



**Test Report:**

1W04294.1

**Applicant:**

Guillemot Corporation  
5505 Boulevard St. Laurent  
Montreal, Quebec  
H2T 1S6

**Equipment Under Test:  
(EUT)**

NASCAR PRO Victory Steering Wheel Radio  
THRUSTMASTER NASCAR K9905  
900 MHz RF Wheel

**In Accordance With:**

**FCC Part 15, Subpart C, 15.249**

**Tested By:**

Nemko Canada Inc.  
3325 River Road, R.R. 5  
Ottawa, Ontario K1V 1H2

**Authorized By:**

R. Grant, Wireless Group Manager

**Date:**

October 18, 2001

**Authorized Copy:**

Soft Copy

*EQUIPMENT: "NASCAR PRO Victory Steering Wheel Radio"*

*THRUSTMASTER NASCAR K9905 900 MHz RF Wheel*

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## **Section 1. Summary Of Test Results**

### **General**

All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15.249. All tests were conducted using measurement procedure ANSI C63.4-1992. Radiated Emissions were made on an open area test site. A description of the test facility is on file with the FCC.

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".



TESTED BY:

Glen Westwell, Wireless Technologist

DATE: October 18, 2 001

Nemko Canada Inc., a testing laboratory, is accredited by the Standards Council of Canada. The tests included in this report are within the scope of this accreditation. The results apply only to the samples tested.

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This report applies only to the items tested.

*EQUIPMENT: "NASCAR PRO Victory Steering Wheel Radio"**THRUSTMASTER NASCAR K9905 900 MHz RF Wheel*

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**Summary Of Test Data**

| <b>Name Of Test</b> | <b>Para. No.</b> | <b>Result</b> |
|---------------------|------------------|---------------|
| Radiated Emissions  | 15.249           | Complies      |

**Test Conditions:****Indoor**

Temperature: 23 °C

Humidity: 38 %

**Outdoor**

Temperature: 20 °C

Humidity: 46 %

*EQUIPMENT: "NASCAR PRO Victory Steering Wheel Radio"*

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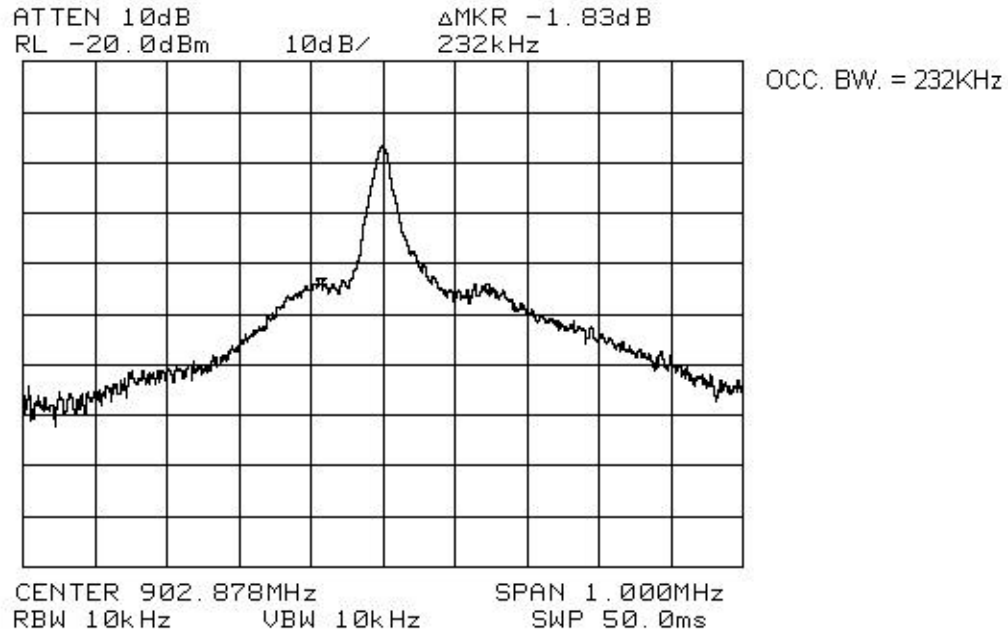
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## **Section 2.        General Equipment Specification**

|                                     |                                            |
|-------------------------------------|--------------------------------------------|
| <b>Manufacturer:</b>                | Guillemot Corporation                      |
| <b>Model No.:</b>                   | THRUSTMASTER NASCAR K9905 900 MHz RF Wheel |
| <b>Serial No.:</b>                  | None                                       |
| <b>Date Received In Laboratory:</b> | September 5, 2001                          |
| <b>Nemko Identification No.:</b>    | Item #4                                    |
| <b>Tx Frequency:</b>                | 902.8 MHz                                  |
| <b>Power:</b>                       | 4 x 1.5 Vdc Batteries                      |
| <b>Emission Designator:</b>         | 232KL3D                                    |

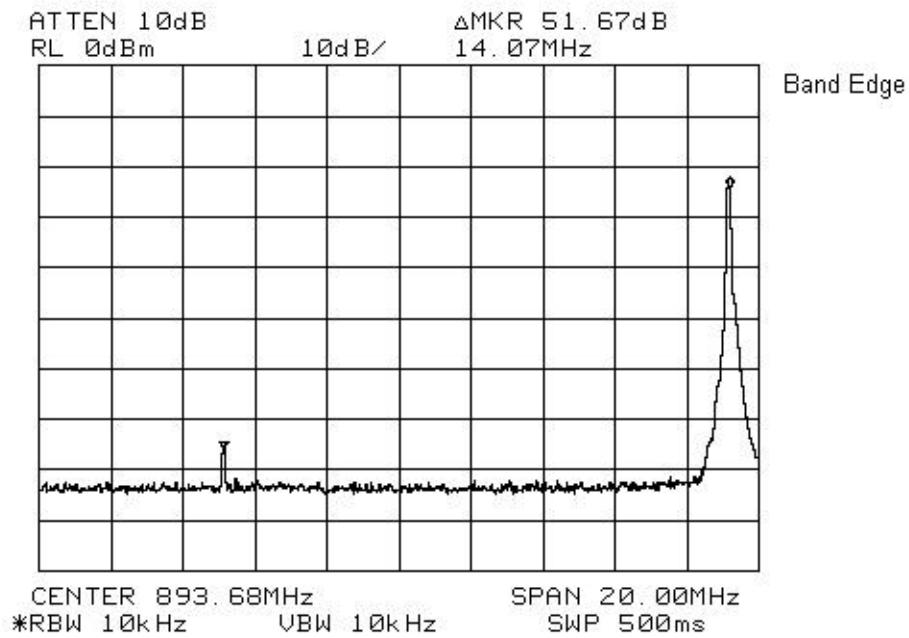
EQUIPMENT: "NASCAR PRO Victory Steering Wheel Radio"

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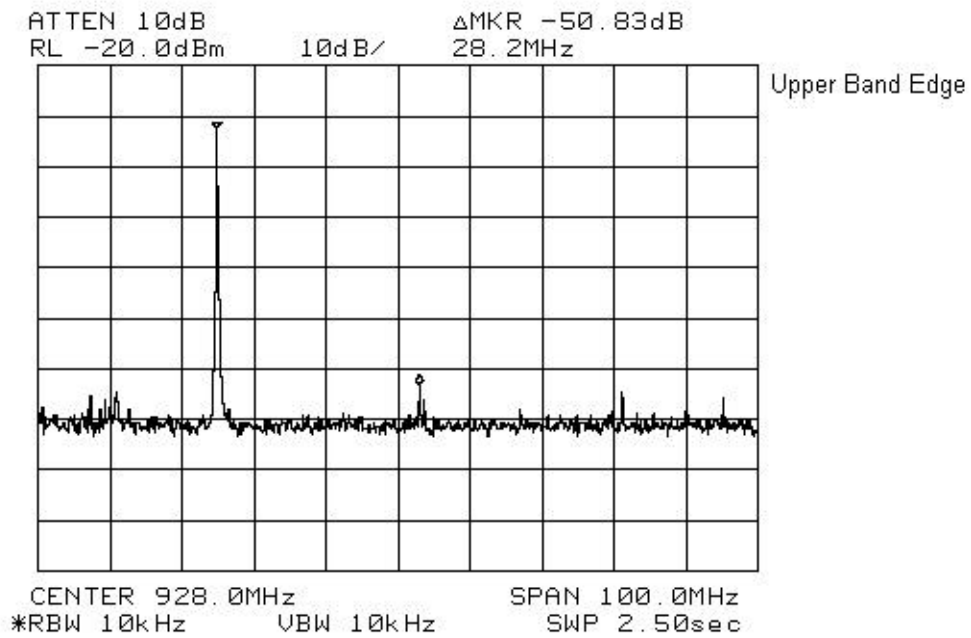
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### **Section 3. Radiated Emissions**

**Para. No.: 15.249**

|                                         |                                      |
|-----------------------------------------|--------------------------------------|
| <b>Test Performed By:</b> Glen Westwell | <b>Date of Test:</b> October 2, 2001 |
|-----------------------------------------|--------------------------------------|

**Minimum Standard:**

| <b>Fundamental<br/>(MHz)</b> | <b>Field Strength<br/>(mV/m)</b> | <b>Field Strength<br/>(dBµV)</b> | <b>Harmonic<br/>(mV/m)</b> | <b>Harmonic<br/>(dBµV)</b> |
|------------------------------|----------------------------------|----------------------------------|----------------------------|----------------------------|
| 902-928                      | 50                               | 94                               | 0.5                        | 54                         |

**Test Results:** Complies.

**Measurement Data:** See attached tabulated data.

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## Test Data - Radiated Emissions

| Test Distance<br>(meters) : 3                                                                                                                                                                                                                                                                                                                                                   |           | Range:<br>A Tower |                            | Receiver:<br>ESVP/8565E  |                         | RBW(kHz):<br>120/1000  |                               | Detector:<br>CISPR/Peak |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------|----------------------------|--------------------------|-------------------------|------------------------|-------------------------------|-------------------------|----------------|
| Freq.<br>(MHz)                                                                                                                                                                                                                                                                                                                                                                  | Ant.<br>* | Pol.<br>(V/H)     | RCVD<br>Signal<br>(dBµV/m) | Ant.<br>Factor<br>(dB)** | Amp.<br>Gain<br>(dB)*** | Dist.<br>Corr.<br>(dB) | Field<br>Strength<br>(dBµV/m) | Limit<br>(dBµV/m)       | Margin<br>(dB) |
| 902.88                                                                                                                                                                                                                                                                                                                                                                          | L/P1      | V                 | 60.0                       | 27.0                     |                         |                        | 87.0                          | 94.0                    | 7.0            |
| 902.88                                                                                                                                                                                                                                                                                                                                                                          | L/P1      | H                 | 57.3                       | 27.0                     |                         |                        | 84.3                          | 94.0                    | 9.7            |
| 931.1                                                                                                                                                                                                                                                                                                                                                                           | E/D4      | V                 | 9.5                        | 31.8                     |                         |                        | 41.3                          | 46.0                    | 4.7            |
| 931.1                                                                                                                                                                                                                                                                                                                                                                           | E/D4      | H                 | 4.3                        | 31.8                     |                         |                        | 36.1                          | 46.0                    | 9.9            |
| 874.66                                                                                                                                                                                                                                                                                                                                                                          | E/D4      | V                 | 9.6                        | 31.2                     |                         |                        | 40.8                          | 46.0                    | 5.2            |
| 874.66                                                                                                                                                                                                                                                                                                                                                                          | E/D4      | H                 | 6.1                        | 31.2                     |                         |                        | 37.3                          | 46.0                    | 8.7            |
| 1805.8                                                                                                                                                                                                                                                                                                                                                                          | Hrn2      | V                 | 69.2                       | 31.0                     | -48.5                   |                        | 51.7                          | 54.0                    | 2.3            |
| 1805.8                                                                                                                                                                                                                                                                                                                                                                          | Hrn2      | H                 | 68.5                       | 31.0                     | -48.5                   |                        | 51.0                          | 54.0                    | 3.0            |
| 2708.68                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | V                 | 73.2                       | 34.6                     | -59.7                   |                        | 48.1                          | 54.0                    | 5.9            |
| 2708.68                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | H                 | 68.2                       | 34.6                     | -59.7                   |                        | 43.1                          | 54.0                    | 10.9           |
| 3611.47                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | V                 | 67.5                       | 38.4                     | -59.8                   |                        | 46.1                          | 54.0                    | 7.9            |
| 3611.47                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | H                 | 61.4                       | 38.4                     | -59.8                   |                        | 40.0                          | 54.0                    | 14.0           |
| 4514.41                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | V                 | 55.8                       | 40.2                     | -56.4                   |                        | 39.6                          | 54.0                    | 14.4           |
| 4514.41                                                                                                                                                                                                                                                                                                                                                                         | Hrn2      | H                 | 49.3                       | 40.2                     | -56.4                   |                        | 33.1                          | 54.0                    | 20.9           |
| <b>Notes:</b><br>B/C = Biconical, B/L = Biconilog, L/P = Log-Periodic, H = Horn, D/P = Dipole<br>* Re-measured using dipole antenna.<br>** Includes cable loss when amplifier is not used.<br>*** Includes cable loss.<br>( ) Denotes failing emission level.<br>N.D. = Not Detected<br>All harmonics and spurious emissions were searched up to the 10 <sup>th</sup> harmonic. |           |                   |                            |                          |                         |                        |                               |                         |                |

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## **Radiated Emissions Photographs**

**Front View:**



**Rear View:**

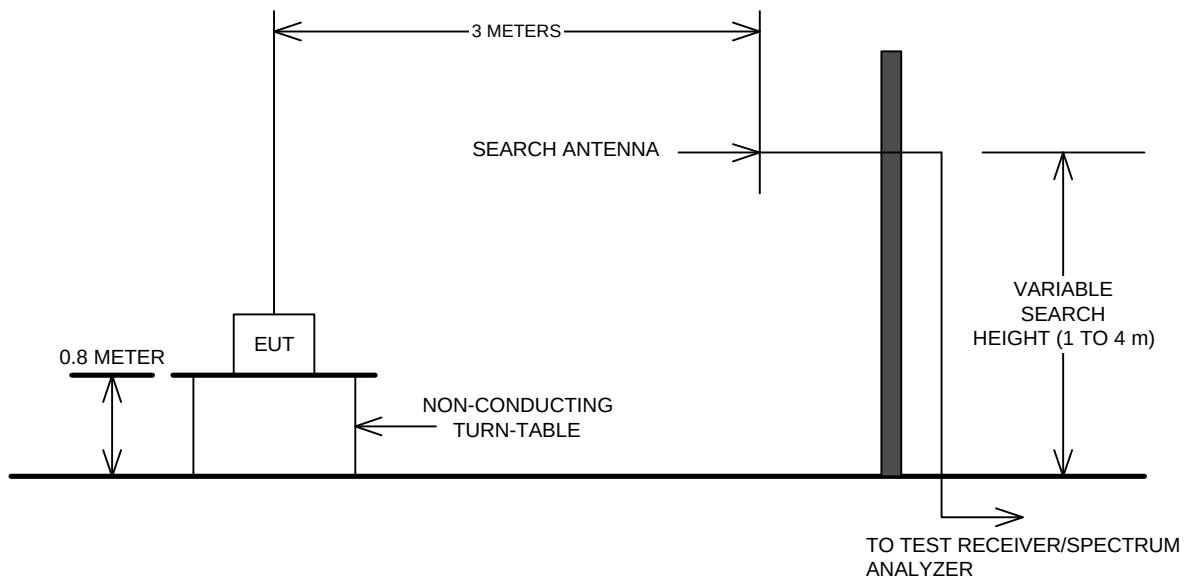


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## Section 4. Block Diagrams

### Test Site For Radiated Emissions



The spectrum was search up to the 10<sup>th</sup> harmonic of the fundamental frequency of operation.

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## Section 5. Test Equipment List

| CAL CYCLE | EQUIPMENT                   | MANUFACTURER    | MODEL     | SERIAL     | LAST CAL.  | NEXT CAL.  |
|-----------|-----------------------------|-----------------|-----------|------------|------------|------------|
| 1 Year    | Spectrum Analyzer           | Hewlett Packard | 8565E     | FA000981   | June 08/01 | June 08/02 |
| 1 Year    | Spectrum Analyzer-1         | Hewlett Packard | 8566B     | 2311A02238 | Dec. 10/00 | Dec. 10/01 |
| 1 Year    | Spectrum Analyzer Display-1 | Hewlett Packard | 8566B     | 2314A04759 | Dec. 10/00 | Dec. 10/01 |
| 1 Year    | Quasi-peak adapter-1        | Hewlett-Packard | 85650A    | 2043A00302 | Dec. 14/00 | Dec. 14/01 |
| 1 Year    | Receiver                    | Rohde & Schwarz | ESVP      | 892661/014 | Apr. 3/01  | Apr. 3/02  |
| 1 Year    | Horn Antenna                | EMCO #2         | 3115      | 4336       | Dec. 1/00  | Dec. 1/01  |
| 1 Year    | Log Periodic Antenna 1      | EMCO            | LPA-25    | 1141       | Aug. 28/01 | Aug. 28/02 |
| 1 Year    | Dipole Antenna Set          | EMCO #2         | 3121C     | FA001349   | Apr. 3/01  | Apr. 3/02  |
| 1 Year    | RF AMP                      | JCA             | 2-4 GHz   | FA001496   | COU        | COU        |
| 1 Year    | RF AMP                      | JCA             | 1-2 GHz   | FA001498   | COU        | COU        |
| 1 Year    | RF AMP                      | JCA             | 4-8 GHz   | FA001497   | COU        | COU        |
|           | High Pass Filter (1.7GHz)   | K&L             | 3DH1-2000 | FA001434   | COU        | COU        |

NA: Not Applicable

NCR: No Cal Required

COU: CAL On Use