South Africa
From: Joe Dichoso
jdichoso@fcc.gov
FCC Application Processing Branch

Re: FCC ID O48ACRSA-MKII
Applicant: ACR South Africa
Correspondence Reference Number: 16156
731 Confirmation Number: EA98229
Date of Original E-Mail: 09/19/2000

1) The requirements in Section 2.1046 to 2.1057 are required for all applications for Certification. Please provide the test data for these sections.

2) With regard to the performance standards in Section 80.1101, please provide a list of revised additional performance standards that will be listed as comments on the equipment authorization Grant.

In response to action item 1. The below compliance matrix shows compliance for emission designator 300MX0N of the SART transponder.

In response to action item 2. List the following compliance to performance standards, IMO A.697(17), IMO A.694(17), ITU-R M.628-1 and EN 60945 in the comments field.

Part 2 compliance matrix Section 2.1046 to 2.1057.

2.1046 – Measurements required: RF power output. - Unit complies.

- a) Transmitter was tuned per SART acceptance TP.pdf to give the values within the specified range of paragraph 3.3.1 of acceptance test procedure. The electrical load was 50 ohm during initial alignment then after matched antenna is installed the power was then checked again radiated at 1 meter and results are recorded in appendix A of test procedure.
Test voltage was 12.0 Vdc.
Current in transmit mode was 120mA.
Output power was 28 dBm

- b) Not applicable
c) Test method and calculations for power were done by outside lab pursuant to ITU-R M.628-1 standard using IEC 1097-1 Radar Transponder Marine search and rescue methods of testing and required test results. All data is in Test Report 1.pdf page 15-16.

2.1047 Measurements required: Modulation characteristics. Unit Complies.

- a.) Not applicable, not voiced modulated.
b.) Not applicable, no modulation limiting.
c.) Not applicable no power limiting.
d.) Under the rules there is no modulation requirement for 300MX0N.

2.1049 Measurement required: Occupied Bandwidth. Unit Complies.

- a.) Not applicable, radiotelegraphs.
b.) Not applicable, not a keyed instrument.
c.) Not applicable, not a radio telephone transmitter.
d.) Not applicable, not a radio telephone transmitter.
e.) Not applicable, not for use in radio broadcast services.

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- f.) Not applicable, transmitter has no independent speech channels.
- g.) Not applicable, unit has no external modulation inputs.
- h.) Not applicable, not digitally modulated.
- i.) Not applicable, transmitter is not modulated.

UNITs occupied bandwidth was measured and the results are in Test report1.pdf, none of the examples and methods in this chapter paragraph apply. See Frequency stability 2.1055.

2.1051 Measurements required: Spurious emissions at antenna terminals. **Unit complies.**

Not applicable, unit has is not modulated.

2.1053 Measurements required: Field strength of spurious radiation: **Unit complies.**

- a.) Measurements shall be made to detect spurious emission that may be radiated directly from the cabinet control circuits, power leads, or intermediate circuits elements under normal condition.

Unit has its own integral power supply so there are no power leads to measure emissions.

Spurious emissions were measured on the unit to check for control circuitry, and intermediate circuitry emissions under normal operating conditions.

See DERA.pdf for test data and test results. Plots in report show compliance.

Unit complies with EN 60945 test standard.

2.1055 Measurements required: Frequency stability. **Unit complies**

- a.) The frequency stability shall be measured with variation of ambient temperature as follows.

- 1.) Not applicable.

- 2.) From -20 to + 55° Centigrade for use in Maritime Services under Part 80 of this chapter.

The frequency stability of this device was measured over the appropriate temperatures for frequency band stability.

The SART by specification sweeps constantly over the band of 9.2 GHz (+0/-60MHz) to 9.5 GHz (+60/-0MHz) every time the transponder is interrogated. The performance of this sweep is verified over the temperature range -20 to + 55 degrees.

See compliance data in test report 1.pdf

LOW temperature data on page 10.

High Temperature data on Page 9.

Ambient data on page 14.

2.1057 Frequency Spectrum is to be investigated. **Unit complies.**

- a.) **The Search and rescue transponder is exempt from spurious radiation measurements as per ITU radio regulation APS 3, Table 2.**

There is no limit in part 2 there for radio complies.

Best Regards,

Bill Cox

ACR Electronics Inc.

1-800- 432-0227. Ext. 123

(954) 981-3333 EXT. 123

(954) 983-5087 (FAX)

bc Cox@acrelectronics.com

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