

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	HP	8563E	10/18/11	10/18/12
Spectrum Analyzer	Rohde & Schwarz	FSEA20	10/19/11	10/19/12
Antenna ('Biconilog')	ETS (EMCO)Lindgren	3149	08/22/11	08/22/12
Antenna (HORN)	ElectroMetrics	RGA60	04/20/11	04/20/12
Surge Suppressor	Agilent (HP)	HP11947A	05/12/11	05/12/12
LISN	Com-Power	LI-115	10/20/11	10/20/12
Power Meter	Gigatronics	8541	10/20/11	10/20/12
Peak Power Sensor(to 26 GHz)	Gigatronics	80353A	10/20/11	10/20/12
LNA 1 to 26 GHz	MITEQ	AFS42-00102650	-----VERIFY BEFORE USE-----	
1.5 to 12 GHz HPF'S	MICROLAB	HIGH PASS FILTERS	-----VERIFY BEFORE USE-----	

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

Certificate of Calibration

Issue Date: 10/18/2011



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

Certificate #: MR-19794
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.: 061017
Manufacturer: HP
Description: SPECTRUM ANALYZER
Department:
Temp/RH: 22 C / 38 %
Cal. Interval: 12 MONTHS
Cal Date: 10/18/2011

Purchase Order: 5247582

Asset Tag No.: 2981
Model Number: 8563E
Serial Number: 3246A00232
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASSED
Cal. Due Date: 10/18/2012

Calibration Notes:

Condition: Found In Tolerance and Left In Tolerance

Procedures #GCP: HP 8563E

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	418	DIGITAL MULTIMETER	01/03/2012
GENERAL CALIBRATION	434	POWER SPLITTER	09/23/2012
GENERAL CALIBRATION	446	SYNTHESIZED SWEEPER	01/05/2012
GENERAL CALIBRATION	650	POWER SPLITTER	12/10/2011
GENERAL CALIBRATION	774	POWER SENSOR	07/08/2012
GENERAL CALIBRATION	813	SENSOR MODULE	03/14/2012
GENERAL CALIBRATION	967	FUNCTION GENERATOR	10/05/2012

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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

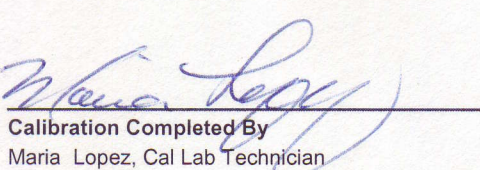
Anritsu	MS4623A	Network Analyzer	992201	18-Mar-12
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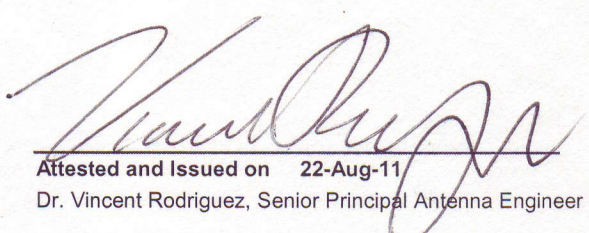
Condition of Instrument Upon Receipt:

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 # 20037

DATE: 04/20/11

ELECTRO -METRICS CERTIFICATE OF CONFORMANCE

MODEL: RGA-60

SERIAL # 3127

ID # 02973 (91439)

CUSTOMER: HONEYWELL SECURITY.

ADDRESS: 2 CORPORATE CENTER DRIVE, MELVILLE, NY 11747

P.O.# 517531

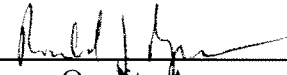
LINE: 1

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:** 04/20/11
- **CALIBRATION RANGE/DISTANCE:** 1 GHz to 18 GHz/3 Meter
- **CALIBRATION ORIENTATION:** Horizontal/Vertical
- **ENVIRONMENTAL CONDITIONS:** TEMPERATURE 60 Degrees F HUMIDITY 44%
- **CALIBRATION PROCEDURE:** TS-800
- **CALIBRATION DUE DATE:** 04/20/12
- **CALIBRATION STANDARDS:** ARP958A
- **COMMENTS/REMARKS:** None.

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>TRACE</u>	<u>ASSET#</u>
FREQUENCY	EIP 371 Frequency Counter	8P674	B#2476
A.C./D.C.	Keithley 195 System DMM	8P672	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	4100046	B#0077
POWER	HP 8484A Sensor	4157498	B#0078
POWER	HP 8485A Sensor	4183141	B#873292
ENVIRONMENTAL	Lufft Model HTAB169B Hygrometer	182206	B#2790

Certified by: 

Quality Assurance

Page 1 Of 1

Certificate of Calibration

Issue Date: 5/11/2011



General Calibration, Inc.

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

Certificate #: MR-18671

Purchase Order: 5247582

Work Order #: MR450

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.: 096188

Asset Tag No.: 10131

Manufacturer: HP

Model Number: 11947A

Description: TRANSIENT LIMITER

Serial Number: 3107A02782

Department:

Inspected By: MR1

Temp./RH: 22 C / 45 %

Job Title: METROLOGIST

Cal. Interval: 12 MONTHS

Calibration Result: PASSED

Cal Date: 05/11/2011

Cal. Due Date: 05/11/2012

Calibration Notes

Condition: Found In Tolerance and Left In Tolerance

Procedures #GCP: HP 11947A

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	1031	SYNTHESIZED SWEEPER, 26GHZ	04/06/2012
GENERAL CALIBRATION	503	SPECTRUM ANALYZER	04/12/2012
GENERAL CALIBRATION	688	LEVEL GENERATOR	03/14/2012

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

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.

Location of Calibration:

HONEYWELL SECURITY (001464)

2 MARS COURT
BOONTON, NJ 07005

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. McEwen
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-19820
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.: 076903
Manufacturer: GIGA-TRONICS
Description: POWER METER
Department:
Temp./RH: 22 C / 45 %
Cal. Interval: 12 MONTHS
Cal Date: 10/20/2011

Purchase Order: 5247582

Asset Tag No.: 11297
Model Number: 8541
Serial Number: 1826159
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: GIGATRONICS 8541

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	446	SYNTHESIZED SWEEPER	01/05/2012
GENERAL CALIBRATION	650	POWER SPLITTER	12/10/2011
GENERAL CALIBRATION	665	MEASURING RECEIVER	04/13/2012
GENERAL CALIBRATION	813	SENSOR MODULE	03/14/2012

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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-19819
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.: 076901
Manufacturer: GIGA-TRONICS
Description: POWER SENSOR
Department:
Temp./RH: 22 C / 45 %
Cal. Interval: 12 MONTHS
Cal Date: 10/20/2011

Purchase Order: 5247582

Asset Tag No.: 11298
Model Number: 80353A
Serial Number: 1821104
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: GIGATRONICS 80353A

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	446	SYNTHESIZED SWEEPER	01/05/2012
GENERAL CALIBRATION	650	POWER SPLITTER	12/10/2011
GENERAL CALIBRATION	665	MEASURING RECEIVER	04/13/2012
GENERAL CALIBRATION	813	SENSOR MODULE	03/14/2012

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