MFA M. Flom Associates, Inc. - Global Compliance Center
3356 North San Marcos Place, Suite 107, Chandler, Arizona 85225-7176
www.mflom.com general@mflom.com (480) 926-3100, FAX: 926-3598

D E C L A R A T I O N O F C O N F O R M I T Y

of

RECEIVER MODEL: VX-5500V

FCC ID: K66VX-5500V

to

FEDERAL COMMUNICATIONS COMMISSION

Part 15(B)
(New)

DATE OF REPORT: January 29, 2003

ON THE BEHALF OF THE APPLICANT:

Vertex Standard Co., Ltd.

AT THE REQUEST OF: P.O. UPS 01/14/2003

Vertex Standard USA Inc.
10900 Walker Street
Cypress, CA 90630

Attention of: Mikio Maruya, Executive Vice President
(800) 255-9237; FAX: (800) 477-9237
(714) 827-7600; FAX: -8100
m.maruya@vxstdusa.com

SUPERVISED BY: Morton Flom, P. Eng.

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Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

a) TEST REPORT

b) Laboratory: M. Flom Associates, Inc.
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0310036

d) Client: Vertex Standard USA Inc.
10900 Walker Street
Cypress, CA 90630

e) Identification: VX-5500V
FCC ID: K66VX-5500V
Description: 148-174 land mobile radio

f) EUT Condition: Not required unless specified in individual tests.

g) Report Date: January 29, 2003
EUT Received: January 14, 2003

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA internal quality manual.

m) Supervised by:

Morton Flom, P. Eng.

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

M. Flom Associates, Inc. is accredited by the American Association for Laboratory Association (A2LA) as shown in the scope below.

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

M. FLOM ASSOCIATES, INC.
Chandler, AZ

for technical competence in the field of

Electrical (EMC) Testing

The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing. Testing and calibration laboratories that comply with this International Standard also operate in accordance with ISO 9001 or ISO 9002.

Presented this 2nd day of March, 2001.

President
For the Accreditation Council
Certificate Number 1008.01
Valid to December 31, 2002

For tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical (EMC) Scope of Accreditation

American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:1999

M. FLOM ASSOCIATES, INC.
Electronic Testing Laboratory
3356 North San Marcos Place, Suite 107
Chandler, AZ 85225
Marion Flom Phone: 480 926 3100

ELECTRICAL (EMC)

Valid to: December 31, 2002 Certificate Number: 1008.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following electromagnetic compatibility tests:

Tests	Standard(s)
RF Emissions	FCC Part 15 (Subparts B and C) using ANSI C63.4-1992; CISPR 11; CISPR 13; CISPR 14; CISPR 22; EN 55011; EN 55013; EN 55014; EN 55022;; EN 50081-1; EN 50081-2; ICES-003; AS/NZS 1044; AS/NZS 1053; AS/NZS 3548; AS/NZS 4251.1; CNS 13438
Harmonic Current	EN 61000-3-2
Flicker and Flicker	EN 61000-3-3
RF Immunity	EN 50082-1, 50082-2 (limit excluding "Power Frequency Magnetic Field Immunity"), 55024 (excluding Power Frequency Magnetic Field and Conducted Immunity); AS/NZS 4251.1
Electrostatic Discharge (ESD)	EN 61000-4-2
Radiated Susceptibility	EN 61000-4-3; ENV 50140; ENV 50204; IEC 1000-4-3; IEC 801-3
EFT	EN 61000-4-4; IEC 1000-4-4; IEC 801-4
Surge	EN 61000-4-5; ENV 50142; IEC 1000-4-5; IEC 801-5
Voltage Dips, Short Interruptions, and Line Voltage Variations	EN 61000-4-11
47 CFR (FCC)	Part: 2, 18, 21, 22, 23, 24, 25, 26, 27, 74, 80, 87, 90, 91, 97, 101 (excluding SAR Testing)

(A2LA Cert. No. 1008.01) 03/10/02 Page 1 of 1

6301 Rockaway Pike, Suite 300 • Frederick, MD 21704-8373 • Phone: 301-644 3248 • Fax: 301-662 2974

"This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA) and the results shown in this report have been determined in accordance with the laboratory's terms of accreditation unless stated otherwise in the report."

Should this report contain any data for tests for which we are not accredited, or which have been undertaken by a subcontractor that is not A2LA accredited, such data would not covered by this laboratory's A2LA accreditation.

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GENERAL INFORMATION

Part 2.948:

(a)(b) DESCRIPTION OF MEASUREMENT FACILITIES:
FILE: 31040/SIT

A description of the measurement facilities was filed with the Commission and was found to be in compliance with the requirements of Section 2.948, by letter dated March 13, 2000. All pertinent changes will be reported to the Commission by up-date prior to March 2003.

(b)(4) SUPPORTING STRUCTURES:

SKETCH - ATTACHED EXHIBITS

(b)(5)(6) TEST INSTRUMENTATION:

LIST - SEE EXHIBITS

2.925: IDENTIFICATION OF AN AUTHORIZED DEVICE:

DRAWING - SEE EXHIBITS

LOCATION OF LABEL - SEE PHOTOS

NAME AND ADDRESS OF APPLICANT:

Vertex Standard Co., Ltd.
4-8-8 Nakameguro, Meguro-Ku
Tokyo 153-8644 Japan

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2.911:
2.1033(b)(6)

TECHNICAL REPORT

MANUFACTURER:

Vertex Standard Co., Ltd.
4-8-8 Nakameguro, Meguro-Ku
Tokyo 153-8644 Japan

TRADE NAME:

Vertex

FCC ID:

K66VX-5500V

MODEL NO:

VX-5500V

PHOTOGRAPHS:

SEE LIST OF EXHIBITS

DUT DESCRIPTION:

This unit Passes

15.31: MEASUREMENT STANDARD & PROCEDURE:

___ IEEE STANDARD 187 WAS USED AS A GUIDE.
___ FCC MEASUREMENT PROCEDURE MP-1
x ANSI 63.4 (1992/2000) “Methods of measurement of radio-noise emissions from low-voltage electrical and
___ electronic equipment in the range of 9 kHz to 40 GHz.”

EXPOSITORY STATEMENT

1. NUMBER OF BANDS = 1

2. NUMBER OF CHANNELS = 250

3. TUNING RANGE, MHz = 148 to 174

4. OSCILLATOR RANGE, MHz = 191.95 to 217.95

5. I.F., MHz = 43.95

6. BLOCK DIAGRAM = ATTACHED

7. For cellular receiver only, the radio transceiver meets the requirements of FCC Bulletin OET 53 ("Cellular System Mobile Stations-Land-System Compatibility Specification."). See attached affidavit.

15.203: ANTENNA REQUIREMENT:

___ The antenna is permanently attached to the EUT
___ The antenna uses a unique coupling
___ The EUT must be professionally installed
_x_ The antenna requirement does not apply

SUPERVISED BY: Morton Flom, P. Eng.

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NAME OF TEST: Receiver Spurious Emissions (Radiated)

SPECIFICATION:
15.109: Radiated Interference Limits
15.33: Frequency Range of Radiated Measurements
80.217: Suppression of Interference Aboard Ships

GUIDE: See measurement procedure below

TEST CONDITIONS: Standard Temperature & Humidity

TEST EQUIPMENT: As per attached page

SEARCH ANTENNAS:

100 Hz -	50 MHz:	Emco 3301B Active Rod
10 kHz -	32 MHz:	Singer 94593-1 Loop
25 MHz -	300 MHz:	Emco 3109 Biconical
200 MHz -	1 GHz:	Aprel 2001 Log Periodic
1 GHz -	18 GHz:	Emco 3115 Horn
10 GHz -	40 GHz:	Emco 3116 Horn with HP11970A Mixer

MEASUREMENT PROCEDURE

1. At first, bench tests were performed to locate the spurious emissions at the antenna terminals.

2. In the field, tests were conducted over the range shown, The test sample was set up on a wooden turntable above ground, and at a distance of three meters from the antenna connected tot he Spectrum Analyzer.

3. In order to obtain the maximum response at each frequency, the turntable was rotated, and the search antenna was raised and lowered. The EUT was also adjusted for maximum response. Tests were conducted in Horizontal & Vertical polarization modes.

4. The field strength was calculated from:

$$E\ \mu V/m\ @\ 3\ m = Log_{10}{}^{-1}\left(\frac{dB\mu V + A.F. + C.L.}{20}\right)$$

5. MEASUREMENT RESULTS: Attached for "Worst Case" conditions.

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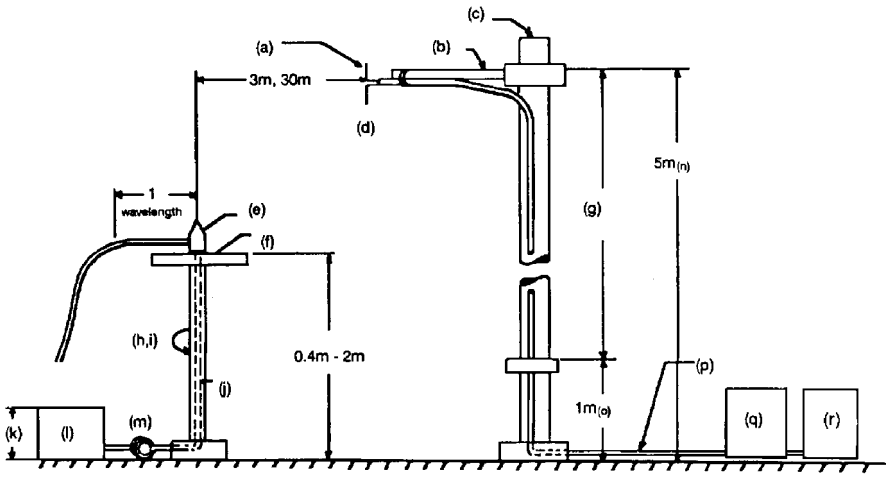
RADIATED TEST SETUP



NOTES:

(a) Search Antenna - Rotatable on boom
(b) Non-metallic boom
(c) Non-metallic mast
(d) Adjustable horizontally
(e) Equipment Under Test
(f) Turntable
(g) Boom adjustable in height.
(h) External control cables routed horizontally at least one wavelength.
(i) Rotatable
(j) Cables routed through hollow turntable center
(k) 30 cm or less
(l) External power source
(m) 10 cm diameter coil of excess cable
(n) 25 cm (V), 1 m-7 m (V, H)
(o) 25 cm from bottom end of 'V', 1m normally
(p) Calibrated Cable at least 10m in length
(q) Amplifier (optional)
(r) Spectrum Analyzer

Asset	Description (as applicable)	s/n	Cycle	Last Cal
			Per ANSI C63.4-1992/2000 Draft, 10.1.4	
TRANSDUCER				
i00088	EMCO 3109-B 25MHz-300MHz	2336	12 mo.	Sep-02
i00089	Aprel 2001 200MHz-1GHz	001500	12 mo.	Sep-02
i00103	EMCO 3115 1GHz-18GHz	9208-3925	12 mo.	Sep-02
i00065	EMCO 3301-B Active Monopole	2635	12 mo.	Sep-02
AMPLIFIER				
i00028	HP 8449A	2749A00121	12 mo.	Mar-02
SPECTRUM ANALYZER				
i00029	HP 8563E	3213A00104	12 mo.	Jan-02
i00033	HP 85462A	3625A00357	12 mo.	Jan-02
i00048	HP 8566B	2511AD1467	6 mo.	Jul-02
MISCELLANEOUS				
	Microphone _____			
	Antenna _____			
	All Ports Terminated _____			

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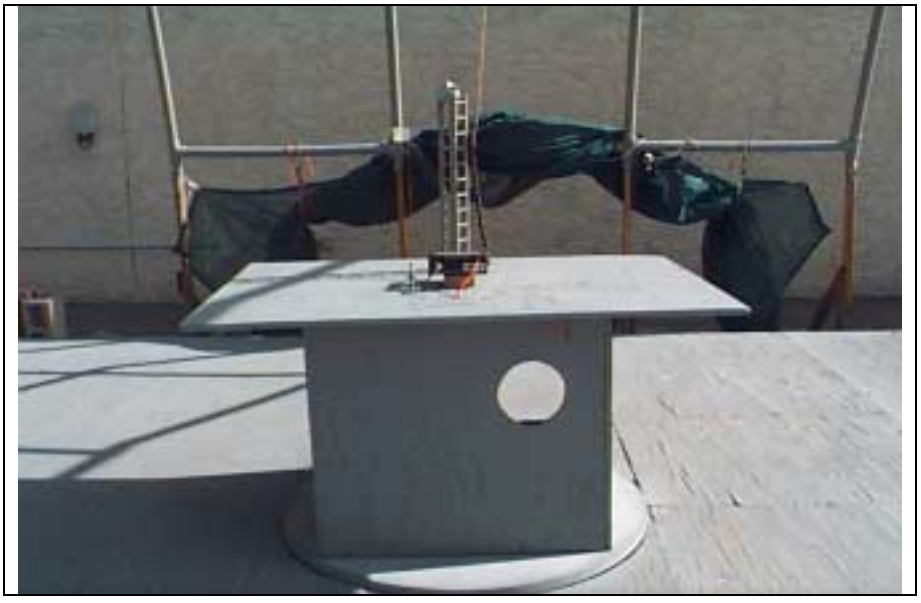
TEST SETUP: Radiated Emissions
g0310056: 2003-Jan-15 Wed 12:00:08
STATE: 0:General

TEST SETUP: Radiated Emissions
g0310057: 2003-Jan-15 Wed 12:00:08
STATE: 0:General



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NAME OF TEST: Receiver Spurious Emissions (Radiated)

MEASUREMENT DETAILS

SITE REFERENCE = 31040/SIT

SPECTRUM SEARCHED = 0 to 10 x F_R

WORST CASE = V

LIMITS = 15.109(a) (Attached)

ALL OTHER EMISSIONS = 20 dB OR MORE BELOW LIMIT

TESTS WERE CONDUCTED WITH:

a. All controls and switches operated.
b. Half-wave dipole antenna or manufacturer/applicant supplied antenna.

SAMPLE CALCULATION:

EMISSION FREQUENCY, MHz = 191.950000

LEVEL = $\text{Log}_{10}^{-1}\left(\frac{-11.29 + 18.89}{20}\right)$

LEVEL, μV/m @ 3m = 32.28

MEASUREMENT RESULTS = ATTACHED

NOTE: WORST CASE OF SCAN AND NON-SCAN MODES REPORTED.

PAGE NO. 10 of 10.

NAME OF TEST: Receiver Spurious Emissions (Radiated)

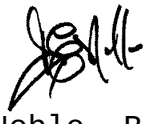
RULE 15.109(a) LIMITS:

FREQUENCY, MHz	FIELD STRENGTH μV/m	DISTANCE, m
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

g0310077: 2003-Jan-15 Wed 08:40:00
STATE: 0:General

FREQUENCY TUNED, MHz	FREQUENCY EMISSION, MHz	LEVEL, dBuV	@ m	C.F., dB	μV/m	@ m
148.000000	191.950000	11.29	3	18.89	32.28	3
162.000000	205.953000	6.36	3	19.57	19.79	3
174.000000	217.950000	7.04	3	20.1	22.75	3
148.000000	383.900200	12.27	3	25.51	77.45	3
162.000000	411.911300	7.26	3	26.33	47.81	3
174.000000	435.917500	10.36	3	26.36	68.55	3

All other emissions in the required measurement range were more that 20 dB below the required limits.



PERFORMED BY: Doug Noble, B.A.S. E.E.T.
END OF TEST REPORT

THE APPLICANT HAS BEEN CAUTIONED AS TO THE FOLLOWING:

15.21 INFORMATION TO USER.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) SPECIAL ACCESSORIES.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

STATEMENT OF COMPLIANCE

THIS IS TO CERTIFY:

THAT, ON THE BASIS OF THE MEASUREMENTS MADE, THE EQUIPMENT TESTED IS CAPABLE OF COMPLYING WITH THE REQUIREMENTS OF

FCC RULE PART 15, SUBPART B _x_

FCC RULE PART 15, SUBPART C ___

USING ANSI C63.4-1992/2000 Draft IN EFFECT AS OF THIS DATE, UNDER NORMAL OPERATION, WITH THE USUAL MAINTENANCE.

THAT THE DATA CONTAINED HEREIN IS A SUMMARY (WORST CASE) OF THAT OBTAINED ON SEVERAL RANDOMLY-SELECTED PRODUCTION SAMPLES.

THAT THE EQUIPMENT MEETS OR EXCEEDS THE REQUIREMENTS OF PART 15.

LIST OF EXHIBITS
(FCC **DECLARATION OF CONFORMITY** - REVISED 9/28/97)

APPLICANT: Vertex Standard Co., Ltd.

EQUIPMENT: VX-5500V
K66VX-5500V

BY APPLICANT:

1. LETTER OF AUTHORIZATION

2. IDENTIFICATION LABEL DRAWING: 2.1047
___ LABEL
___ LOCATION OF LABEL
___ COMPLIANCE STATEMENT
___ LOCATION OF COMPLIANCE STATEMENT

3. ORIGINAL DESIGN DRAWINGS/SPECIFICATIONS: 2.1075(a)(1)

4. COMPLIANCE INFORMATION STATEMENT: 2.1077(a)

BY M.F.A. INC.

A. TESTIMONIAL & STATEMENT OF CERTIFICATION

B. STATEMENT OF QUALIFICATIONS