FCC Test Report

Report No: FCS202203066W01

Issued for

Applicant:	Enping Yin Peng e-commerce Co., Ltd.
Address:	3rd Floor, No. 8, Lane 8, Fire Brick Factory New District, Tengfei Street, Encheng, Enping City
Product Name:	In Ear Monitor System
Brand Name:	D Debra
Model Name:	ER-202
Series Model:	ER-2040,ER-280,ER-102,IEM-220,IEM-240,IEM-140, IEM-2080,DV-02,CM-02
FCC ID:	2A2NH-ER-202

Issued By: Flux Compliance Service Laboratory
Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
Tel: 769-27280901 Fax:769-27280901 http://www.fcs-lab.com

TEST RESULT CERTIFICATION

Applicant's Name..... :	Enping Yin Peng e-commerce Co., Ltd.
Address..... :	3rd Floor, No. 8, Lane 8, Fire Brick Factory New District, Tengfei Street, Encheng, Enping City
Manufacture's Name..... :	Enping Yin Peng e-commerce Co., Ltd.
Address..... :	3rd Floor, No. 8, Lane 8, Fire Brick Factory New District, Tengfei Street, Encheng, Enping City

Product Description

Product Name..... :	In Ear Monitor System
Brand Name .....:	D Debra
Model Name..... :	ER-202
Series Model.....:	ER-2040,ER-280,ER-102,IEM-220,IEM-240,IEM-140,IEM-2080, DV-02,CM-02
Test Standards..... :	FCC Rules and Regulations Part 15 Subpart C section 15.236
Test Procedure..... :	ANSI C63.10:2013

This device described above has been tested FCS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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Date of Test..... :

Date (s) of performance of tests. :	08 Mar, 2022 ~ 22 Mar, 2022
Date of Issue.....:	22 Mar, 2022
Test Result.....:	Pass

Tested by : Scott Shen

(Scott Shen)

Reviewed by : Duke Qian

(Duke Qian)

Approved by : Jack Wang

(Jack Wang)

Table of Contents

	Page
1. SUMMARY OF TEST RESULTS	**5**
1.1 TEST FACTORY	6
1.2 MEASUREMENT UNCERTAINTY	6
2. GENERAL INFORMATION	**7**
2.1 GENERAL DESCRIPTION OF THE EUT	7
2.2 DESCRIPTION OF THE TEST MODES	9
2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	10
2.4 EQUIPMENTS LIST	11
3 MAXIMUM RADIATED POWER	**12**
3.1 LIMIT	12
3.3 TEST SETUP	12
3.4 TEST RESULTS	12
4. OCCUPIED BANDWIDTH	**14**
4.1 LIMIT	14
4.2 TEST PROCEDURE	14
.4.3 TEST SETUP	14
4.4 TEST RESULTS	15
5 NECESSARY BANDWITH	**15**
5.1 LIMIT	22
5.2 TEST PROCEDURE	22
5.3 TEST SETUP	22
6. TRANSMITTER UNWANTED EMISSIONS	**29**
6.1 LIMIT	29
5.2 TEST PROCEDURE	29
5.3 TEST SETUP	29
6.4 TEST RESULTS	22
7. FREQUENCY STABILITY	**36**
7.1 LIMIT	42
7.2 TEST PROCEDURE	42
7.3 TEST SETUP	42
7.4 TEST RESULTS	43

Revision History

Rev.	Issue Date	Effect Page	Contents
00	22 Mar, 2022	All	Initial Issue

1. SUMMARY OF TEST RESULTS

FCC Part 15 Subpart C section 15.236			
Standard Section	Test Item	Judgment	Remark
FCC Part 15.236(d)	Maximum Radiated Power	PASS	--
FCC Part 15.236(f)(2)	Occupied Bandwidth	PASS	--
FCC Part 15.236(g)	Necessary bandwidth	PASS	--
FCC Part 15.236(f)(3)	Frequency stability	PASS	--
FCC Part 15.236(g)	Emission within the band and outside this band	PASS	--
FCC Part 207(a)	Conducted Emission	NA	--

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

(2) All tests are according to ANSI C63.10:2013

1.1 TEST FACTORY

Company Name:	Flux Compliance Service Laboratory
Address:	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
Telephone:	+86-769-27280901
Fax:	+86-769-27280901
FCC Test Firm Registration Number: 514908 Designation number: CN0127 A2LA accreditation number：5545.01	

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ±U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.71dB
2	Unwanted Emissions, conducted	±2.98 dB
3	Conducted Emission (9KHz-150KHz)	±4.13 dB
4	Conducted Emission (150KHz-30MHz)	±4.74 dB
5	All emissions,radiated(<1G) 30MHz-1000MHz	±3.2 dB
6	All emissions,radiated (1GHz -18GHz)	±3.66 dB
7	All emissions,radiated (18GHz -40GHz)	±4.31 dB

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	In Ear Monitor System
Brand Name	D Debra
Model Name	ER-202
Series Model	ER-2040,ER-280,ER-102,IEM-220,IEM-240,IEM-140, IEM-2080,DV-02,CM-02
Channel List	Please refer to the Note 2.
Operation frequency	CH A:530.1MHz-554.85MHz CH B:555.1MHz-579.85MHz
Modulation Type	FM
Antenna Type	External Antenna
Antenna Gain (dBi)	1.0
Power Supply	DC 3V
Battery	DC 1.5V×2
Hardware version number	V1.0
Software version number	V1.0
Connecting I/O Port(s)	Please refer to the User's Manual

Note:

1. For a more detailed features description, please refer to the manufacturer’s specifications or the User's Manual.

2. **Channel List**

Channel			
Channel A	Frequency (MHz)	Channel B	Frequency (MHz)
01	530.10	05	555.10
02	538.35	06	563.35
03	546.60	07	571.60
04	554.85	08	579.85

Ant.	Atnenna Brand	Antenna Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	HYUA	External Antenna	N/A	1.0	Antenna
2	N/A	HYUA	External Antenna	N/A	1.0	Antenna

2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test software:FCC tools
The test softeware was used to control EUT work in continuous TX mode, and select test channel, Wireless mode as below table, the following operating modes were applied for the related test items. All test modes were tested, only the result of the worst case was recorded in the report.

Tested mode, channel , information		
Mode	Channel	Frequency (MHz)
Channel A	CH 01	530.10
	CH 03	546.60
	CH 04	554.85
Channel B	CH 05	555.10
	CH 07	571.60
	CH 08	579.85

Note：that use new battery during the test

2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

2.4 EQUIPMENTS LIST

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESRP 3	FCS-E001	2022.02.10	2023.02.09
Signal Analyzer	R&S	FSV40-N	FCS-E012	2022.02.10	2023.02.09
Active loop Antenna	ZHINAN	ZN30900C	FCS-E013	2022.02.10	2023.02.09
Bilog Antenna	SCHWARZBECK	VULB 9168	FCS-E002	2022.02.10	2023.02.09
Horn Antenna	SCHWARZBECK	BBHA 9120D	FCS-E003	2022.02.10	2023.02.09
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	FCS-E018	2022.02.10	2023.02.09
Pre-Amplifier(0.1M-3G Hz)	EMCI	EM330N	FCS-E004	2022.02.10	2023.02.09
Pre-Amplifier (1G-18GHz)	N/A	TSAMP-0518SE	FCS-E014	2022.02.10	2023.02.09
Pre-Amplifier (18G-40GHz)	TERA-MW	TRLA-0400	FCS-E019	2022.02.10	2023.02.09
Temperature & Humidity	HTC-1	victor	FCS-E005	2022.02.10	2023.02.09
Signal generator	Agilent	E4421B	FCS-E025	2022.02.10	2023.02.09

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESPI	FCS-E020	2022.02.10	2023.02.09
LISN	R&S	ENV216	FCS-E007	2022.02.10	2023.02.09
LISN	ETS	3810/2NM	FCS-E009	2022.02.10	2023.02.09
Temperature & Humidity	HTC-1	victor	FCS-E008	2022.02.10	2023.02.09

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
Spectrum Analyzer	Keysight	N9020A	FCS-E015	2022.02.10	2023.02.09
Spectrum Analyzer	Agilent	E4447A	MY50180039	2022.02.10	2023.02.09
Spectrum Analyzer	R&S	FSV-40	101499	2022.02.10	2023.02.09

3 MAXIMUM RADIATED POWER

3.1 LIMIT

Refer to FCC 15.236(d)
In the bands allocated and assigned for broadcast television and in the 600 MHz service band: 50 mW EIRP

3.2 TEST PROCEDURE

A · Connect each EUT's antenna output to power sensor by RF cable and attenuator

3.3 TEST SETUP

3.4 TEST RESULTS

ANT 1

Test mode	Channel	Frequency（MHz）	Peak Output Power (dBm)	Cable loss(dBm)	Atnenna Gain (dBi)	EIRP(dBm)	Limit(dBm)	Verdict
Channel A	01	530.10	3.26	1.0	1.0	5.26	16.99	PASS
	03	546.60	3.39	1.0	1.0	5.39		
	04	554.85	3.55	1.0	1.0	5.55		
Channel B	05	555.10	3.41	1.0	1.0	5.41		
	07	571.60	3.36	1.0	1.0	5.36		
	08	579.85	3.49	1.0	1.0	5.49		

ANT 2

Test mode	Channel	Frequency （MHz）	Peak Output Power (dBm)	Cable loss(dBm)	Atnenna Gain (dBi)	EIRP(dBm)	Limit(dBm)	Verdict
Channel A	01	530.10	3.01	1.0	1.0	5.01	16.99	PASS
	03	546.60	3.09	1.0	1.0	5.09		
	04	554.85	3.17	1.0	1.0	5.17		
Channel B	05	555.10	3.06	1.0	1.0	5.06		
	07	571.60	3.08	1.0	1.0	5.08		
	08	579.85	3.12	1.0	1.0	5.12		

4. OCCUPIED BANDWIDTH

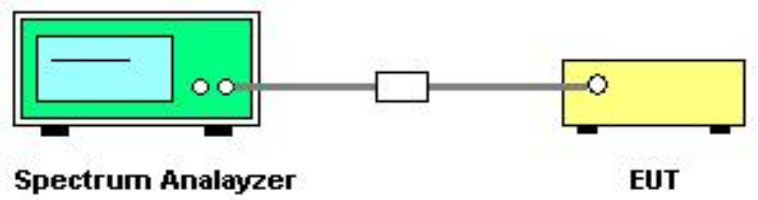
4.1 LIMIT

One or more adjacent 25KHz segments within the assignable frequencies may be combined to form a channel whose maximum bandwidth shall not exceed 200 kHz. The operating bandwidth shall not exceed 200 kHz

4.2 TEST PROCEDURE

Parameter	Setting
Detector	Peak/AV
Sweep time	Auto
Resolution bandwidth	1 % to 5 % of the occupied bandwidth
Video bandwidth:	3 x resolution bandwidth
Span:	2 x emission bandwidth
Trace mode:	Max. hold
Analyzer function:	99% power occupied bandwidth function
EUT:	Modulated signal with max(FM,2.5kHz tone). frequency deviation

4.3 TEST SETUP



4.4 TEST RESULTS

ANT 1

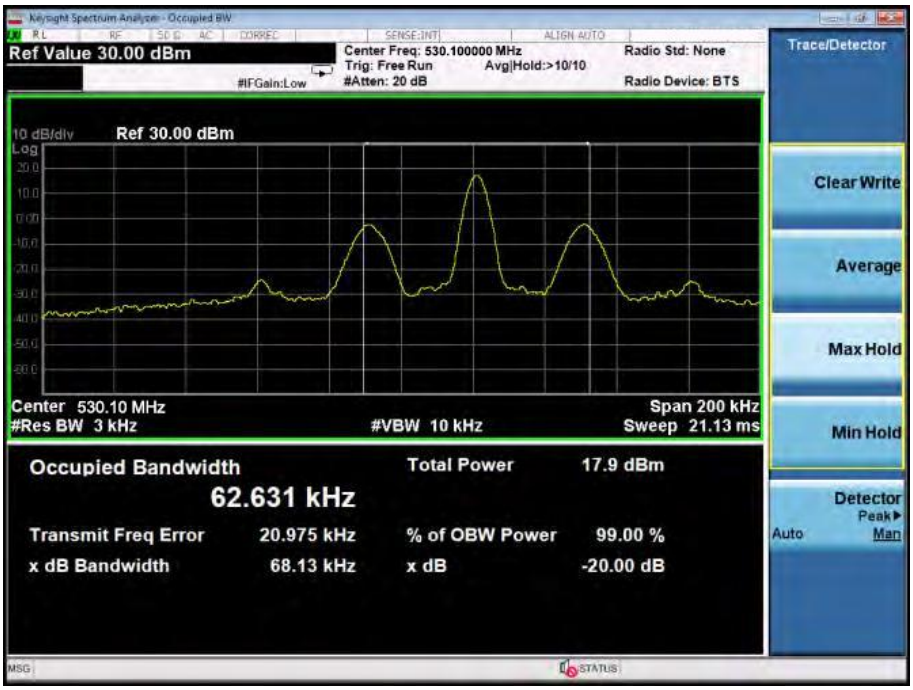
Test mode	Channel	Frequency （MHz）	20dB Bandwidth (KHz)	Limt(KHz)	Verdict
Channel A	01	530.10	68.13KHz	200KHz	PASS
	03	546.60	67.93KHz		
	04	554.85	68.08KHz		
Channel B	05	555.10	68.09KHz		
	07	571.60	68.10KHz		
	08	579.85	68.07KHz		

ANT 2

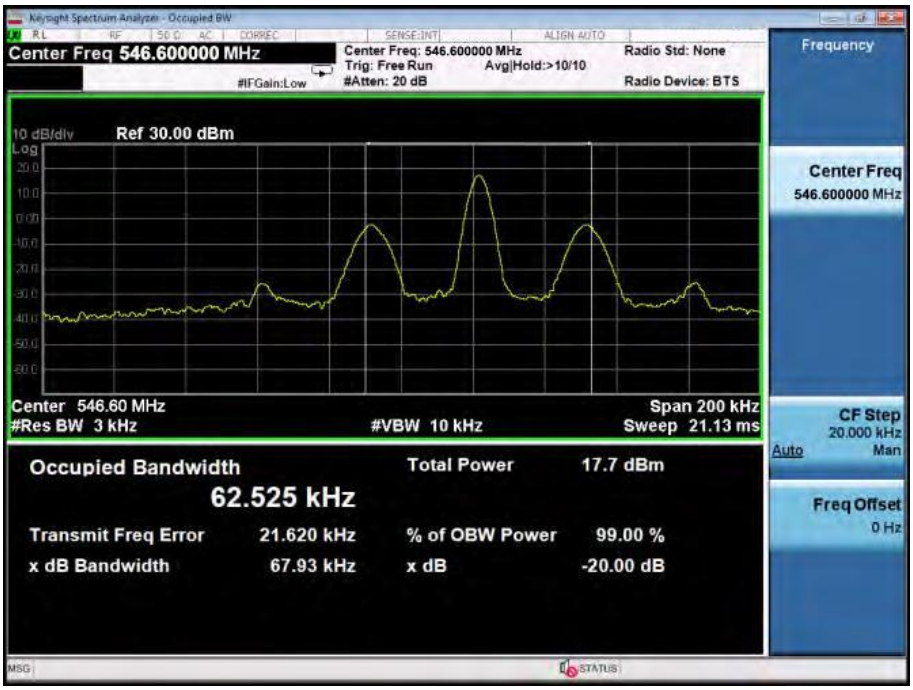
Test mode	Channel	Frequency （MHz）	20dB Bandwidth (KHz)	Limt(KHz)	Verdict
Channel A	01	530.10	69.58KHz	200KHz	PASS
	03	546.60	67.95KHz		
	04	554.85	68.75KHz		
Channel B	05	555.10	67.70KHz		
	07	571.60	67.59KHz		
	08	579.85	66.98KHz		

ANT 1

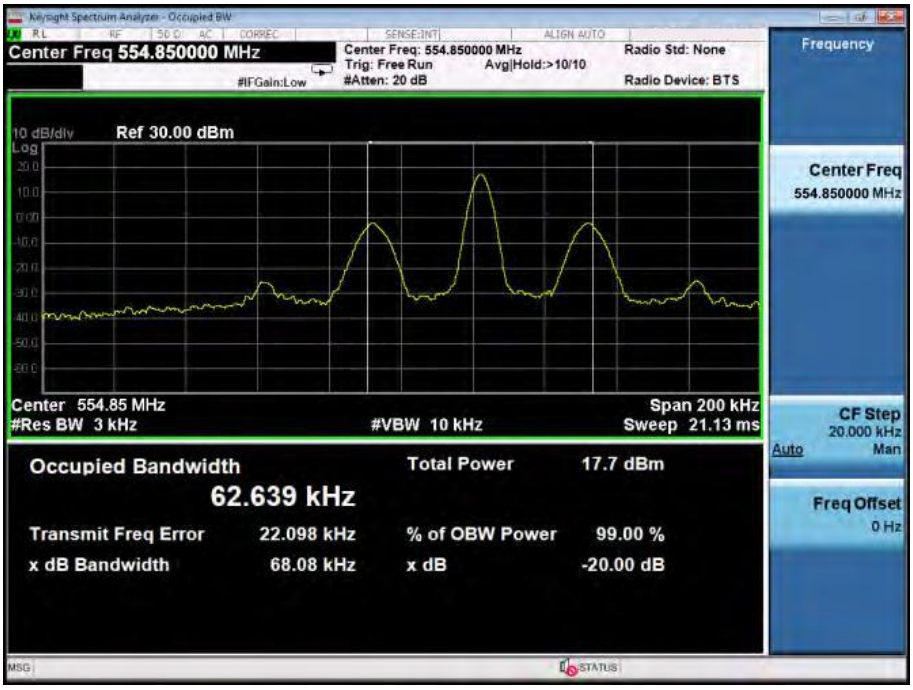
Channel A Low



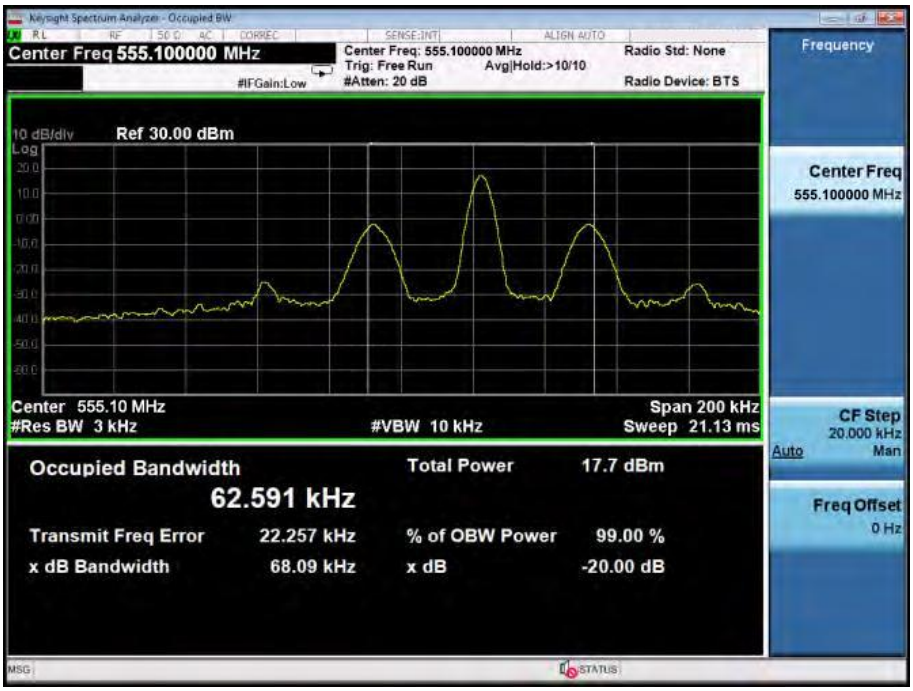
Channel A Middle



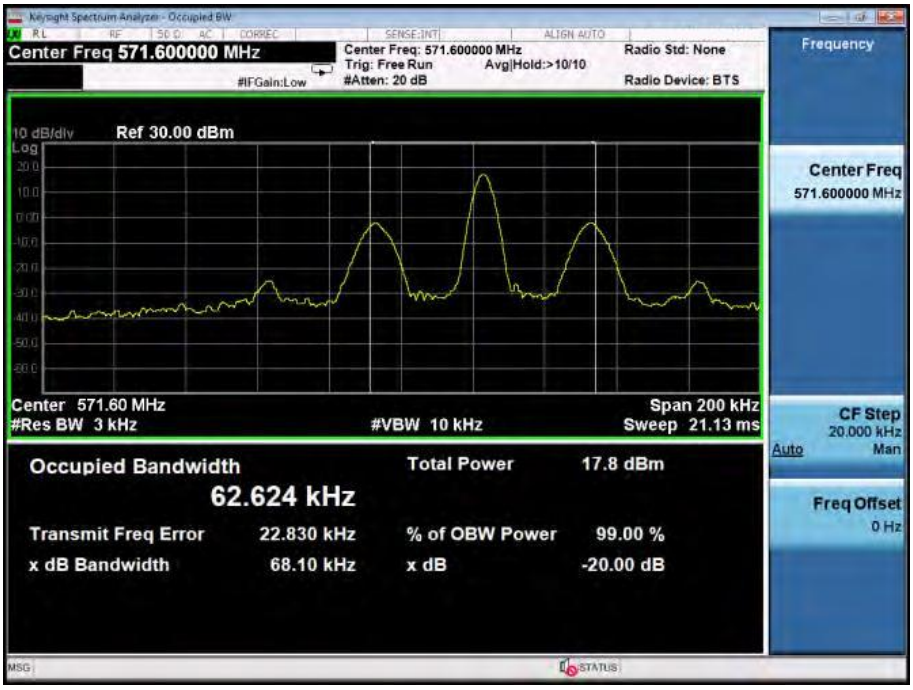
Channel A High



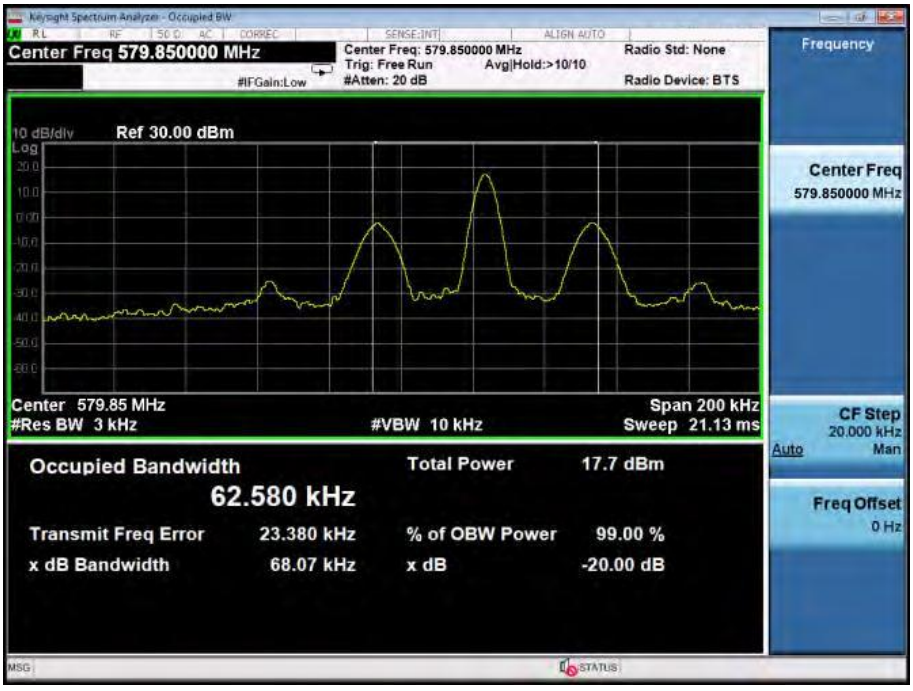
Channel B Low



Channel B Middle



Channel B High



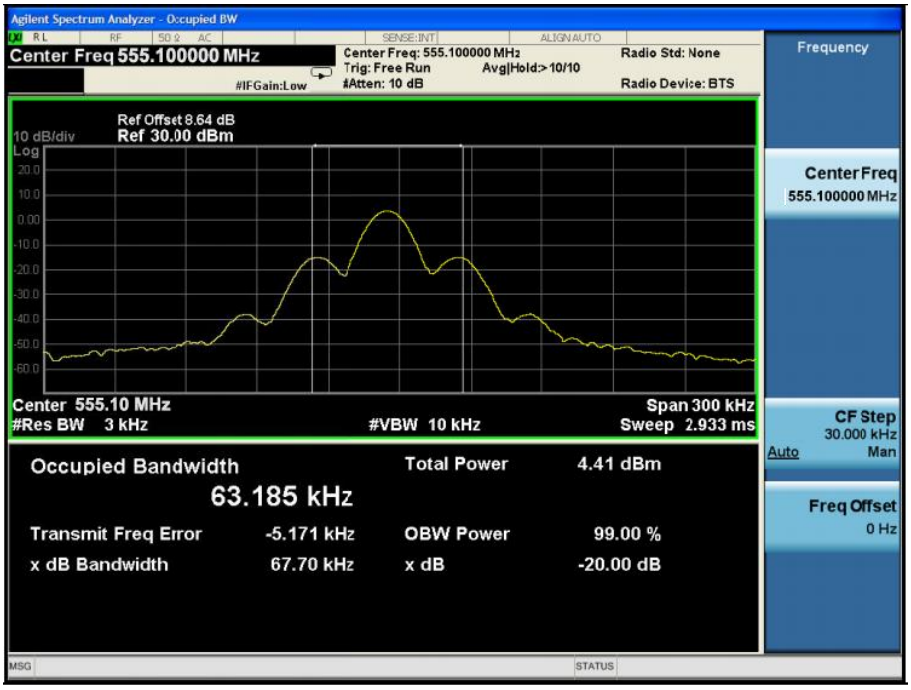
ANT 2

Channel A Low

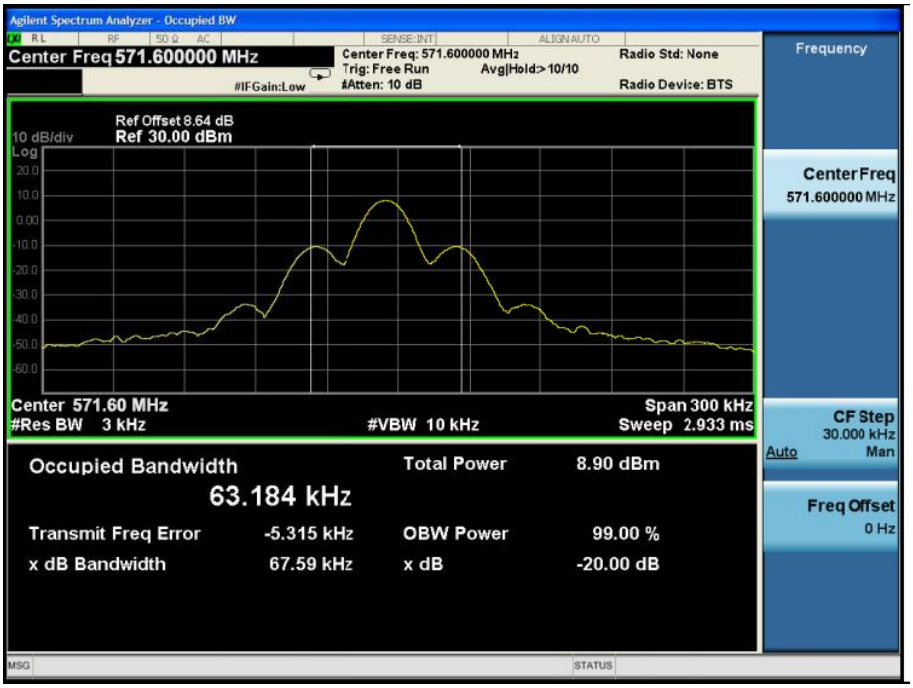
Channel A Middle

Channel A High

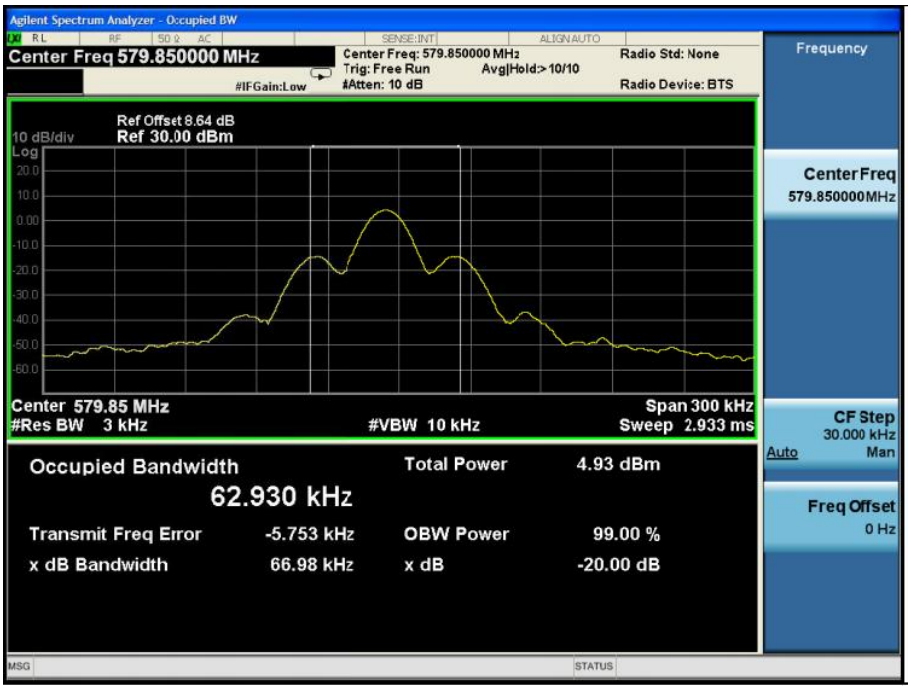
Channel B Low



Channel B Middle



Channel B High



5 NECESSARY BANDWITH

5.1 LIMIT

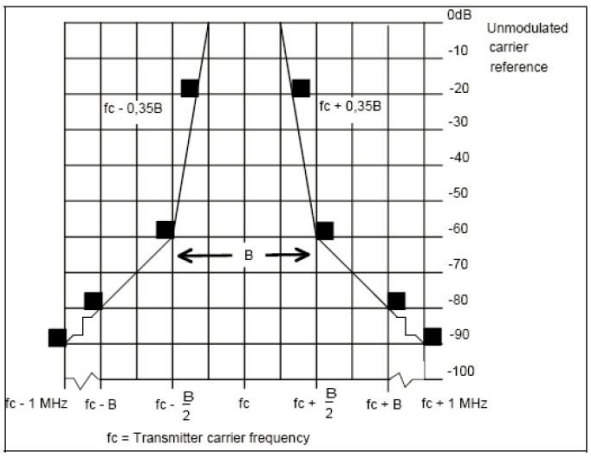
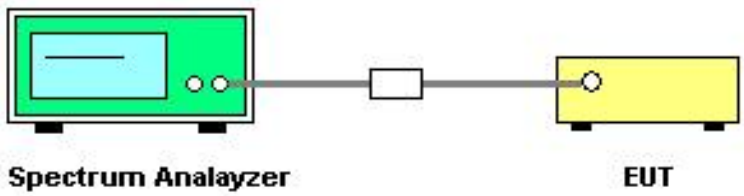


Figure 1: Spectrum mask for analogue systems in all bands

5.2 TEST PROCEDURE

EN300422-1 V1.4.2 Clause 8.3.

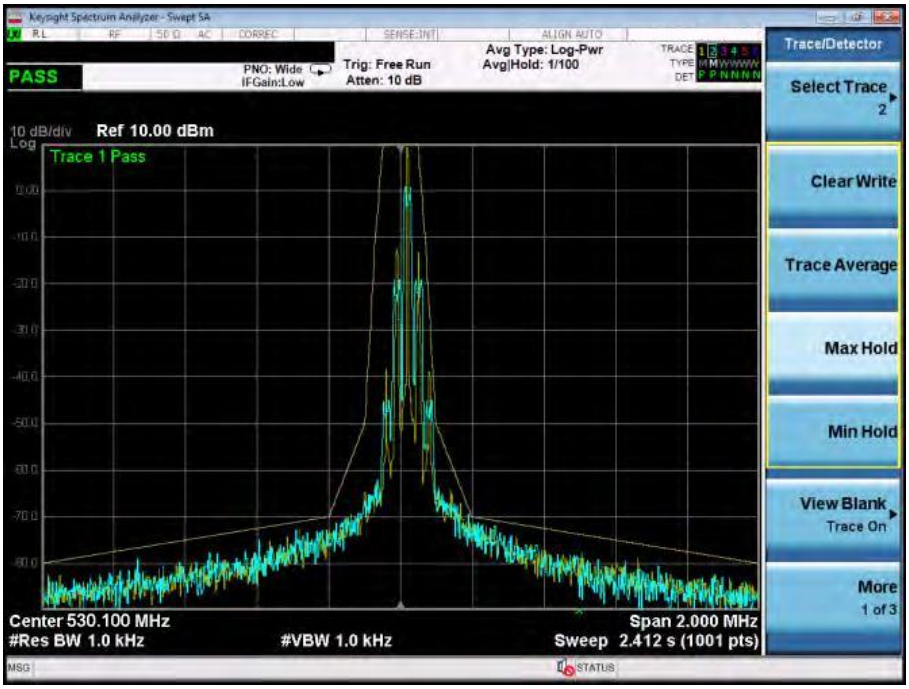
5.3 TEST SETUP



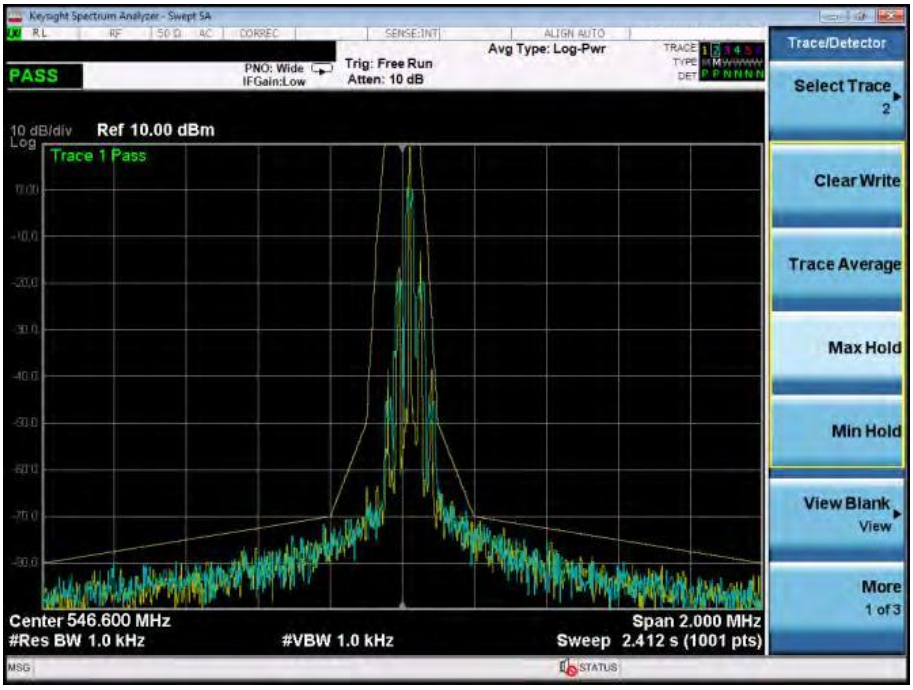
5.4 TEST RESULT

ANT 1

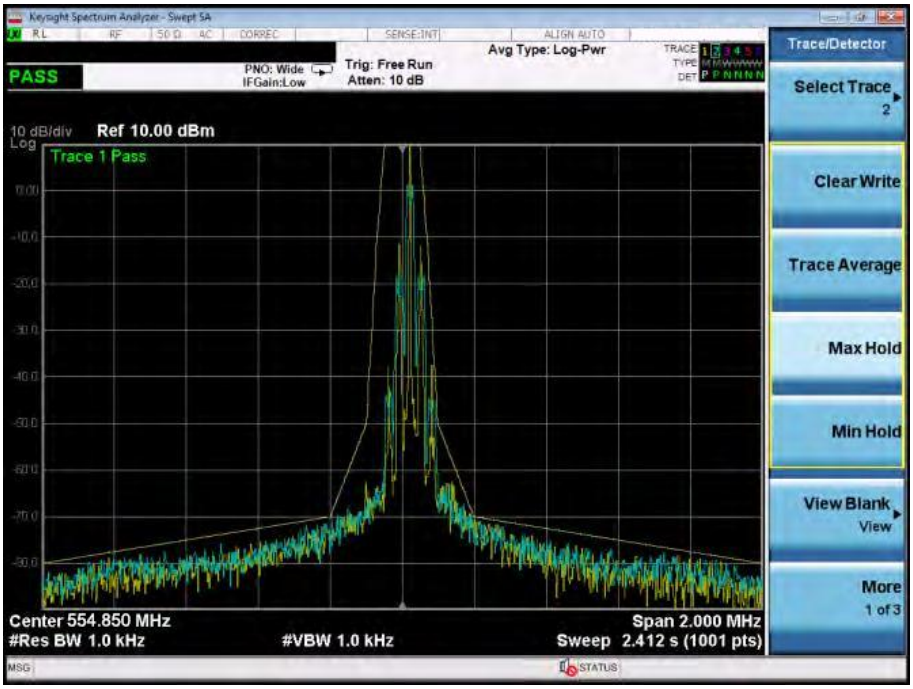
Channel A Low



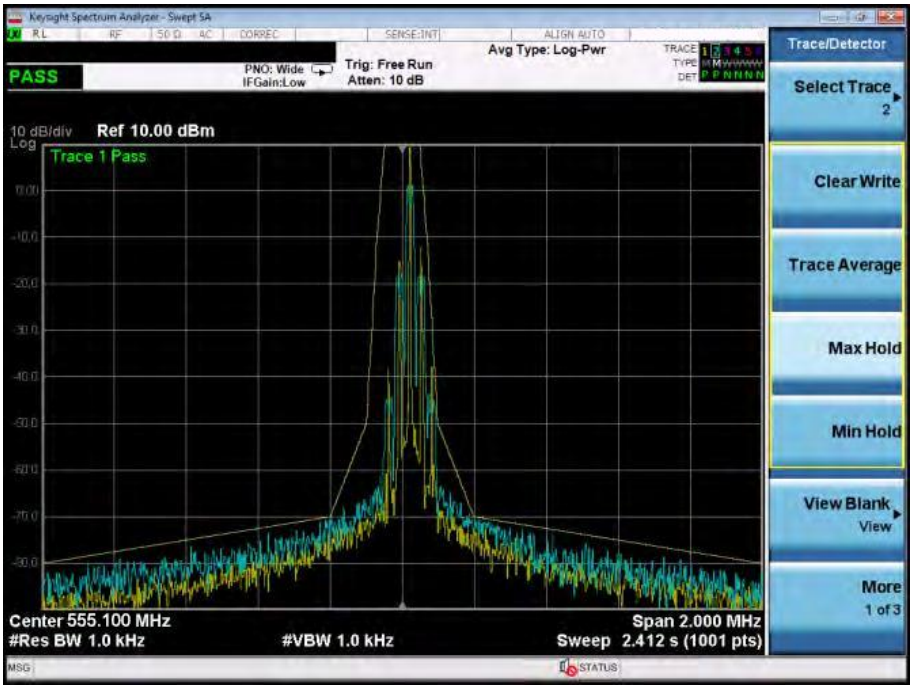
Channel A Middle



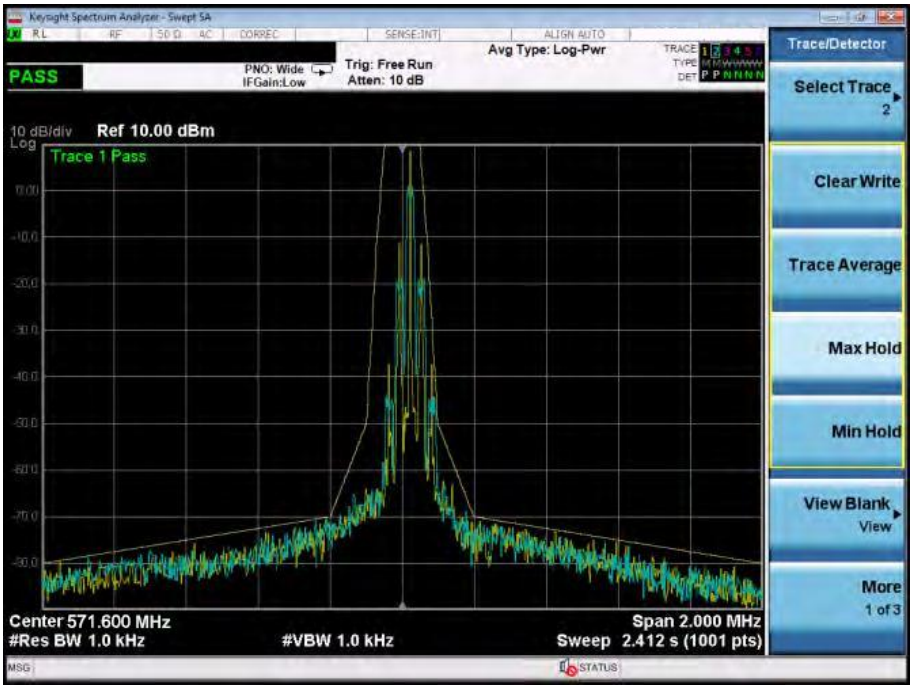
Channel A High



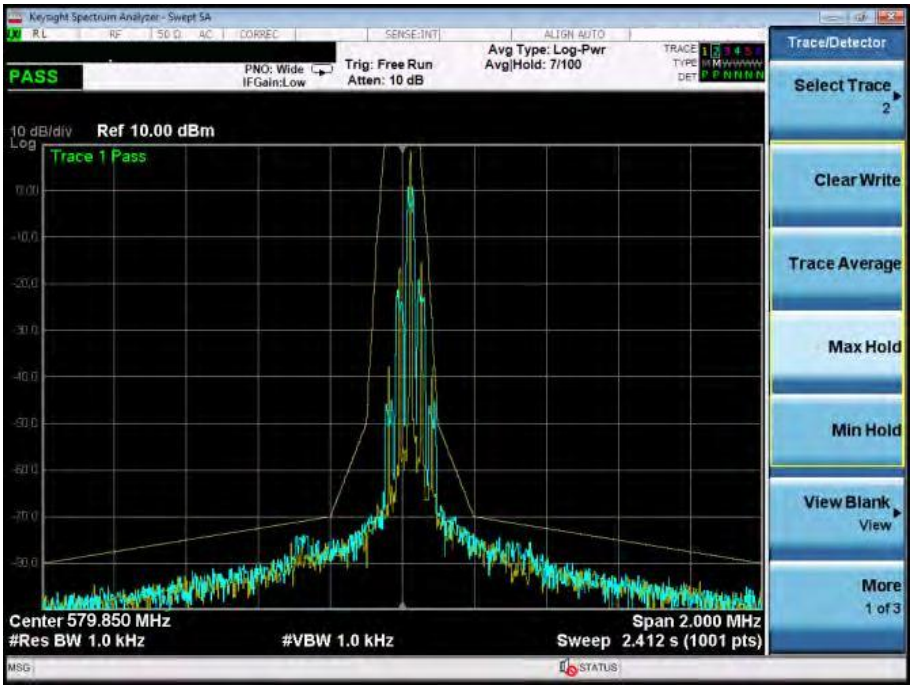
Channel B Low



Channel B Middle

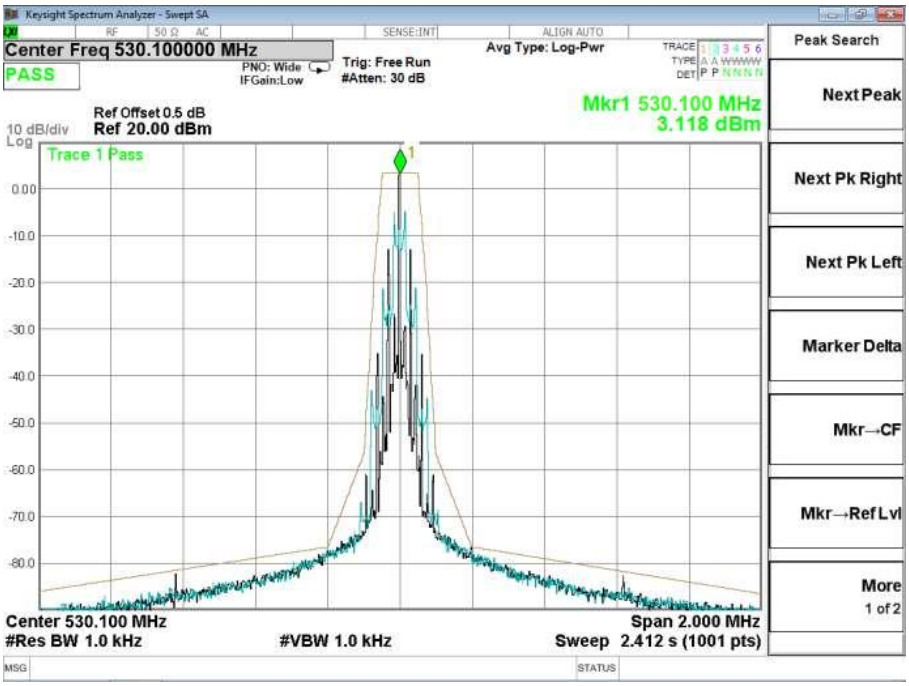


Channel B High

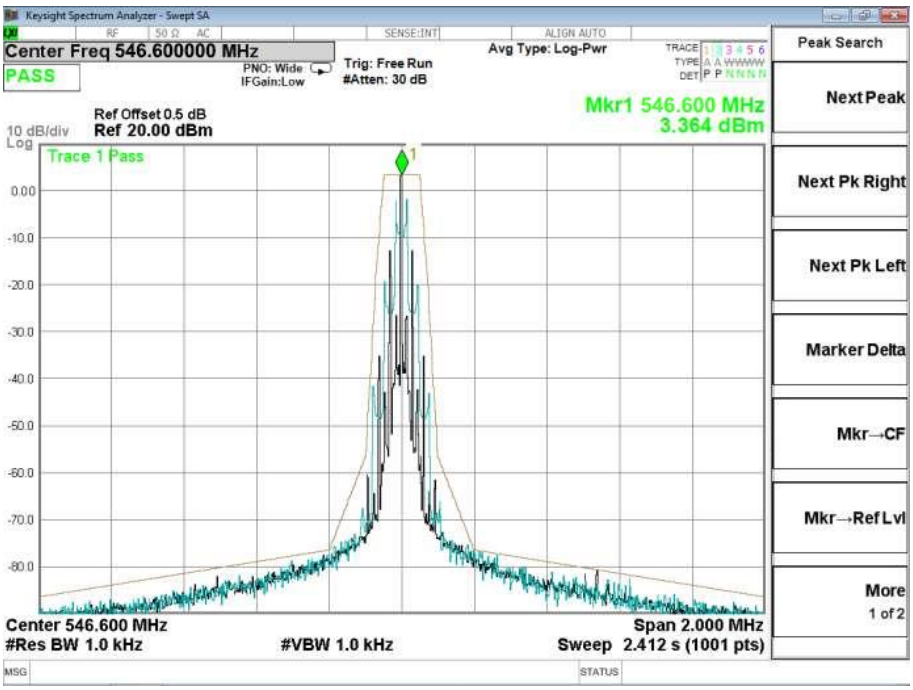


ANT 2

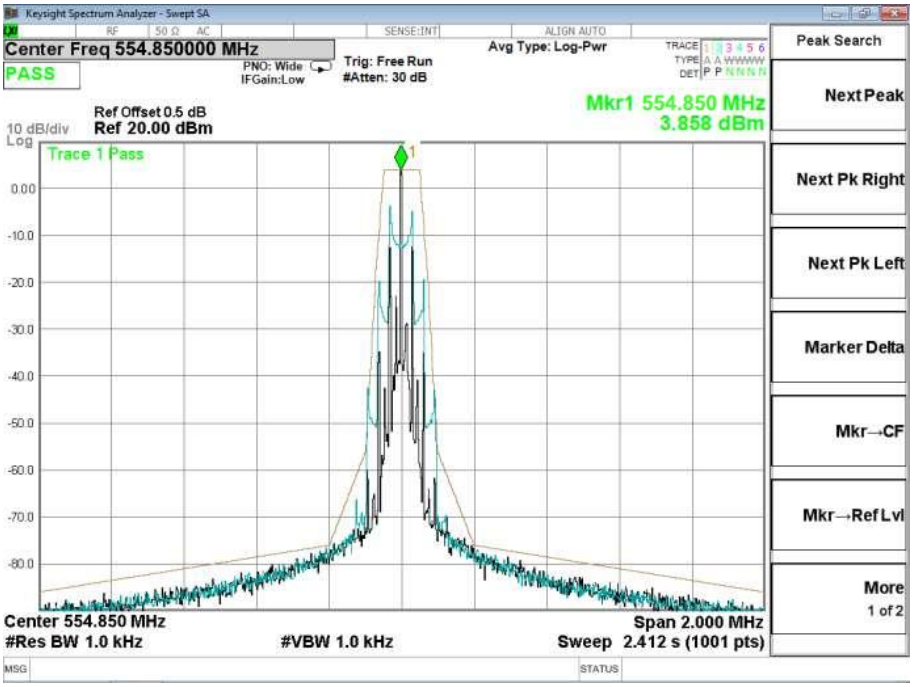
Channel A Low



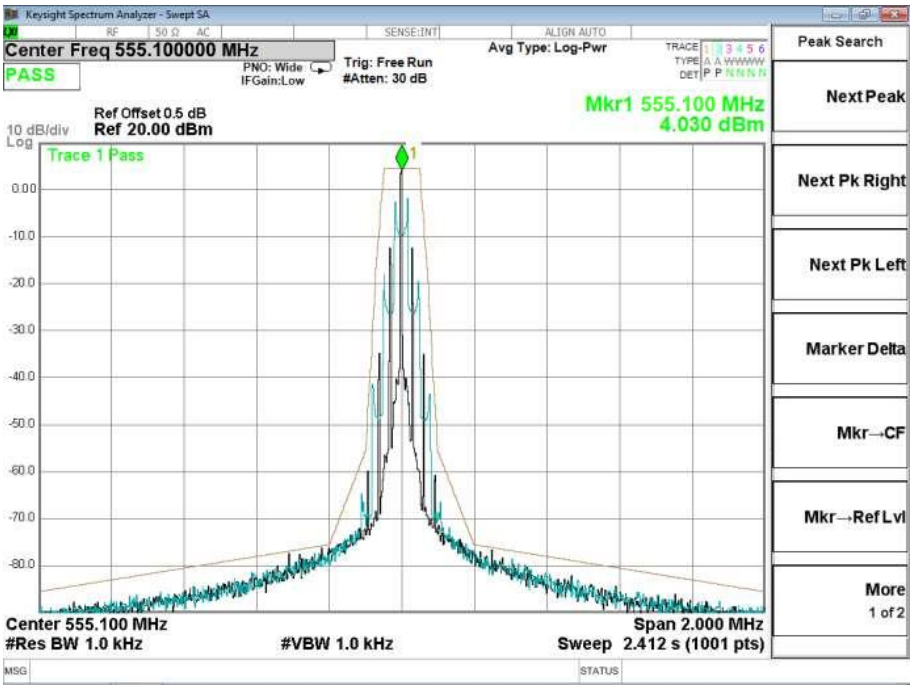
Channel A Middle



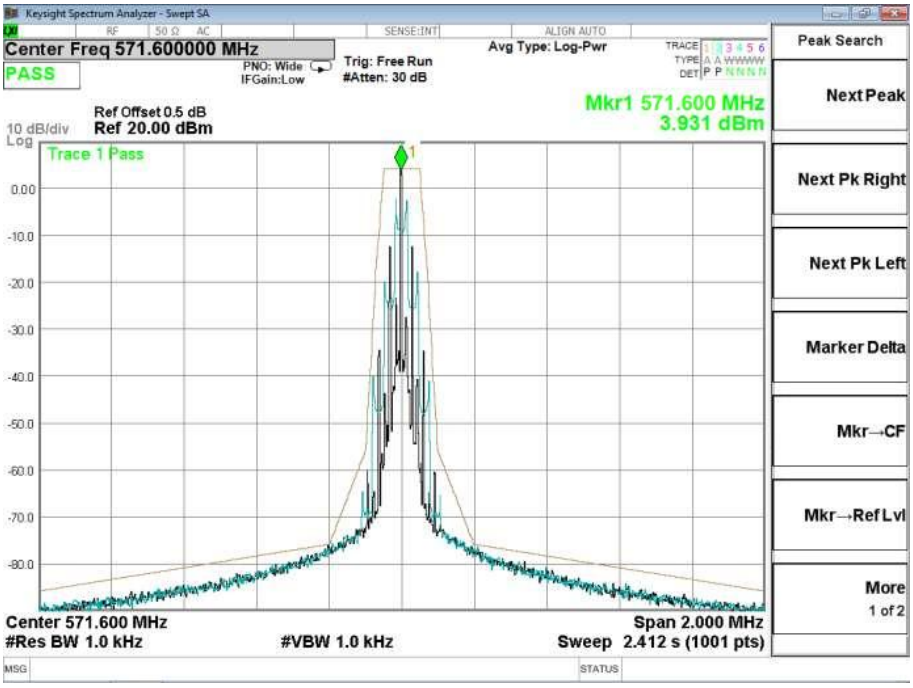
Channel A High



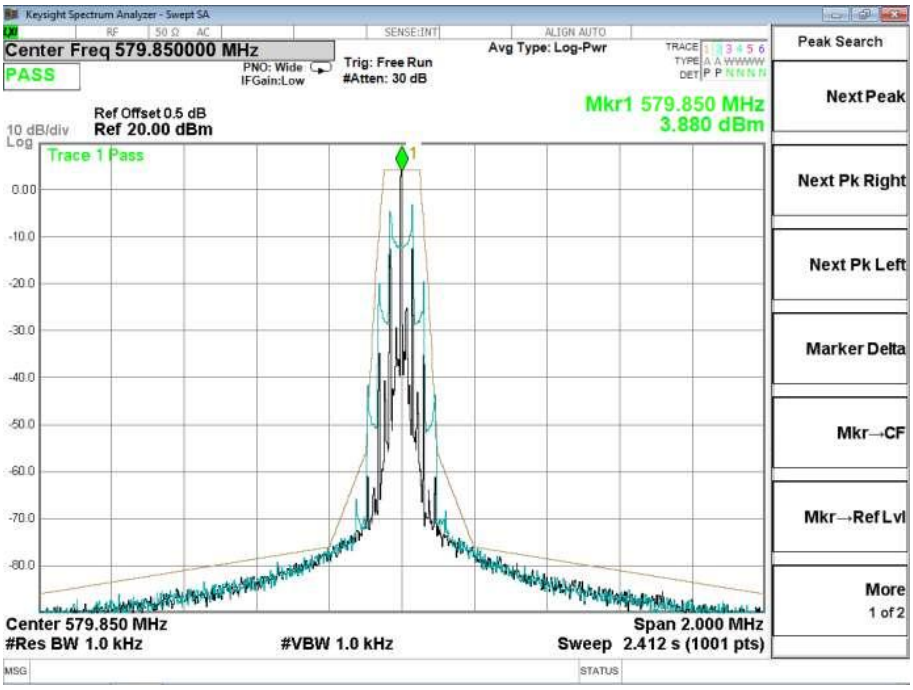
Channel B Low



Channel B Middle



Channel B High



6. TRANSMITTER UNWANTED EMISSIONS

6.1 LIMIT

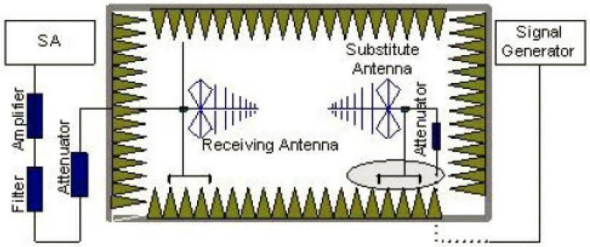
Spurious emissions are emissions outside the frequency range(s) of the equipment. The power of the spurious emissions shall not exceed the limits of table as below:

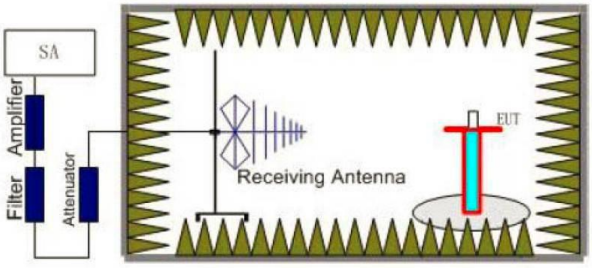
State	Frequency		
	47MHz to 74MHz, 87.5MHz to 137MHz 174MHz to 230MHz, 470MHz to 862MHz	Other Frequencies below 1000MHz	Frequencies above 1000MHz
Operation	4nW	250nW	1uW
Standby	2nW	2nW	20nW

5.2 TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer through an attenuator. Set spectrum analyzer start 30MHz to 6000MHz with 100 KHz RBW and 300 KHz VBW
2 Please refer to ETSI EN 300 422-1 V1.4.2 (2011-08) clause 6.1 for the test conditions.
3 Please refer to ETSI EN 300 422-1 V1.4.2 (2011-08) clause 8.4.2 for the measurement method.

5.3 TEST SETUP

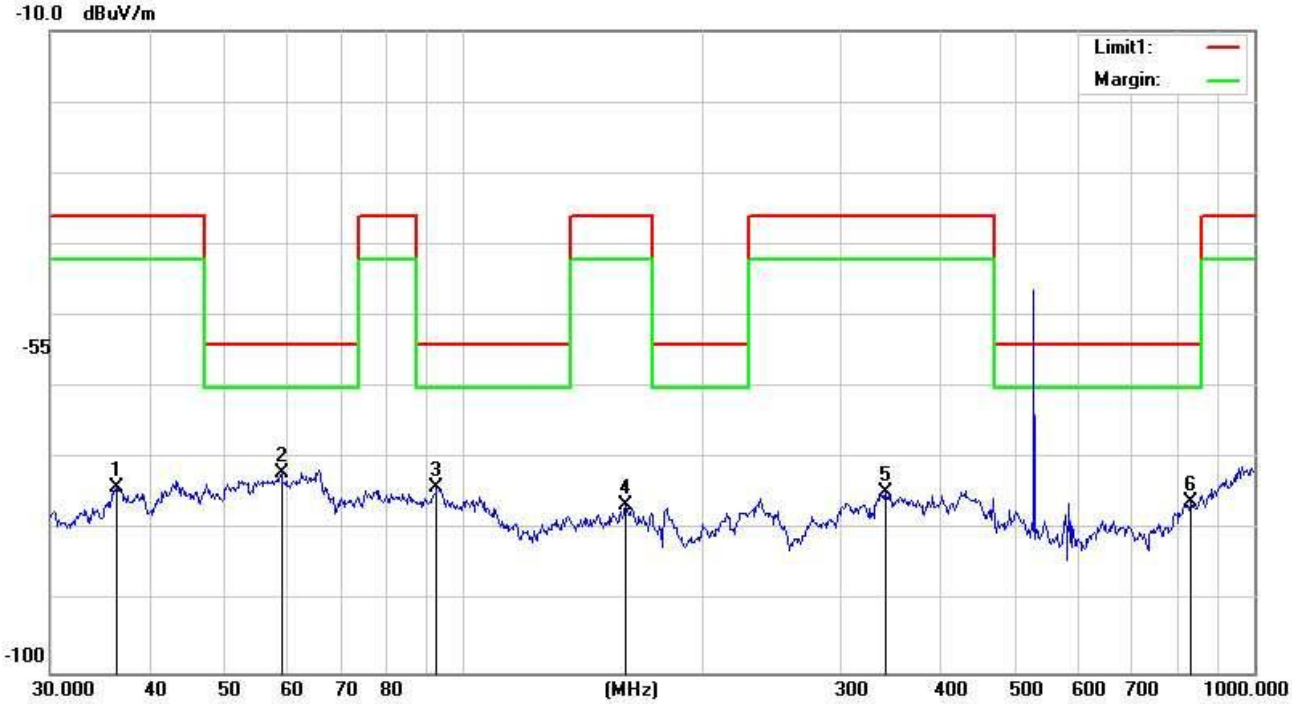




6.4 TEST RESULTS

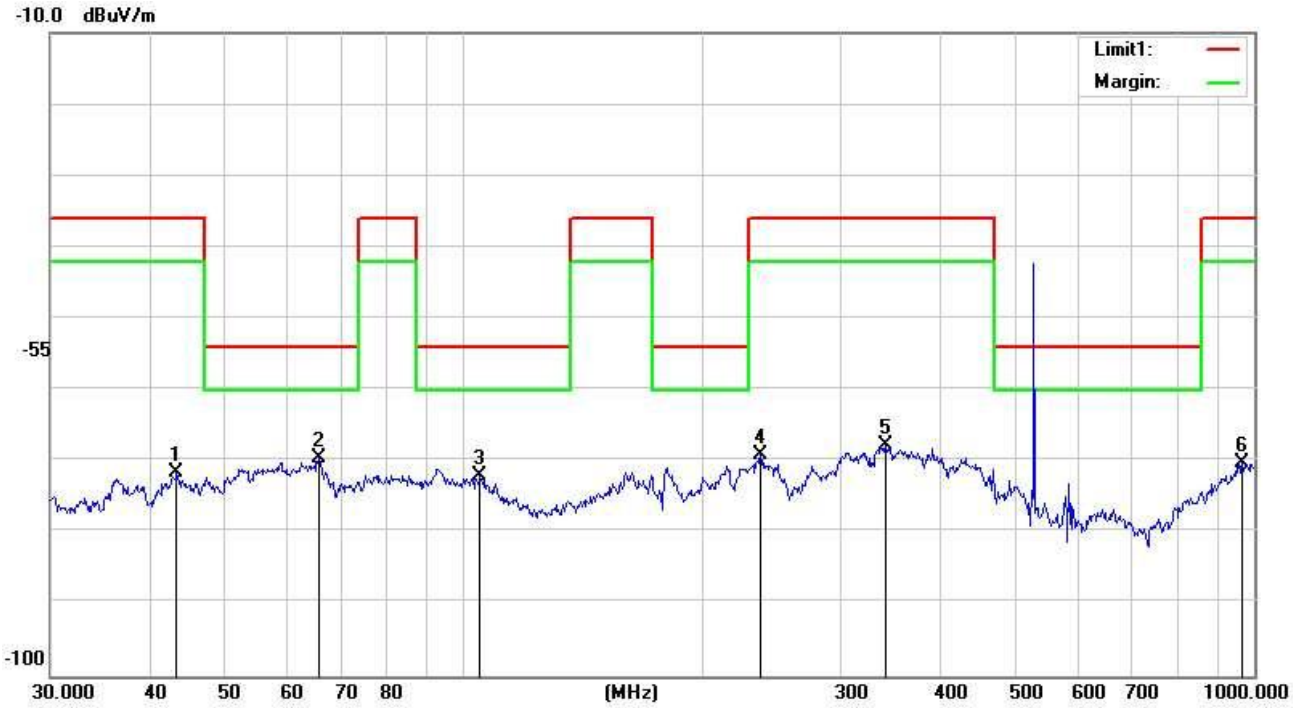
CHNNEL A –LOW CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.3813	-57.51	-16.50	-74.01	-36.00	-38.01	peak
2	58.8185	-55.18	-16.91	-72.09	-54.00	-18.09	peak
3	92.4624	-54.20	-19.79	-73.99	-54.00	-19.99	peak
4	160.3454	-57.95	-18.57	-76.52	-36.00	-40.52	peak
5	341.9786	-61.92	-12.78	-74.70	-36.00	-38.70	peak
6	830.4002	-71.88	-4.26	-76.14	-54.00	-22.14	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.3534	-54.70	-16.92	-71.62	-36.00	-35.62	peak
2	65.5725	-50.09	-19.47	-69.56	-54.00	-15.56	peak
3	104.9033	-54.60	-17.34	-71.94	-54.00	-17.94	peak
4	237.4760	-53.78	-15.34	-69.12	-36.00	-33.12	peak
5	341.9786	-54.92	-12.78	-67.70	-36.00	-31.70	peak
6	965.5421	-67.79	-2.32	-70.11	-36.00	-34.11	peak

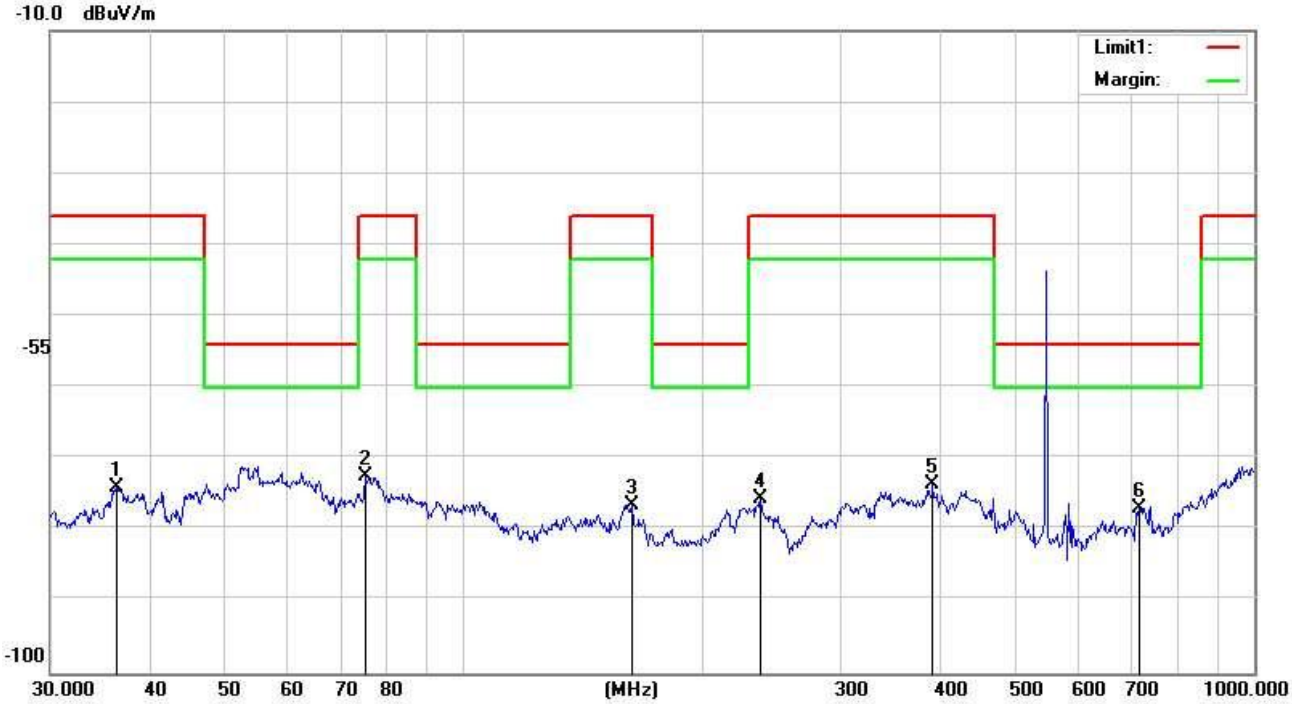
Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

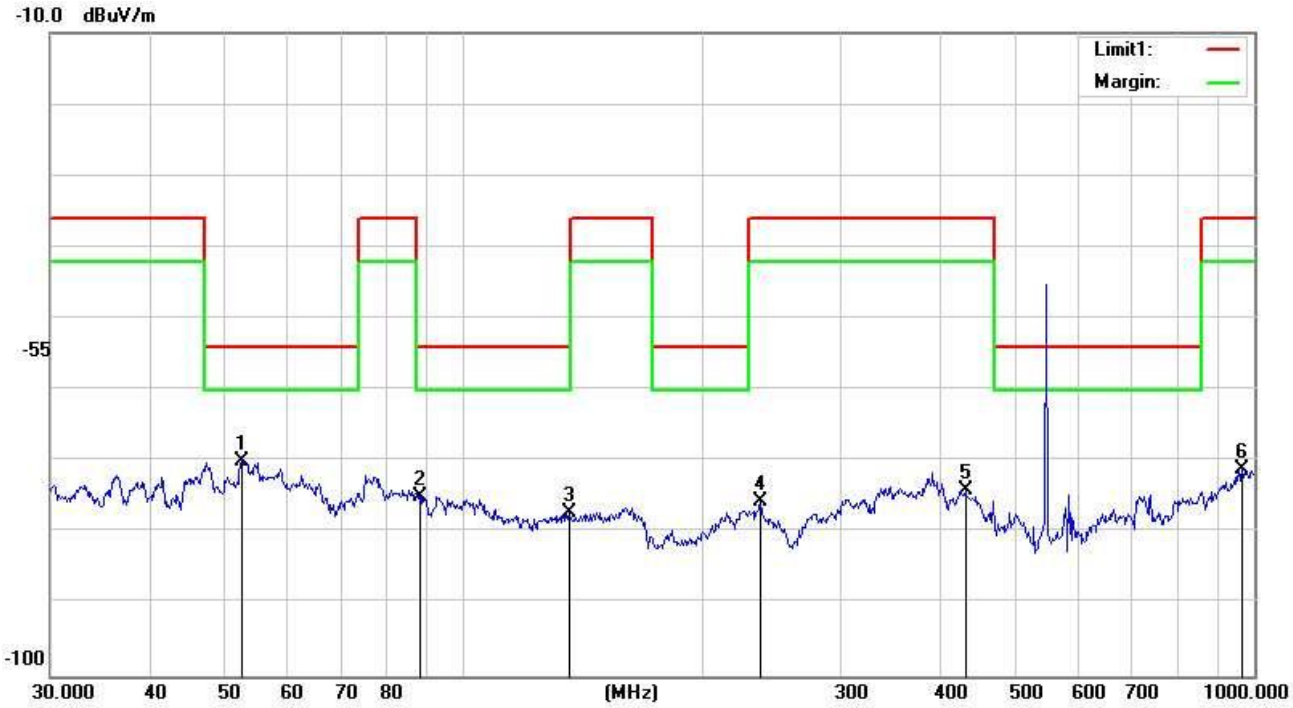
CHNNEL A –MIDDLE CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.3813	-57.51	-16.50	-74.01	-36.00	-38.01	peak
2	75.1821	-51.07	-21.38	-72.45	-36.00	-36.45	peak
3	163.1818	-57.77	-18.68	-76.45	-36.00	-40.45	peak
4	237.4760	-60.28	-15.34	-75.62	-36.00	-39.62	peak
5	392.0951	-60.74	-12.84	-73.58	-36.00	-37.58	peak
6	716.6820	-70.99	-5.93	-76.92	-54.00	-22.92	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.3913	-53.47	-16.54	-70.01	-54.00	-16.01	peak
2	88.0327	-54.34	-20.60	-74.94	-54.00	-20.94	peak
3	135.9822	-56.26	-20.95	-77.21	-54.00	-23.21	peak
4	237.4760	-60.28	-15.34	-75.62	-36.00	-39.62	peak
5	431.0316	-62.24	-11.69	-73.93	-36.00	-37.93	peak
6	965.5421	-68.79	-2.32	-71.11	-36.00	-35.11	peak

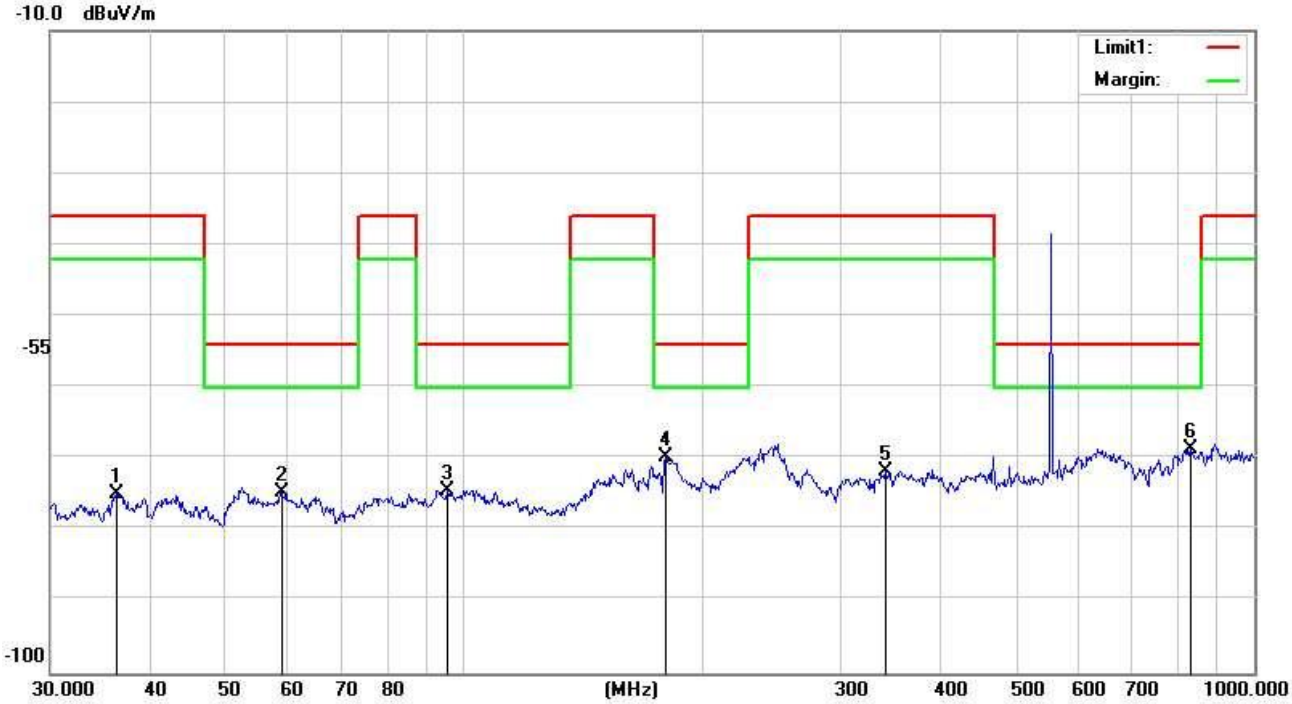
Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

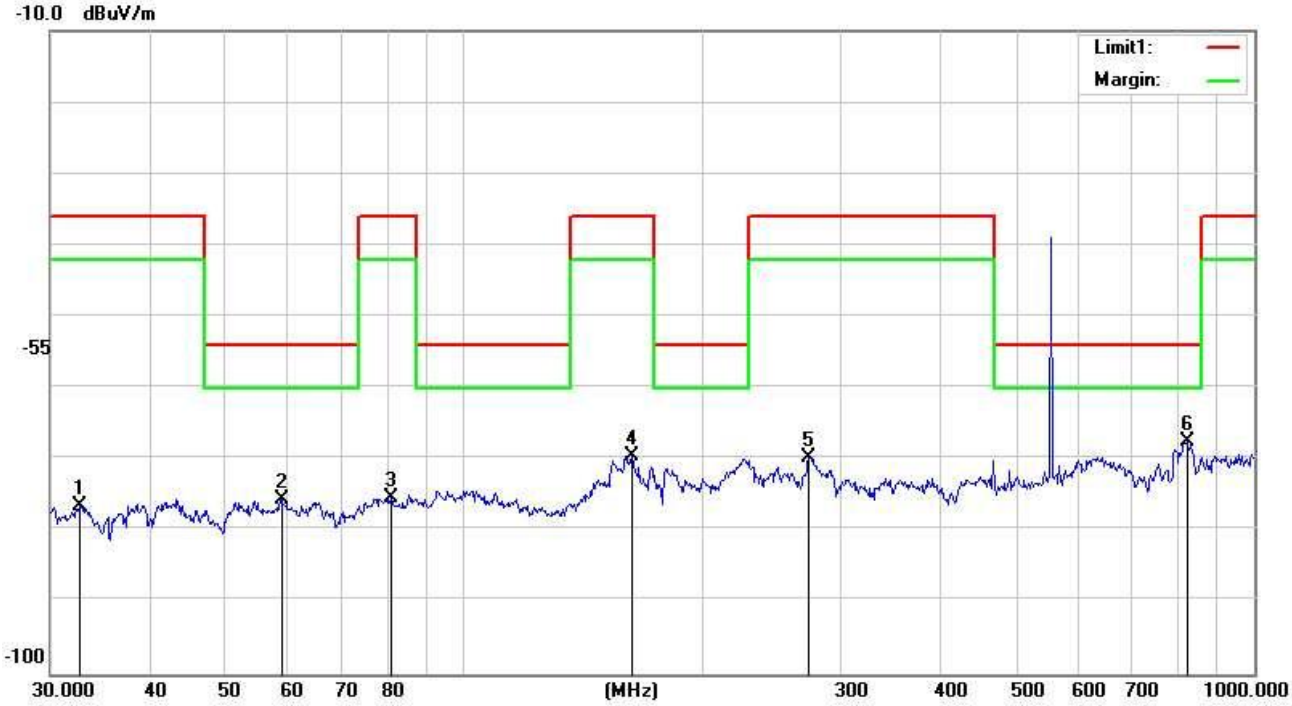
CHNNEL A –HIGH CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.3813	-58.51	-16.50	-75.01	-36.00	-39.01	peak
2	58.8185	-57.68	-16.91	-74.59	-54.00	-20.59	peak
3	95.4270	-55.32	-19.09	-74.41	-54.00	-20.41	peak
4	180.0165	-50.26	-19.44	-69.70	-54.00	-15.70	peak
5	341.9786	-58.92	-12.78	-71.70	-36.00	-35.70	peak
6	830.4002	-64.38	-4.26	-68.64	-54.00	-14.64	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.6340	-61.77	-14.74	-76.51	-36.00	-40.51	peak
2	58.8185	-58.68	-16.91	-75.59	-54.00	-21.59	peak
3	80.9274	-53.68	-21.76	-75.44	-36.00	-39.44	peak
4	163.1818	-50.77	-18.68	-69.45	-36.00	-33.45	peak
5	273.2341	-55.11	-14.55	-69.66	-36.00	-33.66	peak
6	821.7104	-62.95	-4.46	-67.41	-54.00	-13.41	peak

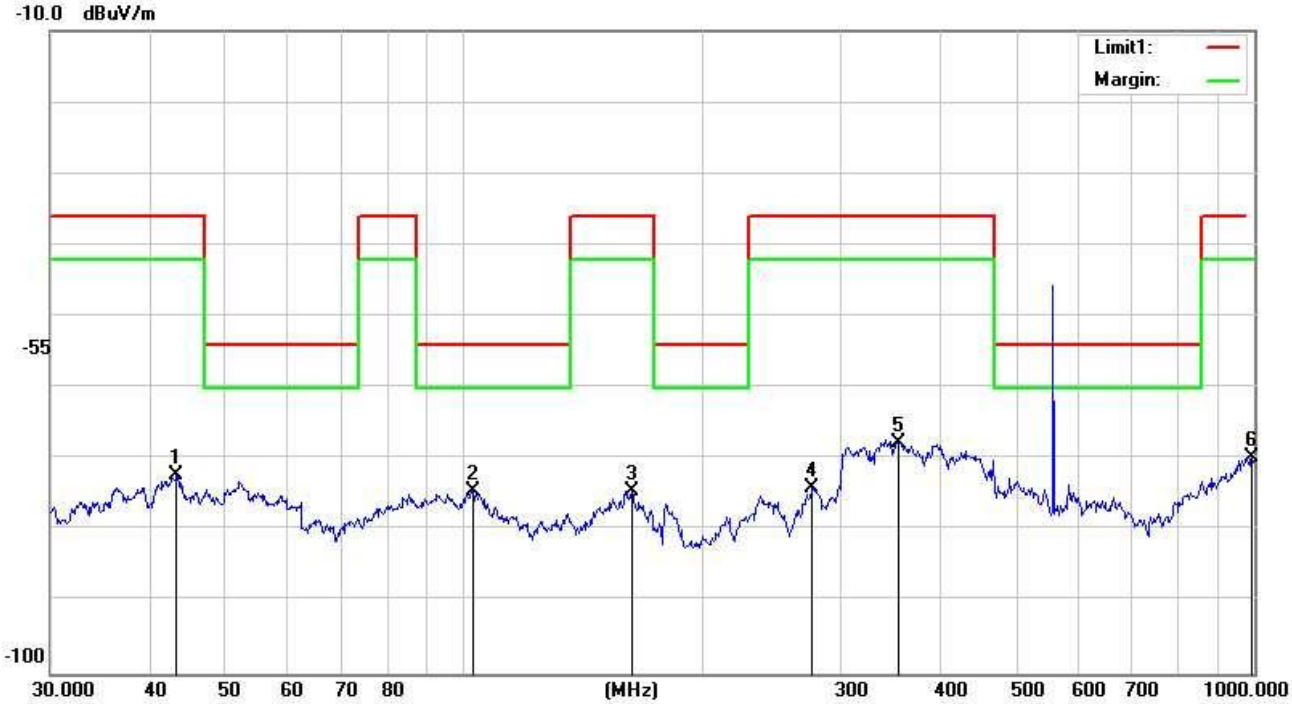
Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

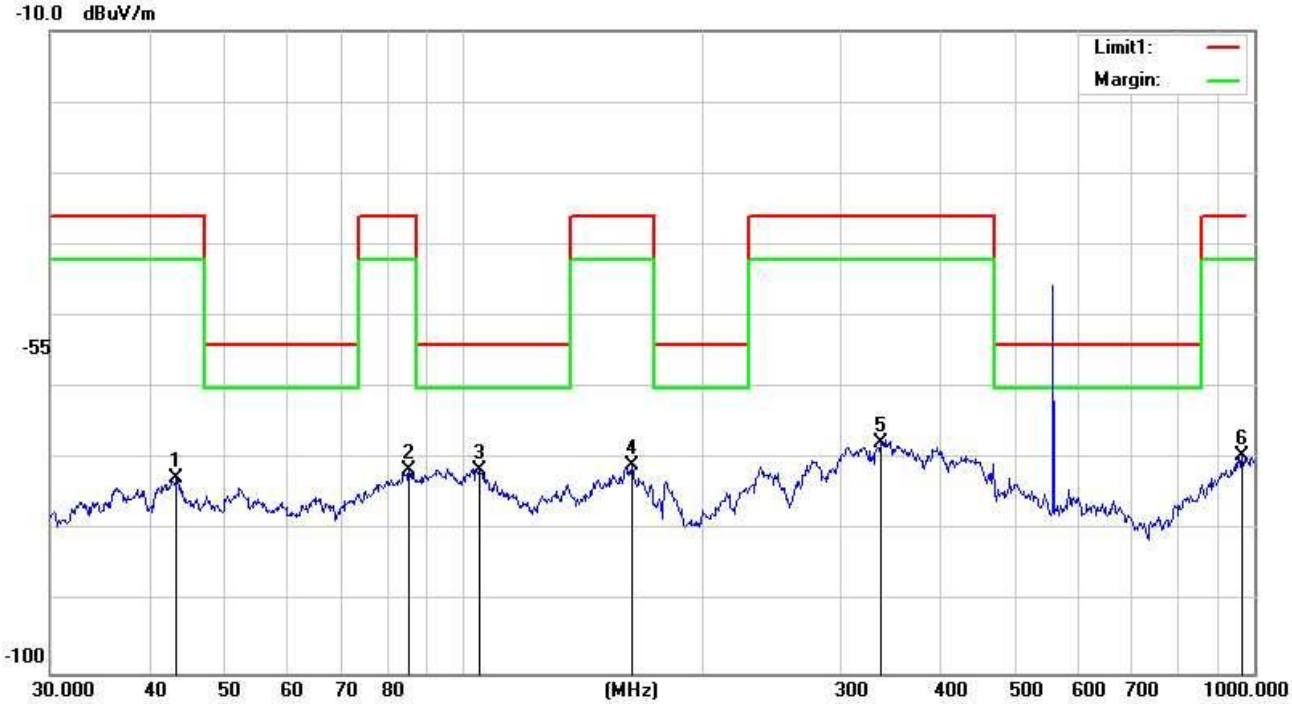
CHNNEL B –LOW CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.3534	-55.20	-16.92	-72.12	-36.00	-36.12	peak
2	102.7192	-56.84	-17.58	-74.42	-54.00	-20.42	peak
3	163.1818	-55.77	-18.68	-74.45	-36.00	-38.45	peak
4	276.1235	-59.64	-14.47	-74.11	-36.00	-38.11	peak
5	355.4273	-55.02	-12.64	-67.66	-36.00	-31.66	peak
6	993.0113	-67.95	-1.87	-69.82	-36.00	-33.82	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.3534	-55.70	-16.92	-72.62	-36.00	-36.62	peak
2	85.2980	-50.53	-20.98	-71.51	-36.00	-35.51	peak
3	104.9033	-54.10	-17.34	-71.44	-54.00	-17.44	peak
4	163.1818	-52.27	-18.68	-70.95	-36.00	-34.95	peak
5	337.2155	-54.91	-12.88	-67.79	-36.00	-31.79	peak
6	965.5421	-67.29	-2.32	-69.61	-36.00	-33.61	peak

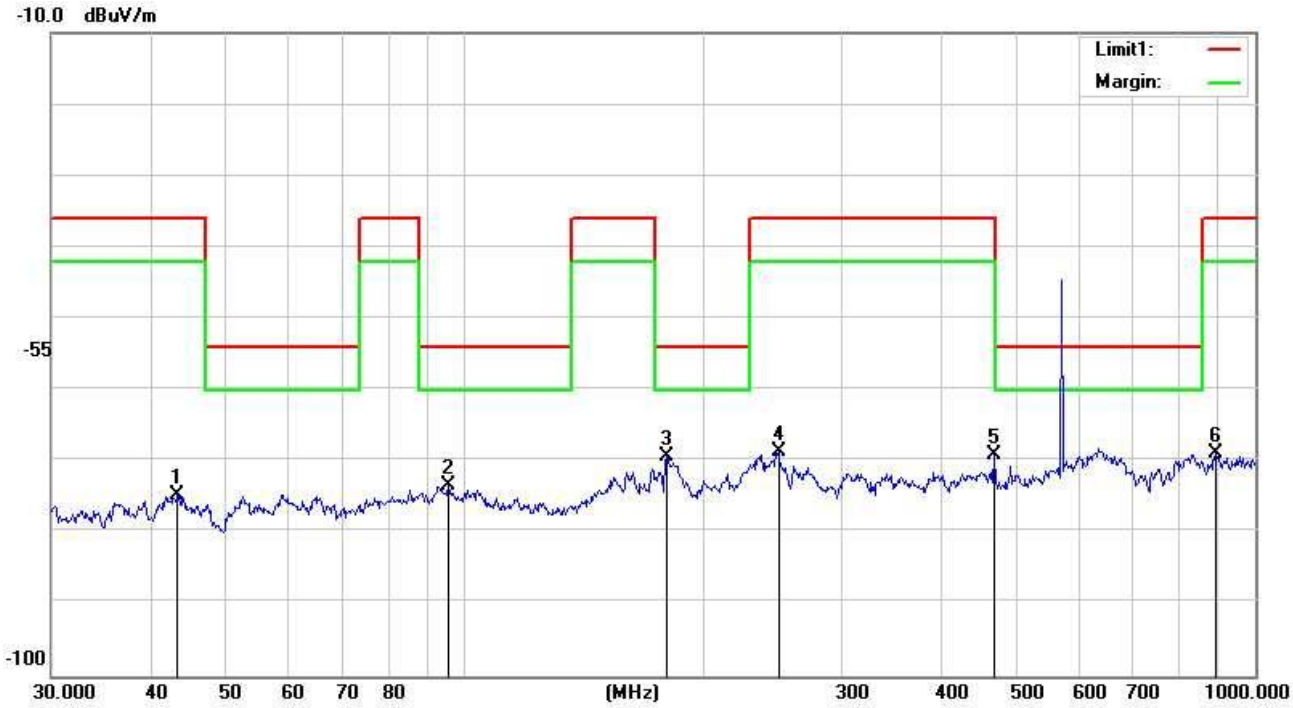
Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

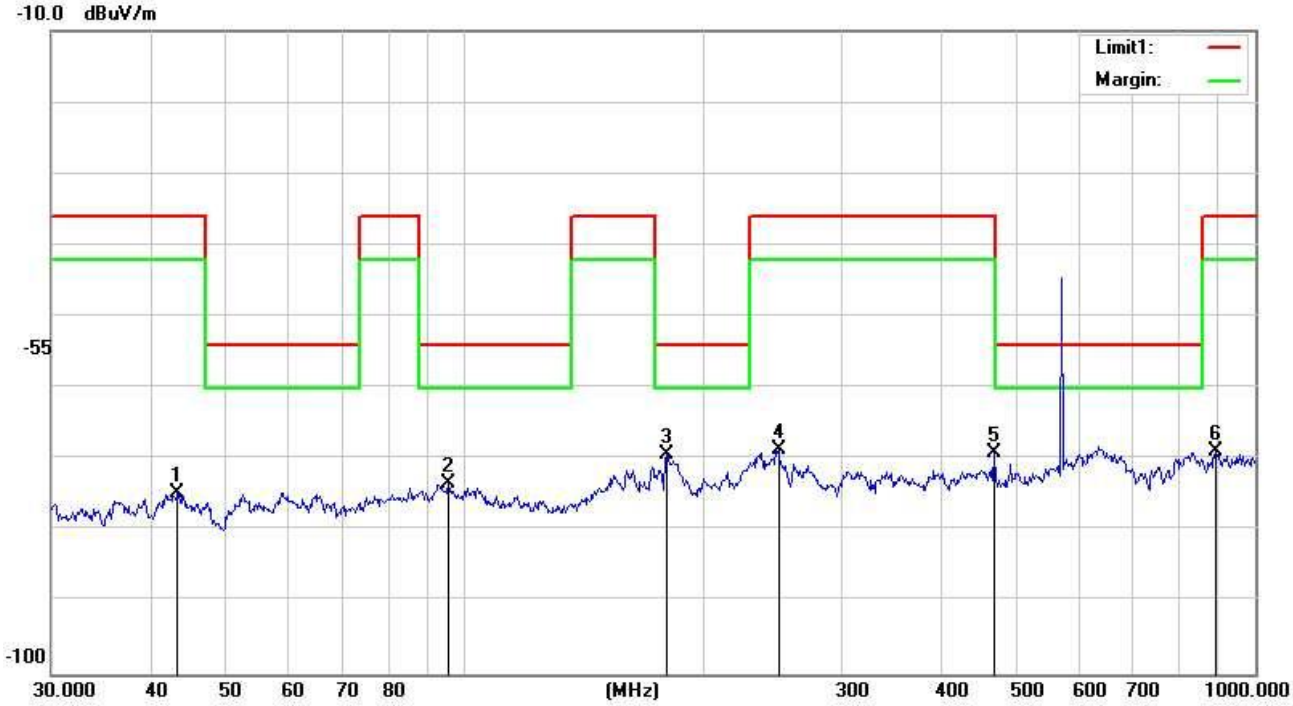
CHNNEL B –MIDDLE CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.3534	-54.20	-16.92	-71.12	-36.00	-35.12	peak
2	65.1145	-56.58	-19.38	-75.96	-54.00	-21.96	peak
3	172.5988	-52.94	-19.12	-72.06	-36.00	-36.06	peak
4	251.1802	-58.55	-15.24	-73.79	-36.00	-37.79	peak
5	346.8091	-61.30	-12.67	-73.97	-36.00	-37.97	peak
6	919.2866	-67.41	-3.05	-70.46	-36.00	-34.46	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.3211	-57.70	-16.92	-74.62	-36.00	-38.62	peak
2	95.4270	-54.32	-19.09	-73.41	-54.00	-19.41	peak
3	180.0165	-49.76	-19.44	-69.20	-54.00	-15.20	peak
4	249.4250	-53.22	-15.28	-68.50	-36.00	-32.50	peak
5	467.2348	-58.53	-10.60	-69.13	-36.00	-33.13	peak
6	890.7278	-65.47	-3.43	-68.90	-36.00	-32.90	peak

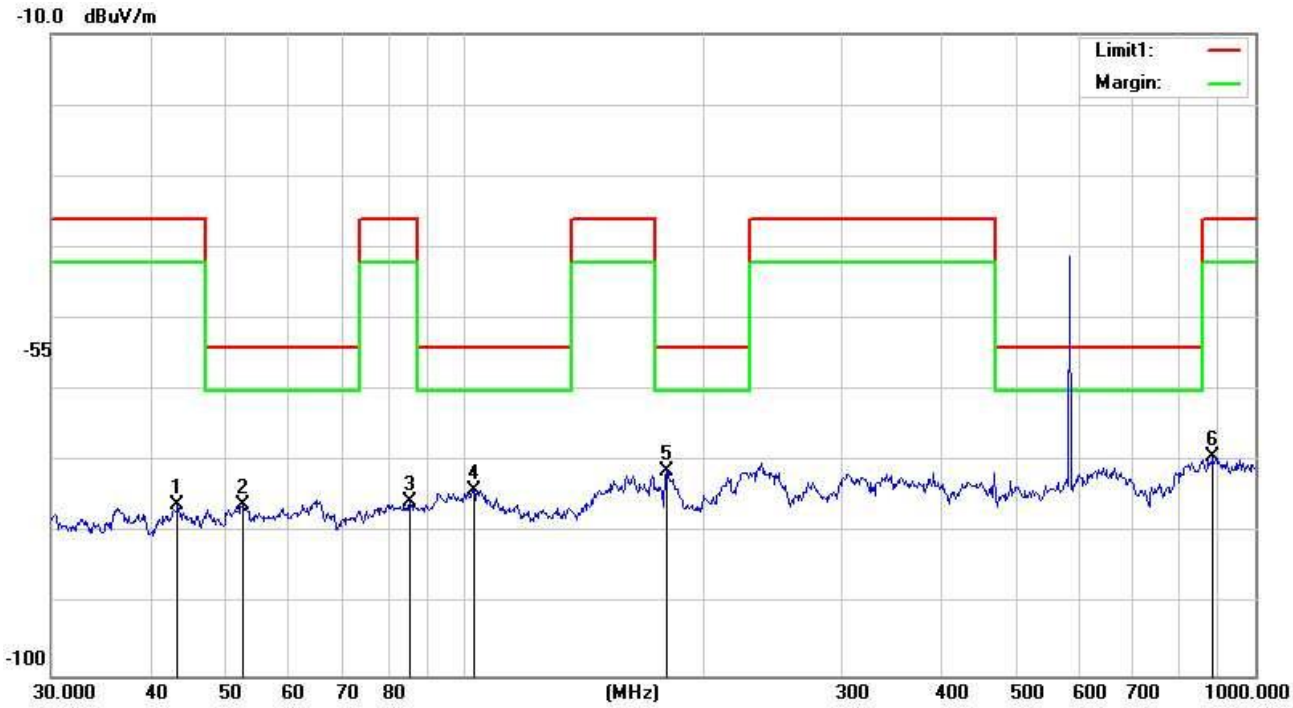
Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

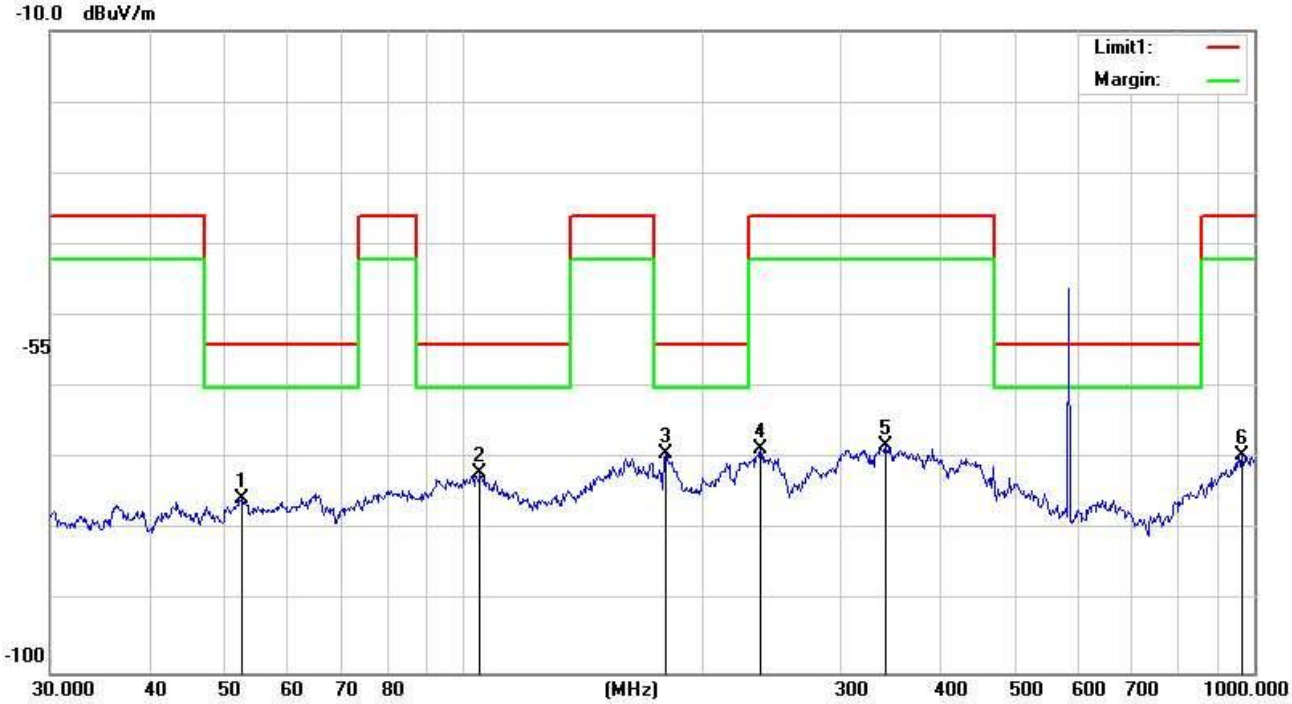
CHNNEL B –HIGH CH–30MHZ-1000MHZ

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.1356	-59.20	-16.92	-76.12	-36.00	-40.12	peak
2	52.3912	-59.47	-16.54	-76.01	-54.00	-22.01	peak
3	85.2980	-54.53	-20.98	-75.51	-36.00	-39.51	peak
4	102.7192	-56.34	-17.58	-73.92	-54.00	-19.92	peak
5	180.0165	-51.76	-19.44	-71.20	-54.00	-17.20	peak
6	884.5027	-65.70	-3.49	-69.19	-36.00	-33.19	peak

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	52.3912	-58.97	-16.54	-75.51	-54.00	-21.51	peak
2	104.9033	-54.60	-17.34	-71.94	-54.00	-17.94	peak
3	180.0165	-49.76	-19.44	-69.20	-54.00	-15.20	peak
4	237.4760	-53.28	-15.34	-68.62	-36.00	-32.62	peak
5	341.9786	-55.42	-12.78	-68.20	-36.00	-32.20	peak
6	965.5421	-67.29	-2.32	-69.61	-36.00	-33.61	peak

Note :

1. Result = Reading + Corrected Factor Note :

2. The fundamental wave filtered out during the test.

7. FREQUENCY STABILITY

7.1 LIMIT

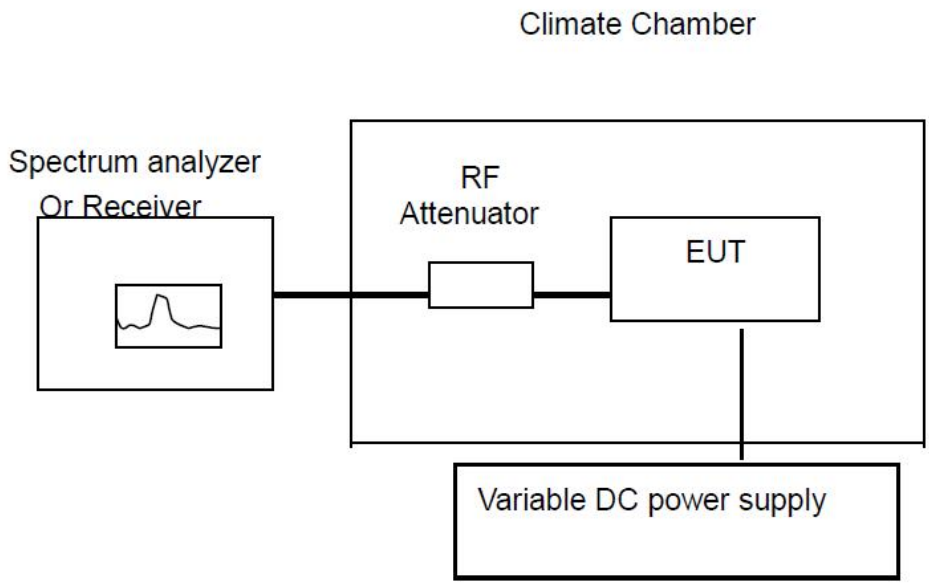
The frequency tolerance of the carrier signal shall be maintained within ±0.005% of the operating frequency over a temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C

7.2 TEST PROCEDURE

a. The EUT was connected to an external DC 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 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. An external variable DC power supply was connected to the battery terminals of the equipment under test.

b. For hand carried, battery powered equipment primary supply voltage was reduced to the battery operating end point as specified by the manufacturer. The output frequency was recorded for each battery voltage.

7.3 TEST SETUP



7.4 TEST RESULTS

(1) Frequency stability versus input voltage (Supply Nominal voltage is DC 3V)

(2) Frequency stability versus input voltage (Supply battery operating end point which shall be specified by the manufacturer DC 2.55V)

Refernce Frequency: 530.10MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1021	1.93
DC 3V	20	1011	1.91
DC 3.45V	20	1013	1.79

Refernce Frequency: 530.10MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1023	1.93	50	Pass
40	1022	1.93		
30	1019	1.92		
20	1023	1.93		
10	1019	1.92		
0	1023	1.93		
-10	1023	1.93		
-20	1019	1.92		

Refernce Frequency: 546.60MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1009	1.85
DC 3V	20	1006	1.84
DC 3.45V	20	1010	1.85

Refernce Frequency: 546.60MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1011	1.85	50	Pass
40	1006	1.84		
30	1006	1.84		
20	1008	1.84		
10	1007	1.84		
0	1008	1.84		
-10	1008	1.84		
-20	1006	1.84		

Refernce Frequency: 554.85MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1013	1.83
DC 3V	20	1011	1.82
DC 3.45V	20	1010	1.82

Refernce Frequency: 554.85MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1012	1.82	50	Pass
40	1015	1.83		
30	1011	1.82		
20	1008	1.82		
10	1009	1.82		
0	1009	1.82		
-10	1016	1.83		
-20	1017	1.83		

Refernce Frequency: 555.10MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1016	1.83
DC 3V	20	1019	1.84
DC 3.45V	20	1015	1.83

Refernce Frequency: 555.10MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1021	1.84	50	Pass
40	1016	1.83		
30	1013	1.82		
20	1016	1.83		
10	1019	1.84		
0	1022	1.84		
-10	1013	1.82		
-20	1015	1.83		

Refernce Frequency: 571.60MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1009	1.77
DC 3V	20	1006	1.76
DC 3.45V	20	1010	1.77

Refernce Frequency: 571.60MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1011	1.77	50	Pass
40	1002	1.75		
30	1005	1.76		
20	1007	1.76		
10	1013	1.77		
0	1006	1.76		
-10	1010	1.77		
-20	1012	1.77		

Refernce Frequency: 579.85MHz			
Power supply	Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)
DC 2.55V	20	1022	1.76
DC 3V	20	1023	1.76
DC 3.45V	20	1016	1.75

Refernce Frequency: 579.85MHz				
Frequency Deviation measured with time Elapse(30 minutes)				
Environment Temperature(℃)	Frequency Error （Hz）	Frequency Error (ppm)	Limit (ppm)	Results
50	1021	1.76	50	Pass
40	1019	1.76		
30	1016	1.75		
20	1017	1.75		
10	1013	1.75		
0	1019	1.76		
-10	1023	1.76		
-20	1015	1.75		

※※※※※END OF THE REPORT※※※※※