

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 (EMCO)Lindgren	3149	03/09/09	03/09/10
Transient Limiter	HP	11947A	10/17/08	10/17/09
LISN	EMCO	3825/2	10/17/08	10/17/09

PLEASE SEE PAGE 2-5 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



An ESCO Technologies Company

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



Track# S00015900 Ltd Cal ☐

By AS Date 09-Mar-09

Next Cal Due

www.ets-lindgren.com

Cert I.D.: 72154

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:	00029390		Date Code:	
Tracking Number:	S00015900		Alternate ID:	
Date Completed:	09-Mar-09		Customer:	HONEYWELL SECURITY (NY)
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: Replaced damaged bracket mount. Performed special calibration from 26 MHz to 6GHz. Provided data on disk.

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	05-Sep-09
---------	---------	------------------	--------	-----------

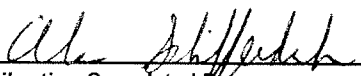
Condition of Instrument

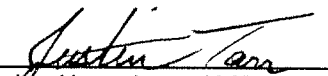
Upon Receipt:

Other

On Release:

In Tolerance to Internal Quality Standards


Calibration Completed By
Alan Schifferdecker, Calibration Technician


Attested and Issued on 09-Mar-09
Justin Farr, Calibration Supervisor

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

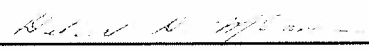
Instrument I.D.: 10506
Model Number: FSEA20
Serial Number: DE23427
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 10/14/2009

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

Certificate of Calibration

Issue Date: 05/12/2009



General Calibration, Inc.

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

Certificate #: 14309MR
Purchase Order: 5105648
Work Order #: MR267
Customer #: 001464

Performed By:

GENERAL CALIBRATION, INC.
2 MARS COURT

Location of Calibration:

HONEYWELL SECURITY (1464)
2 CORPORATE CENTER DRIVE

MONTVILLE, NJ 07045

MELVILLE, NY 11747

Equipment Information

BarCode: 096188
Manufacturer: HP
Description: TRANSIENT LIMITER
Department:
Temp./RH: 22 C / 45 %
Cal. Interval: 12 MONTHS
Cal Date: 05/12/2009

Instrument I.D.: 10131
Model Number: 11947A
Serial Number: 3107A02782
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 5/12/2010

Calibration Notes

Condition: Found In Tolerance and Left In Tolerance

Standards Used To Calibrate Equipment

Company	I.D.	Description	Cal. Due Date
GENERAL CALIBRATION	503	SPECTRUM ANALYZER	03/11/2010
GENERAL CALIBRATION	838	SIGNAL GENERATOR	08/25/2009

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. B. [Signature]
General Calibration, Inc. - Q. A. Manager