Lab Code: 200707-0

FCC PART 90 TYPE APPROVAL

EMI MEASUREMENT AND TEST REPORT

For

Shenzhen HYT Science & Technology Co., Ltd

HYT Tower, Shenzhen Hi-Tech Industrial Park North, Beihuan Rd., Nanshan District, Shenzhen, P.R.C.

FCC ID: R74TC-700U7

July 28, 2006

This Report Concerns: ☒ Original Report	**Equipment Type:** Two-way radio

Test Engineer:	Kamn Hu Deny Xiong
Report No.:	RSZ06070702
Test Date:	July 17-26, 2006
Reviewed By:	Boni Baniqued
Prepared By:	Bay Area Compliance Lab Corp. (ShenZhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China Tel: +86-755-33320018 Fax: +86-755-33320008

Note: The test report is specially limited to the above company and this particular sample only. It may not be duplicated without prior written consent of Bay Area Compliance Lab Corp. (ShenZhen). This report **must not** be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the US Government.

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *Shenzhen HYT Science & Technology Co., Ltd*'s product, model number: TC-700U(7) or the "EUT" as referred to in this report is a Two-way radio. The EUT is measured approximately 28.0 cm L x 6.5 cmW x 4.5 cmH, rated input voltage: DC 7.4 V battery.

** The test data gathered are from production sample, serial number: 0607006. Provided by the manufacturer, we received the EUT on 2006-7-7.*

Objective

This Type approval report is prepared on behalf of *Shenzhen HYT Science & Technology Co., Ltd* in accordance with Part 2, and Part 90 of the Federal Communication Commissions rules.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of federal Regulations Title 47 Part 2, Sub-part J as well as the following individual parts:

Part 90 – Private Land Mobile Radio Service

Applicable Standards: TIA/EIA 603-C and ANSI 63.4-2003, American National Standard for Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Lab Corp. (ShenZhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Lab Corp. (ShenZhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China.

Test site at Bay Area Compliance Lab Corp. (ShenZhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179 and Industrial Canada registration test site No.: 5500A. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Lab Corp. (ShenZhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm

SYSTEM TEST CONFIGURATION

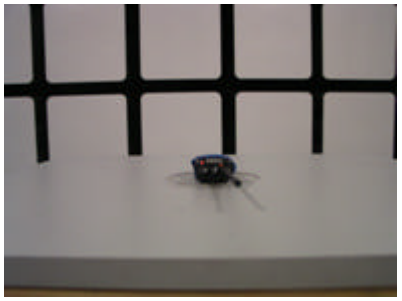
Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

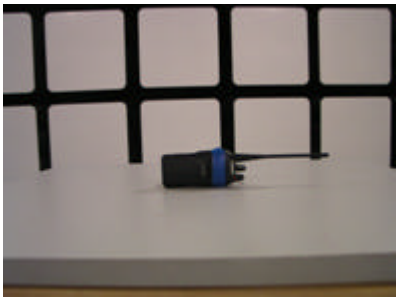
Equipment Modifications

Bay Area Compliance Lab Corp. (ShenZhen) has not done any modification on the EUT.

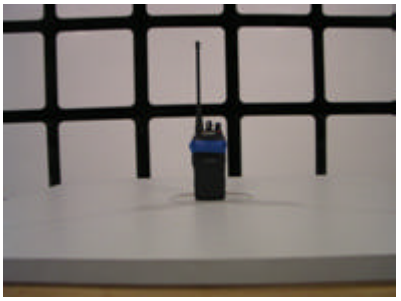
Configuration of Test Setup



Lie

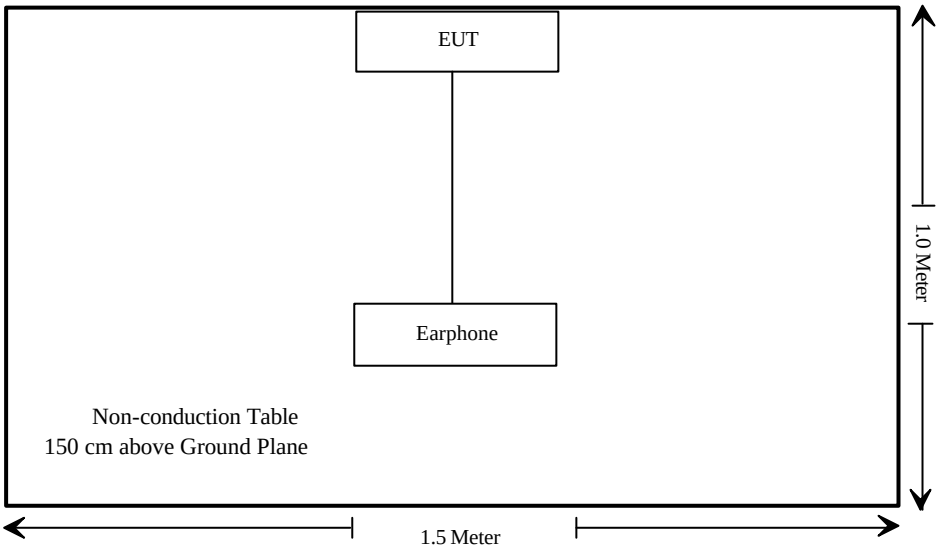


Side



Stand

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§1.1310 §2.1093	RF Exposure	Compliant, refer to SAR Report
§2.1046	Conducted Output Power	Compliant
§2.1046, §90.205	Radiated Output Power	Compliant
§2.1047 §90.207	Modulation Characteristic	Compliant
§2.1049, §90.209	Occupied Bandwidth	Compliant
§2.1051 §90.210	Spurious Emission at Antenna Terminal	Compliant
§ 2.1053 § 90.210	Spurious Radiated Emissions	Compliant
§ 2.1055 § 90.213	Frequency stability	Compliant
§ 90.214	Transient Frequency Behavior	Compliant

§2.1046 - CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §2.1046, and §90.205, maximum ERP is dependent upon the station's antenna HAAT and required service area.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde&Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17

*** Statement of Tractability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

Spectrum Analyzer Setting:

R B/W	Video B/W
100 kHz	300 kHz

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

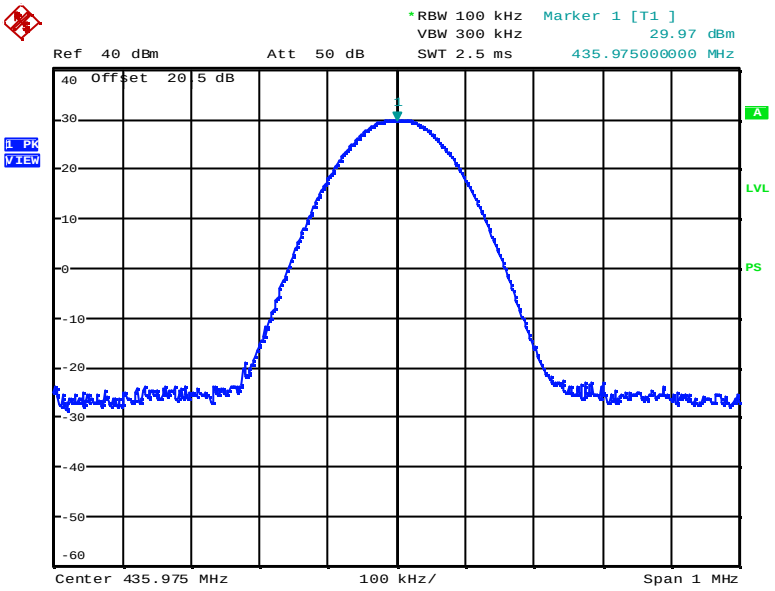
The testing was performed by Kamn Hu on 2006-7-18.

Test Result: Pass

Test Mode: Transmitting

Frequency Spacing (kHz)	Frequency (MHz)	Output Power in dBm	Output Power in Watt
Narrow 12.5	435.975	29.97	0.993
Wide 25.0	435.975	36.19	4.159

For Narrow 12.5kHz

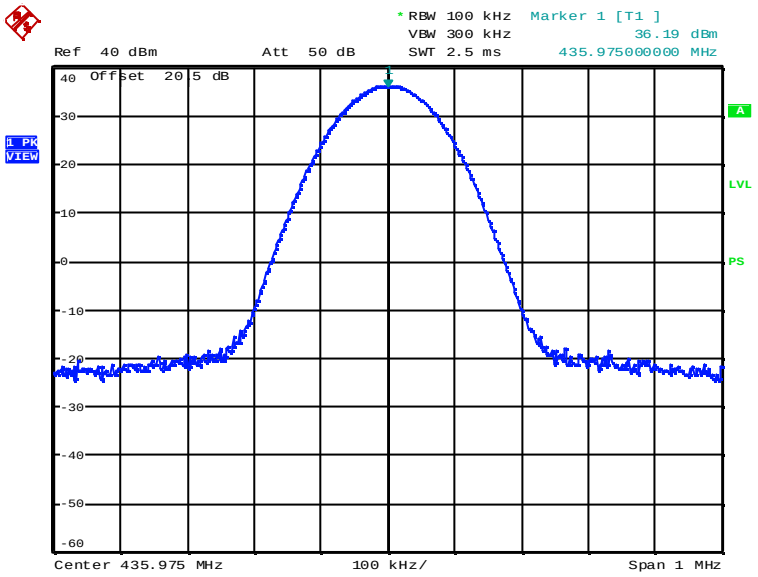


HYT Two-way radio M/N:TC-700U Conducted output power Narrow

Mid ch

Date: 18.JUL.2006 14:19:22

For Wideband 25KHz:



HYT Two-way radio M/N:TC-700U Conducted output power Wide Mi
d ch
Date: 18.JUL.2006 14:14:51

§2.1046, and §90.205 – RADIATED OUTPUT POWER

Applicable Standard

According to FCC §2.1046, and §90.205, maximum ERP is dependent upon the station's antenna HAAT and required service area.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
SUNOL SCIENCES	Horn Antenna	DRH-118	A052604	2005-7-20	2006-7-20
SUNOL SCIENCES	Broadband Antenna	JB1	A040904-1	2006-4-28	2007-4-28
SUNOL SCIENCES	Broadband Antenna	JB1	A040904-2	2006-4-28	2007-4-28
Agilent	Spectrum Analyzer	8564E	3943A01781	2005-12-8	2006-12-8
HP	Signal Generator	HP8657A	2849U00982	2006-2-28	2007-2-28
Giga-tronics	Signal Generator	1026	270801	2006-2-28	2007-2-28
A.H. System	Horn Antenna	SAS-200/571	135	2006-4-28	2007-4-28

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT .The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the ERP were measured by the substitution.

Absolute level = substituted level + Antenna gain – Cable Loss

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

The testing was performed by Deny Xiong on 2006-7-17.

Test Mode: Transmitting

12.5kHz Bandwidth:

Indicated		Table	Test Antenna		Substituted			Antenna Gain Correction	Cable Loss dB	FCC Part 90 Absolute Level	
Frequency MHz	Meter Reading dBuV	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V			dBm	W
Middle Channel											
435.975	100.98	148	1.62	V	435.975	35.34	V	0	4.85	30.49	1.1190
435.975	83.29	150	1.30	H	435.975	14.54	H	0	4.85	9.69	0.0093

25kHz Bandwidth:

Indicated		Table	Test Antenna		Substituted			Antenna Gain Correction	Cable Loss dB	FCC Part 90 Absolute Level	
Frequency MHz	Meter Reading dBuV	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V			dBm	W
Middle Channel											
435.975	106.63	148	1.62	V	435.975	40.44	V	0	4.85	35.59	3.622
435.975	91.33	150	1.3	H	435.975	22.64	H	0	4.85	17.79	0.060

§2.1047, and §90.207 - MODULATION CHARACTERISTIC

Applicable Standard

§ 2.1047 & § 90.207:

(a) Equipment which utilizes voice modulated communication shall show the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz. for equipment which is required to have a low pass filter, the frequency response of the filter, or all of the circuitry installed between the modulation limited and the modulated stage shall be supplied.

(b) Equipment which employs modulation limiting, a curve showing the percentage of modulation versus the modulation input voltage shall be supplied.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Modulation Analyzer	8901B	3438A05208	2006-2-28	2007-2-28
NANYAN	Audio Generator	NY2201	019829	2005-12-23	2006-12-23

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

Test Method: TIA/EIA-603 2.2.3

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

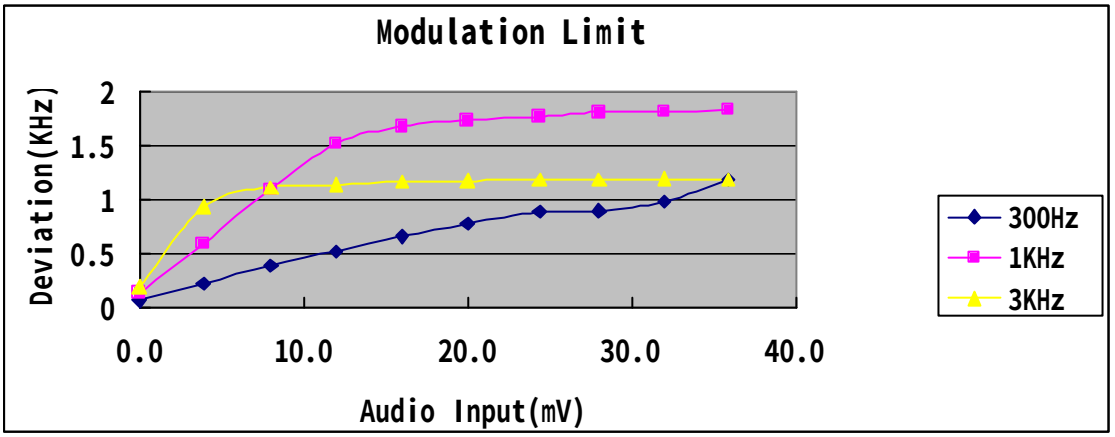
The testing was performed by Kamn Hu on 2006-7-26.

Test Result: Pass

Test Mode: Transmitting

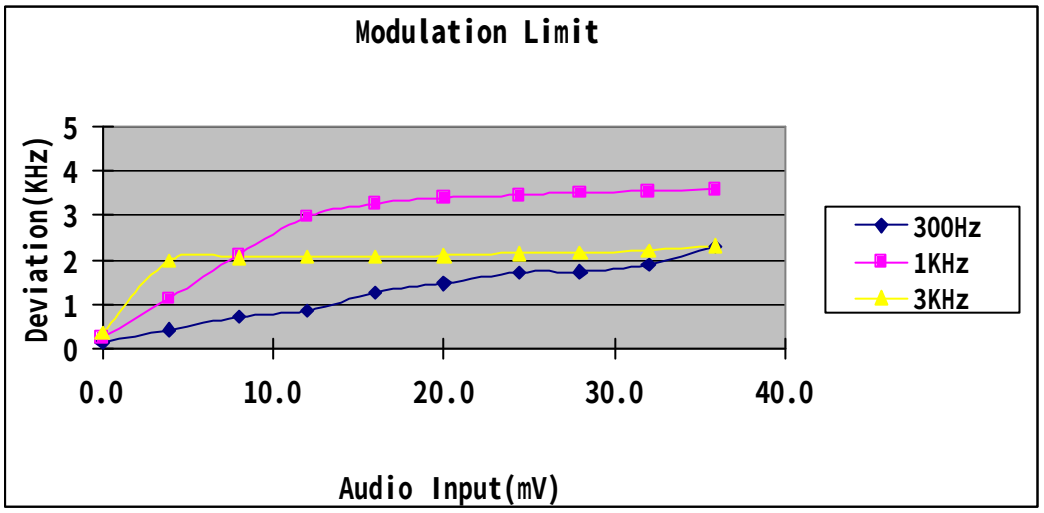
For 12.5 kHz Channel Bandwidth:

Audio Input (mV)	300Hz Deviation (kHz)	1kHz Deviation (kHz)	3kHz Deviation (kHz)
0.0	0.059	0.133	0.192
4.0	0.215	0.587	0.932
8.0	0.385	1.088	1.112
12.0	0.518	1.517	1.133
16.0	0.656	1.676	1.166
20.0	0.772	1.732	1.171
24.0	0.883	1.764	1.178
28.0	0.893	1.807	1.181
32.0	0.976	1.810	1.191
36.0	1.186	1.835	1.187

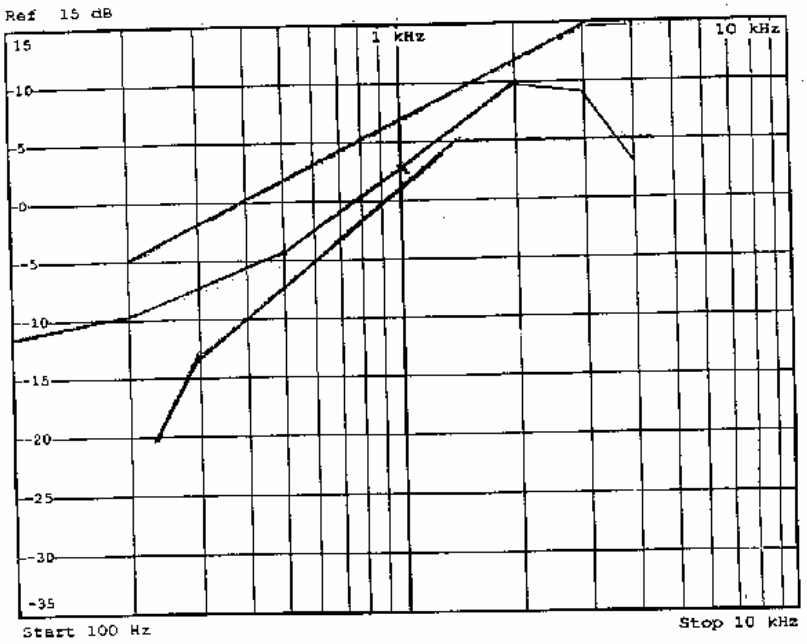


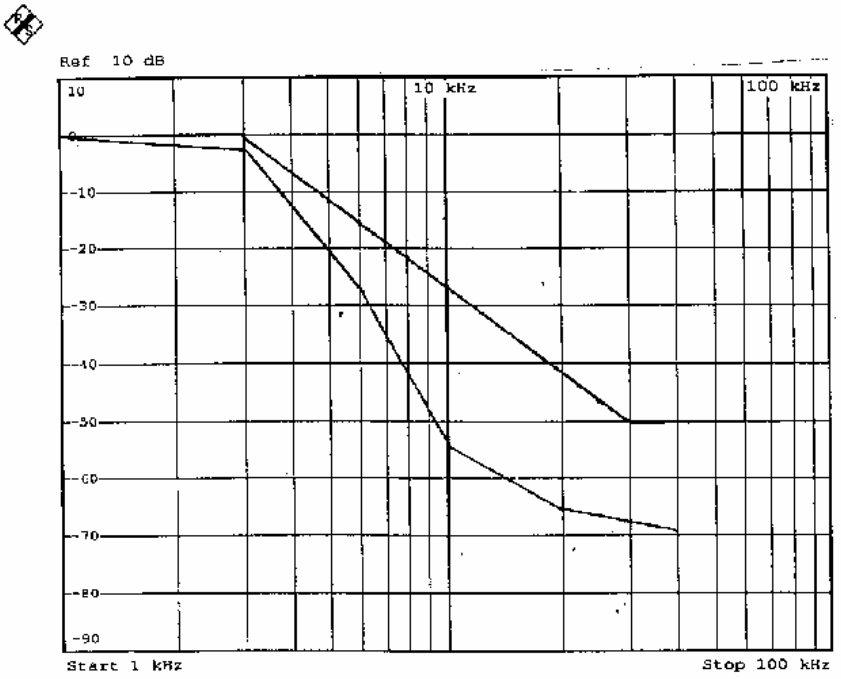
For 25 kHz Channel Bandwidth:

Audio Input (mV)	300Hz Deviation (kHz)	1kHz Deviation (kHz)	3kHz Deviation (kHz)
0	0.143	0.242	0.351
4	0.413	1.123	1.976
8	0.706	2.112	2.051
12	0.849	2.974	2.067
16	1.260	3.266	2.075
20	1.469	3.392	2.090
24	1.716	3.453	2.145
28	1.729	3.525	2.152
32	1.882	3.544	2.208
36	2.291	3.591	2.315



Audio Low Filter Characteristic:





§2.1049, and § 90.209 – OCCUPIED BANDWIDTH

Applicable Standard

§ 2.1049, § 90.209 and § 90.210

Emission Mask D—12.5 kHz channel bandwidth equipment. For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:

1) For any frequency removed from the center of the authorized bandwidth f_0 to 5.625kHz removed from f_0, 0dB.

2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5.626kHz but no more than 12.5kHz, at least 7.27 (f_d –2.88kHz) dB.

3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5kHz at least:

50+10logP=50+10log(1.119)=50.49 dB

Emission Mask B. For transmitters that are equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:

1) For any frequency removed from the center of the assigned channel by more than 50 percent up to and including 100 percent of the authorized bandwidth, at least 25 dB.

2) On any frequency removed from the center of the assigned channel by more than 100 percent up to and including 250 percent, at least 35 dB.

3) On any frequency removed from the center of the assigned channel by more than 250 percent at least:

43+10logP=43+10log(3.622)=48.59 dB

The resolution bandwidth was 300Hz or greater for measuring up to 250kHz from the edge of the authorized frequency segment, and 30kHz or greater for measuring more than 250kHz from the authorized frequency segment.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde&Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17
HP	Modulation Analyzer	8901B	3438A05208	2006-2-28	2007-2-28
NANYAN	Audio Generator	NY2201	019829	2005-12-23	2006-12-23

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The resolution bandwidth of the spectrum analyzer was set at 300 Hz and the spectrum was recorded in the frequency band ±50 KHz from the carrier frequency.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

The testing was performed by Kamn Hu on 2006-7-18, 2006-7-26.

Test Result: Pass.

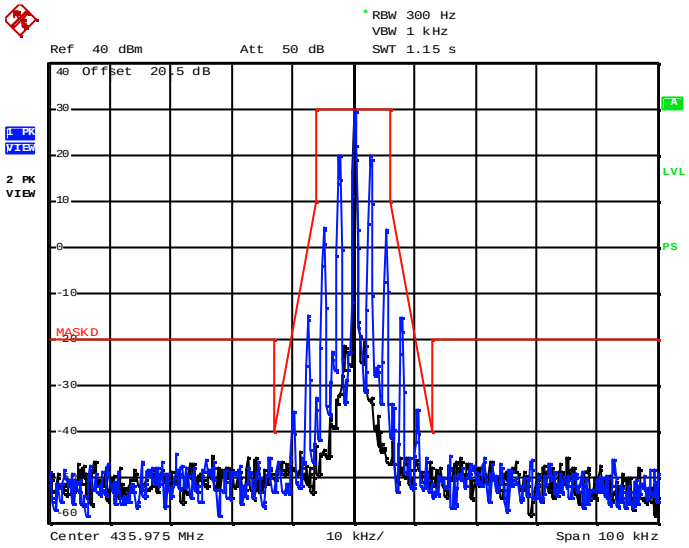
Test Mode: Transmitting

Please refer to the hereinafter plots.

Emission Designator:

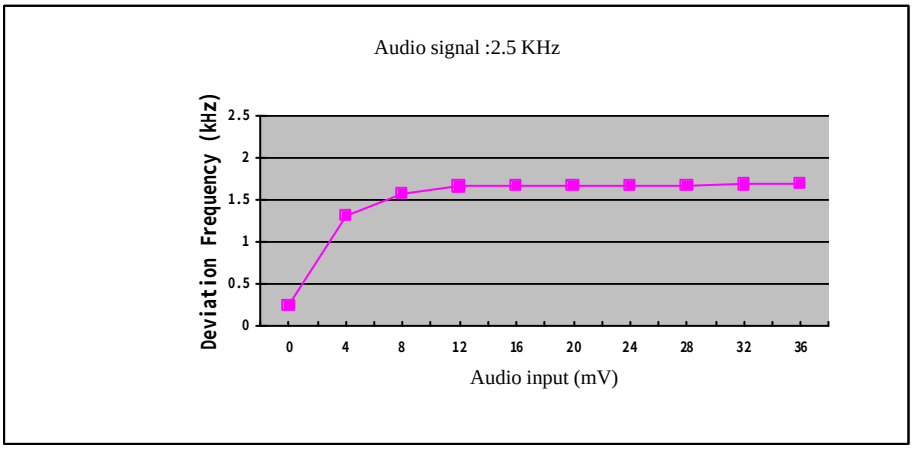
For 12.5KHz Channel Spacing: 2M+2D = 2x3+2x2.5 = 11K0F3E
For 25.0KHz Channel Spacing: 2M+2D = 2x3+2x5.0 = 16K0F3E

Emission Mask D for 12.5 KHz Channel Bandwidth:

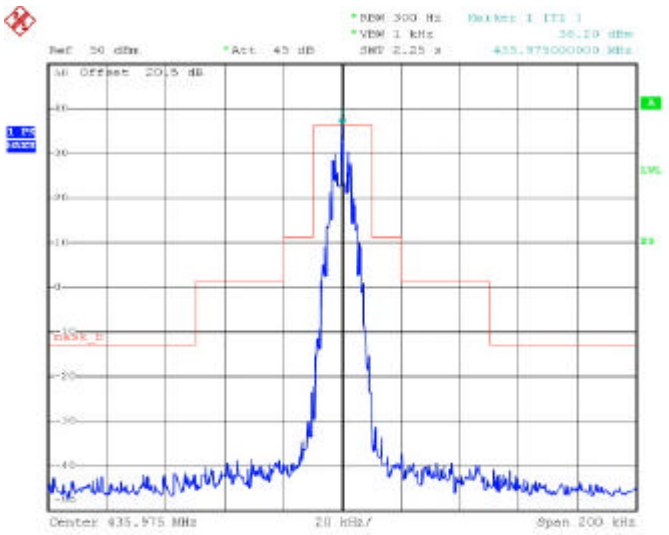


HYT Two-way radio M/N:TC-700U Emission mask Narrowband
Date: 18.JUL.2006 15:01:56

Audio input (mV)	Frequency Deviation (kHz)
0	0.240
4	1.315
8	1.576
12	1.659
16	1.661
20	1.667
24	1.669
28	1.671
32	1.682
36	1.684

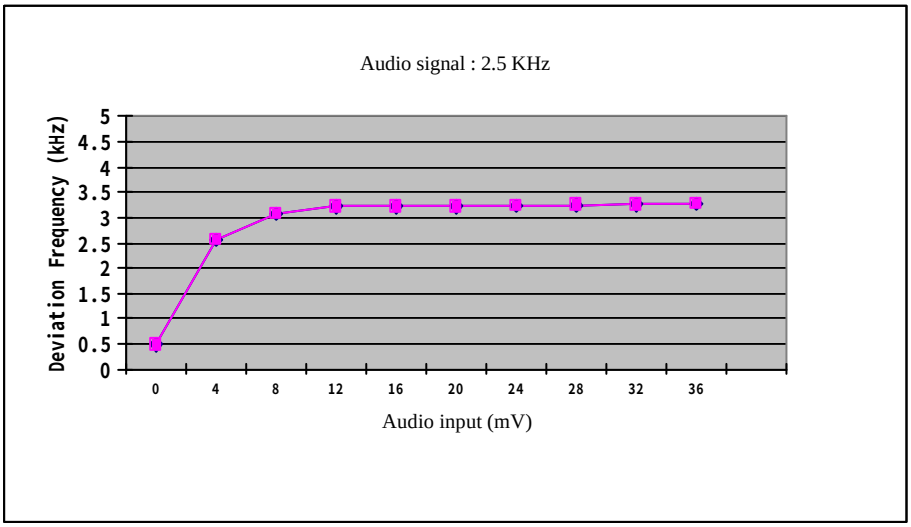


Emission Mask B For 25 KHz Channel Bandwidth:



HYT 700U MASK B
Date: 26.JUL.2006 15:27:56

Audio input (mV)	Frequency Deviation (kHz)
0	0.494
4	2.561
8	3.082
12	3.214
16	3.217
20	3.221
24	3.226
28	3.246
32	3.252
36	3.270



§2.1051 and §90.210 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

§ 90.210 (12.5kHz bandwidth only)

On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5kHz at least:

50+10logP=50+10log(1.119)=50.49 dB

§ 2.1051and § 90.210 (25kHz bandwidth and 20 kHz bandwith)

On any frequency removed from the center of the assigned channel by more than 250 percent at least:

43+10logP=43+10log(3.622)=48.59 dB

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde&Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17
Agilent	Spectrum Analyzer	8564E	3943A01781	2005-12-8	2006-12-8

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

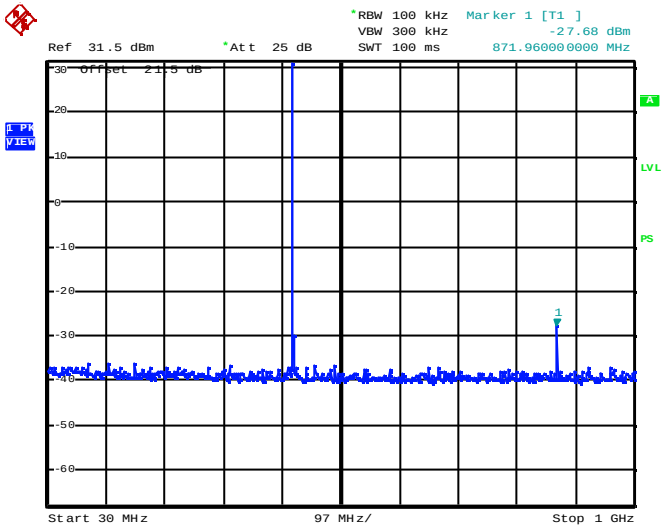
The testing was performed by Kamn Hu on 2006-7-18.

Test Result: Pass

Test Mode: Transmitting

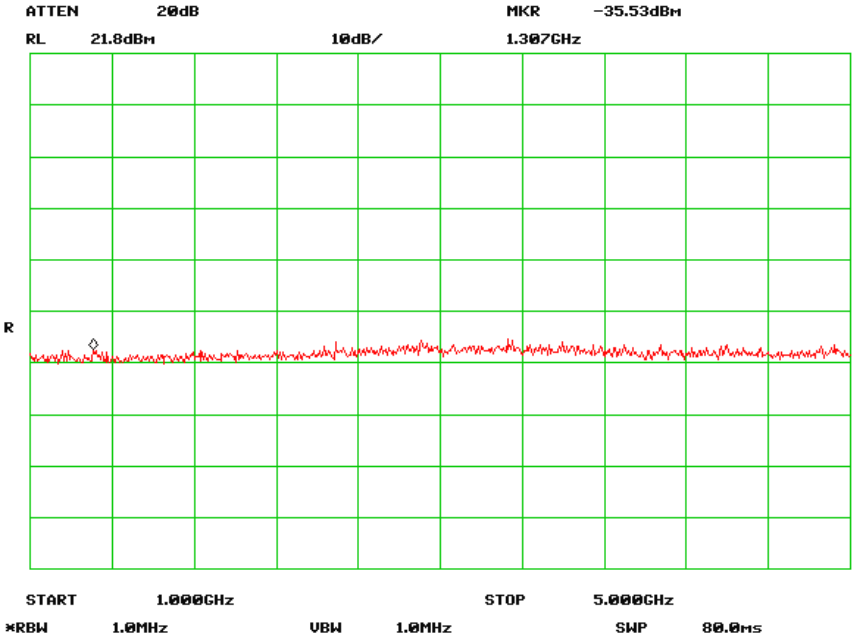
For 12.5KHz Channel bandwidth:

(30MHz-1GHz)



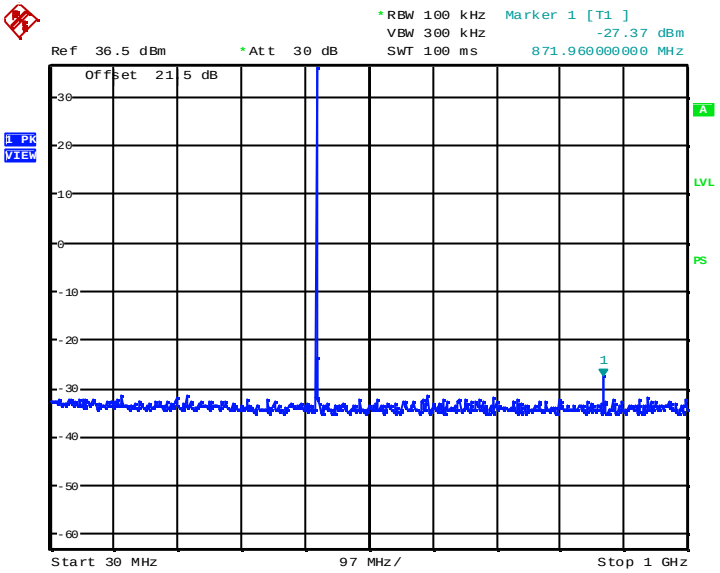
HYT Two-way radio M/N:TC-700 Spurious emission at antenna te
rminal Narrow Mid ch
Date: 18.JUL.2006 10:37:46

(1GHz-5GHz)



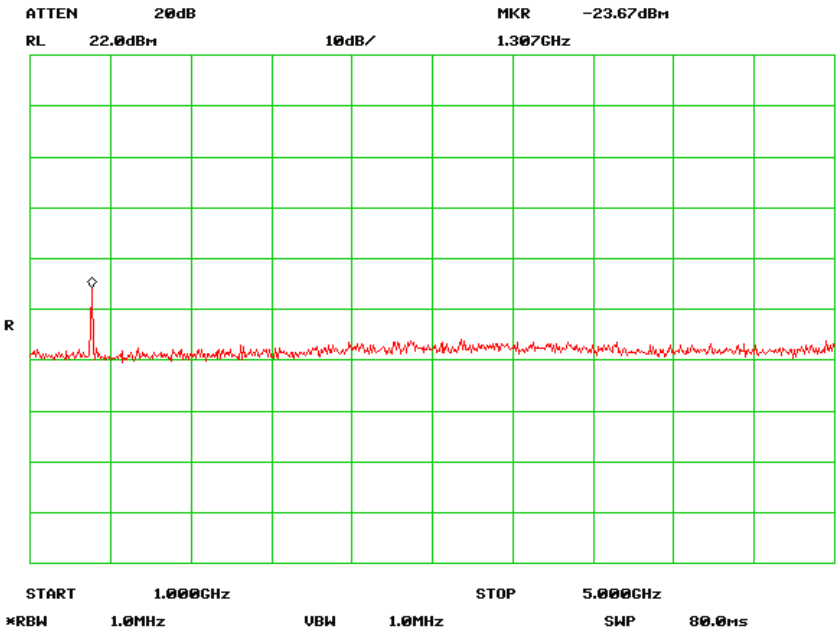
For 25 KHz Channel bandwidth:

(30MHz-1GHz)



HYT Two-way radio M/N:TC-700 Spurious emission at antenna te
rminal Mid ch
Date: 18.JUL.2006 10:33:20

(1GHz-5GHz)



§2.1053 and §90.210 - RADIATED SPURIOUS EMISSION

Applicable Standard

§2.1053 and § 90.210

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
SUNOL SCIENCES	Horn Antenna	DRH-118	A052604	2005-7-20	2006-7-20
SUNOL SCIENCES	Broadband Antenna	JB1	A040904-1	2006-4-28	2007-4-28
SUNOL SCIENCES	Broadband Antenna	JB1	A040904-2	2006-4-28	2007-4-28
Agilent	Spectrum Analyzer	8564E	3943A01781	2005-12-8	2006-12-8
HP	Signal Generator	HP8657A	2849U00982	2006-2-28	2007-2-28
Giga-tronics	Signal Generator	1026	270801	2006-2-28	2007-2-28
A.H. System	Horn Antenna	SAS-200/571	135	2006-4-28	2007-4-28

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT .The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =10 1g (TXpwr in Watts/0.001)-the absolute level

Spurious attenuation limit in dB =43+10 Log_{10} (power out in Watts)

Spurious attenuation limit in dB = 50 + 10 Log_{10} (power out in Watts) for EUT with a 12.5KHz channel bandwidth.

Test Results Summary

Middle Channel (Wide band): -19.25 dB at 871.950 MHz
Middle Channel (Narrow band): -11.95 dB at 871.950 MHz

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

The testing was performed by Kamn Hu on 2006-7-26.

Test Mode: Transmitting

Indicated		Table	Test Antenna		Substituted			Antenna Gain Correction	Cable Loss dB	Absolute Level	FCC Part 90	
Frequency MHz	Meter Reading dBuV	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V			dBm	Limit dBm	Margin
Middle Channel (Wide band)												
871.950	45.38	180	1.6	V	871.950	-25.0	V	0	7.25	-32.25	-13	-19.25
871.950	36.57	350	1.2	H	871.950	-31.5	H	0	7.25	-38.75	-13	-25.75
1307.925	61.05	147	1.5	V	1307.925	-54.2	V	6.2	0.49	-48.49	-13	-35.49
1743.900	55.06	258	1.2	V	1743.900	-57.8	V	6.1	0.43	-52.13	-13	-39.13
1307.925	57.75	280	1.6	H	1307.925	-62.2	H	6.2	0.49	-56.49	-13	-43.49
1743.900	50.49	59	1.9	H	1743.900	-67.0	H	6.1	0.43	-61.33	-13	-48.33
2615.850	49.22	125	1.6	H	2615.850	-68.9	H	7.0	0.38	-62.28	-13	-49.28
3051.825	46.57	250	1.4	H	3051.825	-71.4	H	7.4	0.45	-64.45	-13	-51.45
2179.875	48.91	360	1.4	V	2179.875	-71.2	V	7.0	0.32	-64.52	-13	-51.52
2179.875	46.82	63	1.4	H	2179.875	-71.6	H	7.0	0.32	-64.92	-13	-51.92
2615.850	47.37	258	1.6	V	2615.850	-72.4	V	7.0	0.38	-65.78	-13	-52.78
3051.825	45.38	293	1.5	V	3051.825	-73.6	V	7.4	0.45	-66.65	-13	-53.65

Indicated		Table	Test Antenna		Substituted			Antenna Gain Correction	Cable Loss dB	Absolute Level	FCC Part 90	
Frequency MHz	Meter Reading dBuV	Angle Degree	Height Meter	Polar H/V	Frequency MHz	Level dBm	Polar H/V			dBm	Limit dBm	Margin
Middle Channel (Narrow band)												
871.950	41.77	274	1.5	V	871.950	-24.7	V	0	7.25	-31.95	-20	-11.95
871.950	36.53	350	1.2	H	871.950	-31.5	H	0	7.25	-38.75	-20	-18.75
1743.900	49.58	65	1.3	V	1743.900	-64.9	V	6.1	0.43	-59.23	-20	-39.23
1307.925	50.93	147	1.8	V	1307.925	-65.2	V	6.2	0.49	-59.49	-20	-39.49
1743.900	50.06	15	1.5	H	1743.900	-67.3	H	6.1	0.43	-61.63	-20	-41.63
2179.875	47.57	324	1.2	H	2179.875	-70.2	H	7.0	0.32	-63.52	-20	-43.52
1307.925	51.49	280	1.6	H	1307.925	-69.3	H	6.2	0.49	-63.59	-20	-43.59
2615.850	47.56	162	1.6	H	2615.850	-70.4	H	7.0	0.38	-63.78	-20	-43.78
2179.875	46.38	136	1.6	V	2179.875	-73.5	V	7.0	0.32	-66.82	-20	-46.82
2615.850	45.39	257	1.8	V	2615.850	-74.2	V	7.0	0.38	-67.58	-20	-47.58

§2.1055 (d) and §90.213 - FREQUENCY STABILITY

Applicable Standard

§ 2.1055 (d)

§ 90.213
For output power > 2 watts, the limit is 5.0ppm.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
WUHUAN	Temperature & Humidity Chamber	HTP205	20021115	2006-1-2	2007-1-2
Hewlett-Packard	Frequency Counter	5342A	2317A08289	2006-1-26	2007-1-26

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a f Spectrum Analyzer via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the counter.

The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85% to 115% of the nominal value for other than hand carried battery equipment.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

The testing was performed by Kamn Hu on 2006-7-17.

Test Result: Pass

Test Mode: Transmitting

For 12.5KHz Channel Spacing

Reference Frequency: 435.975000MHz, Limit: 2.5 ppm			
Environment Temperature	Power Supplied	Frequency Measure with Time Elapsed	
(° C)	(Vdc)	MCF (MHz)	PPM Error
50	7.4	435.974833	-0.38
40	7.4	435.974898	-0.23
30	7.4	435.974951	-0.11
20	7.4	435.974974	-0.06
10	7.4	435.974953	-0.11
0	7.4	435.974922	-0.18
-10	7.4	435.974886	-0.26
-20	7.4	435.974862	-0.32
-30	7.4	435.974858	-0.33

Frequency Stability Versus Input Voltage

Reference Frequency: 435.975000 MHz, Limit: 2.5 ppm		
Power Supplied (Vdc)	Frequency Measure with Time Elapsed	
	Frequency (MHz)	PPM Error
6.3	435.974961	-0.09
8.5	435.974963	-0.08

For 25KHz Channel spacing:

Reference Frequency:435.975000 MHz, Limit:5.0 ppm			
Environment Temperature	Power Supplied	Frequency Measure with Time Elapsed	
(° C)	(Vdc)	MCF (MHz)	PPM Error
50	7.4	435.974802	-0.45
40	7.4	435.974841	-0.36
30	7.4	435.974879	-0.28
20	7.4	435.974981	-0.04
10	7.4	435.974943	-0.13
0	7.4	435.974911	-0.20
-10	7.4	435.974872	-0.29
-20	7.4	435.974837	-0.37
-30	7.4	435.974818	-0.42

Frequency Stability Versus Input Voltage

Reference Frequency: 435.975000 MHz, Limit: 5.0 ppm		
Power Supplied	Frequency Measure with Time Elapsed	
(Vdc)	Frequency (MHz)	PPM Error
6.3	435.974923	-0.18
8.5	435.974927	-0.16

§90.214 - TRANSIENT FREQUENCY BEHAVIOR

Applicable Standard

§ 90.214

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
TEKTRONIX	Digital Phosphor Oscilloscope	TDS 7104	B020518	2006-1-24	2007-1-24
HP	Modulation Analyzer	8901B	3438A05208	2006-2-28	2007-2-28
HP	Signal Generator	HP8657A	2849U00982	2006-2-28	2007-2-28

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

TIA/EIA-603 2.2.19

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	1005mbar

The testing was performed by Kamn Hu on 2006-7-19.

Test Result: Pass

Test Mode: Transmitting

For 12.5KHz Channel spacing:

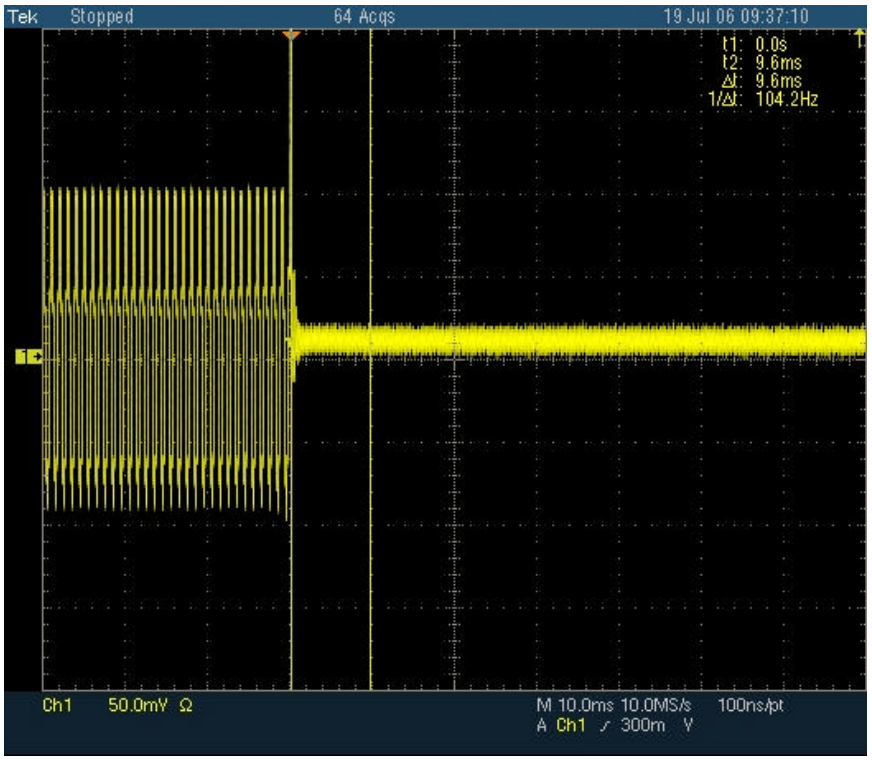
Operation Frequency (MHz)	Channel Separation (kHz)	Transient Period (ms)	Transient Frequency	Result
435.975	12.5	<10	+/-12.5 kHz	Pass
		<25	+/-6.25 kHz	
		<10	+/-12.5 kHz	

For 25KHz Channel spacing:

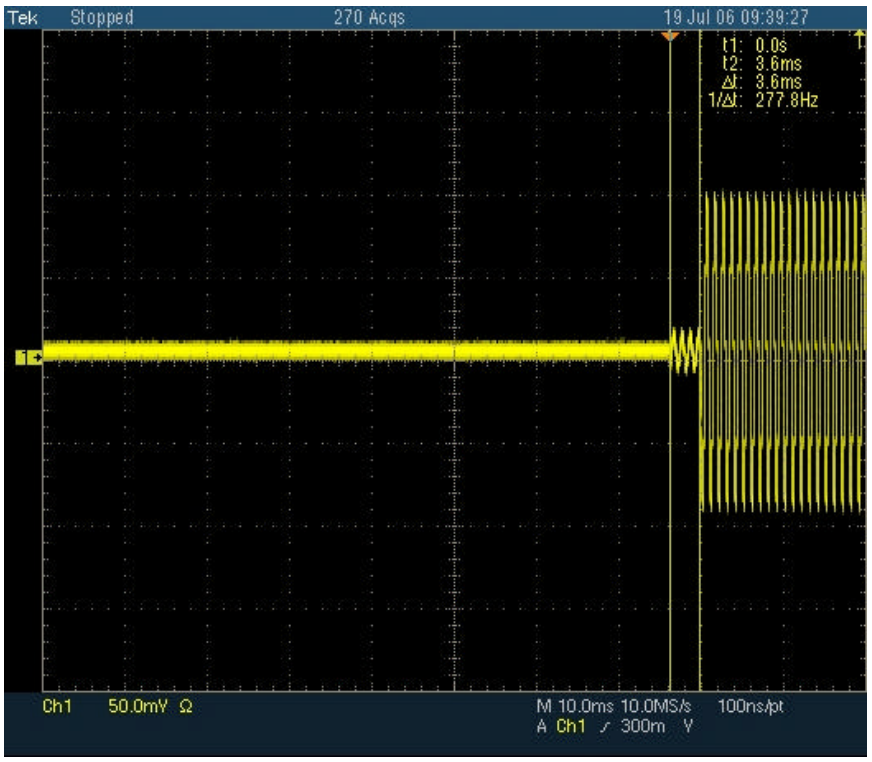
Operation Frequency (MHz)	Channel Separation (kHz)	Transient Period (ms)	Transient Frequency	Result
435.975	25	<10	+/-25.0 kHz	Pass
		<25	+/-12.5 kHz	
		<10	+/-25.0kHz	

For 12.5KHz Channel spacing

Turn on

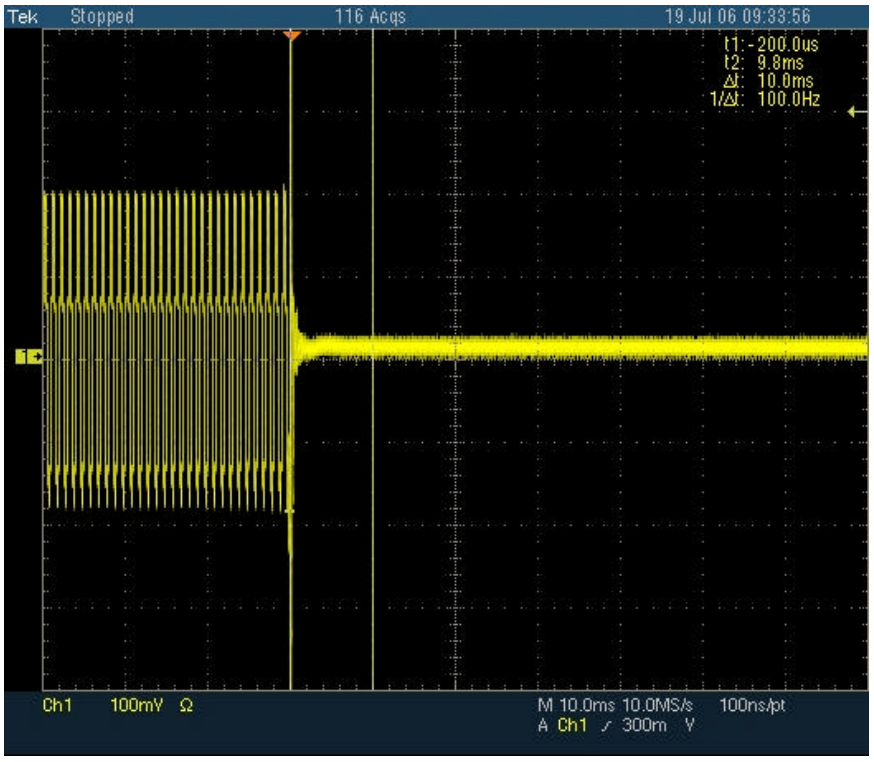


Turn off

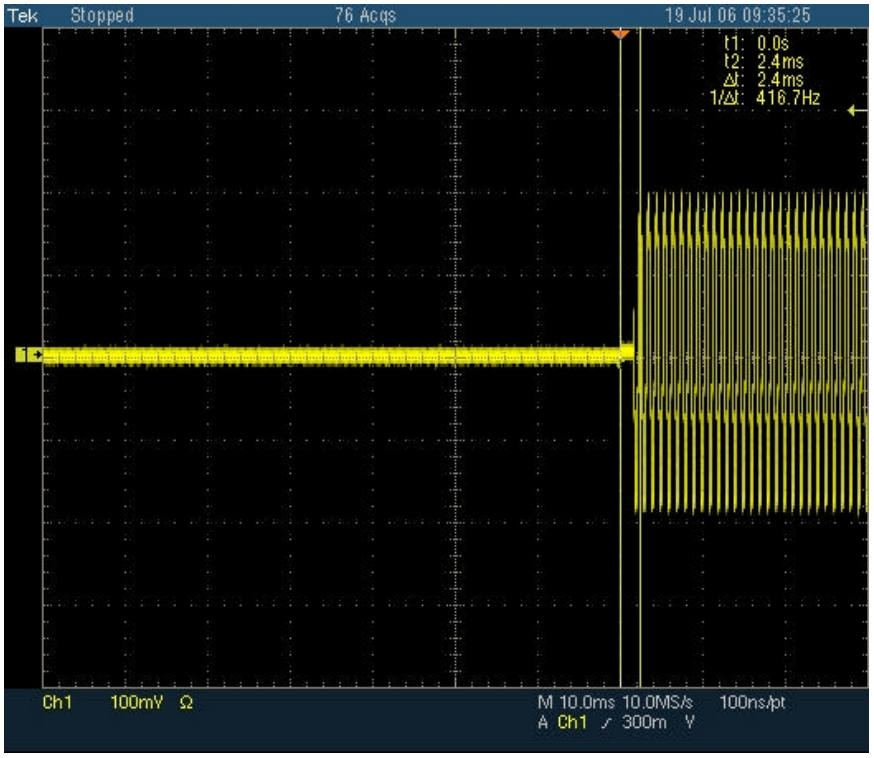


For 25KHz Channel spacing

Turn on



Turn off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t2: 2.4ms
Δt: 2.4ms
1/Δt: 416.7Hz
Ch1 100mV Ω
M 10.0ms 10.0MS/s 100ns/pt
A Ch1 ⟋ 300m V