

Section 15.231 and ANSI C63.4

This is a list of all test equipment used.

Test Equipment list for Honeywell OATS:

Equipment	Mfg	Model	Cal Date	Cal Due
Spectrum Analyzer	Rohde & Schwarz	FSEA20	10/14/08	10/14/09
Antenna ('Biconilog')	ETS Lindgren	3149	04/02/08	04/02/09
LISN	EMCO	3825/2	10/17/08	10/17/09
Spectrum Analyzer	Advantest	R3131	05/08/08	05/08/09
Transient Limiter	HP	11947A	05/07/08	05/07/09

PLEASE SEE PAGE 2 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



Cert I.D.: 66512
Lab Code 115844/1207.01

ETS-LINDGREN
An ESCO Technologies Company
1301 Arrow Point Drive
Cedar Park, Texas 78613
(512) 531-6498

ETS-LINDGREN
An ESCO Technologies Company
Track# S000012880 Ltd Cal ☐
By ML Date 02-Apr-08
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.

Manufacturer:	EMCO	Operating Range:	80 MHz - 6 GHz
Model Number:	3149	Instrument Type:	Biconilog (Type 5)
Serial Number/ ID:	00029390	Date Code:	
Tracking Number:	S000012880	Alternate ID:	11243
Date Completed:	02-Apr-08	Customer:	Honeywell
Test Type:	3 meter, Horizontal and Vertical		
Calibration Uncertainty:	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: Provided data on disk.

Calibration Traceability: All Measuring and Test Equipment (MTE) 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

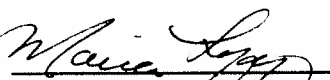
Anritsu MS4623A Network Analyzer 992201 03-Aug-08

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 02-Apr-08
Ronald W. Bethel, Calibration Manager

Issue Date: 10/14/2008



General Calibration, Inc.

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

Certificate #: 12962MR
Purchase Order: 4965832
Work Order #: MR219
Customer #: 001464

GENERAL CALIBRATION, INC.
2 MARS COURT
MONTVILLE, NJ 07045

HONEYWELL SECURITY (1464)
2 CORPORATE CENTER DRIVE

MELVILLE, NY 11747

BarCode: 018675
Manufacturer: R&S
Description: SPECTRUM ANALYZER
Current Location: ALARMNET
Temp./RH: 22 C / 40 %
Cal. Interval: 12 MONTHS
Cal Date: 10/14/2008

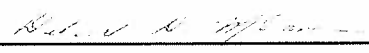
Instrument I.D.: 10506
Model Number: FSEA20
Serial Number: DE23427
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 10/14/2009

Condition: Found In Tolerance and Left In Tolerance

GENERAL CALIBRATION	434	POWER SPLITTER	N/A	09/12/2009
GENERAL CALIBRATION	531	MEASURING RECEIVER	N/A	09/22/2009
GENERAL CALIBRATION	636	SYNTHESIZED SWEEPER	N/A	09/03/2009
GENERAL CALIBRATION	666	SENSOR MODULE	N/A	04/25/2009

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 9001-2000, ISO 10012-2003, and MIL-STD 45662A.

Approved By


General Calibration, Inc. - Q. A. Manager

Issue Date: 10/17/2008



General Calibration, Inc.

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

Certificate #: 13009MR
Purchase Order: 4965832
Work Order #: MR219
Customer #: 001464

GENERAL CALIBRATION, INC.
2 MARS COURT
MONTVILLE, NJ 07045

HONEYWELL SECURITY (1464)
2 CORPORATE CENTER DRIVE
MELVILLE, NY 11747

BarCode: 004345
Manufacturer: EMCO
Description: LISN
Current Location: BLDG. 163
Temp./RH: 22 C / 43 %
Cal. Interval: 12 MONTHS
Cal Date: 10/17/2008

Instrument I.D.: 04832
Model Number: 3825/2
Serial Number: 1076
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 10/17/2009

Condition: Found In Tolerance and Left In Tolerance

GENERAL CALIBRATION 511 DIGITAL MULTIMETER
GENERAL CALIBRATION 700 DIGITAL MULTIMETER

N/A 09/08/2009
N/A 01/10/2009

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 9001-2000, ISO 10012-2003, and MIL-STD 45662A.

Approved By Richard A. Hoffman
General Calibration, Inc. - Q. A. Manager

Issue Date: 05/07/2008



General Calibration, Inc.

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

Certificate #: 12028MR
Purchase Order: 4965832
Work Order #: MR172
Customer #: 001464

GENERAL CALIBRATION, INC.
2 MARS COURT

MONTVILLE, NJ 07045

HONEYWELL SECURITY (1464)
2 CORPORATE CENTER DRIVE

MELVILLE, NY 11747

BarCode: 096188
Manufacturer: HP
Description: TRANSIENT LIMITER
Department:
Temp./RH: 0.5 C / 34 %
Cal. Interval: 12 MONTHS
Cal Date: 05/07/2008

Instrument I.D.: 10131
Model Number: 11947A
Serial Number: 3107A02782
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 5/7/2009

Condition: Found In Tolerance and Left In Tolerance

GENERAL CALIBRATION 261 SIGNAL GENERATOR

08/27/2008

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 9001-2000, ISO 10012-2003, and MIL-STD 45662A.

Approved By

General Calibration, Inc. - Q. A. Manager

Issue Date: 05/08/2008



General Calibration, Inc.

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

Certificate #: 6781RH
Purchase Order: 4965832
Work Order #: RH201
Customer #: 001464

GENERAL CALIBRATION, INC.
2 MARS COURT

MONTVILLE, NJ 07045

HONEYWELL SECURITY (1464)
2 CORPORATE CENTER DRIVE

MELVILLE, NY 11747

BarCode: 022076
Manufacturer: ADVANTEST
Description: SPECTRUM ANALYZER
Current Location:
Temp./RH: 22 C / 33 %
Cal. Interval: 12 MONTHS
Cal Date: 05/08/2008

Instrument I.D.: 10513
Model Number: R3131
Serial Number: 91780932
Inspected By: RH1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 5/8/2009

Condition: Found In Tolerance and Left In Tolerance

GENERAL CALIBRATION	261	SIGNAL GENERATOR	08/27/2008
GENERAL CALIBRATION	485	POWER SENSOR	08/21/2008
GENERAL CALIBRATION	490	SYNTHESIZED SWEEPER	10/19/2008
GENERAL CALIBRATION	716	POWER METER	08/03/2008
GENERAL CALIBRATION	856	FREQUENCY COUNTER	05/20/2008

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 9001-2000, ISO 10012-2003, and MIL-STD 45662A.

Approved By Richard A. McEwen
General Calibration, Inc. - Q. A. Manager