FCC 47 CFR PART 90

TEST REPORT

For

Applicant :	**WT Technology Development Company Limited**
Address :	**Tang Xia Yong Village, Song Gang Town, Bao An District , Shen Zhen, GuangDong, P.R.C**
Product Name :	**DSI Broadcasting System**
Model Name :	**LD07010TX**
Brand Name :	**WT**
FCC ID :	**XTPLD07010TX**
Report No. :	**SZSTS090810F1**
Date of Issue :	**October 13, 2009**

Issued by :	**Shenzhen Super Test Service Technology Co., Ltd.**
Address :	**No.813 Unit A, Huameiju Business Center, Xinhu Road, Bao'an District, Shenzhen, China**
Tel :	**86-755-2795 8522**
Fax :	**86-755-2795 8022**

CONTENTS

1. TEST RESULT CERTIFICATION

Applicant Name:	WT Technology Development Company Limited
Address:	Tang Xia Yong Village, Song Gang Town, Bao An District , Shen Zhen, GuangDong, P.R.C
Manufacturer Name:	ALLCOMM ELECTRONIC COMPANY LIMITED
Address:	Tang Xia Yong Village, Song Gang Town, Bao An District , Shen Zhen, GuangDong, P.R.C
Brand Name:	WT
Equipment Under Test:	DSI Broadcasting System
Model Number:	LD07010TX
FCC ID：	XTPLD07010TX
Test Standard	FCC 47 CFR Part 90
File Number:	SZSTS090810F1
Date of Test:	September 21, 2009 – October 13, 2009

We (STS) hereby certify that:

The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4:2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 90.

The test results of this report relate only to the tested sample identified in this report.

Tested By: Petter Ping

Petter Ping / Test Engineer October 13, 2009

Checked By: July Wen

July Wen / Quality Engineer October 13, 2009

Authorized By: Terry Yang

Terry Yang / General Manager October 13, 2009

2. Technical Information

Note: the following data is based on the information by the applicant.

2.1 EUT Description

Product	DSI Broadcasting System
Brand Name	WT
Model Number	LD07010TX
Series Model Name:	N/A
Series Model Difference description:	N/A
Power Supply	AC 110V/50Hz
Frequency Range	420.000 MHz-470.000 MHz
Modulation Technique	GFSK
Channel Spacing	100 KHz
Antenna Gain	6.0 dBi
Temperature Range	-10℃-50℃

Note:

1. *This submittal(s) (test report) is intended for FCC ID: XTPLD07010TX filing to comply with the FCC Part 90, Subpart I Rules.*
2. *Please refer to Appendix B for the photographs of the EUT. For more details, please refer to the User's manual of the EUT.*

2.2 Objective

The tests documented in this report were performed in accordance with ANSI C63.4 (2003) and FCC CFR 47 Rules Part 90 Subpart I.

2.3 Test Standards and Results

The EUT has been tested according to FCC CFR 47:

- Part 2: Frequency Allocations and Radio Treaty Matters: General Rules and Regulations (10-1-05 Edition)
- Part 90: Private Land Mobile Radio Services

Test items and the results are as bellow:

№	Test Type	Para. Number	Limit	Result
1	Power and Antenna High Limits	2.1046; 90.205	Refer to 90.205	PASS
2	Modulation Characteristic	2.1047; 90.207	Refer to 90.207	PASS
3	Occupied Bandwidth	2.1049; 90.209	Refer to 90.209	PASS
4	Emission Mask	2.1053; 90.210	Refer to 90.210	PASS
5	Frequency Stability vs. Temperature	2.1055; 90.213	Refer to 90.213	PASS
6	Frequency Stability vs. Voltage	2.1055; 90.213	Refer to 90.213	PASS
7	Transmitter Frequency Behavior	90.214	Refer to 90.214	PASS

3. Details of Test

3.1 Identification of the Responsible Testing Laboratory

Company:	Shenzhen Super Test Service Technology Co., Ltd.
Address:	No.813 Unit A, Huameiju Business Center,Xinhu Road, Bao'an District, Shenzhen, China

3.2 Identification of the Responsible Testing Location

Test Site:	Shenzhen Most Technology Service Co., Ltd
Address:	Add: No.5, Nangshan 2nd Rd., North Hi-Tech Industrial park ,Nanshan, Shenzhen, Guangdong ,China
Description:	There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4 and CISPR 16 requirements. The **FCC** Registration Number is **490827.** The **CNAS** Registration Number is **CNAS L3573.**

3.3 List of Test Equipments

No.	Equipment	Manufacturer	Model No.	S/N	Calculator due date
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2010/03/15
2	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2010/03/15
3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2010/03/15
4	Terminator	Hubersuhner	50Ω	No.1	2010/03/15
5	RF Cable	SchwarzBeck	N/A	No.1	2010/03/15
6	Bilog Antenna	Sunol	JB3	A121206	2010/03/15
7	Cable	Resenberger	N/A	NO.1	2010/03/15
8	DC Power Filter	DuoJi	DL2×30B	N/A	2010/03/15
9	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2010/03/15
10	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2010/03/15
11	Absorbing Clamp	Luthi	MDS21	3635	2010/03/15
12	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2010/03/15
13	AC Power Source	Kikusui	AC40MA	LM003232	2010/03/15
14	Test Analyzer	Kikusui	KHA1000	LM003720	2010/03/15
15	Line Impendence Network	Kikusui	LIN40MA-PCR-L	LM002352	2010/03/15
16	ESD Tester	Kikusui	KES4021	LM003537	2010/03/15
17	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2010/03/15
18	Signal Generator	IFR	2032	203002/100	2010/03/15
19	Amplifier	A&R	150W1000	301584	2010/03/15
20	CDN	FCC	FCC-801-M3-25	107	2010/03/15
21	EM Injection Clamp	FCC	F-203I-23mm	403	2010/03/15
22	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2010/03/15

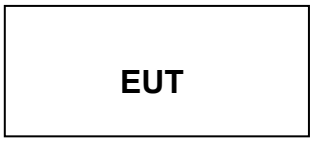
NOTE: Equipments listed above have been calibrated and are in the period of validation.

3.4 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35ºC
- Humidity: 30-60%
- Atmospheric pressure: 86-106 k Pa

3.5 Configuration of Tested System



3.6 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Identifier	Series No.	Note
1	DSI Broadcasting System	WT	LD07010TX	FCC ID: XTPLD07010TX	N/A	EUT

4. Test Methodology

4.1 General Test Procedures

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirement in Section 13.1.4.1 of ANSI C63.4:2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4:2003.

4.2 Description of Test Modes

The EUT has been tested under normal operating condition.

Three channels (The top channel, the middle channel and the bottom channel) are chosen for testing.

4.3 FCC Part 15.205 Restricted Bands of Operations

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

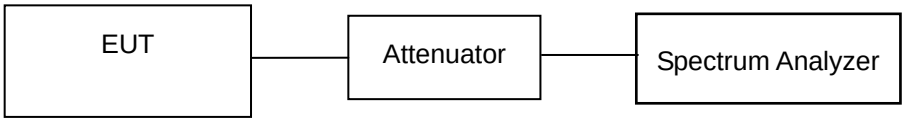
5. FCC Part 90 Requirements

5.1 Power and Antenna High Limits

LIMIT

According to CFR 47 section 90.205, Maximum ERP is dependent upon the station's antenna HAAT and required service area.

TEST CONFIGURATION



TEST PROCEDURE

The RF output of transceiver was conducted to a spectrum analyzer through an appropriate attenuator.

TEST RESULTS

Freq.	Channel	Reading ®	Total Factor(TF)	Power(CP)
(MHz)		(dBm)	(dB)	(dBm)
420.000	Bottom	6.04	32.11	38.15
445.000	Middle	6.12	32.19	38.31
470.000	Top	6.47	32.21	38.68

** Note:*

Calculation Formula: CP = R + TF (A+L)

CP: The final Conducted Power

TF: Total Factor

R: The reading value from spectrum analyzer

A: The attenuation value of the used attenuator

L: The loss of all connection cables

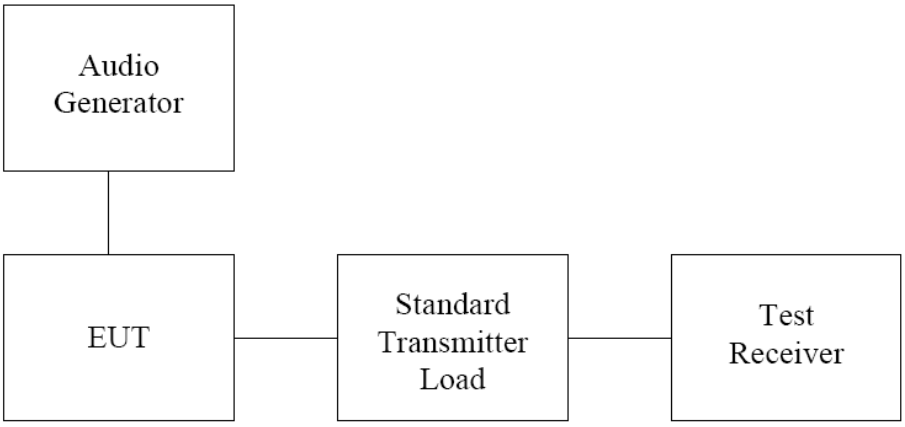
5.2 Modulation Characteristic

LIMIT

According to CFR 47 section 2.1047 a, for Voice modulation communication equipment, the frequency response of the audio modulation circuit over a range of 100 to 5000 Hz shall be measured.

According to CFR 47 section 90.205, Equipment which employs modulation limiting, a curve showing the percentage of modulation versus the modulation input voltage shall be supplied.

TEST CONFIGURATION



TEST PROCEDURE

Modulation limits is the transmitter circuit's ability to limit the transmitter form producing deviations in excess of rated system deviation.

The audio signal generator is connected to the audio input of the EUT with its full rating.

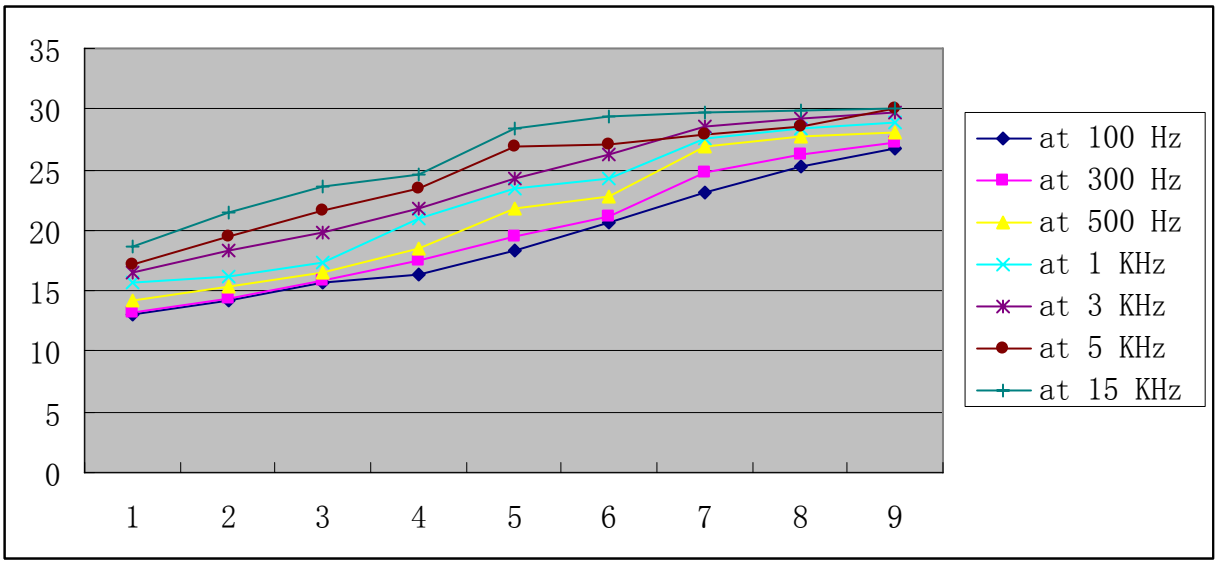
The modulation response is measured at certain modulation frequencies, related to 1000 Hz reference signal.

Tests are performed for positive and negative modulation.

TEST RESULTS

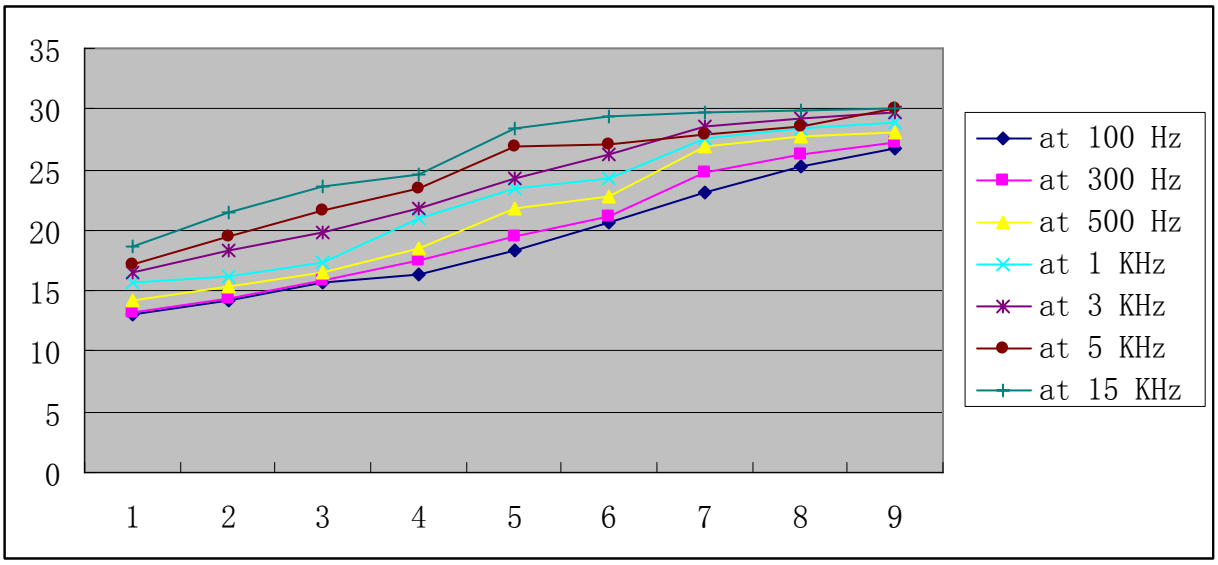
The Low Channel (420.000 MHz)

Modulation Level (dB)	Peak Frequency Deviation						
	at 100 Hz	at 300 Hz	at 500 Hz	at 1 KHz	at 3 KHz	at 5 KHz	at 15 KHz
-20	14.16	14.21	15.33	15.42	14.73	15.53	15.93
-15	15.09	15.20	16.88	16.24	17.22	18.16	20.18
-10	16.15	16.49	18.56	18.95	19.89	22.66	24.93
-5	17.68	17.95	19.72	21.26	22.36	26.60	28.15
0	19.12	20.12	22.07	23.60	26.64	29.42	31.03
+5	20.26	22.15	24.40	25.42	31.87	32.60	33.71
+10	23.11	24.01	25.58	27.11	33.16	33.31	34.25
+15	25.79	26.35	28.69	29.09	33.58	33.46	34.63
+20	28.02	29.11	30.73	31.56	33.79	33.72	35.11



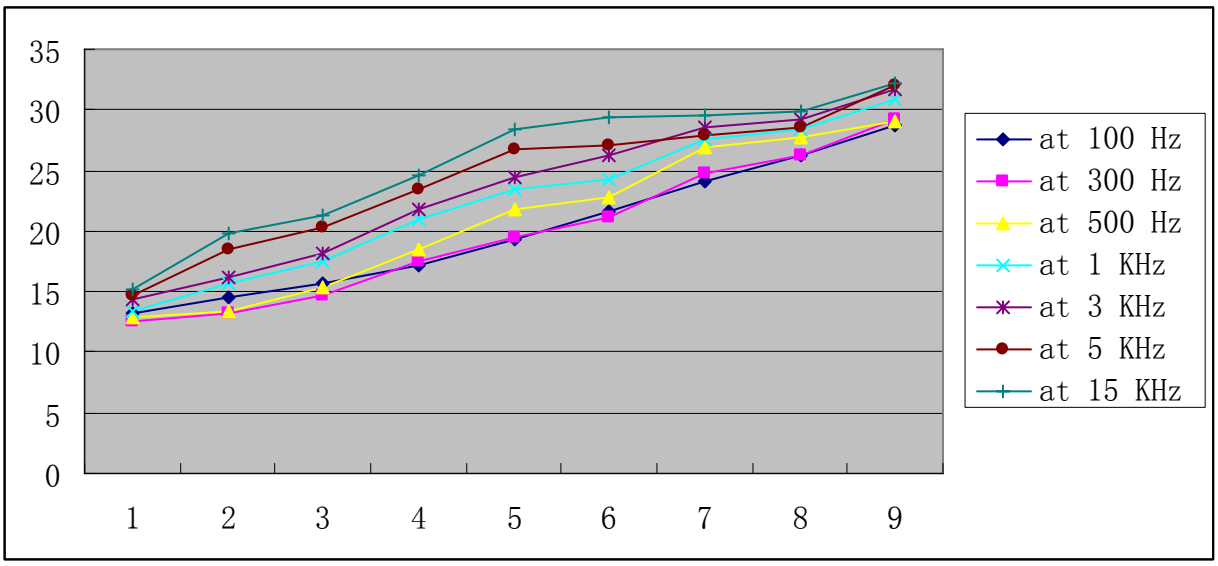
The Middle Channel (445.000 MHz)

Modulation Level (dB)	Peak Frequency Deviation						
	at 100 Hz	at 300 Hz	at 500 Hz	at 1 KHz	at 3 KHz	at 5 KHz	at 15 KHz
-20	13.09	13.25	14.16	15.62	16.49	17.21	18.58
-15	14.15	14.29	15.33	16.19	18.32	19.46	21.51
-10	15.68	15.79	16.50	17.32	19.85	21.59	23.63
-5	16.28	17.51	18.46	20.92	21.76	23.43	24.54
0	18.36	19.51	21.75	23.48	24.33	26.85	28.33
+5	20.56	21.17	22.82	24.34	26.33	27.14	29.34
+10	23.14	24.69	26.95	27.65	28.63	27.92	29.65
+15	25.24	26.28	27.72	28.45	29.15	28.56	29.83
+20	26.78	27.19	28.11	28.88	29.72	30.03	30.10



The High Channel (470.000 MHz)

Modulation Level (dB)	Peak Frequency Deviation						
	at 100 Hz	at 300 Hz	at 500 Hz	at 1 KHz	at 3 KHz	at 5 KHz	at 15 KHz
-20	13.23	12.51	12.86	13.33	14.34	14.75	15.22
-15	14.45	13.14	13.35	15.64	16.26	18.45	19.74
-10	15.62	14.73	15.32	17.52	18.21	20.24	21.35
-5	17.21	17.55	18.47	20.94	21.74	23.42	24.54
0	19.34	19.56	21.74	23.45	24.36	26.82	28.33
+5	21.56	21.17	22.82	24.34	26.33	27.14	29.37
+10	24.14	24.69	26.95	27.65	28.63	27.92	29.60
+15	26.24	26.28	27.72	28.45	29.15	28.56	29.83
+20	28.78	29.19	29.11	30.88	31.72	32.03	32.16

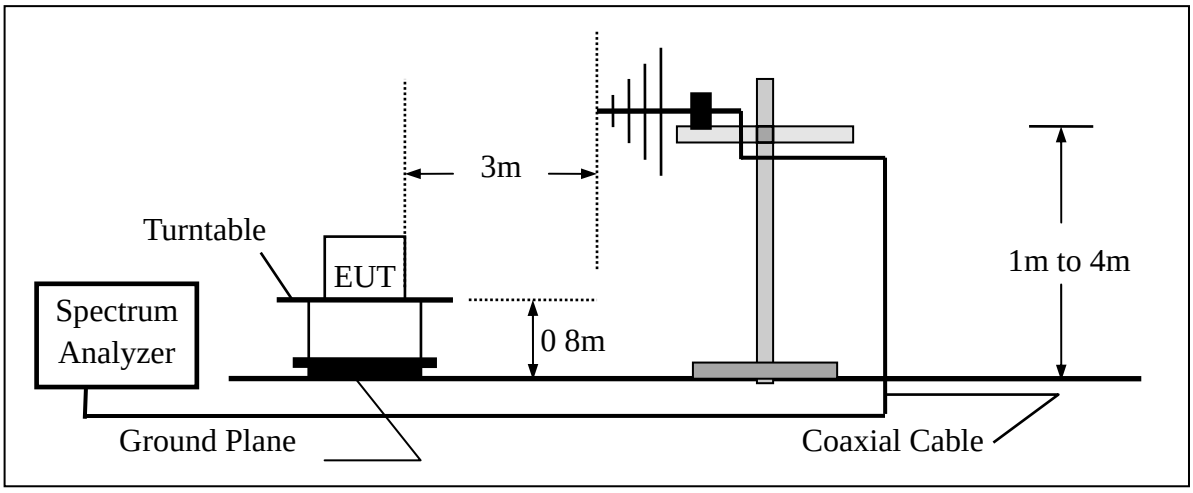


5.3 Occupied Bandwidth

LIMIT

According to FCC CFR 47 Part 90 Section 90.209, for other types of emissions, the maximum authorized bandwidth shall not be more than that normally authorized for voice operations.

TEST CONFIGURATION

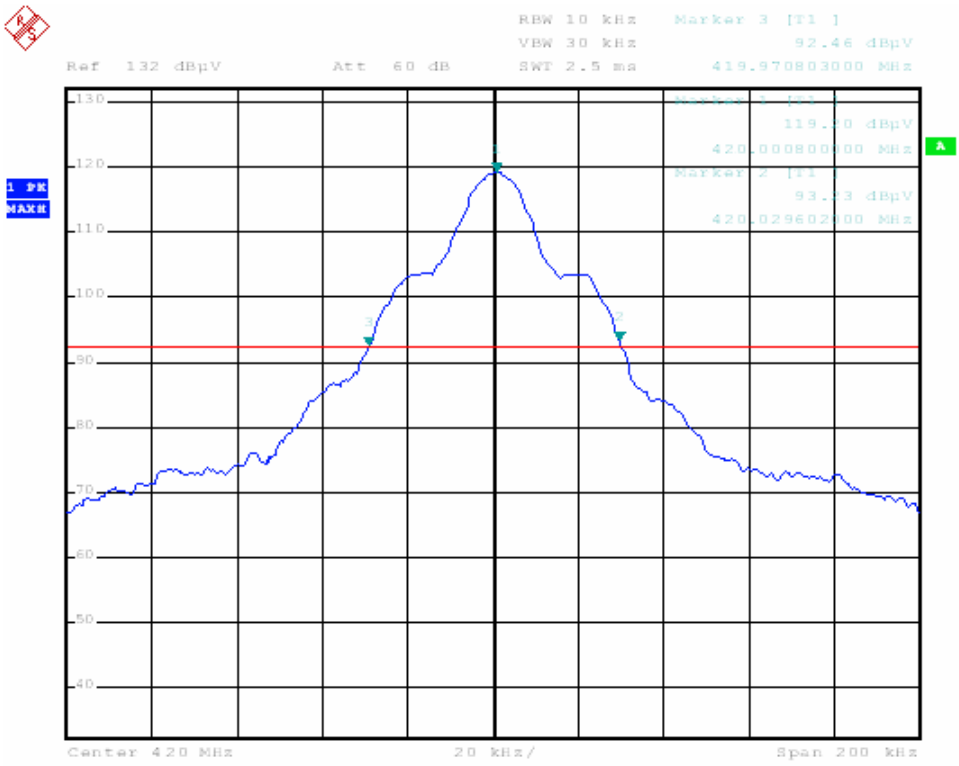


TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Set SPA center frequency=fundamental frequency, RBW=10KHz, VBW=30 KHz, Span=200 KHz.
4. Set SPA max. Hold. Mark peak, -26dB.

TEST RESULTS

Channel	Frequency	Occupied Bandwidth	Result
Bottom	420.000 MHz	58.79 KHz	PASS
Middle	445.000 MHz	58.80 KHz	PASS
Top	470.000 MHz	58.76 KHz	PASS



5.4 Emission Mask

LIMIT

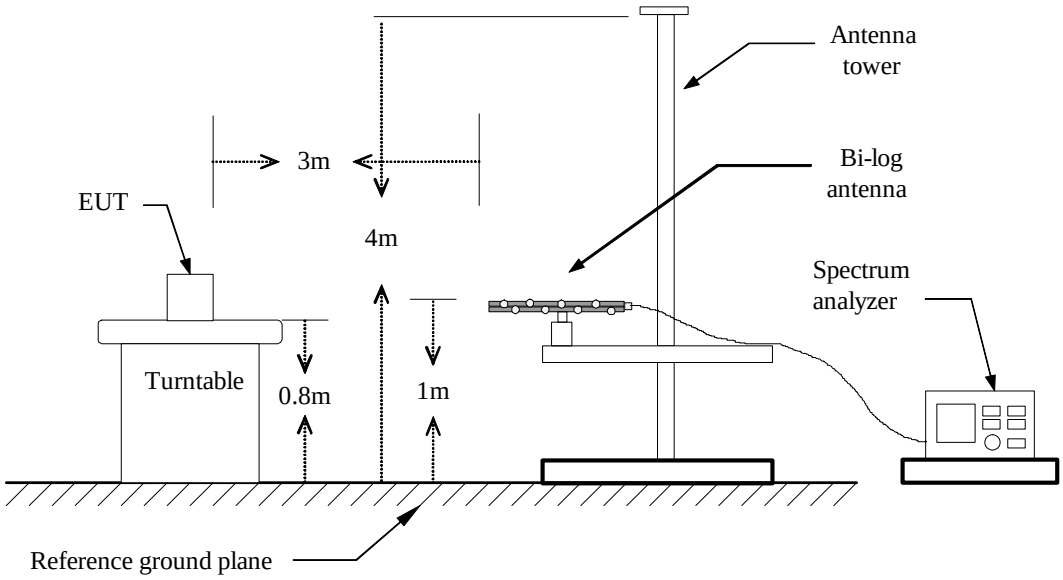
According to CFR 47 section 90.210, the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

(1) On any frequency removed from the operating frequency 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 operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;

(3) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43+10log $_{10}$ *(mean output power in watts) dB;

TEST CONFIGURATION



TEST PROCEDURE

1. On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.

2. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.

3. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.

4. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.

5. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.

6. The transmitter shall than be rotated through 360°in the horizontal plane, until the maximum signal level is detected by the measuring receiver.

7. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.

8. The maximum signal level detected by the measuring receiver shall be noted.

9. The measurement shall be repeated with the test antenna set to horizontal polarization.

10. Replace the antenna with a proper Antenna (substitution antenna).

11. The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.

12. The substitution antenna shall be connected to a calibrated signal generator.

13. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.

14. The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.

15. The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.

16. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.

17. The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

TEST RESULTS

The Unwanted Radiated Emission

The Low Channel (420.000 MHz)

Frequency (MHz)	Reading level (dBuv)	Antenna Polarization	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
840.03	28.35	V	-17.37	10.69	8.31	-19.75	-13	-6.75
Other	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--								
840.03	22.63	H	-22.23	10.69	8.31	-24.61	-13	-11.61
Other	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--								

Notes:

(1) "--" in the table above means that the emissions are too small to be measured and are at least 10 dB below the limit.

(2) Emisiion Level=S.G ourput power(dBm)-Cable loss(db)+Antenna Gain(dBi)

The Middle Channel (445.000 MHz)

Frequency (MHz)	Reading level (dBuv)	Antenna Polarization	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
890.13	26.09	V	-18.95	10.72	8.35	-21.32	-13	-8.32
0ther	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--								
890.13	22.31	H	-23.72	10.72	8.35	-26.09	-13	-13.09
Other	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--								

Notes:

(1) "--" in the table above means that the emissions are too small to be measured and are at least 10 dB below the limit.

(2) Emisiion Level=S.G ourput power(dBm)-Cable loss(db)+Antenna Gain(dBi)

The High Channel (470.000 MHz)

Frequency (MHz)	Reading level (dBuv)	Antenna Polarization	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
940.13	28.89	V	-17.94	10.90	8.69	-20.15	-13	-7.15
Other	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--	--	V	--	--	--	--	-13	> 10 dB
--								
940.15	25.16	H	-21.31	10.90	8.69	-23.52	-13	-10.52
Other	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--	--	H	--	--	--	--	-13	> 10 dB
--								

Notes:

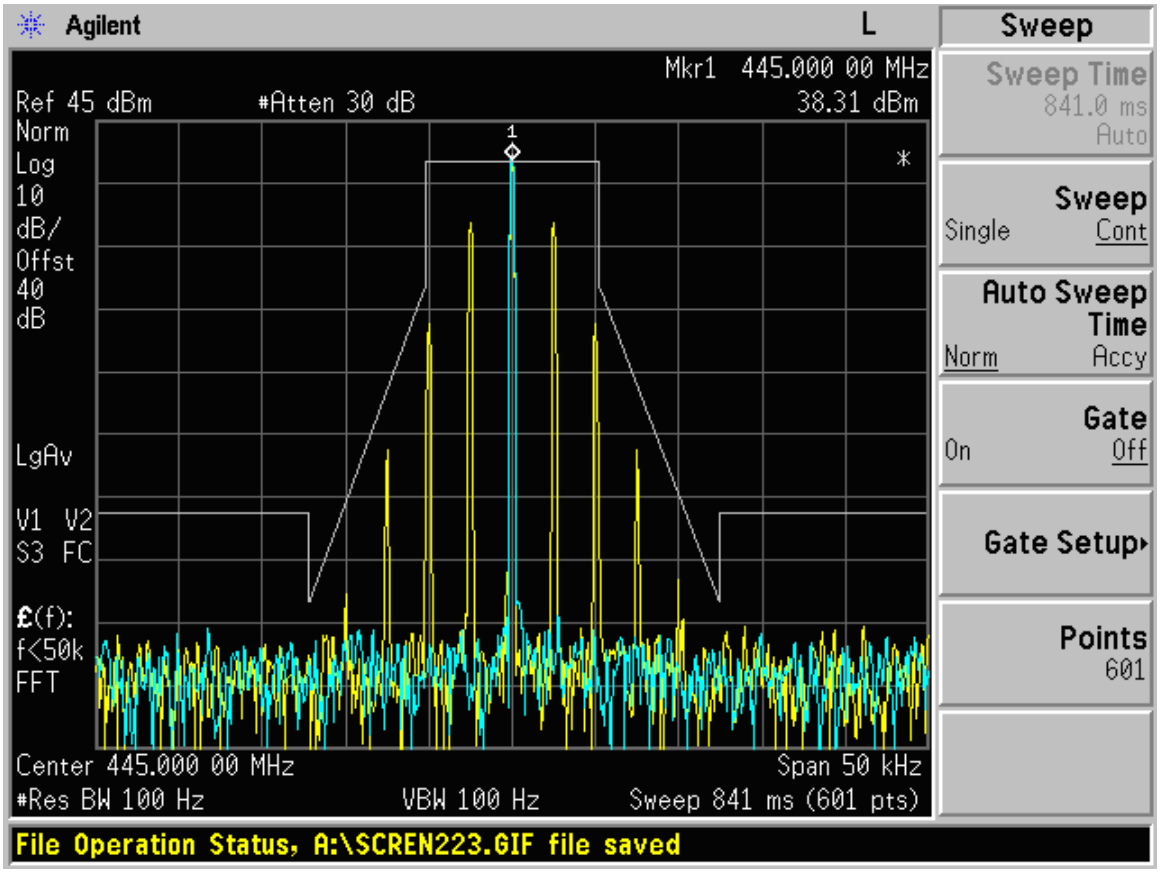
(1) "--" in the table above means that the emissions are too small to be measured and are at least 10 dB below the limit.

(2) Emisiion Level=S.G ourput power(dBm)-Cable loss(db)+Antenna Gain(dBi)

Maximum Transmitter Power (P)	38.68 dBm
Require attenuation	$43+10\log_{10}$ (7.38)= 51.68 dB
Emission Limits	P-[$43+10\log_{10}$ (0.00031)]= -13 dBm

Emission Mask:

The Middle Channel (445.000 MHz)



5.5 Frequency Stability vs. Temperature

LIMIT

a). According to FCC Part 2 Section 2.1055(a)(1), the frequency stability shall be measured with variation of ambient temperature from －30℃ to +50℃ centigrade.

b). According to FCC Part 2 Section 2.1055(d)(1), vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

c). According to FCC Part 90 Section 90.213, for output power > 2Wats, the limits is 2.5 ppm.

TEST PROCEDURE

The EUT power was supplied by AC110V and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature chamber. The DC leads and the RF output cable, exited the chamber through an opening made for that purpose.

After the temperature stabilized the frequency output was recorded form the counter.

RESULTS

The Low Channel (420.000 MHz)

Temperature (℃)	Frequency Error (K Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (ppm)
-30	-7.265	-0.000017	-0.17	±2.5
-20	-5.150	-0.000013	-0.13	±2.5
-10	4.859	0.000012	0.12	±2.5
0	1.524	0.000003	0.03	±2.5
10	5.650	0.000013	0.13	±2.5
20	8.090	0.000019	0.19	±2.5
30	-6.550	-0.000016	-0.16	±2.5
40	-7.831	-0.000019	-0.19	±2.5
50	-8.579	-0.000032	-0.20	±2.5

The Middle Channel (445.000 MHz)

Temperature (℃)	Frequency Error (K Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (ppm)
-30	-7.062	-0.000016	-0.16	±2.5
-20	-5.156	-0.000012	-0.12	±2.5
-10	3.525	0.000008	0.08	±2.5
0	1.309	0.000003	0.03	±2.5
10	3.580	0.000008	0.08	±2.5
20	4.561	0.000010	0.10	±2.5
30	5.090	-0.000011	-0.11	±2.5
40	-6.650	-0.000015	-0.15	±2.5
50	-7.150	-0.000016	-0.16	±2.5

The High Channel (470.000 MHz)

Temperature (℃)	Frequency Error (K Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (ppm)
-30	-6.510	-0.000014	-0.14	±2.5
-20	-5.360	-0.000011	-0.11	±2.5
-10	-1.895	0.000004	0.04	±2.5
0	2.535	0.000005	0.05	±2.5
10	2.869	0.000006	0.06	±2.5
20	3.175	0.000007	0.07	±2.5
30	-3.695	0.000008	-0.08	±2.5
40	4.295	0.000009	0.09	±2.5
50	5.350	0.000011	0.11	±2.5

5.6 Frequency Stability vs. Voltage

LIMIT

a). According to FCC Part 2 Section 2.1055(a)(1), the frequency stability shall be measured with variation of ambient temperature from －30℃ to +50℃ centigrade.

b). According to FCC Part 2 Section 2.1055(d)(1), vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

c). According to FCC Part 90 Section 90.213, for output power > 2Wats, the limits is 2.5 ppm.

TEST PROCEDURE

An external variable AC power supply was connected to the EUT.

For hand carried, The AC power equipment primary supply voltage was reduced to the end point as specified by the manufacturer. The output frequency was recorded for highest and lowest voltage.

RESULTS

The Low Channel (420.000 MHz)

Voltage (V)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (%)
93.5	3480	0.000008	0.08	±2.5
110.0	1605	0.000003	0.03	±2.5
126.5	4560	0.000010	0.10	±2.5

The Middle Channel (445.000 MHz)

Voltage (V)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (%)
93.5	4065	0.000009	0.09	±2.5
110.0	1550	0.000003	0.03	±2.5
126.5	5152	0.000012	0.12	±2.5

The High Channel (470.000 MHz)

Voltage (V)	Frequency Error (Hz)	Frequency Error (%)	Frequency Error (ppm)	Limit (%)
93.5	3750	0.000008	0.08	±2.5
110.0	1485	0.000003	0.03	±2.5
126.5	4865	0.000010	0.10	±2.5

5.7 Transmitter Frequency Behavior

Provisions Applicable

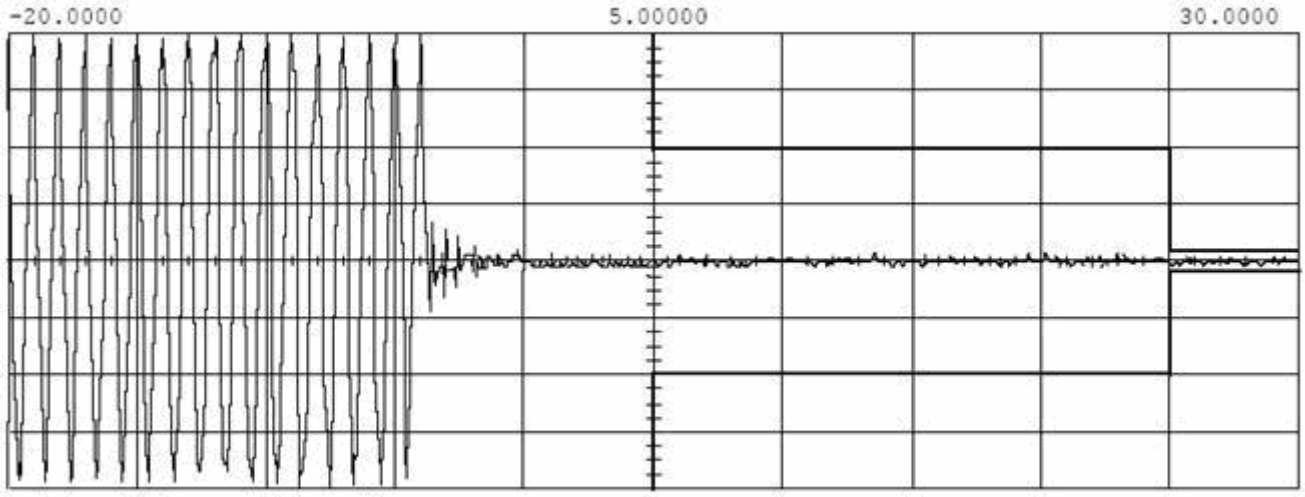
Section 90.214

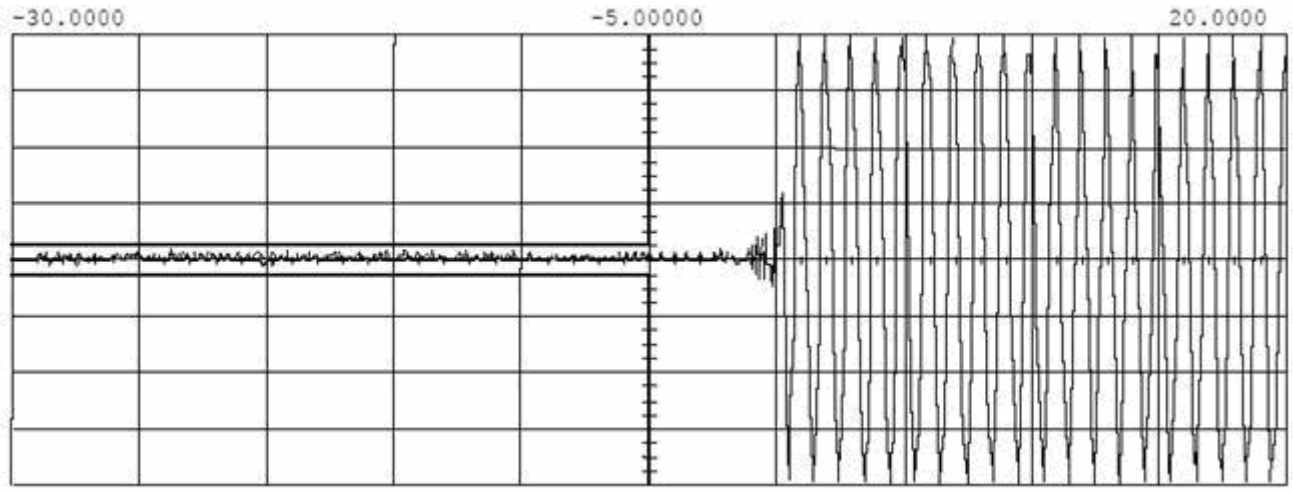
TEST PROCEDURE

TIA/EIA-603 2.2.19

RESULTS

Please refer to the test plot.





No non-compliance noted

Conclusion: PASS