

PART 80 COMPLIANCE REPORT

REVISIONS			
Revision Level	Approval	Date	Description
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A			

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DRAWN. Bill Cox		9/4/2000
CHECKED.		
ENG Bill Cox		11/06/2000
APVD		
A	18560	Sheet 1
SIZE	CODE IDENT NO	Of 2

**Amended [6]
ACR South Africa
TELLUSART MKII
FCC Part 80.1101
Compliance Report**

Compliance Report

A-6

To: Bill Cox, ACR Electronics, Inc.
From: Joe Dichoso
jdichoso@fcc.gov
FCC Application Processing Branch

Re: FCC ID 048ACRSA-MKII
Applicant: ACR South Africa
Correspondence Reference Number: 16956
731 Confirmation Number: EA98229

1) The submitted test report is for another application. Please explain.

I had the same question from another FCC examiner on another SART application. He found the answer acceptable so I presented the answer the same way for your review.

2) The output power measurements are not described properly. It appears that you are making field strength measurements at 1 meter. Provide the calculations made to convert the field strength level to the output power.

What is the maximum field strength level from the device? **30.41 dBm**

What distance were the measurements made at? **1 METER**

What formula did you use to convert from field strength to output power? **Used the substitution method.**

Know radiated power level Vs SART. Then added or subtracted the data as necessary from reference point. Test data is on Page 16 of Test Report 1.

What is the antenna gain? **2-3dB**

Is the calculated output power conducted, ERP or EIRP? **The power is an E.I.R.P.**

Part 2 compliance matrix Section 2.1046

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

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. Details below on measurement method.

Details regarding how the radiated output power was measured and units.

Specification- 400 mW E.I.R.P (26 dBm) Minimum.

A radar test signal at a 1kHz rate was used to interrogate the SART transponder. The SART was rotated 360 degrees in the horizontal plane and the signal levels were recorded every 22.5° at an elevation of ±12.5°.

The variation in the SART radiated Output power from the Calibration test signal (that was at 26 dBm) was recorded in test report 1, page 16 in dBm. Then the units were added to 26 dBm and the final power levels were recorded on page 16 in test report 1.

Min E.I.R.P was 26.96 dBm and Max E.I.R.P. was 30.41 dBm.

Best Regards,
Bill Cox
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ACR ELECTRONICS INC.

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**TEST PROCEDURE
Part 80 compliance
SART**

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TEST PROCEDURE
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SART**

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