

## Part 15.231, ANSI C63.4 , RSS 210

This is a list of all test equipment used.

## Test Equipment list for Honeywell OATS &amp; Conducted Line:

Equipment	Mfg	Model	Cal Date	Cal Due
Spectrum Analyzer	Rohde & Schwarz	FSEA20	10/19/10	10/19/11
Antenna ('Biconilog')	ETS (EMCO)Lindgren	3149	09/09/10	09/09/11

PLEASE SEE PAGE 2-7 FOR TEST EQUIPMENT TRACEABILITY

If you need any additional information from Honeywell please contact:

Greg Barbato RF Engineer  
(Acting for Ken Eskildsen)  
Phone (Direct): (516) 577-5863  
Email: [greg.barbato@honeywell.com](mailto:greg.barbato@honeywell.com)

# Certificate of Calibration

Issue Date: 10/19/2010



General Calibration, Inc.  
2 Mars Court, Boonton, New Jersey 07005  
Phone (973) 299-2950 Fax (973) 299-0595

Certificate #: 17245MR  
Purchase Order: 5172133  
Work Order #: MR396  
Customer #: 001464

## Performed By:

GENERAL CALIBRATION, INC.  
2 MARS COURT

BOONTON, NJ 07005

## Location of Calibration:

HONEYWELL SECURITY (001464)  
2 CORPORATE CENTER DRIVE

MELVILLE, NY 11747

## Equipment Information

Job No.: 018675

Manufacturer: R&S

Description: SPECTRUM ANALYZER

Department: ALARMNET

Temp./RH: 22 C / 45 %

Cal. Interval: 12 MONTHS

Cal Date: 10/19/2010

Asset Tag No.: 10506

Model Number: FSEA20

Serial Number: DE23427

Inspected By: MR1

Job Title: METROLOGIST

Calibration Result: PASSED

Cal. Due Date: 10/19/2011

## Calibration Notes

Condition: Found In Tolerance and Left In Tolerance

Procedures #GCP: RS FSEA20

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	434	POWER SPLITTER	09/20/2011
GENERAL CALIBRATION	522	ATTENUATOR	11/25/2010
GENERAL CALIBRATION	588	ATTENUATOR	06/09/2011
GENERAL CALIBRATION	645	MEASURING RECEIVER	04/01/2011
GENERAL CALIBRATION	666	SENSOR MODULE	06/04/2011
GENERAL CALIBRATION	783	WAVEFORM GENERATOR	10/20/2010
GENERAL CALIBRATION	906	SYNTHESIZED SWEEPER	09/27/2011

The above instrument has been checked and calibrated against the above working standard(s) which are traceable to the NIST. The test limits stated in the report correspond to the published specifications of the equipment, at the points tested. Also, the collective uncertainties of measurement standards do not exceed 25% of the tolerance of the characteristics being calibrated, where possible. The metrology procedures utilized conform to and satisfy the requirements set forth in ANSI/NCSL Z540-1-1994, 10 CFR part 21, ISO 9001-2008, ISO 10012-2003, and MIL-STD 45662A.

Approved By \_\_\_\_\_

*Richard D. [Signature]*  
General Calibration, Inc. - Q. A. Manager



Lab ID:1207.01-Calibration

Cert I.D.: 80586

**ETS-LINDGREN**<sup>TM</sup>  
 An ESCO Technologies Company  
 1301 Arrow Point Drive  
 Cedar Park, Texas 78613  
 (512) 531-6498

# 11242

**ETS-LINDGREN**<sup>TM</sup>  
 An ESCO Technologies Company  
 Track# s000020095 Ltd Cal   
 By ML Date 09-Sep-10  
 Next Cal Due \_\_\_\_\_  
 www.ets-lindgren.com

### Certificate of Calibration Conformance

Page 1 of 5

The instrument identified below has been individually calibrated in compliance with the following standard(s):

SAE, ARP-958 - 2003, Electromagnetic Interference Measurement Antennas; Standard Calibration Method, Society of Automotive Engineers, Aerospace Recommended Practice. Fixed height, three antenna rotation, 1 meter separation. 3 meter separation performed per Annex C. Vertical calibration performed per above listed methodology.

Environment: Laboratory MTE is maintained in a temperature controlled environment with ambient conditions from 18 to 28 C, relative humidity less than 90%. The instrument under test has been calibrated on an open air test site (OATS) with environment temperature conditions ranging from 0 to 40 C which has no known influences on measurement quality.

<b>Manufacturer:</b>	ETS-Lindgren	<b>Operating Range:</b>	80 MHz - 6 GHz
<b>Model Number:</b>	3149.	<b>Instrument Type:</b>	Biconilog (Type 5)
<b>Serial Number/ ID:</b>	00045682	<b>Date Code:</b>	
<b>Tracking Number:</b>	s 000020095	<b>Alternate ID:</b>	
<b>Date Completed:</b>	09-Sep-10	<b>Customer:</b>	HONEYWELL (NY)
<b>Test Type:</b>	3 meter, Horizontal and Vertical		
<b>Calibration Uncertainty:</b>	01m	80 - 1000 MHz, +/-0.9 dB; 1000 - 2000 MHz, +/-0.8 dB; 2000 - 6000 MHz, +/-1.2 dB	
k=2, (95% Confidence Level)	03m	80 - 1000 MHz, +/-0.9 dB; 1000 - 2000 MHz, +/-0.8 dB; 2000 - 6000 MHz, +/-1.3 dB	
	10m	80 - 1000 MHz, +/-1.0 dB; 1000 - 2000 MHz, +/-1.4 dB; 2000 - 6000 MHz, +/-2.3 dB	

**Test Remarks:** Unit received with a hole on radome and a broken mount, replaced broken mount. Unit was calibrated with damaged radome. Provided data from 26 MHz to 6 GHz per customer request.

Calibration Traceability: All Measuring and Test Equipment (M/TE) identified below are traceable to the National Institute for Standards and Technology (NIST). Calibration Laboratory and Quality System controls are compliant with ISO/IEC 17025-2005.

**Standards and Equipment Used:**

**Make / Model / Name / S/N / Recall Date**

Anritsu	MS4623A	Network Analyzer	992201	02-Mar-11
---------	---------	------------------	--------	-----------

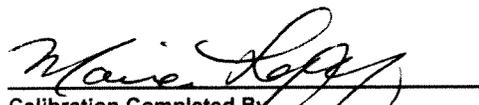
**Condition of Instrument**

**Upon Receipt:**

In Tolerance to Internal Quality Standards

**On Release:**

In Tolerance to Internal Quality Standards

  
 Calibration Completed By  
 Maria Lopez, Cal Lab Technician

  
 Attested and Issued on 09-Sep-10  
 Richard Goodlow, Calibration Supervisor