

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	07/10/09	07/10/10

PLEASE SEE PAGE 2-3 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

ETS-LINDGREN
An ESCO Technologies Company
Track# S000016846 Ltd Cal ☐
By SL Date 10-Jul-09
Next Cal Due
www.ets-lindgren.com

Cert I.D.: 74136

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:	EMCO	Operating Range:	80 MHz - 6 GHz
Model Number:	3149	Instrument Type:	Biconilog (Type 5)
Serial Number/ ID:	00045682	Date Code:	
Tracking Number:	S000016846	Alternate ID:	11242
Date Completed:	10-Jul-09	Customer:	HONEYWELL (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: Unit was calibrated down to 26 MHz.

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					Condition of Instrument Upon Receipt:
Hewlett Packard	8753C	Network Analyzer	3029A01587	11-Feb-10	In Tolerance to Internal Quality Standards
Hewlett Packard	85047A	S-parameter Test Set	3033A02186	11-Feb-10	
					On Release:
Rohde & Schwarz	ZVK	Vector Network Analyzer	1127.8651.60	26-Feb-10	In Tolerance to Internal Quality Standards


Calibration Completed By
Slav Ligai, Calibration Technician


Attested and Issued on 10-Jul-09
Justin Tarr, 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

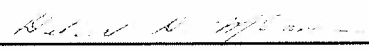
Instrument I.D.: 10506
Model Number: FSEA20
Serial Number: DE23427
Inspected By: MR1
Job Title: METROLOGIST
Calibration Result: PASS
Cal. Due Date: 10/14/2009

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