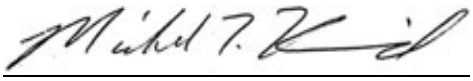
Nemko Test Report:	2006 060511 FCC
Applicant:	Westhold Corporation 8430 Via Sonoma #49 La Jolla, California 92037
Equipment Under Test: (E.U.T.)	2165 10.77MHz Race Car Transmitter
FCC ID:	NKBTXDP-01
In Accordance With:	**FCC Part 15, Subpart C, Paragraph 15.209** General Limits For Low Power Transmitters
Tested By:	Nemko U.S.A.. 11696 Sorrento Valley Road, Suite F San Diego, CA 92121
Authorized By:	 Michael T. Krumweide, EMC Supervisor
Date:	10 July, 2006
Total Number of Pages:	14

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1. Summary Of Test Results

Manufacturer: Westhold Corporation

Model No.: 2165 10.77MHz Race Car Transmitter

Serial No.: None

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, Subpart C for low power devices. All tests were conducted using measurement procedure ANSI C63.4-2003. Radiated Emissions were made on an open area test site.

☒ New Submission ☒ Production Unit

☐ Class II Permissive Change ☐ Pre-Production Unit

☐☐☐ Equipment Code

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".

NVLAP LAB CODE: 2001116-0

TESTED BY: Ferdinand S. Custodio DATE: June 30, 2006

1.1. Summary Of Test Data

NAME OF TEST	PARA. NO.	RESULT
Powerline Conducted Emissions	15.207	N/A
Radiated Emissions	15.209	Complies

Footnotes For N/A's:

The device is battery powered.

2. General Equipment Specification

Frequency Range:	10.770 MHz
Operating Frequency(ies) of Sample:	10.770 MHz

	Yes	No
Integral Antenna	☒	☐

2.1. Theory of Operation

Please refer to separate confidential exhibit.

2.2. System Diagram

Please refer to separate confidential exhibit.

3. Radiated Emissions Test Results

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.209
TESTED BY: Ferdinand S. Custodio	DATE: June 30, 2006

Minimum Standard: The field strength of emissions from the device shall not exceed the following limits.

Fundamental (MHz)	Field Strength (μV/m)	Field Strength (dBμV)
0.009 - 0.490	2400/F(kHz) @ 300m	—
0.490 - 1.705	24000/F(kHz) @ 30m	—
1.705 - 30	30 @ 30m	—
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

Test Results: Complies. The worst-case emission level is 38.0 dBμV/m @ 3m at 280.13 MHz. This is 8.0 dB below the specification limit.

Measurement Data: **(Procedure ANSI C63.4-2003)**

Maximizing Emission Levels:
The EUT was powered by a full charged car battery. For hand held equipment or equipment that may be mounted in a variety of positions, the E.U.T. was tested on three orthogonal axis to determine orientation of worst-case emission levels. Below 30 MHz an active loop antenna is used at a fixed height of 1 meter. The loop is rotated about it's vertical axis to obtain worst-case results.

Spectrum Searched:
The spectrum was searched from the lowest frequency generated in the E.U.T. up to 1000 MHz, or the 10^{th} harmonic of the fundamental emission.

Near-Field Measurement:
Emissions below 30 MHz are measured in the near-field and an extrapolation factor of 40 dB per decade is used to determine the 10m limit.

Example: Measurement Distance = 3m
Specification Distance = 30m

10m Limit: Specified limit (at 30m) - (40 Log $\frac{10}{30}$)

Thus for measurement at 10m the specified limit is increased by 19 dB.

3.1. Test Data - Radiated Emissions

NEMKO USA, Inc.

San Diego Headquarters:
11696 Sorrento Valley Rd.
San Diego, CA 92121
Tel: (858) 755-5525
Fax: (858) 452-1810

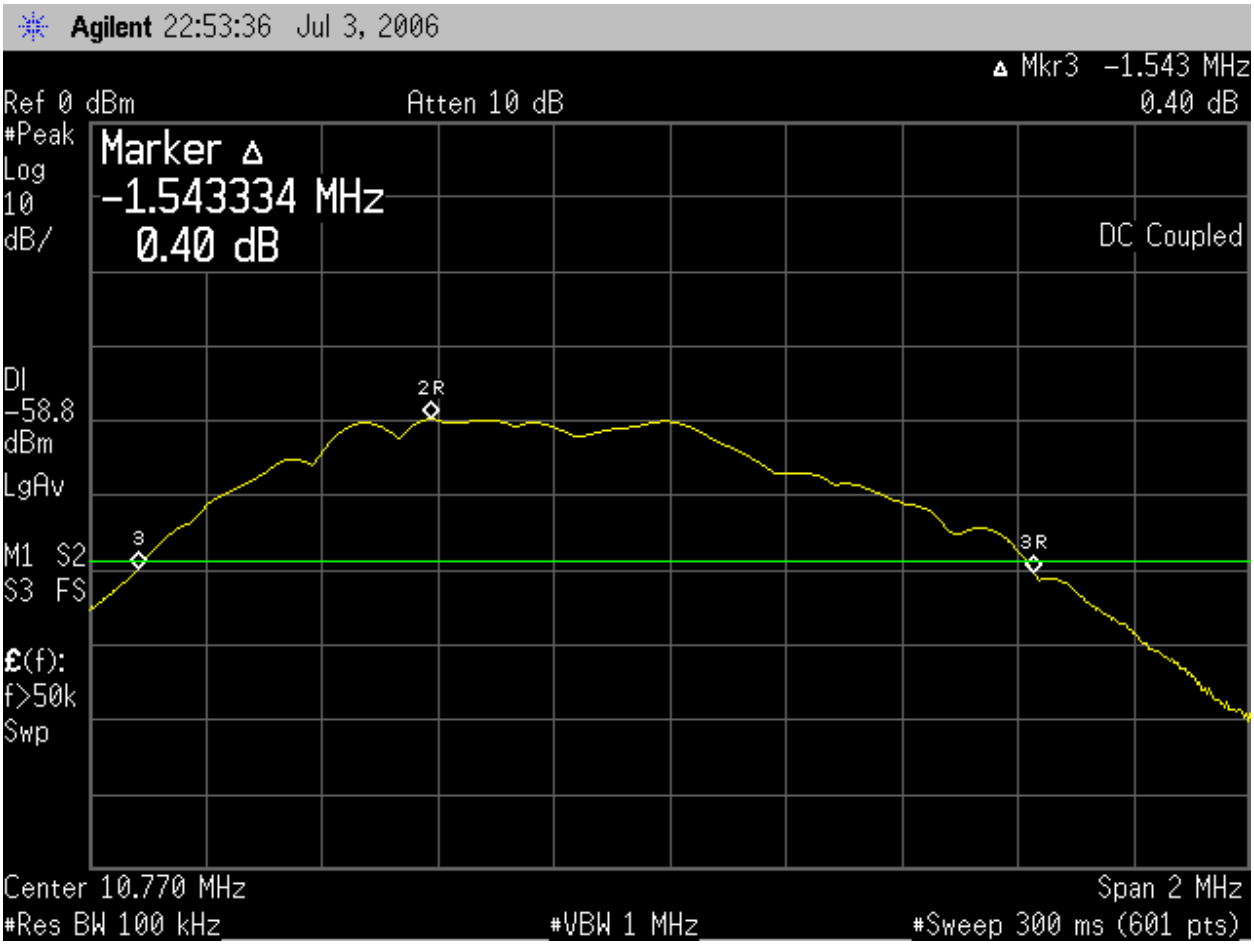
Radiated Emissions Data

Complete	X			Job # : 26-511-WES	Test # :
Preliminary				Page 1	of 1
Client Name :	Westhold Corp.				
EUT Name :	Hardwired Transmitter				
EUT Model # :	2165 (10MHz Transmitter -0db)				
EUT Part # :					
EUT Serial # :					
EUT Config. :	transmitting (On Car Battery)				
Specification :	CFR47 Part 15, Subpart B, Class B			Reference :	
Rod. Ant. #:	133	Temp. (deg. C) :	24	Date :	June 30, 2006
Bicon Ant.#:	128	Humidity (%) :	64	Time :	11:00AM
Log Ant.#:	110	EUT Voltage :	12VDC	Staff :	FSCustodio
DRG Ant. #	NA	EUT Frequency :	N/A	Quasi-Peak RBW:	120 kHz
Dipole Ant.#:	NA	Phase:	N/A	Video Bandwidth	120 kHz
Cable#:	SOATS	Location:	SOATS	Average RBW:	1 MHz
Preamp#:	826	Distance:	3 and 10 meters	Video Bandwidth	10 Hz
Spec An.#:	840/839			Peak RBW:	1 MHz
QP #:	438			Video Bandwidth	1 MHz
PreSelect#:	NA				

Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.
Measurements above 1 GHz are Average values, unless otherwise stated.

Meas. Freq. (MHz)	Ant. Pol. (H/V)	Atten. (dB)	Meter Reading (dBuV)	Antenna Factor (dB)	Path Loss (dB)	RF Gain (dB)	Corrected Reading (dBuV/m)	Spec. limit (dBuV/m)	CR/SL Diff. (dB)	Pass Fail Unc.	Comment
10.77			27.3	39.7	1.0	31.8	36.2	49.5	-13.3	Pass	10 meters
43.005	V		44.81	11.2	1.1	32.6	24.5	40.0	-15.5	Pass	3 meters
54.422	V		45.87	11.4	1.2	32.5	25.9	40.0	-14.1	Pass	3 meters
86.168	V		38.03	6.8	1.5	32.4	14.0	40.0	-26.0	Pass	3 meters
129.29	H		41.44	12.3	1.8	32.6	22.9	43.5	-20.6	Pass	3 meters
258.58	H		50.53	11.9	2.6	32.7	32.4	46.0	-13.6	Pass	3 meters
280.13	H		54.53	13.4	2.9	32.8	38.0	46.0	-8.0	Pass	3 meters

3.2. 20dB Bandwidth Plots

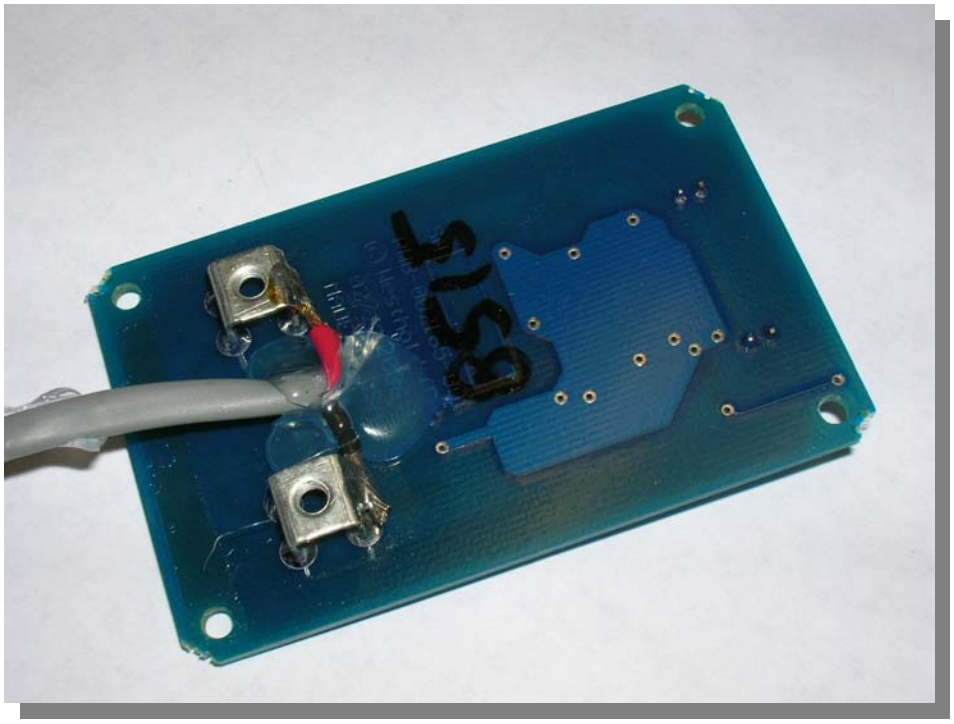


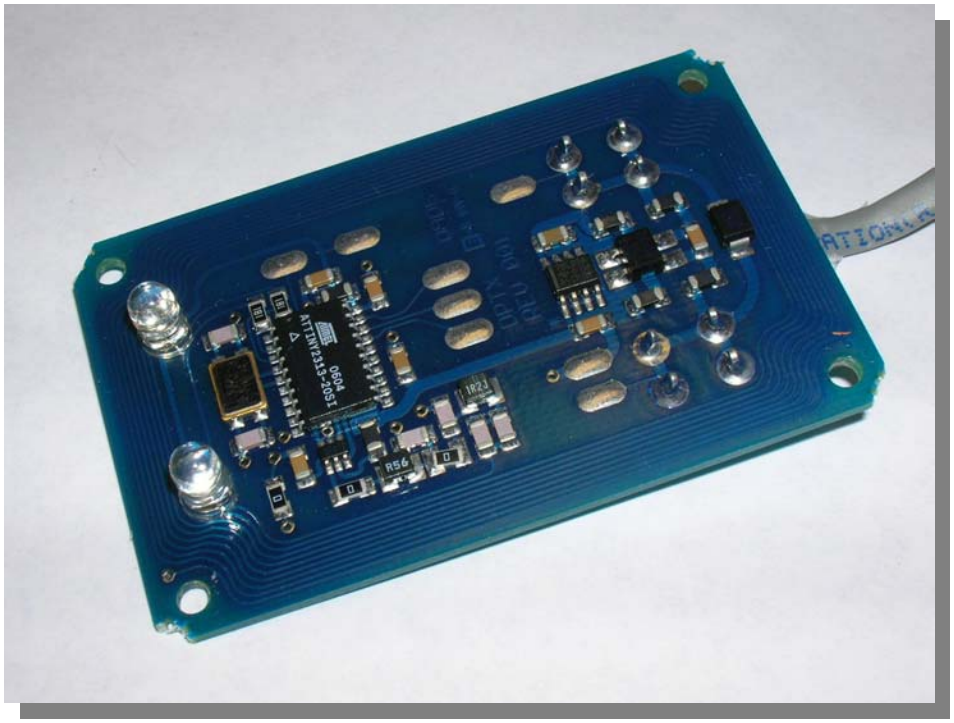
4. Photographs

4.1. Radiated Photograph Above 30MHz

4.2. Radiated Photograph Below 30MHz

4.3. EUT General Photographs



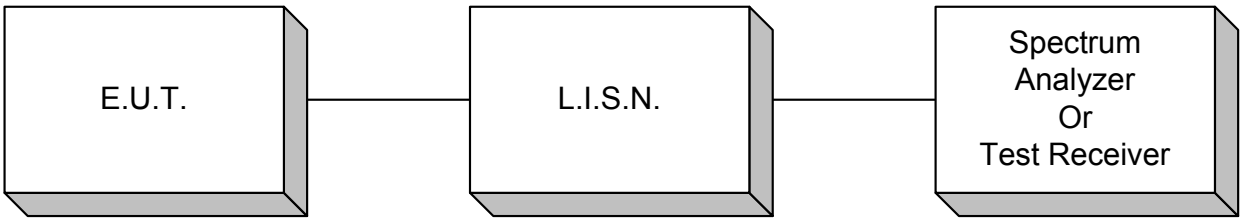


5. Test Equipment List

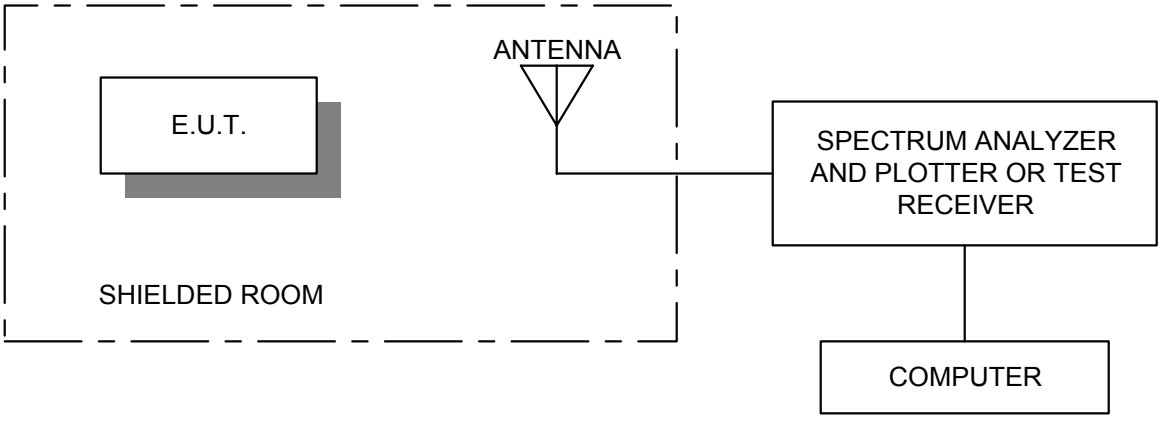
Nemko ID	Device	Manufacturer	Model	Serial Number	Cal Date	Cal Due Date
826	Preamplifier	Com-Power	PA-103	161032	1/11/2006	01/11/07
840	Spectrum Analyzer	HP	85680B	2416A00394	12/29/2005	Verified 06/30/06
839	Spectrum Analyzer Display	HP	85662A	3014A18995	12/29/2005	Verified 06/30/06
438	Quasi-Peak Adapter	HP	85650A	2521A00618	1/5/2006	07/05/06
133	Antenna, loop	Electro-Metrics	ALR-25M	678	4/14/2005	Verified 06/30/06
128	Antenna, Bicon	EMCO	3104	2882	10/6/2005	10/06/06
110	Antenna, LPA	Electrometrics	LPA-25	1217	11/29/2005	11/29/06

6. Annex A Test Diagrams

6.1. Conducted Emissions



6.2. Radiated Prescan



6.3. Test Site For Radiated Emissions