

Part 15.231, ANSI C63.4 , RSS 210

This is a list of all test equipment used.

Test Equipment list for Honeywell OATS & Conducted Line:

Equipment	Mfg	Model	Cal Date	Cal Due
Spectrum Analyzer	Rohde & Schwarz	FSEA20	10/19/11	10/19/12
Antenna ('Biconilog')	ETS (EMCO)Lindgren	3149	08/22/11	08/22/12
Antenna (LOOP)	Electro-Metrics	ALR-25M	06/29/12	06/29/13
Surge Suppressor	Agilent (HP)	HP11947A	05/12/12	05/12/13
LISN	Com-Power	LI-115	10/20/11	10/20/12

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

Certificate of Calibration

Issue Date: 10/19/2011



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

Certificate #: MR-19809
Work Order #: MR504
Customer #: 001464

Performed By:

GENERAL CALIBRATION, INC.

Location of Calibration:

HONEYWELL SECURITY (001464)

2 MARS COURT
BOONTON, NJ 07005

2 CORPORATE CENTER DRIVE
MELVILLE, NY 11747

Equipment Information:

Job No.: 018674
Manufacturer: R&S
Description: SPECTRUM ANALYZER
Department: ALARMNET
Temp./RH: 22 C / 45 %
Cal. Interval: 12 MONTHS
Cal Date: 10/19/2011

Purchase Order: 5247582

Asset Tag No.: 10503
Model Number: FSEA20
Serial Number: DE31589
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASSED
Cal. Due Date: 10/19/2012

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	1001	ATTENUATOR	10/26/2011
GENERAL CALIBRATION	332	FREQUENCY COUNTER	04/20/2012
GENERAL CALIBRATION	446	SYNTHESIZED SWEEPER	01/05/2012
GENERAL CALIBRATION	690	POWER METER	04/26/2012
GENERAL CALIBRATION	774	POWER SENSOR	07/08/2012
GENERAL CALIBRATION	967	FUNCTION GENERATOR	10/05/2012

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 published specifications of the equipment, at the points tested. Calibration of standards, reference standards and Intermediate standards in this calibration have been certified traceable to the SI Units of measurement. 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



ETS-LINDGREN™

An ESCO Technologies Company

1301 Arrow Point Drive
Cedar Park, Texas 78613
(512) 531-6498

Cert I.D.: 86798

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.

Manufacturer:	ETS-Lindgren	Operating Range:	80 MHz - 6 GHz
Model Number:	3149.	Instrument Type:	Biconilog (Type 5)
Serial Number/ ID:	00045682	Date Code:	
Tracking Number:	S 000023192	Alternate ID:	11242
Date Completed:	22-Aug-11	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: Calibrated down to 26 MHz. per customer request.

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). 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

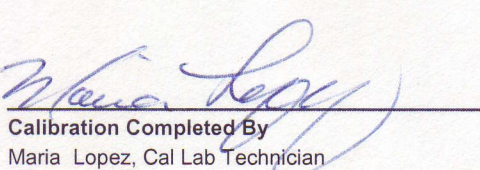
Anritsu	MS4623A	Network Analyzer	992201	18-Mar-12
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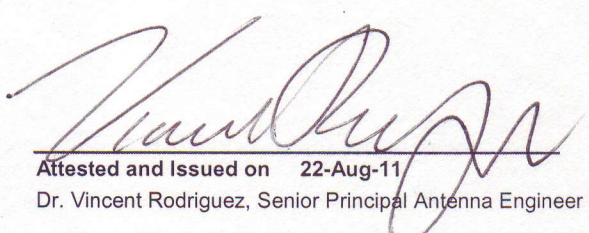
Condition of Instrument Upon Receipt:

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 22-Aug-11
Dr. Vincent Rodriguez, Senior Principal Antenna Engineer

ELECTRO-METRICS

CERTIFICATE # 20990

DATE: 06/29/2012

ELECTRO - METRICS CERTIFICATE OF CONFORMANCE

MODEL: ALR-25M Switchable Loop Antenna

SERIAL # 577

ID # 02335

CUSTOMER: HONEYWELL SECURITY

ADDRESS: 2 CORPORATE CENTER DRIVE, MELVILLE, NY 11747

P.O.# 561375

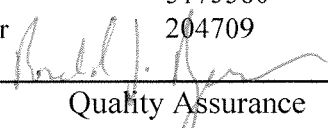
LINE: 1

The above equipment has been calibrated and is within the manufacturer's published limit of error. Calibration is traceable to the National Institute of Standards & Technology. Calibration has been accomplished on the above-named instrument by comparison with some or all of the following standards that are maintained by Electro-Metrics or by an authorized facility.

This certificate shall not be altered or reproduced, except in full, without written approval of Electro-Metrics.

- **CONDITION OF EQUIPMENT RECEIVED:** In-Tolerance
- **DATE CALIBRATED:** 06/29/12
- **CALIBRATION RANGE/DISTANCE:** 10 kHz to 30 MHz/1 Meter
- **CALIBRATION ORIENTATION:** Signal Injection Substitution Method
- **ENVIRONMENTAL CONDITIONS:** TEMPERATURE 73 Degrees F HUMIDITY 43%
- **CALIBRATION PROCEDURE:** TS-4955
- **CALIBRATION DUE DATE:** 06/29/13
- **CALIBRATION STANDARDS:** IEEE Std 291-1991
- **COMMENTS/REMARKS:** None.

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>TRACE</u>	<u>ASSET#</u>
FREQUENCY	EIP 371 Frequency Counter	55E46	B#2476
A.C./D.C.	Keithley 195 System DMM	55E45	B#0093
RF AMPLITUDE	Boonton 9200A RF Millivoltmeter	8P673	B#0246
ATTENUATION	JFW Model 50R-079 Attenuator	280687	B#0405
IMPULSE	Electro-Metrics CIG-25	811/268663-03	B#2772
POWER	HP 435B Powermeter	5194746	B#0077
POWER	HP 8484A Sensor	5161373	B#0078
POWER	HP 8485A Sensor	5175560	B#0114
ENVIRONMENTAL	Lufft Model HTAB169B Hygrometer	204709	B#2790

Certified by: 

Quality Assurance

Certificate of Calibration

Issue Date: 5/9/2012



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

Certificate #: MR-21481
Work Order #: MR554
Customer #: 001464

Performed By:

GENERAL CALIBRATION, INC.

Location of Calibration:

HONEYWELL SECURITY (001464)

2 MARS COURT
BOONTON, NJ 07005

2 CORPORATE CENTER DRIVE
MELVILLE, NY 11747

Equipment Information:

Job No.: 096188
Manufacturer: HP
Description: TRANSIENT LIMITER
Department:
Temp/RH: 22 C / 45 %
Cal. Interval: 12 MONTHS
Cal Date: 05/09/2012

Purchase Order: 5294448

Asset Tag No.: 10131
Model Number: 11947A
Serial Number: 3107A02782
Inspected By: MRI
Job Title: METROLOGIST
Calibration Result: PASSED
Cal. Due Date: 05/09/2013

Procedure #GCP: HP 11947A

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	593	SPECTRUM ANALYZER	3017A05102	08/24/2012
GENERAL CALIBRATION	907	CALIBRATION KIT, 26.5 GHZ, 3.5 MM	3101A05556	02/26/2013
GENERAL CALIBRATION	970	FUNCTION GENERATOR	2847A07354	10/04/2012

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Approved By

General Calibration, Inc. - Q. A. Manager

Certificate of Calibration

Issue Date: 10/20/2011



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

Certificate #: MR-19821
Work Order #: MR504
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.: 076905

Manufacturer: COM-POWER

Description: LISN

Department: DAVID KALMUS

Temp./RH: 22 C / 45 %

Cal. Interval: 12 MONTHS

Cal Date: 10/20/2011

Purchase Order: 5247582

Asset Tag No.: 11262

Model Number: LI-115

Serial Number: 241050

Inspected By: MR1

Job Title: METROLOGIST

Calibration Result: PASSED

Cal. Due Date: 10/20/2012

Calibration Notes:

Condition: Found In Tolerance and Left In Tolerance

Procedures #GCP: COM-POWER LI-115

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	418	DIGITAL MULTIMETER	01/03/2012
GENERAL CALIBRATION	700	DIGITAL MULTIMETER	02/10/2012

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Approved By

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