

MEASUREMENT AND TECHNICAL REPORT

DEI
1 Viper Way
Vista, CA 92083

DATE: 13 July 2006

This Report Concerns:	Original Grant: ☒	Class II Change: ☐
Equipment Type: Keyfob Transmitter, Model 7141 VPX		
Deferred grant requested per 47 CFR 0.457(d)(1)(ii)?	Yes: ☐ Defer until:	No: ☒
Company Name agrees to notify the Commission by: of the intended date of announcement of the product so that the grant can be issued on that date.	N/A	
Transition Rules Request per 15.37?	Yes: ☐	No: ☒ *
(*) FCC Part 15, Paragraph(s) 15.231(a), 15.231(b), 15.231(c); 15.35(c)		
Report Prepared by:	TÜV AMERICA, INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone: 858 678 1400 Fax: 858 546 0364	

TABLE OF CONTENTS

	Pages
1.0 GENERAL INFORMATION	<u>3</u>
2.0 SYSTEM TEST CONFIGURATION	<u>5</u>
3.0 EQUIPMENT/DATA	
DEACTIVATION	
DUTY CYCLE	
RADIATED SPURIOUS EMISSIONS	
EMISSION BANDWIDTH	<u>6-15</u>
4.0 ATTESTATION STATEMENT	<u>16</u>

1.0 GENERAL INFORMATION

1.1 Product Description

General Equipment Description

EUT Description: Hand held keyfob transmitter for car alarm and convenience systems.

Model No.: 7141VPX Serial No.: N/A

Product Options: N/A

Configurations to be tested: 1

EUT Specifications and Requirements

Length: 2.28" Width: 1.34" Height: 0.51" Weight: 0.7oz

Power Requirements

Voltage: 6V (2 x CR2016) (If battery powered, make sure battery life is sufficient to complete testing.)

of Phases: N/A

Typical Installation and/or Operating Environment

Automotive

EUT Power Cable: Not Applicable

EUT Interface Ports and Cables: None

EUT Software: N/A

EUT Operating Modes to be Tested: Continuous modulated transmission

EUT System Components

Description	Model #	Serial #	FCC ID #
Keyfob	7141VPX	N/A	EZSDEI7141

Oscillator Frequencies

Frequency	Derived Frequency	Component # / Location	Description of Use
433.92MHz	433.92MHz		Transmitter RF carrier

Power Supply: N/A

Power Line Filters: N/A

Critical EMI Components (Capacitors, ferrites, etc.) : N/A

1.2 Related Submittal Grant

None

1.3 Tested System Details

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system are:

None

1.4 Test Methodology

Purpose of Test: To demonstrate compliance with the following tests.

Test Description	Paragraph Number	SUMMARY
		Pass/Fail/Summary
Deactivation	15.231(a)	Pass / See data records
Duty Cycle	15.231(b)(2); 15.35(c); ANSI C63.4	Pass / -5.35 dB
Radiated Spurious Emissions	15.231(b) / 15.205	Pass / 2.1 dB @ 1301.76 MHz
Bandwidth	15.231(c)	Pass / 140 kHz

Testing was performed according to the procedures in FCC/ANSI C63.4 and CSA 108.8-M1983.

1.5 Test Facility

The open area test site and conducted measurement data were tested by:

TÜV AMERICA, INC
10040 Mesa Rim Road
San Diego, CA 92121-2912
Phone: 858 678 1400
Fax: 858 546 0364

The Test Site Data and performance comply with ANSI C63.4 and are registered with the FCC, 7435 Oakland Mills Road, Columbia Maryland 21046. All Measurement Data is acquired according to the content of FCC Measurement Procedure and ANSI C63.4, unless supplemented with additional requirements as noted in the test report.

2.0 SYSTEM TEST CONFIGURATION

2.1 Justification

The EUT was initially tested for FCC emissions in the following configuration:

See Test Setup Photos Exhibit

2.2 EUT Exercise Software

None

2.3 Special Accessories

None

2.4 Equipment Modifications

None

2.5 Configuration of Test System

See Test Setup Photos Exhibit

3.0 EQUIPMENT DATA**Test Conditions:**

DEACTIVATION: FCC Part 15.231(a)
DUTY CYCLE: FCC Part 15.231(b); 15.35(c); ANSI C63.4, Clause 13.1.4.2
RADIATED SPURIOUS EMISIONS: FCC Part 15.231(b) / 15.250
EMISSION BANDWIDTH: FCC Part 15.231(c)

The following measurements were performed at the San Diego Testing Facility:

☐ - Test not applicable

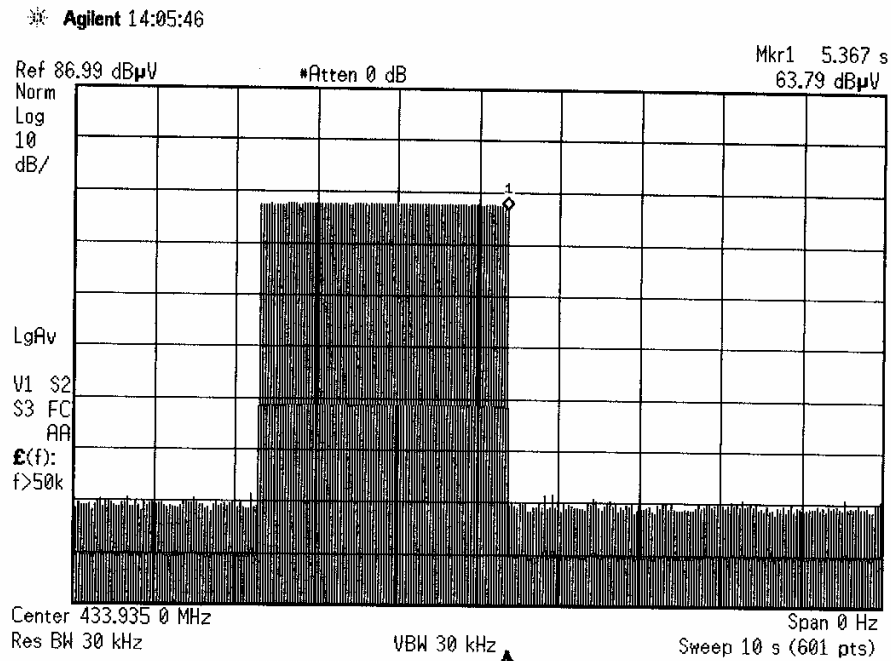
■ - Roof (Small Open Area Test Site)

Test Equipment Used:

Model No.	Prop. No.	Description	Manufacturer	Serial No.	Date Cal'ed
E4440A	7500	Spectrum Analyzer	Hewlett Packard	MY43362168	12/05
3146	6641	Log Periodic Antenna	EMCO	106X	06/05
3115	6669	Double Ridge Antenna	EMCO	9412-4364	08/05
FF6549-1	777	High Pass Filter	Sage	004	Verified
AMF-5D-010180-35-10P	6786	Preamplifier	Miteq	549460	Verified

Remarks: One year calibration cycle for all test equipment and sites.

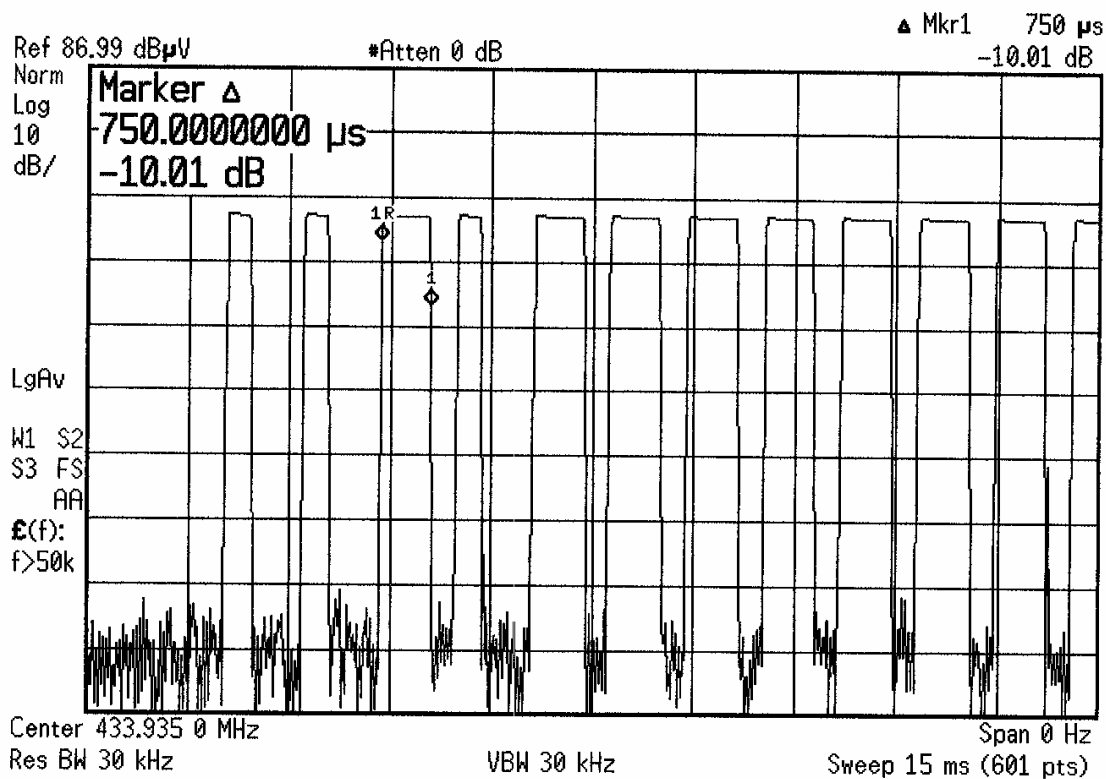
FCC Part 15.231(a)(1) - Deactivation



Released activation button.
Transmitter turned OFF immediately.
< 5 seconds.

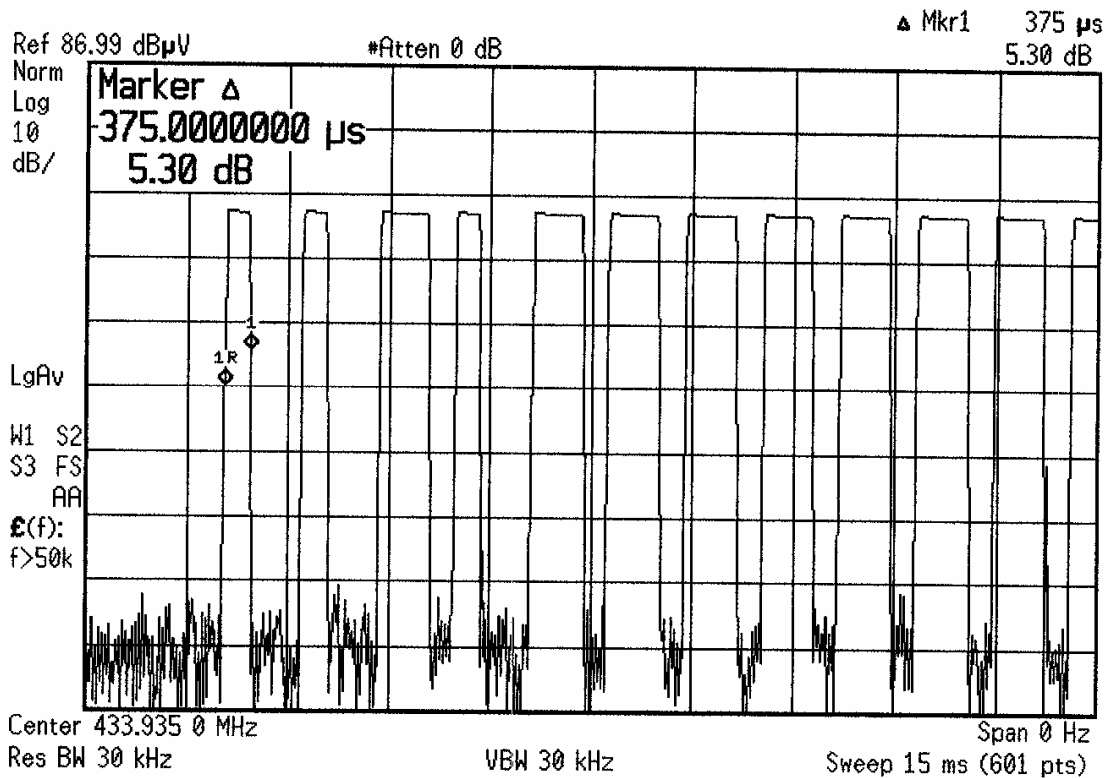
FCC Part 15.231(b)(2); 15.35(c); ANSI C63.4, Clause 13.1.4.2 – Duty Cycle

* Agilent 13:48:14



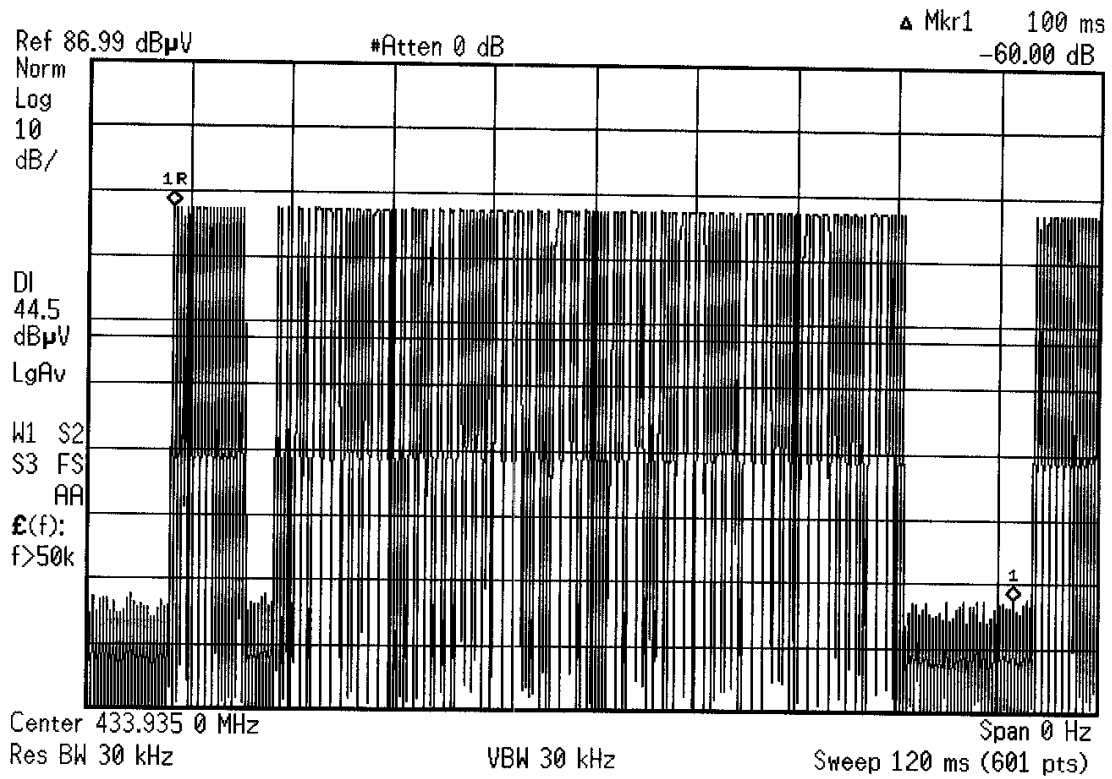
FCC Part 15.231(b)(2); 15.35(c); ANSI C63.4, Clause 13.1.4.2 – Duty Cycle

✱ Agilent 13:47:03



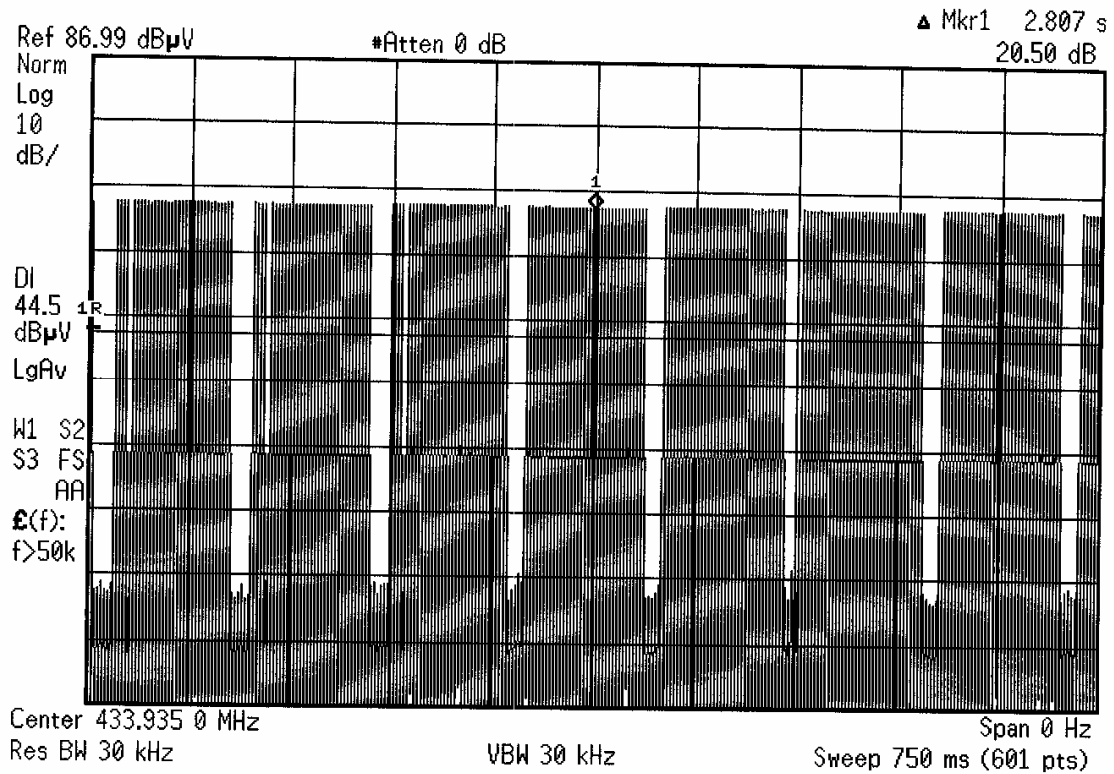
FCC Part 15.231(b)(2); 15.35(c); ANSI C63.4, Clause 13.1.4.2 – Duty Cycle

* **Agilent** 13:41:41



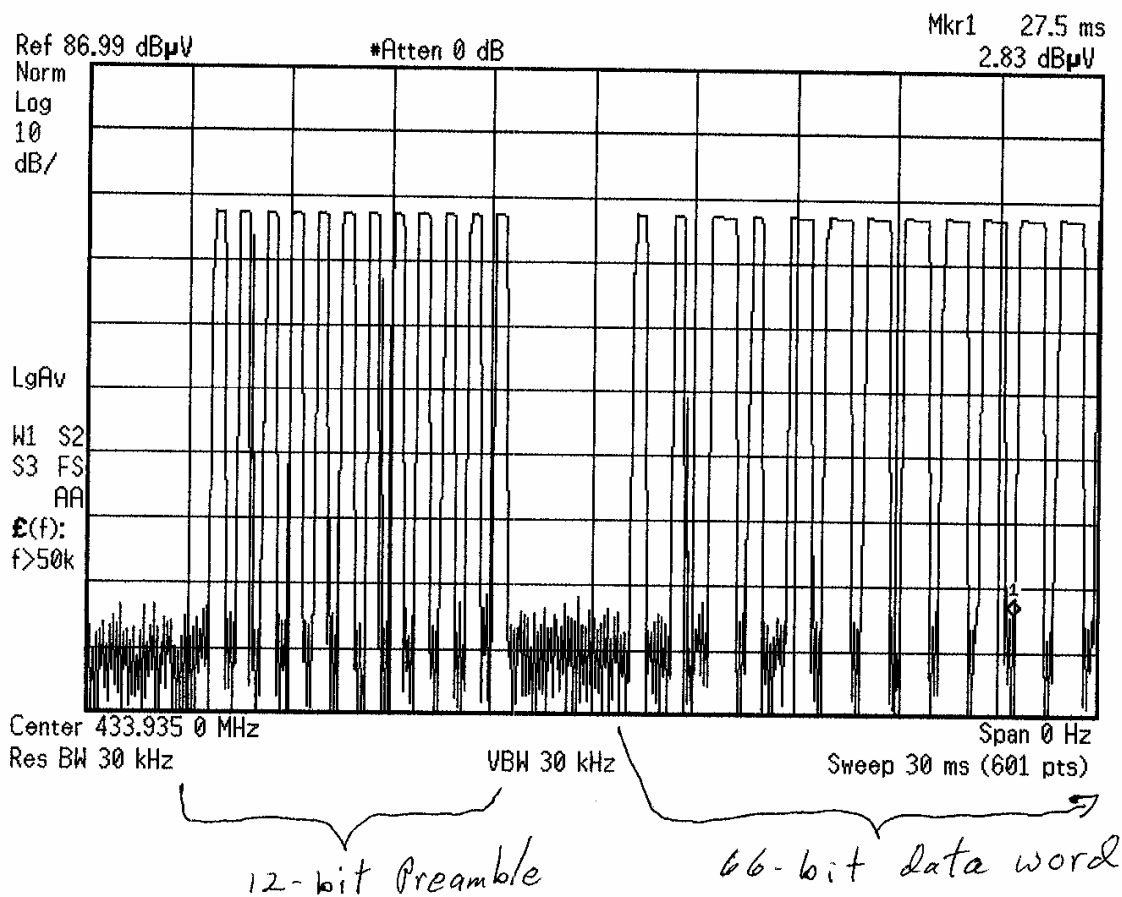
FCC Part 15.231(b)(2); 15.35(c); ANSI C63.4, Clause 13.1.4.2 – Duty Cycle

✱ **Agilent** 13:37:08



FCC Part 15.231(b)(2); 15.35(c); ANSI C63.4, Clause 13.1.4.2 – Duty Cycle (-5.35 dB)

* Agilent 13:44:59

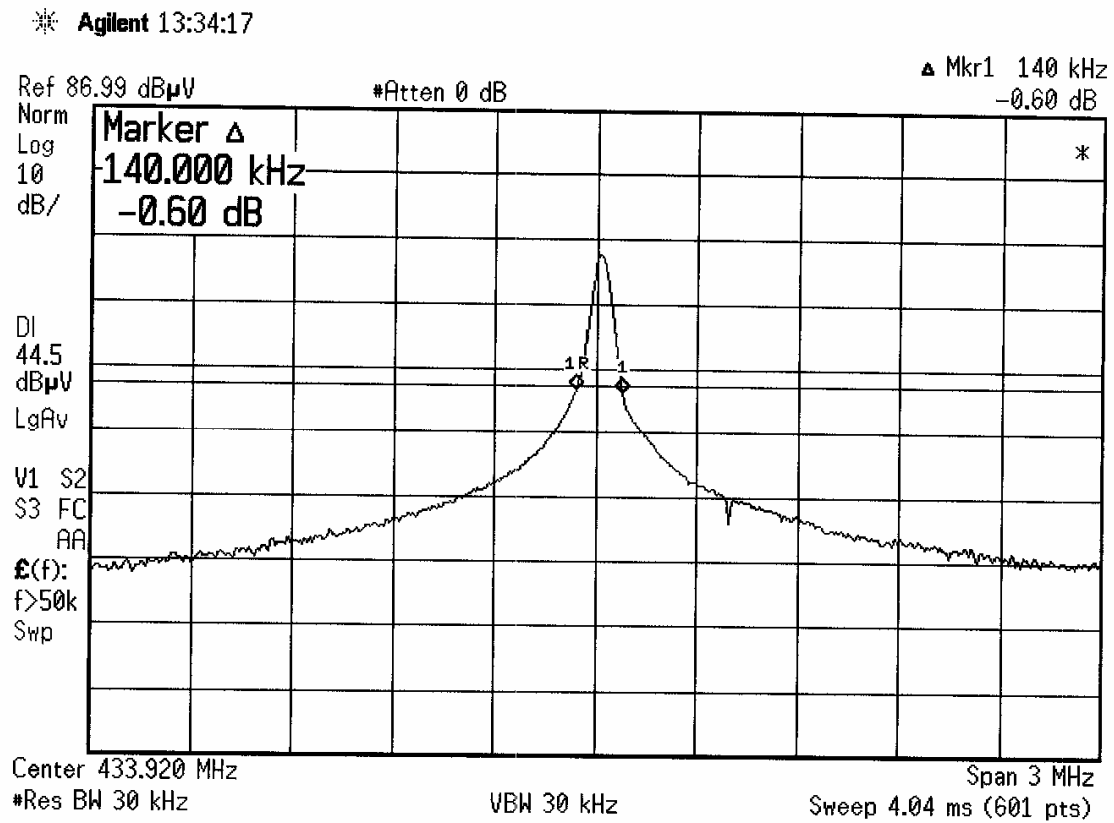


FCC Part 15.231(b) – Radiated Spurious

v.beta231

[illegible]

FCC Part 15.231(c) – Occupied Bandwidth



4.0 ATTESTATION STATEMENT

GENERAL REMARKS:

SUMMARY:

All tests were performed per CFR 47, Part(s) 15.231(a), 15.231(b), and 15.231(c).

■ - Performed

The Equipment Under Test

■ - **Fulfills** the requirements of CFR 47, Part(s) 15.231(a), 15.231(b) and 15.231(c).

Testing Start Date: 20 June 2006

Testing End Date: 20 June 2006

- TÜV AMERICA, INC. -

Reviewing Engineer:



Chuck Rickard
(EMC Engineer)

Test Engineer:



David Gray
(EMC Technician)