



**FCC CFR47 PART 15 SUBPART B
CLASS II PERMISSIVE CHANGE
CERTIFICATION TEST REPORT**

FOR

CB RADIO

MODEL NUMBER: JC-216H-51

FCC ID: AX292AJC216H

REPORT NUMBER: 06J10488-2B

ISSUE DATE: OCTOBER 10, 2006

Prepared for
**CLARION CO. LTD
50 KAMITODA, TODA
SAITAMA, 335-8511, JAPAN**

Prepared by
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NVLAP[®]
LAB CODE:200065-0

Revision History

Rev.	Date	Revisions	Revised By
---	10/03/06	Initial Issue	Thu
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: CLARION CO. LTD.
50 KAMITODA, TODA
SAITAMA, 335-8511, JAPAN

EUT DESCRIPTION: CB RADIO

MODEL: JC-216H-51

SERIAL NUMBER: 7

DATE TESTED: AUGUST 12-15 & OCTOBER 2, 2006

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 15 SUBPART B	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

Tested By:



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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 561F Monterey Road, Morgan Hill, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a CB Radio.

GENERAL INFORMATION

CHASSIS / ENCLOSURE MATERIAL	METAL
POWER REQUIREMENTS	13.8VDC CAR BATTERY
POWERLINE FILTER MANUFACTURER AND MODEL	N/A

5.2. CLASS II PERMISSIVE CHANGE DESCRIPTION

The major changes filed under this application are:

Change #1 To improve the alternator noise, RF PWB and Audio PWB have been changed.

Change #2 To increase TX oscillation stability, RF PWB has been changed.

Change #3 To minimize squelch sensitivity tolerance, RF PWB has been changed.

Change #4 To minimize standby current at power off mode, RF PWB and Audio PWB have been changed.

Change #5 To minimize TX oscillation distortion, RF PWB has been changed.

Change #6 To minimize RX radiation, RF PWB has been changed.

Change #7 The tentative component codes were replaced with official component codes.

Change #8 Added two EMI gaskets contacted between the gap of PCB metal bar and ground (Marker: Kitagawa_Manufacturing & Product Number: SHSG-020050)

5.3. SOFTWARE AND FIRMWARE

The EUT driver is manually operating with the Remote Controller.

5.4. MODIFICATIONS

No modifications were made during testing.

5.5. DETAILS OF TESTED SYSTEM

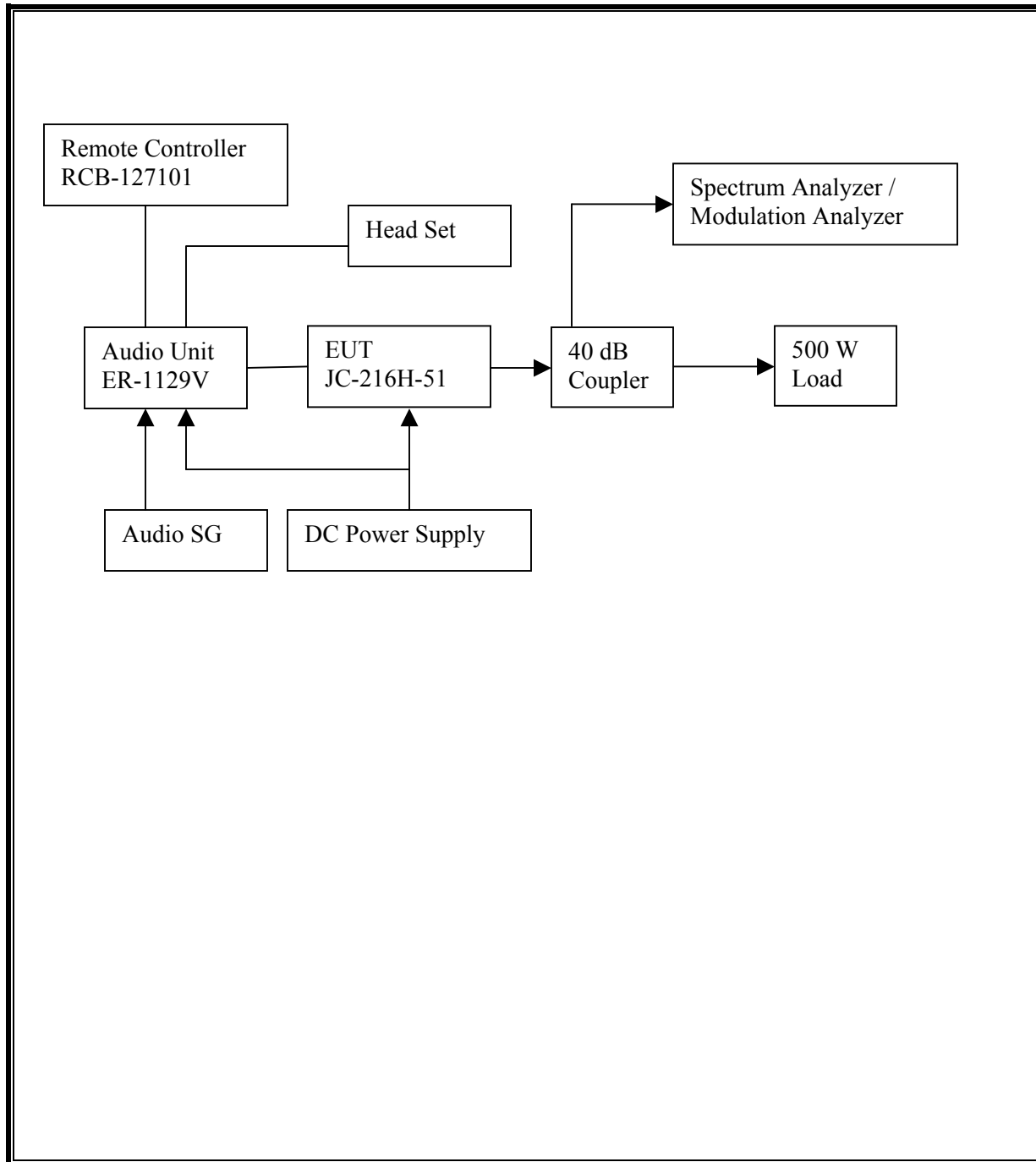
SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
Audio Unit	CLARION	ER-1129V	0004973	N/A
Remote Controller	N/A	RCB-127101	N/A	N/A
Head Set	N/A	N/A	N/A	N/A

TEST SETUP

The EUT is connected to Audio unit, Remote Controller, and all Test Equipment.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	Cal Due
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent	E4440A	MY44022875	4/19/2007
Function Generator	HP	3325A	2652A24749	5/10/2007
Modulation Analyzer	HP	8901B	3438A05272	1/2/2007
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	29800	6/12/2007
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A121003	9/3/2007
EMI Receiver, 9 kHz ~ 2.9 GHz	HP	8542E	3942A00286	2/4/2007
RF Filter Section	HP	85420E	3705A00256	2/4/2007
500 Watt Load	N/A	N/A	N/A	N/A
DC Power Supply	HP	E3610A	N/A	N/A
Directional Coupler, 500W, 40 dB, 1-1000 MHz	Werlatone	C6021	8576	2/2/2007

7. APPLICABLE LIMITS AND TEST RESULTS

7.1. ANTENNA POWER CONDUCTION LIMITS FOR RECEIVERS

LIMITS

With the receiver antenna terminal connected to a resistive termination equal to the impedance specified or employed for the antenna, the power at the antenna terminal at any frequency within the range of measurements specified in § 15.33 shall not exceed 2.0 nanowatts.

TEST PROCEDURE

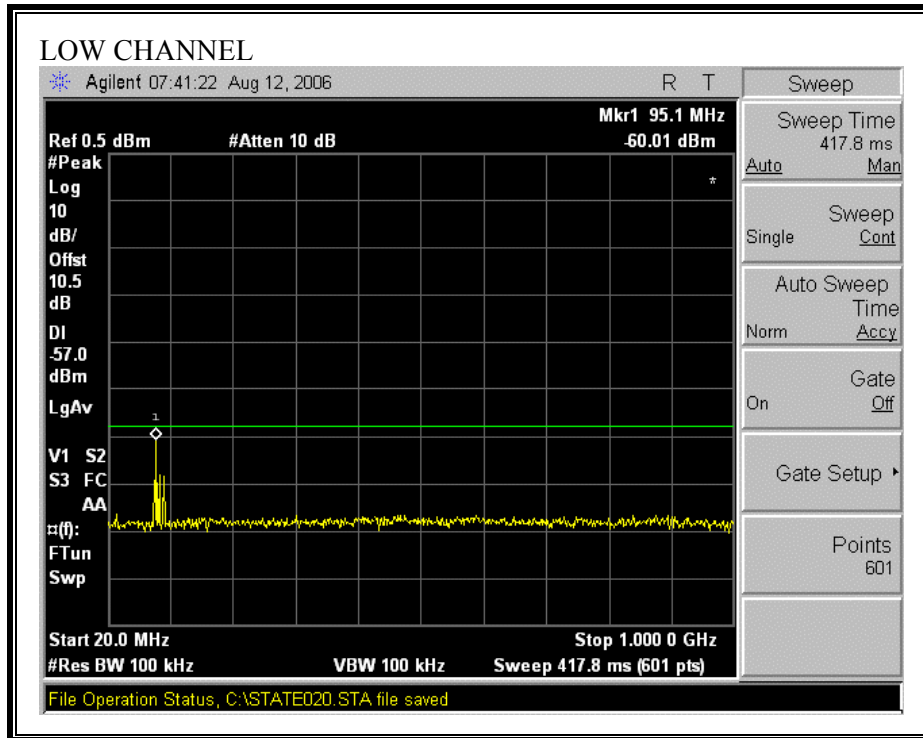
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to \geq RBW.

The spectrum from 30 MHz to 1 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

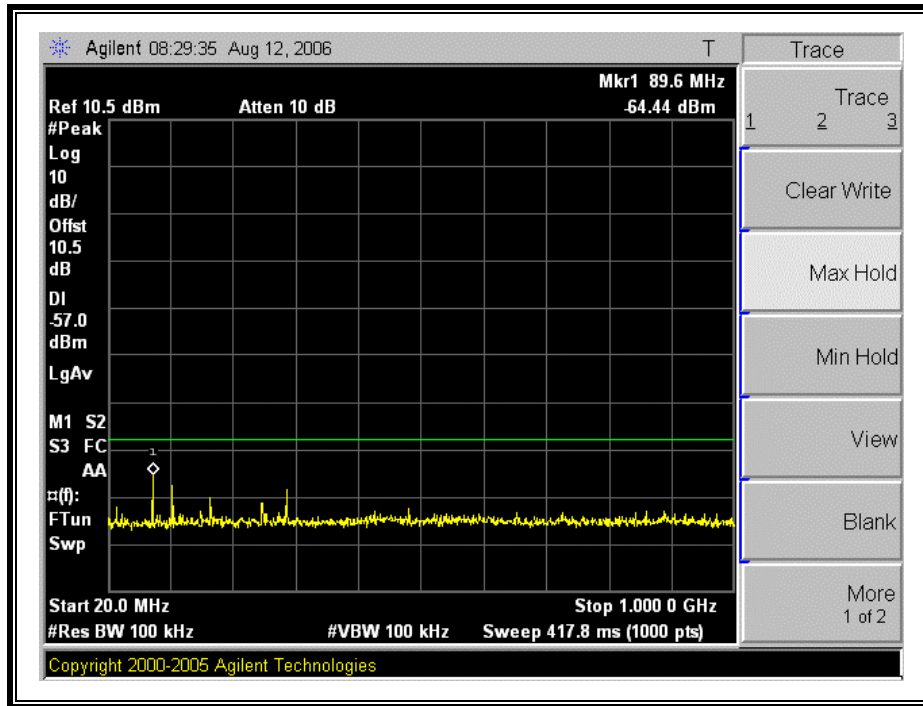
RESULTS

No non-compliance noted:

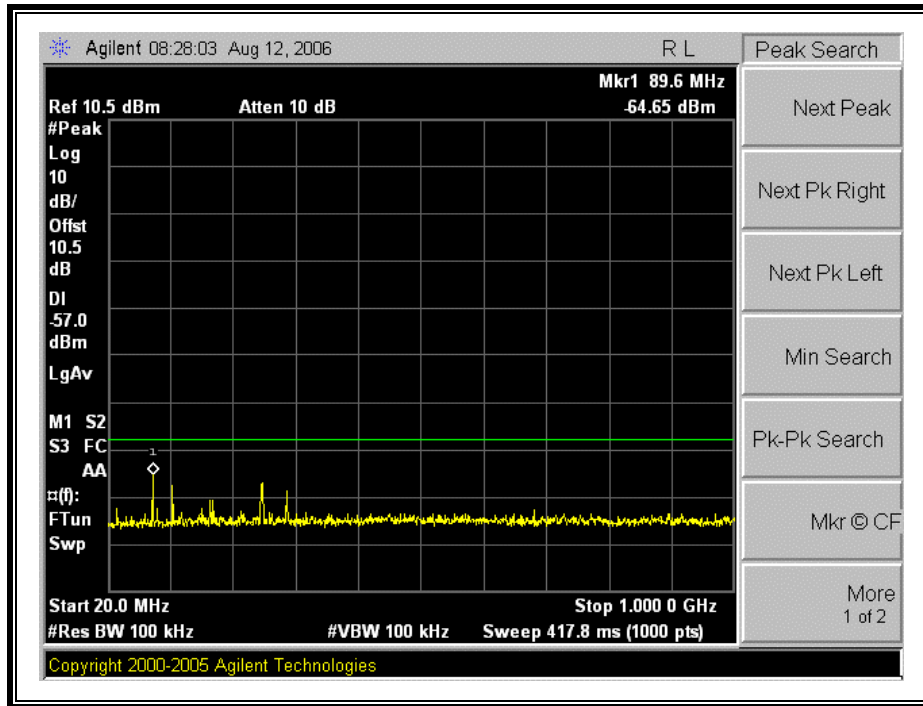
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.2. RADIATED EMISSIONS

TEST PROCEDURE

ANSI C63.4

The frequency range was investigated from 30 MHz to 1000 MHz.

LIMIT

§15.109 (a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

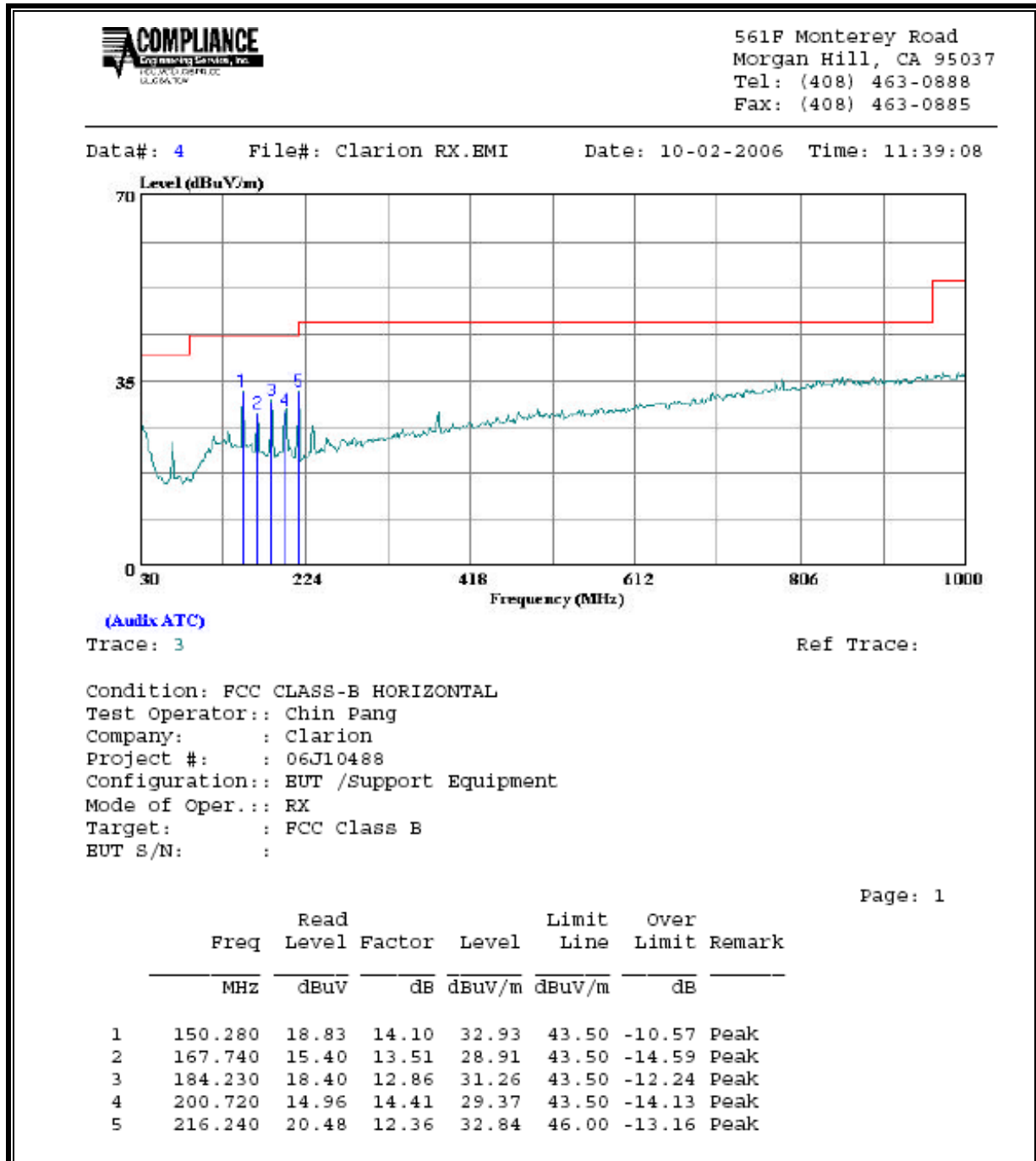
Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dB μ V/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960 MHz	54

Note: The lower limit shall apply at the transition frequency.

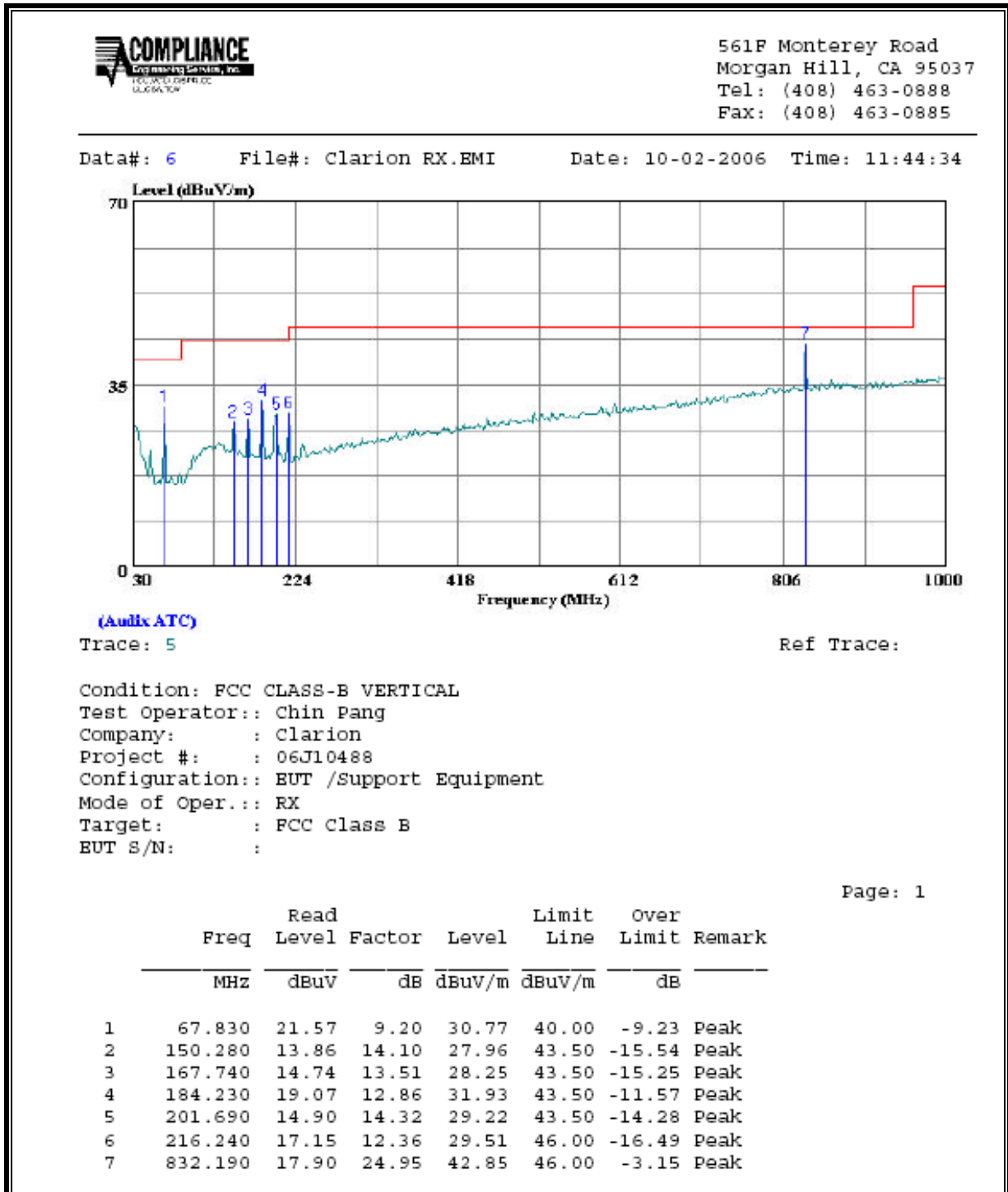
RESULTS

No non-compliance noted:

RECEIVER SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



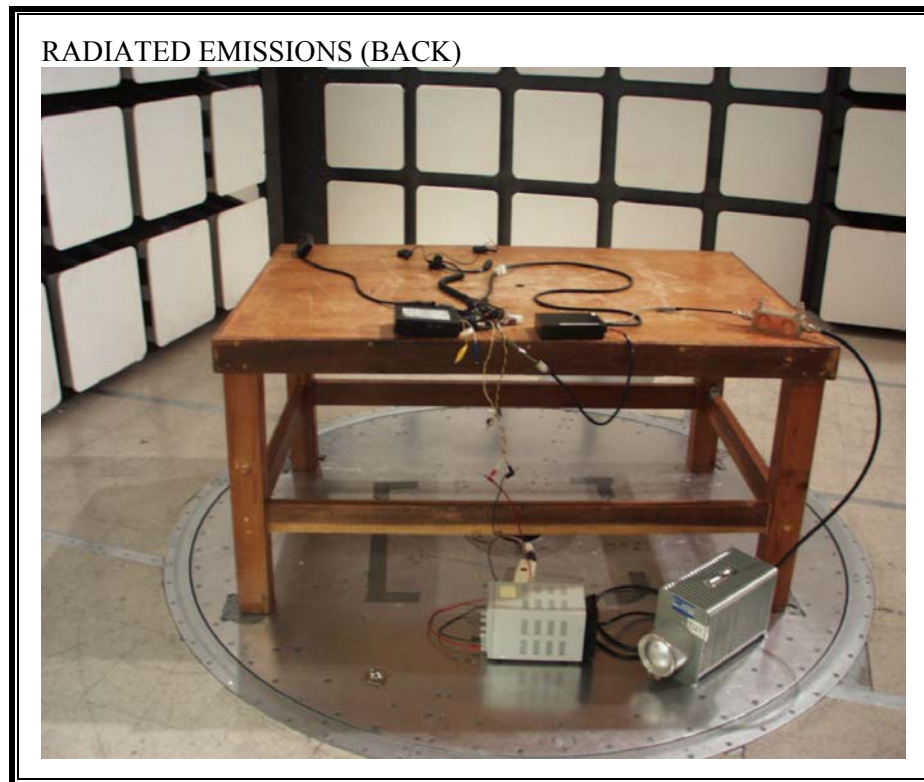
RECEIVER SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)



8. SETUP PHOTOS

RADIATED EMISSION





END OF REPORT