



FCC PART 90 TEST REPORT

For

Hytera Communications Corporation Ltd.

HYT Tower, Hi-Tech Industrial Park North, Nanshan District, Shenzhen, China.

FCC ID: YAMDS-6210

Report Type: **Product Type:** DMR Trunking base station Original Report leon then **Test Engineer:** Leon Chen **Report Number:** R1DG111202003-00 **Report Date:** 2012-02-23 Merry Zhao **Reviewed By: EMC Engineer Test Laboratory:** Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

Note: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, NIST, or any agency of the Federal Government. * This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

TABLE OF CONTENTS

GENERAL INFORMATION	
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) OBJECTIVE	
RELATED SUBMITTAL(S)/GRANT(S)	
TEST METHODOLOGY	3
TEST FACILITY	3
SYSTEM TEST CONFIGURATION	5
DESCRIPTION OF TEST CONFIGURATION	5
EQUIPMENT MODIFICATIONS	
BLOCK DIAGRAM OF TEST SETUP	5
SUMMARY OF TEST RESULTS	
FCC §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)	
APPLICABLE STANDARD	
FCC §2.1046 & §90.205- RF OUTPUT POWER	
APPLICABLE STANDARD	
TEST EQUIPMENT LIST AND DETAILS	8
TEST PROCEDURE	
TEST DATA	
FCC §2.1049, §90.209 & §90.210 – OCCUPIED BANDWIDTH & EMISSION MASK	
APPLICABLE STANDARD	
TEST EQUIPMENT LIST AND DETAILS	
TEST DATA	
FCC §2.1051 & §90.210 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS	
Applicable Standard	
TEST EQUIPMENT LIST AND DETAILS	
TEST PROCEDURE	
TEST DATA	16
FCC §2.1053 & §90.210 - RADIATED SPURIOUS EMISSIONS	19
APPLICABLE STANDARD	
TEST EQUIPMENT LIST AND DETAILS	
TEST PROCEDURE	
TEST DATA	
FCC §2.1055 & §90.213- FREQUENCY STABILITY	
APPLICABLE STANDARD TEST EQUIPMENT LIST AND DETAILS	
TEST PROCEDURE	
TEST DATA	
FCC §90.214 - TRANSIENT FREQUENCY BEHAVIOR	23
APPLICABLE STANDARD	
TEST EQUIPMENT LIST AND DETAILS	23
TEST PROCEDURE	
TECT DATA	2/

GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The Hytera Communications Corporation Ltd.'s product, model number: DS-6210 (FCC ID: YAMDS-6210) (the "EUT") in this report is a DMR Trunking base station, which was measured approximately 152 cm(H) x 60 cm(W) x 60 cm(D), rated input voltage: AC 120V/60Hz.

Report No.: R1DG111202003-00

* All measurement and test data in this report was gathered from production sample serial number: 1112024 (Assigned by BACL, Shenzhen). The EUT was received on 2011-12-02.

Objective

This test report is prepared on behalf of *Hytera Communications Corporation 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 603-D and ANSI 63.4-2009.

All emissions measurement was performed and Bay Area Compliance Laboratories 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 Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories 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 December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

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

FCC Part 90 Page 3 of 25

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at http://ts.nist.gov/Standards/scopes/2007070.htm.

FCC Part 90 Page 4 of 25

SYSTEM TEST CONFIGURATION

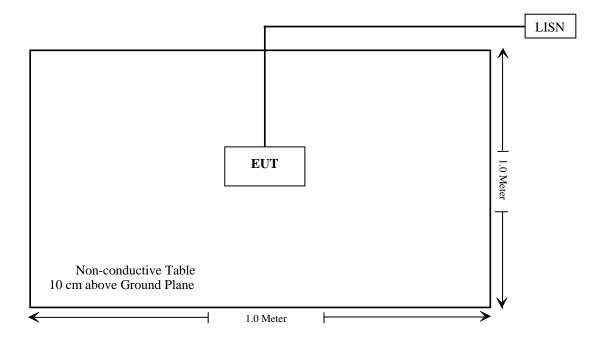
Description of Test Configuration

The system was configured for testing in a test mode which has been done in the factory.

Equipment Modifications

No modifications were made to the unit tested.

Block Diagram of Test Setup



FCC Part 90 Page 5 of 25

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§1.1307 (b) (1); §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§2.1046; §90.205	RF Output Power	Compliance
§2.1047; §90.207	Modulation Characteristic	Not Applicable
\$2.1049; \$90.209; \$90.210	Occupied Bandwidth & Emission Mask	Compliance
§2.1051; §90.210	Spurious Emission at Antenna Terminal	Compliance
§2.1053; §90.210	Spurious Radiated Emissions	Compliance
§2.1055; §90.213	Frequency Stability	Compliance
§90.214	Transient Frequency Behavior	Compliance

Note: The uncertainty of any RF tests which use conducted method measurement is ±0.96 dB.

The uncertainty of any radiation emissions measurement is ± 4.0 dB.

FCC Part 90 Page 6 of 25

FCC §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

	Limits for General Population/Uncontrolled Exposure						
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)			
0.3-1.34	614	1.63	*(100)	30			
1.34-30	824/f	2.19/f	$*(180/f^2)$	30			
30-300	27.5	0.073	0.2	30			
300-1500	/	/	f/1500	30			
1500-100,000	/	/	1.0	30			

f = frequency in MHz

MPE Calculation

Predication of MPE limit at a given distance

 $S = PG/4\pi R^2$

Where: S = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Frequency	Antenna Gain		Conducted Power		Evaluation	Power	MPE Limit
(MHz)	(dBi)	(numeric)	(dBm)	(mW)	Distance (cm)	Density (mW/cm ²)	(mW/cm ²)
400.5	9	7.94	42.73	18750	270	0.16259	0.267
435.5	9	7.94	42.59	18155	270	0.15743	0.290
468.7125	9	7.94	42.64	18365	270	0.15926	0.312

Result: Pass

FCC Part 90 Page 7 of 25

^{* =} Plane-wave equivalent power density

FCC §2.1046 & §90.205- RF OUTPUT POWER

Applicable Standard

FCC §2.1046 and §90.205.

Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

Report No.: R1DG111202003-00

Test Procedure

Conducted RF Output Power:

TIA-603-D section 2.2.1

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

Spectrum Analyzer setting:

 RBW
 Video B/W

 100 kHz
 300 kHz

FCC Part 90 Page 8 of 25

^{*} **Statement of Tractability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

The testing was performed by Leon Chen on 2011-12-15.

Test Mode: Transmitting

Test Result: Compliance.

Please refer to following table.

Test Chanel	Frequency Spacing (kHz)	Measured Power (dBm)	Measured Power (W)	Rated power (W)
Low (400.5MHz)	12.5	42.73	18.750	15.849~31.623
Middle (435.5MHz)	12.5	42.59	18.155	15.849~31.623
High (468.7125MHz)	12.5	42.64	18.365	15.849~31.623

Report No.: R1DG111202003-00

Note: the rated power is $43.5 \pm 1.5 dBm$

FCC Part 90 Page 9 of 25

FCC §2.1049, §90.209 & §90.210 – OCCUPIED BANDWIDTH & EMISSION MASK

Applicable Standard

FCC §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 5.625 kHz 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 5.626 kHz but no more than 12.5 kHz, at least 7.27 (f_d –2.88 kHz) dB.
- 3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5 kHz at least:

$$50+10\log P=50+10\log (1.574)=51.97 \text{ dB}$$

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:

$$43+10\log P=43+10\log (1.622)=45.10 \text{ dB}$$

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

Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

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

FCC Part 90 Page 10 of 25

Test Procedure

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

Report No.: R1DG111202003-00

The resolution bandwidth of the spectrum analyzer was set at 300 Hz and the spectrum was recorded in the frequency band ± 35 kHz from the carrier frequency.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

The testing was performed by Leon Chen on 2011-12-28 and 2012-02-13.

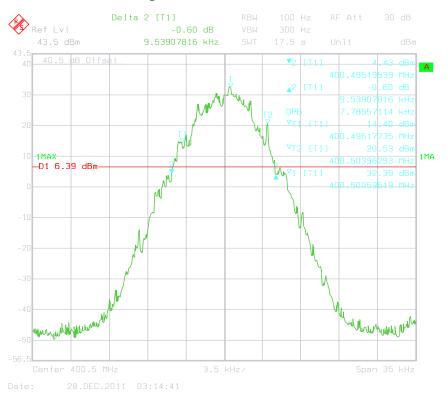
Channel	99% Occupied Bandwidth (kHz)	26 dB Bandwidth (kHz)
Low (400.5MHz)	7.79	9.54
Middle (435.5MHz)	7.79	9.54
High (468.7125MHz)	7.86	9.54

Please refer to the emission mask hereinafter plots.

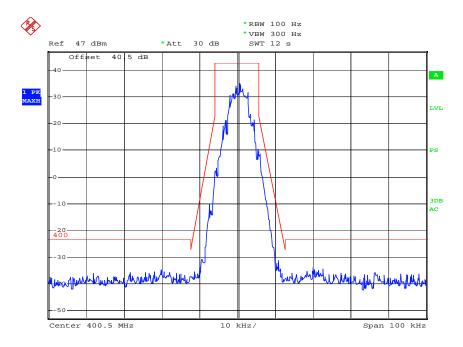
FCC Part 90 Page 11 of 25

Report No.: R1DG111202003-00

Occupied Bandwidth - 400.5 MHz



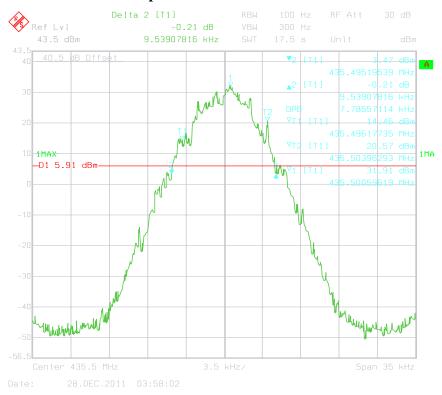
Emission Mask- 400.5 MHz



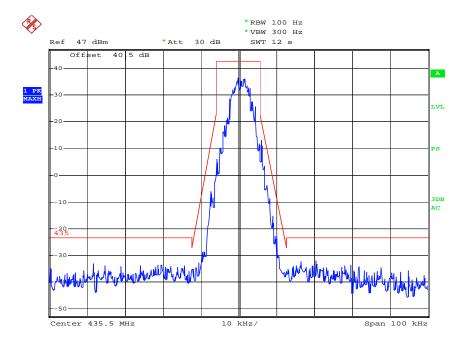
Date: 13.FEB.2012 11:55:30

FCC Part 90 Page 12 of 25

Occupied Bandwidth – 435.5 MHz



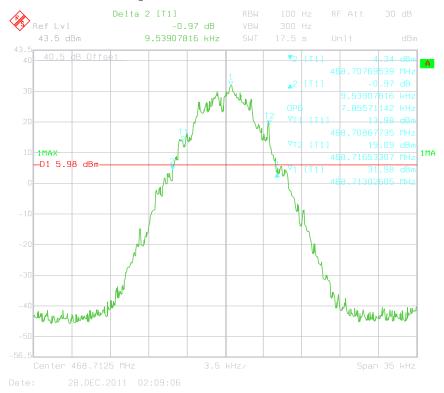
Emission Mask - 435.5 MHz



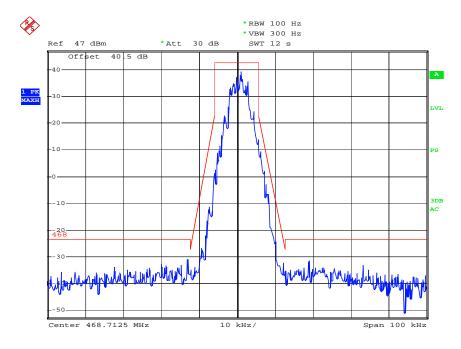
Date: 13.FEB.2012 12:02:44

FCC Part 90 Page 13 of 25

Occupied Bandwidth – 468.7125 MHz



Emission Mask - 468.7125 MHz



Date: 13.FEB.2012 12:06:33

FCC Part 90 Page 14 of 25

FCC §2.1051 & §90.210 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

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:

Report No.: R1DG111202003-00

- 1) For any frequency removed from the center of the authorized bandwidth f_0 to 5.625 kHz removed from f_0 , 0 dB.
- 2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5.626 kHz but no more than 12.5 kHz, at least 7.27 (f_d –2.88 kHz) dB.
- 3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5 kHz at least:

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:

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

Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

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

FCC Part 90 Page 15 of 25

Test Procedure

The RF output of the EUT was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz. Sufficient scans were taken to show any out of band emissions up to $10^{\rm th}$ harmonic.

Report No.: R1DG111202003-00

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

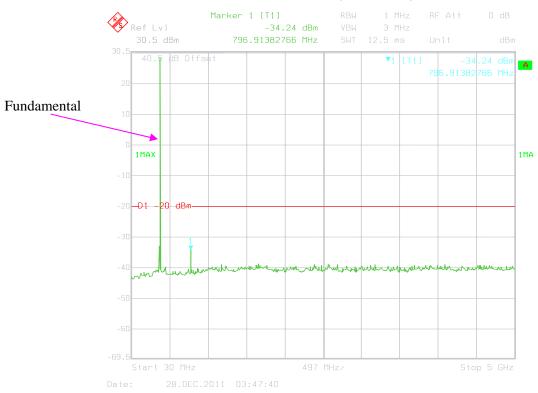
The testing was performed by Leon Chen on 2011-12-28.

Test Mode: Transmitting

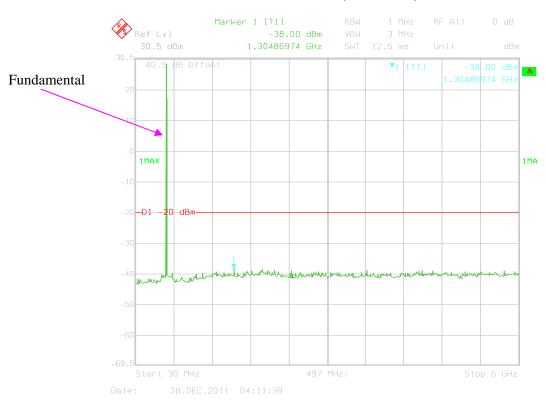
Please refer to the following plots.

FCC Part 90 Page 16 of 25

30 MHz - 5 GHz (400.5 MHz)



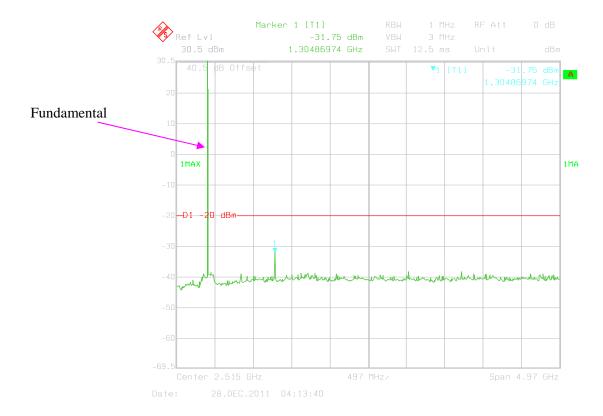
30 MHz - 5 GHz (435.5 MHz)



FCC Part 90 Page 17 of 25

30 MHz - 5 GHz (468.7125 MHz)

Report No.: R1DG111202003-00



FCC Part 90 Page 18 of 25

FCC §2.1053 & §90.210 - RADIATED SPURIOUS EMISSIONS

Applicable Standard

FCC §2.1053 and §90.210

Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Sunol Sciences	Horn Antenna	DRH-118	A052604	2011-05-05	2012-05-04
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2011-03-11	2012-03-11
Sunol Sciences	Bilog Antenna	JB1	A040904-2	2011-07-05	2012-07-04
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07
HP	Signal Generator	HP8657A	2849U00982	2011-10-21	2012-10-20
A.H. System	Horn Antenna	SAS-200/571	135	2011-03-07	2012-03-06
HP	Synthesized Sweeper	8341B	2624A00116	2011-04-11	2012-04-10

^{*} Statement of Traceability: Bay Area Compliance Laboratories 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 = $43+10 \text{ Log}_{10}$ (power out in Watts) Spurious attenuation limit in dB = $50+10 \text{ Log}_{10}$ (power out in Watts) for EUT with a 12.5 kHz channel bandwidth.

FCC Part 90 Page 19 of 25

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

The testing was performed by Leon Chen on 2011-12-28.

Test Mode: Transmitting

	Indicat	ed	Substituted					
Frequency (MHz)	Reading (dBµV)	Polar (H/V)	S.G. Level (dBm)	Antenna Gain Correction (dB)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)	Margin (dB)
		Lo	w chann	el(400.5 MHz	:)			
801	47.32	Н	-44.5	0.0	0.47	-44.97	-20	24.97
801	46.81	V	-45.0	0.0	0.47	-45.5	-20	25.47
1201.5	28.15	Н	-48.3	7.6	0.73	-41.4	-20	21.43
1201.5	27.87	V	-48.7	7.6	0.73	-41.8	-20	21.83
		Mic	ldle chan	nel(435.5 MH	(z)			
871	46.75	Н	-45.3	0.0	0.47	-45.8	-20	25.77
871	45.42	V	-46.5	0.0	0.47	-47.0	-20	26.97
1306.5	28.94	Н	-47.1	7.4	0.73	-40.4	-20	20.43
1306.5	28.06	V	-47.8	7.4	0.73	-41.1	-20	21.13
		Higl	ı channe	(468.7125 MI	Hz)		_	
937.425	49.51	Н	-43.2	0.0	0.52	-43.7	-20	23.72
937.425	48.15	V	-44.7	0.0	0.52	-45.2	-20	25.22
1406.138	31.17	Н	-45.3	7.0	0.73	-39.0	-20	19.03
1406.138	29.95	V	-46.5	7.0	0.73	-40.2	-20	20.23

FCC Part 90 Page 20 of 25

FCC §2.1055 & §90.213- FREQUENCY STABILITY

Applicable Standard

FCC §2.1055 & §90.213

Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Hewlett-Packard	Frequency Counter	5342A	2317A08289	2011-04-15	2012-04-14
Qualmark	Temperature & Humidity Chamber	Typhoon 3.0	20021115	2011-06-04	2012-06-03

Report No.: R1DG111202003-00

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external AC power supply and the RF output was connected to a frequency counter via feed-through attenuators. The EUT was placed inside the temperature chamber. The AC 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 percent of the nominal value.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

The testing was performed by Leon Chen on 2011-12-28.

Test Mode: Transmitting

FCC Part 90 Page 21 of 25

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

1) Frequency Stability versus Input Temperature

Reference Frequency: 435.5 MHz, Limit: ±1.5 ppm					
Test Envi	ronment	Frequency Measure with Time Elapsed			
Temperature (°C)	Power Supplied (V _{AC})	Measured Frequency error (Hz) Frequency Erro (ppm)			
50	120	-30.58	-0.0702		
40	120	-37.63	-0.0864		
30	120	-48.58	-0.1115		
20	120	-38.99	-0.0895		
10	120	-41.57	-0.0955		
0	120	-40.68	-0.0934		
-10	120	-36.19	-0.0831		
-20	120	-38.73	-0.0889		
-30	120	-44.90	-0.1031		

2) Frequency Stability versus Input Voltage

Reference Frequency: 435.5 MHz, Limit: ±1.5 ppm					
Test Environment Frequency Measure with Time Elapsed					
Temperature (℃)	Power Supplied (V _{AC})	Measured Frequency error (Hz) Frequency Error (ppm)			
20	102	-51	-0.1171		
20	138	-43	-0.0987		

FCC Part 90 Page 22 of 25

FCC §90.214 - TRANSIENT FREQUENCY BEHAVIOR

Applicable Standard

Regulations: FCC §90.214

Test method: ANSI/TIA-603-D 2010, section 2.2.19.3

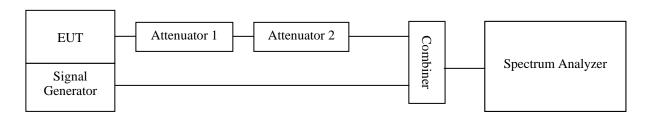
Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Due Date
Rohde & Schwarz	Spectrum Analyzer	FSEM	10798500	2011-10-09	2012-10-08
Hewlett-Packard	Signal Generator	8648A	3426A00831	2011-10-09	2012-10-08

Report No.: R1DG111202003-00

Test Procedure

- a) Connect the EUT and test equipment as shown on the following block diagram.
- b) Set the Spectrum Analyzer to measure FM deviation, and tune the RF frequency to the transmitter assigned frequency.
- c) Set the signal generator to the assigned transmitter frequency and modulate it with a 1 kHz tone at ±12.5 kHz deviation and set its output level to -100dBm.
- d) Turn on the transmitter.
- e) Supply sufficient attenuation via the RF attenuator to provide an input level to the Spectrum Analyzer that is 40 dB below the maximum allowed input power when the transmitter is operating at its rated power level. Note this power level on the Spectrum Analyzer as P₀.
- f) Turn off the transmitter.
- g) Adjust the RF level of the signal generator to provide RF power equal to P₀. This signal generator RF level shall be maintained throughout the rest of the measurement.
- h) Remove the attenuation 1, so the input power to the Spectrum Analyzer is increased by 30 dB when the transmitter is turned on.
- i) Adjust the vertical amplitude control of the spectrum analyzer to display the 1000 Hz at ±4 divisions vertically centered on the display. Set trigger mode of the Spectrum Analyzer to "Video", and tune the "trigger level" on suitable level. Then set the "tiger offset" to -10ms for turn on and -15ms for turn off.
- j) Turn on the transmitter and the transient wave will be captured on the screen of Spectrum Analyzer. Observe the stored display. The instant when the 1 kHz test signal is completely suppressed is considered to be t_{on} . The trace should be maintained within the allowed divisions during the period t_1 and t_2 .
- k) Then turn off the transmitter, and another transient wave will be captured on the screen of Spectrum Analyzer. The trace should be maintained within the allowed divisions during the period t₃.



FCC Part 90 Page 23 of 25

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

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.1 kPa

The testing was performed by Leon Chen on 2012-02-23.

For 12.5 kHz channel spacing

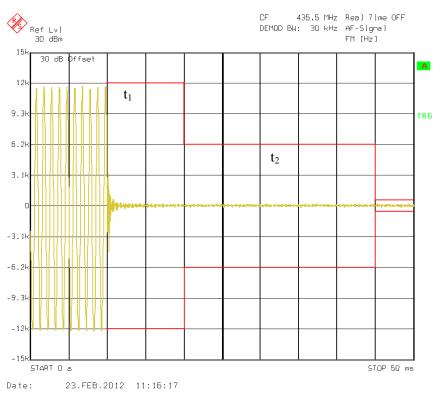
Operation Frequency (MHz)	Channel Separation (kHz)	Time interval (ms)	Maximum frequency difference (kHz)	Result
		10	+/-12.5 kHz	
435.5	12.5	25	+/-6.25 kHz	Pass
		10	+/-12.5 kHz	

Please refer to the following plots.

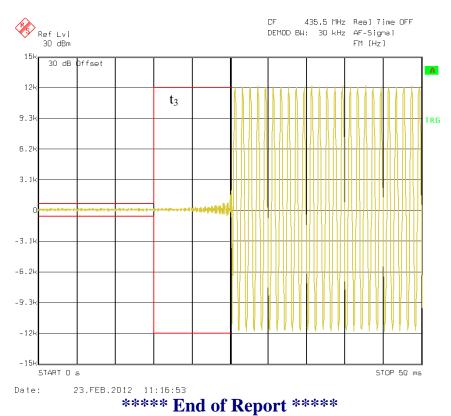
Note: the red lines in the plots are limits according to FCC §90.214. During the time from the end of t₂ to the beginning of t₃, the allowed limit is equal to the transmitter frequency times its FCC frequency tolerance times ±4 display divisions divided by 25 kHz.

FCC Part 90 Page 24 of 25

Turn on



Turn off



FCC Part 90 Page 25 of 25