

TEST EQUIPMENT USED

Part 15.231, ANSI C63.4, RSS 210

This is a list of all test equipment used.

Note: Calibration Certificates are on following pages.

Test Equipment list for Honeywell OATS & Conducted Line

EQUIPMENT:	MANUFACTURER:	MODEL:	CAL DATE:	CAL DUE DATE:
Spectrum Analyzer	Rohde & Schwarz	FSU3	5/9/2013	5/9/2014
Spectrum Analyzer	Rohde & Schwarz	FSU26	5/9/2013	5/9/2014
Antenna ("Biconilog")	ETS (EMCO) Lindgren	3149	7/8/13	7/8/14

If you need any additional information from Honeywell, please contact:

Andrew Roussin, Engineer
(Acting for Mark Schmidt)
Phone (Direct): 516-577-5935
Email: andrew.roussin@honeywell.com

Certificate of Calibration

Issue Date: 5/13/2013



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

Certificate #: 1034723
Work Order #: RH509
Customer #: 001464

Performed By:

GENERAL CALIBRATION, INC.
2 MARS COURT

Location of Calibration:

HONEYWELL SECURITY (001464)
2 CORPORATE CENTER DRIVE

BOONTON, NJ 07005

MELVILLE, NY 11747

Equipment Information:

Job No.: 066615
Manufacturer: R&S
Description: SPECTRUM ANALYZER
Department:
Temp./RH: 22.0 C / 53.0 %
Cal. Interval: 12 MONTHS
Cal Date: 05/09/2013

Purchase Order: 583920
Asset Tag No.: 11493
Model Number: FSU3
Serial Number: 100029
Inspected By: RH1
Job Title: METROLOGIST
Calibration Result: PASSED
Cal. Due Date: 05/09/2014

Procedure #GCP: RS FSU3

Calibration Notes:

Condition: Found In Tolerance and Left In Tolerance

Standards Used To Calibrate Equipment

Company	I.D.	Description	Serial Number	Cal. Due Date
GENERAL CALIBRATION	335	SYNTHESIZED SWEEPER, 50GHZ	3614A00157	08/02/2014
GENERAL CALIBRATION	661	POWER SENSOR	US37298428	07/06/2013
GENERAL CALIBRATION	676	LEVEL GENERATOR	2516A04043	05/21/2013
GENERAL CALIBRATION	856	FREQUENCY COUNTER	51002-5	06/28/2013
GENERAL CALIBRATION	974	POWER METER	2709A29063	06/04/2013

This is to certify that General Calibration, Inc. is A2LA accredited and that its calibration system is in compliance with ISO/IEC 17025-2005, ANSI NCSL Z540-1, ANSI NCSL Z540-3, and ISO 9001:2008. The test limits stated in the report correspond to the Manufacturer calibration and published specifications of the equipment, at the points tested. Calibration of standards; reference standards and intermediate standards in this calibration have been checked and calibrated against the above working standard(s) which are traceable to the National Institute of Standards and Technology. Any accredited calibration under our A2LA scope of accreditation is denoted with A2LA accredited symbol on the calibration certificate. If the certificate includes any unaccredited items calibrated, they are clearly marked as unaccredited calibration.

Best Uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

The results documented in this certificate relate only to the item(s) calibrated or tested.

Approved By

General Calibration, Inc. - Q. A. Manager

Certificate of Calibration

Issue Date: 5/13/2013



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

Certificate #: 1034725
Work Order #: RH509
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.: 066617
Manufacturer: R&S
Description: SPECTRUM ANALYZER
Department:
Temp./RH: 22.0 C / 53.0 %
Cal. Interval: 12 MONTHS
Cal Date: 05/09/2013

Purchase Order:

583920

Asset Tag No.: 11496
Model Number: FSU26
Serial Number: 100303
Inspected By: RH1
Job Title: METROLOGIST
Calibration Result: PASSED
Cal. Due Date: 05/09/2014

Procedure #GCP: RS FSU26

Calibration Notes:

Condition: Found In Tolerance and Left In Tolerance

Standards Used To Calibrate Equipment

Company	I.D.	Description	Serial Number	Cal. Due Date
GENERAL CALIBRATION	335	SYNTHESIZED SWEEPER, 50GHZ	3614A00157	08/02/2014
GENERAL CALIBRATION	676	LEVEL GENERATOR	2516A04043	05/21/2013
GENERAL CALIBRATION	856	FREQUENCY COUNTER	51002-5	06/28/2013
GENERAL CALIBRATION	874	POWER SENSOR	3318A15971	10/18/2013
GENERAL CALIBRATION	974	POWER METER	2709A29063	06/04/2013

This is to certify that General Calibration, Inc. is A2LA accredited and that its calibration system is in compliance with ISO/IEC 17025-2005, ANSI NCSL Z540-1, ANSI NCSL Z540-3, and ISO 9001:2008. The test limits stated in the report correspond to the Manufacturer calibration and published specifications of the equipment, at the points tested. Calibration of standards; reference standards and intermediate standards in this calibration have been checked and calibrated against the above working standard(s) which are traceable to the National Institute of Standards and Technology. Any accredited calibration under our A2LA scope of accreditation is denoted with A2LA accredited symbol on the calibration certificate. If the certificate includes any unaccredited items calibrated, they are clearly marked as unaccredited calibration.

Best Uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

The results documented in this certificate relate only to the item(s) calibrated or tested.

Approved By

Robert D. Zylar
General Calibration, Inc. - Q. A. Manager



ETS-LINDGREN™

An ESCO Technologies Company

1301 Arrow Point Drive
Cedar Park, Texas 78613
(512) 531-6400

Cert I.D.: 97937

Certificate of Calibration Conformance

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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.

Manufacturer:	ETS-Lindgren	Operating Range:	80 MHz - 6 GHz
Model Number:	3149.	Instrument Type:	Biconilog (Type 5)
Serial Number/ ID:	00029390	Date Code:	
Tracking Number:	S 000028197	Alternate ID:	11243
Date Completed:	08-Jul-13	Customer:	HONEYWELL (NY)
Test Type:	3 meter Horizontal and Vertical		
Calibration Uncertainty:	01m	26 - 1000 MHz, +/-0.9 dB; 1000 - 2000 MHz, +/-0.8 dB; 2000 - 6000 MHz, +/-1.2 dB	
k=2, (95% Confidence Level)	03m	26 - 1000 MHz, +/-0.9 dB; 1000 - 2000 MHz, +/-0.8 dB; 2000 - 6000 MHz, +/-1.3 dB	
	10m	26 - 1000 MHz, +/-1.0 dB; 1000 - 2000 MHz, +/-1.4 dB; 2000 - 6000 MHz, +/-2.3 dB	

Test Remarks: Extended Calibration: from 26 MHz to 6 GHz

Calibration Traceability: All Measuring and Test Equipment (M/TE) identified below are traceable to the SI units through the National Institute for Standards and Technology (NIST) or other recognized National Metrology Institute Calibration Laboratory and Quality System; controls are compliant with ISO/IEC 17025-2005 and ANSI/NCSL Z540-1-1994.

Standards and Equipment Used:

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

Agilent N5230C PNA-L Net/Wrk Analyzer MY49002145 13-Jul-13

Condition of Instrument Upon Receipt:

In Tolerance to Internal Quality Standards

On Release:

In Tolerance to Internal Quality Standards

Calibration Completed By

James Hansell, Calibration Technician

Attested and Issued on 08-Jul-13

Doug Kramer, EMC/Wireless Lab Manager

This document provides traceability of measurements to recognized national standards using controlled processes at the ETS-Lindgren Calibration Laboratory. Uncertainties listed are derived from the methods described by NIST Tech Note 1297. This certificate and report may not be reproduced, except in full, without the written approval of ETS-Lindgren Calibration Laboratory in accordance with ISO/IEC 17025-2005 and ANSI/NCSL Z540-1-1994. QAF 1127 (03/11)