TEST REPORT

FCC/ISED Test for VM8000-F
Certification

APPLICANT
JVCKENWOOD Corporation

REPORT NO.
HCT-RF-2406-FI008-R1

DATE OF ISSUE
July 10, 2024

Tested by
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Applicant	**JVCKENWOOD Corporation** 1-16-2, Hakusan, Midori-ku, Yokohama-shi, Kanagawa, 226-8525 JAPAN
Product Name Model Name	MULTIBAND DIGITAL TRANSCEIVER VM8000-F
FCC ID	K44520000
IC	282F-520000
Date(s) of Tests	April 15, 2024 ~ June 13, 2024
Test Standard Used	FCC Rule Part(s) : § 90, § 22, § 74 ISED Rule Part : RSS-119 issue 12
Frequency Range	FCC: 150 MHz-174 MHz (Grant: 136 MHz-174 MHz) 406.1 MHz-512MHz (Grant: 380 MHz-520 MHz) 769-775, 799-805, 806-824 and 851-869 MHz (Grant: 763-776, 793-806, 806-825 and 851-870 MHz) ISED: 138 to 144 MHz and 148 to 174 MHz 406.1-430 MHz and 450-470 MHz 768-776, 798-806, 806-824 and 851-869 MHz
Location of Test	■ Permanent Testing Lab ☐ On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
Test Results	PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	June 20, 2024	Initial Release
1	July 10, 2024	- Added the note for all simultaneous transmission scenarios (page.10) - Added a 50-ohm termination to the equipment list (Page. 389)

Notice

Content
The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s).
The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***.
When confirmation of authenticity of this test report is required, please contact www.hct.co.kr
The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

CONTENTS

1. GENERAL INFORMATION

Manufacturer:	JVCKENWOOD Corporation
Address:	1-16-2 Hakusan Midori-ku Yokohama-shi Kanagawa 226-8525 Japan
FCC ID:	K44520000
IC:	282F-520000
EUT Type:	MULTIBAND DIGITAL TRANSCEIVER
Model(s):	VM8000-F
Date(s) of Tests:	April 15, 2024 ~ June 13, 2024

2. EUT DESCRIPTION

Power Supply Voltage	DC 13.6V ± 15%
Peak Antenna gain	0 dBd
Operating Temperature	-30 °C ~ +60 °C
Output Power	VHF: 50 W (Power output continuously variable to 5 W) Max. 51 W UHF: 45 W (Power output continuously variable to 5 W) Max. 46 W 700 MHz: 30 W (Power output continuously variable to 2 W) Max. 30 W FCC 800 MHz: 35 W (Power output continuously variable to 2 W) Max. 36 W ISED 800 MHz: 30 W (Power output continuously variable to 2 W) Max. 30 W
Type of Emission	Analogue: 16K0F3E Analogue: 14K0F3E Analogue: 11K0F3E P25 phase1: 8K10F1E, 8K10F1D P25 phase 2, TDMA: 8K10F1W DMR: 7K60FXD, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W, 7K60FXW NXDN: 8K30F1E, 8K30F1D, 8K30F7W NXDN: 4K00F1E, 4K00F1D, 4K00F7W CWID: 4K00F2D
Channel Bandwidth	6.25 kHz: 4K00F1E, 4K00F1D, 4K00F7W, 4K00F2D 12.5 kHz: 11K0F3E, 8K10F1E, 8K10F1D, 8K10F1W, 7K60FXD, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W, 7K60FXW, 8K30F1E, 8K30F1D, 8K30F7W 25 kHz: 16K0F3E, 14K0F3E
Frequency Range (FCC)	VHF: 150 MHz - 174 MHz UHF: 406.1 MHz - 512 MHz 700 MHz: 769 MHz - 775 MHz, 799 MHz - 805 MHz 800 MHz: 806 MHz - 824 MHz, 851 MHz - 869 MHz
Frequency Range (ISED)	VHF: 138 MHz - 144 MHz, 148 MHz - 174 MHz UHF: 406.1 MHz - 430 MHz, 450 MHz - 470 MHz 700 MHz: 768 MHz – 776 MHz, 798 MHz - 806 MHz 800 MHz: 806 MHz - 824 MHz, 851 MHz - 869 MHz

FCC Rule Part(s)	150 MHz - 174 MHz: Part22, 74, 90 406.1 MHz - 512 MHz: Part22, 74, 90 (16K0F3E 406.1 MHz - 470 MHz: Part22, 74) (16K0F3E 470 MHz - 520 MHz: Part90) 769 MHz - 775 MHz: Part 90 799 MHz - 805 MHz: Part 90 806 MHz - 824 MHz: Part 90 851 MHz - 869 MHz: Part 90
ISED Rule Part	RSS-119 Issue 12
FCC Test Frequency (MHz)	VHF: 150.05, 162.05, 173.95 UHF: 406.15, 429.95, 469.95, 511.95 470.05(Only 16K0F3E), 495.05(Only 16K0F3E) 700 MHz: 769.05, 774.95, 799.05, 804.95 800 MHz: 806.05, 823.95, 851.05, 868.95
ISED Test Frequency (MHz)	VHF: 138.05, 150.05, 173.95 UHF: 406.15, 429.95, 469.95 700 MHz: 768.05, 775.95, 798.05, 805.95 800 MHz: 806.05, 823.95, 851.05, 868.95
Maximum deviation	16K0F3E : ± 5 kHz 14K0F3E : ± 4 kHz 11K0F3E : ± 2.5 kHz
Frequency Stability	0.4 ppm
PMN (Product Marketing Number)	VM8000-F
HVIN (Hardware Version Identification Number)	VM8000-F
FVIN (Firmware Version Identification Number)	N/A
HMN (Host Marketing Name)	N/A
Serial number	Modulation Limiting, Audio Frequency Response: FES10016 Conducted, Radiated: FES20026

3. TEST METHODOLOGY

TIA-603-E dated March 2016 entitled “Land Mobile FM or PM Communications Equipment Measurement and Performance Standards” were used in the measurement.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the FCC Rules Part 2, 22, 74 and Part 90.

3.3 GENERAL TEST PROCEDURES

Radiated Emissions
Radiated emission measurements are performed in the Fully-anechoic chamber. The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna in accordance with ANSI/TIA-603-E-2016. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission. The level and position of the maximized emission is recorded with the spectrum analyzer using a positive Peak detector.
A half wave dipole is then substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
The power is calculated by the following formula;

$$P_{d(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dB)}$$

Where: P_d is the dipole equivalent power and P_g is the generator output power into the substitution antenna.

The maximum EIRP is calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration

3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting is programmed.

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea.
For ISED, test facility was accepted dated March 13, 2024 (CAB identifier: KR0032).

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-Peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

6. WORST CASE CONFIGURATION AND MODE

Radiated test

1. All modes of operation were investigated and the worst case configuration results are reported.
   - Mode : Stand alone (High Power/ Low Power)
     Stand alone + External Accessories (High Power/ Low Power)
   - Worstcase : Stand alone (High Power)
2. All type of emission were investigated and the worst case configuration results are reported.
   - Worstcase : 16K0F3E/ 8K10F1E, 8K10F1D/ 4K00F1E, 4K00F1D, 4K00F7W
3. All 800 MHz(FCC/ISED) of operation were investigated and the worst case configuration results are reported.
   - Mode: FCC 800 MHz(35 W), ISED 800 MHz(30 W),
   - Worstcase : FCC 800 MHz(35 W)
4. Measurements value show only up to 8 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
5. All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed. Therefore, only the worst case(stand-alone) results were reported.

Conducted test

1. Conducted Spurious Emission, Frequency Stability, 99% Bandwidth, Emission Mask :
   All Power of operation were investigated and the worst case configuration results are reported.
   - Power : High Power/ Low Power
   - Worstcase : High Power
2. Modulation Limiting, Audio Frequency Response :
   All Power of operation were investigated and the worst case configuration results are reported.
   - Power : High Power/ Low Power
   - Worstcase : High Power
3. Transient Frequency Behavior :
   All type of emission were investigated and the worst case configuration results are reported.
   - Worstcase : 4K00F1E, 4K00F1D, 4K00F7W
4. Emission Mask :
   All type of emission were investigated and the worst case configuration results are reported.
   - Worstcase : 16K0F3E/ 11K0F3E/ 8K30F1E, 8K30F1D, 8K30F7W/ 4K00F2D
5. Adjacent Channel Power :
   All type of emission were investigated and the worst case configuration results are reported.
   - Worstcase : 16K0F3E/ 11K0F3E/ 8K10F1W/ 4K00F2D
6. All 800 MHz(FCC/ISED) of operation were investigated and the worst case configuration results are reported.
   - Mode: FCC 800 MHz(35 W), ISED 800 MHz(30 W),
   - Worstcase : FCC 800 MHz(35 W)

7. SUMMARY TEST OF RESULTS

7.1 VHF, UHF

Test Description	FCC Part Section(s)	ISED Part Section(s)	Test Condition	Test Result
Carrier RF Output Power	§ 2.1046, § 22.565, § 74.461, § 90.205	RSS119 (5.4)	Conducted	PASS
Unwanted Emissions	§ 2.1051 § 22.359, § 74.462, § 74.535, § 90.210	RSS119 (5.8)		PASS
99% Bandwidth(ISED)	N/A	RSS119 (5.5)		PASS
Carrier Frequency Stability	§ 2.1055, § 22.355, § 74.464, § 90.213(a)	RSS119 (5.3)		PASS
Audio Frequency Response	§ 2.1047(a)	-		PASS
Audio Low Pass Filter	§ 2.1047(a)	-		PASS
Modulation Limiting	§ 2.1047(b)	-		PASS
Transient Frequency Behavior	§ 74.462, § 90.214	RSS119 (5.9)		PASS
Emission Mask	§ 2.1049, § 22.359, § 74.462, § 74.535, § 90.210	RSS119 (5.8)		PASS
Field Strength of Spurious Radiation	§ 2.1053 § 22.359, § 74.462, § 74.535, § 90.210	RSS119 (5.8)	Radiated	PASS
Receiver Spurious Emissions	N/A	RSS-Gen(7)		PASS
Necessary Bandwidth	§ 2.202(g)	-	-	-

Test Description	Test Limit(FCC)	Test Limit(ISED)
Carrier RF Output Power	Varies	60W
Unwanted Emissions	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB
99% Bandwidth(ISED)	N/A	6.25 kHz: 6 kHz 12.5 kHz: 11.25kHz 25 kHz: 20 kHz
Carrier Frequency Stability	6.25 kHz = 1 ppm 12.5 kHz = 2.5 ppm 25 kHz = 5 ppm	6.25 kHz = 1 ppm 12.5 kHz = 2.5 ppm 25 kHz = 5 ppm
Audio Frequency Response	Varies	N/A
Audio Low Pass Filter		
Modulation Limiting	25 kHz = 5 kHz 12.5 kHz = 2.5 kHz	N/A
Transient Frequency Behavior	See Note1	See Note1
Emission Mask	Emission Mask B, D, E	Emission Mask B, D, E
Field Strength of Spurious Radiation	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB
Receiver Spurious Emissions	N/A	See Note2

7.2 700MHz

Test Description	FCC Part Section(s)	ISED Part Section(s)	Test Condition	Test Result
Carrier Output Power	§ 2.1046 § 90.205, § 90.541	RSS119 (5.4)	Conducted	PASS
Unwanted Emissions	§ 2.1051 § 90.543 (c)	RSS119 (5.8)		PASS
99% Bandwidth	-	RSS119 (5.5)		PASS
Carrier Frequency Stability	§ 2.1055 § 90.539	RSS119 (5.3)		PASS
Audio Frequency Response	§ 2.1047(a)	-		PASS
Audio Low Pass Filter	§ 2.1047(a)	-		PASS
Modulation Limiting	§ 2.1047(b)	-		PASS
Adjacent Channel Power	§ 90.543	RSS119 (5.8.9)		PASS
Field Strength of Spurious Radiation	§ 2.1053, § 90.543 (c)	RSS119 (5.8)	Radiated	PASS
GNSS (EIRP for 1559 – 1610MHz)	§ 90.543	RSS119 (5.8.9.2)		PASS
Receiver Spurious Emissions	-	RSS-Gen(7)		PASS
Necessary Bandwidth	§ 2.202	-	-	-

Test Description	Test Limit(FCC)	Test Limit(ISED)
Carrier RF Output Power	< 100 W ERP	30 W
Unwanted Emissions	43 + 10 log (P)dB	43 + 10 log (P)dB
99% Bandwidth(ISED)	N/A	Provided that the ACP requirements are met, any authorized bandwidth that does not exceed the channel bandwidth can be used.
Carrier Frequency Stability	0.4 ppm	0.4 ppm
Audio Frequency Response	Varies	Varies
Audio Low Pass Filter		
Modulation Limiting	12.5 kHz = 2.5 kHz 25 kHz = 5 kHz	12.5 kHz = 2.5 kHz 25 kHz = 5 kHz
Adjacent Channel Power	See Note3	See Note3
Field Strength of Spurious Radiation	43 + 10 log (P)dB	43 + 10 log (P)dB
GNSS (EIRP for 1559 – 1610MHz)	−70 dBW EIRP (Wide) −80 dBW EIRP (Narrow)	−70 dBW EIRP (Wide) −80 dBW EIRP (Narrow)
Receiver Spurious Emissions	N/A	See Note2

7.2 800MHz

Test Description	FCC Part Section(s)	ISED Part Section(s)	Test Condition	Test Result
Carrier Output Power	§ 2.1046 § 90.205 § 90.635	RSS119 (5.4)	Conducted	PASS
Unwanted Emissions	§ 2.1051 § 90.210	RSS119 (5.8)		PASS
99% Bandwidth	-	RSS119 (5.5)		PASS
Carrier Frequency Stability	§ 2.1055 § 90.213(a)	RSS119 (5.3)		PASS
Audio Frequency Response	§ 2.1047(a)	-		PASS
Audio Low Pass Filter	§ 2.1047(a)	-		PASS
Modulation Limiting	§ 2.1047(b)	-		PASS
Emission Mask	§ 2.1049(c)(1), § 90.210, § 90.691	RSS119 (5.8)		PASS
Field Strength of Spurious Radiation	§ 2.1053, § 90.210	RSS119 (5.8)	Radiated	PASS
Receiver Spurious Emissions	-	RSS-Gen(7)		PASS
Necessary Bandwidth	§ 2.202	-	-	-

Test Description	Test Limit(FCC)	Test Limit(ISED)
Carrier RF Output Power	< 100 W	< 30 W
Unwanted Emissions	43 + 10 log (P)dB	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB
99% Bandwidth(ISED)	N/A	6.25 kHz: 6 kHz 12.5 kHz: 11.25kHz 25 kHz: 20 kHz
Carrier Frequency Stability	809MHz-824MHz= 2.5 ppm 854MHz-869MHz= 2.5 ppm 806MHz-809MHz= 1.5 ppm 851MHz-854MHz= 1.5 ppm	6.25 kHz = 0.4 ppm 12.5 kHz = 1.5 ppm 25 kHz = 2.5 ppm
Audio Frequency Response	Varies	Varies
Audio Low Pass Filter		
Modulation Limiting	12.5 kHz = 2.5 kHz 25 kHz = 5 kHz	12.5 kHz = 2.5 kHz 25 kHz = 5 kHz
Emission Mask	Emission Mask B, EA	Emission Mask B, D, E
Field Strength of Spurious Radiation	43 + 10 log (P)dB	6.25 kHz: 55+ 10 log (P)dB 12.5 kHz: 50 + 10 log (P)dB 25 kHz: 43 + 10 log (P)dB
Receiver Spurious Emissions	N/A	See Note2

Note:

1. Transient Frequency Behavior Limit :

Channel Bandwidth (kHz)	Time Intervals	Maximum Frequency Difference (kHz)	Transient Duration	
			138-174 MHz	406.1-512 MHz
25	t_1	±25	5	10
	t_2	±12.5	20	25
	t_3	±25	5	10
12.5	t_1	±12.5	5	10
	t_2	±6.25	20	25
	t_3	±12.5	5	10
6.25	t_1	±6.25	5	10
	t_2	±3.125	20	25
	t_3	±6.25	5	10

2. Receiver Spurious Emissions Limit :

Frequency (MHz)	FieldStrength (μv/m at3meters)
30 – 88	100
88 - 216	150
216 – 960	200
Above 960	500

3. Adjacent Channel Power Limit :

6.25 kHz Mobile Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP relative (dBc)
6.25	6.25	-40
12.5	6.25	-60
18.75	6.25	-60
25.00	6.25	-65
37.50	25.00	-65
62.50	25.00	-65
87.50	25.00	-65
150.00	100.00	-65
250.00	100.00	-65
350.00	100.00	-65
>400 kHz to 12 MHz	30 (s)	-75
12 MHz to paired receive band	30 (s)	-75
In the paired receive band	30 (s)	-100

12.5 kHz Mobile Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP relative (dBc)
9.375	6.25	-40
15.625	6.25	-60
21.875	6.25	-60
37.50	25.00	-60
62.50	25.00	-65
87.50	25.00	-65
150.00	100	-65
250.00	100	-65
350.00	100	-65
>400 to 12 MHz	30 (s)	-75
12 MHz to paired receive band	30 (s)	-75
In the paired receive band	30 (s)	-100

25 kHz Mobile Transmitter ACP Requirements

Offset from center frequency (kHz)	Measurement bandwidth (kHz)	Maximum ACP relative (dBc)
15.625	6.25	-40
21.875	6.25	-60
37.50	25	-60
62.50	25	-65
87.50	25	-65
150.00	100	-65
250.00	100	-65
350.00	100	-65
>400 kHz to 12 MHz	30 (s)	-75
12 MHz to paired receive band	30 (s)	-75
In the paired receive band	30 (s)	-100

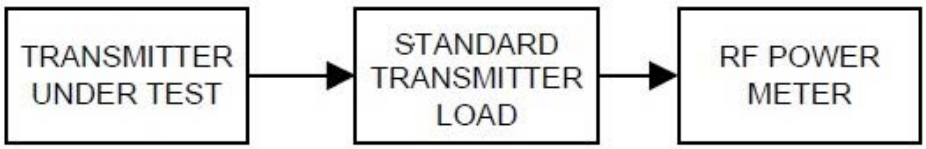
8. TEST RESULT

8.1 Carrier Output Power

▣ Definition

The conducted carrier power output rating for a transmitter is the power available at the output terminals of the transmitter when the output terminals are connected to the standard transmitter load.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.1 in TIA-603-E Standard.

a) Connect the equipment as illustrated.
b) Detector: AVG RMS measurement
c) Measure the transmitter output power during the defined duty cycle(see 1.3.2).
Correct for all losses in the RF path.
d) The value recorded in step b) is the conducted carrier output power rating.

▣ TEST RESULTS(Carrier Output Power)

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
16K0F3E	25	138.05	46.94	49.44	37.01	5.03
		150.05	46.82	48.10	37.07	5.10
		162.05	46.86	48.58	37.05	5.07
		173.95	46.81	48.02	37.00	5.02
		406.15	46.61	45.80	37.15	5.19
		429.95	46.50	44.64	37.12	5.15
		469.95	46.46	44.26	37.08	5.11
		470.05	46.46	44.29	37.01	5.02
		495.05	46.46	44.21	37.08	5.10
		511.95	46.29	42.55	37.00	5.01
		768.05	44.42	27.69	33.13	2.06
		769.05	44.39	27.46	33.13	2.06
		774.95	44.55	28.53	33.02	2.00
		775.95	44.37	27.36	33.05	2.02
		798.05	44.48	28.04	33.04	2.01
		799.05	44.57	28.63	33.08	2.03
		804.95	44.77	29.97	33.18	2.08
		805.95	44.65	29.16	33.28	2.13
		806.05 (FCC)	45.52	35.61	33.07	2.03
		823.95 (FCC)	45.48	35.28	33.12	2.05
		851.05 (FCC)	45.50	35.49	33.21	2.10
		868.95 (FCC)	45.48	35.32	33.30	2.14
		806.05 (ISED)	44.58	28.73	33.07	2.03
		823.95 (ISED)	44.49	28.09	33.12	2.05
		851.05 (ISED)	44.51	28.27	33.21	2.10
		868.95 (ISED)	44.36	27.29	33.30	2.14

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
14K0F3E	25	768.05	44.47	28.01	33.15	2.06
		769.05	44.38	27.40	33.31	2.14
		774.95	44.60	28.81	33.12	2.05
		775.95	44.59	28.74	33.07	2.03
		798.05	44.58	28.73	33.18	2.08
		799.05	44.75	29.83	33.04	2.01
		804.95	44.64	29.10	33.10	2.04
		805.95	44.52	28.34	33.27	2.12
		806.05 (FCC)	45.50	35.50	33.30	2.14
		823.95 (FCC)	45.50	35.45	33.02	2.00
		851.05 (FCC)	45.40	34.68	33.21	2.09
		868.95 (FCC)	45.26	33.60	33.03	2.01
		806.05 (ISED)	44.54	28.41	33.30	2.14
		823.95 (ISED)	44.33	27.08	33.02	2.00
		851.05 (ISED)	44.40	27.52	33.21	2.09
		868.95 (ISED)	44.37	27.35	33.03	2.01

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
11K0F3E	11.25	138.05	47.00	50.09	37.12	5.15
		150.05	46.73	47.06	37.12	5.15
		162.05	46.76	47.47	37.08	5.10
		173.95	46.82	48.11	37.09	5.12
		406.15	46.57	45.43	37.16	5.20
		429.95	46.47	44.36	37.13	5.16
		469.95	46.46	44.28	37.10	5.13
		511.95	46.34	43.01	37.09	5.12
		768.05	44.51	28.25	33.26	2.12
		769.05	44.48	28.03	33.29	2.13
		774.95	44.37	27.38	33.08	2.03
		775.95	44.36	27.30	33.04	2.01
		798.05	44.67	29.28	33.17	2.07
		799.05	44.57	28.64	33.04	2.01
		804.95	44.66	29.24	33.32	2.15
		805.95	44.66	29.21	33.42	2.20
		806.05 (FCC)	45.52	35.65	33.11	2.04
		823.95 (FCC)	45.52	35.62	33.19	2.08
		851.05 (FCC)	45.31	33.93	33.13	2.06
		868.95 (FCC)	45.24	33.39	33.15	2.06
		806.05 (ISED)	44.46	27.93	33.11	2.04
		823.95 (ISED)	44.31	26.97	33.19	2.08
		851.05 (ISED)	44.40	27.57	33.13	2.06
		868.95 (ISED)	44.36	27.29	33.15	2.06

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K30F1E 8K30F1D 8K30FW	11.25	138.05	46.98	49.92	37.07	5.09
		150.05	46.74	47.24	37.03	5.05
		162.05	46.81	48.00	37.00	5.01
		173.95	46.86	48.52	37.03	5.05
		406.15	46.57	45.37	37.12	5.15
		429.95	46.44	44.01	37.08	5.10
		469.95	46.40	43.61	37.04	5.06
		511.95	46.33	42.92	37.08	5.10
		768.05	44.39	27.46	33.18	2.08
		769.05	44.35	27.21	33.16	2.07
		774.95	44.43	27.73	33.14	2.06
		775.95	44.47	27.98	33.05	2.02
		798.05	44.47	27.97	33.06	2.02
		799.05	44.64	29.11	33.04	2.01
		804.95	44.61	28.88	33.26	2.12
		805.95	44.62	28.94	33.23	2.10
		806.05 (FCC)	45.54	35.83	33.22	2.10
		823.95 (FCC)	45.52	35.61	33.15	2.06
		851.05 (FCC)	45.40	34.70	33.11	2.05
		868.95 (FCC)	45.48	35.33	33.11	2.05
		806.05 (ISED)	44.46	27.90	33.22	2.10
		823.95 (ISED)	44.33	27.12	33.15	2.06
		851.05 (ISED)	44.42	27.67	33.11	2.05
		868.95 (ISED)	44.36	27.29	33.11	2.05

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K10F1E 8K10F1D	11.25	138.05	46.99	49.97	37.14	5.17
		150.05	46.75	47.36	37.10	5.13
		162.05	46.79	47.70	37.05	5.08
		173.95	46.79	47.76	37.09	5.11
		406.15	46.61	45.82	37.11	5.14
		429.95	46.48	44.51	37.11	5.14
		469.95	46.45	44.15	37.08	5.10
		511.95	46.42	43.87	37.09	5.11
		768.05	44.50	28.19	33.25	2.11
		769.05	44.46	27.95	33.24	2.11
		774.95	44.59	28.75	33.06	2.02
		775.95	44.43	27.74	33.02	2.01
		798.05	44.67	29.32	33.07	2.03
		799.05	44.63	29.01	33.04	2.01
		804.95	44.49	28.11	33.10	2.04
		805.95	44.45	27.87	33.05	2.02
		806.05 (FCC)	45.52	35.68	33.22	2.10
		823.95 (FCC)	45.53	35.73	33.22	2.10
		851.05 (FCC)	45.27	33.68	33.12	2.05
		868.95 (FCC)	45.18	32.99	33.07	2.03
		806.05 (ISED)	44.43	27.72	33.22	2.10
		823.95 (ISED)	44.31	26.99	33.22	2.10
		851.05 (ISED)	44.43	27.74	33.12	2.05
		868.95 (ISED)	44.38	27.40	33.07	2.03

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K10F1W	11.25	138.05	47.00	50.10	37.13	5.16
		150.05	46.77	47.53	37.08	5.11
		162.05	46.80	47.85	37.04	5.06
		173.95	46.79	47.77	37.08	5.10
		406.15	46.56	45.24	37.15	5.18
		429.95	46.44	44.08	37.10	5.12
		469.95	46.41	43.72	37.07	5.10
		511.95	46.33	42.98	37.09	5.12
		768.05	44.41	27.59	33.09	2.04
		769.05	44.38	27.41	33.09	2.04
		774.95	44.34	27.18	33.05	2.02
		775.95	44.37	27.34	33.09	2.04
		798.05	44.46	27.90	33.02	2.01
		799.05	44.54	28.42	33.02	2.01
		804.95	44.58	28.68	33.09	2.04
		805.95	44.49	28.13	33.20	2.09
		806.05 (FCC)	45.52	35.64	33.16	2.07
		823.95 (FCC)	45.51	35.59	33.06	2.02
		851.05 (FCC)	45.36	34.37	33.06	2.02
		868.95 (FCC)	45.23	33.34	33.04	2.01
		806.05 (ISED)	44.48	28.09	33.16	2.07
		823.95 (ISED)	44.36	27.32	33.06	2.02
		851.05 (ISED)	44.43	27.72	33.06	2.02
		868.95 (ISED)	44.35	27.25	33.04	2.01

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
7K60FXD 7K60FXE 7K60F1E 7K60F1D 7K60F1W 7K60FXW	11.25	138.05	46.98	49.94	37.08	5.10
		150.05	46.77	47.56	37.05	5.07
		162.05	46.80	47.85	37.04	5.06
		173.95	46.80	47.82	37.04	5.06
		406.15	46.56	45.28	37.10	5.13
		429.95	46.44	44.08	37.08	5.10
		469.95	46.42	43.84	37.02	5.04
		511.95	46.29	42.60	37.03	5.05
		768.05	44.50	28.17	33.05	2.02
		769.05	44.43	27.73	33.02	2.01
		774.95	44.37	27.37	33.14	2.06
		775.95	44.40	27.57	33.05	2.02
		798.05	44.54	28.47	33.03	2.01
		799.05	44.67	29.29	33.07	2.03
		804.95	44.66	29.27	33.14	2.06
		805.95	44.60	28.86	33.23	2.10
		806.05 (FCC)	45.52	35.61	33.40	2.19
		823.95 (FCC)	45.52	35.67	33.08	2.03
		851.05 (FCC)	45.30	33.85	33.44	2.21
		868.95 (FCC)	45.19	33.01	33.49	2.23
		806.05 (ISED)	44.64	29.11	33.40	2.19
		823.95 (ISED)	44.46	27.94	33.08	2.03
		851.05 (ISED)	44.52	28.33	33.44	2.21
		868.95 (ISED)	44.38	27.42	33.49	2.23

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
4K00F1E 4K00F1D 4K00F7W	6.25	138.05	46.94	49.39	37.10	5.13
		150.05	46.71	46.84	37.06	5.09
		162.05	46.74	47.24	37.01	5.02
		173.95	46.81	48.03	37.10	5.13
		406.15	46.57	45.39	37.05	5.08
		429.95	46.45	44.14	37.03	5.05
		469.95	46.42	43.84	37.07	5.10
		511.95	46.35	43.17	37.08	5.11
		768.05	44.47	27.97	33.17	2.08
		769.05	44.54	28.45	33.20	2.09
		774.95	44.44	27.79	33.09	2.04
		775.95	44.35	27.20	33.09	2.04
		798.05	44.58	28.70	33.10	2.04
		799.05	44.50	28.21	33.07	2.03
		804.95	44.57	28.66	33.08	2.03
		805.95	44.48	28.06	33.20	2.09
		806.05 (FCC)	45.51	35.58	33.13	2.06
		823.95 (FCC)	45.49	35.42	33.06	2.02
		851.05 (FCC)	45.32	34.02	33.04	2.01
		868.95 (FCC)	45.20	33.14	33.04	2.01
		806.05 (ISED)	44.58	28.73	33.13	2.06
		823.95 (ISED)	44.42	27.66	33.06	2.02
		851.05 (ISED)	44.49	28.12	33.04	2.01
		868.95 (ISED)	44.39	27.49	33.04	2.01

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
4K00F2D	6.25	138.05	47.02	50.32	37.16	5.20
		150.05	46.80	47.83	37.13	5.16
		162.05	46.84	48.26	37.06	5.09
		173.95	46.83	48.21	37.09	5.12
		406.15	46.59	45.59	37.13	5.16
		429.95	46.47	44.38	37.11	5.14
		469.95	46.45	44.15	37.06	5.08
		511.95	46.29	42.58	37.06	5.08
		768.05	44.56	28.60	33.07	2.03
		769.05	44.50	28.18	33.07	2.03
		774.95	44.38	27.41	33.08	2.03
		775.95	44.33	27.12	33.12	2.05
		798.05	44.58	28.69	33.03	2.01
		799.05	44.51	28.25	33.10	2.04
		804.95	44.47	27.98	33.04	2.01
		805.95	44.39	27.48	33.12	2.05
		806.05 (FCC)	45.48	35.33	33.15	2.07
		823.95 (FCC)	45.50	35.48	33.04	2.01
		851.05 (FCC)	45.25	33.47	33.08	2.03
		868.95 (FCC)	45.15	32.73	33.07	2.03
		806.05 (ISED)	44.50	28.17	33.15	2.07
		823.95 (ISED)	44.34	27.16	33.04	2.01
		851.05 (ISED)	44.39	27.45	33.08	2.03
		868.95 (ISED)	44.34	27.18	33.07	2.03

▣ TEST RESULTS(Effective Radiated Power)

Note:

1. Effective Radiated Power = Carrier Output Power + Peak Antenna gain

2. Peak Antenna gain = 0 dBd

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Effective Radiated Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
16K0F3E	25	138.05	46.94	49.44	37.01	5.03
		150.05	46.82	48.10	37.07	5.10
		162.05	46.86	48.58	37.05	5.07
		173.95	46.81	48.02	37.00	5.02
		406.15	46.61	45.80	37.15	5.19
		429.95	46.50	44.64	37.12	5.15
		469.95	46.46	44.26	37.08	5.11
		470.05	46.46	44.29	37.01	5.02
		495.05	46.46	44.21	37.08	5.10
		511.95	46.29	42.55	37.00	5.01
		768.05	44.42	27.69	33.13	2.06
		769.05	44.39	27.46	33.13	2.06
		774.95	44.55	28.53	33.02	2.00
		775.95	44.37	27.36	33.05	2.02
		798.05	44.48	28.04	33.04	2.01
		799.05	44.57	28.63	33.08	2.03
		804.95	44.77	29.97	33.18	2.08
		805.95	44.65	29.16	33.28	2.13
		806.05 (FCC)	45.52	35.61	33.07	2.03
		823.95 (FCC)	45.48	35.28	33.12	2.05
		851.05 (FCC)	45.50	35.49	33.21	2.10
		868.95 (FCC)	45.48	35.32	33.30	2.14
		806.05 (ISED)	44.58	28.73	33.07	2.03
		823.95 (ISED)	44.49	28.09	33.12	2.05
		851.05 (ISED)	44.51	28.27	33.21	2.10
		868.95 (ISED)	44.36	27.29	33.30	2.14

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
14K0F3E	25	768.05	44.47	28.01	33.15	2.06
		769.05	44.38	27.40	33.31	2.14
		774.95	44.60	28.81	33.12	2.05
		775.95	44.59	28.74	33.07	2.03
		798.05	44.58	28.73	33.18	2.08
		799.05	44.75	29.83	33.04	2.01
		804.95	44.64	29.10	33.10	2.04
		805.95	44.52	28.34	33.27	2.12
		806.05 (FCC)	45.50	35.50	33.30	2.14
		823.95 (FCC)	45.50	35.45	33.02	2.00
		851.05 (FCC)	45.40	34.68	33.21	2.09
		868.95 (FCC)	45.26	33.60	33.03	2.01
		806.05 (ISED)	44.54	28.41	33.30	2.14
		823.95 (ISED)	44.33	27.08	33.02	2.00
		851.05 (ISED)	44.40	27.52	33.21	2.09
		868.95 (ISED)	44.37	27.35	33.03	2.01

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
11K0F3E	11.25	138.05	47.00	50.09	37.12	5.15
		150.05	46.73	47.06	37.12	5.15
		162.05	46.76	47.47	37.08	5.10
		173.95	46.82	48.11	37.09	5.12
		406.15	46.57	45.43	37.16	5.20
		429.95	46.47	44.36	37.13	5.16
		469.95	46.46	44.28	37.10	5.13
		511.95	46.34	43.01	37.09	5.12
		768.05	44.51	28.25	33.26	2.12
		769.05	44.48	28.03	33.29	2.13
		774.95	44.37	27.38	33.08	2.03
		775.95	44.36	27.30	33.04	2.01
		798.05	44.67	29.28	33.17	2.07
		799.05	44.57	28.64	33.04	2.01
		804.95	44.66	29.24	33.32	2.15
		805.95	44.66	29.21	33.42	2.20
		806.05 (FCC)	45.52	35.65	33.11	2.04
		823.95 (FCC)	45.52	35.62	33.19	2.08
		851.05 (FCC)	45.31	33.93	33.13	2.06
		868.95 (FCC)	45.24	33.39	33.15	2.06
		806.05 (ISED)	44.46	27.93	33.11	2.04
		823.95 (ISED)	44.31	26.97	33.19	2.08
		851.05 (ISED)	44.40	27.57	33.13	2.06
		868.95 (ISED)	44.36	27.29	33.15	2.06

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K30F1E 8K30F1D 8K30FW	11.25	138.05	46.98	49.92	37.07	5.09
		150.05	46.74	47.24	37.03	5.05
		162.05	46.81	48.00	37.00	5.01
		173.95	46.86	48.52	37.03	5.05
		406.15	46.57	45.37	37.12	5.15
		429.95	46.44	44.01	37.08	5.10
		469.95	46.40	43.61	37.04	5.06
		511.95	46.33	42.92	37.08	5.10
		768.05	44.39	27.46	33.18	2.08
		769.05	44.35	27.21	33.16	2.07
		774.95	44.43	27.73	33.14	2.06
		775.95	44.47	27.98	33.05	2.02
		798.05	44.47	27.97	33.06	2.02
		799.05	44.64	29.11	33.04	2.01
		804.95	44.61	28.88	33.26	2.12
		805.95	44.62	28.94	33.23	2.10
		806.05 (FCC)	45.54	35.83	33.22	2.10
		823.95 (FCC)	45.52	35.61	33.15	2.06
		851.05 (FCC)	45.40	34.70	33.11	2.05
		868.95 (FCC)	45.48	35.33	33.11	2.05
		806.05 (ISED)	44.46	27.90	33.22	2.10
		823.95 (ISED)	44.33	27.12	33.15	2.06
		851.05 (ISED)	44.42	27.67	33.11	2.05
		868.95 (ISED)	44.36	27.29	33.11	2.05

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K10F1E 8K10F1D	11.25	138.05	46.99	49.97	37.14	5.17
		150.05	46.75	47.36	37.10	5.13
		162.05	46.79	47.70	37.05	5.08
		173.95	46.79	47.76	37.09	5.11
		406.15	46.61	45.82	37.11	5.14
		429.95	46.48	44.51	37.11	5.14
		469.95	46.45	44.15	37.08	5.10
		511.95	46.42	43.87	37.09	5.11
		768.05	44.50	28.19	33.25	2.11
		769.05	44.46	27.95	33.24	2.11
		774.95	44.59	28.75	33.06	2.02
		775.95	44.43	27.74	33.02	2.01
		798.05	44.67	29.32	33.07	2.03
		799.05	44.63	29.01	33.04	2.01
		804.95	44.49	28.11	33.10	2.04
		805.95	44.45	27.87	33.05	2.02
		806.05 (FCC)	45.52	35.68	33.22	2.10
		823.95 (FCC)	45.53	35.73	33.22	2.10
		851.05 (FCC)	45.27	33.68	33.12	2.05
		868.95 (FCC)	45.18	32.99	33.07	2.03
		806.05 (ISED)	44.43	27.72	33.22	2.10
		823.95 (ISED)	44.31	26.99	33.22	2.10
		851.05 (ISED)	44.43	27.74	33.12	2.05
		868.95 (ISED)	44.38	27.40	33.07	2.03

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
8K10F1W	11.25	138.05	47.00	50.10	37.13	5.16
		150.05	46.77	47.53	37.08	5.11
		162.05	46.80	47.85	37.04	5.06
		173.95	46.79	47.77	37.08	5.10
		406.15	46.56	45.24	37.15	5.18
		429.95	46.44	44.08	37.10	5.12
		469.95	46.41	43.72	37.07	5.10
		511.95	46.33	42.98	37.09	5.12
		768.05	44.41	27.59	33.09	2.04
		769.05	44.38	27.41	33.09	2.04
		774.95	44.34	27.18	33.05	2.02
		775.95	44.37	27.34	33.09	2.04
		798.05	44.46	27.90	33.02	2.01
		799.05	44.54	28.42	33.02	2.01
		804.95	44.58	28.68	33.09	2.04
		805.95	44.49	28.13	33.20	2.09
		806.05 (FCC)	45.52	35.64	33.16	2.07
		823.95 (FCC)	45.51	35.59	33.06	2.02
		851.05 (FCC)	45.36	34.37	33.06	2.02
		868.95 (FCC)	45.23	33.34	33.04	2.01
		806.05 (ISED)	44.48	28.09	33.16	2.07
		823.95 (ISED)	44.36	27.32	33.06	2.02
		851.05 (ISED)	44.43	27.72	33.06	2.02
		868.95 (ISED)	44.35	27.25	33.04	2.01

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
7K60FXD 7K60FXE 7K60F1E 7K60F1D 7K60F1W 7K60FXW	11.25	138.05	46.98	49.94	37.08	5.10
		150.05	46.77	47.56	37.05	5.07
		162.05	46.80	47.85	37.04	5.06
		173.95	46.80	47.82	37.04	5.06
		406.15	46.56	45.28	37.10	5.13
		429.95	46.44	44.08	37.08	5.10
		469.95	46.42	43.84	37.02	5.04
		511.95	46.29	42.60	37.03	5.05
		768.05	44.50	28.17	33.05	2.02
		769.05	44.43	27.73	33.02	2.01
		774.95	44.37	27.37	33.14	2.06
		775.95	44.40	27.57	33.05	2.02
		798.05	44.54	28.47	33.03	2.01
		799.05	44.67	29.29	33.07	2.03
		804.95	44.66	29.27	33.14	2.06
		805.95	44.60	28.86	33.23	2.10
		806.05 (FCC)	45.52	35.61	33.40	2.19
		823.95 (FCC)	45.52	35.67	33.08	2.03
		851.05 (FCC)	45.30	33.85	33.44	2.21
		868.95 (FCC)	45.19	33.01	33.49	2.23
		806.05 (ISED)	44.64	29.11	33.40	2.19
		823.95 (ISED)	44.46	27.94	33.08	2.03
		851.05 (ISED)	44.52	28.33	33.44	2.21
		868.95 (ISED)	44.38	27.42	33.49	2.23

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
4K00F1E 4K00F1D 4K00F7W	6.25	138.05	46.94	49.39	37.10	5.13
		150.05	46.71	46.84	37.06	5.09
		162.05	46.74	47.24	37.01	5.02
		173.95	46.81	48.03	37.10	5.13
		406.15	46.57	45.39	37.05	5.08
		429.95	46.45	44.14	37.03	5.05
		469.95	46.42	43.84	37.07	5.10
		511.95	46.35	43.17	37.08	5.11
		768.05	44.47	27.97	33.17	2.08
		769.05	44.54	28.45	33.20	2.09
		774.95	44.44	27.79	33.09	2.04
		775.95	44.35	27.20	33.09	2.04
		798.05	44.58	28.70	33.10	2.04
		799.05	44.50	28.21	33.07	2.03
		804.95	44.57	28.66	33.08	2.03
		805.95	44.48	28.06	33.20	2.09
		806.05 (FCC)	45.51	35.58	33.13	2.06
		823.95 (FCC)	45.49	35.42	33.06	2.02
		851.05 (FCC)	45.32	34.02	33.04	2.01
		868.95 (FCC)	45.20	33.14	33.04	2.01
		806.05 (ISED)	44.58	28.73	33.13	2.06
		823.95 (ISED)	44.42	27.66	33.06	2.02
		851.05 (ISED)	44.49	28.12	33.04	2.01
		868.95 (ISED)	44.39	27.49	33.04	2.01

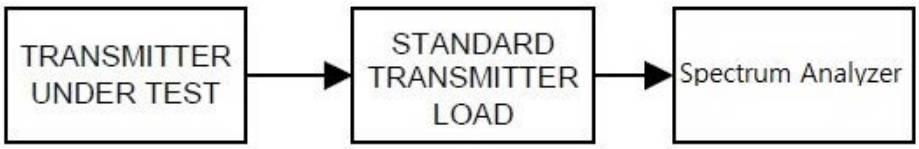
Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Carrier Output Power (AVG RMS measurement)			
			High Power		Low Power	
			dBm	W	dBm	W
4K00F2D	6.25	138.05	47.02	50.32	37.16	5.20
		150.05	46.80	47.83	37.13	5.16
		162.05	46.84	48.26	37.06	5.09
		173.95	46.83	48.21	37.09	5.12
		406.15	46.59	45.59	37.13	5.16
		429.95	46.47	44.38	37.11	5.14
		469.95	46.45	44.15	37.06	5.08
		511.95	46.29	42.58	37.06	5.08
		768.05	44.56	28.60	33.07	2.03
		769.05	44.50	28.18	33.07	2.03
		774.95	44.38	27.41	33.08	2.03
		775.95	44.33	27.12	33.12	2.05
		798.05	44.58	28.69	33.03	2.01
		799.05	44.51	28.25	33.10	2.04
		804.95	44.47	27.98	33.04	2.01
		805.95	44.39	27.48	33.12	2.05
		806.05 (FCC)	45.48	35.33	33.15	2.07
		823.95 (FCC)	45.50	35.48	33.04	2.01
		851.05 (FCC)	45.25	33.47	33.08	2.03
		868.95 (FCC)	45.15	32.73	33.07	2.03
		806.05 (ISED)	44.50	28.17	33.15	2.07
		823.95 (ISED)	44.34	27.16	33.04	2.01
		851.05 (ISED)	44.39	27.45	33.08	2.03
		868.95 (ISED)	44.34	27.18	33.07	2.03

8.2 Carrier Frequency Stability

▣ Definition

The carrier frequency stability is the ability of the transmitter to maintain an assigned carrier frequency.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.2 in TIA-603-E Standard.

a) Connect the equipment as illustrated.

b) Operate the equipment in standby conditions for 15 minutes before proceeding.

c) Record the carrier frequency of the transmitter as *MCF* MHz

d) Calculate the ppm frequency error by the following:

ppm error = ((MCF_{MHz} / ACF_{MHz})-1)x10^6

where

MCF_{MHz} is the Measured Carrier Frequency in MHz

ACF_{MHz} is the Assigned Carrier Frequency in MHz

e) The value recorded in step d) is the carrier frequency stability.

▣ TEST LIMIT

The limits were varied, so worst limit was applied.

(Worst limit: 0.4 ppm)

▣ TEST RESULTS (Temperature Variation)

Type of emission: 16K0F3E

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.050024777	0.179	0.181	0.4
	-20	138.049982360	-0.128	-0.126	
	-10	138.050005299	0.038	0.040	
	0	138.050023793	0.172	0.174	
	+10	138.050010477	0.076	0.077	
	+20 (Ref)	138.049999782	-0.002	0.000	
	+30	138.050014955	0.108	0.110	
	+40	138.050000490	0.004	0.005	
	+50	138.049972795	-0.197	-0.195	
150.05	-30	150.049981714	-0.122	-0.136	0.4
	-20	150.050023168	0.154	0.140	
	-10	150.049987171	-0.085	-0.100	
	0	150.049993129	-0.046	-0.060	
	+10	150.049986131	-0.092	-0.107	
	+20 (Ref)	150.050002172	0.014	0.000	
	+30	150.050013895	0.093	0.078	
	+40	150.049984500	-0.103	-0.118	
	+50	150.049974794	-0.168	-0.182	
162.05	-30	162.049989611	-0.064	-0.085	0.4
	-20	162.050026293	0.162	0.141	
	-10	162.050022044	0.136	0.115	
	0	162.049983671	-0.101	-0.122	
	+10	162.050030269	0.187	0.165	
	+20 (Ref)	162.050003460	0.021	0.000	
	+30	162.050008762	0.054	0.033	
	+40	162.050023458	0.145	0.123	
	+50	162.050007935	0.049	0.028	
173.95	-30	173.950003651	0.021	0.026	0.4
	-20	173.949988268	-0.067	-0.062	
	-10	173.949993438	-0.038	-0.033	
	0	173.949996963	-0.017	-0.012	
	+10	173.950026003	0.149	0.155	
	+20 (Ref)	173.949999102	-0.005	0.000	
	+30	173.949983562	-0.094	-0.089	
	+40	173.950012306	0.071	0.076	
	+50	173.950002116	0.012	0.017	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.150008768	0.022	0.025	0.4
	-20	406.150013609	0.034	0.037	
	-10	406.149996440	-0.009	-0.006	
	0	406.150017783	0.044	0.047	
	+10	406.149979340	-0.051	-0.048	
	+20 (Ref)	406.149998738	-0.003	0.000	
	+30	406.150013583	0.033	0.037	
	+40	406.150021175	0.052	0.055	
	+50	406.149985552	-0.036	-0.032	
429.95	-30	429.949979582	-0.047	-0.056	0.4
	-20	429.949994944	-0.012	-0.021	
	-10	429.949985423	-0.034	-0.043	
	0	429.950017972	0.042	0.033	
	+10	429.950007435	0.017	0.008	
	+20 (Ref)	429.950003822	0.009	0.000	
	+30	429.950028585	0.066	0.058	
	+40	429.950032098	0.075	0.066	
	+50	429.949977913	-0.051	-0.060	
469.95	-30	469.949992848	-0.015	-0.029	0.4
	-20	469.950032499	0.069	0.055	
	-10	469.950030211	0.064	0.051	
	0	469.950021569	0.046	0.032	
	+10	469.950029548	0.063	0.049	
	+20 (Ref)	469.950006430	0.014	0.000	
	+30	469.950000052	0.000	-0.014	
	+40	469.950018288	0.039	0.025	
	+50	469.950030491	0.065	0.051	
470.05	-30	470.050012745	0.027	0.031	0.4
	-20	470.050005882	0.013	0.017	
	-10	470.049994664	-0.011	-0.007	
	0	470.050012705	0.027	0.031	
	+10	470.050014428	0.031	0.035	
	+20 (Ref)	470.049998103	-0.004	0.000	
	+30	470.049997400	-0.006	-0.001	
	+40	470.050025121	0.053	0.057	
	+50	470.049992068	-0.017	-0.013	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
495.05	-30	495.050008066	0.016	0.016	0.4
	-20	495.050017920	0.036	0.035	
	-10	495.050013240	0.027	0.026	
	0	495.049982905	-0.035	-0.035	
	+10	495.050014059	0.028	0.028	
	+20 (Ref)	495.050000377	0.001	0.000	
	+30	495.050025725	0.052	0.051	
	+40	495.049985464	-0.029	-0.030	
	+50	495.049976905	-0.047	-0.047	
511.95	-30	511.950025231	0.049	0.036	0.4
	-20	511.949983808	-0.032	-0.045	
	-10	511.950012695	0.025	0.011	
	0	511.949978203	-0.043	-0.056	
	+10	511.950034512	0.067	0.054	
	+20 (Ref)	511.950007010	0.014	0.000	
	+30	511.950000087	0.000	-0.014	
	+40	511.950008447	0.016	0.003	
	+50	511.950011657	0.023	0.009	
768.05	-30	768.049973600	-0.034	-0.024	0.4
	-20	768.049981502	-0.024	-0.014	
	-10	768.050010846	0.014	0.024	
	0	768.049977824	-0.029	-0.019	
	+10	768.049984223	-0.021	-0.010	
	+20 (Ref)	768.049992138	-0.010	0.000	
	+30	768.049968075	-0.042	-0.031	
	+40	768.049987061	-0.017	-0.007	
	+50	768.050013297	0.017	0.028	
769.05	-30	769.050018711	0.024	0.027	0.4
	-20	769.049983918	-0.021	-0.018	
	-10	769.049980894	-0.025	-0.022	
	0	769.050001837	0.002	0.005	
	+10	769.049989334	-0.014	-0.011	
	+20 (Ref)	769.049997735	-0.003	0.000	
	+30	769.049992059	-0.010	-0.007	
	+40	769.049999208	-0.001	0.002	
	+50	769.050005273	0.007	0.010	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
774.95	-30	774.950000110	0.000	0.012	0.4
	-20	774.949994418	-0.007	0.005	
	-10	774.949988399	-0.015	-0.003	
	0	774.950019558	0.025	0.037	
	+10	774.949978354	-0.028	-0.016	
	+20 (Ref)	774.949990881	-0.012	0.000	
	+30	774.949991353	-0.011	0.001	
	+40	774.949983709	-0.021	-0.009	
	+50	774.950003604	0.005	0.016	
775.95	-30	775.949996359	-0.005	-0.004	0.4
	-20	775.950005563	0.007	0.008	
	-10	775.949977486	-0.029	-0.028	
	0	775.950022653	0.029	0.030	
	+10	775.949984646	-0.020	-0.019	
	+20 (Ref)	775.949999135	-0.001	0.000	
	+30	775.950026877	0.035	0.036	
	+40	775.950020707	0.027	0.028	
	+50	775.949996115	-0.005	-0.004	
798.05	-30	798.050010518	0.013	0.002	0.4
	-20	798.049980507	-0.024	-0.036	
	-10	798.050001158	0.001	-0.010	
	0	798.049985616	-0.018	-0.030	
	+10	798.050036398	0.046	0.034	
	+20 (Ref)	798.050009313	0.012	0.000	
	+30	798.049998286	-0.002	-0.014	
	+40	798.050014012	0.018	0.006	
	+50	798.050005746	0.007	-0.004	
799.05	-30	799.050011395	0.014	0.008	0.4
	-20	799.049988703	-0.014	-0.020	
	-10	799.049981943	-0.023	-0.028	
	0	799.049984487	-0.019	-0.025	
	+10	799.049992876	-0.009	-0.015	
	+20 (Ref)	799.050004604	0.006	0.000	
	+30	799.050018340	0.023	0.017	
	+40	799.050013032	0.016	0.011	
	+50	799.049997315	-0.003	-0.009	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
804.95	-30	804.949962575	-0.046	-0.036	0.4
	-20	804.949990944	-0.011	-0.001	
	-10	804.950000296	0.000	0.011	
	0	804.949985890	-0.018	-0.007	
	+10	804.950018575	0.023	0.034	
	+20 (Ref)	804.949991548	-0.011	0.000	
	+30	804.949987203	-0.016	-0.005	
	+40	804.949976144	-0.030	-0.019	
	+50	804.949978858	-0.026	-0.016	
805.95	-30	805.949952870	-0.058	-0.036	0.4
	-20	805.949995479	-0.006	0.017	
	-10	805.950008753	0.011	0.033	
	0	805.949968138	-0.040	-0.017	
	+10	805.949957138	-0.053	-0.031	
	+20 (Ref)	805.949981859	-0.023	0.000	
	+30	805.949997709	-0.003	0.020	
	+40	805.949998246	-0.002	0.020	
	+50	805.949971533	-0.035	-0.013	
806.05	-30	806.050019636	0.024	0.002	0.4
	-20	806.050030323	0.038	0.015	
	-10	806.050006159	0.008	-0.015	
	0	806.050002554	0.003	-0.019	
	+10	806.050044738	0.056	0.033	
	+20 (Ref)	806.050018032	0.022	0.000	
	+30	806.050000409	0.001	-0.022	
	+40	806.049996820	-0.004	-0.026	
	+50	806.049995337	-0.006	-0.028	
823.95	-30	823.949982420	-0.021	0.010	0.4
	-20	823.949970117	-0.036	-0.004	
	-10	823.949959788	-0.049	-0.017	
	0	823.949990649	-0.011	0.020	
	+10	823.949992848	-0.009	0.023	
	+20 (Ref)	823.949973804	-0.032	0.000	
	+30	823.949997557	-0.003	0.029	
	+40	823.949990293	-0.012	0.020	
	+50	823.949947899	-0.063	-0.031	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
851.05	-30	851.050012341	0.015	-0.015	0.4
	-20	851.050012271	0.014	-0.015	
	-10	851.050042859	0.050	0.021	
	0	851.050021510	0.025	-0.004	
	+10	851.050014398	0.017	-0.013	
	+20 (Ref)	851.050025043	0.029	0.000	
	+30	851.050008737	0.010	-0.019	
	+40	851.050020670	0.024	-0.005	
	+50	851.050040064	0.047	0.018	
868.95	-30	868.950045293	0.052	0.022	0.4
	-20	868.950004319	0.005	-0.025	
	-10	868.950003603	0.004	-0.026	
	0	868.950002956	0.003	-0.027	
	+10	868.950001824	0.002	-0.028	
	+20 (Ref)	868.950026143	0.030	0.000	
	+30	868.950018331	0.021	-0.009	
	+40	868.950040506	0.047	0.017	
	+50	868.950022232	0.026	-0.005	

Type of emission: 14K0F3E

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049998439	-0.002	0.006	0.4
	-20	768.049977693	-0.029	-0.021	
	-10	768.049987105	-0.017	-0.009	
	0	768.050012672	0.016	0.024	
	+10	768.049970926	-0.038	-0.030	
	+20 (Ref)	768.049993884	-0.008	0.000	
	+30	768.050003975	0.005	0.013	
	+40	768.050004136	0.005	0.013	
	+50	768.050004042	0.005	0.013	
769.05	-30	769.049980704	-0.025	-0.024	0.4
	-20	769.050009271	0.012	0.013	
	-10	769.050019897	0.026	0.027	
	0	769.050004898	0.006	0.007	
	+10	769.049991837	-0.011	-0.010	
	+20 (Ref)	769.049999291	-0.001	0.000	
	+30	769.049971061	-0.038	-0.037	
	+40	769.049997958	-0.003	-0.002	
	+50	769.049997539	-0.003	-0.002	
774.95	-30	774.950007742	0.010	0.032	0.4
	-20	774.949977863	-0.029	-0.007	
	-10	774.950003459	0.004	0.026	
	0	774.949993202	-0.009	0.013	
	+10	774.949988696	-0.015	0.007	
	+20 (Ref)	774.949983247	-0.022	0.000	
	+30	774.949965650	-0.044	-0.023	
	+40	774.949980062	-0.026	-0.004	
	+50	774.949998255	-0.002	0.019	
775.95	-30	775.949955134	-0.058	-0.038	0.4
	-20	775.949998075	-0.002	0.017	
	-10	775.949983136	-0.022	-0.002	
	0	775.950004201	0.005	0.025	
	+10	775.949955424	-0.057	-0.038	
	+20 (Ref)	775.949984816	-0.020	0.000	
	+30	775.949977295	-0.029	-0.010	
	+40	775.949960899	-0.050	-0.031	
	+50	775.950009608	0.012	0.032	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050019048	0.024	0.014	0.4
	-20	798.049986510	-0.017	-0.027	
	-10	798.050022640	0.028	0.018	
	0	798.050017090	0.021	0.011	
	+10	798.049993206	-0.009	-0.019	
	+20 (Ref)	798.050008197	0.010	0.000	
	+30	798.050004936	0.006	-0.004	
	+40	798.050033818	0.042	0.032	
	+50	798.050030535	0.038	0.028	
799.05	-30	799.050021836	0.027	0.037	0.4
	-20	799.049968397	-0.040	-0.030	
	-10	799.050020110	0.025	0.035	
	0	799.049981313	-0.023	-0.013	
	+10	799.049979428	-0.026	-0.016	
	+20 (Ref)	799.049991974	-0.010	0.000	
	+30	799.049990256	-0.012	-0.002	
	+40	799.049995058	-0.006	0.004	
	+50	799.049979781	-0.025	-0.015	
804.95	-30	804.949962527	-0.047	-0.021	0.4
	-20	804.949992186	-0.010	0.016	
	-10	804.949975047	-0.031	-0.005	
	0	804.949995891	-0.005	0.021	
	+10	804.949966289	-0.042	-0.016	
	+20 (Ref)	804.949979298	-0.026	0.000	
	+30	804.950001243	0.002	0.027	
	+40	804.950001338	0.002	0.027	
	+50	804.949953719	-0.057	-0.032	
805.95	-30	805.950002858	0.004	0.012	0.4
	-20	805.950022646	0.028	0.037	
	-10	805.949995138	-0.006	0.002	
	0	805.949990639	-0.012	-0.003	
	+10	805.949964118	-0.045	-0.036	
	+20 (Ref)	805.949993216	-0.008	0.000	
	+30	805.949980258	-0.024	-0.016	
	+40	805.949991633	-0.010	-0.002	
	+50	805.949981744	-0.023	-0.014	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.049997934	-0.003	-0.001	0.4
	-20	806.050015590	0.019	0.021	
	-10	806.050013063	0.016	0.018	
	0	806.049973387	-0.033	-0.031	
	+10	806.049985175	-0.018	-0.016	
	+20 (Ref)	806.049998397	-0.002	0.000	
	+30	806.050008447	0.010	0.012	
	+40	806.050019914	0.025	0.027	
	+50	806.049981548	-0.023	-0.021	
823.95	-30	823.949985745	-0.017	-0.002	0.4
	-20	823.949994056	-0.007	0.008	
	-10	823.949980121	-0.024	-0.009	
	0	823.949964895	-0.043	-0.027	
	+10	823.949960530	-0.048	-0.032	
	+20 (Ref)	823.949987203	-0.016	0.000	
	+30	823.950008229	0.010	0.026	
	+40	823.949994644	-0.007	0.009	
	+50	823.949994981	-0.006	0.009	
851.05	-30	851.050020695	0.024	0.007	0.4
	-20	851.050008746	0.010	-0.007	
	-10	851.050023180	0.027	0.010	
	0	851.049995987	-0.005	-0.022	
	+10	851.050016130	0.019	0.002	
	+20 (Ref)	851.050014402	0.017	0.000	
	+30	851.049995008	-0.006	-0.023	
	+40	851.050026118	0.031	0.014	
	+50	851.050008009	0.009	-0.008	
868.95	-30	868.950045951	0.053	0.026	0.4
	-20	868.950051736	0.060	0.033	
	-10	868.950027421	0.032	0.005	
	0	868.950038471	0.044	0.017	
	+10	868.950030582	0.035	0.008	
	+20 (Ref)	868.950023358	0.027	0.000	
	+30	868.950000424	0.000	-0.026	
	+40	868.950003774	0.004	-0.023	
	+50	868.950023073	0.027	0.000	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.049982842	-0.124	-0.129	0.4
	-20	138.050023118	0.167	0.163	
	-10	138.050000452	0.003	-0.001	
	0	138.049982042	-0.130	-0.135	
	+10	138.050018832	0.136	0.132	
	+20 (Ref)	138.050000629	0.005	0.000	
	+30	138.049974094	-0.188	-0.192	
	+40	138.049985922	-0.102	-0.107	
	+50	138.049989242	-0.078	-0.082	
150.05	-30	150.050008170	0.054	0.043	0.4
	-20	150.050013387	0.089	0.078	
	-10	150.049974696	-0.169	-0.180	
	0	150.050008775	0.058	0.047	
	+10	150.049983080	-0.113	-0.124	
	+20 (Ref)	150.050001651	0.011	0.000	
	+30	150.049992704	-0.049	-0.060	
	+40	150.050001651	0.011	0.000	
	+50	150.050011572	0.077	0.066	
162.05	-30	162.049998210	-0.011	-0.020	0.4
	-20	162.050008030	0.050	0.040	
	-10	162.050021360	0.132	0.122	
	0	162.049982455	-0.108	-0.118	
	+10	162.050012638	0.078	0.069	
	+20 (Ref)	162.050001522	0.009	0.000	
	+30	162.049974706	-0.156	-0.165	
	+40	162.049995268	-0.029	-0.039	
	+50	162.049992779	-0.045	-0.054	
173.95	-30	173.949999028	-0.006	0.006	0.4
	-20	173.950009717	0.056	0.067	
	-10	173.950013373	0.077	0.088	
	0	173.950007389	0.042	0.054	
	+10	173.949986551	-0.077	-0.066	
	+20 (Ref)	173.949997991	-0.012	0.000	
	+30	173.950026242	0.151	0.162	
	+40	173.950015517	0.089	0.101	
	+50	173.949977653	-0.128	-0.117	

Type of emission: 11K0F3E

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.149989318	-0.026	-0.021	0.4
	-20	406.150011851	0.029	0.034	
	-10	406.149974155	-0.064	-0.058	
	0	406.150000075	0.000	0.005	
	+10	406.149993170	-0.017	-0.012	
	+20 (Ref)	406.149997896	-0.005	0.000	
	+30	406.149987595	-0.031	-0.025	
	+40	406.149968131	-0.078	-0.073	
	+50	406.150003809	0.009	0.015	
429.95	-30	429.950022484	0.052	0.051	0.4
	-20	429.950028332	0.066	0.065	
	-10	429.950028409	0.066	0.065	
	0	429.950025691	0.060	0.059	
	+10	429.950000270	0.001	-0.001	
	+20 (Ref)	429.950000526	0.001	0.000	
	+30	429.950001925	0.004	0.003	
	+40	429.950013850	0.032	0.031	
	+50	429.949978235	-0.051	-0.052	
469.95	-30	469.950013635	0.029	0.021	0.4
	-20	469.950010724	0.023	0.015	
	-10	469.950030396	0.065	0.057	
	0	469.949993338	-0.014	-0.022	
	+10	469.949985257	-0.031	-0.040	
	+20 (Ref)	469.950003827	0.008	0.000	
	+30	469.950012606	0.027	0.019	
	+40	469.949999407	-0.001	-0.009	
	+50	469.949975939	-0.051	-0.059	
511.95	-30	511.949991257	-0.017	-0.012	0.4
	-20	511.950008994	0.018	0.022	
	-10	511.949982872	-0.033	-0.029	
	0	511.950008766	0.017	0.022	
	+10	511.949995038	-0.010	-0.005	
	+20 (Ref)	511.949997618	-0.005	0.000	
	+30	511.950022898	0.045	0.049	
	+40	511.950024850	0.049	0.053	
	+50	511.950024244	0.047	0.052	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.050044382	0.058	0.034	0.4
	-20	768.049993082	-0.009	-0.032	
	-10	768.050035829	0.047	0.023	
	0	768.049992518	-0.010	-0.033	
	+10	768.050030678	0.040	0.017	
	+20 (Ref)	768.050017893	0.023	0.000	
	+30	768.050035290	0.046	0.023	
	+40	768.050001741	0.002	-0.021	
	+50	768.050007210	0.009	-0.014	
769.05	-30	769.050003985	0.005	-0.019	0.4
	-20	769.050021318	0.028	0.004	
	-10	769.049996508	-0.005	-0.028	
	0	769.050020497	0.027	0.003	
	+10	769.049990355	-0.013	-0.036	
	+20 (Ref)	769.050018308	0.024	0.000	
	+30	769.049994964	-0.007	-0.030	
	+40	769.050043927	0.057	0.033	
	+50	769.050018712	0.024	0.001	
774.95	-30	774.949987092	-0.017	-0.005	0.4
	-20	774.949986818	-0.017	-0.005	
	-10	774.949999109	-0.001	0.010	
	0	774.949984228	-0.020	-0.009	
	+10	774.950007279	0.009	0.021	
	+20 (Ref)	774.949991020	-0.012	0.000	
	+30	774.950009380	0.012	0.024	
	+40	774.949979384	-0.027	-0.015	
	+50	774.950011428	0.015	0.026	
775.95	-30	775.949972359	-0.036	-0.022	0.4
	-20	775.950016297	0.021	0.035	
	-10	775.949971712	-0.036	-0.023	
	0	775.949994293	-0.007	0.006	
	+10	775.949963213	-0.047	-0.034	
	+20 (Ref)	775.949989334	-0.014	0.000	
	+30	775.949997827	-0.003	0.011	
	+40	775.949995403	-0.006	0.008	
	+50	775.950010421	0.013	0.027	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050001682	0.002	-0.027	0.4
	-20	798.050020946	0.026	-0.003	
	-10	798.050001687	0.002	-0.027	
	0	798.050044938	0.056	0.027	
	+10	798.050036268	0.045	0.016	
	+20 (Ref)	798.050023139	0.029	0.000	
	+30	798.050041663	0.052	0.023	
	+40	798.050049582	0.062	0.033	
	+50	798.050047519	0.060	0.031	
799.05	-30	799.050004694	0.006	0.018	0.4
	-20	799.049966684	-0.042	-0.030	
	-10	799.050000631	0.001	0.013	
	0	799.049960931	-0.049	-0.037	
	+10	799.050018724	0.023	0.035	
	+20 (Ref)	799.049990508	-0.012	0.000	
	+30	799.049975294	-0.031	-0.019	
	+40	799.049974393	-0.032	-0.020	
	+50	799.050002689	0.003	0.015	
804.95	-30	804.950008828	0.011	0.006	0.4
	-20	804.950005479	0.007	0.002	
	-10	804.950011281	0.014	0.009	
	0	804.950017652	0.022	0.017	
	+10	804.949984273	-0.020	-0.024	
	+20 (Ref)	804.950003699	0.005	0.000	
	+30	804.949978978	-0.026	-0.031	
	+40	804.950032956	0.041	0.036	
	+50	804.949985614	-0.018	-0.022	
805.95	-30	805.950022378	0.028	0.019	0.4
	-20	805.950032973	0.041	0.032	
	-10	805.950008120	0.010	0.002	
	0	805.950009869	0.012	0.004	
	+10	805.950022309	0.028	0.019	
	+20 (Ref)	805.950006878	0.009	0.000	
	+30	805.949978308	-0.027	-0.035	
	+40	805.950005889	0.007	-0.001	
	+50	805.949984947	-0.019	-0.027	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.050008295	0.010	0.014	0.4
	-20	806.049989699	-0.013	-0.009	
	-10	806.050011307	0.014	0.017	
	0	806.050024449	0.030	0.034	
	+10	806.050004105	0.005	0.008	
	+20 (Ref)	806.049997340	-0.003	0.000	
	+30	806.050022742	0.028	0.032	
	+40	806.050011979	0.015	0.018	
	+50	806.050004337	0.005	0.009	
823.95	-30	823.950006085	0.007	0.020	0.4
	-20	823.949984286	-0.019	-0.007	
	-10	823.949983371	-0.020	-0.008	
	0	823.950013416	0.016	0.029	
	+10	823.949978391	-0.026	-0.014	
	+20 (Ref)	823.949989748	-0.012	0.000	
	+30	823.950009723	0.012	0.024	
	+40	823.950002156	0.003	0.015	
	+50	823.949988276	-0.014	-0.002	
851.05	-30	851.050016030	0.019	0.016	0.4
	-20	851.050004821	0.006	0.003	
	-10	851.049987220	-0.015	-0.018	
	0	851.049983060	-0.020	-0.023	
	+10	851.050000099	0.000	-0.003	
	+20 (Ref)	851.050002237	0.003	0.000	
	+30	851.049999890	0.000	-0.003	
	+40	851.049975334	-0.029	-0.032	
	+50	851.049976028	-0.028	-0.031	
868.95	-30	868.950033550	0.039	0.023	0.4
	-20	868.949986395	-0.016	-0.031	
	-10	868.950005235	0.006	-0.009	
	0	868.949995932	-0.005	-0.020	
	+10	868.949983402	-0.019	-0.034	
	+20 (Ref)	868.950013165	0.015	0.000	
	+30	868.949995775	-0.005	-0.020	
	+40	868.949989487	-0.012	-0.027	
	+50	868.950028352	0.033	0.017	

Type of emission: 8K30F1E, 8K30F1D, 8K30F7W

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.049981184	-0.136	-0.100	0.4
	-20	138.049998854	-0.008	0.028	
	-10	138.049968178	-0.231	-0.195	
	0	138.049968132	-0.231	-0.195	
	+10	138.050015371	0.111	0.147	
	+20 (Ref)	138.049995034	-0.036	0.000	
	+30	138.049968958	-0.225	-0.189	
	+40	138.050006624	0.048	0.084	
	+50	138.050012146	0.088	0.124	
150.05	-30	150.049992659	-0.049	-0.015	0.4
	-20	150.050002094	0.014	0.047	
	-10	150.049990138	-0.066	-0.032	
	0	150.049981181	-0.125	-0.092	
	+10	150.049967324	-0.218	-0.184	
	+20 (Ref)	150.049994968	-0.034	0.000	
	+30	150.050021964	0.146	0.180	
	+40	150.050008091	0.054	0.087	
	+50	150.049994818	-0.035	-0.001	
162.05	-30	162.050028164	0.174	0.182	0.4
	-20	162.050026510	0.164	0.172	
	-10	162.050020371	0.126	0.134	
	0	162.049971036	-0.179	-0.170	
	+10	162.049985927	-0.087	-0.078	
	+20 (Ref)	162.049998591	-0.009	0.000	
	+30	162.049988236	-0.073	-0.064	
	+40	162.049998315	-0.010	-0.002	
	+50	162.050009566	0.059	0.068	
173.95	-30	173.949974729	-0.145	-0.125	0.4
	-20	173.950012266	0.071	0.091	
	-10	173.949967370	-0.188	-0.167	
	0	173.949985168	-0.085	-0.065	
	+10	173.950002930	0.017	0.037	
	+20 (Ref)	173.949996434	-0.021	0.000	
	+30	173.949992009	-0.046	-0.025	
	+40	173.950003468	0.020	0.040	
	+50	173.950012333	0.071	0.091	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.149982649	-0.043	-0.042	0.4
	-20	406.150010811	0.027	0.027	
	-10	406.150003674	0.009	0.010	
	0	406.150003992	0.010	0.011	
	+10	406.149998001	-0.005	-0.004	
	+20 (Ref)	406.149999724	-0.001	0.000	
	+30	406.149994895	-0.013	-0.012	
	+40	406.150019053	0.047	0.048	
	+50	406.149973302	-0.066	-0.065	
429.95	-30	429.950007972	0.019	0.013	0.4
	-20	429.950005358	0.012	0.007	
	-10	429.949993148	-0.016	-0.022	
	0	429.949978690	-0.050	-0.055	
	+10	429.949992018	-0.019	-0.024	
	+20 (Ref)	429.950002550	0.006	0.000	
	+30	429.950027482	0.064	0.058	
	+40	429.950001750	0.004	-0.002	
	+50	429.949993123	-0.016	-0.022	
469.95	-30	469.950010352	0.022	-0.001	0.4
	-20	469.950022466	0.048	0.025	
	-10	469.949995123	-0.010	-0.033	
	0	469.950007527	0.016	-0.007	
	+10	469.949984619	-0.033	-0.055	
	+20 (Ref)	469.950010602	0.023	0.000	
	+30	469.950027721	0.059	0.036	
	+40	469.950023820	0.051	0.028	
	+50	469.950027712	0.059	0.036	
511.95	-30	511.950016247	0.032	0.035	0.4
	-20	511.949990128	-0.019	-0.016	
	-10	511.950010398	0.020	0.024	
	0	511.949986975	-0.025	-0.022	
	+10	511.949995721	-0.008	-0.005	
	+20 (Ref)	511.949998196	-0.004	0.000	
	+30	511.950028008	0.055	0.058	
	+40	511.949968978	-0.061	-0.057	
	+50	511.949991008	-0.018	-0.014	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049991990	-0.010	-0.029	0.4
	-20	768.050028486	0.037	0.019	
	-10	768.050021774	0.028	0.010	
	0	768.050041036	0.053	0.035	
	+10	768.050042488	0.055	0.037	
	+20 (Ref)	768.050014014	0.018	0.000	
	+30	768.050030423	0.040	0.021	
	+40	768.050006626	0.009	-0.010	
	+50	768.050027322	0.036	0.017	
769.05	-30	769.050000595	0.001	-0.018	0.4
	-20	769.050003130	0.004	-0.014	
	-10	769.049996984	-0.004	-0.022	
	0	769.049993433	-0.009	-0.027	
	+10	769.049997738	-0.003	-0.021	
	+20 (Ref)	769.050014110	0.018	0.000	
	+30	769.050032004	0.042	0.023	
	+40	769.049997663	-0.003	-0.021	
	+50	769.050004195	0.005	-0.013	
774.95	-30	774.950038767	0.050	0.033	0.4
	-20	774.950002087	0.003	-0.015	
	-10	774.950024091	0.031	0.014	
	0	774.950037848	0.049	0.032	
	+10	774.950028582	0.037	0.020	
	+20 (Ref)	774.950013424	0.017	0.000	
	+30	774.949994393	-0.007	-0.025	
	+40	774.950031366	0.040	0.023	
	+50	774.950005719	0.007	-0.010	
775.95	-30	775.950010661	0.014	-0.025	0.4
	-20	775.950023697	0.031	-0.008	
	-10	775.950015220	0.020	-0.019	
	0	775.950048496	0.062	0.024	
	+10	775.950000394	0.001	-0.038	
	+20 (Ref)	775.950029833	0.038	0.000	
	+30	775.950017682	0.023	-0.016	
	+40	775.950048222	0.062	0.024	
	+50	775.950041196	0.053	0.015	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050013019	0.016	-0.004	0.4
	-20	798.050035182	0.044	0.024	
	-10	798.050027536	0.035	0.014	
	0	798.050039256	0.049	0.029	
	+10	798.050024482	0.031	0.010	
	+20 (Ref)	798.050016104	0.020	0.000	
	+30	798.050029522	0.037	0.017	
	+40	798.050009484	0.012	-0.008	
	+50	798.050045439	0.057	0.037	
799.05	-30	799.050008272	0.010	-0.025	0.4
	-20	799.050020935	0.026	-0.009	
	-10	799.050017876	0.022	-0.013	
	0	799.050036276	0.045	0.010	
	+10	799.050034714	0.043	0.008	
	+20 (Ref)	799.050028477	0.036	0.000	
	+30	799.050027721	0.035	-0.001	
	+40	799.050031020	0.039	0.003	
	+50	799.050051487	0.064	0.029	
804.95	-30	804.950015832	0.020	0.031	0.4
	-20	804.950003023	0.004	0.015	
	-10	804.950000216	0.000	0.011	
	0	804.949993596	-0.008	0.003	
	+10	804.949998713	-0.002	0.009	
	+20 (Ref)	804.949991095	-0.011	0.000	
	+30	804.949999426	-0.001	0.010	
	+40	804.950004886	0.006	0.017	
	+50	804.950000894	0.001	0.012	
805.95	-30	805.949981941	-0.022	-0.015	0.4
	-20	805.949967655	-0.040	-0.033	
	-10	805.950005920	0.007	0.015	
	0	805.949964693	-0.044	-0.036	
	+10	805.950022150	0.027	0.035	
	+20 (Ref)	805.949993962	-0.007	0.000	
	+30	805.949980877	-0.024	-0.016	
	+40	805.949994160	-0.007	0.000	
	+50	805.949967309	-0.041	-0.033	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.050028267	0.035	0.021	0.4
	-20	806.050003431	0.004	-0.009	
	-10	806.050014291	0.018	0.004	
	0	806.050020118	0.025	0.011	
	+10	806.050002457	0.003	-0.011	
	+20 (Ref)	806.050010974	0.014	0.000	
	+30	806.050020896	0.026	0.012	
	+40	806.050013499	0.017	0.003	
	+50	806.050033100	0.041	0.027	
823.95	-30	823.949931430	-0.083	-0.029	0.4
	-20	823.949935291	-0.079	-0.024	
	-10	823.949964319	-0.043	0.011	
	0	823.949927083	-0.088	-0.034	
	+10	823.949946699	-0.065	-0.011	
	+20 (Ref)	823.949955447	-0.054	0.000	
	+30	823.949958701	-0.050	0.004	
	+40	823.949983606	-0.020	0.034	
	+50	823.949975035	-0.030	0.024	
851.05	-30	851.050040505	0.048	0.029	0.4
	-20	851.050002797	0.003	-0.015	
	-10	851.050032304	0.038	0.020	
	0	851.050004503	0.005	-0.013	
	+10	851.050027450	0.032	0.014	
	+20 (Ref)	851.050015604	0.018	0.000	
	+30	851.050028117	0.033	0.015	
	+40	851.050029054	0.034	0.016	
	+50	851.050041881	0.049	0.031	
868.95	-30	868.950034257	0.039	0.012	0.4
	-20	868.950027263	0.031	0.004	
	-10	868.950001685	0.002	-0.025	
	0	868.950017560	0.020	-0.007	
	+10	868.950036280	0.042	0.015	
	+20 (Ref)	868.950023677	0.027	0.000	
	+30	868.950039886	0.046	0.019	
	+40	868.950042362	0.049	0.022	
	+50	868.950026402	0.030	0.003	

Type of emission: 8K10F1E, 8K10F1D

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.050004496	0.033	0.029	0.4
	-20	138.049990004	-0.072	-0.076	
	-10	138.049983217	-0.122	-0.125	
	0	138.049975485	-0.178	-0.181	
	+10	138.050002496	0.018	0.014	
	+20 (Ref)	138.050000500	0.004	0.000	
	+30	138.049979207	-0.151	-0.154	
	+40	138.049990909	-0.066	-0.069	
	+50	138.049981129	-0.137	-0.140	
150.05	-30	150.049982459	-0.117	-0.132	0.4
	-20	150.050025349	0.169	0.154	
	-10	150.049988979	-0.073	-0.088	
	0	150.049974834	-0.168	-0.182	
	+10	150.049985534	-0.096	-0.111	
	+20 (Ref)	150.050002197	0.015	0.000	
	+30	150.050011971	0.080	0.065	
	+40	150.050024641	0.164	0.150	
	+50	150.050027171	0.181	0.166	
162.05	-30	162.050025670	0.158	0.136	0.4
	-20	162.049974016	-0.160	-0.182	
	-10	162.050010415	0.064	0.042	
	0	162.049983374	-0.103	-0.125	
	+10	162.049982704	-0.107	-0.129	
	+20 (Ref)	162.050003568	0.022	0.000	
	+30	162.050002665	0.016	-0.006	
	+40	162.049996967	-0.019	-0.041	
	+50	162.050021786	0.134	0.112	
173.95	-30	173.949978210	-0.125	-0.128	0.4
	-20	173.949982878	-0.098	-0.101	
	-10	173.950003756	0.022	0.019	
	0	173.950027581	0.159	0.156	
	+10	173.949979945	-0.115	-0.118	
	+20 (Ref)	173.950000479	0.003	0.000	
	+30	173.949990871	-0.052	-0.055	
	+40	173.950009955	0.057	0.054	
	+50	173.950003946	0.023	0.020	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.150016298	0.040	0.072	0.4
	-20	406.150006144	0.015	0.047	
	-10	406.149966931	-0.081	-0.049	
	0	406.149981444	-0.046	-0.014	
	+10	406.150007611	0.019	0.051	
	+20 (Ref)	406.149987002	-0.032	0.000	
	+30	406.149962739	-0.092	-0.060	
	+40	406.149971863	-0.069	-0.037	
	+50	406.149959476	-0.100	-0.068	
429.95	-30	429.949985799	-0.033	-0.020	0.4
	-20	429.950001268	0.003	0.016	
	-10	429.950002286	0.005	0.019	
	0	429.950015383	0.036	0.049	
	+10	429.950002026	0.005	0.018	
	+20 (Ref)	429.949994265	-0.013	0.000	
	+30	429.950006818	0.016	0.029	
	+40	429.950020397	0.047	0.061	
	+50	429.949973251	-0.062	-0.049	
469.95	-30	469.950023657	0.050	0.042	0.4
	-20	469.949974342	-0.055	-0.063	
	-10	469.950019319	0.041	0.033	
	0	469.949991606	-0.018	-0.026	
	+10	469.949998130	-0.004	-0.012	
	+20 (Ref)	469.950003800	0.008	0.000	
	+30	469.950030039	0.064	0.056	
	+40	469.949982063	-0.038	-0.046	
	+50	469.950033048	0.070	0.062	
511.95	-30	511.949985397	-0.029	-0.007	0.4
	-20	511.949961055	-0.076	-0.055	
	-10	511.950002541	0.005	0.026	
	0	511.949999588	-0.001	0.021	
	+10	511.950001014	0.002	0.023	
	+20 (Ref)	511.949988994	-0.021	0.000	
	+30	511.949963547	-0.071	-0.050	
	+40	511.949974433	-0.050	-0.028	
	+50	511.950009702	0.019	0.040	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.050005958	0.008	0.011	0.4
	-20	768.050017754	0.023	0.027	
	-10	768.049970874	-0.038	-0.035	
	0	768.049985286	-0.019	-0.016	
	+10	768.050004526	0.006	0.009	
	+20 (Ref)	768.049997376	-0.003	0.000	
	+30	768.049976738	-0.030	-0.027	
	+40	768.049983741	-0.021	-0.018	
	+50	768.050015929	0.021	0.024	
769.05	-30	769.049975800	-0.031	-0.033	0.4
	-20	769.049996977	-0.004	-0.005	
	-10	769.050026791	0.035	0.033	
	0	769.050029369	0.038	0.037	
	+10	769.050010795	0.014	0.013	
	+20 (Ref)	769.050001039	0.001	0.000	
	+30	769.049991356	-0.011	-0.013	
	+40	769.050030669	0.040	0.039	
	+50	769.049980805	-0.025	-0.026	
774.95	-30	774.950007722	0.010	0.002	0.4
	-20	774.950031762	0.041	0.033	
	-10	774.949981854	-0.023	-0.032	
	0	774.950023541	0.030	0.022	
	+10	774.950021695	0.028	0.020	
	+20 (Ref)	774.950006439	0.008	0.000	
	+30	774.950028461	0.037	0.028	
	+40	774.949982484	-0.023	-0.031	
	+50	774.949987469	-0.016	-0.024	
775.95	-30	775.950003888	0.005	-0.036	0.4
	-20	775.950015556	0.020	-0.021	
	-10	775.950049924	0.064	0.024	
	0	775.950031487	0.041	0.000	
	+10	775.950049358	0.064	0.023	
	+20 (Ref)	775.950031676	0.041	0.000	
	+30	775.950047397	0.061	0.020	
	+40	775.950029732	0.038	-0.003	
	+50	775.950051245	0.066	0.025	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050006827	0.009	-0.002	0.4
	-20	798.050008214	0.010	-0.001	
	-10	798.049987263	-0.016	-0.027	
	0	798.050015838	0.020	0.009	
	+10	798.050023341	0.029	0.018	
	+20 (Ref)	798.050008641	0.011	0.000	
	+30	798.049980347	-0.025	-0.035	
	+40	798.050035350	0.044	0.033	
	+50	798.050021236	0.027	0.016	
799.05	-30	799.050020608	0.026	-0.026	0.4
	-20	799.050040542	0.051	-0.001	
	-10	799.050033219	0.042	-0.010	
	0	799.050061290	0.077	0.025	
	+10	799.050045028	0.056	0.005	
	+20 (Ref)	799.050041042	0.051	0.000	
	+30	799.050059016	0.074	0.022	
	+40	799.050060190	0.075	0.024	
	+50	799.050037418	0.047	-0.005	
804.95	-30	804.949966578	-0.042	-0.032	0.4
	-20	804.949993360	-0.008	0.002	
	-10	804.949963735	-0.045	-0.035	
	0	804.949974937	-0.031	-0.021	
	+10	804.949982414	-0.022	-0.012	
	+20 (Ref)	804.949991969	-0.010	0.000	
	+30	804.950012697	0.016	0.026	
	+40	804.949996779	-0.004	0.006	
	+50	804.949971771	-0.035	-0.025	
805.95	-30	805.949977894	-0.027	-0.028	0.4
	-20	805.950025816	0.032	0.032	
	-10	805.950017880	0.022	0.022	
	0	805.949973834	-0.032	-0.033	
	+10	805.949994490	-0.007	-0.007	
	+20 (Ref)	805.950000266	0.000	0.000	
	+30	805.950007708	0.010	0.009	
	+40	805.949989008	-0.014	-0.014	
	+50	805.949992150	-0.010	-0.010	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.049963200	-0.046	-0.025	0.4
	-20	806.049992817	-0.009	0.011	
	-10	806.050010427	0.013	0.033	
	0	806.049970907	-0.036	-0.016	
	+10	806.050008039	0.010	0.030	
	+20 (Ref)	806.049983720	-0.020	0.000	
	+30	806.049964662	-0.044	-0.024	
	+40	806.050005609	0.007	0.027	
	+50	806.049981554	-0.023	-0.003	
823.95	-30	823.949956100	-0.053	-0.022	0.4
	-20	823.949996465	-0.004	0.027	
	-10	823.949985457	-0.018	0.013	
	0	823.949948445	-0.063	-0.032	
	+10	823.949963014	-0.045	-0.014	
	+20 (Ref)	823.949974616	-0.031	0.000	
	+30	823.949983829	-0.020	0.011	
	+40	823.950004224	0.005	0.036	
	+50	823.949974050	-0.031	-0.001	
851.05	-30	851.049979300	-0.024	-0.030	0.4
	-20	851.049978587	-0.025	-0.031	
	-10	851.049981966	-0.021	-0.027	
	0	851.049979728	-0.024	-0.029	
	+10	851.049980859	-0.022	-0.028	
	+20 (Ref)	851.050004712	0.006	0.000	
	+30	851.050015263	0.018	0.012	
	+40	851.050030402	0.036	0.030	
	+50	851.049990244	-0.011	-0.017	
868.95	-30	868.950003625	0.004	-0.025	0.4
	-20	868.950036864	0.042	0.014	
	-10	868.950051606	0.059	0.031	
	0	868.950012102	0.014	-0.015	
	+10	868.950043770	0.050	0.022	
	+20 (Ref)	868.950024945	0.029	0.000	
	+30	868.950037693	0.043	0.015	
	+40	868.949998063	-0.002	-0.031	
	+50	868.950043723	0.050	0.022	

Type of emission: 8K10F1W

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.050027927	0.202	0.212	0.4
	-20	138.050008749	0.063	0.073	
	-10	138.049976169	-0.173	-0.163	
	0	138.050014369	0.104	0.114	
	+10	138.049990188	-0.071	-0.061	
	+20 (Ref)	138.049998655	-0.010	0.000	
	+30	138.050021596	0.156	0.166	
	+40	138.050025947	0.188	0.198	
	+50	138.050025976	0.188	0.198	
150.05	-30	150.049992801	-0.048	-0.057	0.4
	-20	150.050024040	0.160	0.151	
	-10	150.049993519	-0.043	-0.053	
	0	150.050029129	0.194	0.185	
	+10	150.050006501	0.043	0.034	
	+20 (Ref)	150.050001399	0.009	0.000	
	+30	150.049985672	-0.095	-0.105	
	+40	150.049975503	-0.163	-0.173	
	+50	150.050024302	0.162	0.153	
162.05	-30	162.050007472	0.046	0.027	0.4
	-20	162.050012028	0.074	0.056	
	-10	162.050017187	0.106	0.087	
	0	162.050003363	0.021	0.002	
	+10	162.050026997	0.167	0.148	
	+20 (Ref)	162.050003016	0.019	0.000	
	+30	162.049999143	-0.005	-0.024	
	+40	162.050030224	0.187	0.168	
	+50	162.050017241	0.106	0.088	
173.95	-30	173.950020417	0.117	0.125	0.4
	-20	173.949983673	-0.094	-0.086	
	-10	173.949976019	-0.138	-0.130	
	0	173.950014771	0.085	0.093	
	+10	173.949979168	-0.120	-0.112	
	+20 (Ref)	173.949998639	-0.008	0.000	
	+30	173.949988948	-0.064	-0.056	
	+40	173.949982715	-0.099	-0.092	
	+50	173.950024181	0.139	0.147	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.149980253	-0.049	-0.047	0.4
	-20	406.150023837	0.059	0.060	
	-10	406.149982802	-0.042	-0.041	
	0	406.149990557	-0.023	-0.022	
	+10	406.149973704	-0.065	-0.063	
	+20 (Ref)	406.149999415	-0.001	0.000	
	+30	406.150011436	0.028	0.030	
	+40	406.149988542	-0.028	-0.027	
	+50	406.150005780	0.014	0.016	
429.95	-30	429.949991387	-0.020	-0.027	0.4
	-20	429.950015684	0.036	0.029	
	-10	429.949984461	-0.036	-0.043	
	0	429.949991617	-0.019	-0.027	
	+10	429.949983801	-0.038	-0.045	
	+20 (Ref)	429.950003038	0.007	0.000	
	+30	429.949981835	-0.042	-0.049	
	+40	429.949974293	-0.060	-0.067	
	+50	429.950000114	0.000	-0.007	
469.95	-30	469.950015791	0.034	0.019	0.4
	-20	469.950032479	0.069	0.055	
	-10	469.950016539	0.035	0.021	
	0	469.950003412	0.007	-0.007	
	+10	469.950011144	0.024	0.010	
	+20 (Ref)	469.950006651	0.014	0.000	
	+30	469.949984475	-0.033	-0.047	
	+40	469.950031708	0.067	0.053	
	+50	469.949998330	-0.004	-0.018	
511.95	-30	511.949972144	-0.054	-0.048	0.4
	-20	511.950006170	0.012	0.018	
	-10	511.950020075	0.039	0.045	
	0	511.950021354	0.042	0.048	
	+10	511.950007957	0.016	0.022	
	+20 (Ref)	511.949996816	-0.006	0.000	
	+30	511.949992219	-0.015	-0.009	
	+40	511.949969404	-0.060	-0.054	
	+50	511.950009515	0.019	0.025	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049978858	-0.028	-0.029	0.4
	-20	768.050028366	0.037	0.035	
	-10	768.049994530	-0.007	-0.009	
	0	768.049972171	-0.036	-0.038	
	+10	768.049975473	-0.032	-0.034	
	+20 (Ref)	768.050001285	0.002	0.000	
	+30	768.050031224	0.041	0.039	
	+40	768.049983214	-0.022	-0.024	
	+50	768.050026917	0.035	0.033	
769.05	-30	769.049994146	-0.008	-0.011	0.4
	-20	769.050004461	0.006	0.003	
	-10	769.049991641	-0.011	-0.014	
	0	769.049976377	-0.031	-0.034	
	+10	769.050000617	0.001	-0.002	
	+20 (Ref)	769.050002536	0.003	0.000	
	+30	769.050001213	0.002	-0.002	
	+40	769.049992472	-0.010	-0.013	
	+50	769.050025716	0.033	0.030	
774.95	-30	774.950004845	0.006	-0.038	0.4
	-20	774.950011089	0.014	-0.030	
	-10	774.950060233	0.078	0.034	
	0	774.950051813	0.067	0.023	
	+10	774.950044549	0.057	0.014	
	+20 (Ref)	774.950034038	0.044	0.000	
	+30	774.950040617	0.052	0.008	
	+40	774.950055568	0.072	0.028	
	+50	774.950010668	0.014	-0.030	
775.95	-30	775.950010788	0.014	-0.039	0.4
	-20	775.950046435	0.060	0.007	
	-10	775.950050498	0.065	0.013	
	0	775.950038125	0.049	-0.003	
	+10	775.950047668	0.061	0.009	
	+20 (Ref)	775.950040753	0.053	0.000	
	+30	775.950042155	0.054	0.002	
	+40	775.950028899	0.037	-0.015	
	+50	775.950020474	0.026	-0.026	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050015499	0.019	0.004	0.4
	-20	798.050006063	0.008	-0.008	
	-10	798.049999174	-0.001	-0.016	
	0	798.050006435	0.008	-0.007	
	+10	798.049988342	-0.015	-0.030	
	+20 (Ref)	798.050012131	0.015	0.000	
	+30	798.049986463	-0.017	-0.032	
	+40	798.050009725	0.012	-0.003	
	+50	798.049994925	-0.006	-0.022	
799.05	-30	799.050052066	0.065	0.014	0.4
	-20	799.050034583	0.043	-0.008	
	-10	799.050027568	0.035	-0.016	
	0	799.050035121	0.044	-0.007	
	+10	799.050066740	0.084	0.033	
	+20 (Ref)	799.050040590	0.051	0.000	
	+30	799.050059153	0.074	0.023	
	+40	799.050061268	0.077	0.026	
	+50	799.050026996	0.034	-0.017	
804.95	-30	804.949968391	-0.039	-0.027	0.4
	-20	804.949995255	-0.006	0.006	
	-10	804.949996800	-0.004	0.008	
	0	804.949964666	-0.044	-0.032	
	+10	804.949979471	-0.026	-0.013	
	+20 (Ref)	804.949990049	-0.012	0.000	
	+30	804.949961115	-0.048	-0.036	
	+40	804.949970413	-0.037	-0.024	
	+50	804.949978773	-0.026	-0.014	
805.95	-30	805.949999406	-0.001	0.006	0.4
	-20	805.949986825	-0.016	-0.010	
	-10	805.950005830	0.007	0.014	
	0	805.949989871	-0.013	-0.006	
	+10	805.950010991	0.014	0.020	
	+20 (Ref)	805.949994781	-0.006	0.000	
	+30	805.950005597	0.007	0.013	
	+40	805.949992400	-0.009	-0.003	
	+50	805.950010266	0.013	0.019	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.049981356	-0.023	0.002	0.4
	-20	806.049962106	-0.047	-0.022	
	-10	806.049966965	-0.041	-0.016	
	0	806.049963396	-0.045	-0.020	
	+10	806.049960722	-0.049	-0.024	
	+20 (Ref)	806.049979784	-0.025	0.000	
	+30	806.050009600	0.012	0.037	
	+40	806.049991684	-0.010	0.015	
	+50	806.049960174	-0.049	-0.024	
823.95	-30	823.949980279	-0.024	-0.030	0.4
	-20	823.950003122	0.004	-0.002	
	-10	823.949993534	-0.008	-0.014	
	0	823.949993690	-0.008	-0.014	
	+10	823.950020588	0.025	0.019	
	+20 (Ref)	823.950005042	0.006	0.000	
	+30	823.949981161	-0.023	-0.029	
	+40	823.950019327	0.023	0.017	
	+50	823.950028367	0.034	0.028	
851.05	-30	851.050031303	0.037	0.032	0.4
	-20	851.049984239	-0.019	-0.023	
	-10	851.049979553	-0.024	-0.029	
	0	851.049988293	-0.014	-0.019	
	+10	851.050018107	0.021	0.016	
	+20 (Ref)	851.050004161	0.005	0.000	
	+30	851.050016294	0.019	0.014	
	+40	851.050032132	0.038	0.033	
	+50	851.049997767	-0.003	-0.008	
868.95	-30	868.950024269	0.028	0.006	0.4
	-20	868.949990662	-0.011	-0.033	
	-10	868.950036428	0.042	0.020	
	0	868.950001476	0.002	-0.020	
	+10	868.950025605	0.029	0.008	
	+20 (Ref)	868.950019000	0.022	0.000	
	+30	868.950001807	0.002	-0.020	
	+40	868.950023456	0.027	0.005	
	+50	868.950036315	0.042	0.020	

Type of emission: 7K60FXD, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W, 7K60FXW

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.049991358	-0.063	-0.031	0.4
	-20	138.049992536	-0.054	-0.023	
	-10	138.050015992	0.116	0.147	
	0	138.050014630	0.106	0.137	
	+10	138.049997340	-0.019	0.012	
	+20 (Ref)	138.049995670	-0.031	0.000	
	+30	138.049984696	-0.111	-0.079	
	+40	138.049998345	-0.012	0.019	
	+50	138.050025328	0.183	0.215	
150.05	-30	150.050016087	0.107	0.116	0.4
	-20	150.050023257	0.155	0.164	
	-10	150.050015569	0.104	0.113	
	0	150.050028025	0.187	0.196	
	+10	150.049972838	-0.181	-0.172	
	+20 (Ref)	150.049998625	-0.009	0.000	
	+30	150.049983747	-0.108	-0.099	
	+40	150.050007309	0.049	0.058	
	+50	150.049988808	-0.075	-0.065	
162.05	-30	162.050017016	0.105	0.106	0.4
	-20	162.050007087	0.044	0.045	
	-10	162.049990619	-0.058	-0.057	
	0	162.049973627	-0.163	-0.161	
	+10	162.049982219	-0.110	-0.108	
	+20 (Ref)	162.049999783	-0.001	0.000	
	+30	162.050006862	0.042	0.044	
	+40	162.050015046	0.093	0.094	
	+50	162.049985098	-0.092	-0.091	
173.95	-30	173.949995081	-0.028	-0.022	0.4
	-20	173.950021793	0.125	0.132	
	-10	173.950009674	0.056	0.062	
	0	173.949989289	-0.062	-0.055	
	+10	173.949975339	-0.142	-0.135	
	+20 (Ref)	173.949998858	-0.007	0.000	
	+30	173.949970763	-0.168	-0.162	
	+40	173.950009581	0.055	0.062	
	+50	173.949995299	-0.027	-0.020	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.149994086	-0.015	-0.017	0.4
	-20	406.150003320	0.008	0.006	
	-10	406.150026291	0.065	0.063	
	0	406.150008980	0.022	0.020	
	+10	406.150004568	0.011	0.009	
	+20 (Ref)	406.150000861	0.002	0.000	
	+30	406.150009625	0.024	0.022	
	+40	406.149992548	-0.018	-0.020	
	+50	406.150001418	0.003	0.001	
429.95	-30	429.950033988	0.079	0.070	0.4
	-20	429.949985801	-0.033	-0.042	
	-10	429.949977686	-0.052	-0.061	
	0	429.950018566	0.043	0.034	
	+10	429.949999000	-0.002	-0.012	
	+20 (Ref)	429.950003993	0.009	0.000	
	+30	429.949985663	-0.033	-0.043	
	+40	429.949980524	-0.045	-0.055	
	+50	429.950010556	0.025	0.015	
469.95	-30	469.950004502	0.010	-0.010	0.4
	-20	469.949982545	-0.037	-0.056	
	-10	469.949996651	-0.007	-0.026	
	0	469.950030146	0.064	0.045	
	+10	469.950031459	0.067	0.048	
	+20 (Ref)	469.950009093	0.019	0.000	
	+30	469.949994844	-0.011	-0.030	
	+40	469.950035949	0.076	0.057	
	+50	469.949996965	-0.006	-0.026	
511.95	-30	511.949977027	-0.045	-0.032	0.4
	-20	511.950017768	0.035	0.047	
	-10	511.949986777	-0.026	-0.013	
	0	511.949964205	-0.070	-0.057	
	+10	511.949990436	-0.019	-0.006	
	+20 (Ref)	511.949993467	-0.013	0.000	
	+30	511.950020797	0.041	0.053	
	+40	511.949976844	-0.045	-0.032	
	+50	511.950001080	0.002	0.015	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049981316	-0.024	-0.027	0.4
	-20	768.050026258	0.034	0.031	
	-10	768.050024285	0.032	0.029	
	0	768.049975801	-0.032	-0.035	
	+10	768.049985167	-0.019	-0.022	
	+20 (Ref)	768.050002368	0.003	0.000	
	+30	768.049978311	-0.028	-0.031	
	+40	768.049997482	-0.003	-0.006	
	+50	768.050017905	0.023	0.020	
769.05	-30	769.050017272	0.022	0.031	0.4
	-20	769.049982872	-0.022	-0.013	
	-10	769.049976065	-0.031	-0.022	
	0	769.049987478	-0.016	-0.007	
	+10	769.050013383	0.017	0.026	
	+20 (Ref)	769.049993077	-0.009	0.000	
	+30	769.049967238	-0.043	-0.034	
	+40	769.049970983	-0.038	-0.029	
	+50	769.049984791	-0.020	-0.011	
774.95	-30	774.950036860	0.048	0.028	0.4
	-20	774.949995034	-0.006	-0.026	
	-10	774.949993743	-0.008	-0.027	
	0	774.950017429	0.022	0.003	
	+10	774.950007553	0.010	-0.010	
	+20 (Ref)	774.950015011	0.019	0.000	
	+30	774.950027241	0.035	0.016	
	+40	774.950000382	0.000	-0.019	
	+50	774.950000679	0.001	-0.018	
775.95	-30	775.950015350	0.020	-0.033	0.4
	-20	775.950055424	0.071	0.019	
	-10	775.950069675	0.090	0.037	
	0	775.950013277	0.017	-0.036	
	+10	775.950040307	0.052	-0.001	
	+20 (Ref)	775.950040828	0.053	0.000	
	+30	775.950033987	0.044	-0.009	
	+40	775.950027787	0.036	-0.017	
	+50	775.950038845	0.050	-0.003	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050028133	0.035	0.025	0.4
	-20	798.050018924	0.024	0.013	
	-10	798.050011434	0.014	0.004	
	0	798.050006021	0.008	-0.003	
	+10	798.050036554	0.046	0.035	
	+20 (Ref)	798.050008525	0.011	0.000	
	+30	798.049993859	-0.008	-0.018	
	+40	798.050023827	0.030	0.019	
	+50	798.049990543	-0.012	-0.023	
799.05	-30	799.050040216	0.050	0.022	0.4
	-20	799.050041712	0.052	0.024	
	-10	799.050013520	0.017	-0.011	
	0	799.049999398	-0.001	-0.029	
	+10	799.050006765	0.008	-0.020	
	+20 (Ref)	799.050022598	0.028	0.000	
	+30	799.049998368	-0.002	-0.030	
	+40	799.050041290	0.052	0.023	
	+50	799.049992678	-0.009	-0.037	
804.95	-30	804.949984730	-0.019	-0.007	0.4
	-20	804.950017454	0.022	0.034	
	-10	804.950007423	0.009	0.022	
	0	804.949992976	-0.009	0.004	
	+10	804.949993957	-0.008	0.005	
	+20 (Ref)	804.949990004	-0.012	0.000	
	+30	804.950008070	0.010	0.022	
	+40	804.950013792	0.017	0.030	
	+50	804.950013875	0.017	0.030	
805.95	-30	805.950020166	0.025	0.031	0.4
	-20	805.949993244	-0.008	-0.003	
	-10	805.949969740	-0.038	-0.032	
	0	805.950007892	0.010	0.016	
	+10	805.950004507	0.006	0.011	
	+20 (Ref)	805.949995369	-0.006	0.000	
	+30	805.950014284	0.018	0.023	
	+40	805.950004988	0.006	0.012	
	+50	805.950005022	0.006	0.012	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.049988022	-0.015	-0.016	0.4
	-20	806.050005834	0.007	0.006	
	-10	806.049984706	-0.019	-0.020	
	0	806.049979184	-0.026	-0.027	
	+10	806.050028393	0.035	0.034	
	+20 (Ref)	806.050000767	0.001	0.000	
	+30	806.050014075	0.017	0.017	
	+40	806.049980992	-0.024	-0.025	
	+50	806.050019994	0.025	0.024	
823.95	-30	823.949993058	-0.008	-0.011	0.4
	-20	823.949986242	-0.017	-0.019	
	-10	823.950023911	0.029	0.027	
	0	823.950015679	0.019	0.017	
	+10	823.950004285	0.005	0.003	
	+20 (Ref)	823.950001838	0.002	0.000	
	+30	823.949992605	-0.009	-0.011	
	+40	823.949984189	-0.019	-0.021	
	+50	823.949999825	0.000	-0.002	
851.05	-30	851.049995895	-0.005	-0.024	0.4
	-20	851.049998203	-0.002	-0.021	
	-10	851.050007203	0.008	-0.010	
	0	851.050002718	0.003	-0.015	
	+10	851.049992970	-0.008	-0.027	
	+20 (Ref)	851.050015901	0.019	0.000	
	+30	851.050032076	0.038	0.019	
	+40	851.050004749	0.006	-0.013	
	+50	851.050028131	0.033	0.014	
868.95	-30	868.950035301	0.041	0.017	0.4
	-20	868.950002413	0.003	-0.021	
	-10	868.950043149	0.050	0.026	
	0	868.950011689	0.013	-0.010	
	+10	868.950013304	0.015	-0.008	
	+20 (Ref)	868.950020585	0.024	0.000	
	+30	868.950027942	0.032	0.008	
	+40	868.950005459	0.006	-0.017	
	+50	868.950014747	0.017	-0.007	

Type of emission: 4K00F1E, 4K00F1D, 4K00F7W

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.050006285	0.046	0.034	0.4
	-20	138.049975796	-0.175	-0.187	
	-10	138.049977768	-0.161	-0.172	
	0	138.050018583	0.135	0.123	
	+10	138.050011879	0.086	0.075	
	+20 (Ref)	138.050001567	0.011	0.000	
	+30	138.049995286	-0.034	-0.045	
	+40	138.049994014	-0.043	-0.055	
	+50	138.049979948	-0.145	-0.157	
150.05	-30	150.050010122	0.067	0.046	0.4
	-20	150.049985802	-0.095	-0.116	
	-10	150.050006318	0.042	0.021	
	0	150.050015485	0.103	0.082	
	+10	150.049976732	-0.155	-0.177	
	+20 (Ref)	150.050003221	0.021	0.000	
	+30	150.050015456	0.103	0.082	
	+40	150.050012736	0.085	0.063	
	+50	150.050011877	0.079	0.058	
162.05	-30	162.050019132	0.118	0.094	0.4
	-20	162.050001276	0.008	-0.016	
	-10	162.050001797	0.011	-0.013	
	0	162.050031215	0.193	0.169	
	+10	162.049983195	-0.104	-0.127	
	+20 (Ref)	162.050003833	0.024	0.000	
	+30	162.049980606	-0.120	-0.143	
	+40	162.050027280	0.168	0.145	
	+50	162.050020536	0.127	0.103	
173.95	-30	173.950017819	0.102	0.100	0.4
	-20	173.949986362	-0.078	-0.081	
	-10	173.950022878	0.132	0.129	
	0	173.950018312	0.105	0.103	
	+10	173.950007966	0.046	0.043	
	+20 (Ref)	173.950000438	0.003	0.000	
	+30	173.949985638	-0.083	-0.085	
	+40	173.949973546	-0.152	-0.155	
	+50	173.949974133	-0.149	-0.151	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.149970230	-0.073	-0.064	0.4
	-20	406.150013698	0.034	0.043	
	-10	406.149987809	-0.030	-0.021	
	0	406.149975503	-0.060	-0.051	
	+10	406.150021772	0.054	0.063	
	+20 (Ref)	406.149996338	-0.009	0.000	
	+30	406.149990223	-0.024	-0.015	
	+40	406.149976908	-0.057	-0.048	
	+50	406.149980312	-0.048	-0.039	
429.95	-30	429.949980364	-0.046	-0.041	0.4
	-20	429.949981857	-0.042	-0.037	
	-10	429.949989546	-0.024	-0.019	
	0	429.950008626	0.020	0.025	
	+10	429.950027496	0.064	0.069	
	+20 (Ref)	429.949997866	-0.005	0.000	
	+30	429.949999645	-0.001	0.004	
	+40	429.949973475	-0.062	-0.057	
	+50	429.950013702	0.032	0.037	
469.95	-30	469.949982579	-0.037	-0.043	0.4
	-20	469.950020647	0.044	0.038	
	-10	469.949988756	-0.024	-0.030	
	0	469.950003860	0.008	0.002	
	+10	469.950029404	0.063	0.056	
	+20 (Ref)	469.950002880	0.006	0.000	
	+30	469.950009852	0.021	0.015	
	+40	469.950003054	0.006	0.000	
	+50	469.949984688	-0.033	-0.039	
511.95	-30	511.949989315	-0.021	-0.022	0.4
	-20	511.949980653	-0.038	-0.039	
	-10	511.949972223	-0.054	-0.055	
	0	511.949978931	-0.041	-0.042	
	+10	511.950011498	0.022	0.021	
	+20 (Ref)	511.950000602	0.001	0.000	
	+30	511.950021365	0.042	0.041	
	+40	511.949986680	-0.026	-0.027	
	+50	511.949978627	-0.042	-0.043	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049967194	-0.043	-0.039	0.4
	-20	768.049998992	-0.001	0.003	
	-10	768.049986689	-0.017	-0.013	
	0	768.049967265	-0.043	-0.038	
	+10	768.050018535	0.024	0.028	
	+20 (Ref)	768.049996782	-0.004	0.000	
	+30	768.050014714	0.019	0.023	
	+40	768.049972863	-0.035	-0.031	
	+50	768.050018231	0.024	0.028	
769.05	-30	769.049988215	-0.015	-0.011	0.4
	-20	769.050022672	0.029	0.034	
	-10	769.050017713	0.023	0.028	
	0	769.050012197	0.016	0.021	
	+10	769.050017239	0.022	0.027	
	+20 (Ref)	769.049996384	-0.005	0.000	
	+30	769.049999202	-0.001	0.004	
	+40	769.050024949	0.032	0.037	
	+50	769.050016171	0.021	0.026	
774.95	-30	774.949998659	-0.002	0.007	0.4
	-20	774.950009259	0.012	0.021	
	-10	774.949974531	-0.033	-0.024	
	0	774.949998690	-0.002	0.007	
	+10	774.949990807	-0.012	-0.003	
	+20 (Ref)	774.949993129	-0.009	0.000	
	+30	774.949987653	-0.016	-0.007	
	+40	774.950000177	0.000	0.009	
	+50	774.949984099	-0.021	-0.012	
775.95	-30	775.950074195	0.096	0.034	0.4
	-20	775.950064973	0.084	0.022	
	-10	775.950042067	0.054	-0.008	
	0	775.950066529	0.086	0.024	
	+10	775.950033766	0.044	-0.019	
	+20 (Ref)	775.950048200	0.062	0.000	
	+30	775.950065609	0.085	0.022	
	+40	775.950061491	0.079	0.017	
	+50	775.950066286	0.085	0.023	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050024502	0.031	0.024	0.4
	-20	798.049999078	-0.001	-0.008	
	-10	798.049979130	-0.026	-0.033	
	0	798.050030808	0.039	0.032	
	+10	798.050011998	0.015	0.009	
	+20 (Ref)	798.050005133	0.006	0.000	
	+30	798.050003237	0.004	-0.002	
	+40	798.050005109	0.006	0.000	
	+50	798.049977049	-0.029	-0.035	
799.05	-30	799.050023204	0.029	0.017	0.4
	-20	799.049987587	-0.016	-0.028	
	-10	799.050020393	0.026	0.013	
	0	799.049994854	-0.006	-0.019	
	+10	799.050032536	0.041	0.028	
	+20 (Ref)	799.050009977	0.012	0.000	
	+30	799.050037341	0.047	0.034	
	+40	799.049994694	-0.007	-0.019	
	+50	799.050009896	0.012	0.000	
804.95	-30	804.949989157	-0.013	0.001	0.4
	-20	804.950000089	0.000	0.014	
	-10	804.949997265	-0.003	0.011	
	0	804.949977373	-0.028	-0.014	
	+10	804.949967834	-0.040	-0.026	
	+20 (Ref)	804.949988530	-0.014	0.000	
	+30	804.949963837	-0.045	-0.031	
	+40	804.949989869	-0.013	0.002	
	+50	804.950002346	0.003	0.017	
805.95	-30	805.950002259	0.003	0.008	0.4
	-20	805.949983673	-0.020	-0.015	
	-10	805.949996735	-0.004	0.001	
	0	805.949972403	-0.034	-0.029	
	+10	805.949993919	-0.008	-0.002	
	+20 (Ref)	805.949995567	-0.006	0.000	
	+30	805.950011529	0.014	0.020	
	+40	805.949985495	-0.018	-0.012	
	+50	805.949995179	-0.006	0.000	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.050009535	0.012	0.025	0.4
	-20	806.049962251	-0.047	-0.034	
	-10	806.049970352	-0.037	-0.024	
	0	806.049975076	-0.031	-0.018	
	+10	806.049970538	-0.037	-0.024	
	+20 (Ref)	806.049989603	-0.013	0.000	
	+30	806.049970642	-0.036	-0.024	
	+40	806.049995660	-0.005	0.008	
	+50	806.050013298	0.016	0.029	
823.95	-30	823.950010981	0.013	0.013	0.4
	-20	823.950026256	0.032	0.031	
	-10	823.949986067	-0.017	-0.017	
	0	823.950006366	0.008	0.007	
	+10	823.950018709	0.023	0.022	
	+20 (Ref)	823.950000450	0.001	0.000	
	+30	823.950003696	0.004	0.004	
	+40	823.949972941	-0.033	-0.033	
	+50	823.949979460	-0.025	-0.025	
851.05	-30	851.050027335	0.032	0.024	0.4
	-20	851.050032834	0.039	0.030	
	-10	851.050029739	0.035	0.026	
	0	851.050027597	0.032	0.024	
	+10	851.049986331	-0.016	-0.025	
	+20 (Ref)	851.050007316	0.009	0.000	
	+30	851.050000696	0.001	-0.008	
	+40	851.049995921	-0.005	-0.013	
	+50	851.050021417	0.025	0.017	
868.95	-30	868.950027831	0.032	0.004	0.4
	-20	868.950044935	0.052	0.023	
	-10	868.950049913	0.057	0.029	
	0	868.950043729	0.050	0.022	
	+10	868.950040816	0.047	0.019	
	+20 (Ref)	868.950024683	0.028	0.000	
	+30	868.950005604	0.006	-0.022	
	+40	868.950038204	0.044	0.016	
	+50	868.950023783	0.027	-0.001	

Type of emission: 4K00F2D

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
138.05	-30	138.050019672	0.142	0.174	0.4
	-20	138.050024465	0.177	0.209	
	-10	138.049989216	-0.078	-0.046	
	0	138.049993221	-0.049	-0.017	
	+10	138.050009263	0.067	0.099	
	+20 (Ref)	138.049995619	-0.032	0.000	
	+30	138.050017501	0.127	0.159	
	+40	138.050015085	0.109	0.141	
	+50	138.049989282	-0.078	-0.046	
150.05	-30	150.049991477	-0.057	-0.041	0.4
	-20	150.050001965	0.013	0.029	
	-10	150.050018478	0.123	0.139	
	0	150.049995766	-0.028	-0.013	
	+10	150.049978178	-0.145	-0.130	
	+20 (Ref)	150.049997662	-0.016	0.000	
	+30	150.049973077	-0.179	-0.164	
	+40	150.049995914	-0.027	-0.012	
	+50	150.050009818	0.065	0.081	
162.05	-30	162.049995913	-0.025	-0.023	0.4
	-20	162.050016436	0.101	0.103	
	-10	162.049988905	-0.068	-0.067	
	0	162.049976773	-0.143	-0.141	
	+10	162.050021512	0.133	0.135	
	+20 (Ref)	162.049999695	-0.002	0.000	
	+30	162.049985069	-0.092	-0.090	
	+40	162.049981966	-0.111	-0.109	
	+50	162.050005435	0.034	0.035	
173.95	-30	173.949970745	-0.168	-0.164	0.4
	-20	173.950025099	0.144	0.149	
	-10	173.950025767	0.148	0.152	
	0	173.949974442	-0.147	-0.143	
	+10	173.950013377	0.077	0.081	
	+20 (Ref)	173.949999255	-0.004	0.000	
	+30	173.949993323	-0.038	-0.034	
	+40	173.949980851	-0.110	-0.106	
	+50	173.949980459	-0.112	-0.108	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
406.15	-30	406.150024931	0.061	0.060	0.4
	-20	406.150023051	0.057	0.055	
	-10	406.149972425	-0.068	-0.069	
	0	406.150025461	0.063	0.061	
	+10	406.150020500	0.050	0.049	
	+20 (Ref)	406.150000611	0.002	0.000	
	+30	406.150020482	0.050	0.049	
	+40	406.150004508	0.011	0.010	
	+50	406.149988878	-0.027	-0.029	
429.95	-30	429.950014494	0.034	0.028	0.4
	-20	429.950012052	0.028	0.023	
	-10	429.950020400	0.047	0.042	
	0	429.950002981	0.007	0.002	
	+10	429.949998453	-0.004	-0.009	
	+20 (Ref)	429.950002287	0.005	0.000	
	+30	429.950021241	0.049	0.044	
	+40	429.950005835	0.014	0.008	
	+50	429.949998006	-0.005	-0.010	
469.95	-30	469.949996176	-0.008	-0.023	0.4
	-20	469.949991469	-0.018	-0.033	
	-10	469.950001031	0.002	-0.012	
	0	469.949984736	-0.032	-0.047	
	+10	469.949976991	-0.049	-0.063	
	+20 (Ref)	469.950006750	0.014	0.000	
	+30	469.950025212	0.054	0.039	
	+40	469.949988584	-0.024	-0.039	
	+50	469.949985090	-0.032	-0.046	
511.95	-30	511.950002074	0.004	-0.005	0.4
	-20	511.950005395	0.011	0.001	
	-10	511.950030548	0.060	0.050	
	0	511.950004651	0.009	0.000	
	+10	511.950027145	0.053	0.044	
	+20 (Ref)	511.950004785	0.009	0.000	
	+30	511.949989268	-0.021	-0.030	
	+40	511.949976032	-0.047	-0.056	
	+50	511.950030942	0.060	0.051	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
768.05	-30	768.049988028	-0.016	-0.016	0.4
	-20	768.050016432	0.021	0.021	
	-10	768.050018034	0.023	0.023	
	0	768.049986545	-0.018	-0.018	
	+10	768.049993575	-0.008	-0.008	
	+20 (Ref)	768.050000098	0.000	0.000	
	+30	768.050013747	0.018	0.018	
	+40	768.049992171	-0.010	-0.010	
	+50	768.049975464	-0.032	-0.032	
769.05	-30	769.049964911	-0.046	-0.038	0.4
	-20	769.049977882	-0.029	-0.021	
	-10	769.050016384	0.021	0.029	
	0	769.049972065	-0.036	-0.028	
	+10	769.049977314	-0.029	-0.021	
	+20 (Ref)	769.049993817	-0.008	0.000	
	+30	769.049990431	-0.012	-0.004	
	+40	769.049972433	-0.036	-0.028	
	+50	769.049980883	-0.025	-0.017	
774.95	-30	774.949986761	-0.017	-0.016	0.4
	-20	774.949992688	-0.009	-0.008	
	-10	774.950000769	0.001	0.002	
	0	774.950003053	0.004	0.005	
	+10	774.949974767	-0.033	-0.031	
	+20 (Ref)	774.949999056	-0.001	0.000	
	+30	774.949982536	-0.023	-0.021	
	+40	774.950017390	0.022	0.024	
	+50	774.949990518	-0.012	-0.011	
775.95	-30	775.950008650	0.011	0.000	0.4
	-20	775.949998135	-0.002	-0.013	
	-10	775.950024561	0.032	0.021	
	0	775.950008948	0.012	0.001	
	+10	775.950034526	0.044	0.034	
	+20 (Ref)	775.950008407	0.011	0.000	
	+30	775.949987221	-0.016	-0.027	
	+40	775.949989553	-0.013	-0.024	
	+50	775.950021303	0.027	0.017	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
798.05	-30	798.050024858	0.031	0.023	0.4
	-20	798.050019631	0.025	0.016	
	-10	798.049988769	-0.014	-0.023	
	0	798.050019417	0.024	0.016	
	+10	798.049991362	-0.011	-0.019	
	+20 (Ref)	798.050006761	0.008	0.000	
	+30	798.050017283	0.022	0.013	
	+40	798.050004884	0.006	-0.002	
	+50	798.049993432	-0.008	-0.017	
799.05	-30	799.050031727	0.040	-0.028	0.4
	-20	799.050026143	0.033	-0.035	
	-10	799.050081662	0.102	0.034	
	0	799.050076137	0.095	0.027	
	+10	799.050084091	0.105	0.037	
	+20 (Ref)	799.050054391	0.068	0.000	
	+30	799.050041854	0.052	-0.016	
	+40	799.050025637	0.032	-0.036	
	+50	799.050056029	0.070	0.002	
804.95	-30	804.950030360	0.038	0.033	0.4
	-20	804.950017689	0.022	0.017	
	-10	804.950032231	0.040	0.035	
	0	804.950034058	0.042	0.037	
	+10	804.949989029	-0.014	-0.019	
	+20 (Ref)	804.950004096	0.005	0.000	
	+30	804.950008726	0.011	0.006	
	+40	804.949999795	0.000	-0.005	
	+50	804.950020691	0.026	0.021	
805.95	-30	805.950028036	0.035	0.024	0.4
	-20	805.949999497	-0.001	-0.011	
	-10	805.950000281	0.000	-0.010	
	0	805.949983477	-0.021	-0.031	
	+10	805.950014439	0.018	0.007	
	+20 (Ref)	805.950008739	0.011	0.000	
	+30	805.950023647	0.029	0.018	
	+40	805.950038539	0.048	0.037	
	+50	805.950010193	0.013	0.002	

Test Frequency (MHz)	Temperature (Degree C)	Frequency (MHz)	Result_FCC (ppm)	Result_ISED (ppm)	Limit (ppm)
806.05	-30	806.049997396	-0.003	-0.028	0.4
	-20	806.050021935	0.027	0.003	
	-10	806.050039266	0.049	0.024	
	0	806.050028846	0.036	0.011	
	+10	806.050011254	0.014	-0.010	
	+20 (Ref)	806.050019607	0.024	0.000	
	+30	806.049996042	-0.005	-0.029	
	+40	806.049997258	-0.003	-0.028	
	+50	806.049998393	-0.002	-0.026	
823.95	-30	823.949986972	-0.016	-0.015	0.4
	-20	823.950008153	0.010	0.011	
	-10	823.949988428	-0.014	-0.013	
	0	823.950001389	0.002	0.002	
	+10	823.949987381	-0.015	-0.015	
	+20 (Ref)	823.949999457	-0.001	0.000	
	+30	823.949987854	-0.015	-0.014	
	+40	823.949974027	-0.032	-0.031	
	+50	823.950016707	0.020	0.021	
851.05	-30	851.050018270	0.021	-0.003	0.4
	-20	851.049997431	-0.003	-0.027	
	-10	851.050021241	0.025	0.001	
	0	851.050027399	0.032	0.008	
	+10	851.050024364	0.029	0.005	
	+20 (Ref)	851.050020529	0.024	0.000	
	+30	851.049994978	-0.006	-0.030	
	+40	851.050002638	0.003	-0.021	
	+50	851.050034190	0.040	0.016	
868.95	-30	868.950007853	0.009	-0.012	0.4
	-20	868.950012733	0.015	-0.007	
	-10	868.950042643	0.049	0.028	
	0	868.949990622	-0.011	-0.032	
	+10	868.950022800	0.026	0.005	
	+20 (Ref)	868.950018490	0.021	0.000	
	+30	868.950028986	0.033	0.012	
	+40	868.950044047	0.051	0.029	
	+50	868.950025233	0.029	0.008	

▣ TEST RESULTS (Voltage Variation)

Type of emission: 16K0F3E

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.049999824	-0.001	0.4
	100	13.60	138.050000073	0.001	
	115	16.32	138.049999974	0.000	
150.05	85	10.88	150.050002278	0.015	0.4
	100	13.60	150.050002401	0.016	
	115	16.32	150.050002272	0.015	
162.05	85	10.88	162.050003501	0.022	0.4
	100	13.60	162.050003559	0.022	
	115	16.32	162.050003499	0.022	
173.95	85	10.88	173.949999051	-0.005	0.4
	100	13.60	173.949999218	-0.004	
	115	16.32	173.949999230	-0.004	
406.15	85	10.88	406.149998623	-0.003	0.4
	100	13.60	406.149998416	-0.004	
	115	16.32	406.149998517	-0.004	
429.95	85	10.88	429.950004013	0.009	0.4
	100	13.60	429.950004201	0.010	
	115	16.32	429.950004276	0.010	
469.95	85	10.88	469.950006187	0.013	0.4
	100	13.60	469.950005781	0.012	
	115	16.32	469.950006096	0.013	
470.05	85	10.88	470.049998280	-0.004	0.4
	100	13.60	470.049998354	-0.004	
	115	16.32	470.049998224	-0.004	
495.05	85	10.88	495.050000507	0.001	0.4
	100	13.60	495.050000810	0.002	
	115	16.32	495.050000574	0.001	
511.95	85	10.88	511.950007351	0.014	0.4
	100	13.60	511.950007708	0.015	
	115	16.32	511.950007630	0.015	
768.05	85	10.88	768.049991767	-0.011	0.4
	100	13.60	768.049991749	-0.011	
	115	16.32	768.049991579	-0.011	
769.05	85	10.88	769.049998391	-0.002	0.4
	100	13.60	769.049999081	-0.001	
	115	16.32	769.049998757	-0.002	
774.95	85	10.88	774.949991164	-0.011	0.4
	100	13.60	774.949991276	-0.011	
	115	16.32	774.949991247	-0.011	
775.95	85	10.88	775.949999433	-0.001	0.4
	100	13.60	775.949999712	0.000	
	115	16.32	775.949999474	-0.001	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
798.05	85	10.88	798.050009797	0.012	0.4
	100	13.60	798.050010360	0.013	
	115	16.32	798.050010165	0.013	
799.05	85	10.88	799.050004804	0.006	0.4
	100	13.60	799.050004702	0.006	
	115	16.32	799.050004793	0.006	
804.95	85	10.88	804.949991618	-0.010	0.4
	100	13.60	804.949991822	-0.010	
	115	16.32	804.949991696	-0.010	
805.95	85	10.88	805.949981598	-0.023	0.4
	100	13.60	805.949981345	-0.023	
	115	16.32	805.949981679	-0.023	
806.05	85	10.88	806.050018139	0.023	0.4
	100	13.60	806.050018644	0.023	
	115	16.32	806.050018487	0.023	
823.95	85	10.88	823.949973173	-0.033	0.4
	100	13.60	823.949973199	-0.033	
	115	16.32	823.949973251	-0.032	
851.05	85	10.88	851.050024976	0.029	0.4
	100	13.60	851.050025538	0.030	
	115	16.32	851.050025359	0.030	
868.95	85	10.88	868.950026119	0.030	0.4
	100	13.60	868.950026281	0.030	
	115	16.32	868.950026021	0.030	

Type of emission: 14K0F3E

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
768.05	85	10.88	768.049993609	-0.008	0.4
	100	13.60	768.049993344	-0.009	
	115	16.32	768.049993511	-0.008	
769.05	85	10.88	769.049999813	0.000	0.4
	100	13.60	769.050000079	0.000	
	115	16.32	769.050000176	0.000	
774.95	85	10.88	774.949983269	-0.022	0.4
	100	13.60	774.949982801	-0.022	
	115	16.32	774.949983118	-0.022	
775.95	85	10.88	775.949984972	-0.019	0.4
	100	13.60	775.949985945	-0.018	
	115	16.32	775.949985421	-0.019	
798.05	85	10.88	798.050009079	0.011	0.4
	100	13.60	798.050009723	0.012	
	115	16.32	798.050009276	0.012	
799.05	85	10.88	799.049992351	-0.010	0.4
	100	13.60	799.049992936	-0.009	
	115	16.32	799.049992626	-0.009	
804.95	85	10.88	804.949979877	-0.025	0.4
	100	13.60	804.949980444	-0.024	
	115	16.32	804.949980178	-0.025	
805.95	85	10.88	805.949993667	-0.008	0.4
	100	13.60	805.949993864	-0.008	
	115	16.32	805.949993537	-0.008	
806.05	85	10.88	806.049998075	-0.002	0.4
	100	13.60	806.049997392	-0.003	
	115	16.32	806.049997740	-0.003	
823.95	85	10.88	823.949986931	-0.016	0.4
	100	13.60	823.949986885	-0.016	
	115	16.32	823.949986881	-0.016	
851.05	85	10.88	851.050015048	0.018	0.4
	100	13.60	851.050015939	0.019	
	115	16.32	851.050015485	0.018	
868.95	85	10.88	868.950023484	0.027	0.4
	100	13.60	868.950023708	0.027	
	115	16.32	868.950023720	0.027	

Type of emission: 11K0F3E

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.050000682	0.005	0.4
	100	13.60	138.050000825	0.006	
	115	16.32	138.050000730	0.005	
150.05	85	10.88	150.050001639	0.011	0.4
	100	13.60	150.050001615	0.011	
	115	16.32	150.050001677	0.011	
162.05	85	10.88	162.050001548	0.010	0.4
	100	13.60	162.050001486	0.009	
	115	16.32	162.050001557	0.010	
173.95	85	10.88	173.949997988	-0.012	0.4
	100	13.60	173.949998167	-0.011	
	115	16.32	173.949998034	-0.011	
406.15	85	10.88	406.149997659	-0.006	0.4
	100	13.60	406.149997411	-0.006	
	115	16.32	406.149997493	-0.006	
429.95	85	10.88	429.950001003	0.002	0.4
	100	13.60	429.950001299	0.003	
	115	16.32	429.950000990	0.002	
469.95	85	10.88	469.950003868	0.008	0.4
	100	13.60	469.950003670	0.008	
	115	16.32	469.950003708	0.008	
511.95	85	10.88	511.949997483	-0.005	0.4
	100	13.60	511.949997399	-0.005	
	115	16.32	511.949997457	-0.005	
768.05	85	10.88	768.050017245	0.022	0.4
	100	13.60	768.050016372	0.021	
	115	16.32	768.050016723	0.022	
769.05	85	10.88	769.050018799	0.024	0.4
	100	13.60	769.050019161	0.025	
	115	16.32	769.050019146	0.025	
774.95	85	10.88	774.949990925	-0.012	0.4
	100	13.60	774.949990611	-0.012	
	115	16.32	774.949990561	-0.012	
775.95	85	10.88	775.949989187	-0.014	0.4
	100	13.60	775.949989383	-0.014	
	115	16.32	775.949989309	-0.014	
798.05	85	10.88	798.050023569	0.030	0.4
	100	13.60	798.050023362	0.029	
	115	16.32	798.050023587	0.030	
799.05	85	10.88	799.049990844	-0.011	0.4
	100	13.60	799.049991194	-0.011	
	115	16.32	799.049990920	-0.011	
804.95	85	10.88	804.950003143	0.004	0.4
	100	13.60	804.950002661	0.003	
	115	16.32	804.950003019	0.004	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.950007346	0.009	0.4
	100	13.60	805.950008087	0.010	
	115	16.32	805.950007891	0.010	
806.05	85	10.88	806.049997140	-0.004	0.4
	100	13.60	806.049997122	-0.004	
	115	16.32	806.049996963	-0.004	
823.95	85	10.88	823.949989580	-0.013	0.4
	100	13.60	823.949988518	-0.014	
	115	16.32	823.949989133	-0.013	
851.05	85	10.88	851.050002404	0.003	0.4
	100	13.60	851.050002975	0.003	
	115	16.32	851.050002855	0.003	
868.95	85	10.88	868.950012328	0.014	0.4
	100	13.60	868.950011104	0.013	
	115	16.32	868.950011711	0.013	

Type of emission: 8K30F1E, 8K30F1D, 8K30F7W

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.049995153	-0.035	0.4
	100	13.60	138.049995469	-0.033	
	115	16.32	138.049995293	-0.034	
150.05	85	10.88	150.049995141	-0.032	0.4
	100	13.60	150.049995426	-0.030	
	115	16.32	150.049995269	-0.032	
162.05	85	10.88	162.049998665	-0.008	0.4
	100	13.60	162.049998746	-0.008	
	115	16.32	162.049998723	-0.008	
173.95	85	10.88	173.949996627	-0.019	0.4
	100	13.60	173.949996916	-0.018	
	115	16.32	173.949996747	-0.019	
406.15	85	10.88	406.149999844	0.000	0.4
	100	13.60	406.149999825	0.000	
	115	16.32	406.149999876	0.000	
429.95	85	10.88	429.950002777	0.006	0.4
	100	13.60	429.950003144	0.007	
	115	16.32	429.950002865	0.007	
469.95	85	10.88	469.950010553	0.022	0.4
	100	13.60	469.950010282	0.022	
	115	16.32	469.950010379	0.022	
511.95	85	10.88	511.949998077	-0.004	0.4
	100	13.60	511.949997853	-0.004	
	115	16.32	511.949997985	-0.004	
768.05	85	10.88	768.050013778	0.018	0.4
	100	13.60	768.050013414	0.017	
	115	16.32	768.050013537	0.018	
769.05	85	10.88	769.050014302	0.019	0.4
	100	13.60	769.050014393	0.019	
	115	16.32	769.050014546	0.019	
774.95	85	10.88	774.950001350	0.002	0.4
	100	13.60	774.949993954	-0.008	
	115	16.32	774.950018256	0.024	
775.95	85	10.88	775.949986248	-0.018	0.4
	100	13.60	775.949983850	-0.021	
	115	16.32	775.950013779	0.018	
798.05	85	10.88	798.050016124	0.020	0.4
	100	13.60	798.050016105	0.020	
	115	16.32	798.050016214	0.020	
799.05	85	10.88	799.050006144	0.008	0.4
	100	13.60	799.050024123	0.030	
	115	16.32	799.050013540	0.017	
804.95	85	10.88	804.949990616	-0.012	0.4
	100	13.60	804.949989498	-0.013	
	115	16.32	804.949990114	-0.012	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.949994679	-0.007	0.4
	100	13.60	805.949995366	-0.006	
	115	16.32	805.949994938	-0.006	
806.05	85	10.88	806.050010403	0.013	0.4
	100	13.60	806.050010202	0.013	
	115	16.32	806.050010506	0.013	
823.95	85	10.88	823.949955494	-0.054	0.4
	100	13.60	823.949955373	-0.054	
	115	16.32	823.949955658	-0.054	
851.05	85	10.88	851.050015977	0.019	0.4
	100	13.60	851.050016424	0.019	
	115	16.32	851.050016273	0.019	
868.95	85	10.88	868.950023606	0.027	0.4
	100	13.60	868.950023854	0.027	
	115	16.32	868.950023931	0.028	

Type of emission: 8K10F1E, 8K10F1D

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.050000497	0.004	0.4
	100	13.60	138.050000533	0.004	
	115	16.32	138.050000512	0.004	
150.05	85	10.88	150.050002230	0.015	0.4
	100	13.60	150.050002320	0.015	
	115	16.32	150.050002307	0.015	
162.05	85	10.88	162.050003542	0.022	0.4
	100	13.60	162.050003539	0.022	
	115	16.32	162.050003597	0.022	
173.95	85	10.88	173.950000440	0.003	0.4
	100	13.60	173.950000468	0.003	
	115	16.32	173.950000507	0.003	
406.15	85	10.88	406.149987152	-0.032	0.4
	100	13.60	406.149987581	-0.031	
	115	16.32	406.149987341	-0.031	
429.95	85	10.88	429.949994527	-0.013	0.4
	100	13.60	429.949995041	-0.012	
	115	16.32	429.949994830	-0.012	
469.95	85	10.88	469.950004032	0.009	0.4
	100	13.60	469.950004022	0.009	
	115	16.32	469.950003984	0.008	
511.95	85	10.88	511.949989118	-0.021	0.4
	100	13.60	511.949989641	-0.020	
	115	16.32	511.949989277	-0.021	
768.05	85	10.88	768.049997083	-0.004	0.4
	100	13.60	768.049996491	-0.005	
	115	16.32	768.049996775	-0.004	
769.05	85	10.88	769.050001442	0.002	0.4
	100	13.60	769.050001980	0.003	
	115	16.32	769.050001944	0.003	
774.95	85	10.88	774.949970176	-0.038	0.4
	100	13.60	774.949977165	-0.029	
	115	16.32	774.950020956	0.027	
775.95	85	10.88	775.949984078	-0.021	0.4
	100	13.60	775.949976185	-0.031	
	115	16.32	775.949990204	-0.013	
798.05	85	10.88	798.050008824	0.011	0.4
	100	13.60	798.050009262	0.012	
	115	16.32	798.050009191	0.012	
799.05	85	10.88	799.049985048	-0.019	0.4
	100	13.60	799.049991760	-0.010	
	115	16.32	799.049985446	-0.018	
804.95	85	10.88	804.949991626	-0.010	0.4
	100	13.60	804.949991314	-0.011	
	115	16.32	804.949991477	-0.011	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.950000688	0.001	0.4
	100	13.60	805.950001478	0.002	
	115	16.32	805.950000727	0.001	
806.05	85	10.88	806.049983256	-0.021	0.4
	100	13.60	806.049983426	-0.021	
	115	16.32	806.049983348	-0.021	
823.95	85	10.88	823.949974744	-0.031	0.4
	100	13.60	823.949974878	-0.030	
	115	16.32	823.949974651	-0.031	
851.05	85	10.88	851.050005340	0.006	0.4
	100	13.60	851.050006082	0.007	
	115	16.32	851.050005779	0.007	
868.95	85	10.88	868.950025517	0.029	0.4
	100	13.60	868.950026337	0.030	
	115	16.32	868.950025808	0.030	

Type of emission: 8K10F1W

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.049998725	-0.009	0.4
	100	13.60	138.049998897	-0.008	
	115	16.32	138.049998773	-0.009	
150.05	85	10.88	150.050001455	0.010	0.4
	100	13.60	150.050001588	0.011	
	115	16.32	150.050001445	0.010	
162.05	85	10.88	162.050003082	0.019	0.4
	100	13.60	162.050003108	0.019	
	115	16.32	162.050003096	0.019	
173.95	85	10.88	173.949998652	-0.008	0.4
	100	13.60	173.949998829	-0.007	
	115	16.32	173.949998706	-0.007	
406.15	85	10.88	406.149999142	-0.002	0.4
	100	13.60	406.149998779	-0.003	
	115	16.32	406.149998913	-0.003	
429.95	85	10.88	429.950003143	0.007	0.4
	100	13.60	429.950003209	0.007	
	115	16.32	429.950003122	0.007	
469.95	85	10.88	469.950006704	0.014	0.4
	100	13.60	469.950006523	0.014	
	115	16.32	469.950006621	0.014	
511.95	85	10.88	511.949996854	-0.006	0.4
	100	13.60	511.949996674	-0.006	
	115	16.32	511.949996702	-0.006	
768.05	85	10.88	768.050000814	0.001	0.4
	100	13.60	768.049999842	0.000	
	115	16.32	768.050000246	0.000	
769.05	85	10.88	769.050003223	0.004	0.4
	100	13.60	769.050003605	0.005	
	115	16.32	769.050003240	0.004	
774.95	85	10.88	774.950016099	0.021	0.4
	100	13.60	774.950020714	0.027	
	115	16.32	774.950018419	0.024	
775.95	85	10.88	775.950019772	0.025	0.4
	100	13.60	775.950028433	0.037	
	115	16.32	775.950019570	0.025	
798.05	85	10.88	798.050012773	0.016	0.4
	100	13.60	798.050012899	0.016	
	115	16.32	798.050012499	0.016	
799.05	85	10.88	799.049999783	0.000	0.4
	100	13.60	799.049987215	-0.016	
	115	16.32	799.049985888	-0.018	
804.95	85	10.88	804.949989401	-0.013	0.4
	100	13.60	804.949988925	-0.014	
	115	16.32	804.949988904	-0.014	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.949995550	-0.006	0.4
	100	13.60	805.949996120	-0.005	
	115	16.32	805.949995821	-0.005	
806.05	85	10.88	806.049979623	-0.025	0.4
	100	13.60	806.049979781	-0.025	
	115	16.32	806.049979773	-0.025	
823.95	85	10.88	823.950004879	0.006	0.4
	100	13.60	823.950004217	0.005	
	115	16.32	823.950004677	0.006	
851.05	85	10.88	851.050004414	0.005	0.4
	100	13.60	851.050005117	0.006	
	115	16.32	851.050004768	0.006	
868.95	85	10.88	868.950019799	0.023	0.4
	100	13.60	868.950020705	0.024	
	115	16.32	868.950020043	0.023	

Type of emission: 7K60FXD, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W, 7K60FXW

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.049995809	-0.030	0.4
	100	13.60	138.049996069	-0.028	
	115	16.32	138.049995922	-0.030	
150.05	85	10.88	150.049998895	-0.007	0.4
	100	13.60	150.049999144	-0.006	
	115	16.32	150.049999027	-0.006	
162.05	85	10.88	162.049999844	-0.001	0.4
	100	13.60	162.049999933	0.000	
	115	16.32	162.049999897	-0.001	
173.95	85	10.88	173.949998913	-0.006	0.4
	100	13.60	173.949999045	-0.005	
	115	16.32	173.949998963	-0.006	
406.15	85	10.88	406.150000540	0.001	0.4
	100	13.60	406.150000172	0.000	
	115	16.32	406.150000372	0.001	
429.95	85	10.88	429.950004361	0.010	0.4
	100	13.60	429.950004709	0.011	
	115	16.32	429.950004389	0.010	
469.95	85	10.88	469.950009093	0.019	0.4
	100	13.60	469.950008851	0.019	
	115	16.32	469.950009011	0.019	
511.95	85	10.88	511.949993519	-0.013	0.4
	100	13.60	511.949993425	-0.013	
	115	16.32	511.949993194	-0.013	
768.05	85	10.88	768.050002118	0.003	0.4
	100	13.60	768.050001391	0.002	
	115	16.32	768.050001552	0.002	
769.05	85	10.88	769.049993477	-0.008	0.4
	100	13.60	769.049994080	-0.008	
	115	16.32	769.049993868	-0.008	
774.95	85	10.88	774.950015439	0.020	0.4
	100	13.60	774.949985988	-0.018	
	115	16.32	774.949976783	-0.030	
775.95	85	10.88	775.950011968	0.015	0.4
	100	13.60	775.950021872	0.028	
	115	16.32	775.949975503	-0.032	
798.05	85	10.88	798.050008200	0.010	0.4
	100	13.60	798.050008598	0.011	
	115	16.32	798.050008273	0.010	
799.05	85	10.88	799.050010657	0.013	0.4
	100	13.60	799.050012762	0.016	
	115	16.32	799.050023293	0.029	
804.95	85	10.88	804.949989927	-0.013	0.4
	100	13.60	804.949989945	-0.012	
	115	16.32	804.949989919	-0.013	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.949995791	-0.005	0.4
	100	13.60	805.949996486	-0.004	
	115	16.32	805.949996252	-0.005	
806.05	85	10.88	806.050000651	0.001	0.4
	100	13.60	806.050000021	0.000	
	115	16.32	806.050000117	0.000	
823.95	85	10.88	823.950001769	0.002	0.4
	100	13.60	823.950001419	0.002	
	115	16.32	823.950001452	0.002	
851.05	85	10.88	851.050016025	0.019	0.4
	100	13.60	851.050016620	0.020	
	115	16.32	851.050016305	0.019	
868.95	85	10.88	868.950020529	0.024	0.4
	100	13.60	868.950020451	0.024	
	115	16.32	868.950020399	0.023	

Type of emission: 4K00F1E, 4K00F1D, 4K00F7W

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.050001562	0.011	0.4
	100	13.60	138.050001622	0.012	
	115	16.32	138.050001594	0.012	
150.05	85	10.88	150.050003311	0.022	0.4
	100	13.60	150.050003334	0.022	
	115	16.32	150.050003283	0.022	
162.05	85	10.88	162.050003788	0.023	0.4
	100	13.60	162.050003817	0.024	
	115	16.32	162.050003813	0.024	
173.95	85	10.88	173.950000429	0.002	0.4
	100	13.60	173.950000502	0.003	
	115	16.32	173.950000467	0.003	
406.15	85	10.88	406.149996445	-0.009	0.4
	100	13.60	406.149996657	-0.008	
	115	16.32	406.149996514	-0.009	
429.95	85	10.88	429.949998138	-0.004	0.4
	100	13.60	429.949998271	-0.004	
	115	16.32	429.949998205	-0.004	
469.95	85	10.88	469.950003038	0.006	0.4
	100	13.60	469.950003062	0.007	
	115	16.32	469.950003053	0.006	
511.95	85	10.88	511.950000241	0.000	0.4
	100	13.60	511.950000135	0.000	
	115	16.32	511.950000231	0.000	
768.05	85	10.88	768.049996287	-0.005	0.4
	100	13.60	768.049995363	-0.006	
	115	16.32	768.049995680	-0.006	
769.05	85	10.88	769.049996675	-0.004	0.4
	100	13.60	769.049997311	-0.003	
	115	16.32	769.049997076	-0.004	
774.95	85	10.88	774.950000916	0.001	0.4
	100	13.60	774.950002389	0.003	
	115	16.32	774.950011089	0.014	
775.95	85	10.88	775.949982309	-0.023	0.4
	100	13.60	775.949993224	-0.009	
	115	16.32	775.950008676	0.011	
798.05	85	10.88	798.050005332	0.007	0.4
	100	13.60	798.050005812	0.007	
	115	16.32	798.050005582	0.007	
799.05	85	10.88	799.050016770	0.021	0.4
	100	13.60	799.050026928	0.034	
	115	16.32	799.050031420	0.039	
804.95	85	10.88	804.949988652	-0.014	0.4
	100	13.60	804.949988376	-0.014	
	115	16.32	804.949988566	-0.014	

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.949996137	-0.005	0.4
	100	13.60	805.949996909	-0.004	
	115	16.32	805.949996452	-0.004	
806.05	85	10.88	806.049989378	-0.013	0.4
	100	13.60	806.049989221	-0.013	
	115	16.32	806.049989267	-0.013	
823.95	85	10.88	823.950000243	0.000	0.4
	100	13.60	823.949999825	0.000	
	115	16.32	823.950000144	0.000	
851.05	85	10.88	851.050007768	0.009	0.4
	100	13.60	851.050008565	0.010	
	115	16.32	851.050008451	0.010	
868.95	85	10.88	868.950025015	0.029	0.4
	100	13.60	868.950025337	0.029	
	115	16.32	868.950025104	0.029	

Type of emission: 4K00F2D

Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
138.05	85	10.88	138.049995795	-0.030	0.4
	100	13.60	138.049996000	-0.029	
	115	16.32	138.049995868	-0.030	
150.05	85	10.88	150.049997816	-0.015	0.4
	100	13.60	150.049998010	-0.013	
	115	16.32	150.049997907	-0.014	
162.05	85	10.88	162.049999805	-0.001	0.4
	100	13.60	162.049999985	0.000	
	115	16.32	162.049999898	-0.001	
173.95	85	10.88	173.949999240	-0.004	0.4
	100	13.60	173.949999363	-0.004	
	115	16.32	173.949999265	-0.004	
406.15	85	10.88	406.150000362	0.001	0.4
	100	13.60	406.150000008	0.000	
	115	16.32	406.150000061	0.000	
429.95	85	10.88	429.950002675	0.006	0.4
	100	13.60	429.950003042	0.007	
	115	16.32	429.950002918	0.007	
469.95	85	10.88	469.950006888	0.015	0.4
	100	13.60	469.950006623	0.014	
	115	16.32	469.950006886	0.015	
511.95	85	10.88	511.950004739	0.009	0.4
	100	13.60	511.950004628	0.009	
	115	16.32	511.950004675	0.009	
768.05	85	10.88	768.050000331	0.000	0.4
	100	13.60	768.050000205	0.000	
	115	16.32	768.050000343	0.000	
769.05	85	10.88	769.049993487	-0.008	0.4
	100	13.60	769.049993278	-0.009	
	115	16.32	769.049993427	-0.009	
774.95	85	10.88	774.949973534	-0.034	0.4
	100	13.60	774.950020769	0.027	
	115	16.32	774.950012066	0.016	
775.95	85	10.88	775.949996550	-0.004	0.4
	100	13.60	775.950014787	0.019	
	115	16.32	775.950003933	0.005	
798.05	85	10.88	798.050007270	0.009	0.4
	100	13.60	798.050008134	0.010	
	115	16.32	798.050007829	0.010	
799.05	85	10.88	799.050029930	0.037	0.4
	100	13.60	799.050027335	0.034	
	115	16.32	799.049985487	-0.018	
804.95	85	10.88	804.950003626	0.005	0.4
	100	13.60	804.950003907	0.005	
	115	16.32	804.950003723	0.005	

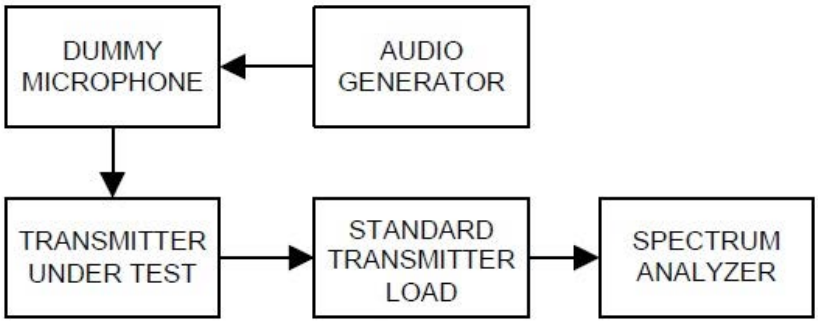
Test Frequency (MHz)	Diviation (%)	Voltage (V)	Frequency (MHz)	Frequency stability (ppm)	Limit (ppm)
805.95	85	10.88	805.950009098	0.011	0.4
	100	13.60	805.950009990	0.012	
	115	16.32	805.950009503	0.012	
806.05	85	10.88	806.050019548	0.024	0.4
	100	13.60	806.050019429	0.024	
	115	16.32	806.050019465	0.024	
823.95	85	10.88	823.949999465	-0.001	0.4
	100	13.60	823.949999132	-0.001	
	115	16.32	823.949999327	-0.001	
851.05	85	10.88	851.050020667	0.024	0.4
	100	13.60	851.050020679	0.024	
	115	16.32	851.050020603	0.024	
868.95	85	10.88	868.950018351	0.021	0.4
	100	13.60	868.950018050	0.021	
	115	16.32	868.950018516	0.021	

8.3 Occupied Bandwidth

▣ Definition

The transmitter sideband spectrum denotes the sideband power produced at a discrete frequency separation from the carrier up to the test bandwidth (see TIA-603-E Section 1.3.4.4) due to all sources of unwanted noise within the transmitter in a modulated condition.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to TIA-603-E Section 2.2.11.2 / RSS-119 Section 5.5

a) For EUT supporting audio modulation, the audio signal generator was adjusted to the frequency of maximum response and with output level set for +/- 2.5 kHz deviation (or 50 % modulation). (FM modulation).

b) With level constant, the signal level was increased 16 dB.

c) For EUT supporting digital modulation, the digital modulation mode was operated to its maximum extent.

d) Adjust the spectrum analyzer for the following setting:

1) RBW : 100Hz (Authorized Band 6 kHz),
100Hz (Authorized Band 11.25 kHz),
300Hz (Authorized Band 20 kHz)

2) VBW : Video Bandwidth at least 10 times the resolution bandwidth.

4) Sweep Speed : Sweep Speed slow enough to maintain measurement calibration.

5) Sampling Time : 10 times

6) Detector Mode = Positive Peak.

e) The occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.

▣ TEST RESULTS

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
16K0F3E	25	138.05	15.008	14.999	20.00
		150.05	15.019	15.017	
		162.05	14.971	14.978	
		173.95	14.951	14.958	
		406.15	15.001	14.998	
		429.95	14.984	14.983	
		469.95	14.984	14.984	
		470.05	15.002	14.987	
		495.05	14.983	14.969	
		511.95	15.013	15.007	
		768.05	15.007	15.006	
		769.05	15.008	15.005	
		774.95	15.007	15.000	
		775.95	15.002	15.004	
		798.05	14.997	14.998	
		799.05	14.995	15.002	
		804.95	15.005	15.008	
		805.95	15.002	15.006	
		806.05	14.993	14.997	
		823.95	14.980	15.007	
		851.05	14.981	14.989	
		868.95	14.975	14.983	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
14K0F3E	25	768.05	10.489	10.485	20.00
		769.05	10.488	10.513	
		774.95	10.546	10.540	
		775.95	10.540	10.540	
		798.05	10.484	10.502	
		799.05	10.542	10.541	
		804.95	10.489	10.486	
		805.95	10.487	10.486	
		806.05	10.483	10.491	
		823.95	10.539	10.538	
		851.05	10.488	10.498	
		868.95	10.478	10.485	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
11K0F3E	11.25	138.05	9.986	9.991	11.25
		150.05	9.990	9.993	
		162.05	9.985	9.983	
		173.95	9.979	9.979	
		406.15	9.985	9.985	
		429.95	9.982	9.982	
		469.95	9.982	9.982	
		511.95	9.986	9.986	
		768.05	9.986	9.986	
		769.05	9.982	9.986	
		774.95	9.986	9.986	
		775.95	9.986	9.986	
		798.05	9.980	9.984	
		799.05	9.986	9.986	
		804.95	9.985	9.984	
		805.95	9.984	9.984	
		806.05	9.986	9.987	
		823.95	9.985	9.985	
		851.05	9.983	9.986	
		868.95	9.981	9.984	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
8K30F1E, 8K30F1D, 8K30F7W	11.25	138.05	7.629	7.624	11.25
		150.05	7.628	7.633	
		162.05	7.612	7.613	
		173.95	7.622	7.609	
		406.15	7.593	7.576	
		429.95	7.561	7.590	
		469.95	7.559	7.595	
		511.95	7.566	7.571	
		768.05	7.561	7.565	
		769.05	7.603	7.555	
		774.95	7.561	7.575	
		775.95	7.595	7.574	
		798.05	7.609	7.584	
		799.05	7.593	7.583	
		804.95	7.590	7.587	
		805.95	7.620	7.636	
		806.05	7.561	7.600	
		823.95	7.587	7.581	
		851.05	7.571	7.570	
		868.95	7.599	7.575	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
8K10F1E, 8K10F1D	11.25	138.05	7.979	7.984	11.25
		150.05	8.014	8.012	
		162.05	7.962	7.975	
		173.95	7.938	7.949	
		406.15	7.982	7.962	
		429.95	7.947	7.992	
		469.95	7.958	7.988	
		511.95	7.992	7.992	
		768.05	7.966	7.969	
		769.05	7.977	7.966	
		774.95	7.977	7.977	
		775.95	7.983	7.972	
		798.05	7.938	7.972	
		799.05	7.971	7.978	
		804.95	7.972	7.946	
		805.95	7.977	7.957	
		806.05	7.961	7.966	
		823.95	7.970	7.976	
		851.05	7.965	7.963	
		868.95	7.966	7.949	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
8K10F1W	11.25	138.05	8.042	8.027	11.25
		150.05	8.047	8.052	
		162.05	7.998	8.003	
		173.95	7.980	7.978	
		406.15	7.974	7.978	
		429.95	7.959	7.949	
		469.95	7.961	7.960	
		511.95	7.982	7.982	
		768.05	7.982	7.978	
		769.05	7.986	7.972	
		774.95	7.975	7.976	
		775.95	7.976	7.973	
		798.05	7.973	7.953	
		799.05	7.971	7.976	
		804.95	7.965	7.969	
		805.95	7.967	7.966	
		806.05	7.977	7.965	
		823.95	7.950	7.955	
		851.05	7.964	7.954	
		868.95	7.950	7.932	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
7K60FXD, 7K60FXE, 7K60F1E, 7K60F1D, 7K60F1W, 7K60FXW	11.25	138.05	7.565	7.545	11.25
		150.05	7.550	7.564	
		162.05	7.565	7.545	
		173.95	7.526	7.526	
		406.15	7.501	7.521	
		429.95	7.506	7.508	
		469.95	7.503	7.515	
		511.95	7.541	7.526	
		768.05	7.534	7.504	
		769.05	7.520	7.539	
		774.95	7.528	7.525	
		775.95	7.520	7.529	
		798.05	7.538	7.498	
		799.05	7.517	7.518	
		804.95	7.529	7.529	
		805.95	7.513	7.537	
		806.05	7.506	7.579	
		823.95	7.503	7.497	
		851.05	7.502	7.534	
		868.95	7.495	7.509	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
4K00F1E, 4K00F1D, 4K00F7W	6.25	138.05	3.536	3.530	6.00
		150.05	3.519	3.494	
		162.05	3.534	3.527	
		173.95	3.538	3.534	
		406.15	3.507	3.510	
		429.95	3.480	3.496	
		469.95	3.509	3.479	
		511.95	3.512	3.492	
		768.05	3.510	3.503	
		769.05	3.499	3.504	
		774.95	3.504	3.478	
		775.95	3.505	3.507	
		798.05	3.509	3.505	
		799.05	3.501	3.503	
		804.95	3.508	3.511	
		805.95	3.506	3.519	
		806.05	3.505	3.497	
		823.95	3.505	3.503	
		851.05	3.512	3.500	
		868.95	3.497	3.497	

Type of Emission	Channel Bandwidth (kHz)	Test Frequency (MHz)	Measured 99% OBW at Maximum Freq. Deviation(kHz)		Limit (kHz)
			High Power	Low Power	
4K00F2D	6.25	138.05	3.327	3.324	6.00
		150.05	3.325	3.325	
		162.05	3.324	3.324	
		173.95	3.324	3.324	
		406.15	3.322	3.325	
		429.95	3.324	3.322	
		469.95	3.324	3.322	
		511.95	3.325	3.326	
		768.05	3.326	3.323	
		769.05	3.325	3.322	
		774.95	3.328	3.323	
		775.95	3.322	3.326	
		798.05	3.328	3.323	
		799.05	3.322	3.328	
		804.95	3.326	3.329	
		805.95	3.329	3.329	
		806.05	3.328	3.329	
		823.95	3.322	3.322	
		851.05	3.327	3.327	
		868.95	3.328	3.322	

▣ Plots of 99% Bandwidth

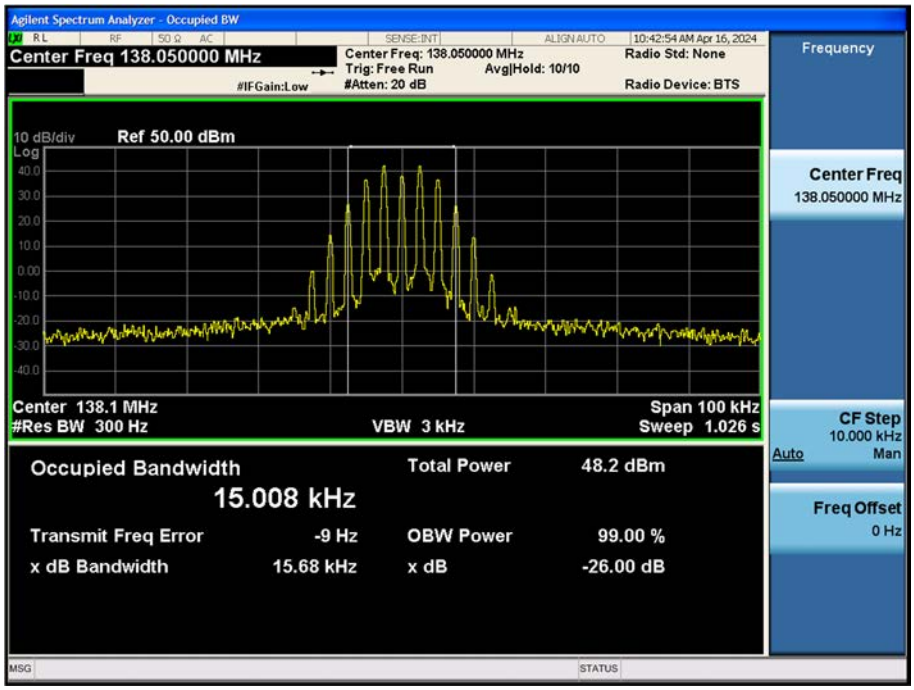
Note:

In order to simplify the report, attached plots were only the worst type of emission.

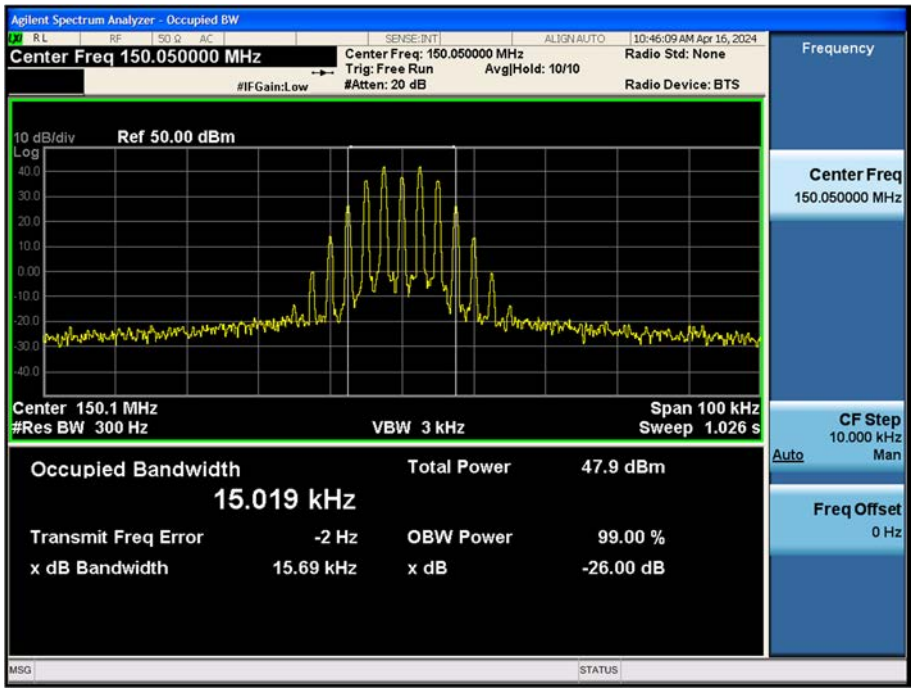
- Worst type of emission: 16K0F3E/ 11K0F3E/ 4K00F1E, 4K00F1D, 4K00F7W

Type of emission: 16K0F3E

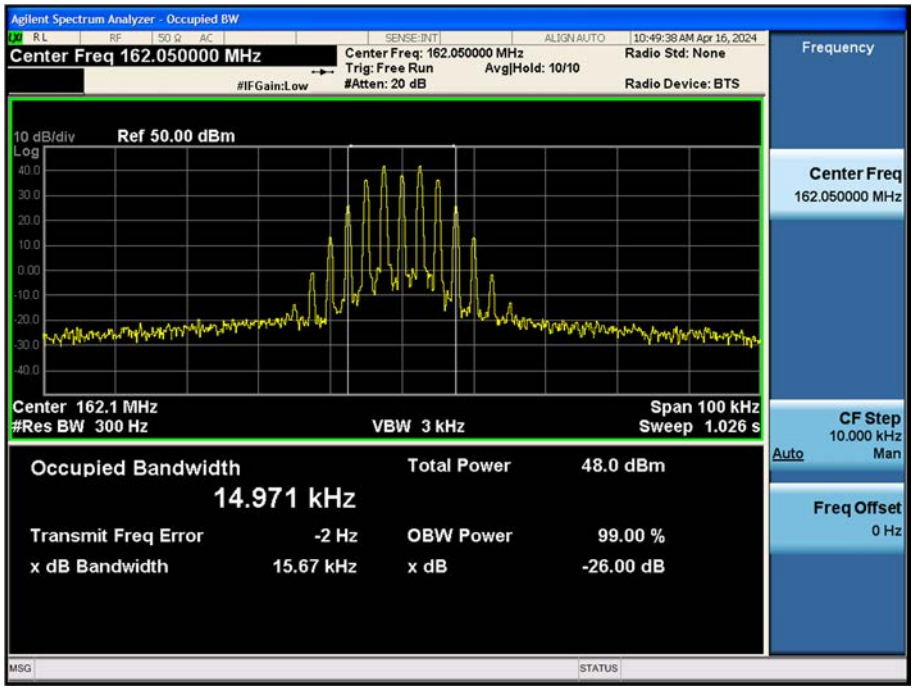
(138.05 MHz)_High



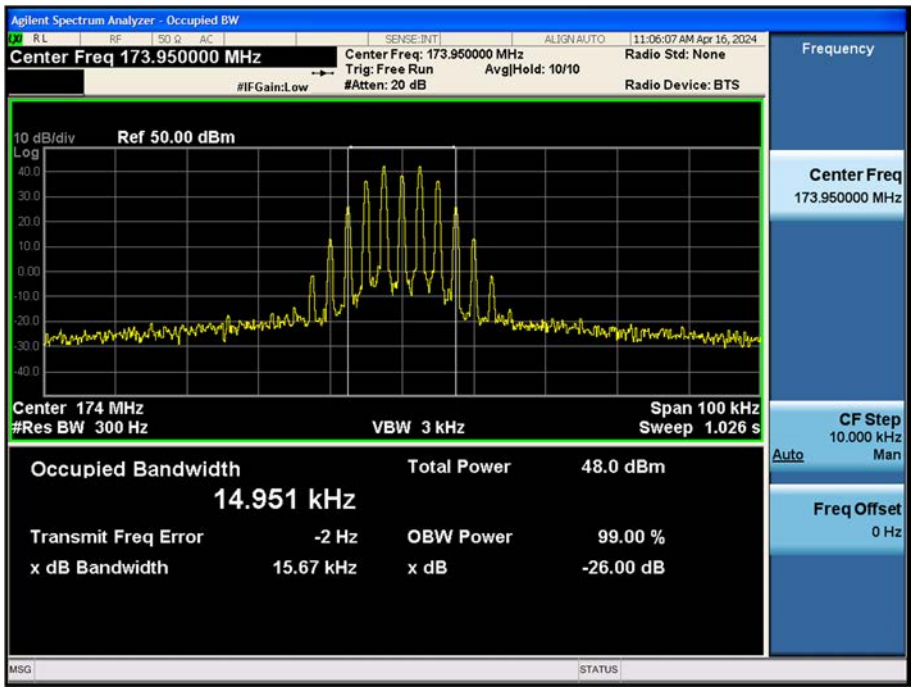
(150.05 MHz)_High



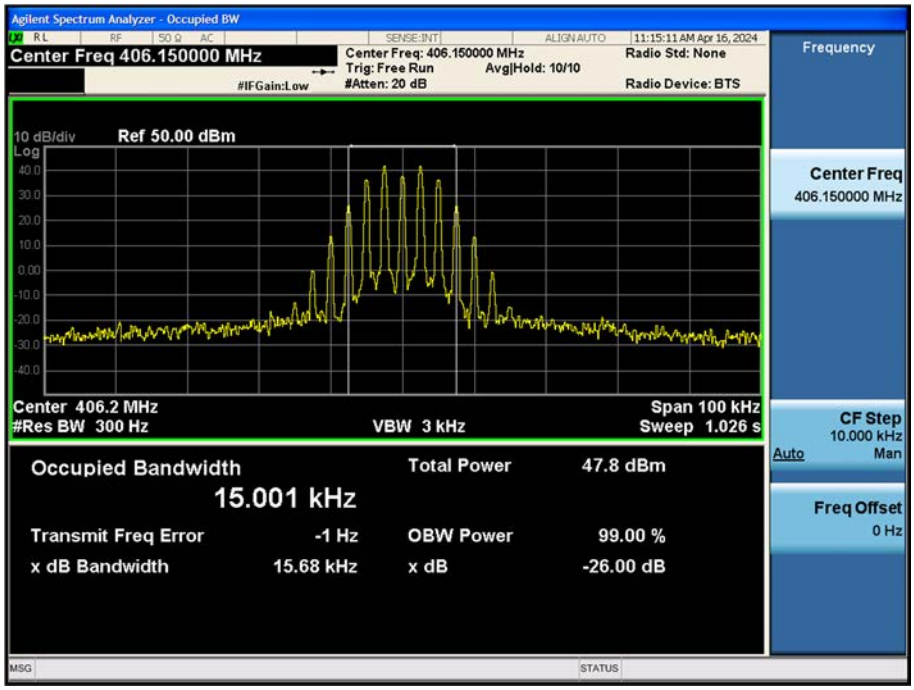
(162.05 MHz)_High



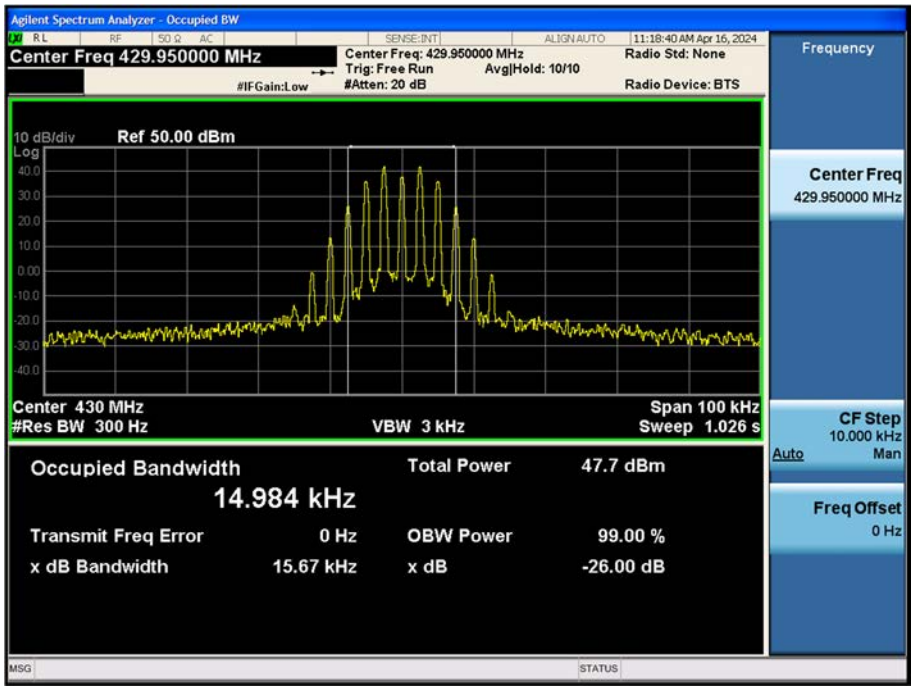
(173.95 MHz)_High



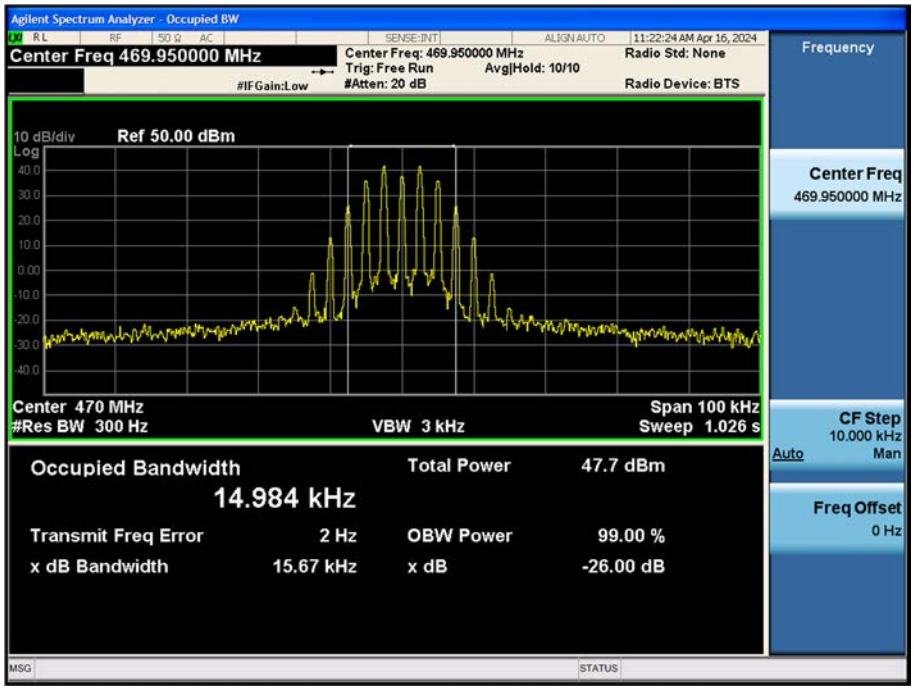
(406.15 MHz)_High



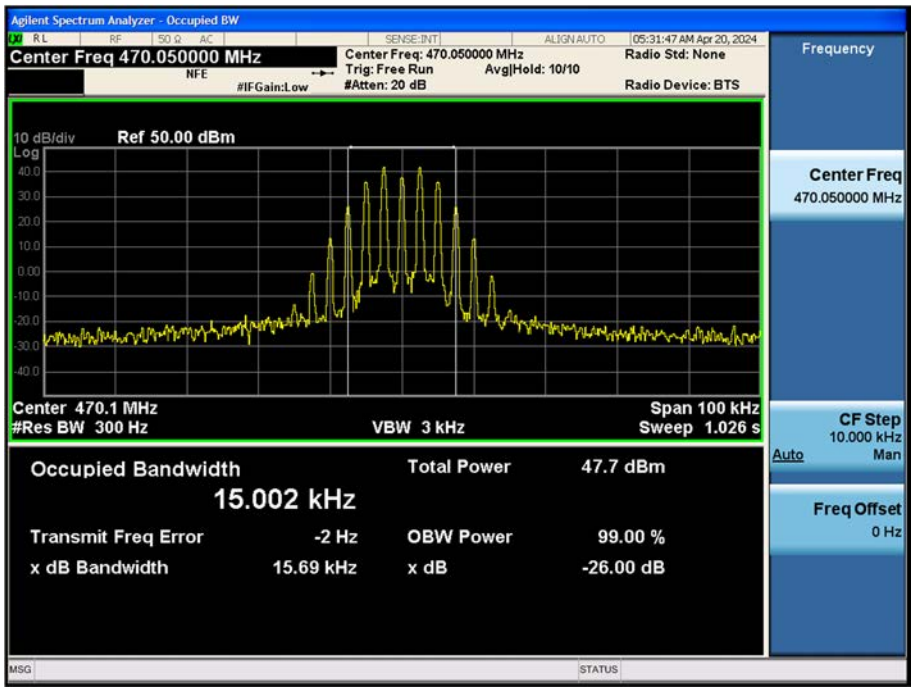
(429.95 MHz)_High



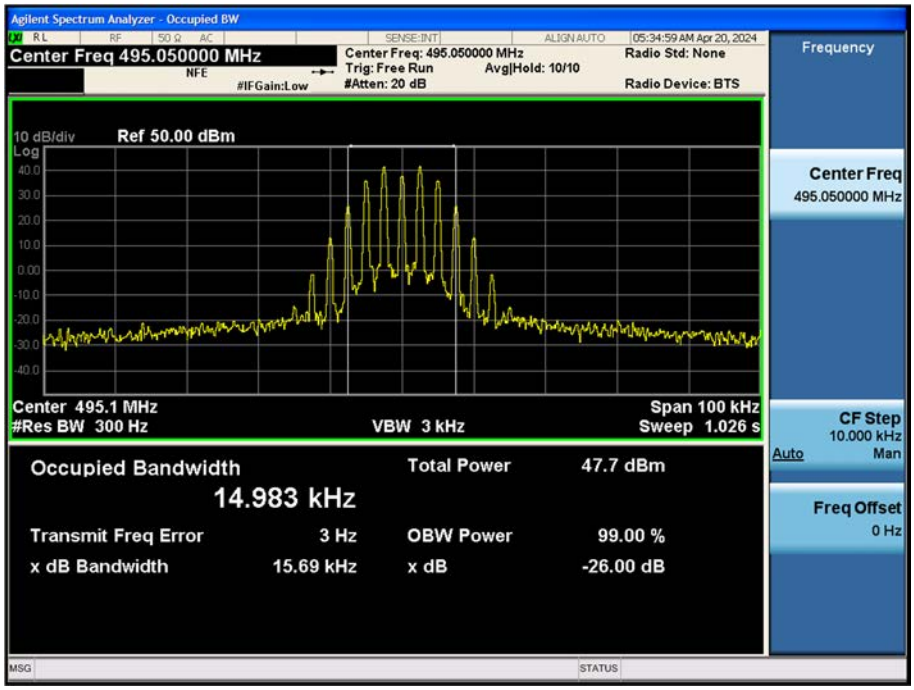
(469.95 MHz)_High



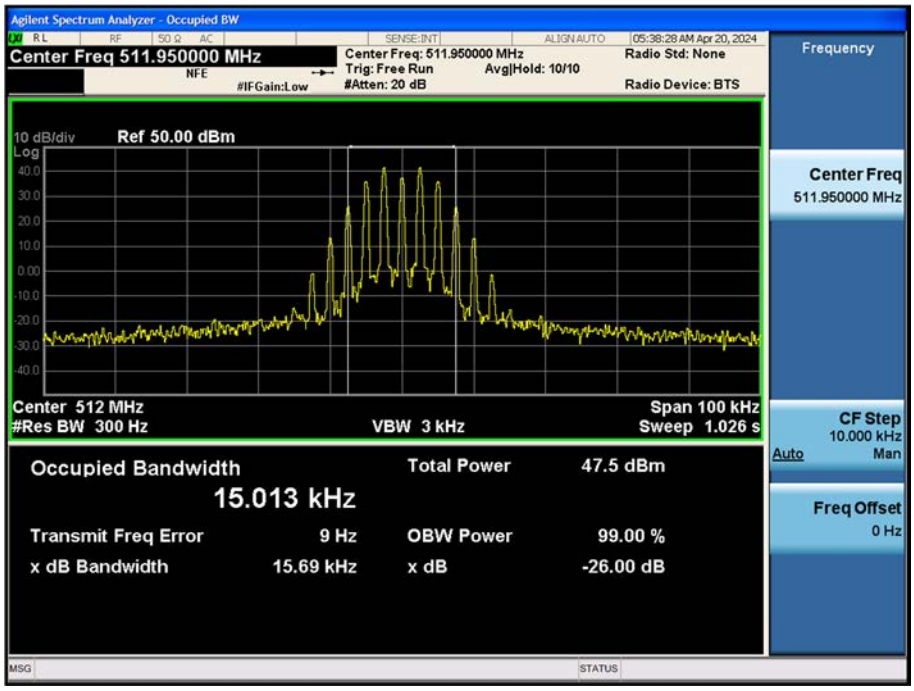
(470.05 MHz)_High



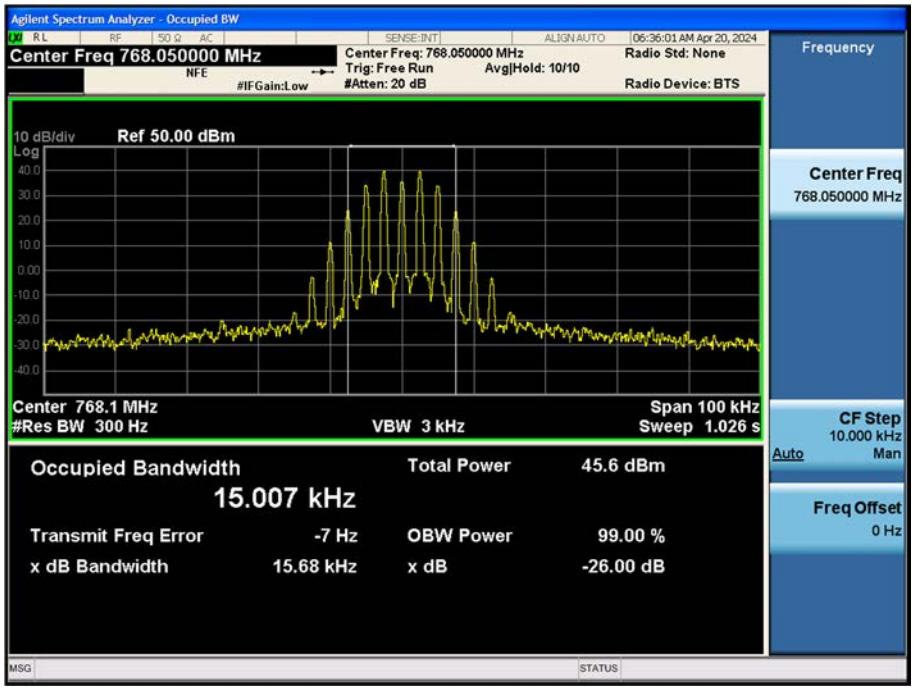
(495.05 MHz)_High



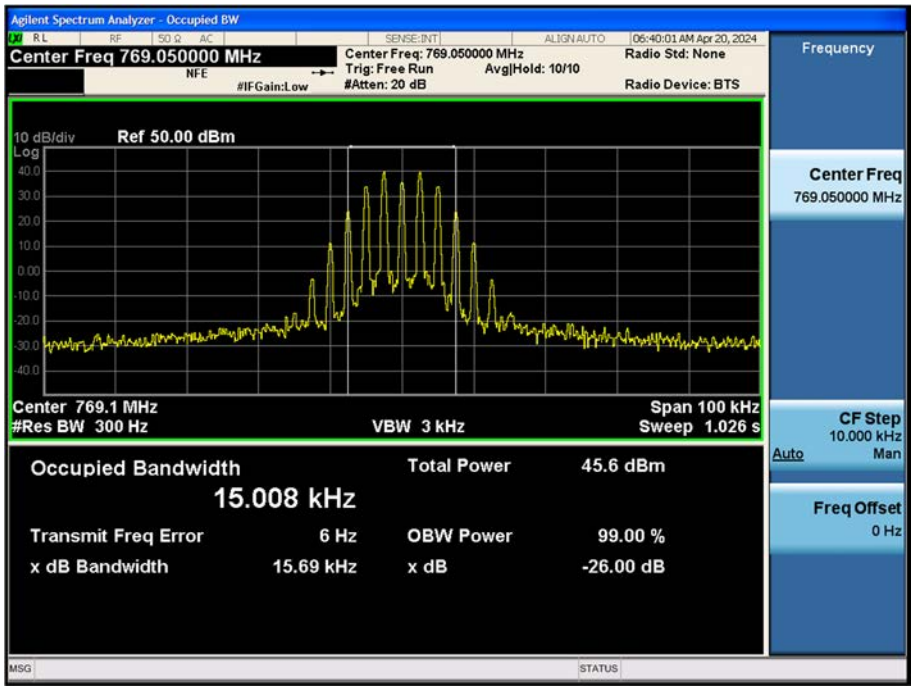
(511.95 MHz)_High



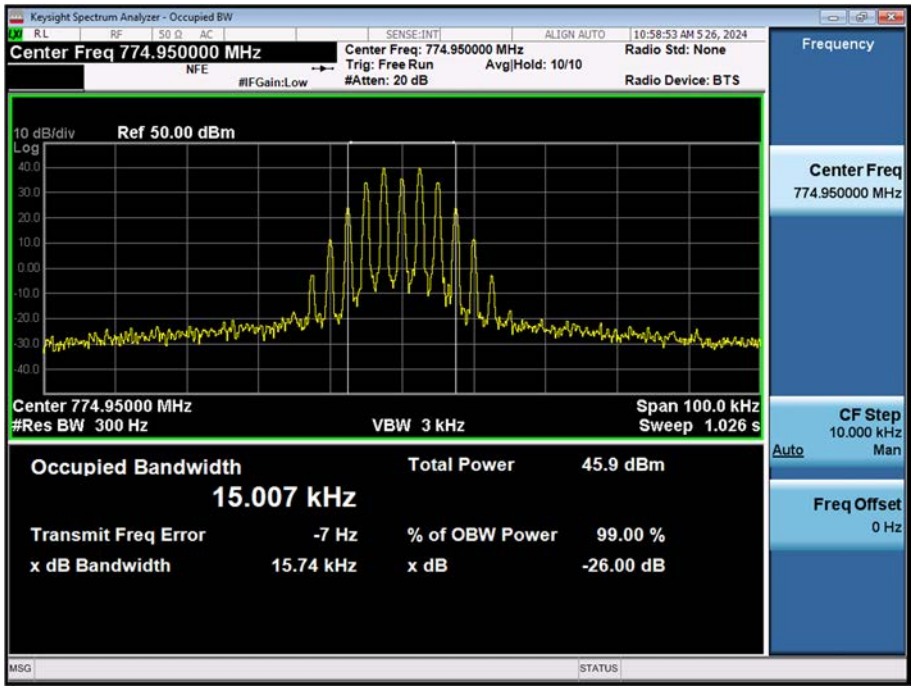
(768.05 MHz)_High



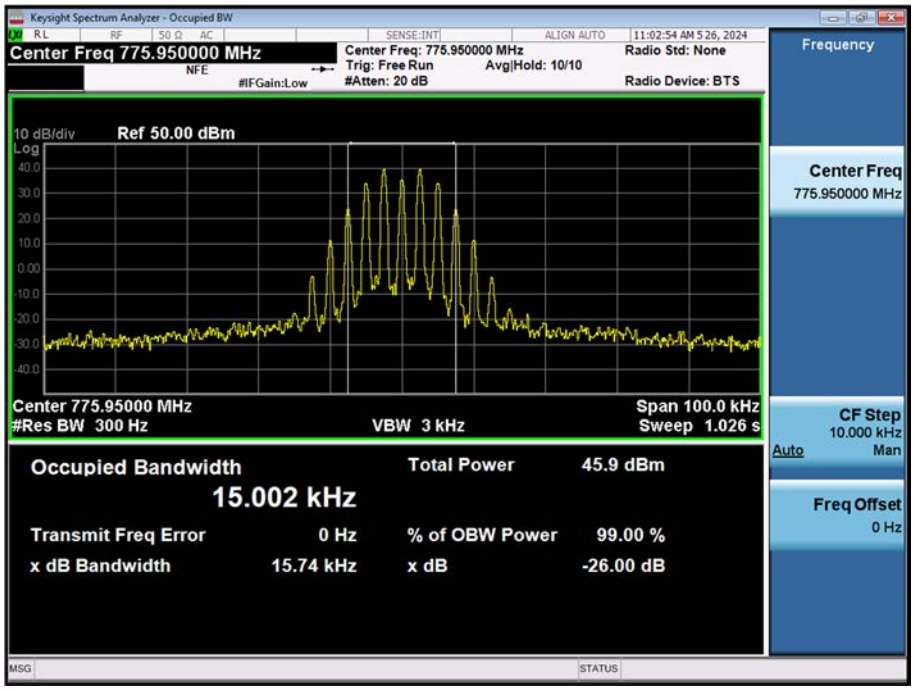
(769.05 MHz)_High



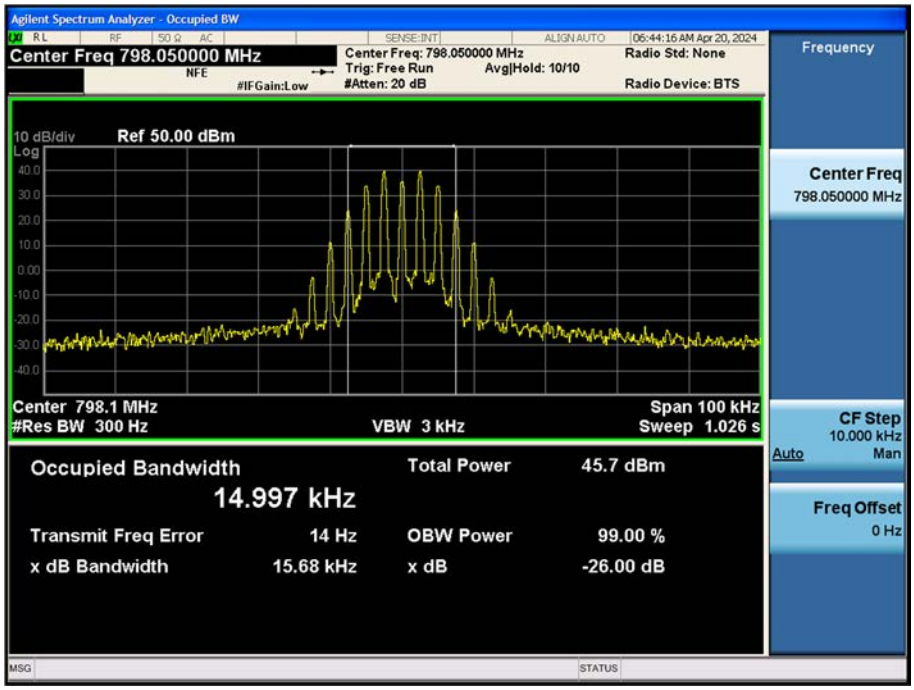
(774.95 MHz)_High



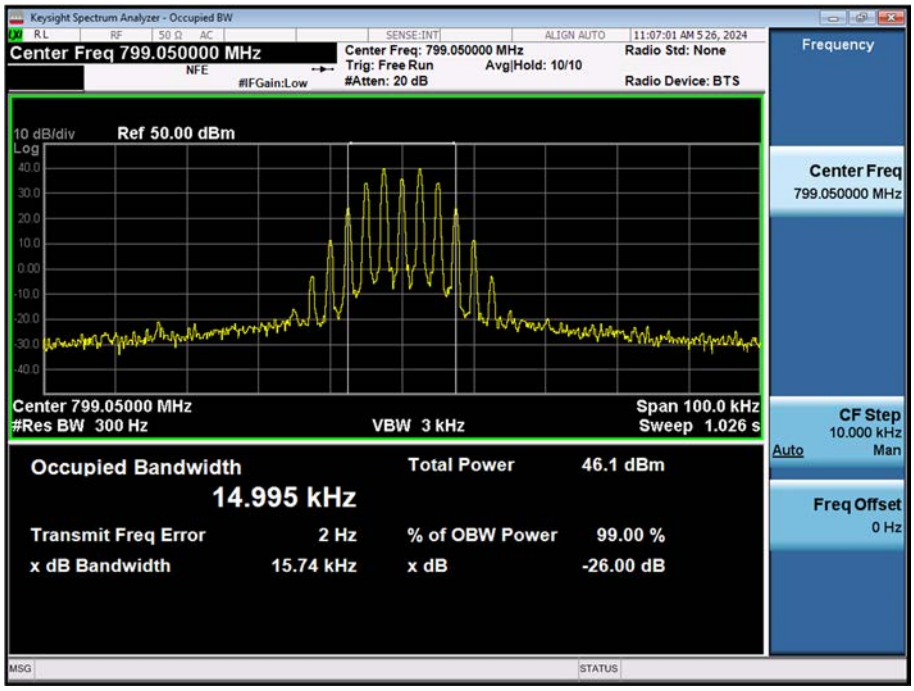
(775.95 MHz)_High



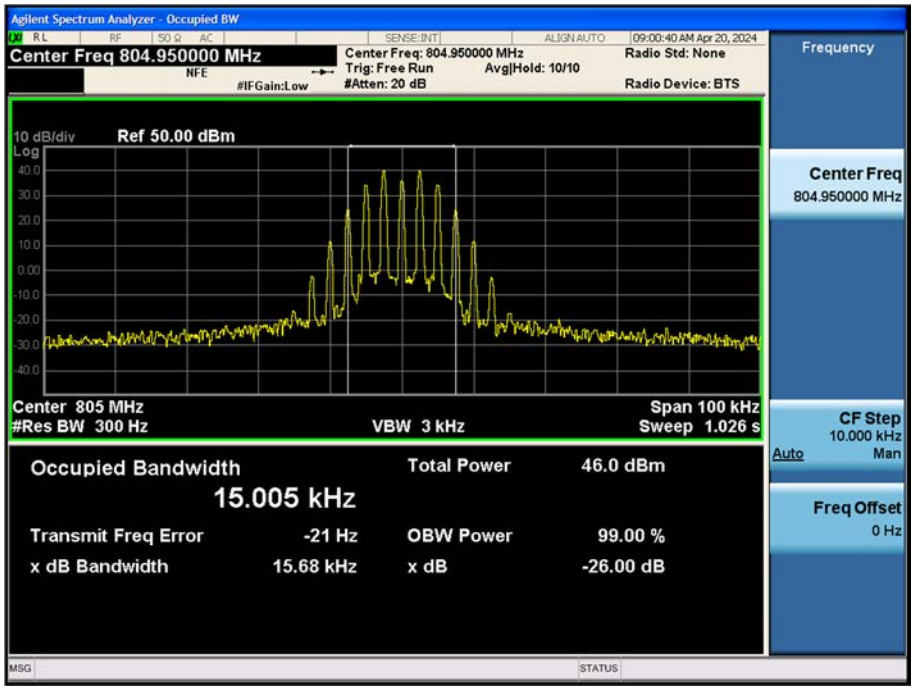
(798.05 MHz)_High



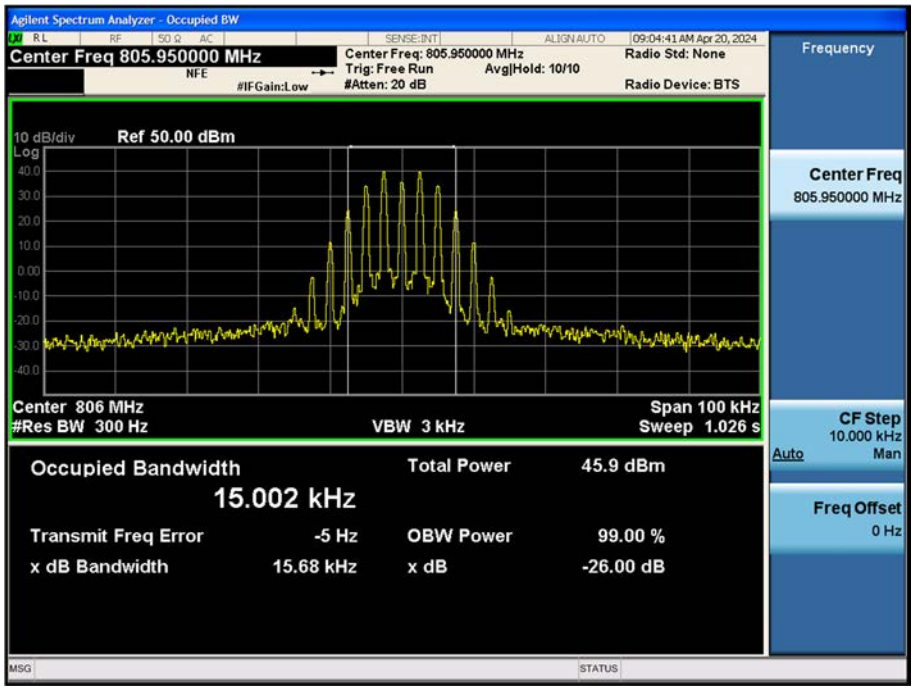
(799.05 MHz)_High



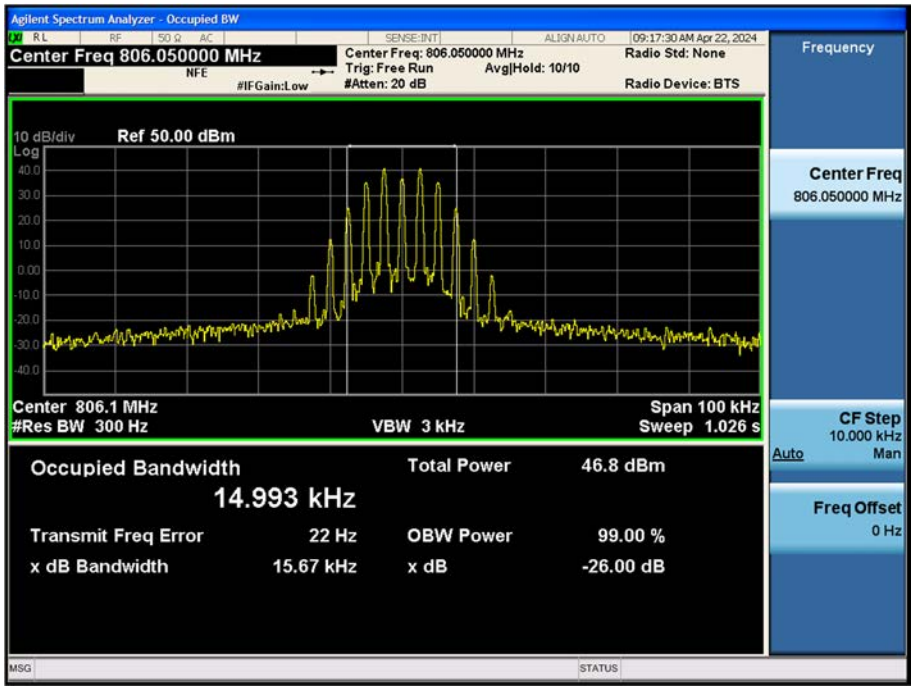
(804.95 MHz)_High



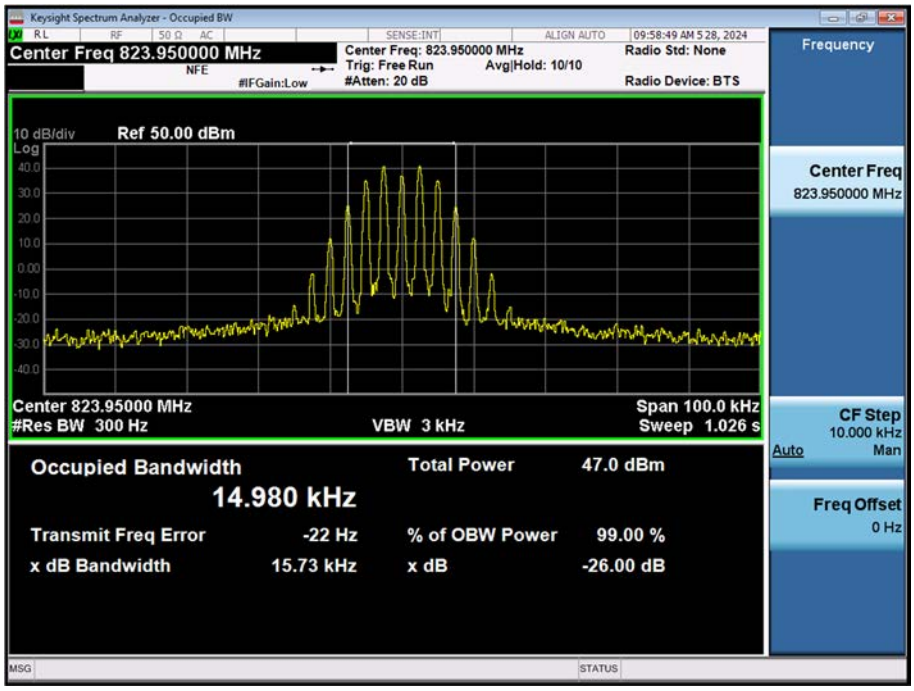
(805.95 MHz)_High



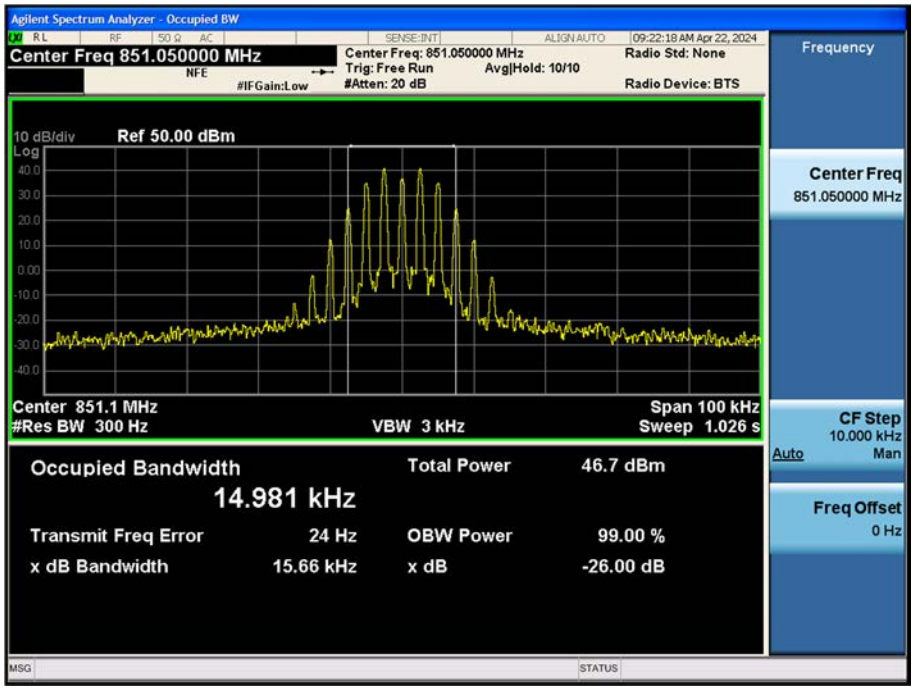
(806.05 MHz)_High



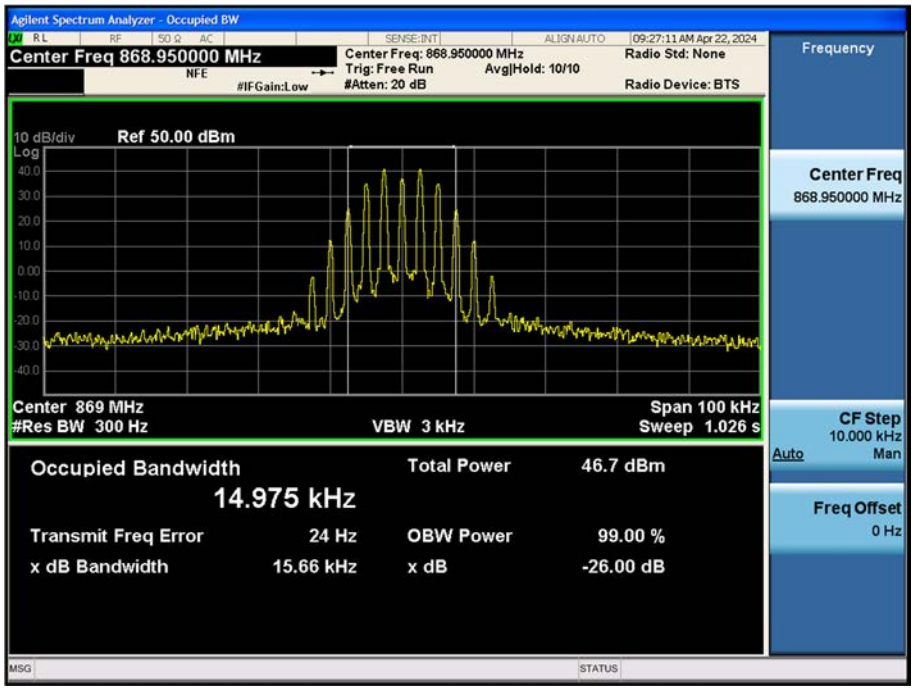
(823.95 MHz)_High



(851.05 MHz)_High

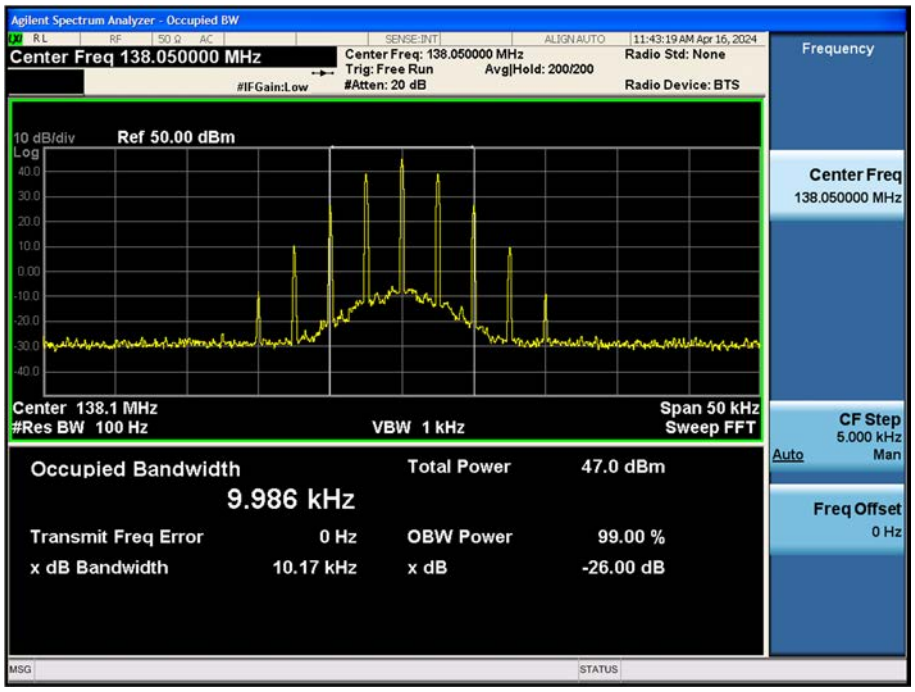


(868.95 MHz)_High

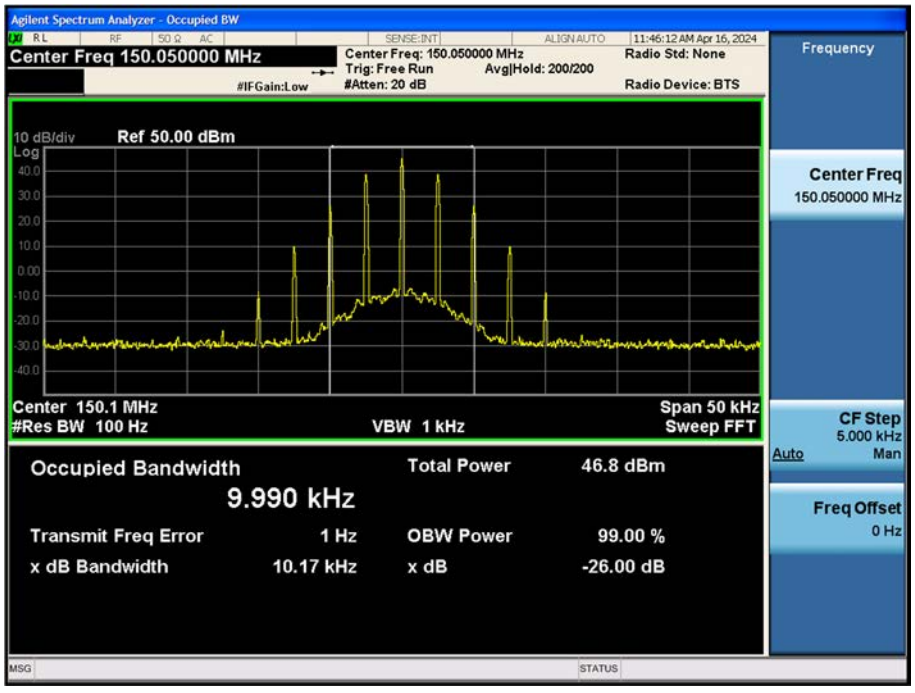


Type of emission: 11K0F3E

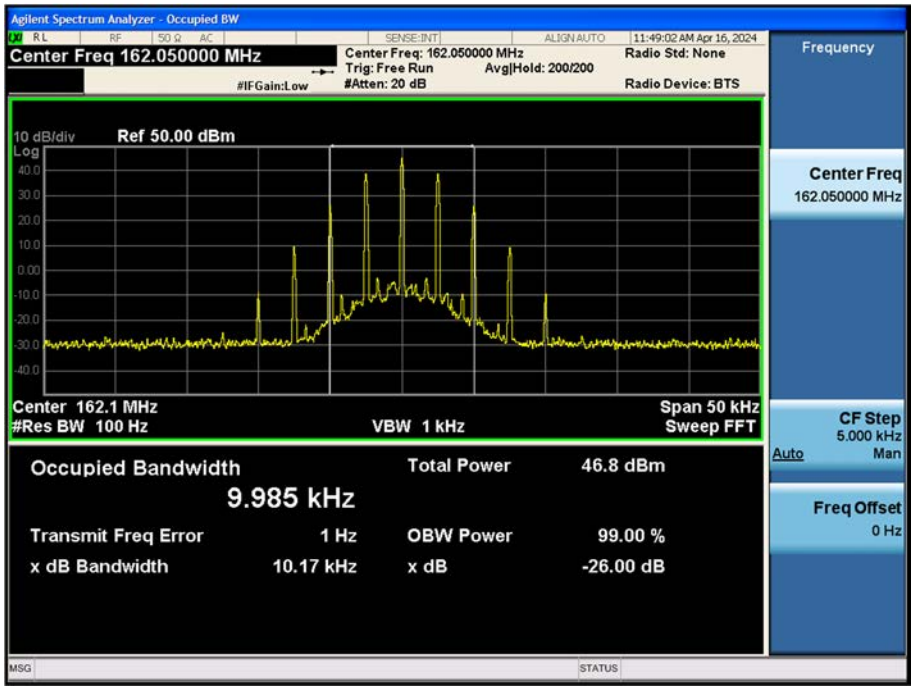
(138.05 MHz)_High



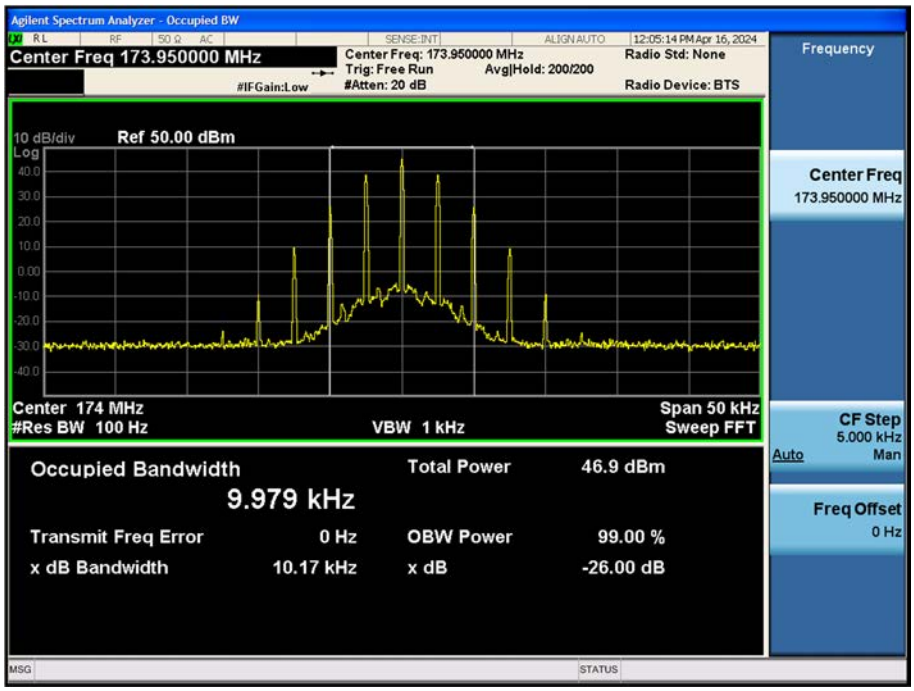
(150.05 MHz)_High



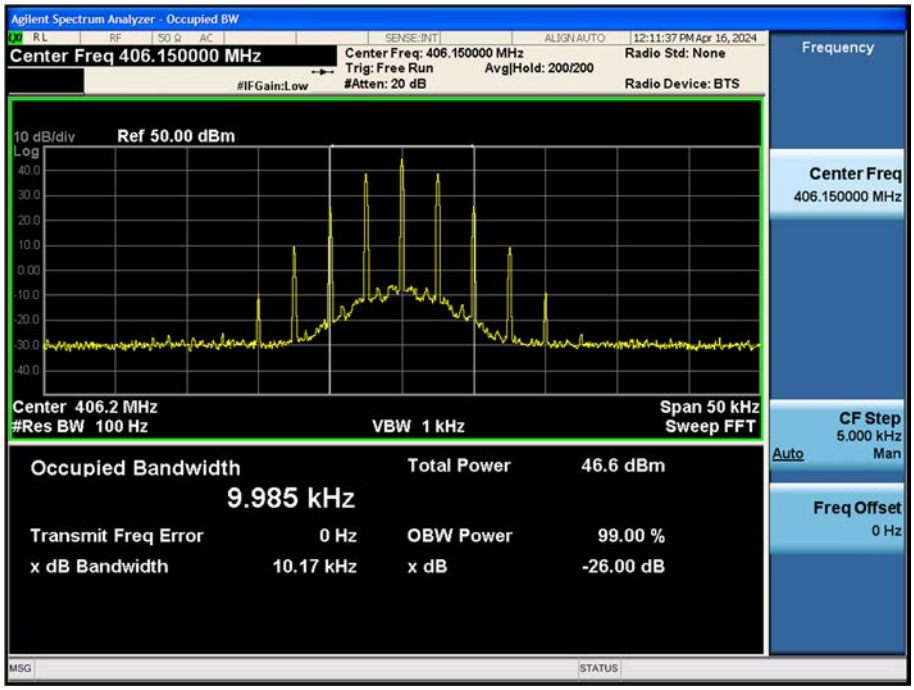
(162.05 MHz)_High



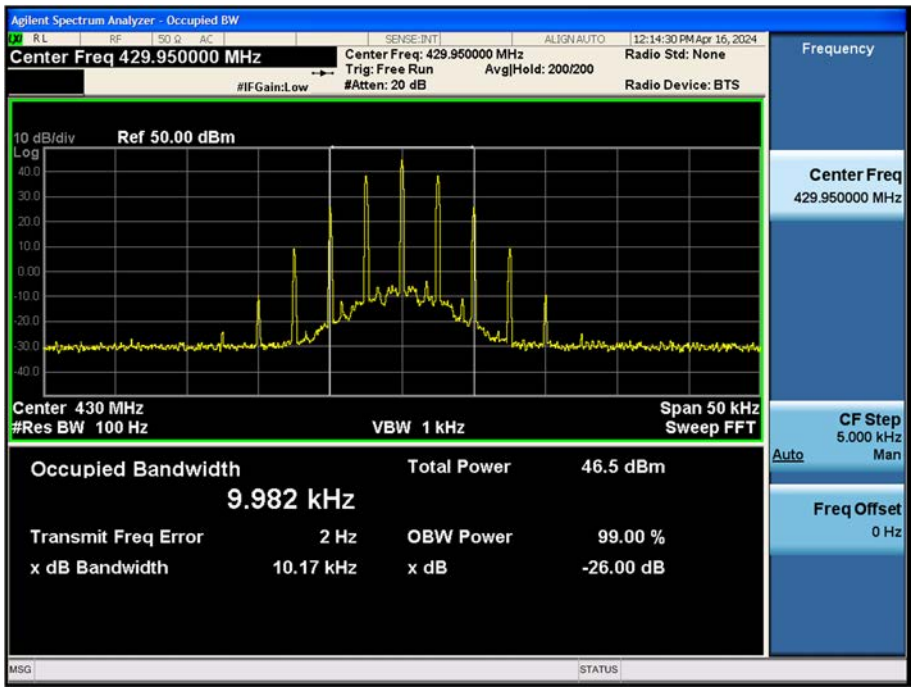
(173.95 MHz)_High



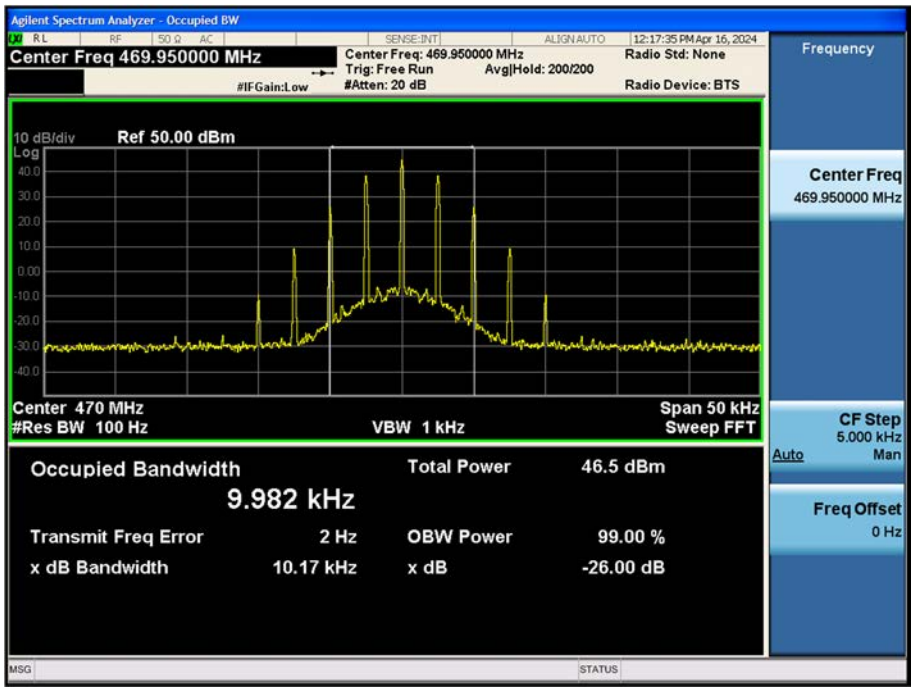
(406.15 MHz)_High



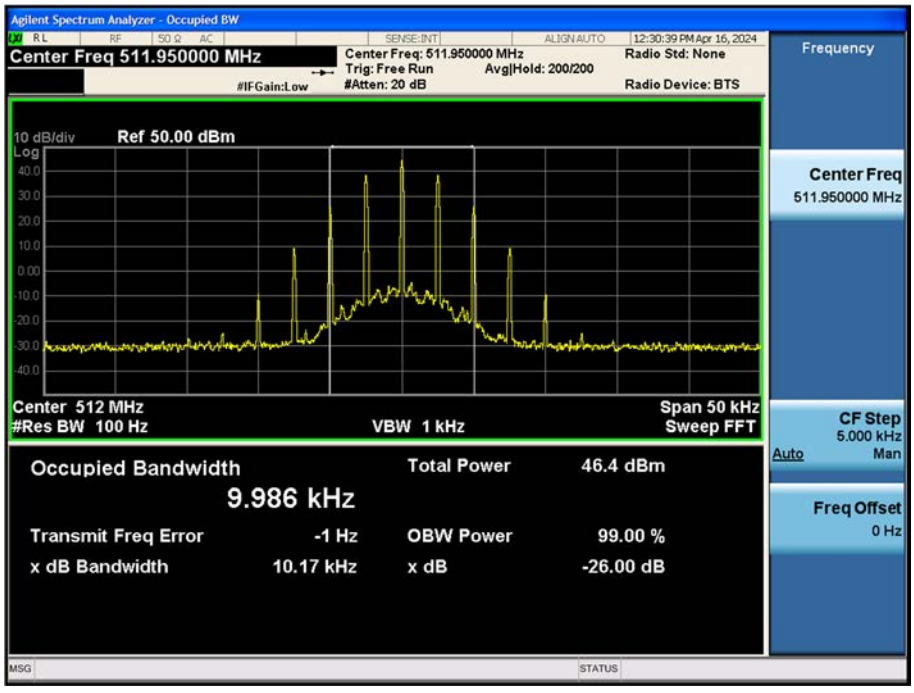
(429.95 MHz)_High



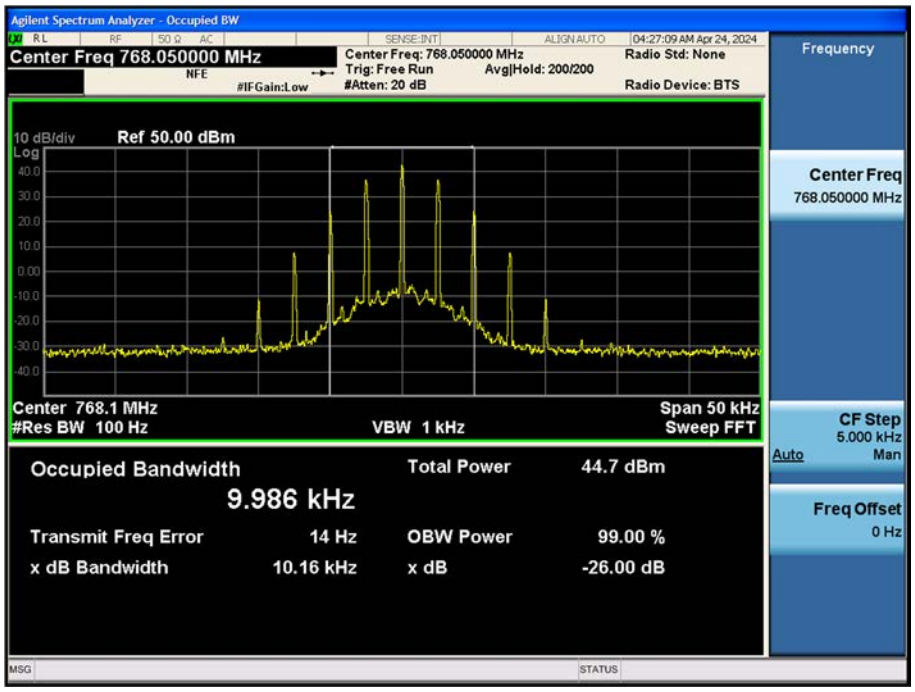
(469.95 MHz)_High



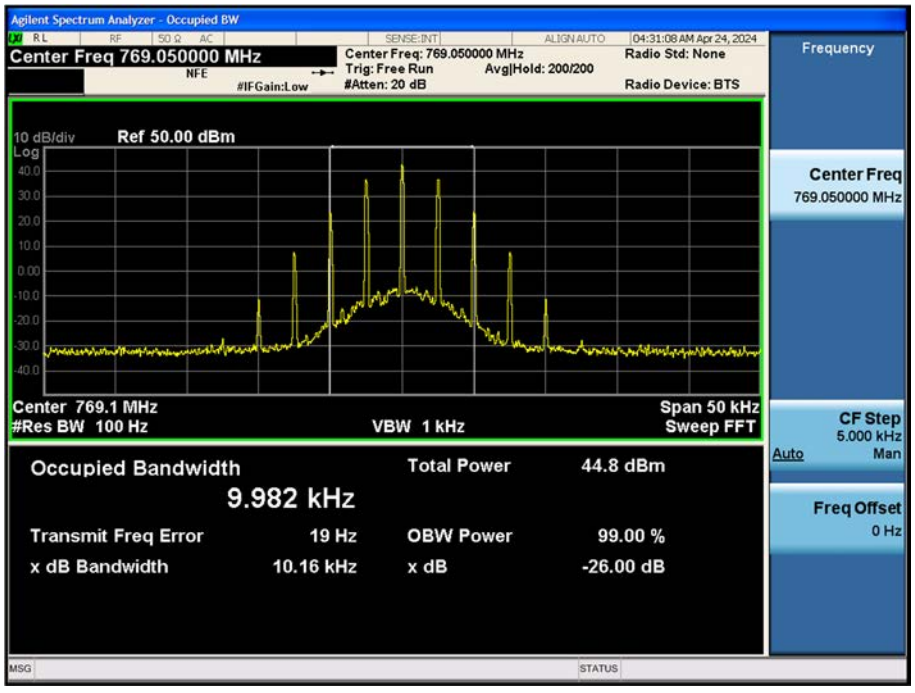
(511.95 MHz)_High



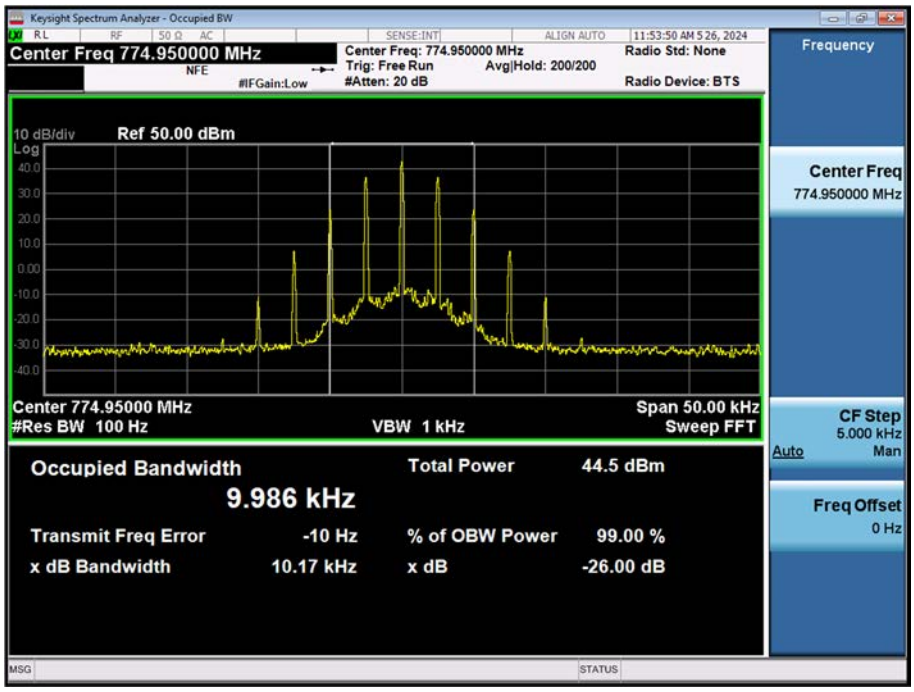
(768.05 MHz)_High



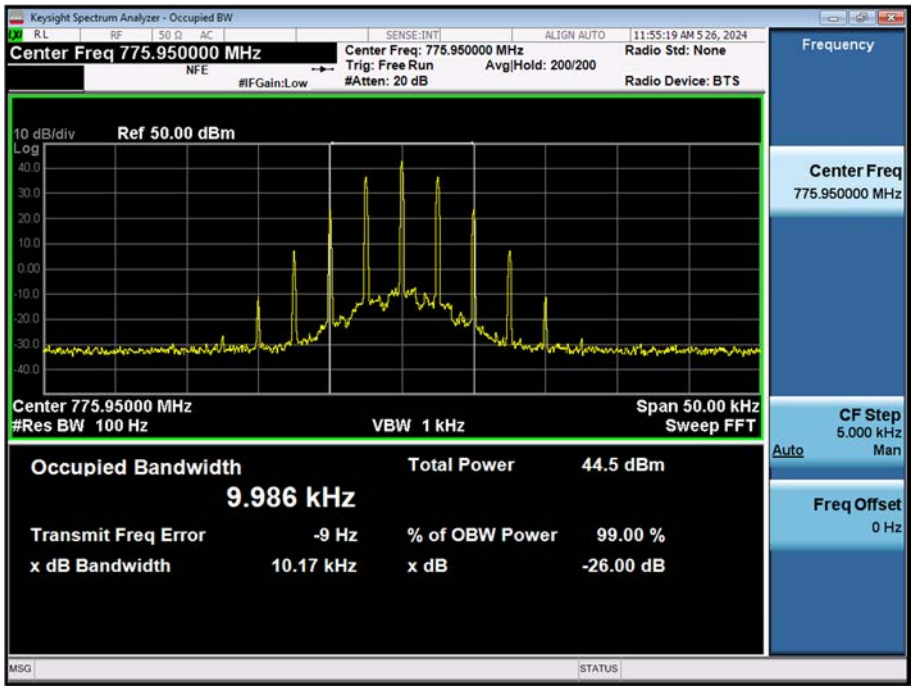
(769.05 MHz)_High



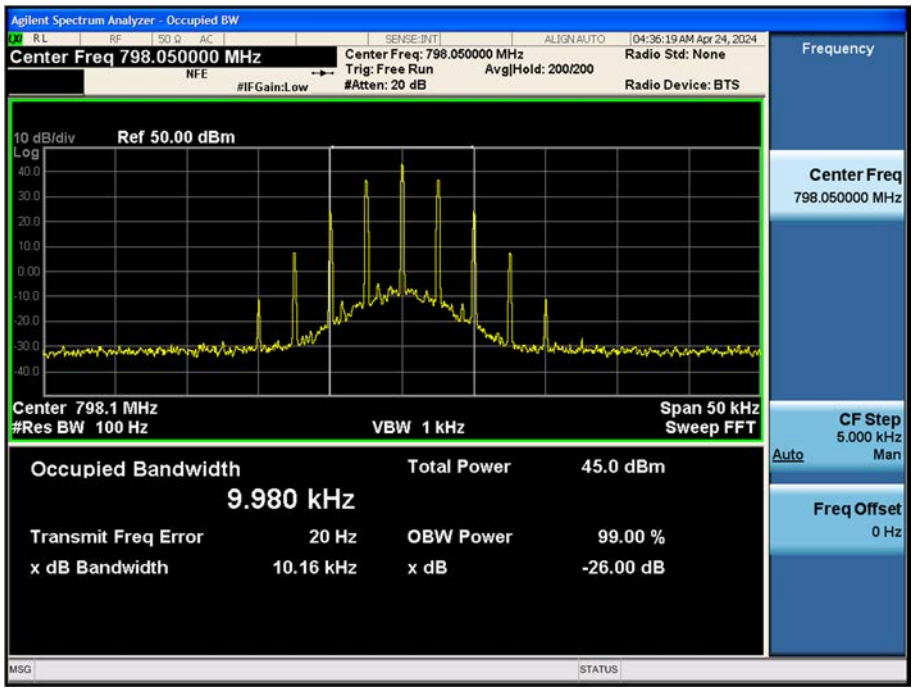
(774.95 MHz)_High



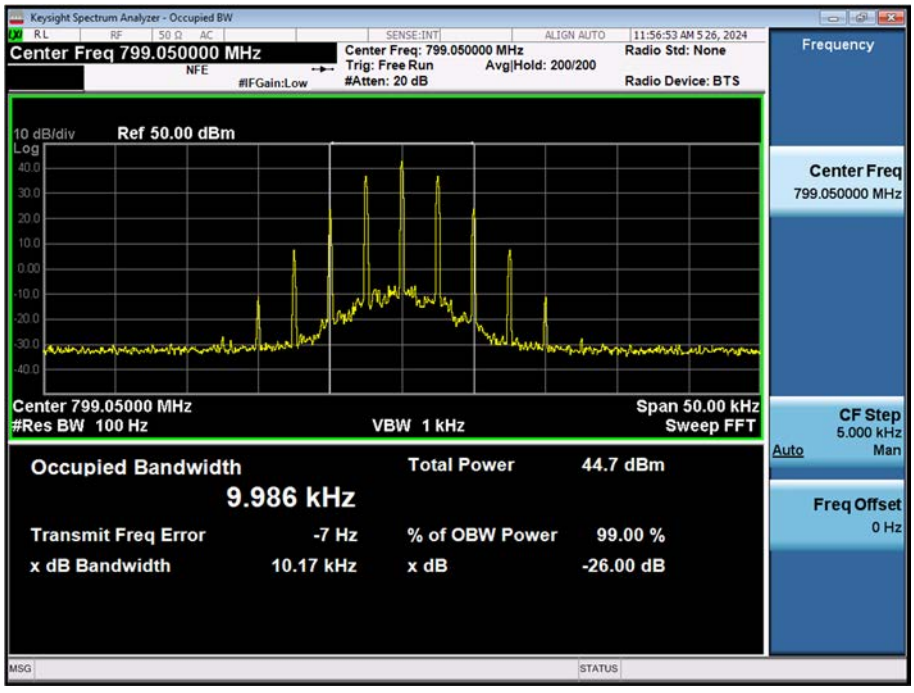
(775.95 MHz)_High



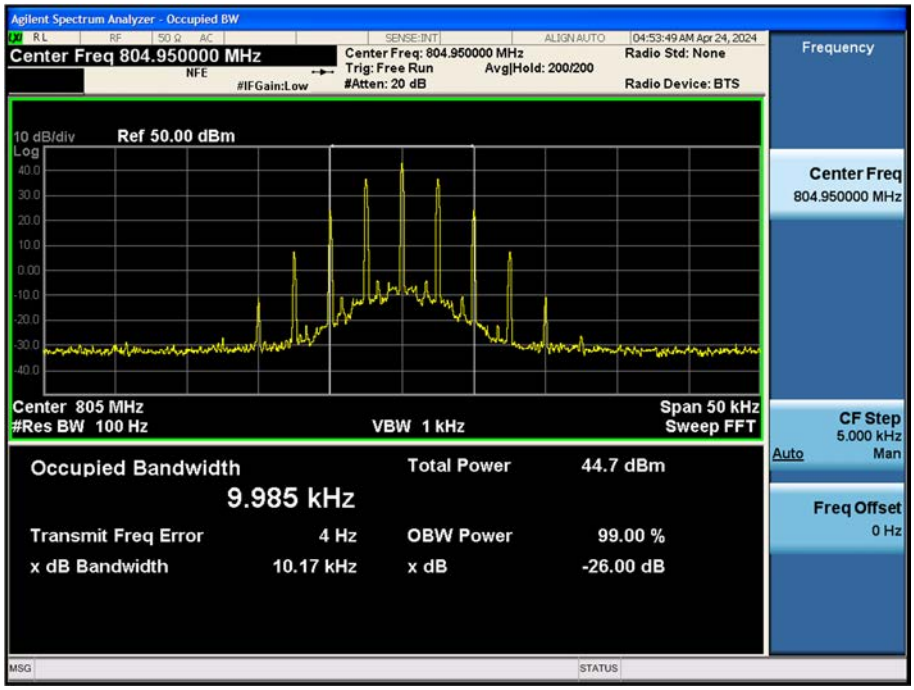
(798.05 MHz)_High



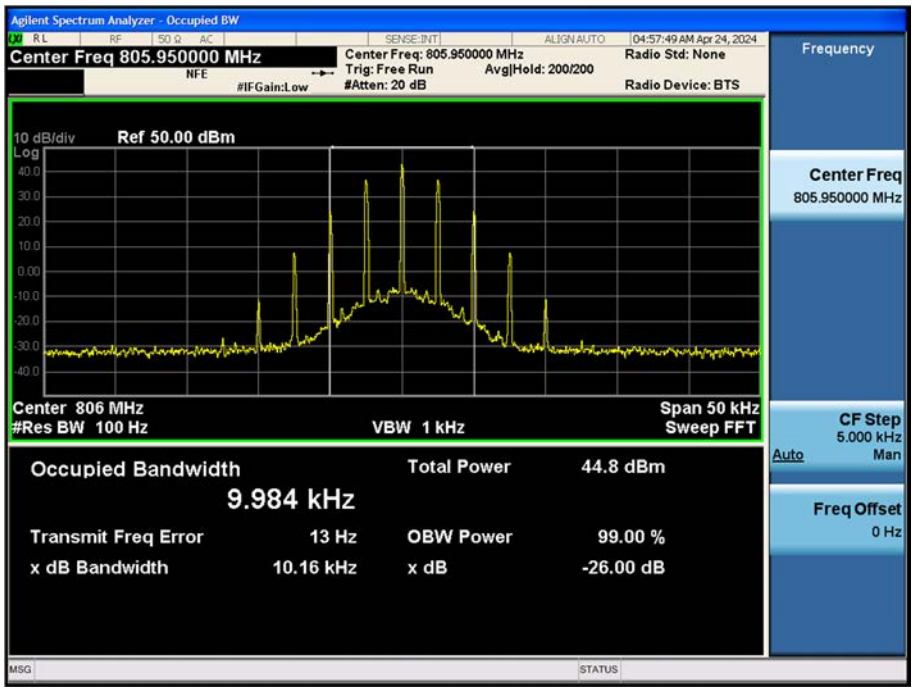
(799.05 MHz)_High



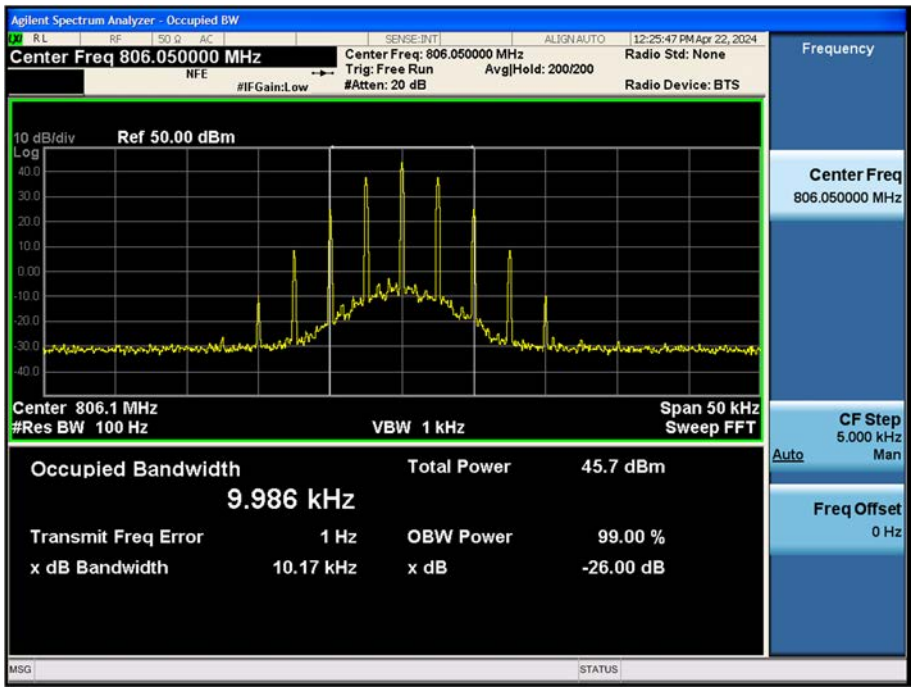
(804.95 MHz)_High



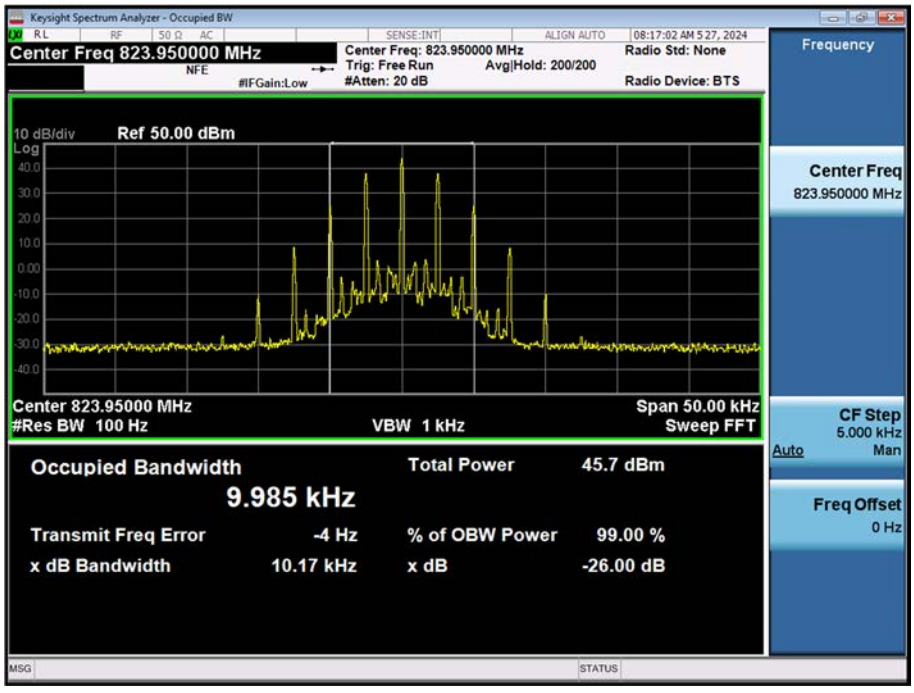
(805.95 MHz)_High



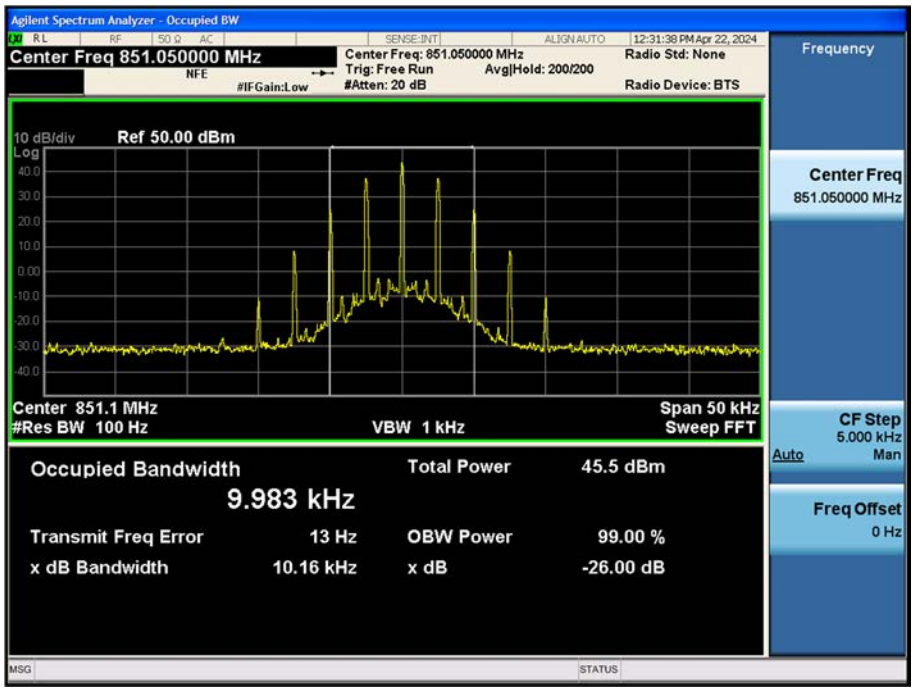
(806.05 MHz)_High



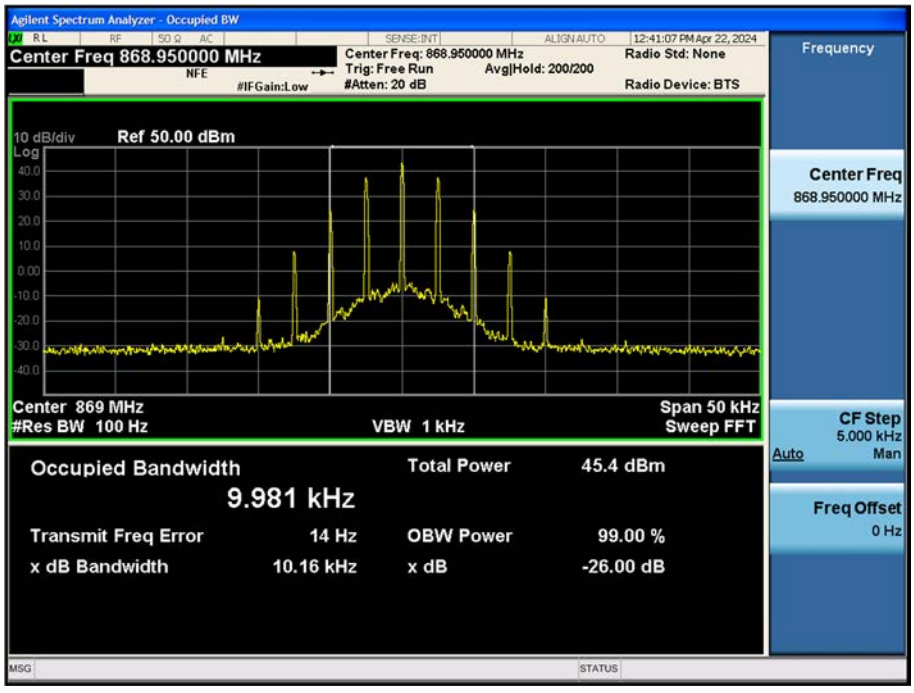
(823.95 MHz)_High



(851.05 MHz)_High

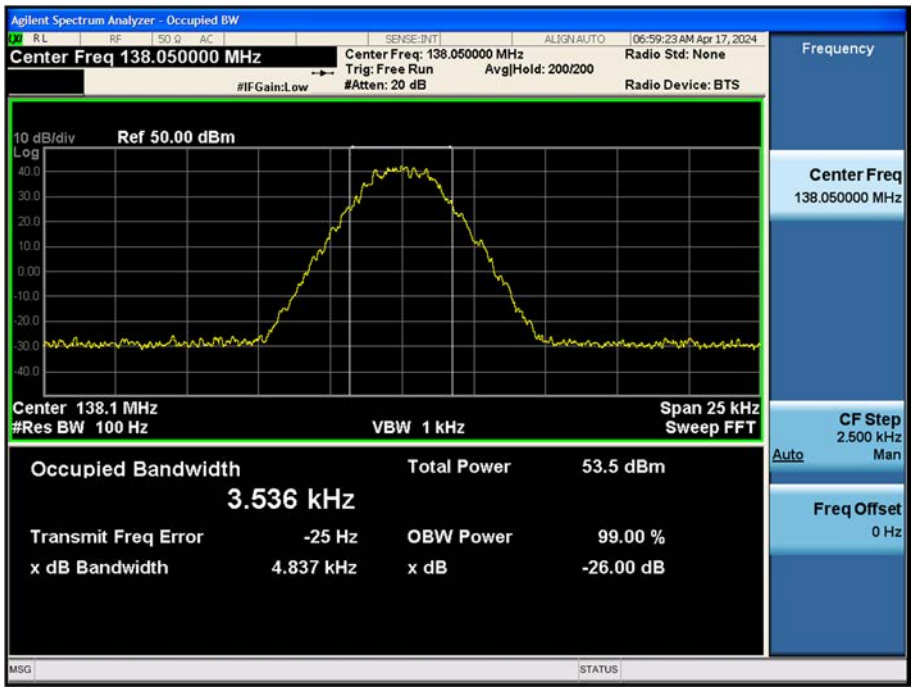


(868.95 MHz)_High

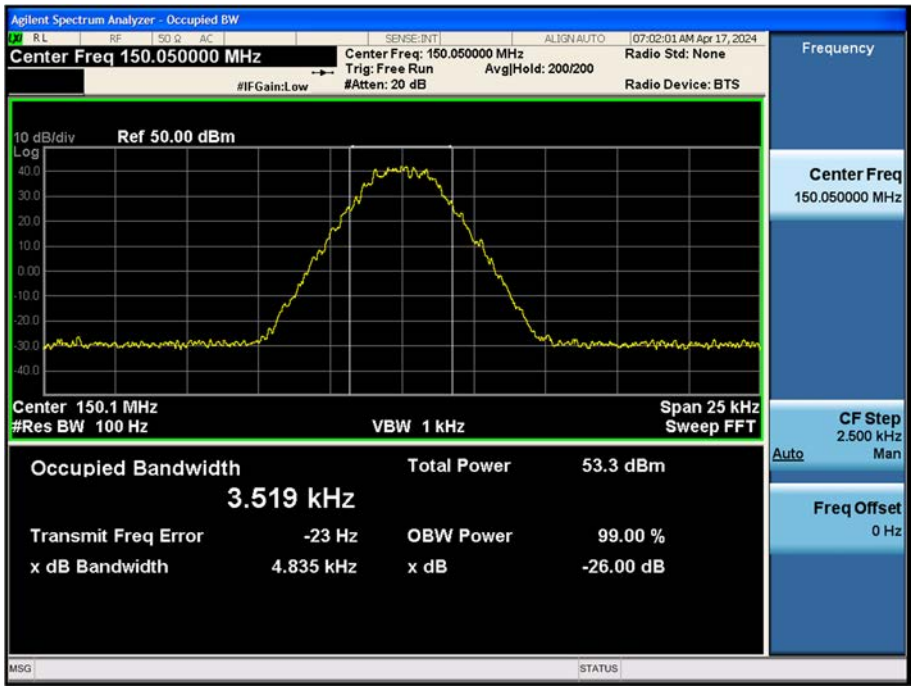


Type of emission: 4K00F1E, 4K00F1D, 4K00F7W

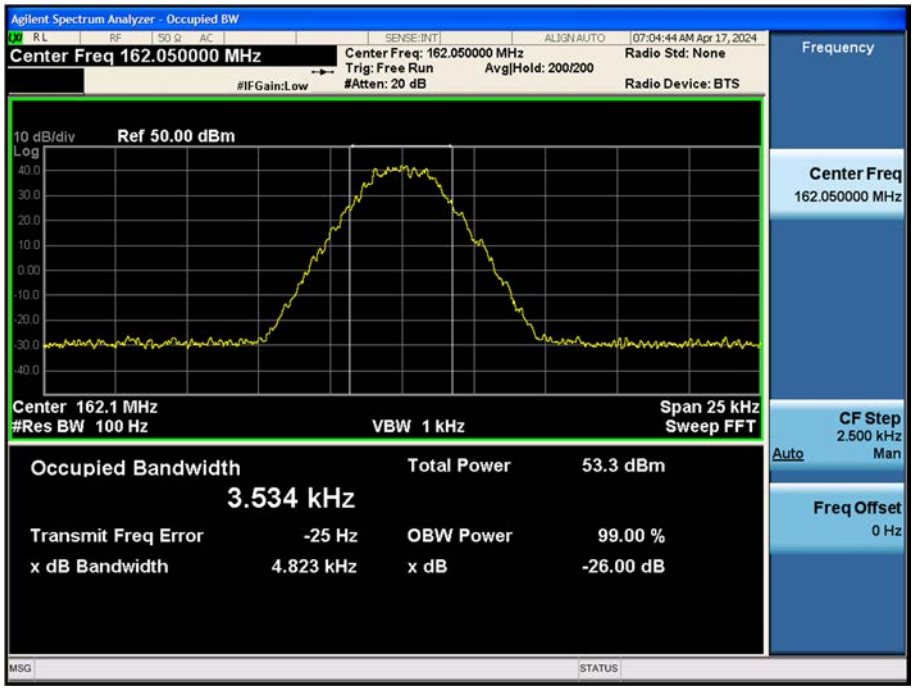
(138.05 MHz)_High



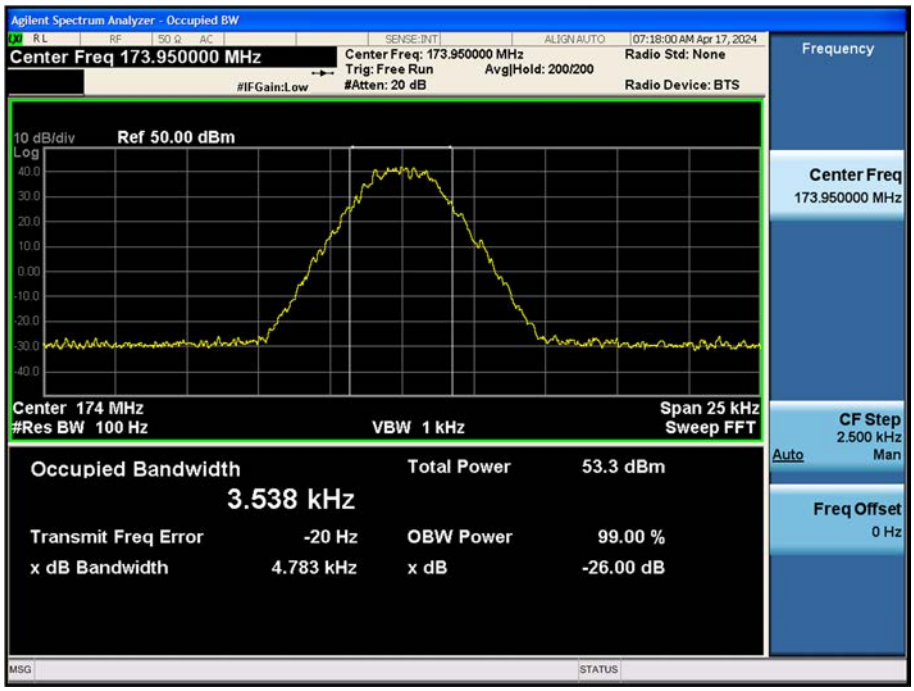
(150.05 MHz)_High



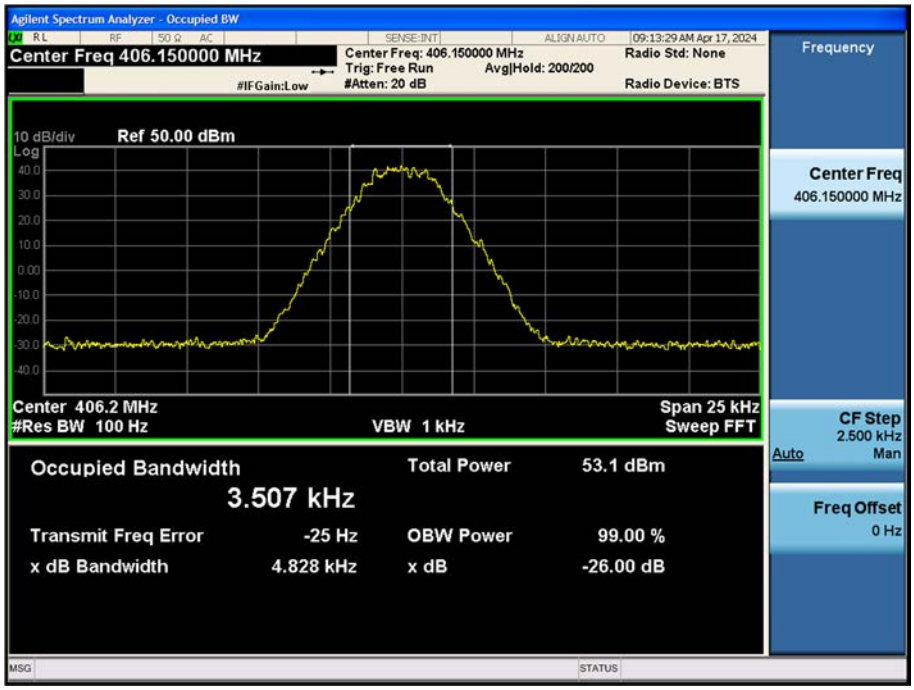
(162.05 MHz)_High



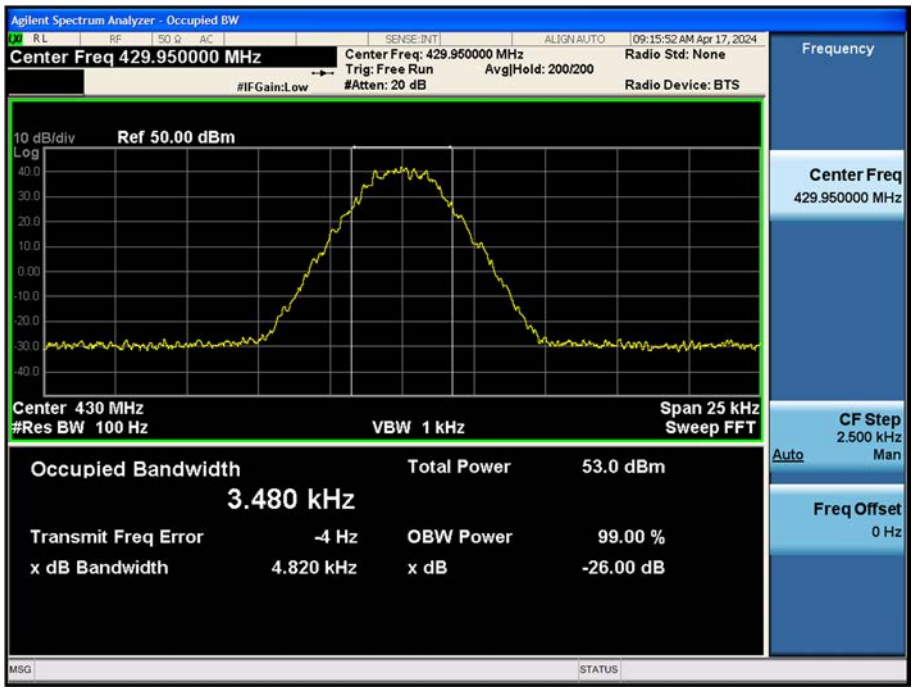
(173.95 MHz)_High



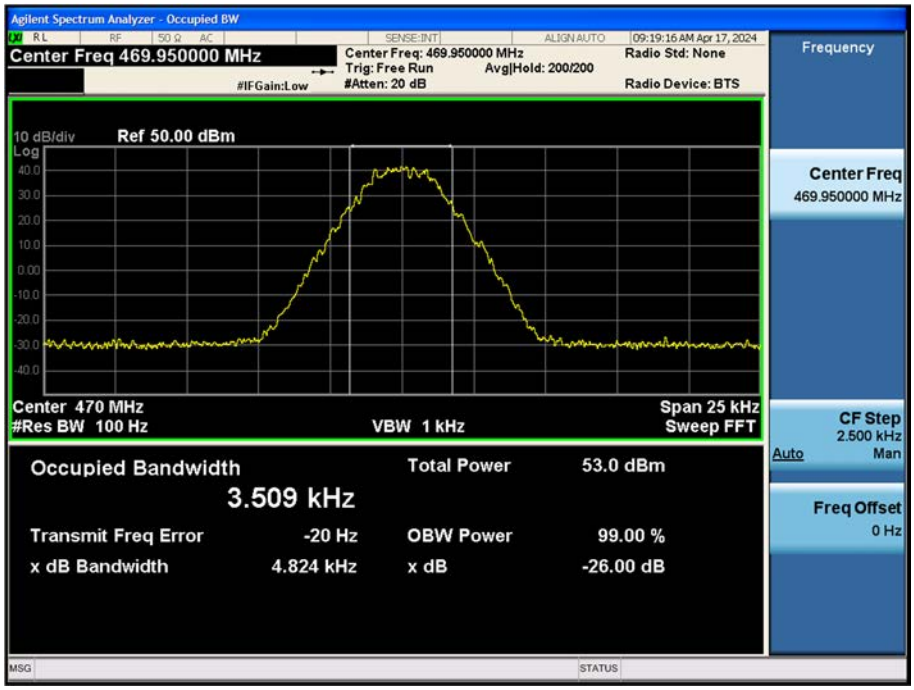
(406.15 MHz)_High



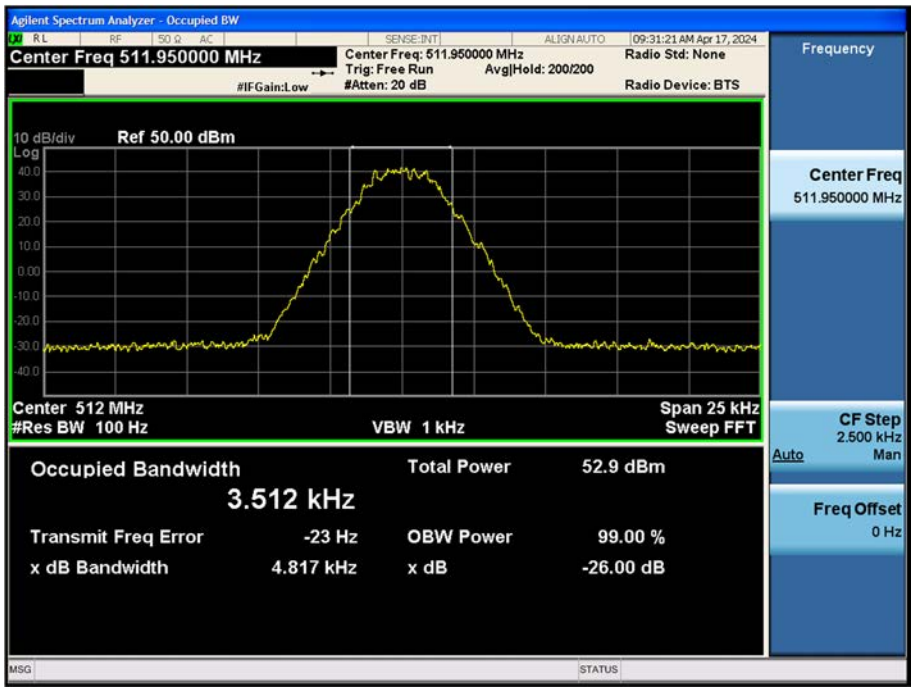
(429.95 MHz)_High



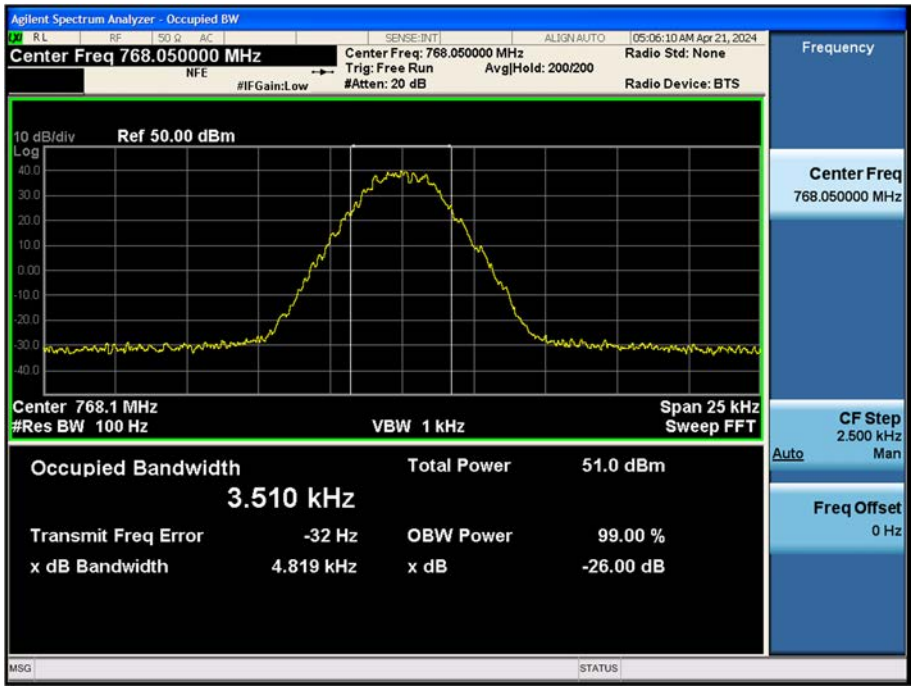
(469.95 MHz)_High



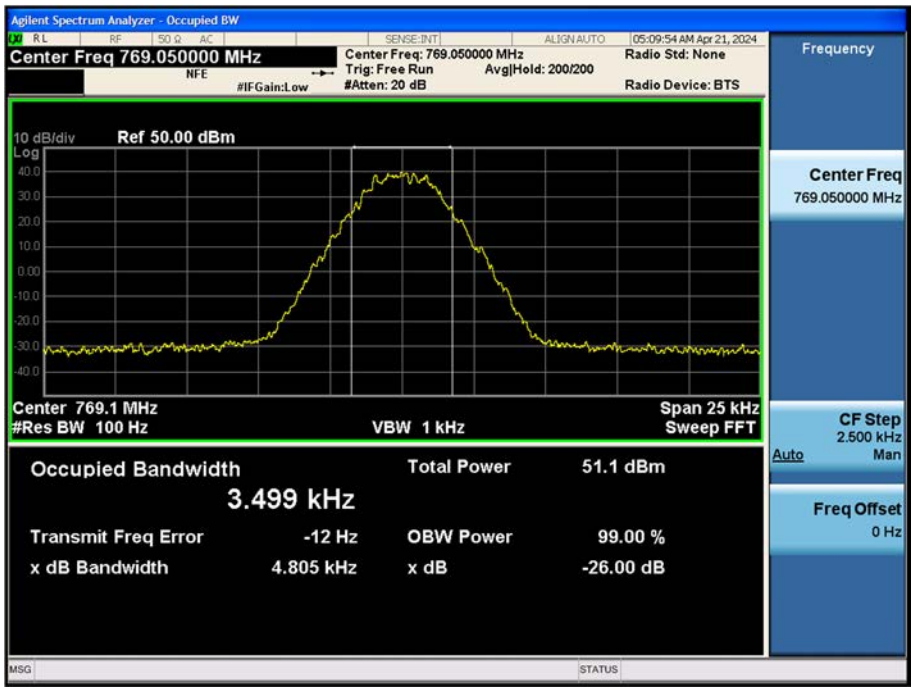
(511.95 MHz)_High



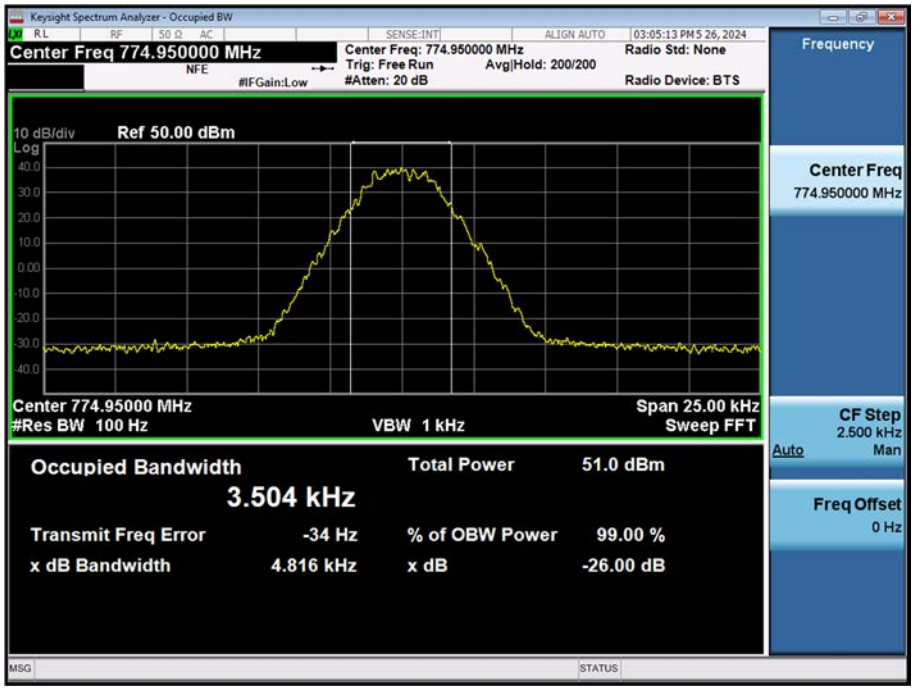
(768.05 MHz)_High



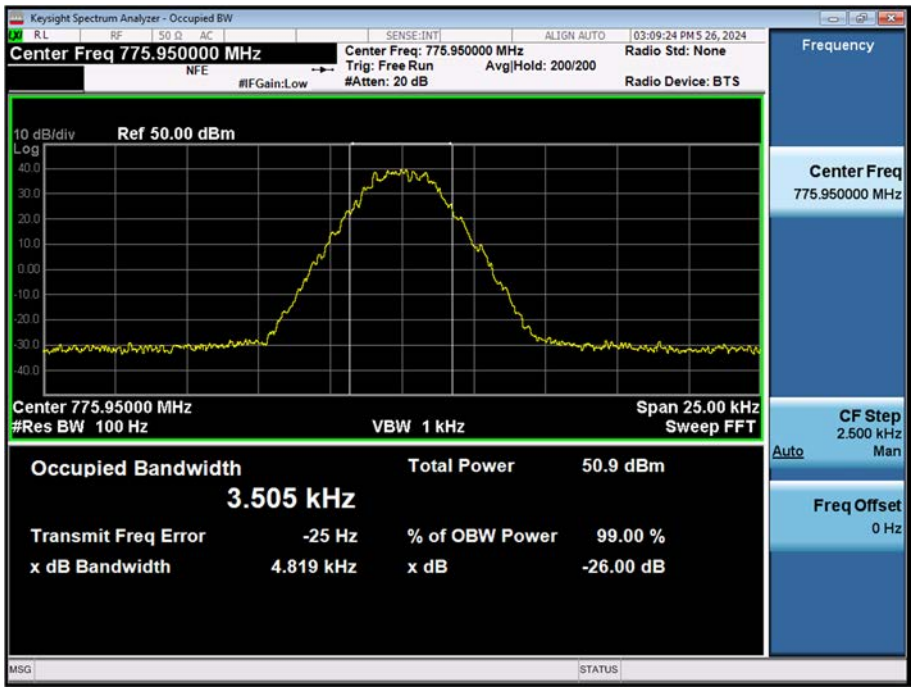
(769.05 MHz)_High



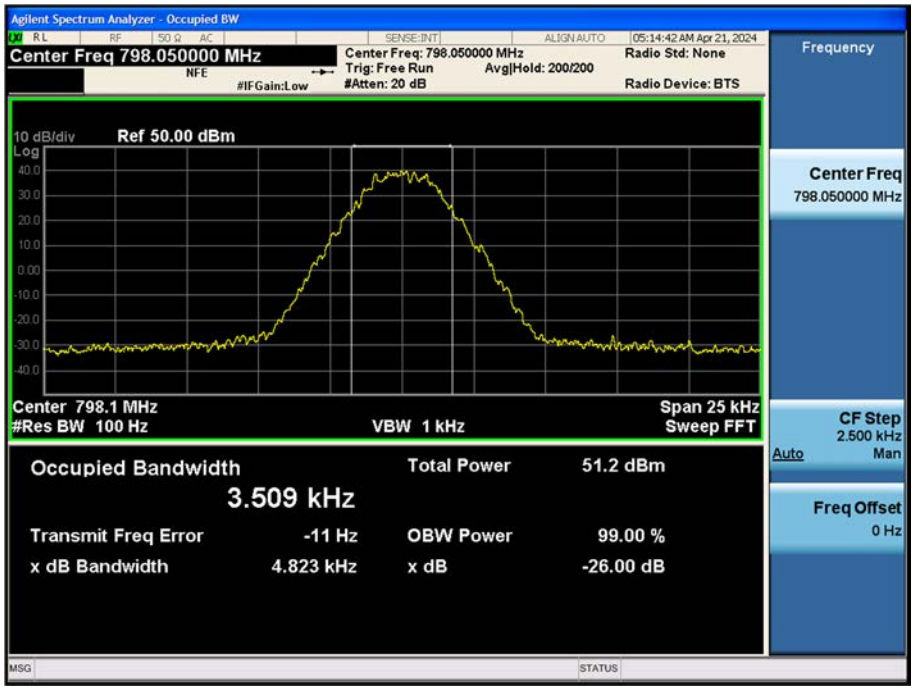
(774.95 MHz)_High



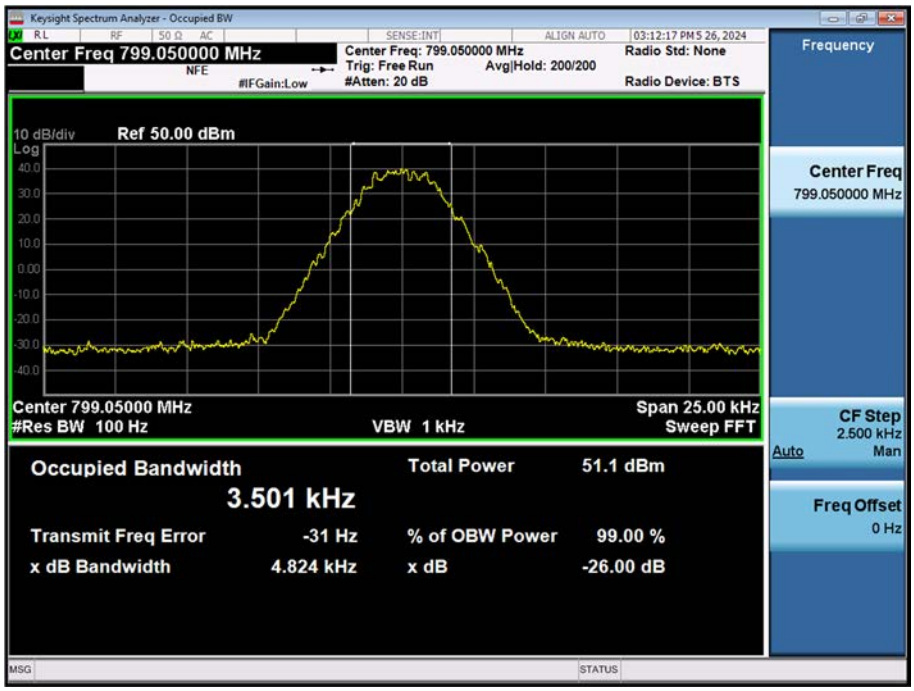
(775.95 MHz)_High



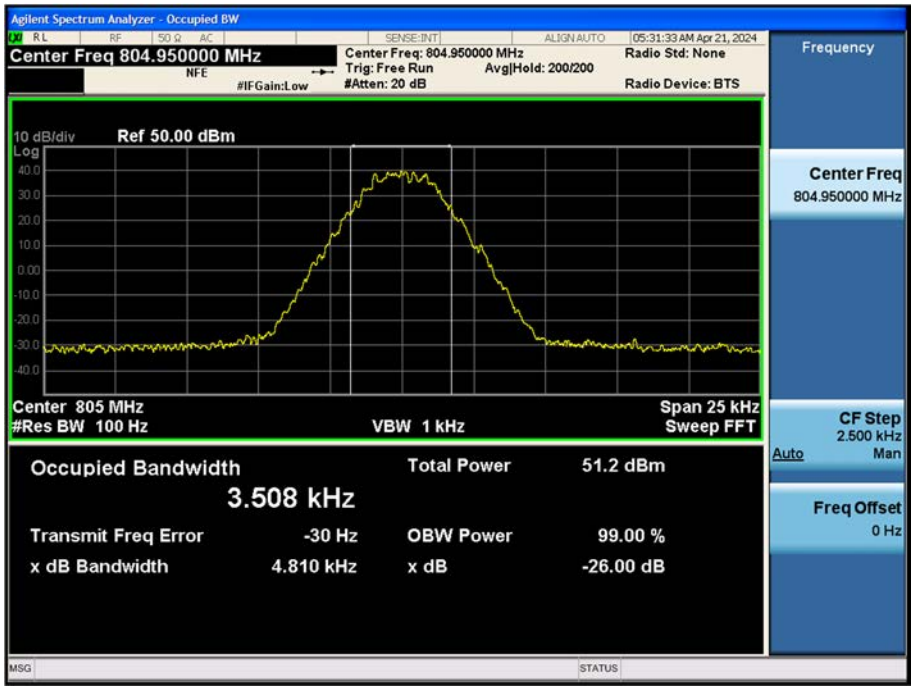
(798.05 MHz)_High



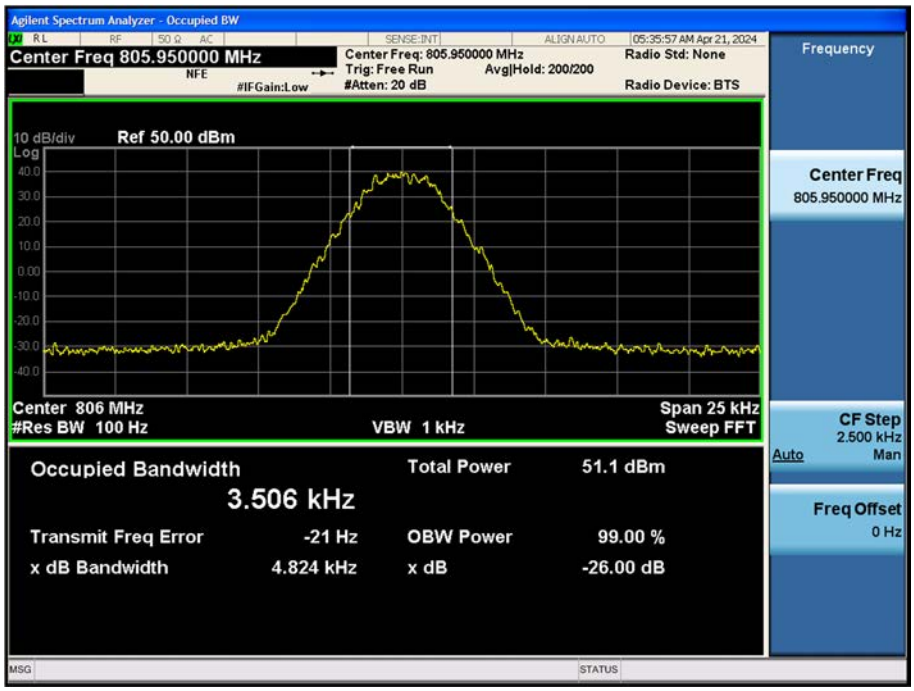
(799.05 MHz)_High



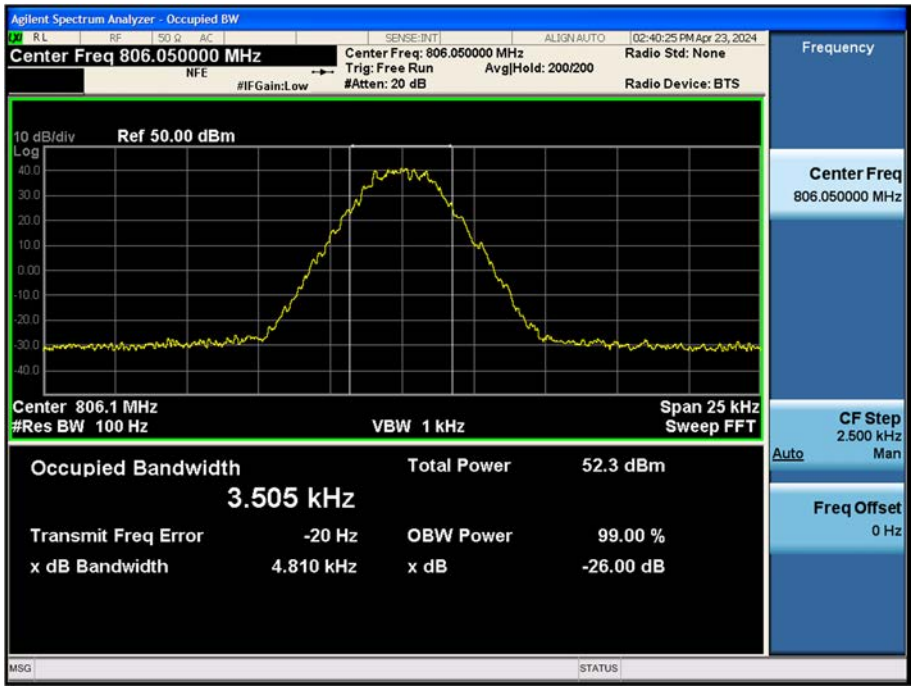
(804.95 MHz)_High



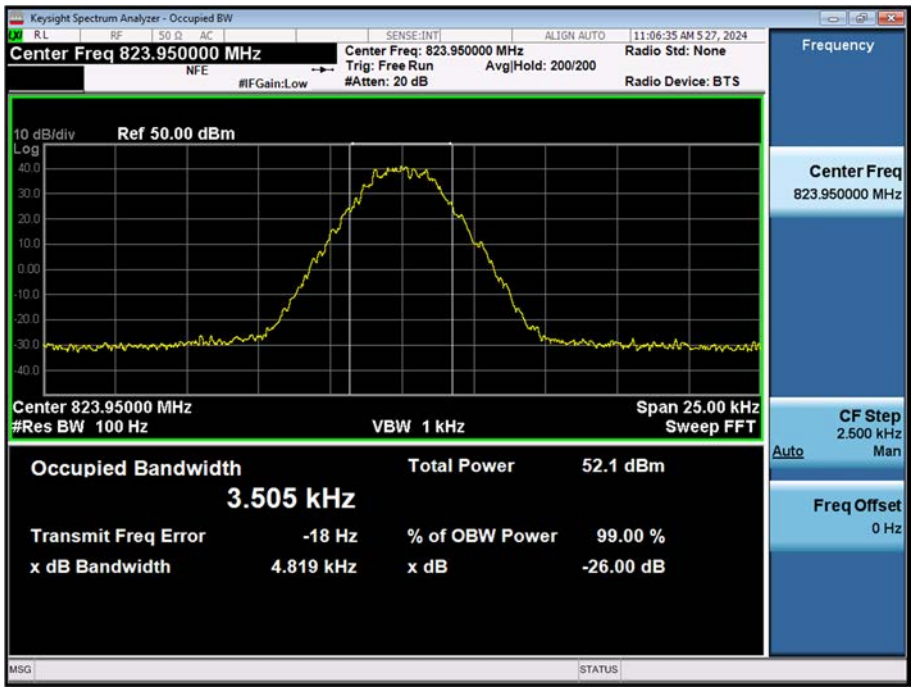
(805.95 MHz)_High



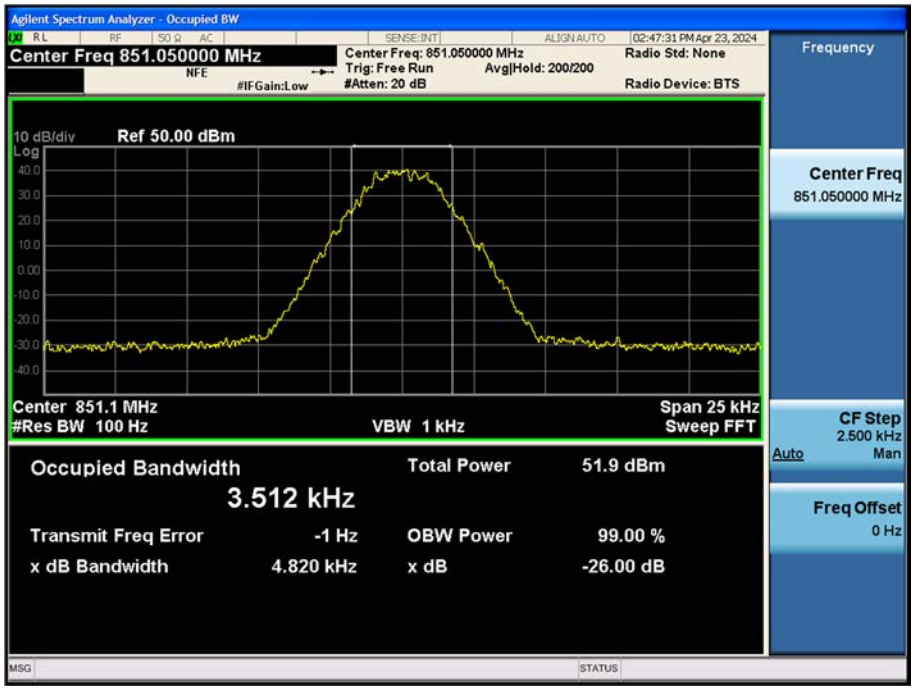
(806.05 MHz)_High



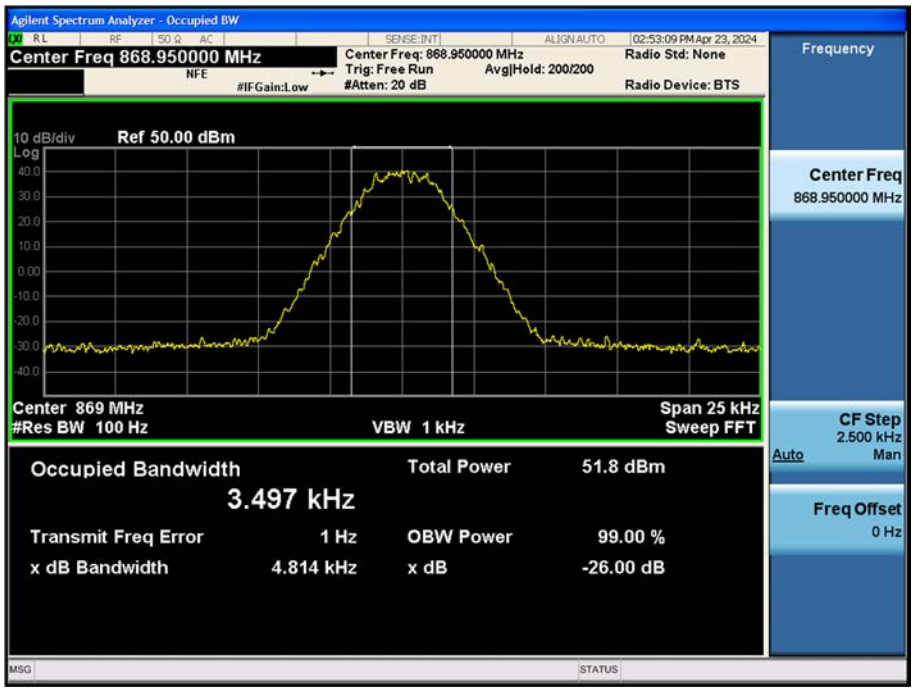
(823.95 MHz)_High



(851.05 MHz)_High



(868.95 MHz)_High

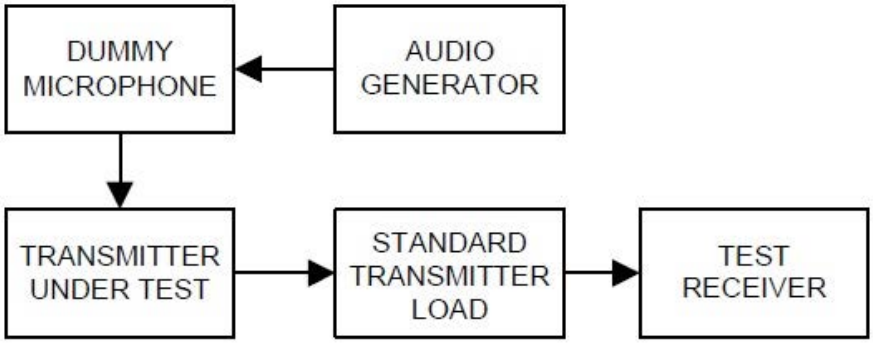


8.4 Modulation Limiting

▣ Definition

Modulation limiting is the transmitter circuit's ability to limit the transmitter from producing deviations in excess of a rated system deviation.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.3 in TIA-603-E Standard.

a) Connect the equipment as illustrated.

b) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.

c) Set the test receiver to measure Peak positive deviation.
Set the audio bandwidth for ≤0.25 Hz to ≥15,000 Hz.
Turn the de-emphasis function off.

d) Apply a 1000 Hz modulating signal to the transmitter from the audio frequency generator, and adjust the level obtain 60% of full rated system deviation.

e) Increase the level form the audio frequency generator by 20 dB in one step(rise time between the 10% and 90% points shall be 0.1 second maximum).

f) Measure both the instantaneous and steady-state deviation at and after the time of increasing the audio input level.

g) With the level from the audio frequency generator held constant at the level obtained in step e), Slowly vary the audio frequency from 300 Hz to 3000 Hz and observe the steady-state deviation. Record the maximum deviation.

h) Set the test receiver to measure Peak negative deviation and repeat steps d) through g).

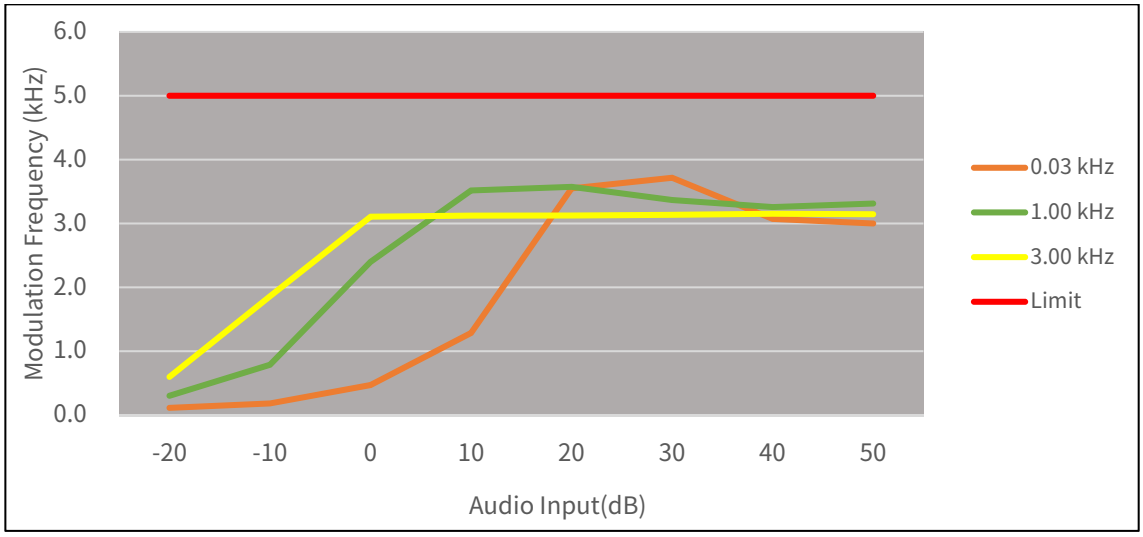
i) The values recorded in steps g) and h) are the modulation limiting.

▣ TEST RESULTS (Type of emission: 16K0F3E)

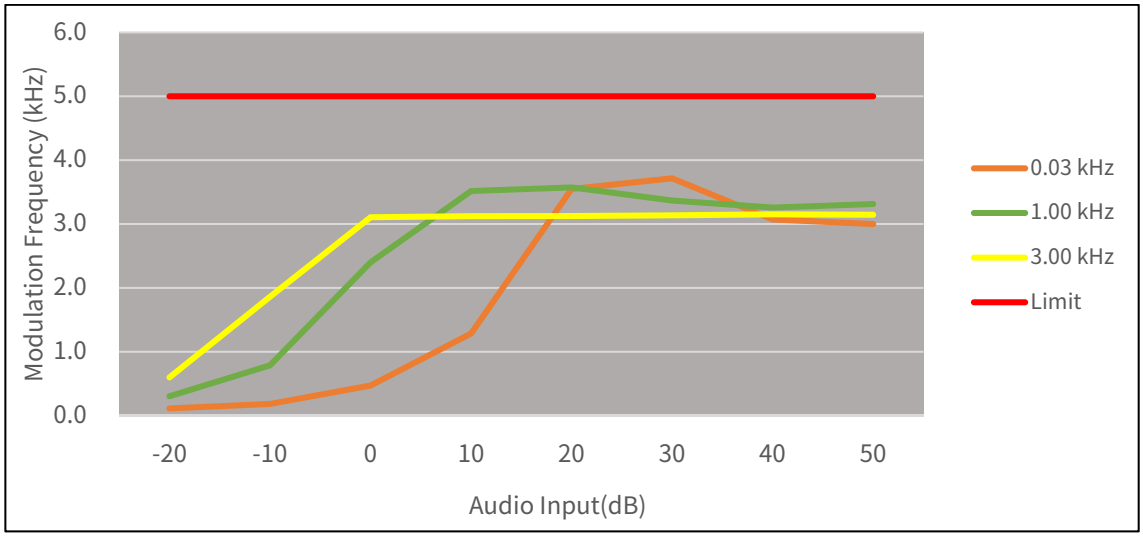
Positive Peaks

HIGH POWER

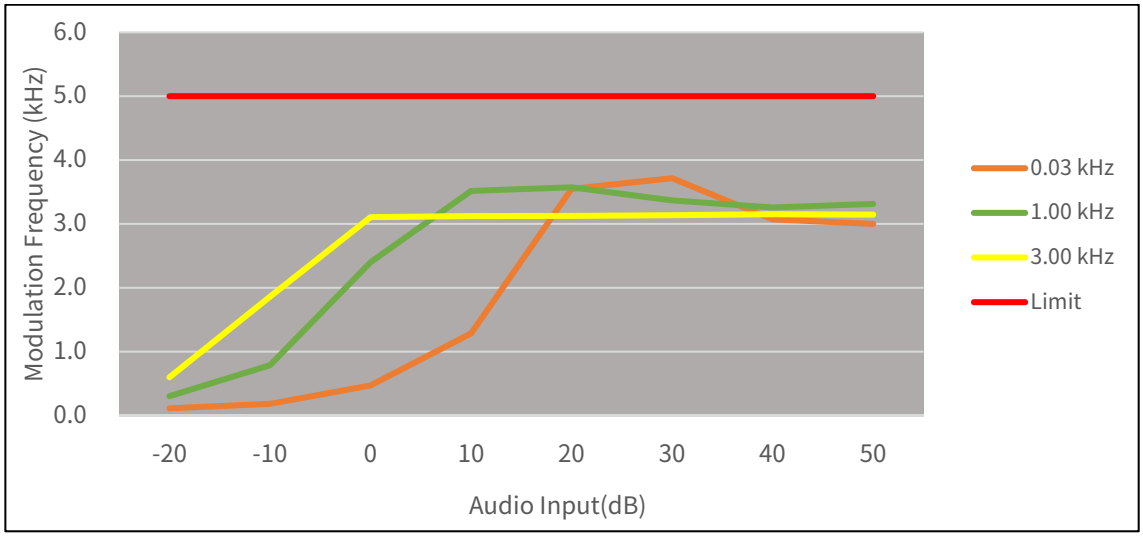
138.05 MHz



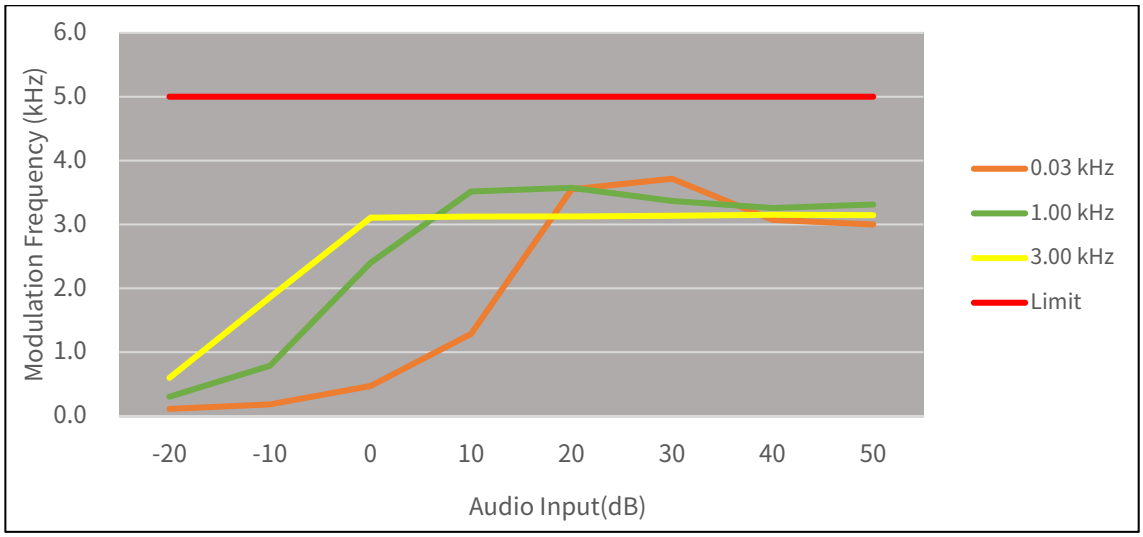
150.05 MHz



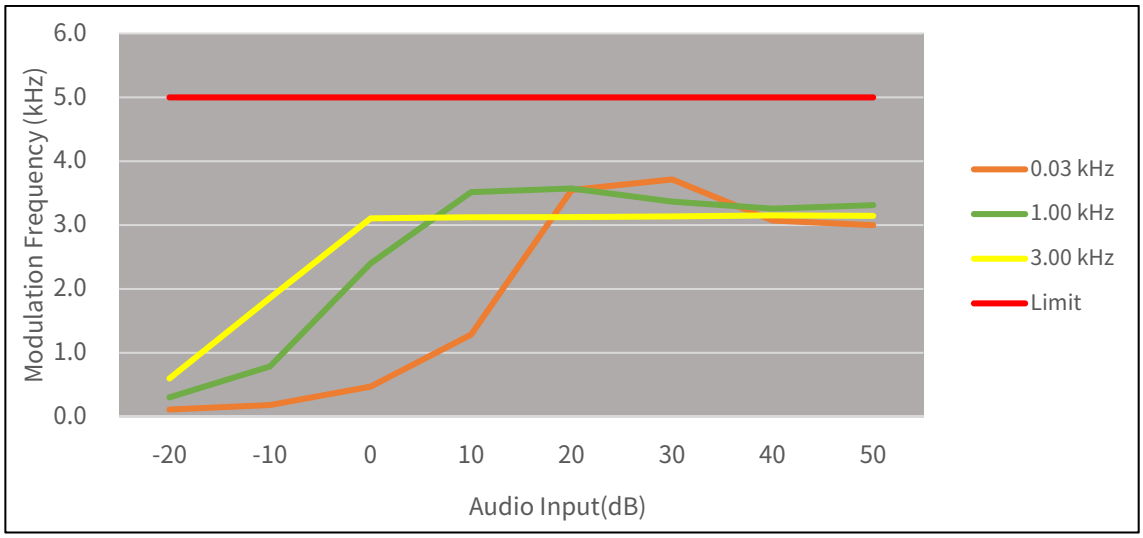
162.05 MHz



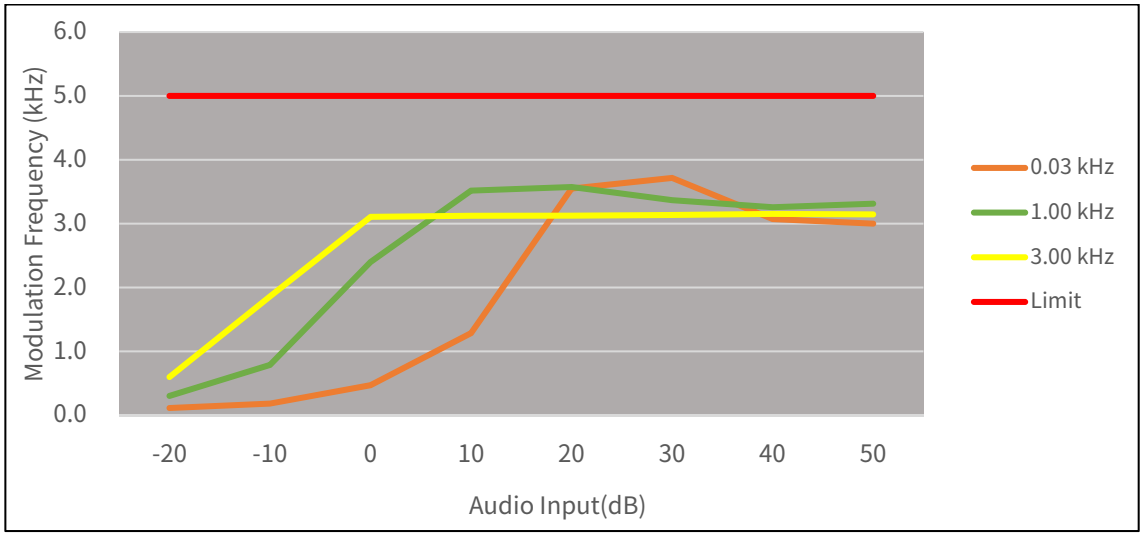
173.95 MHz



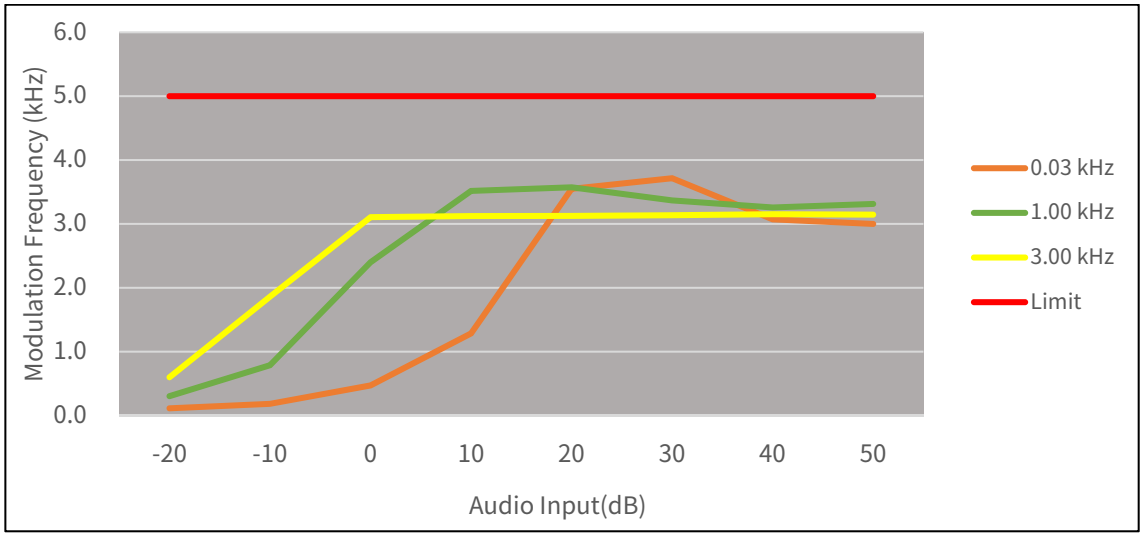
406.15 MHz



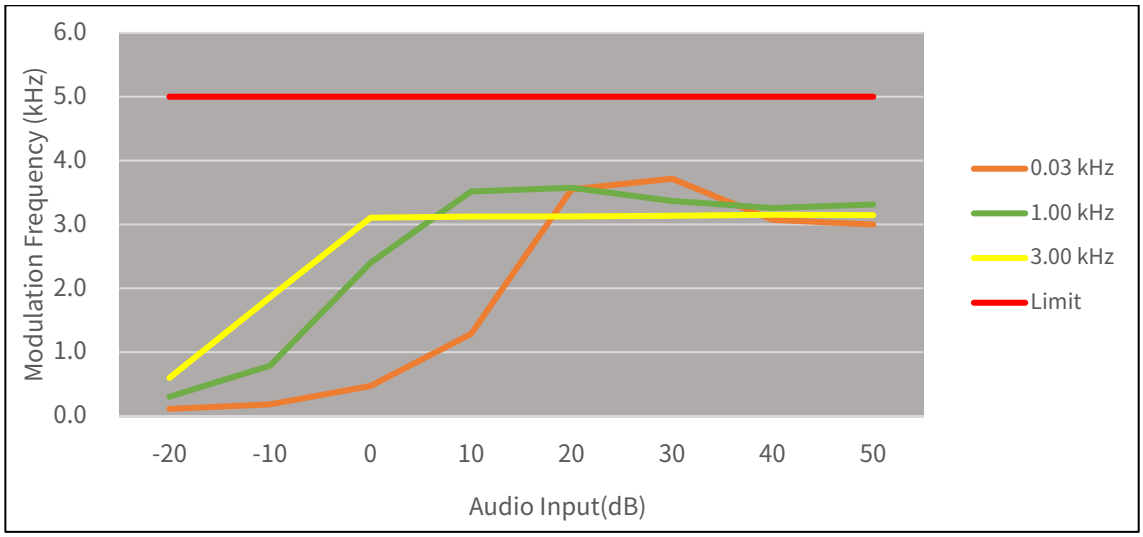
429.95 MHz



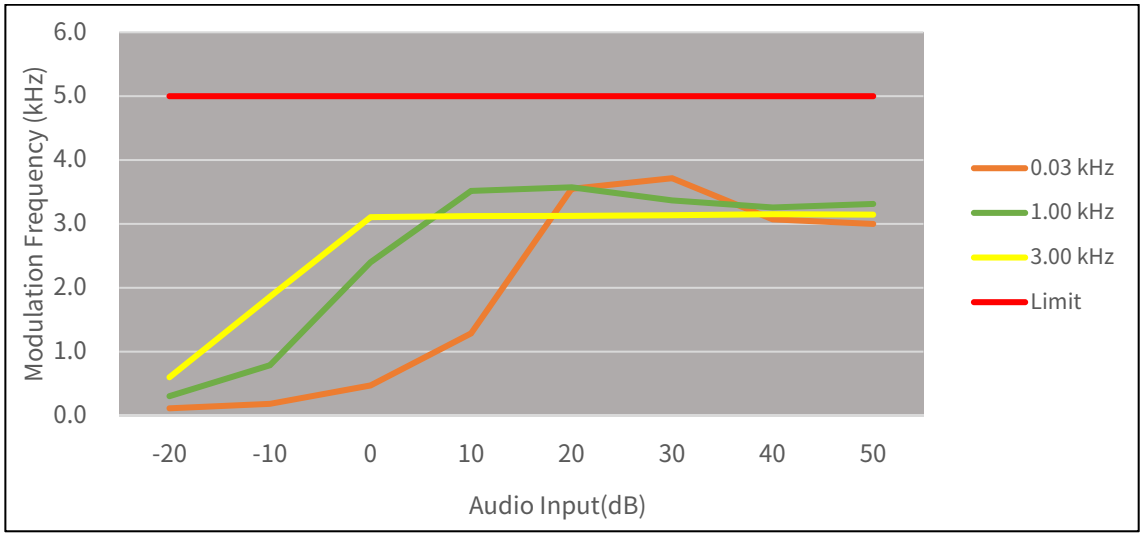
469.95 MHz



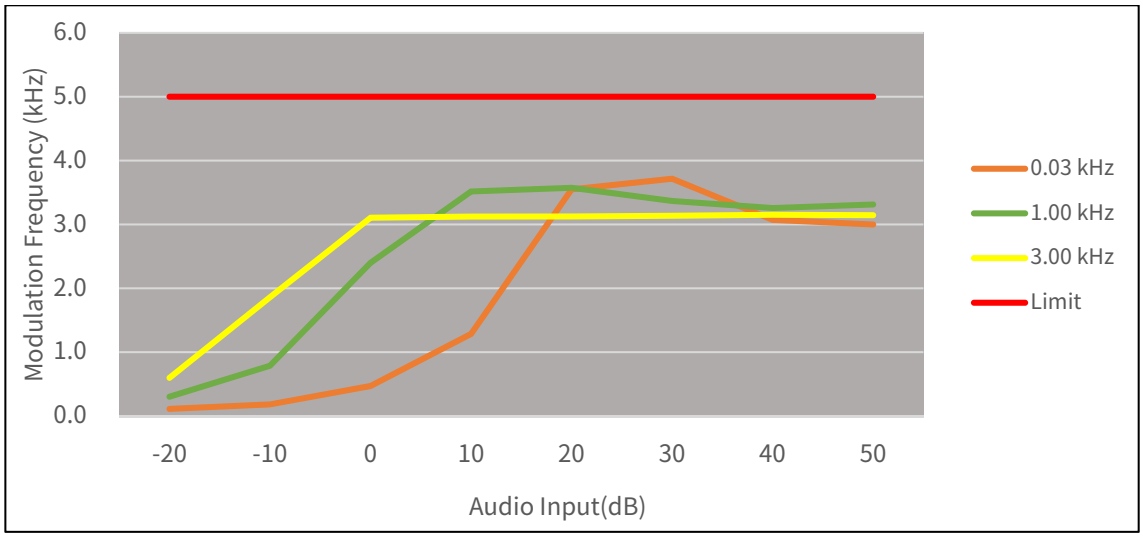
470.05 MHz



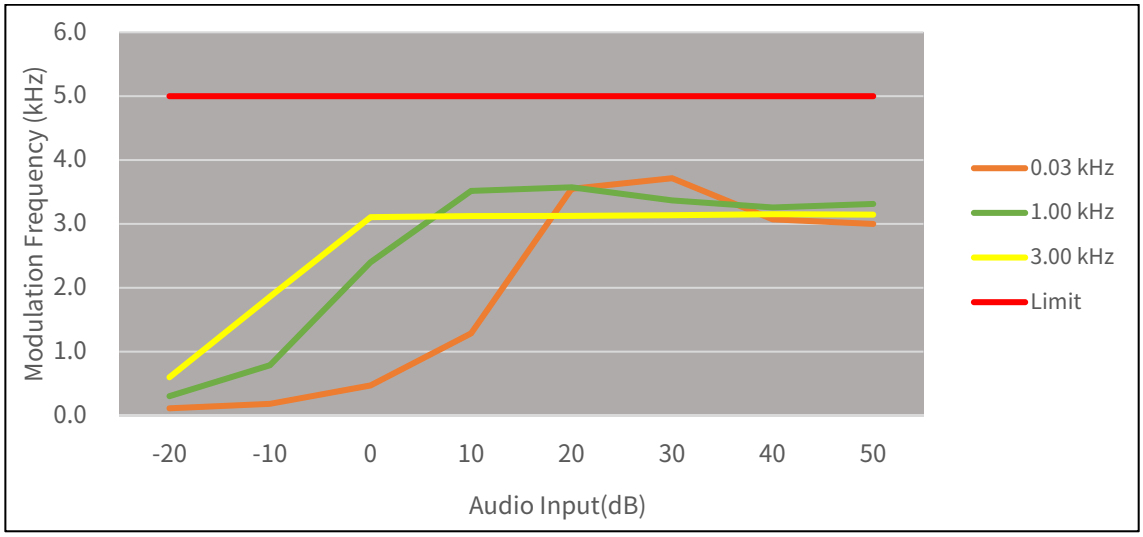
495.05 MHz



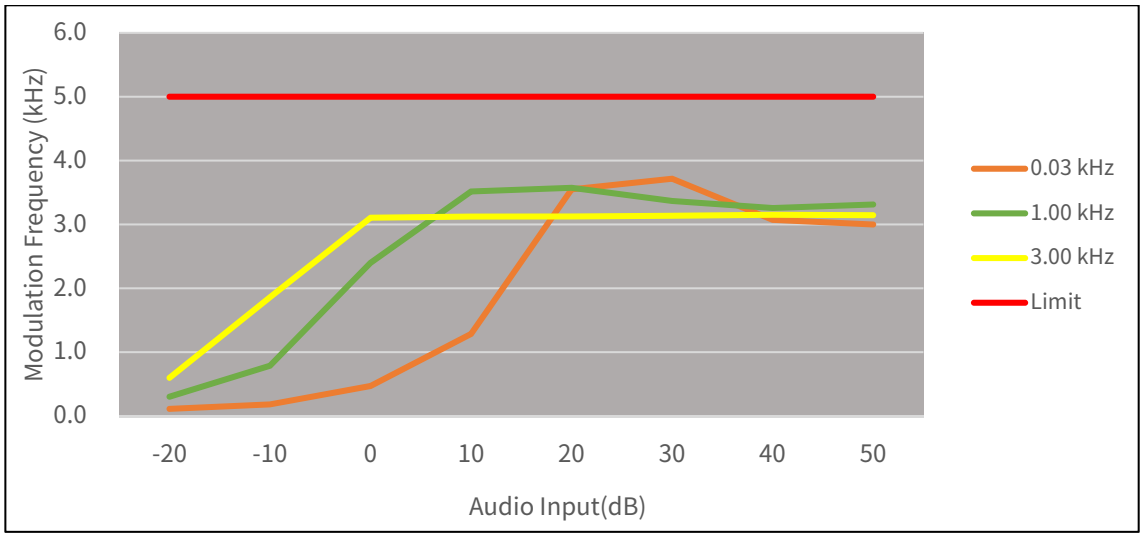
511.95 MHz



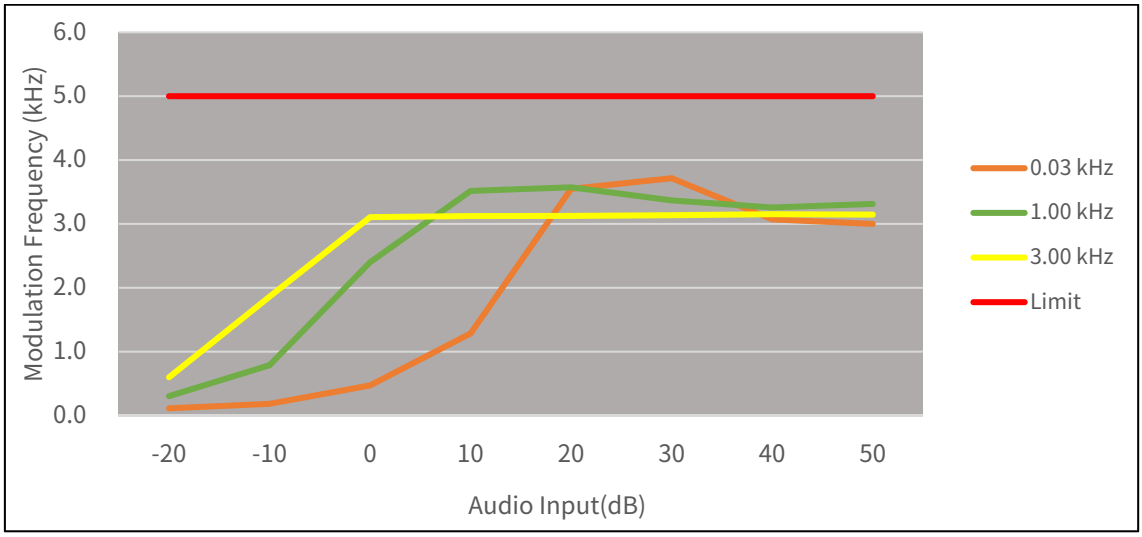
768.05 MHz



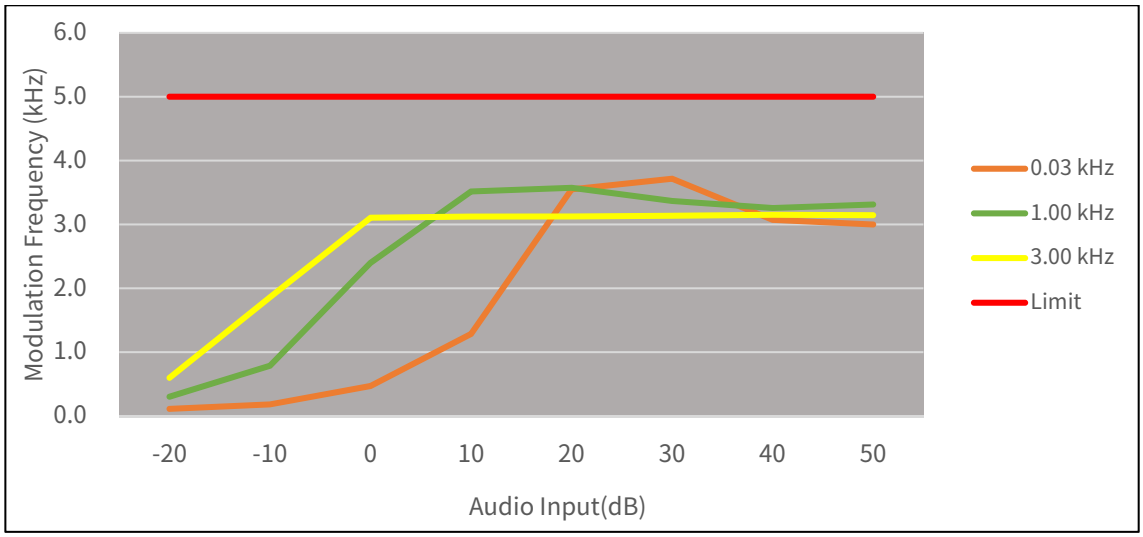
769.05 MHz



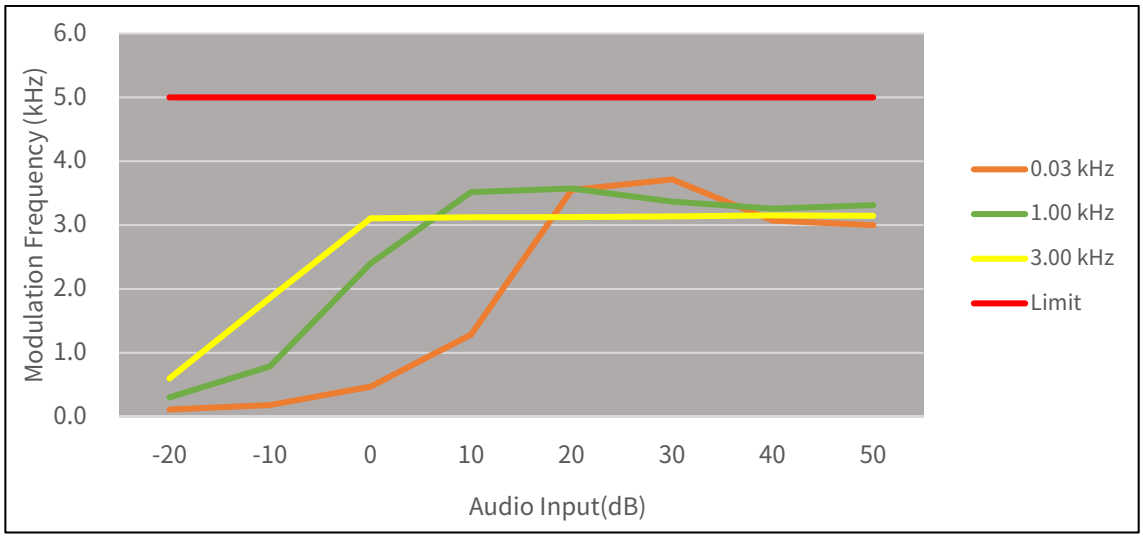
798.05 MHz



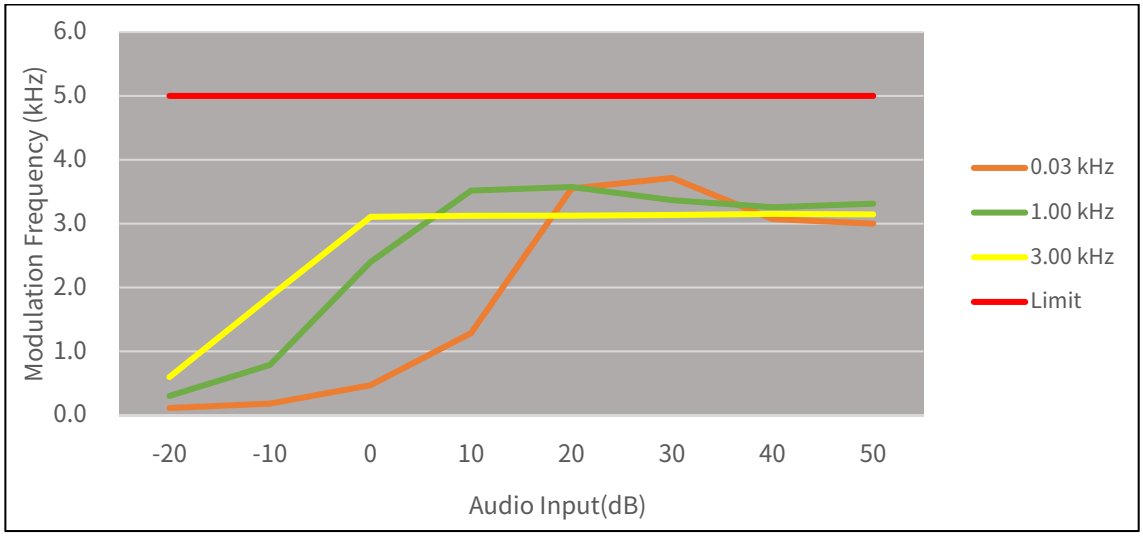
774.95 MHz



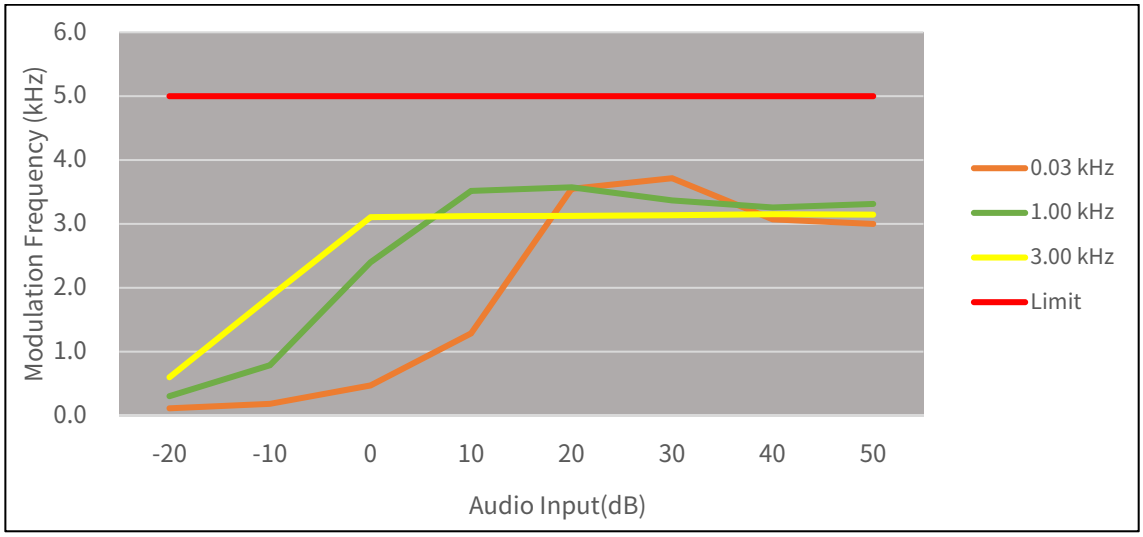
775.95 MHz



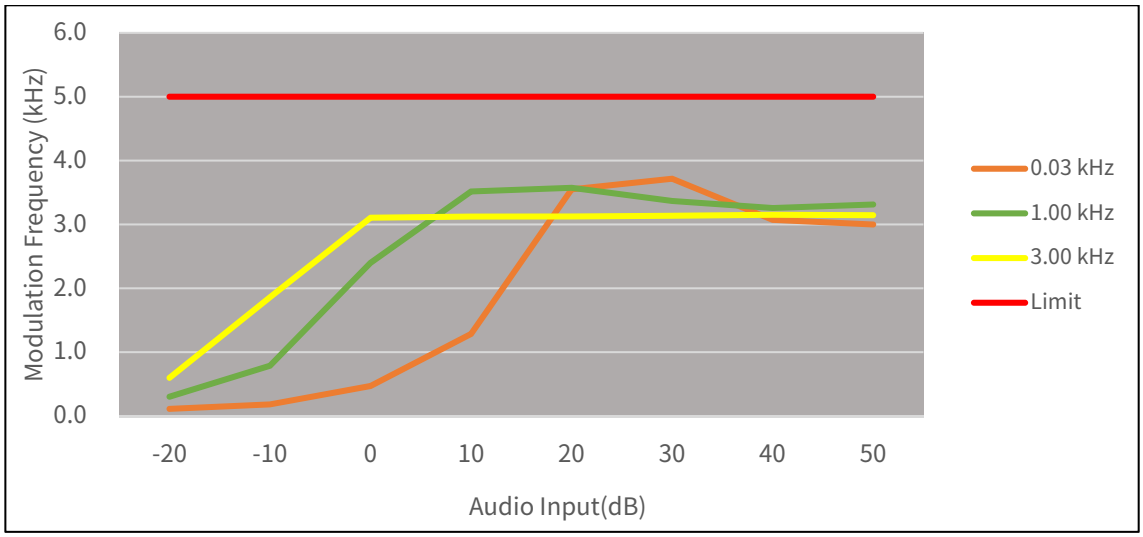
799.05 MHz



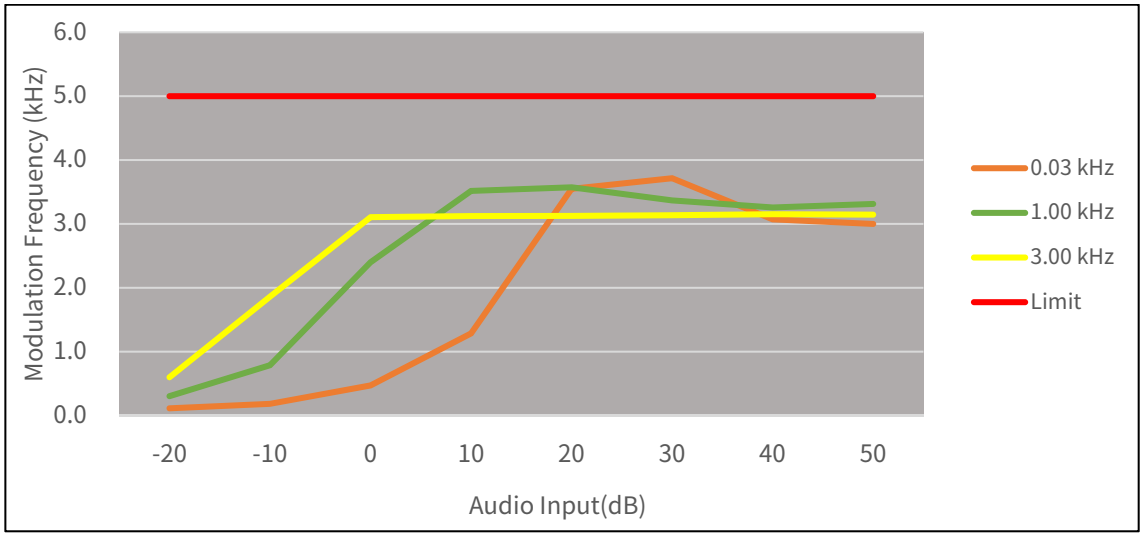
804.95 MHz



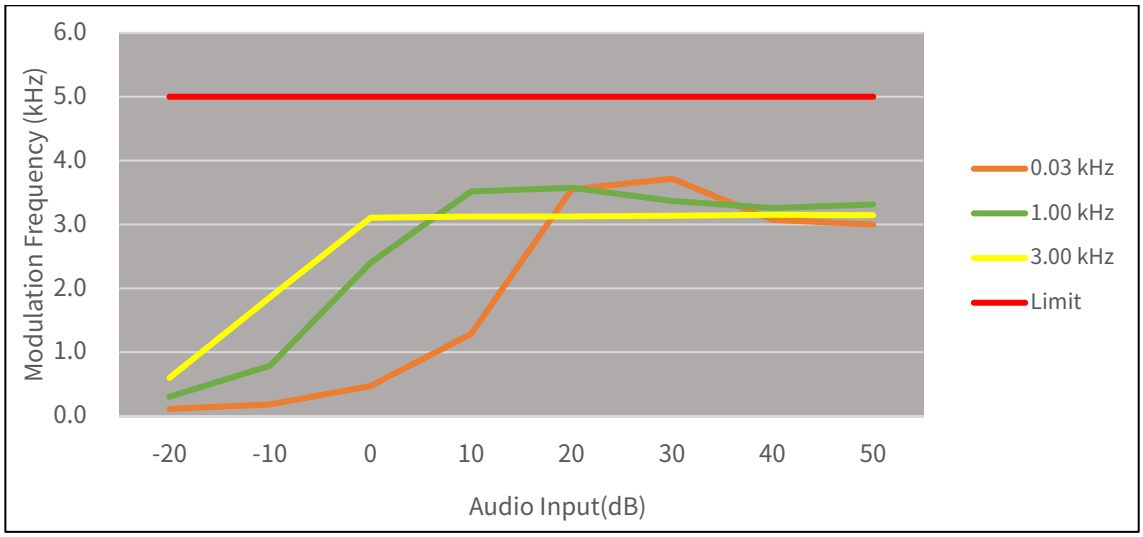
805.95 MHz



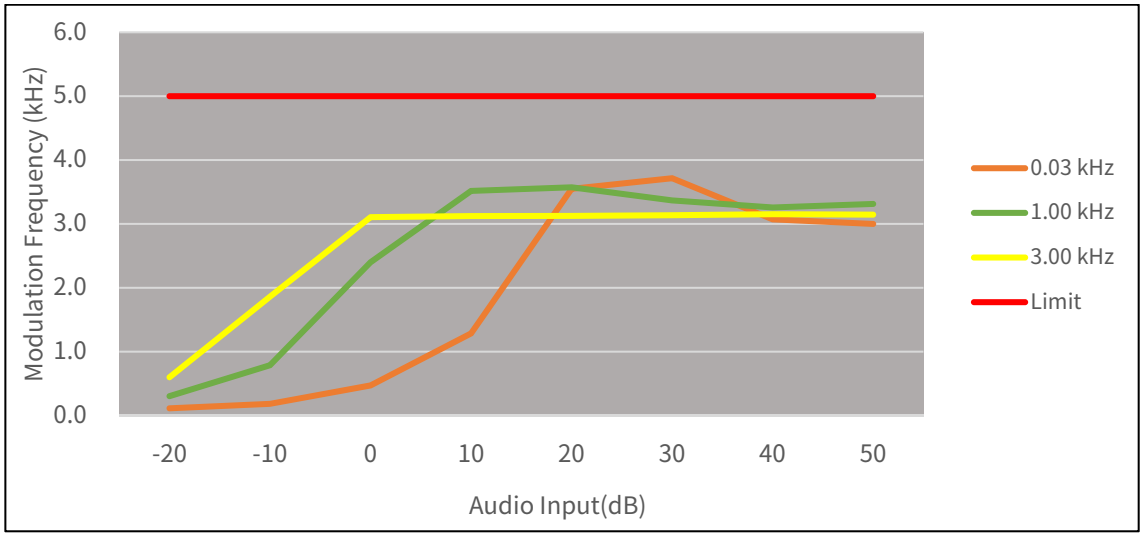
806.05 MHz



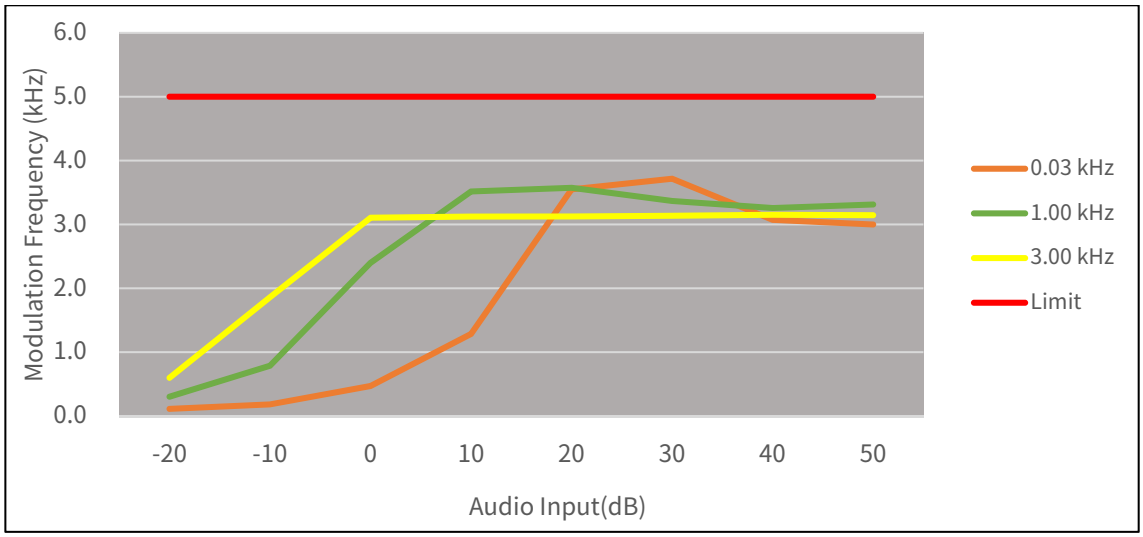
823.95 MHz



851.05 MHz



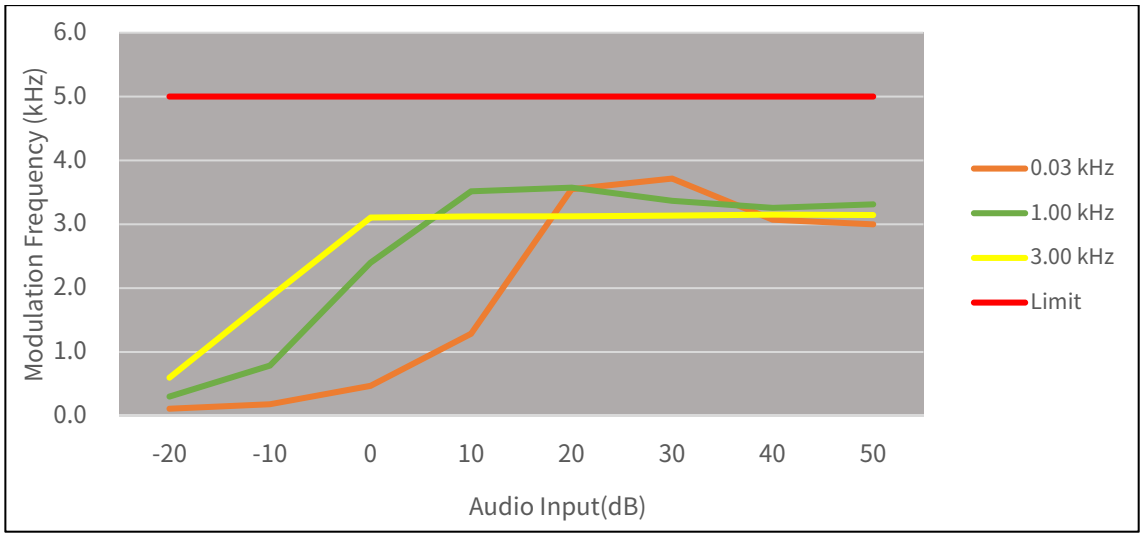
868.95 MHz



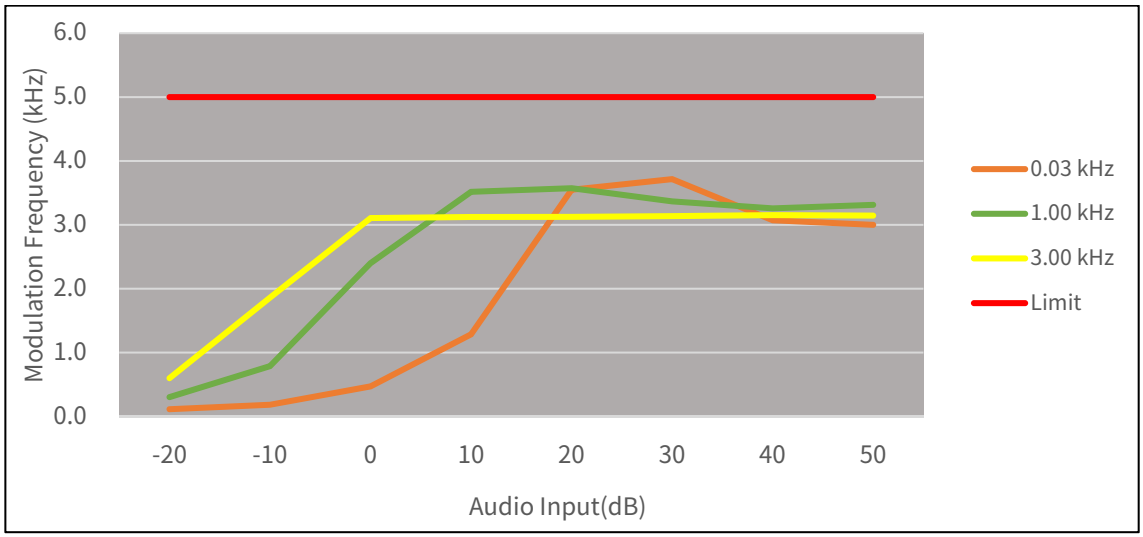
Negative Peaks

HIGH POWER

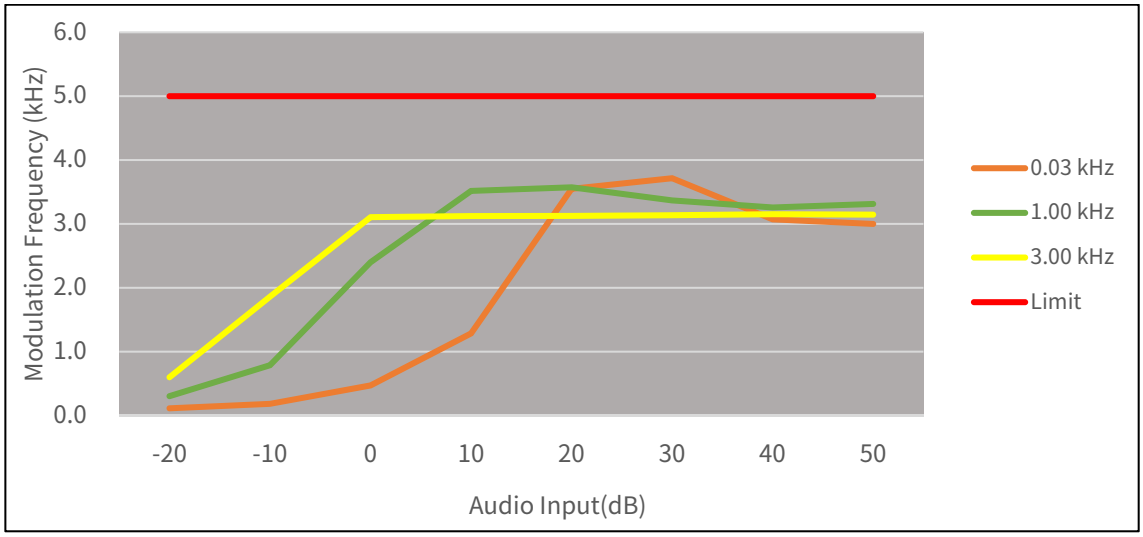
138.05 MHz



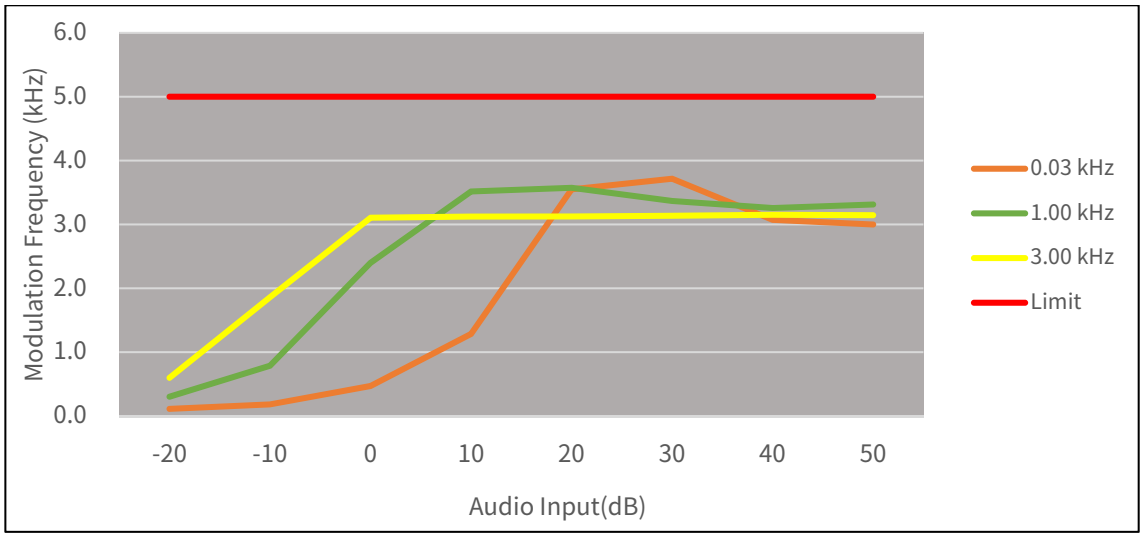
150.05 MHz



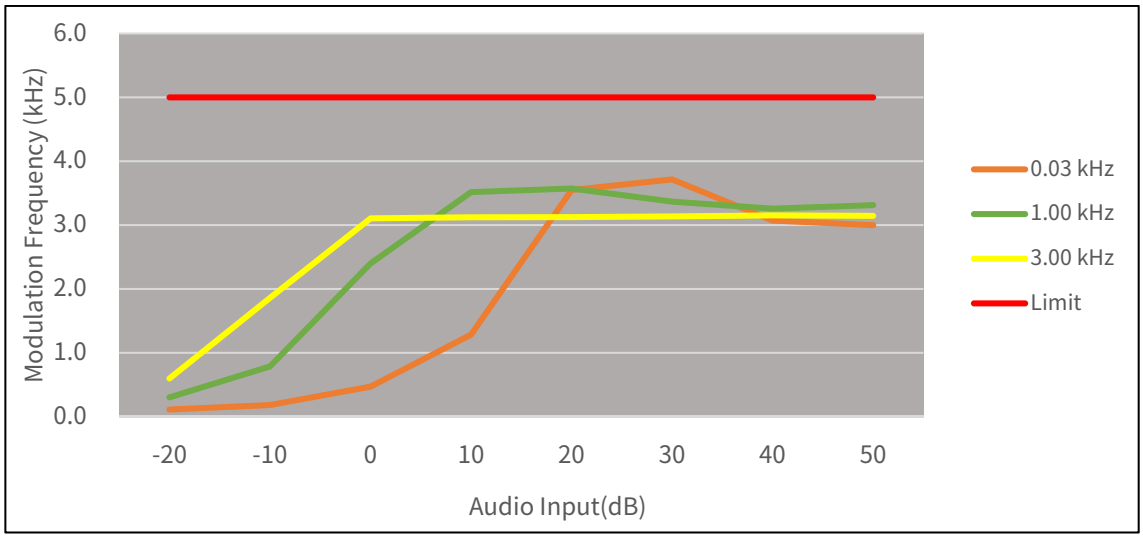
162.05 MHz



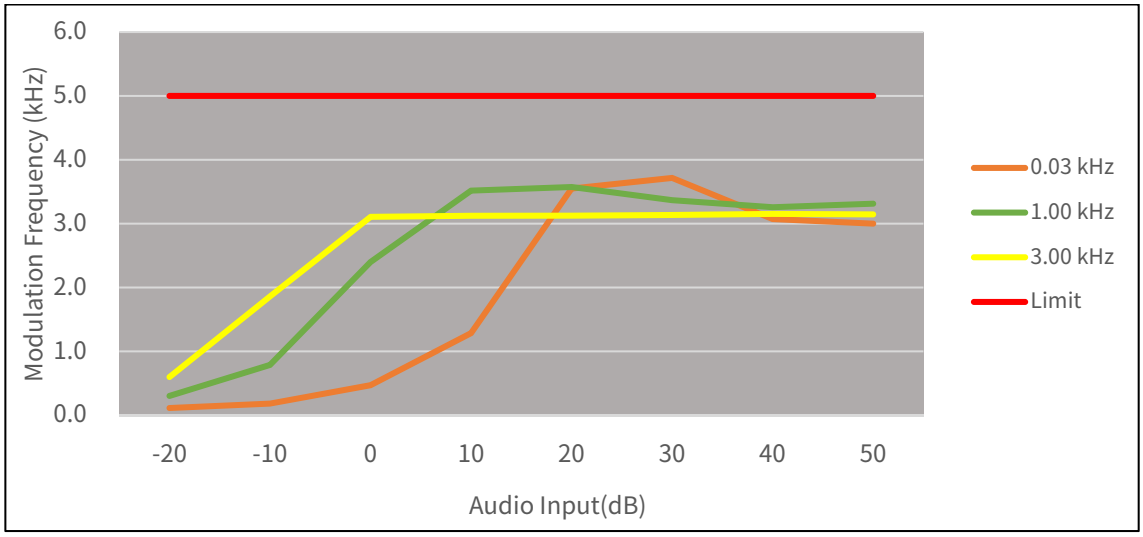
173.95 MHz



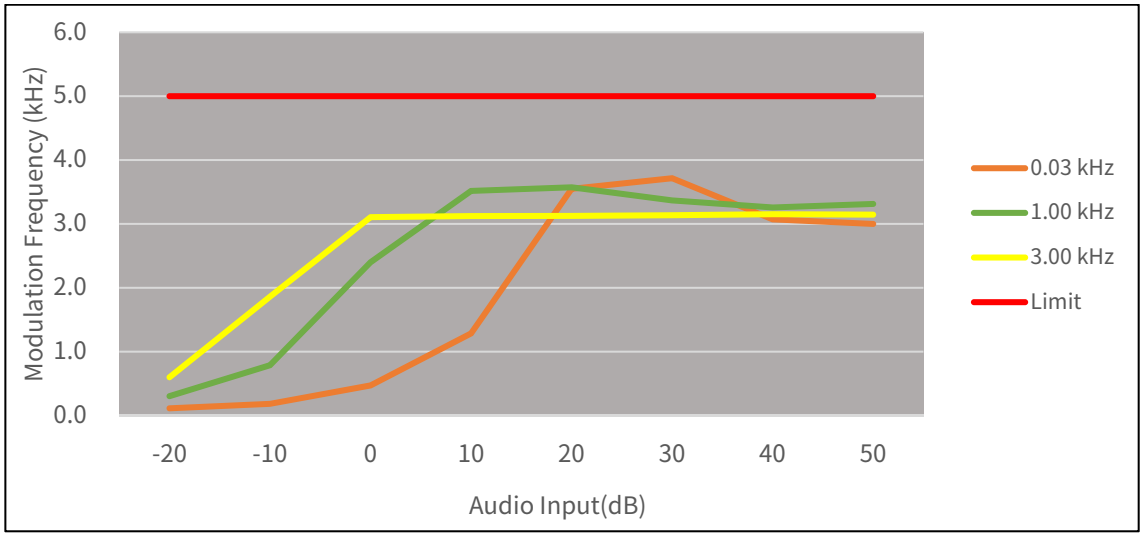
406.15 MHz



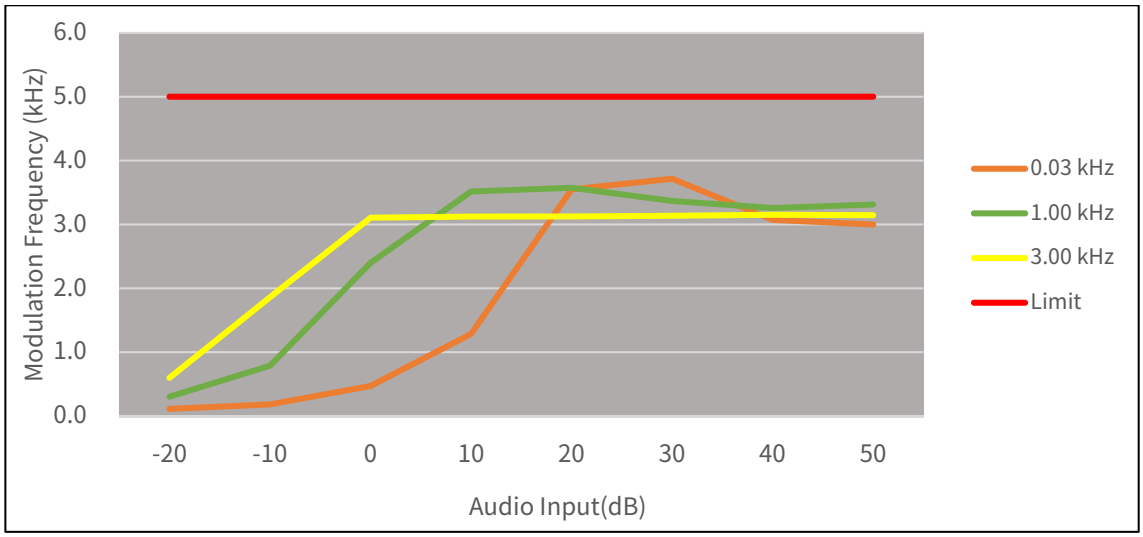
429.95 MHz



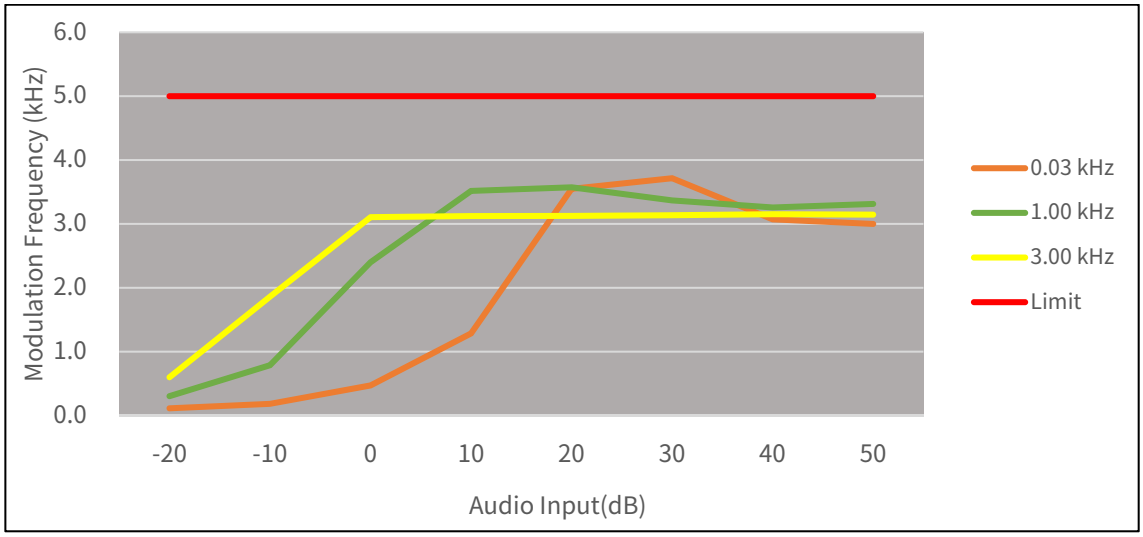
469.95 MHz



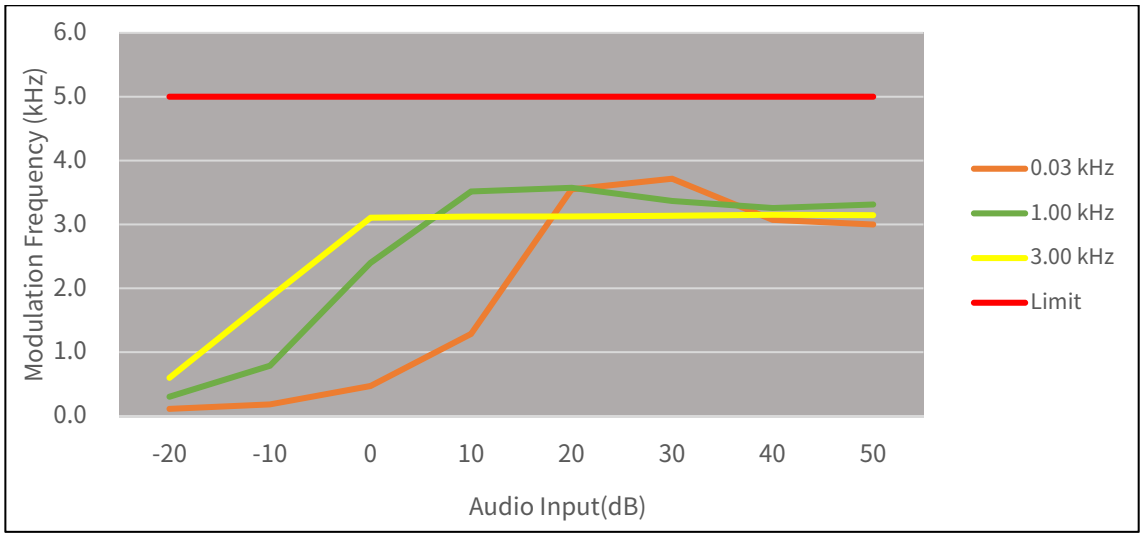
470.05 MHz



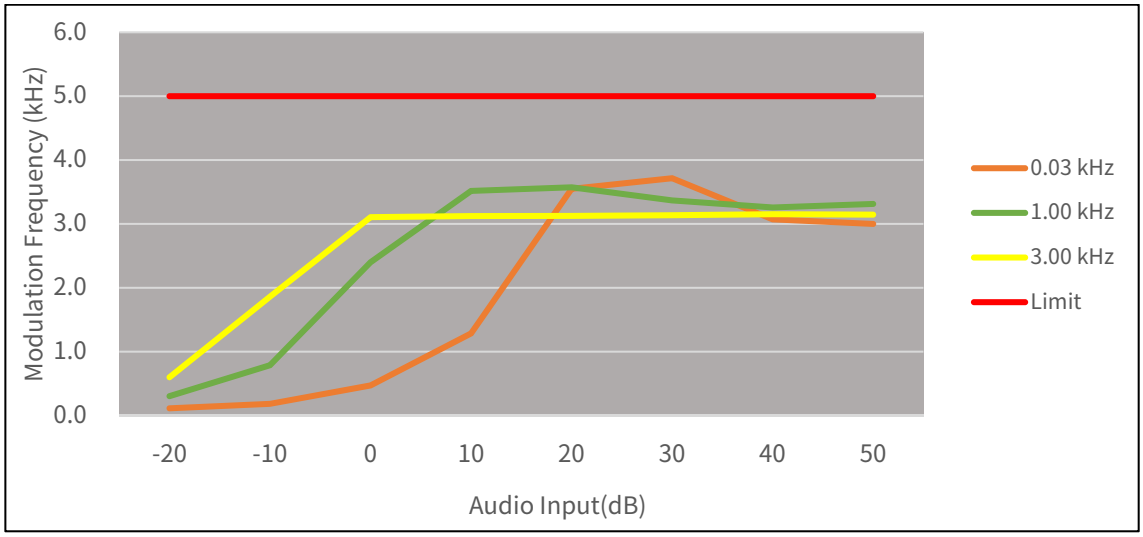
495.05 MHz



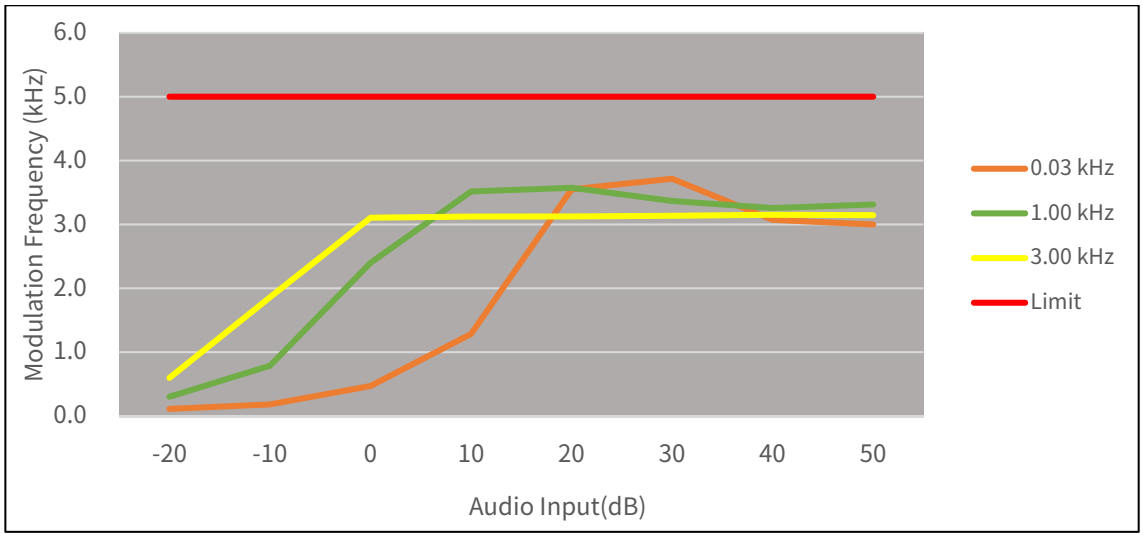
511.95 MHz



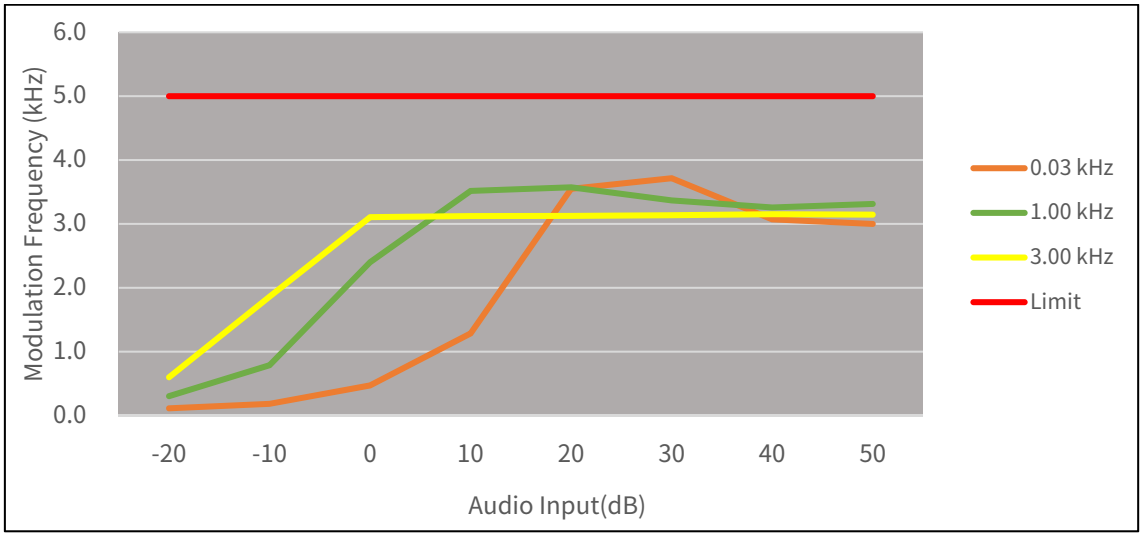
768.05 MHz



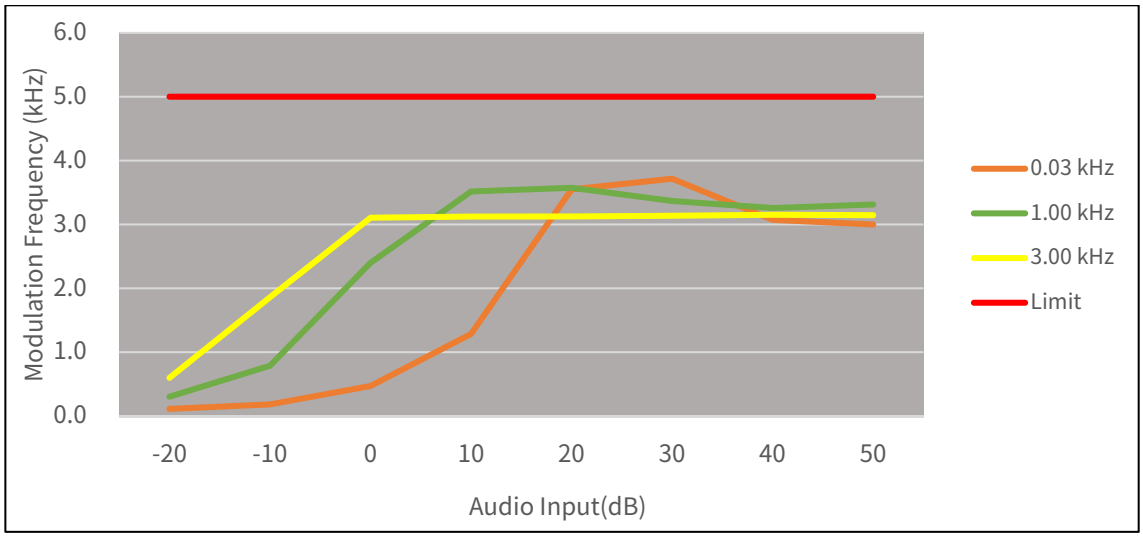
769.05 MHz



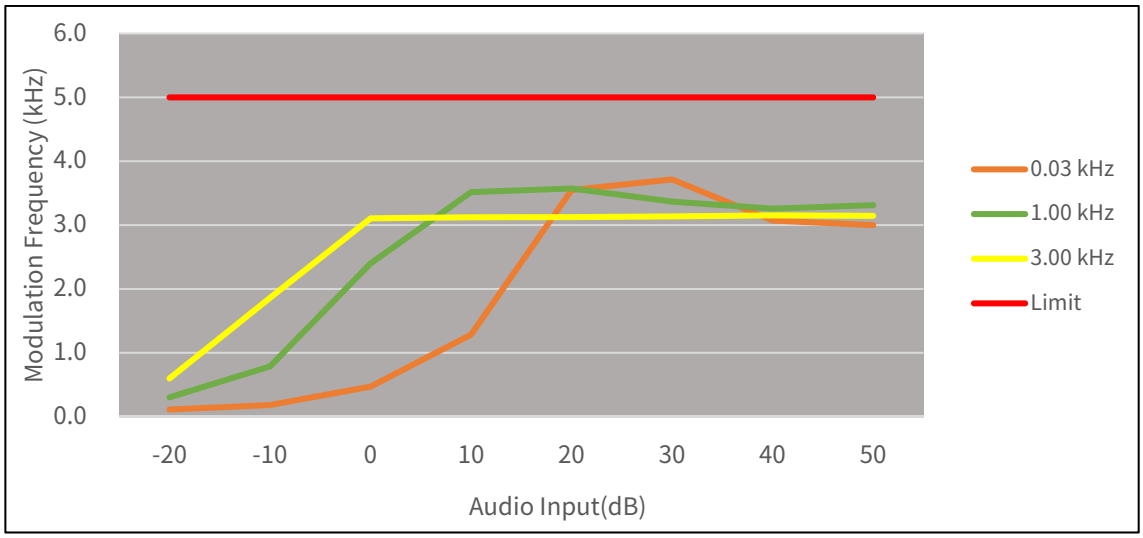
798.05 MHz



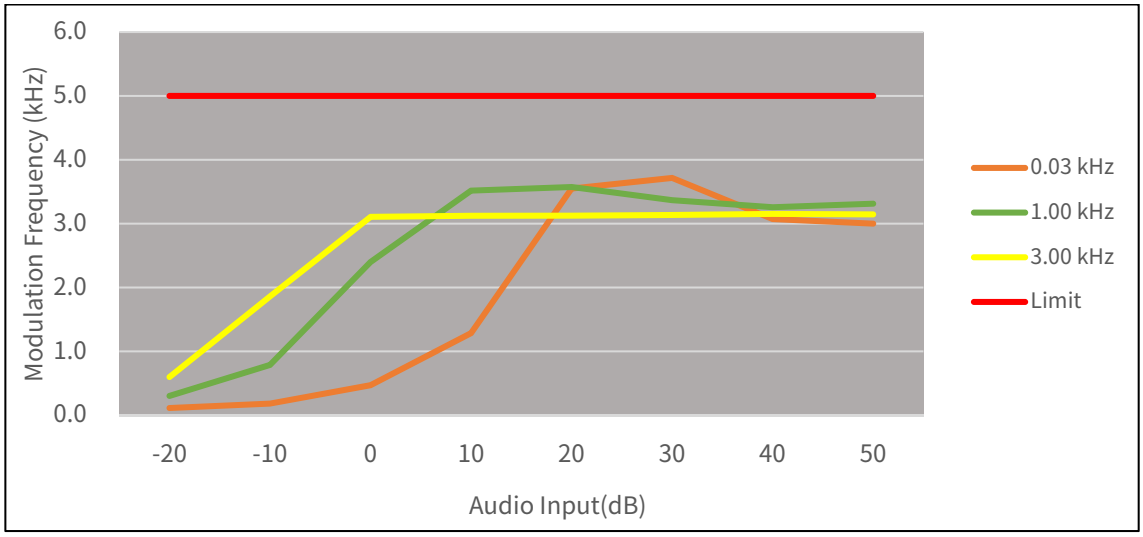
774.95 MHz



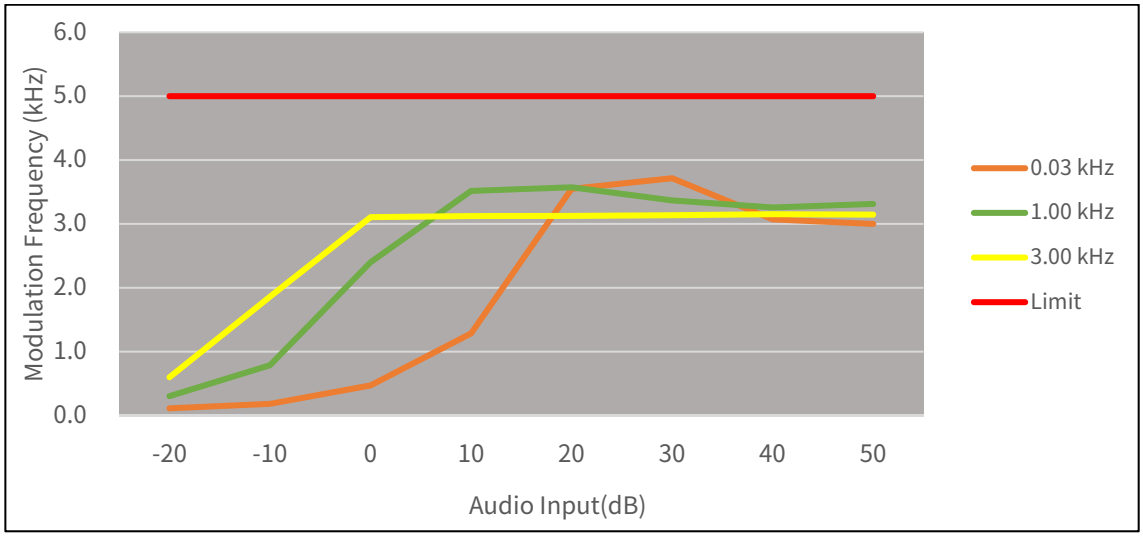
775.95 MHz



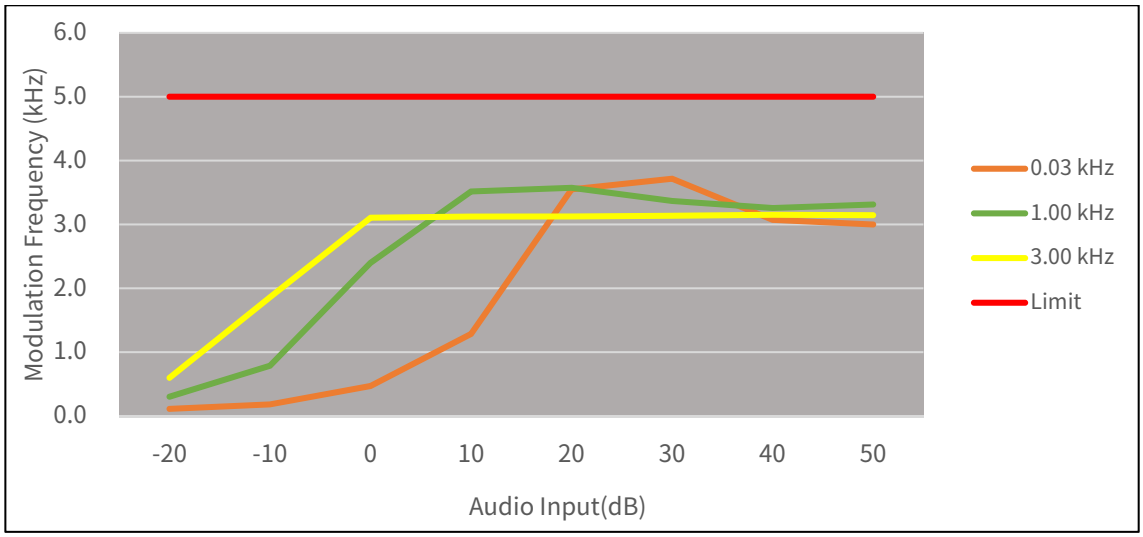
799.05 MHz



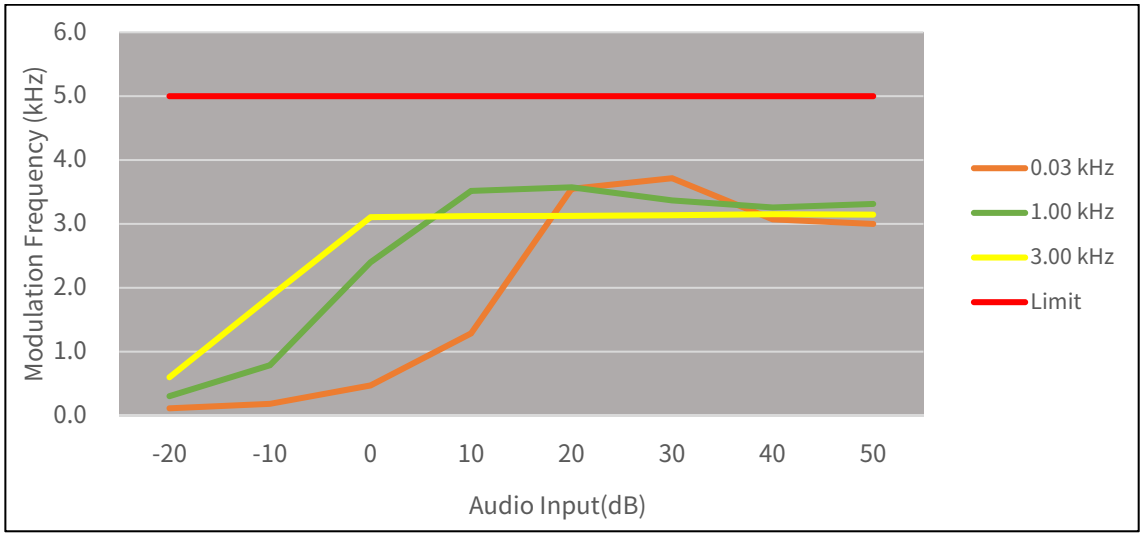
804.95 MHz



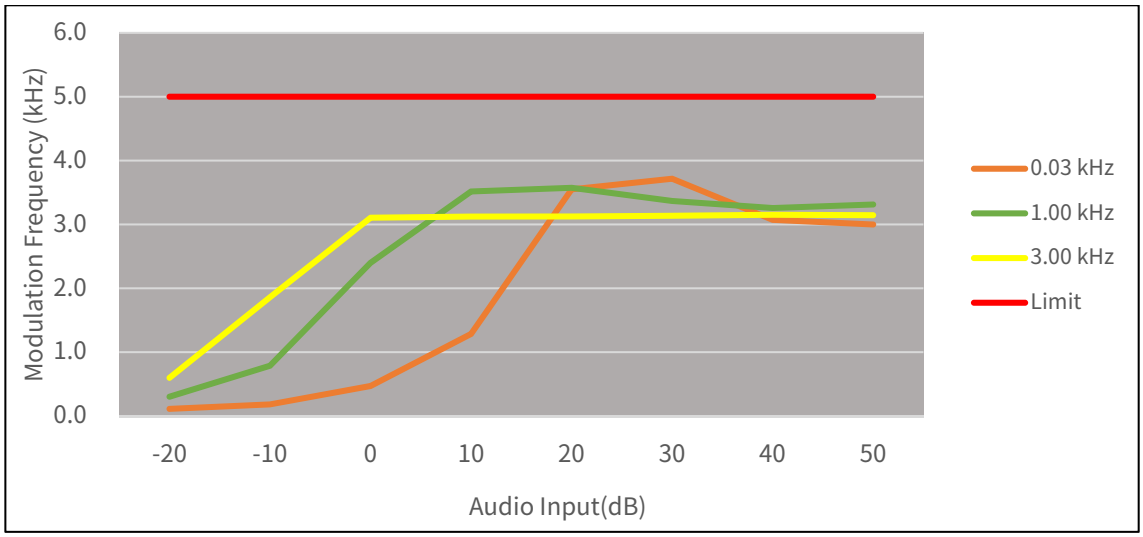
805.95 MHz



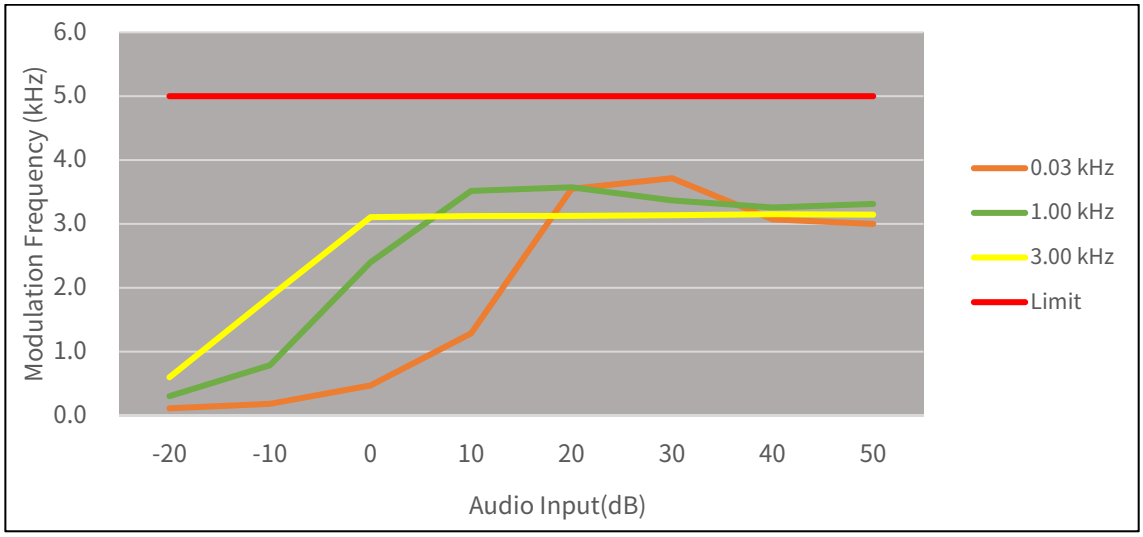
806.05 MHz



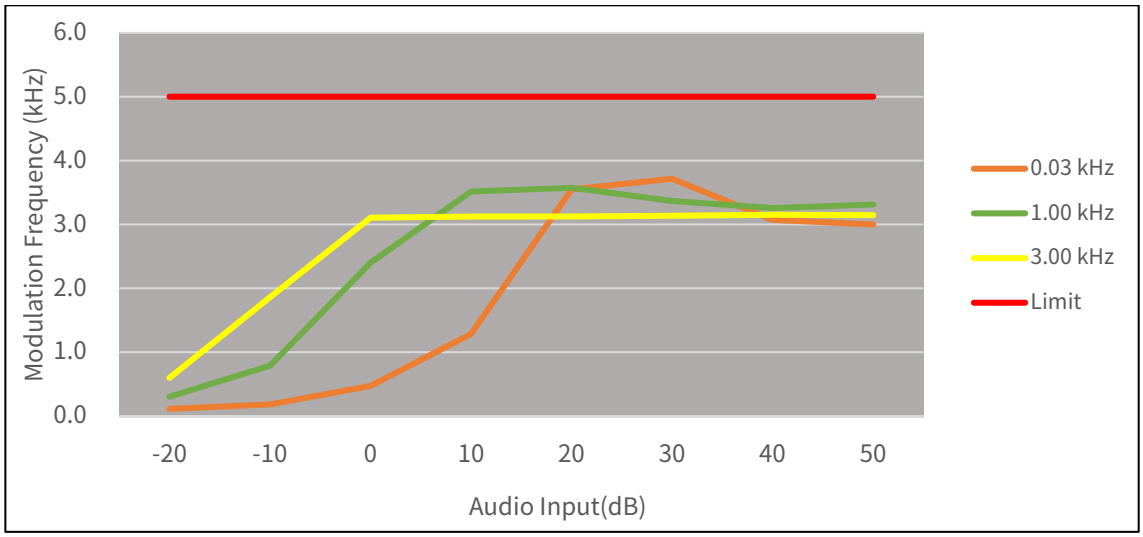
823.95 MHz



851.05 MHz



868.95 MHz

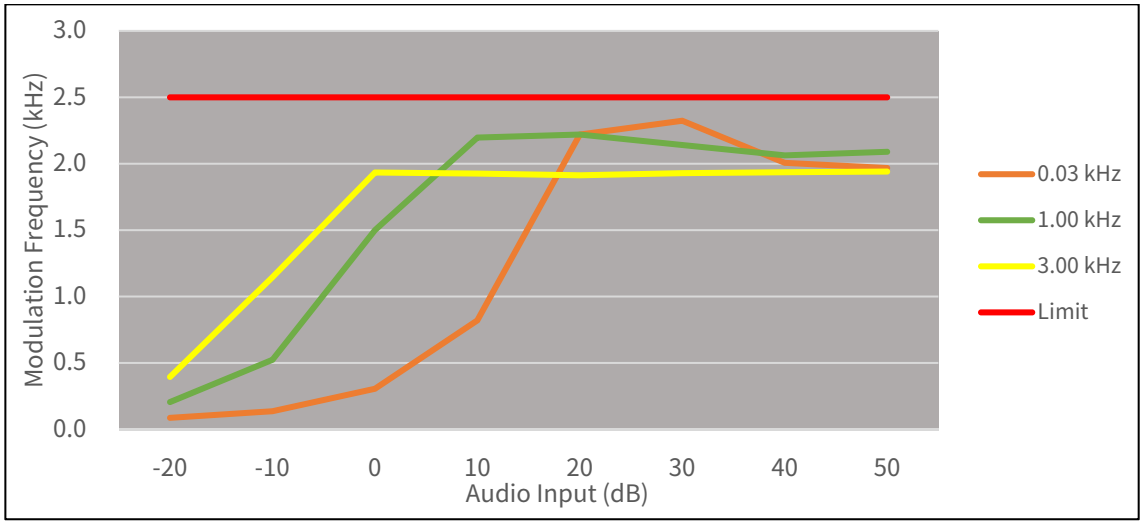


▣ TEST RESULTS(Type of emission: 11K0F3E)

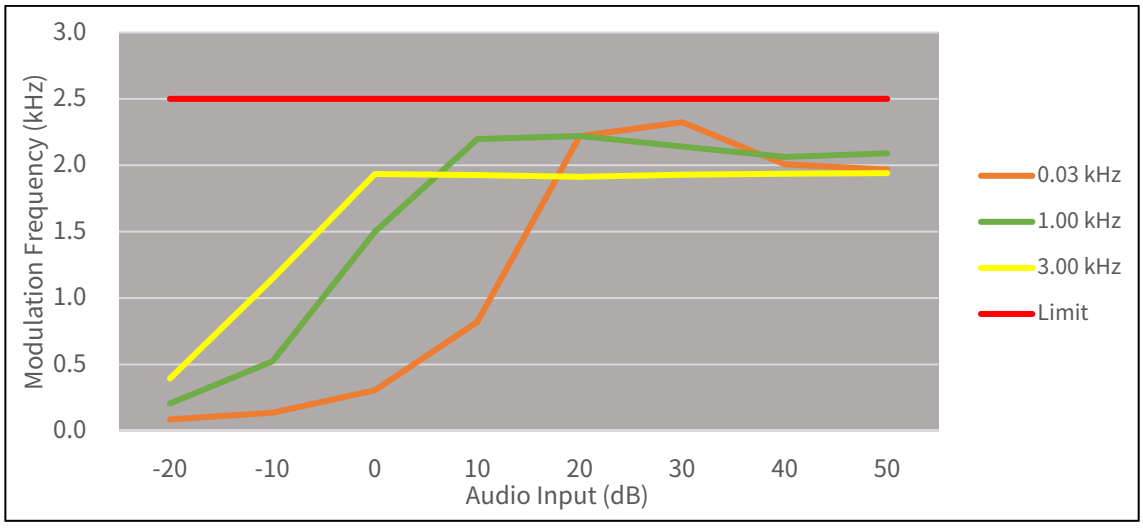
Positive Peaks

HIGH POWER

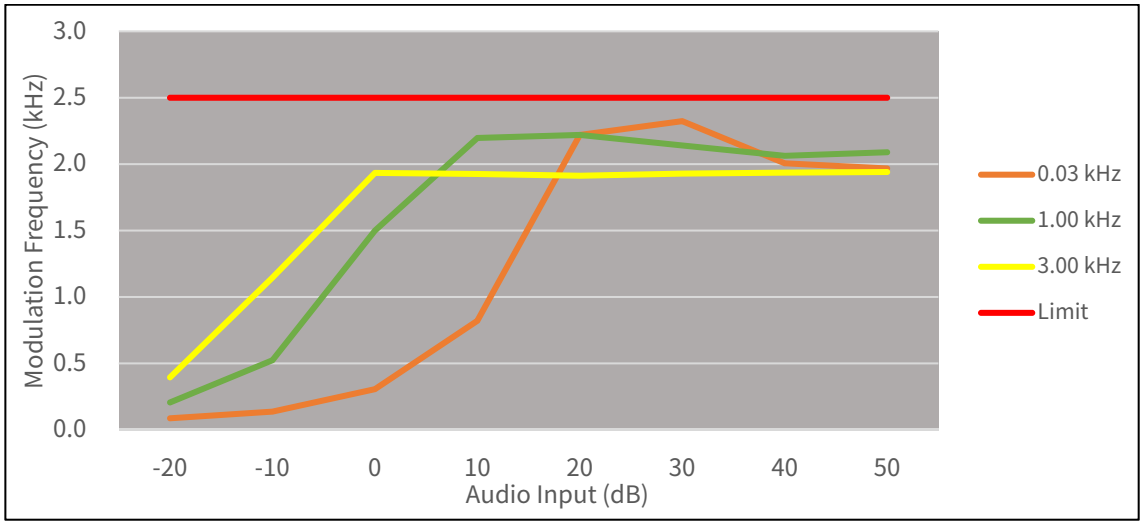
138.05 MHz



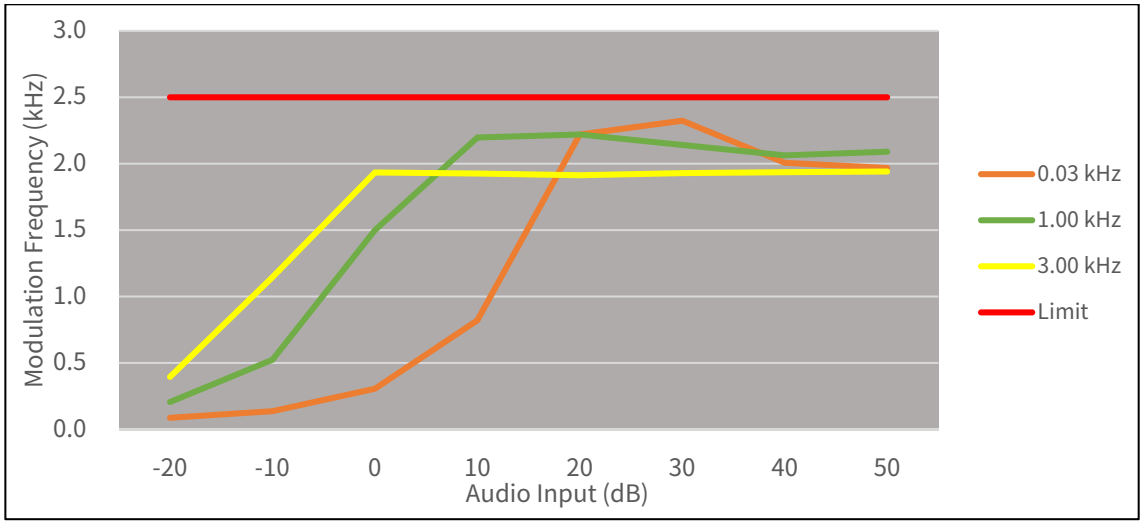
150.05 MHz



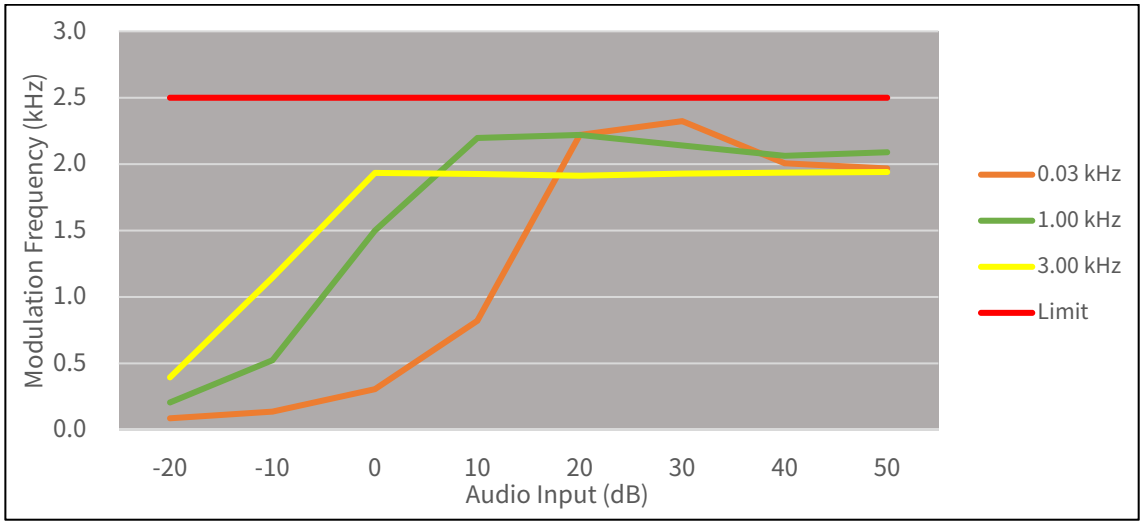
162.05 MHz



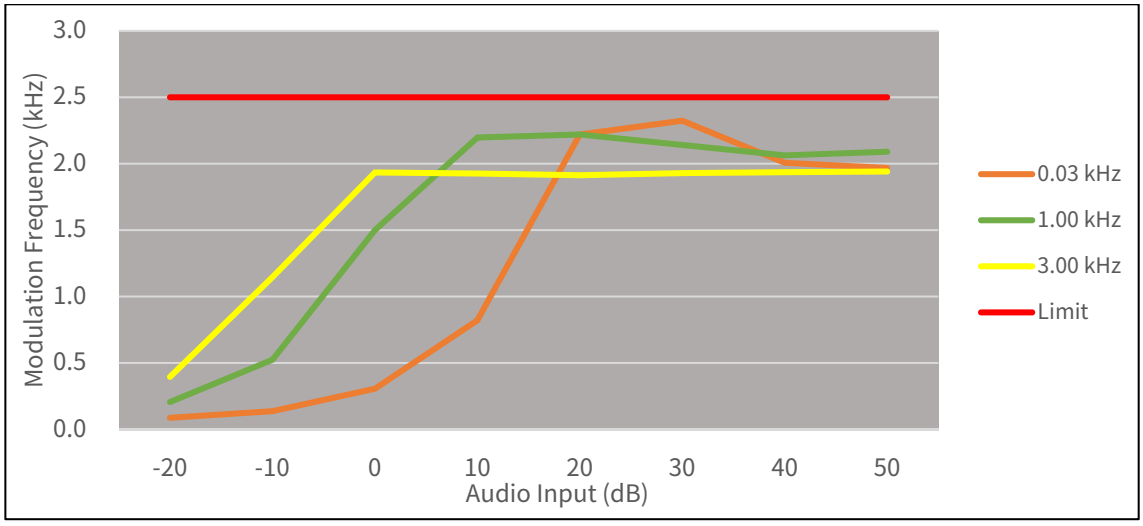
173.95 MHz



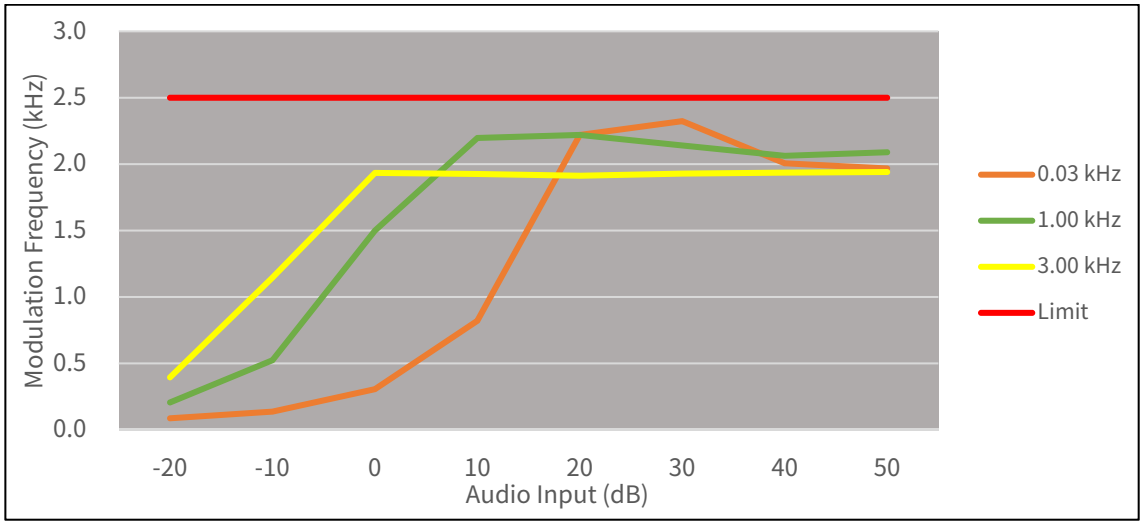
406.15 MHz



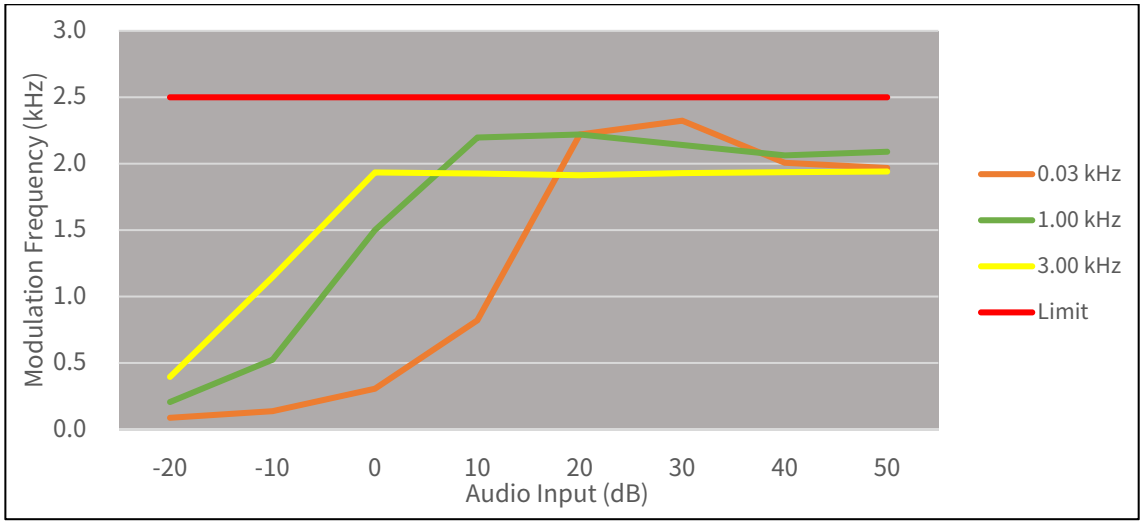
429.95 MHz



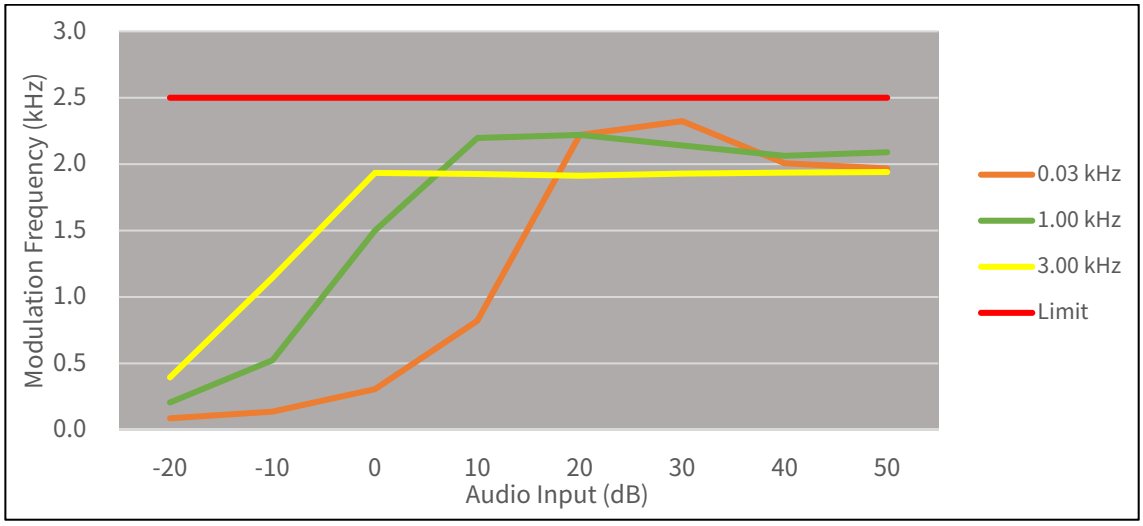
469.95 MHz



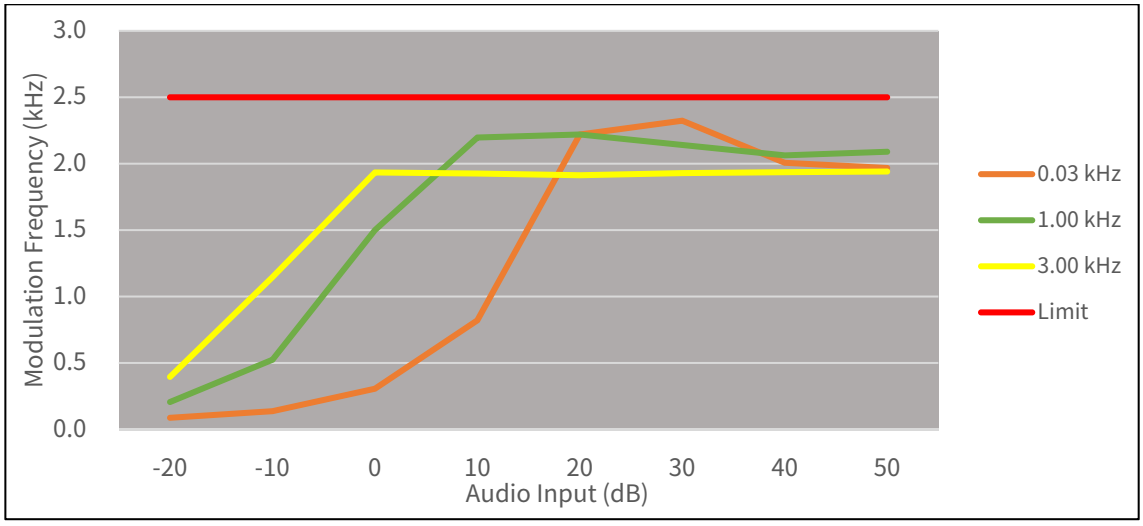
511.95 MHz



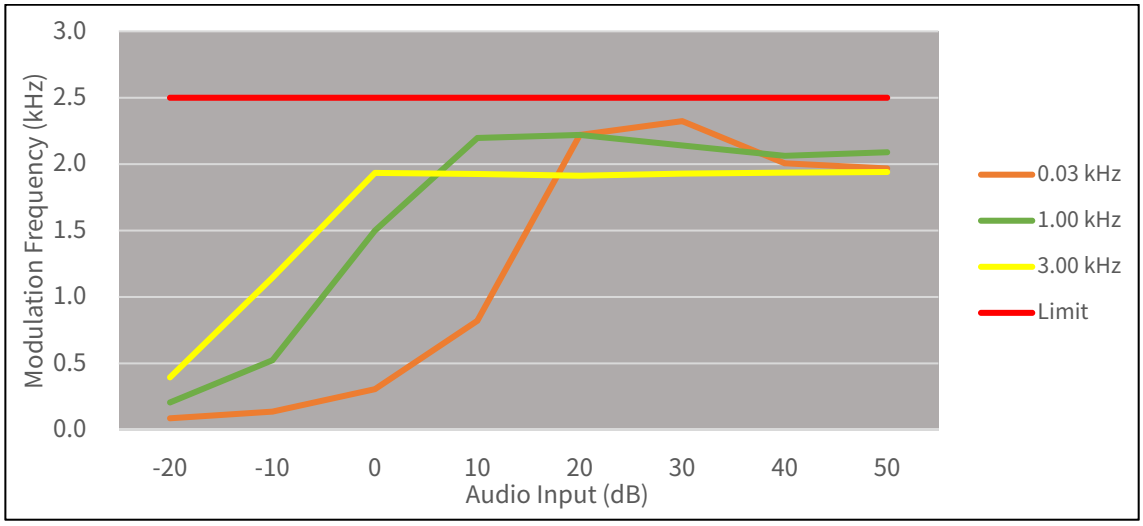
768.05 MHz



769.05 MHz



798.05 MHz



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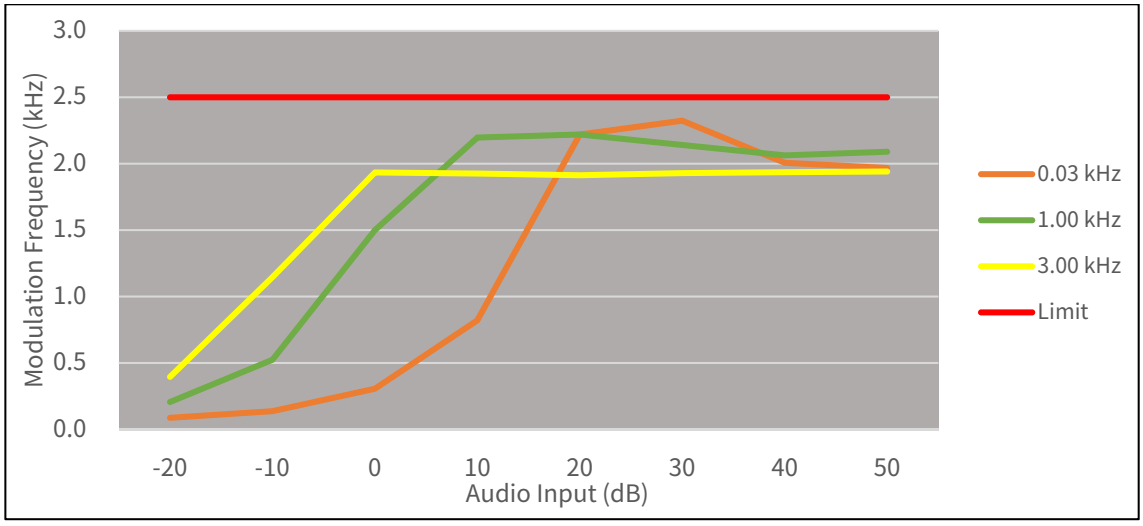

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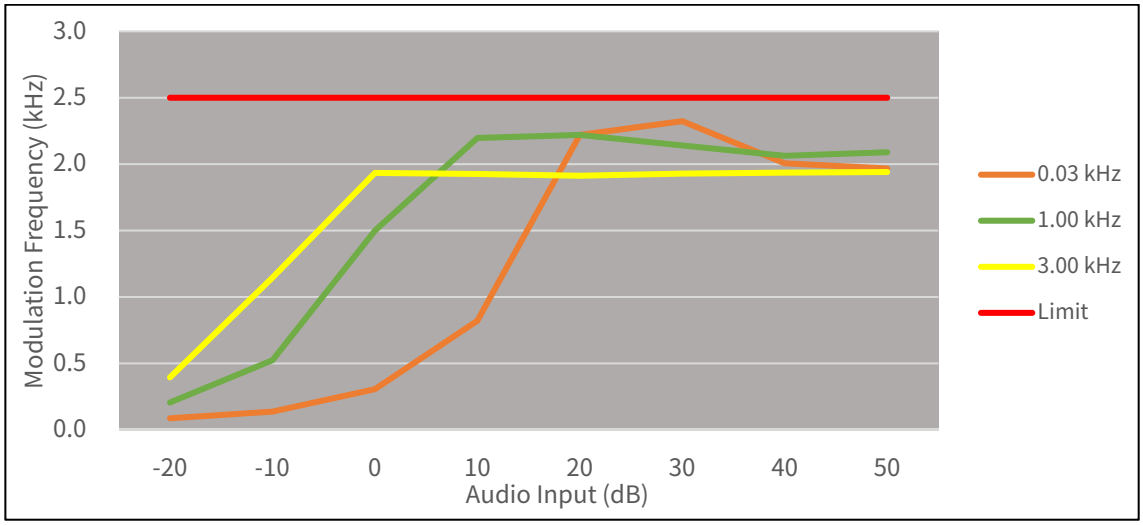

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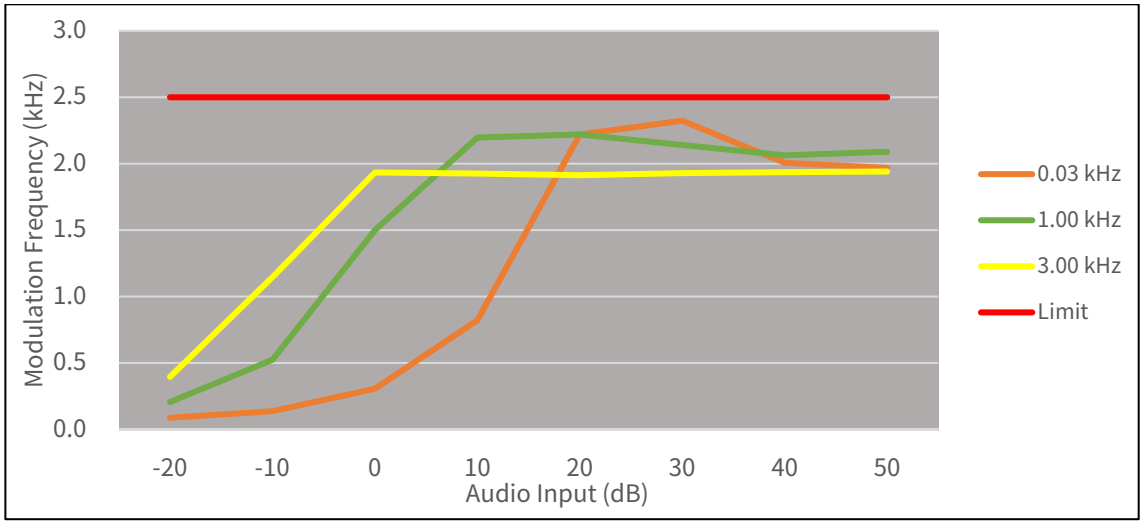

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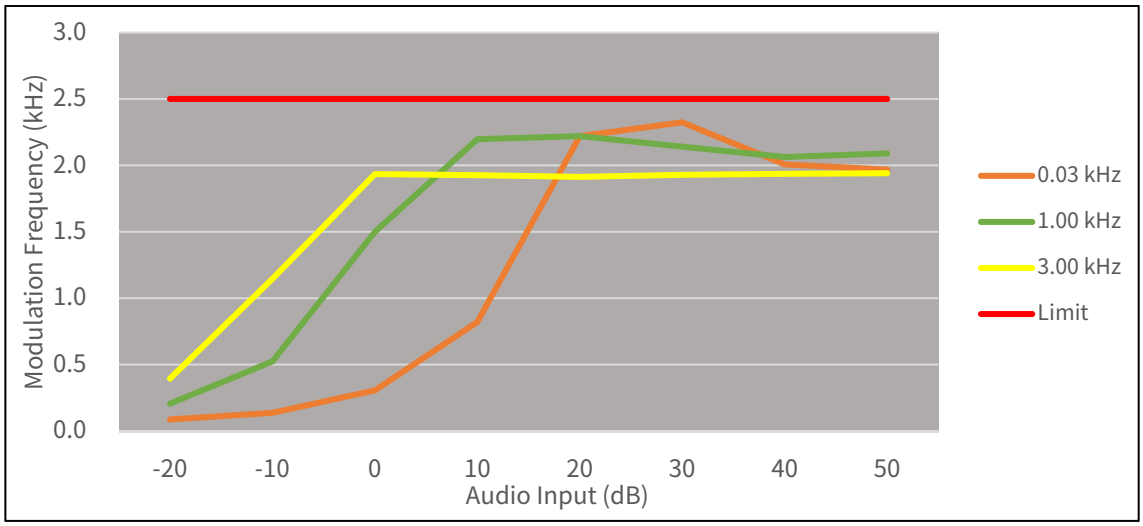

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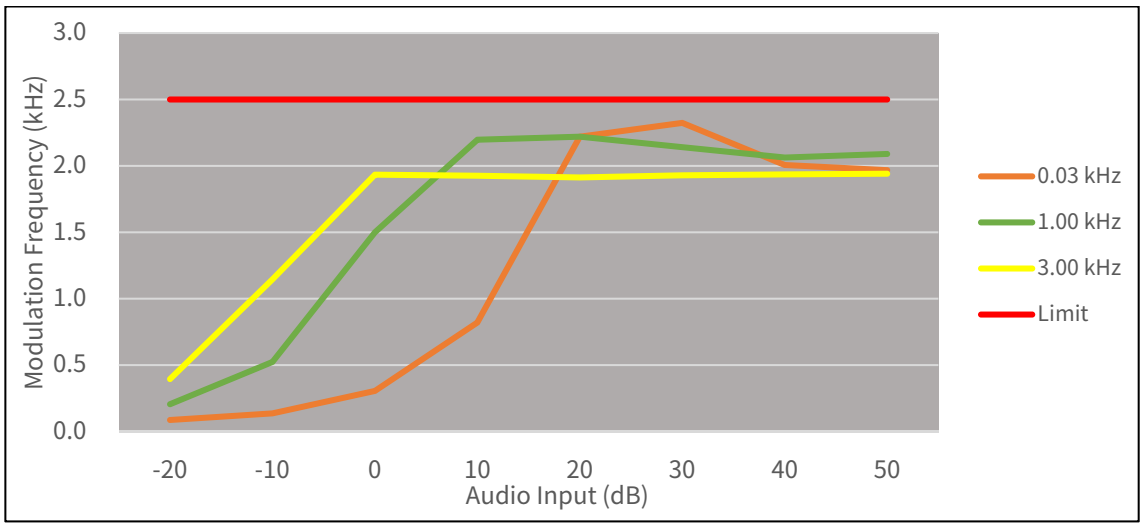

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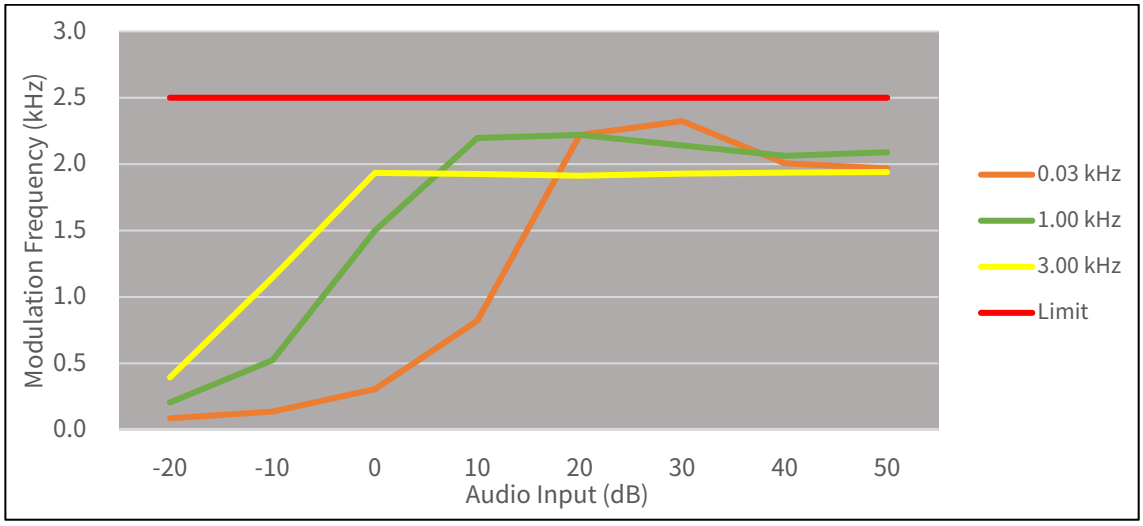

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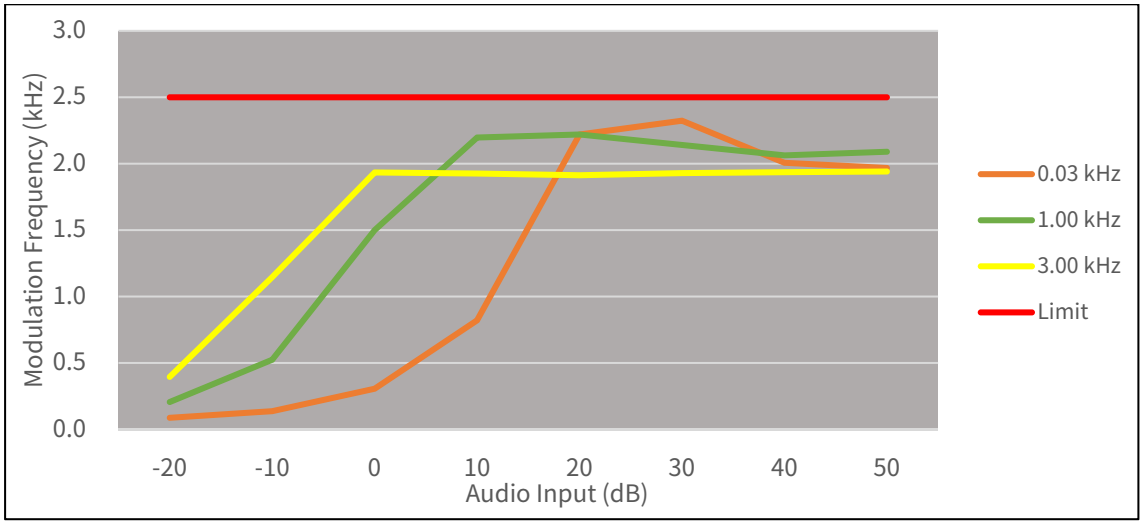
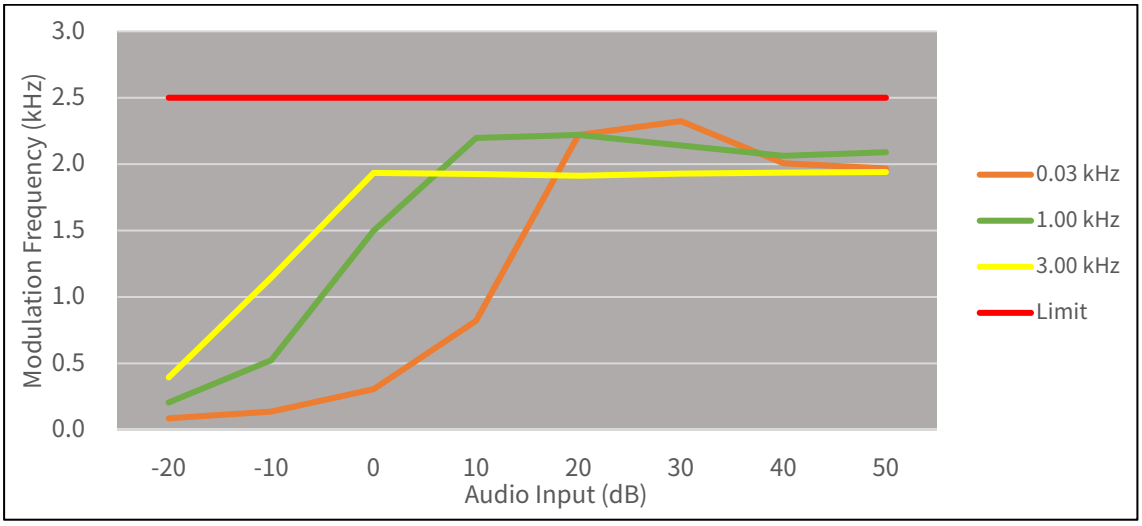


851.05 MHz



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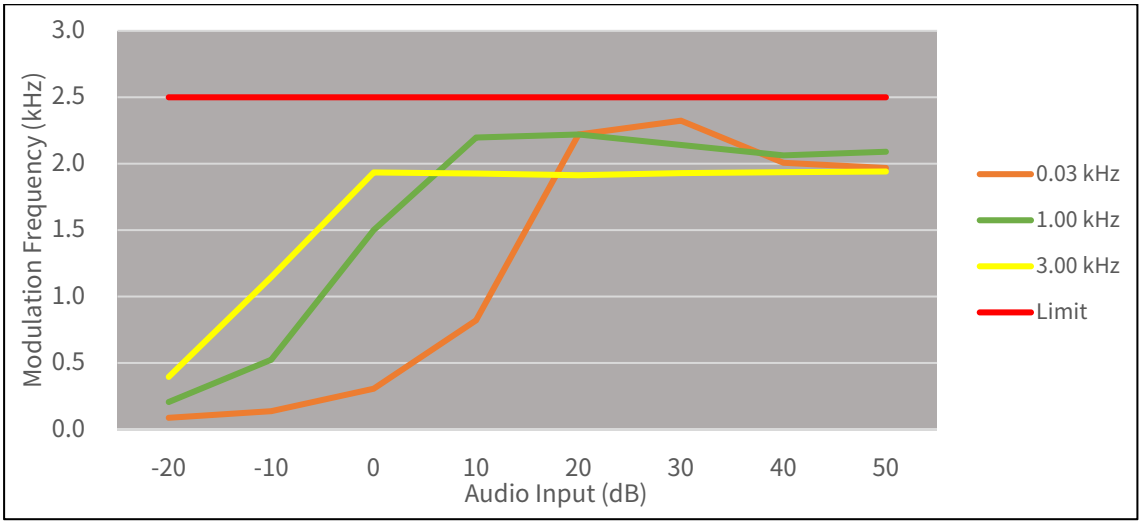
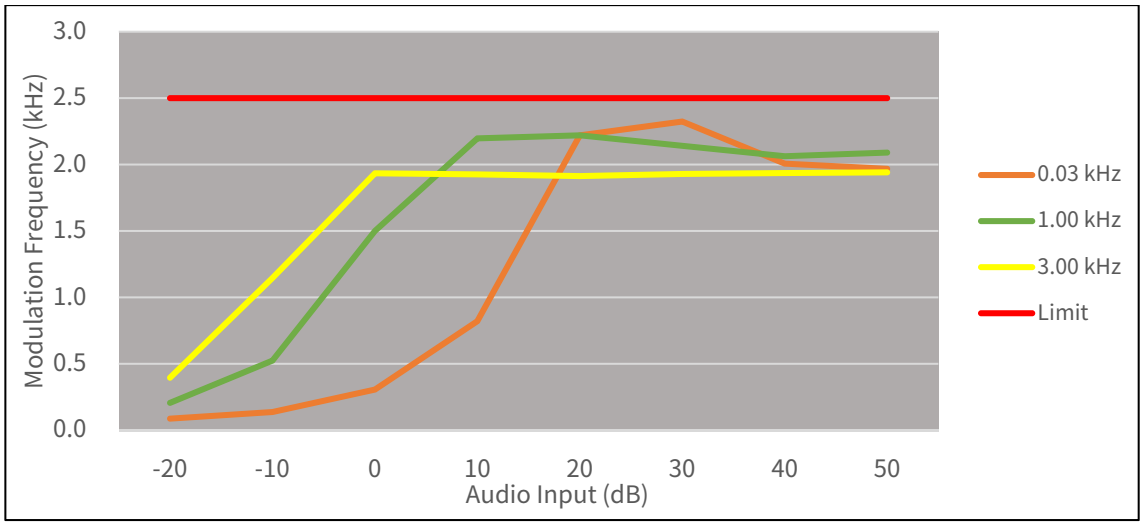


Negative Peaks

HIGH POWER

138.05 MHz



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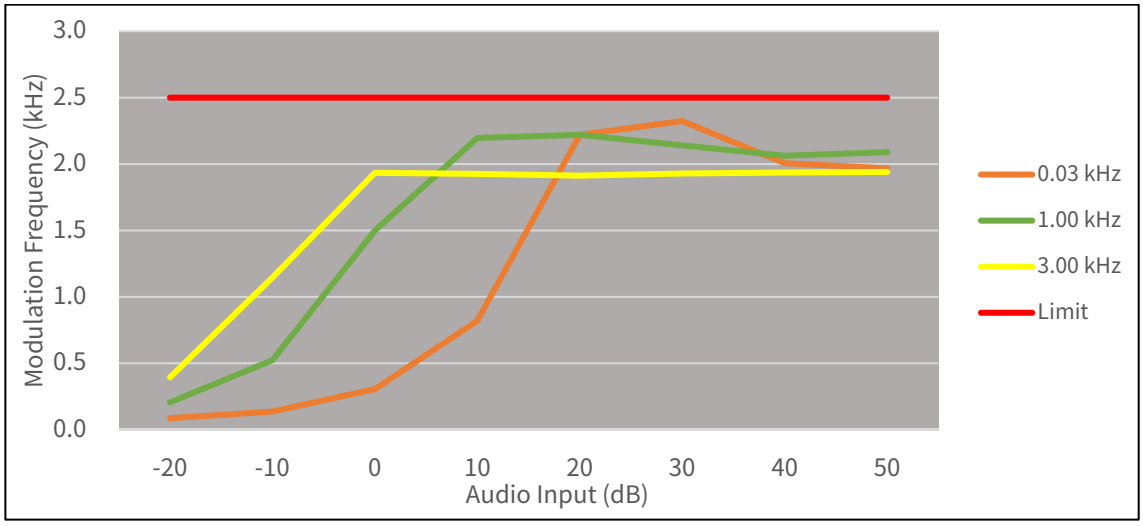
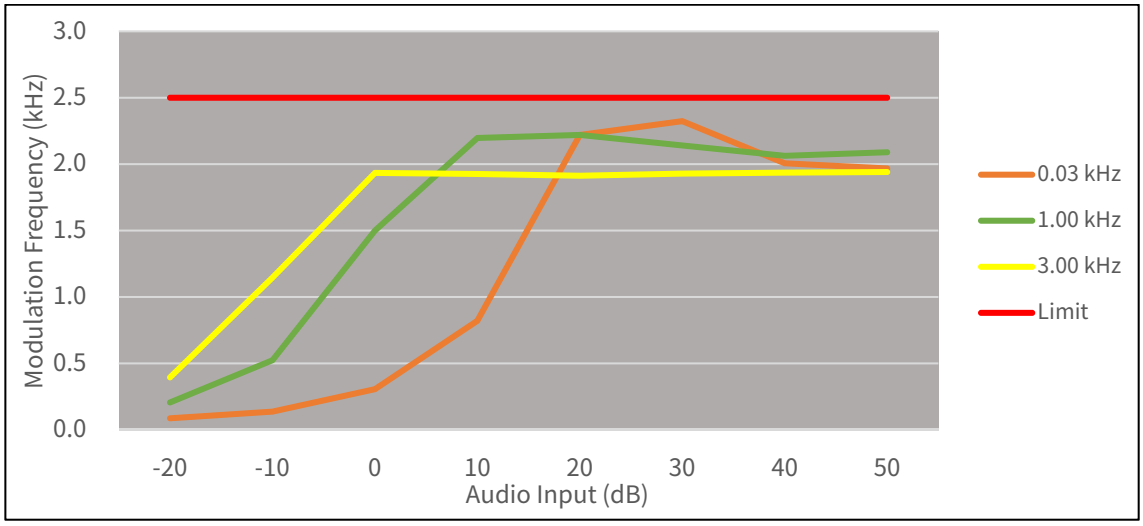
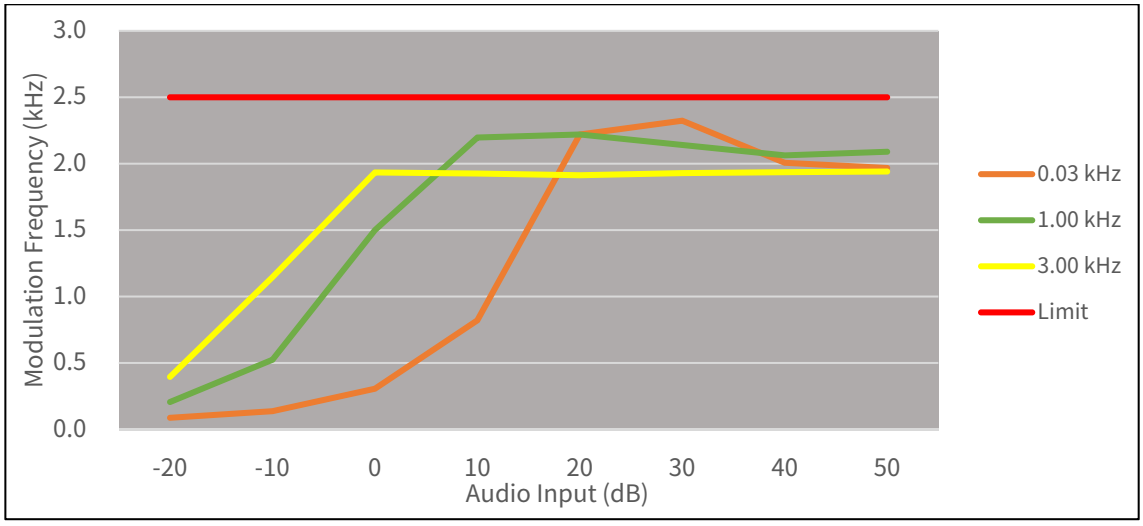


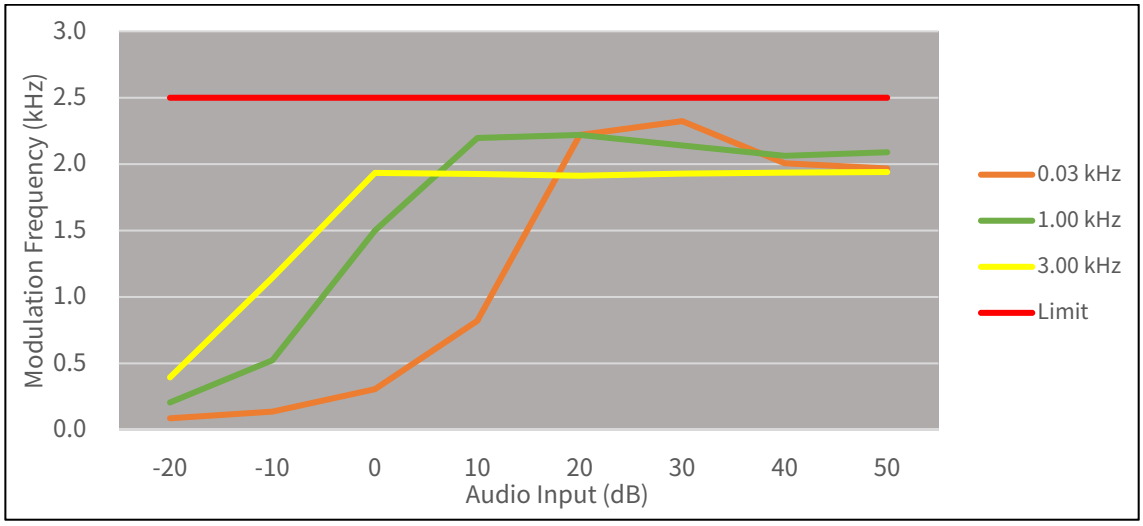
162.05 MHz



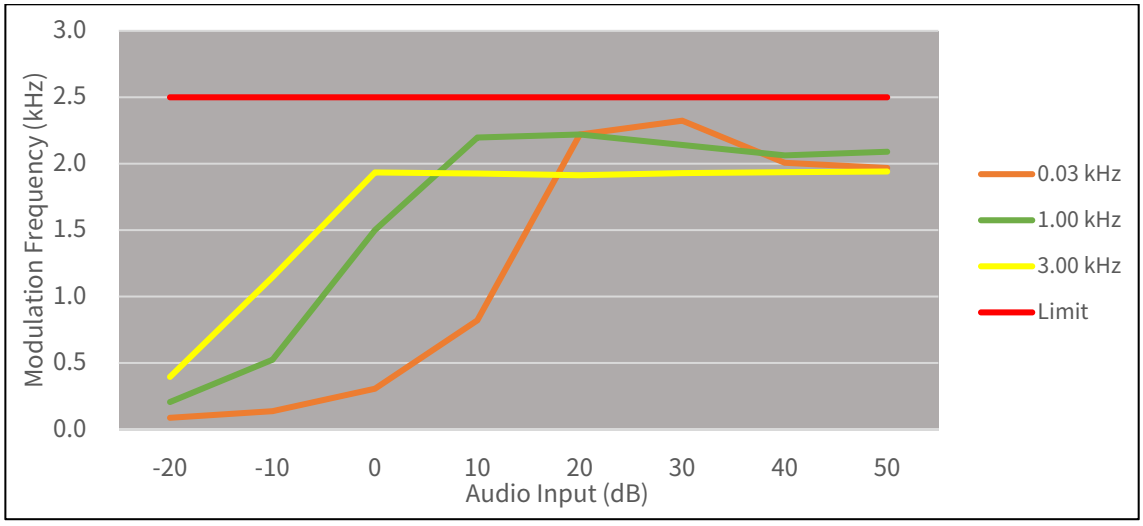
173.95 MHz



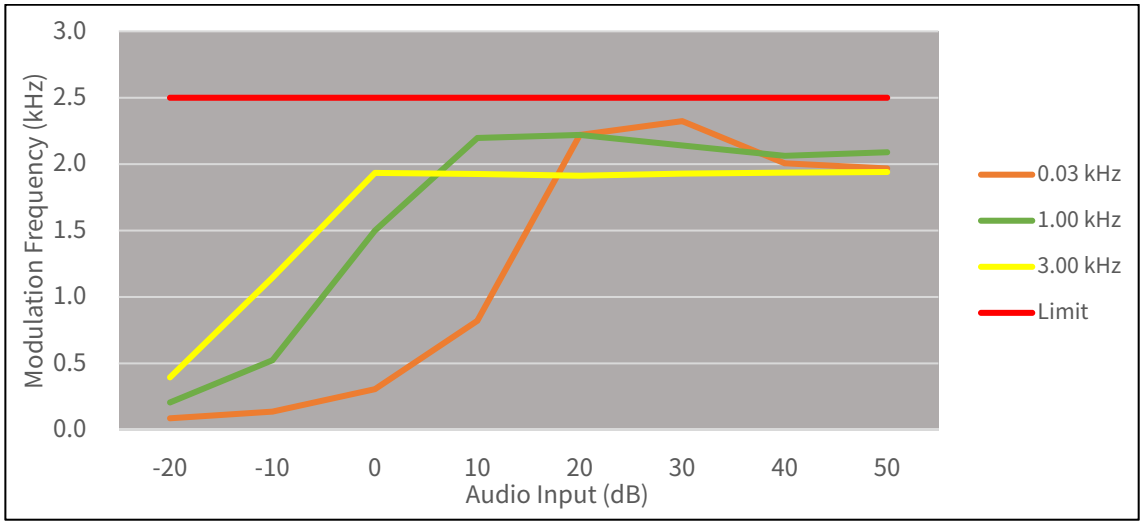
406.15 MHz



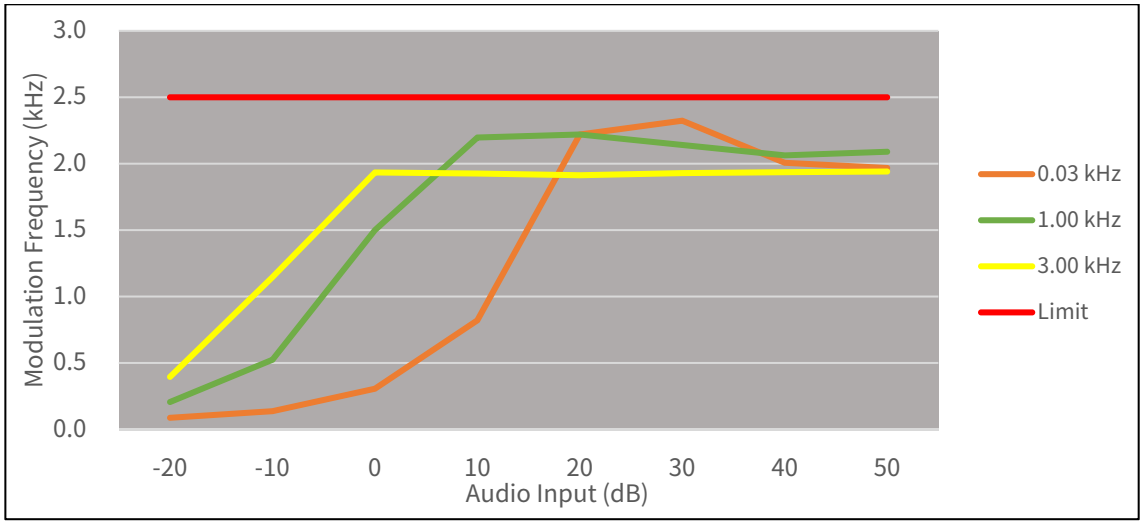
429.95 MHz



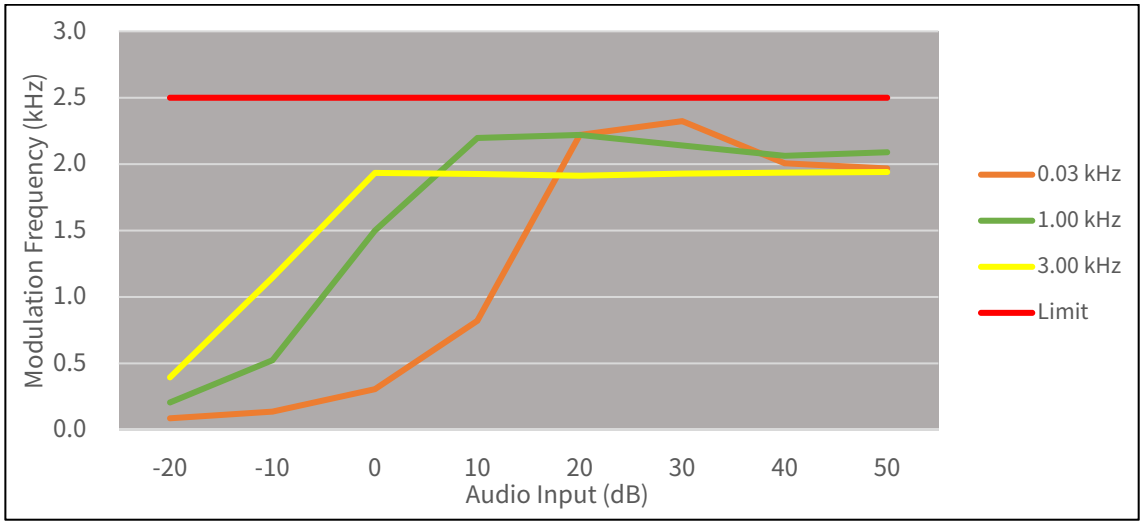
469.95 MHz



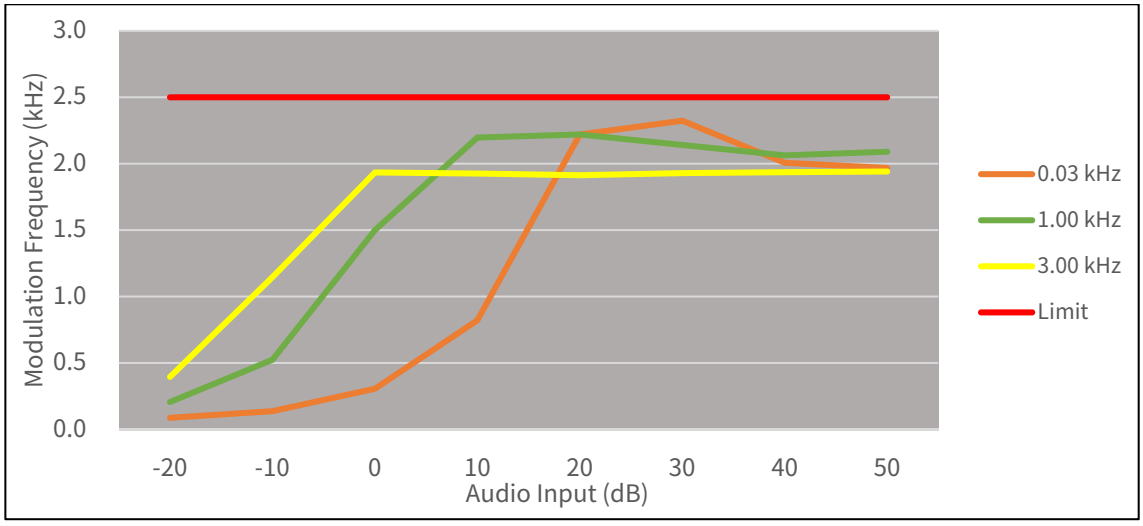
511.95 MHz



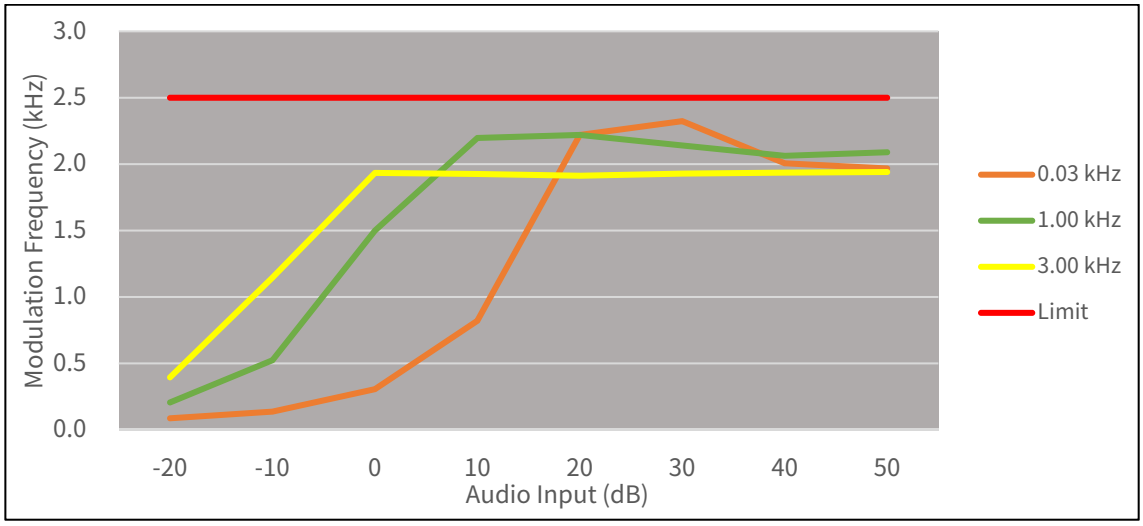
768.05 MHz



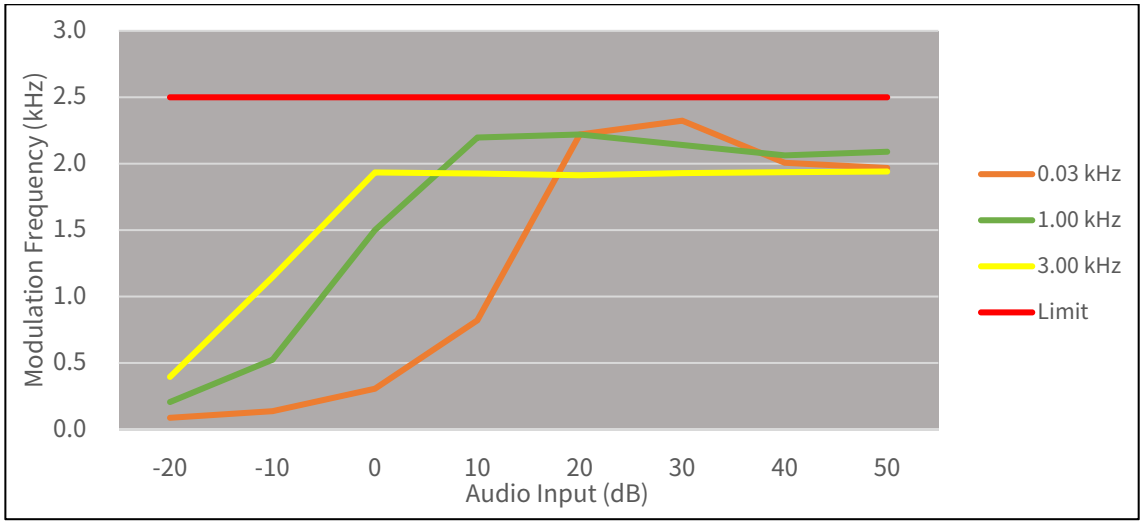
769.05 MHz



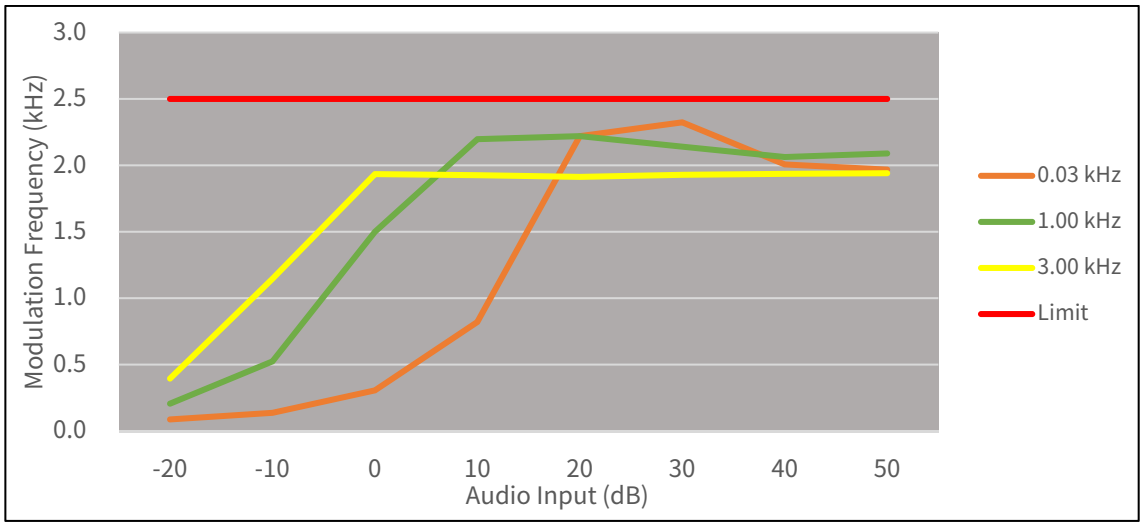
798.05 MHz



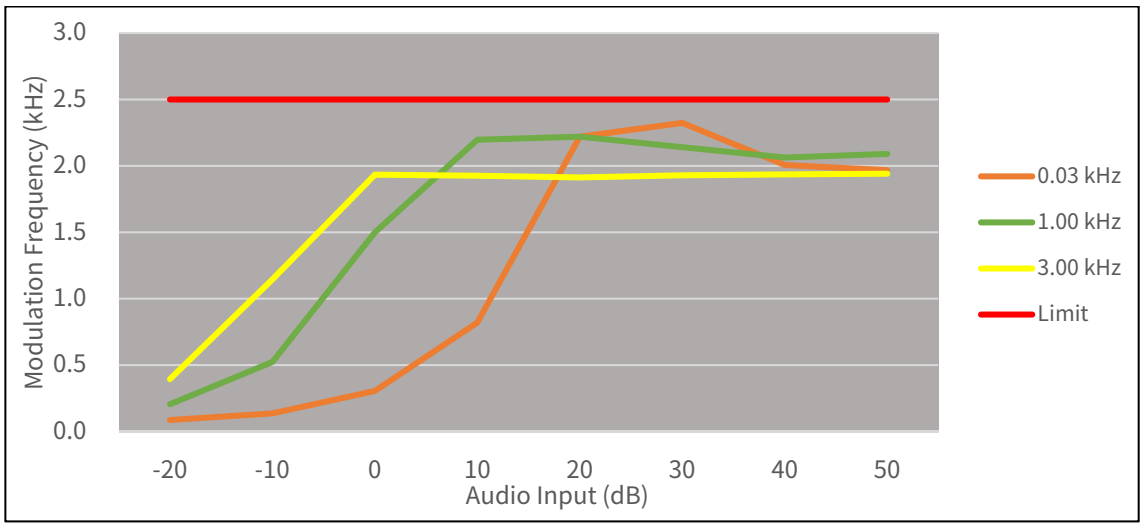
774.95 MHz



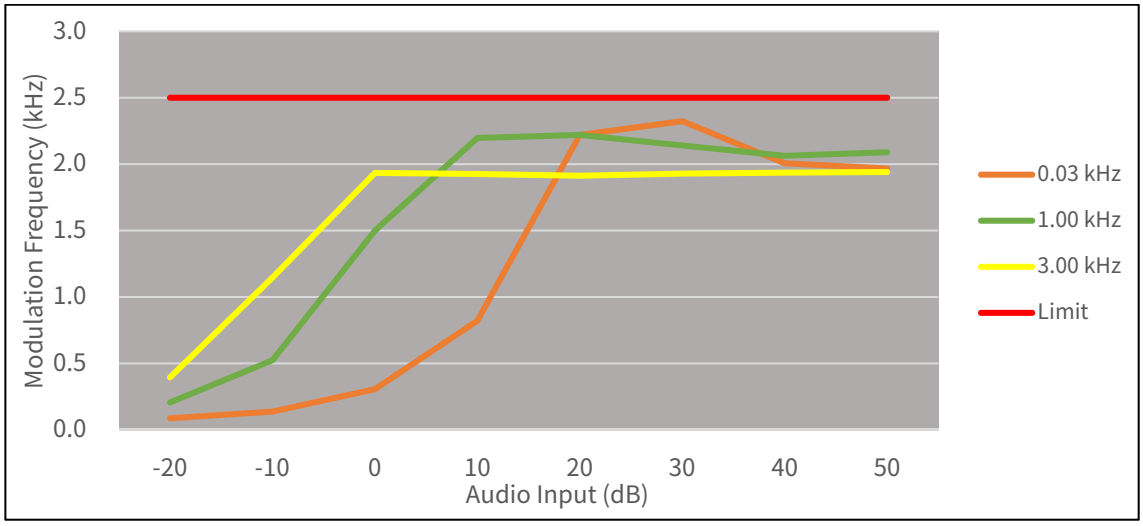
775.95 MHz



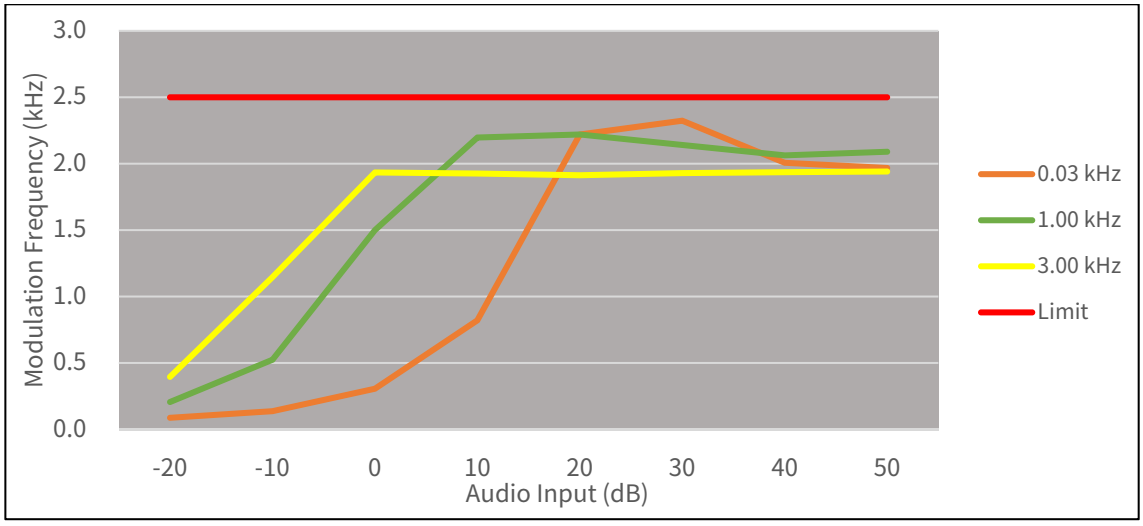
799.05 MHz



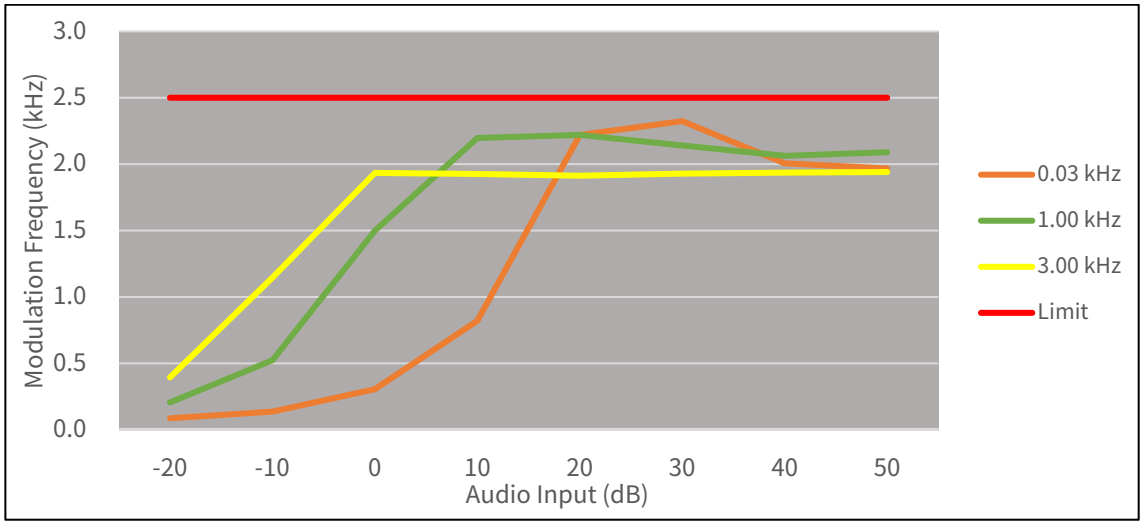
804.95 MHz



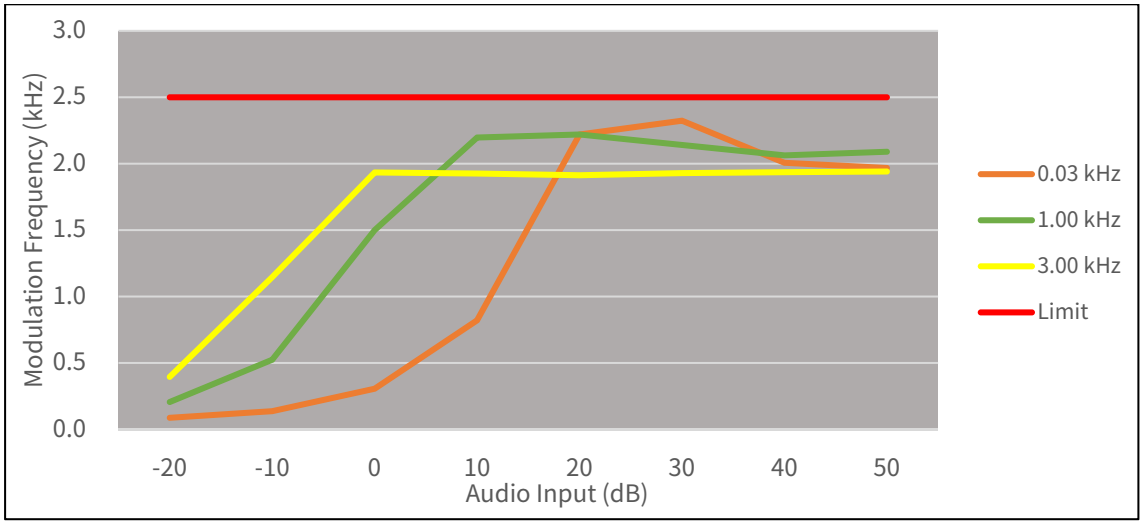
805.95 MHz



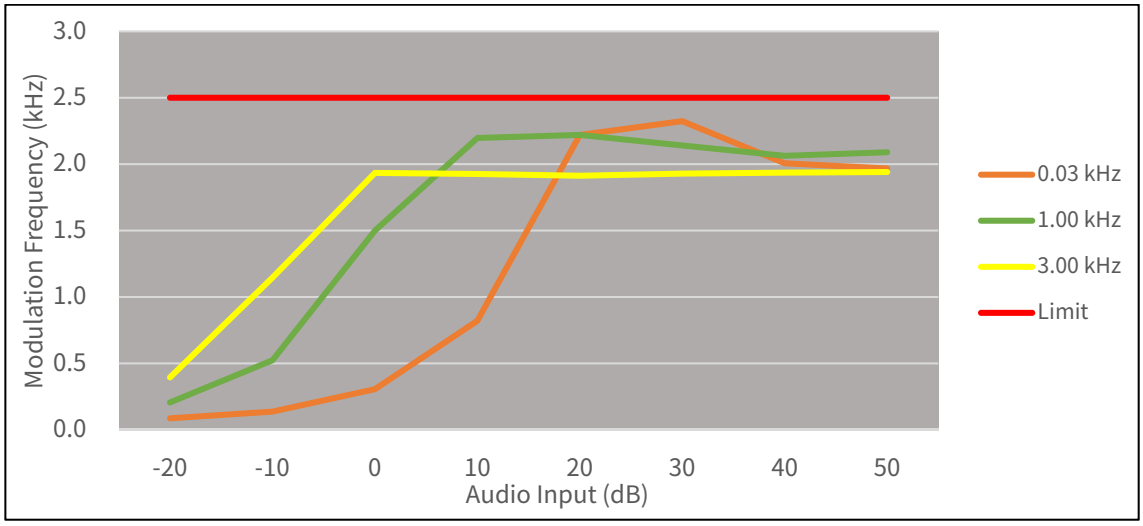
806.05 MHz



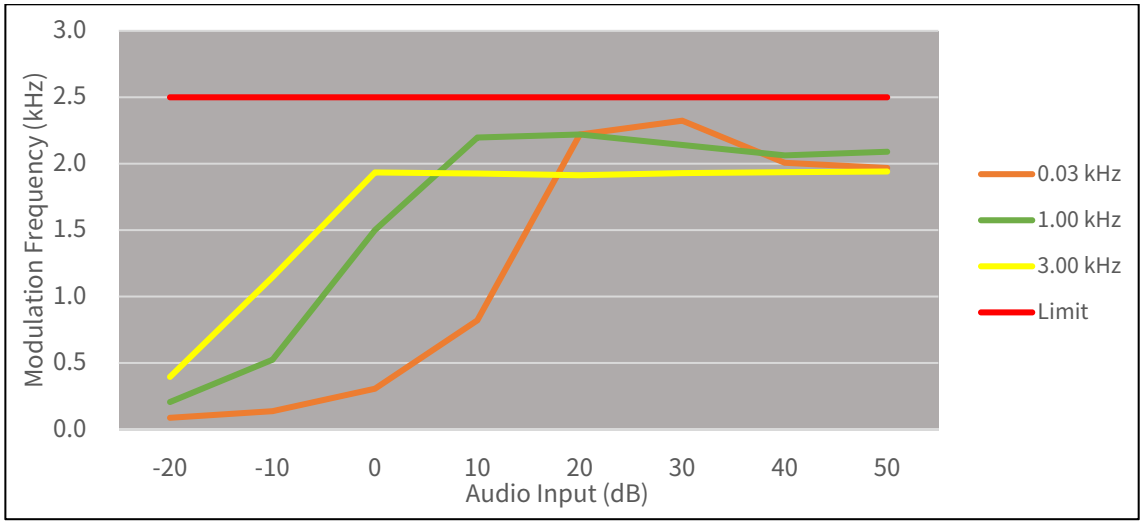
823.95 MHz



851.05 MHz



868.95 MHz

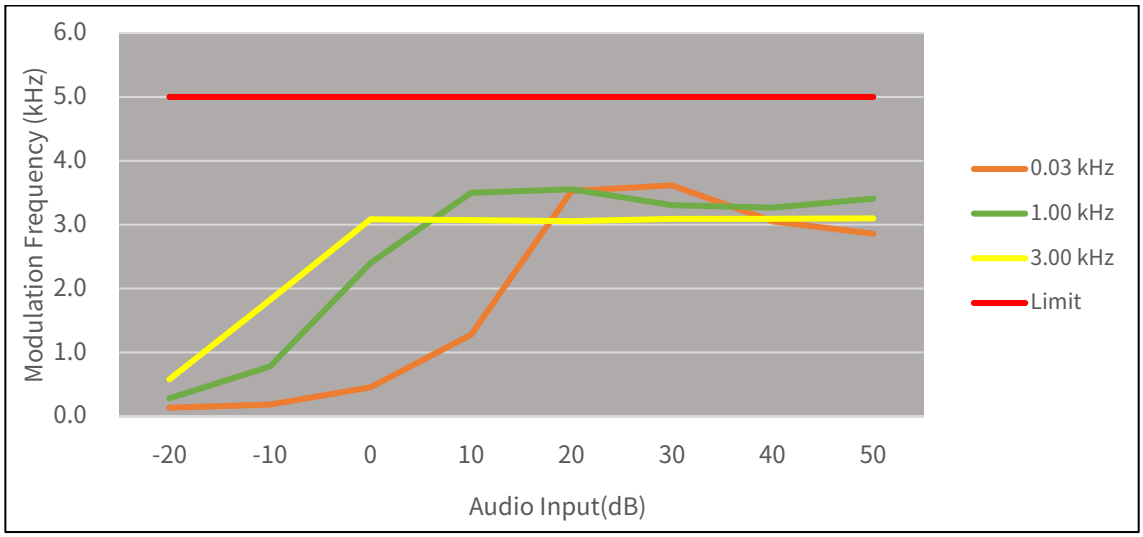


▣ TEST RESULTS(Type of emission: 14K0F3E)

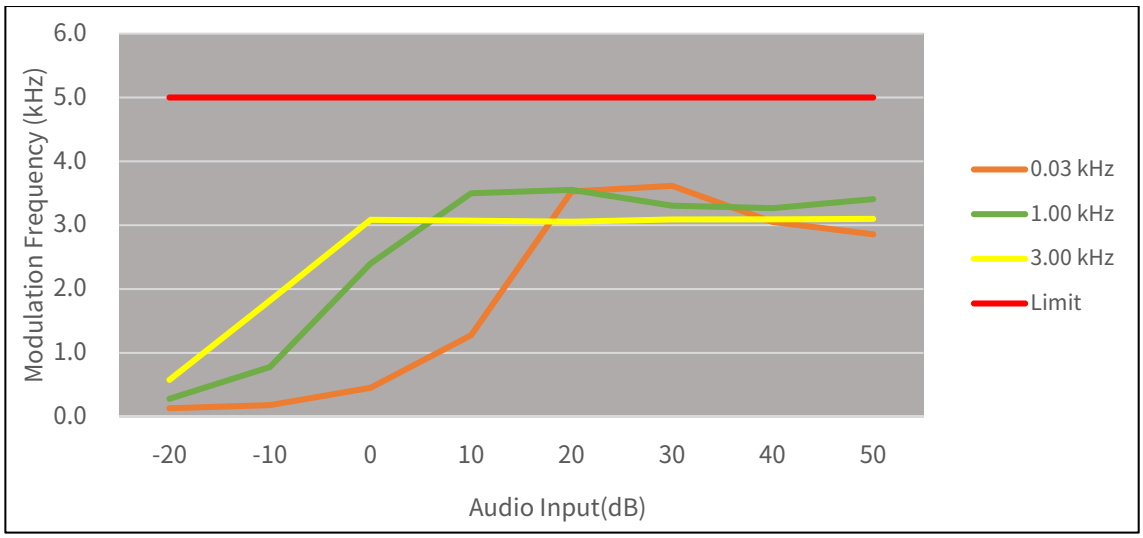
Positive Peaks

HIGH POWER

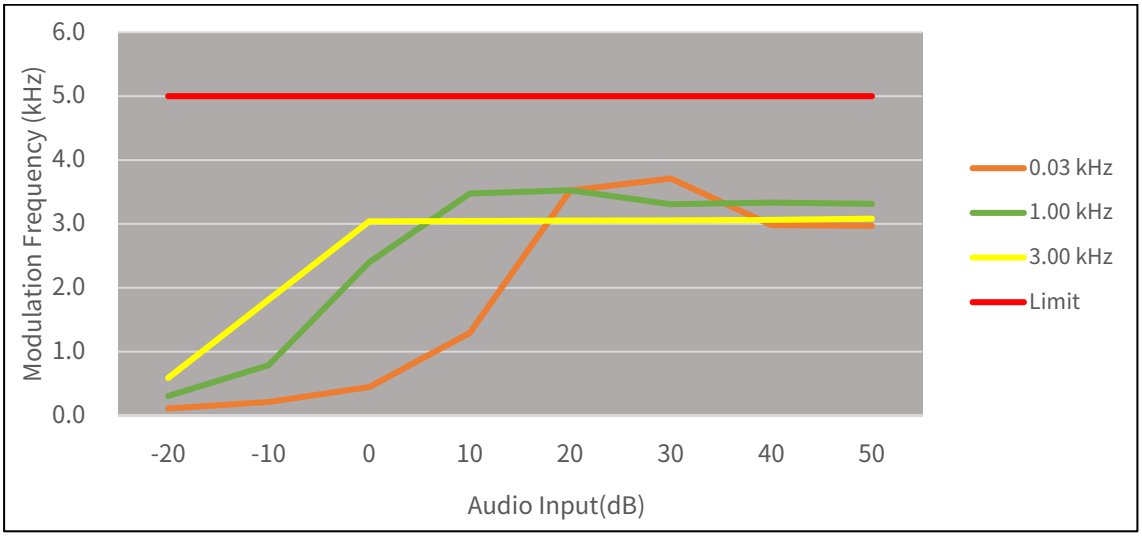
768.05 MHz



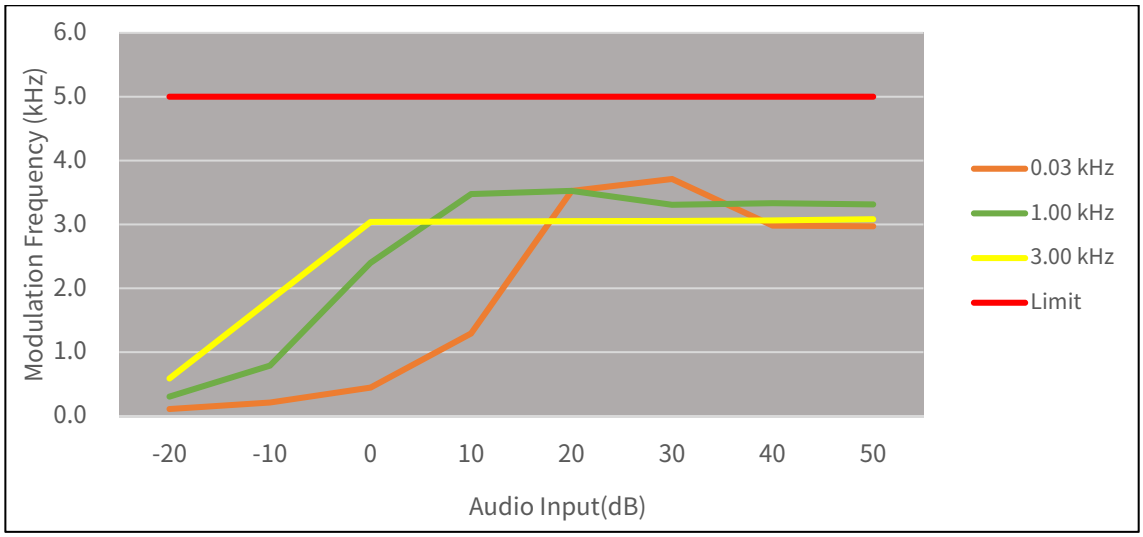
769.05 MHz



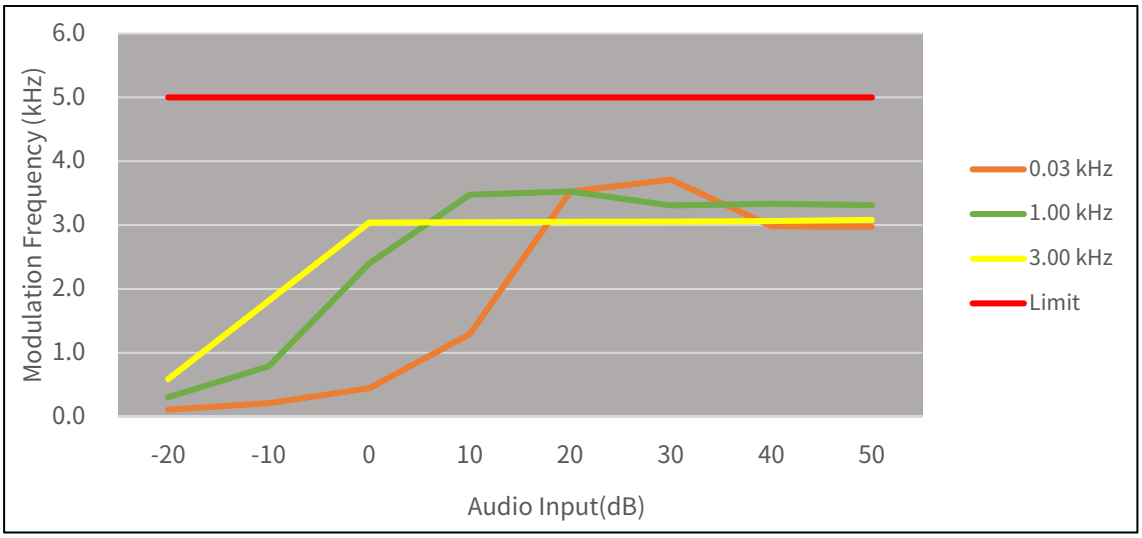
798.05 MHz



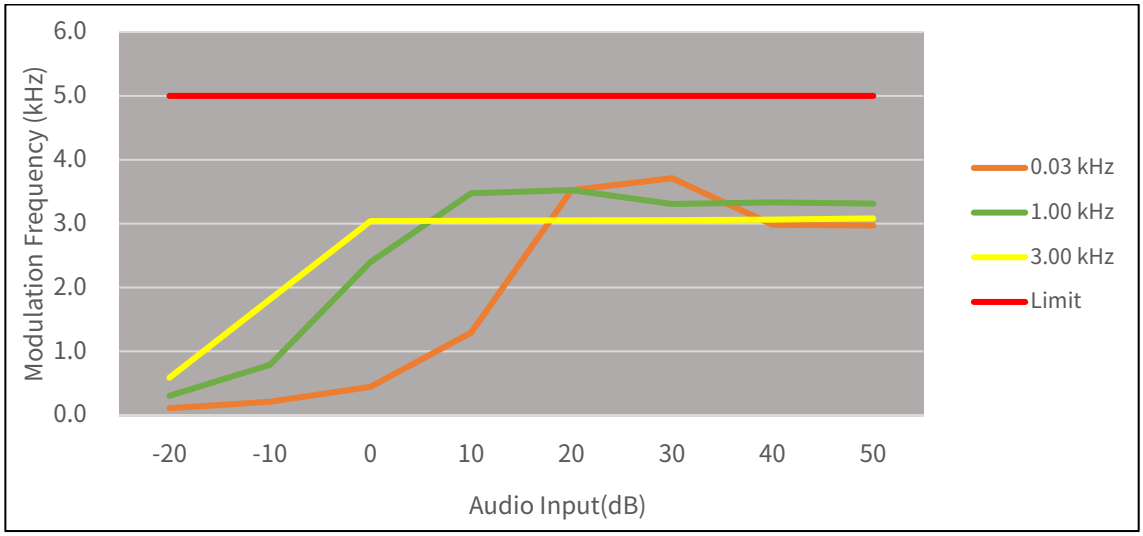
774.95 MHz



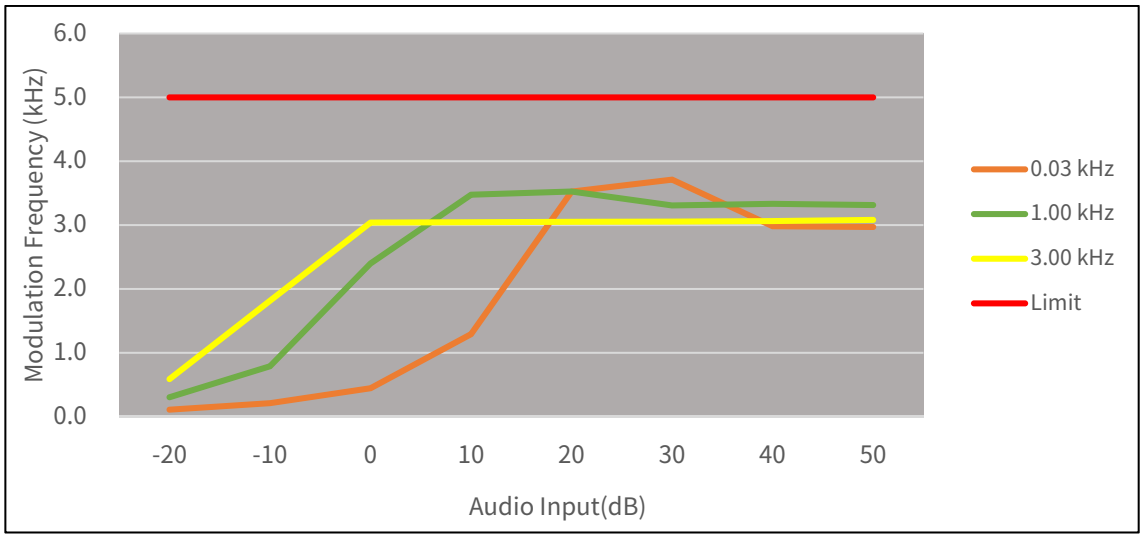
775.95 MHz



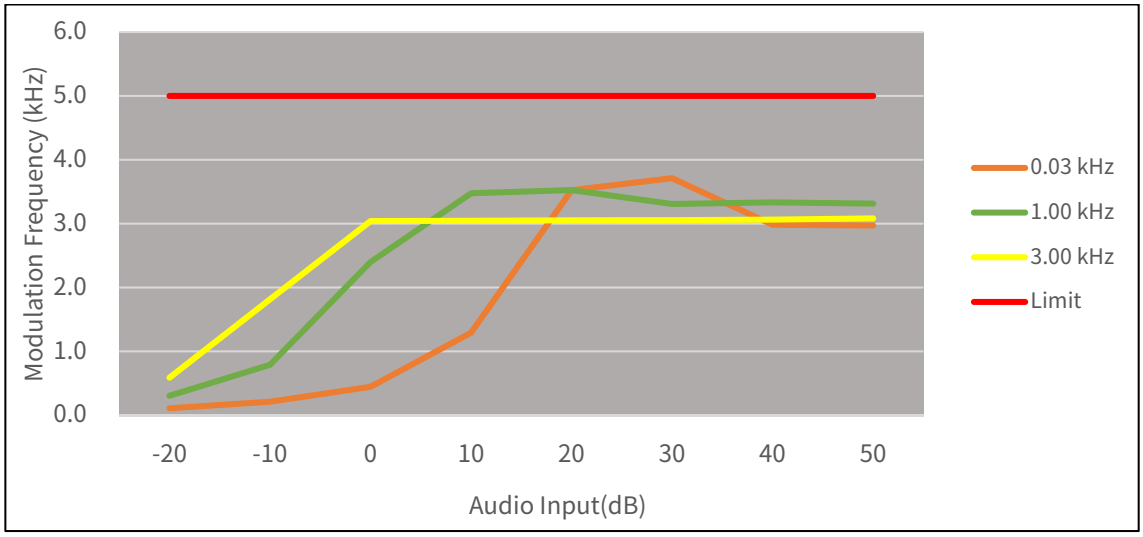
799.05 MHz



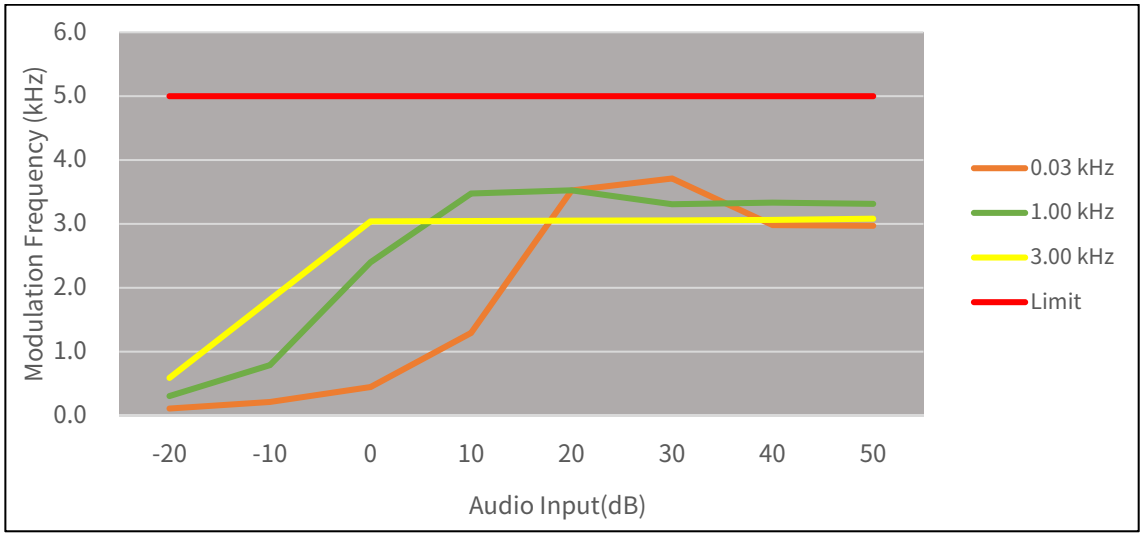
804.95 MHz



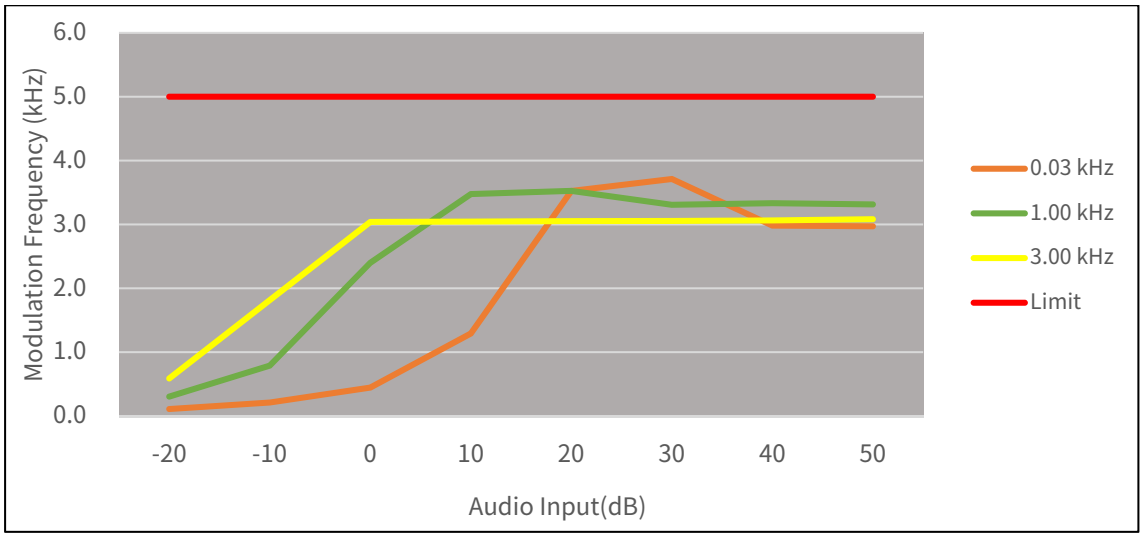
805.95 MHz



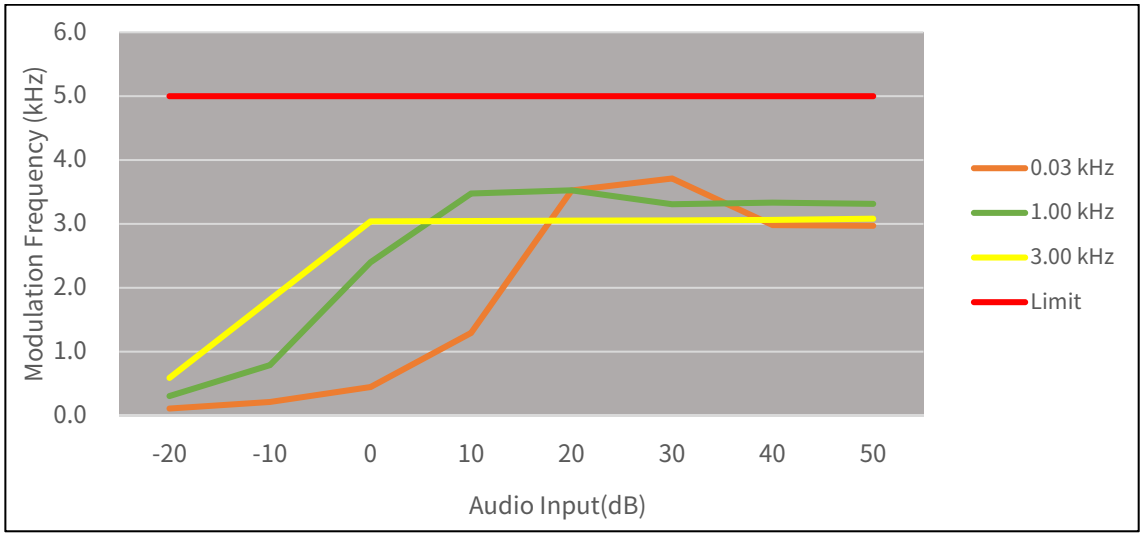
806.05 MHz



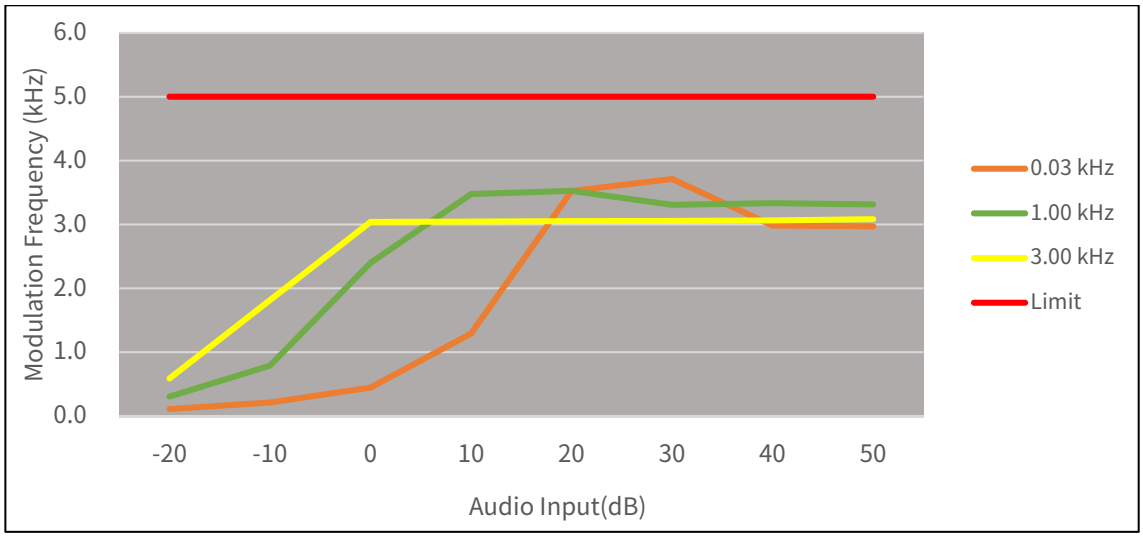
823.95 MHz



851.05 MHz



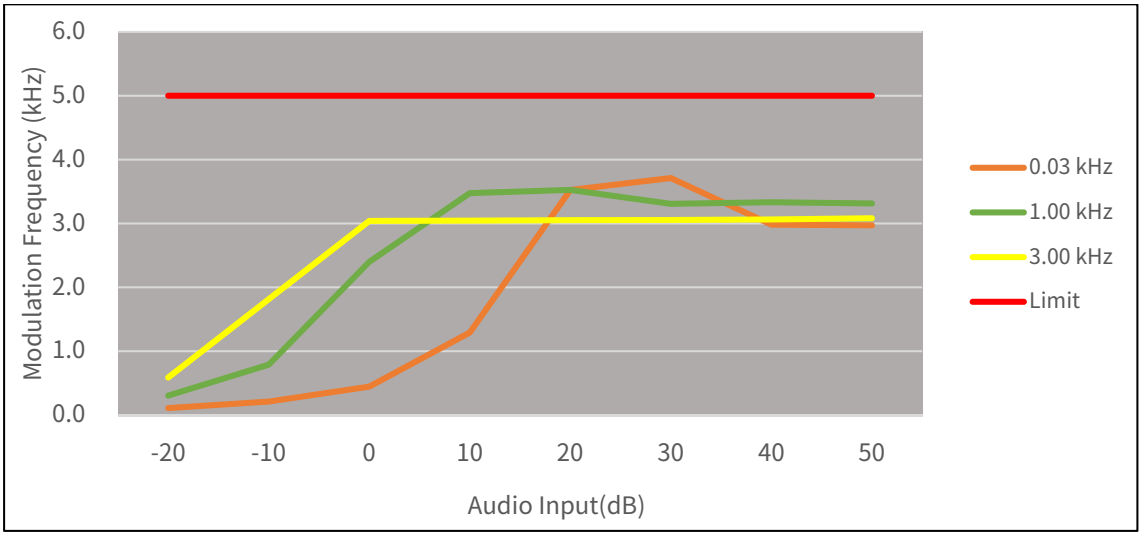
868.95 MHz



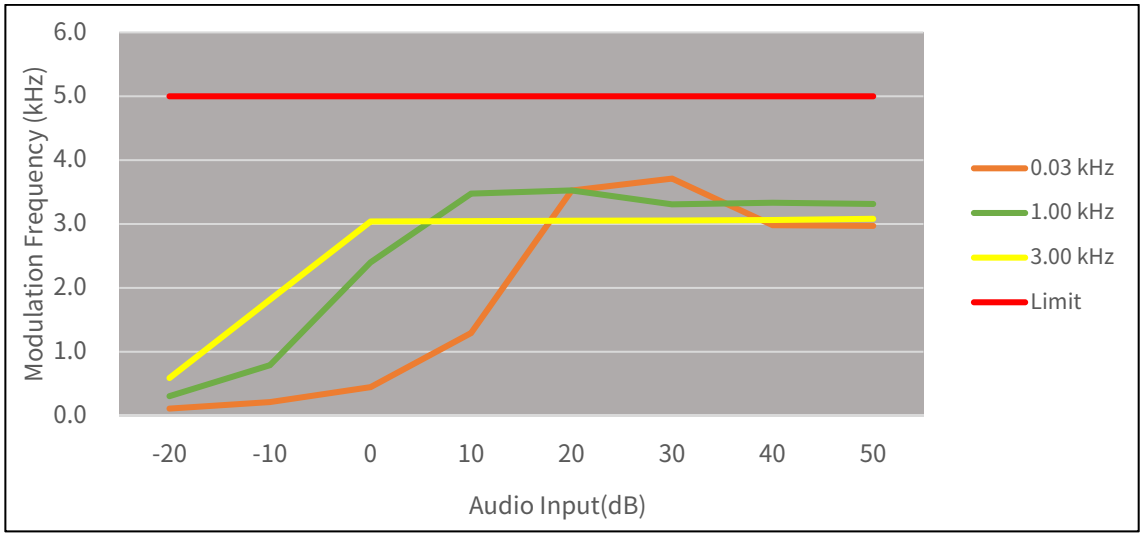
Negative Peaks

HIGH POWER

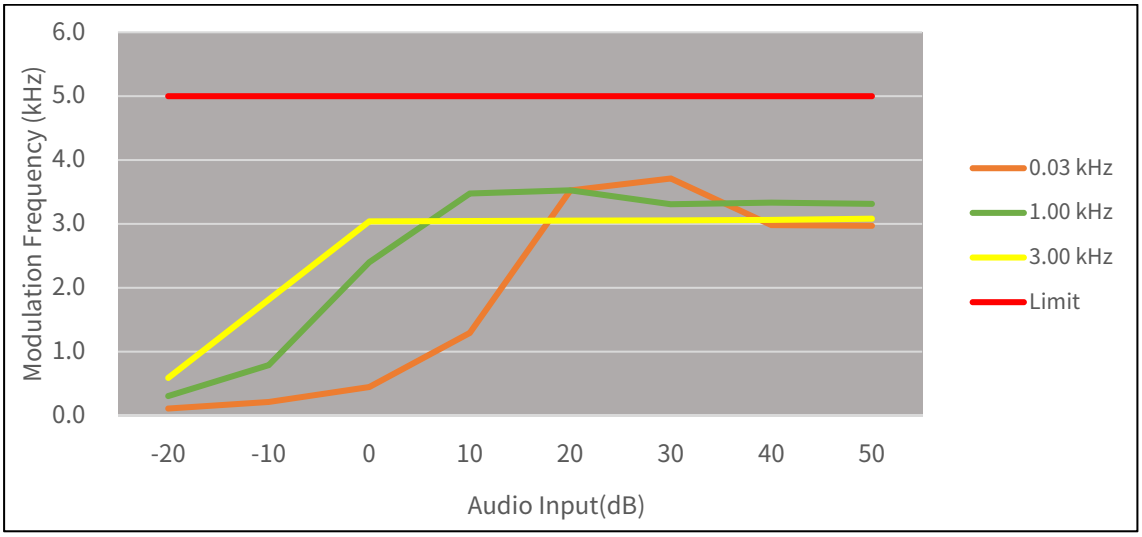
768.05 MHz



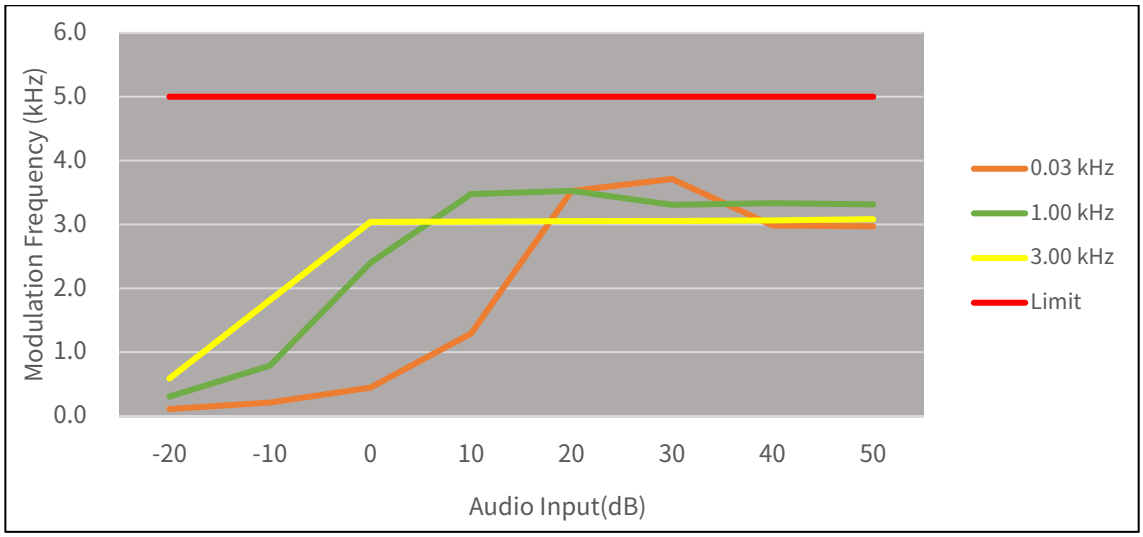
769.05 MHz



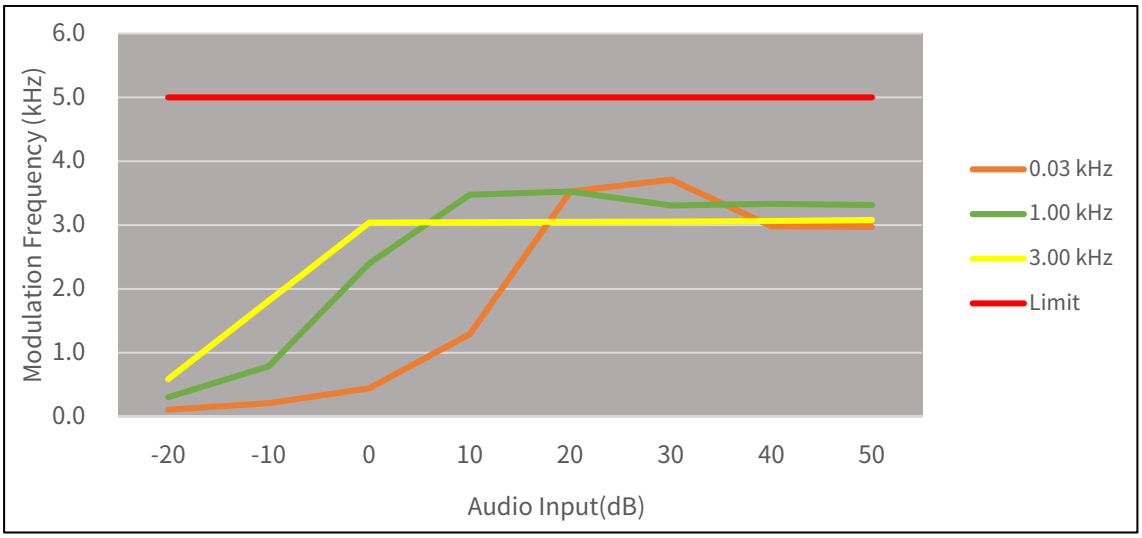
798.05 MHz



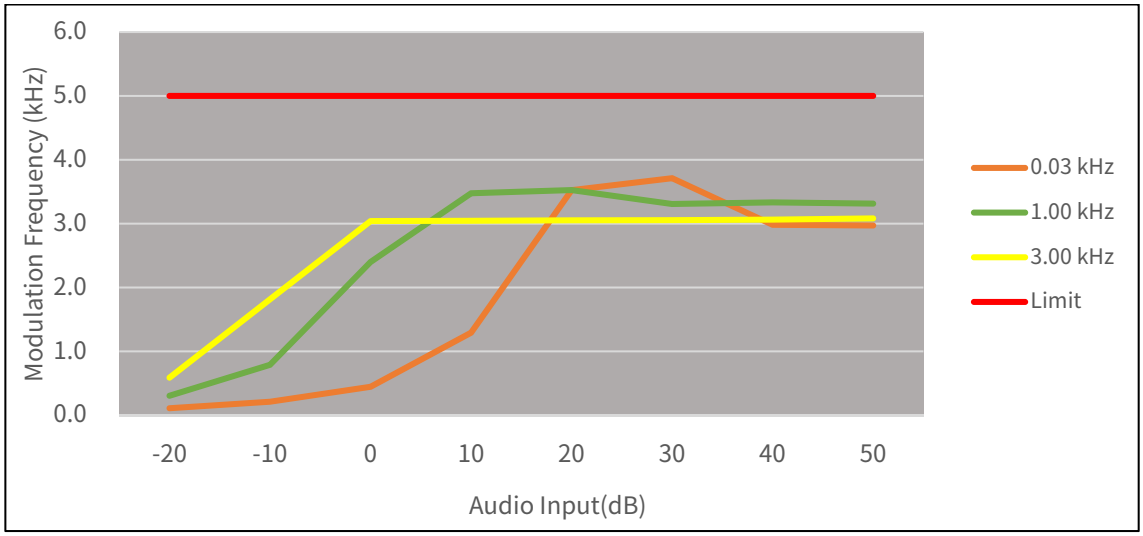
774.95 MHz



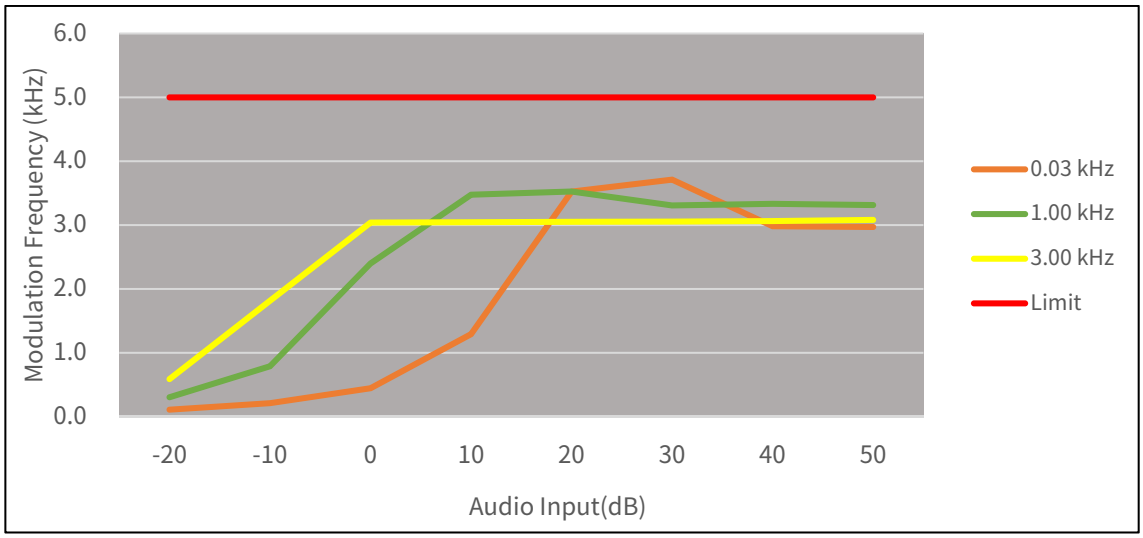
775.95 MHz



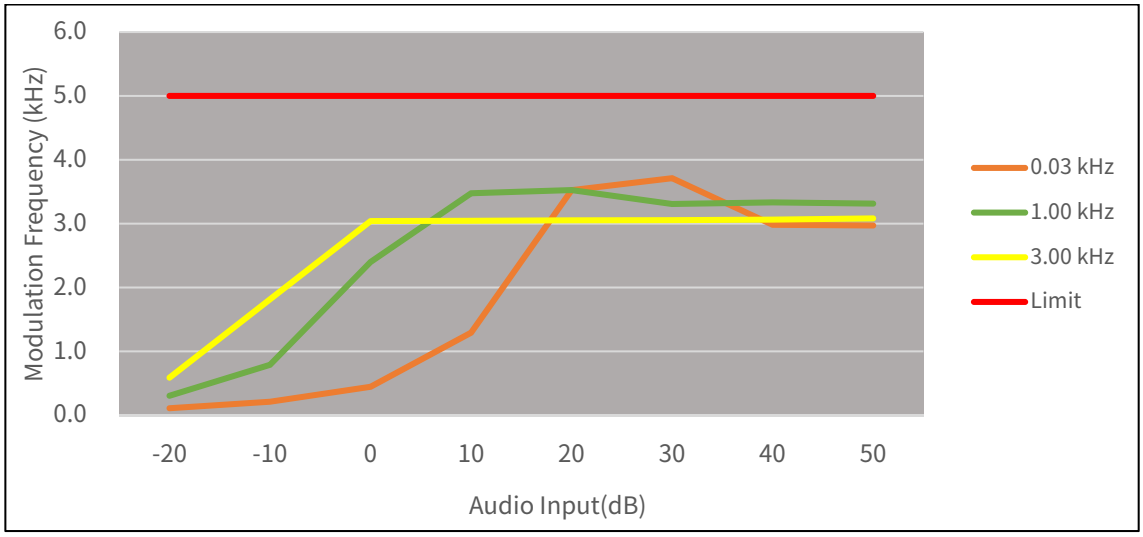
799.05 MHz



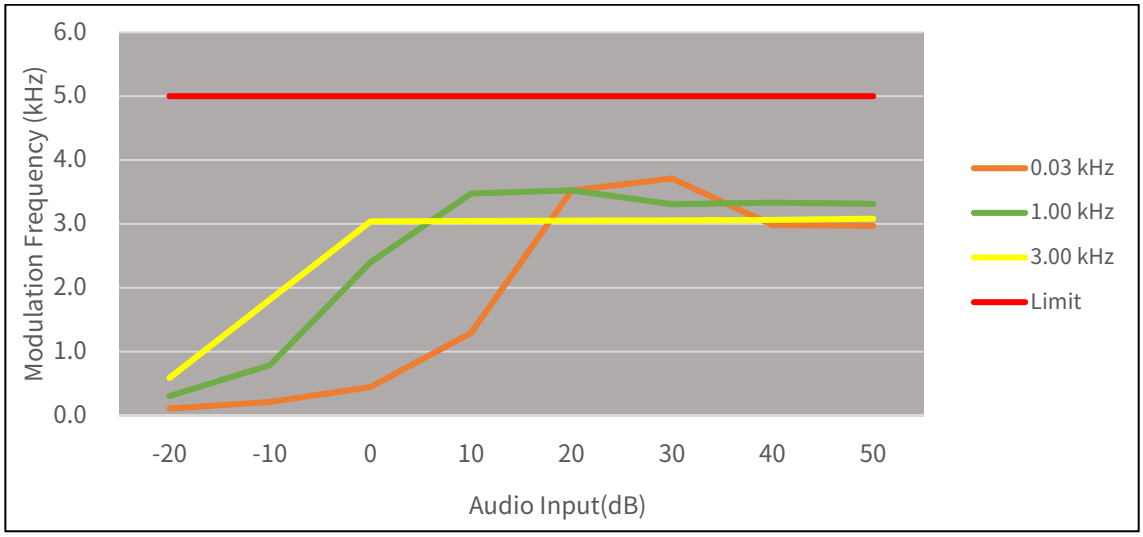
804.95 MHz



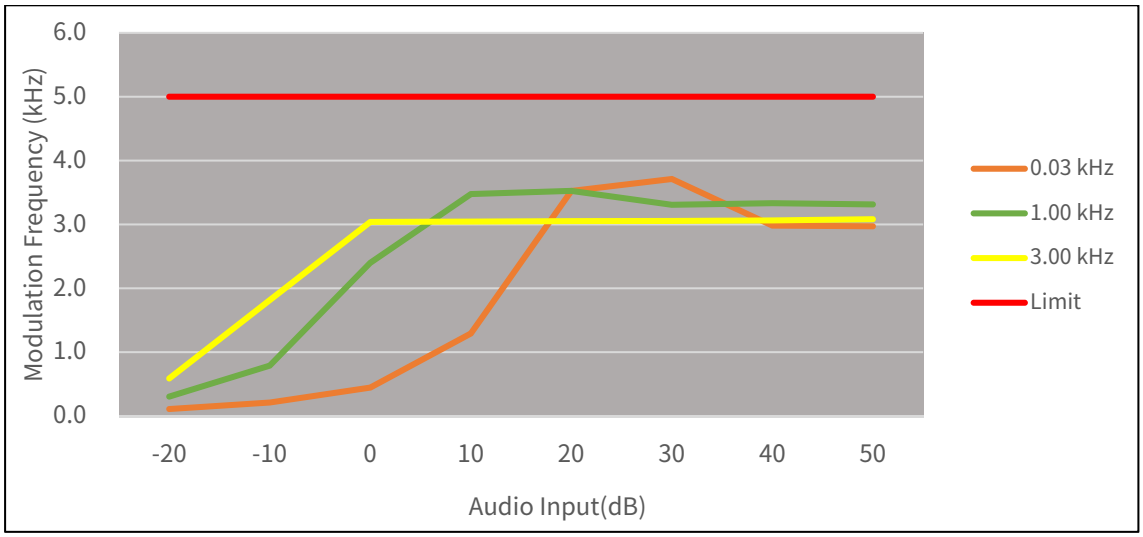
805.95 MHz



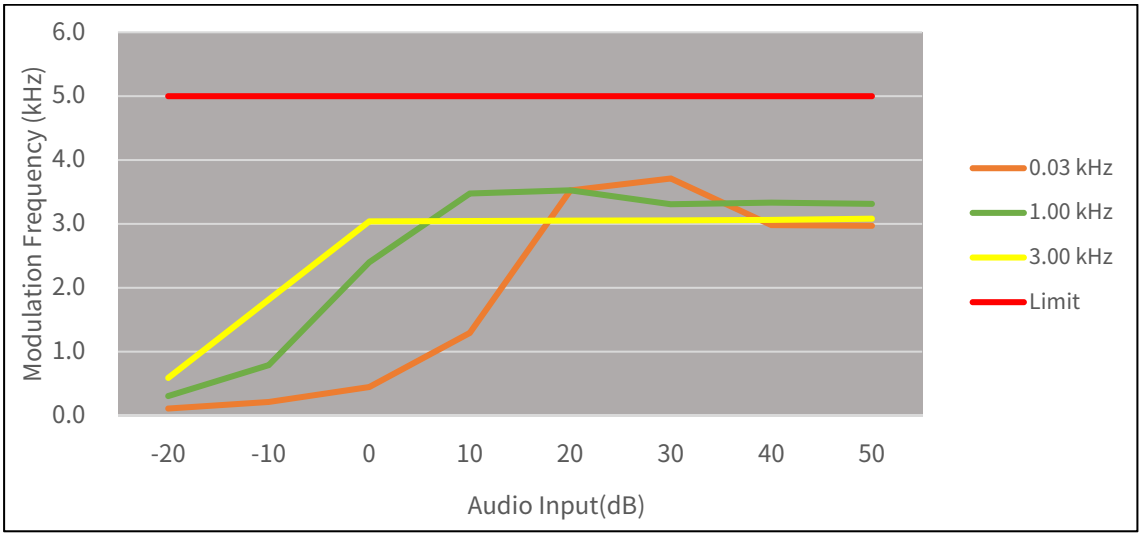
806.05 MHz



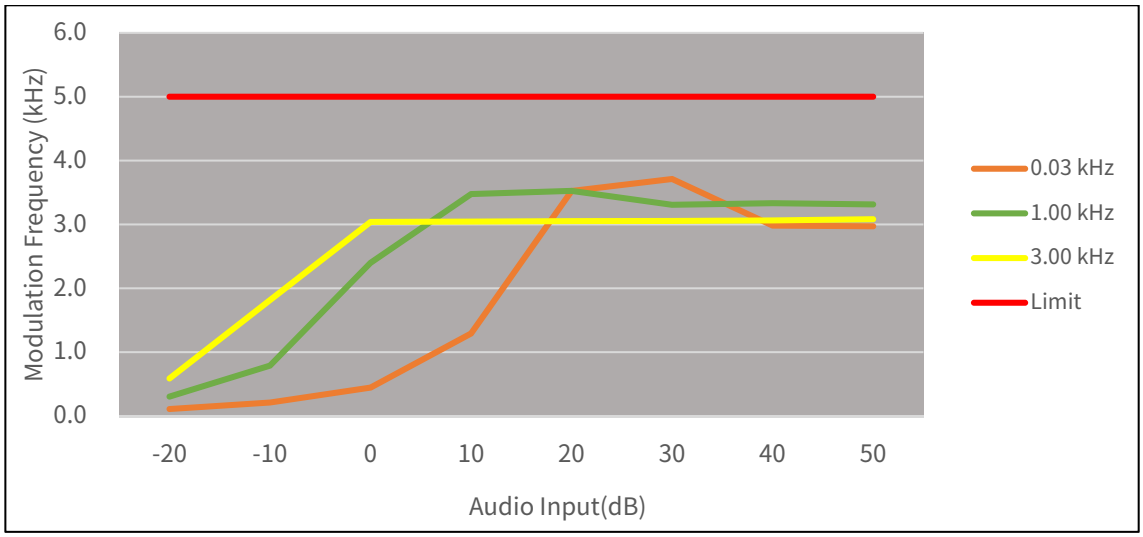
823.95 MHz



851.05 MHz



868.95 MHz

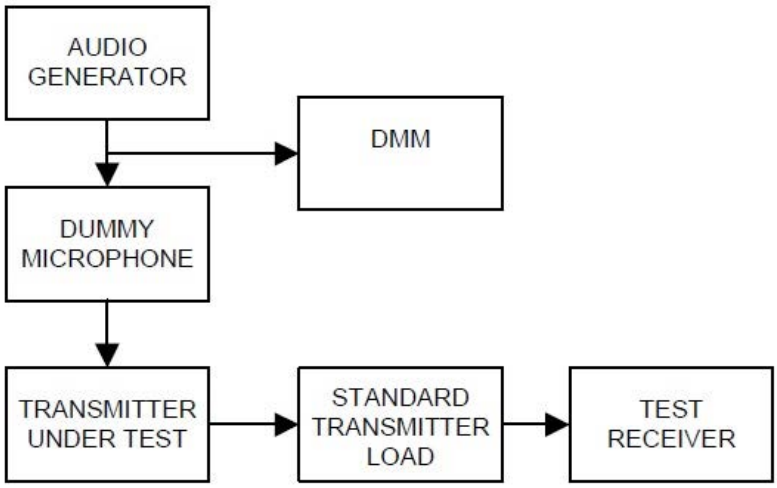


8.5 Audio Frequency Response / Audio Low Pass Filter Response

▣ Definition

The audio frequency response is the degree of closeness to which the frequency deviation of the transmitter follows a prescribed characteristic.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.6 in TIA-603-E Standard.

a) Connect the equipment as illustrated.

b) Set the test receiver to measure Peak positive deviation. Set the audio bandwidth for ≤ 50 Hz to ≥ 15,000 Hz. Turn the de-emphasis function off.

c) Set the DMM to measure rms voltage.

d) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.

e) Apply a 1000 Hz tone and adjust the audio frequency generator to produce 20% of the rated system deviation.

f) Set the test receiver to measure rms deviation and record the deviation reading.

g) Record the DMM reading as $V_{REF.}$

h) Set the audio frequency generator to the desired test frequency between 300 Hz and 3000 Hz.

i) Vary the audio frequency generator output level until the deviation reading that was recorded in step f) is obtained.

j) Record the DMM reading as $V_{FREQ.}$

k) Calculate the audio frequency response at the present frequency as:
audio frequency response = $20 \times \log_{10}(V_{FREQ}/V_{REF})$

l) Repeat steps h) through k) for all the desired test frequencies.

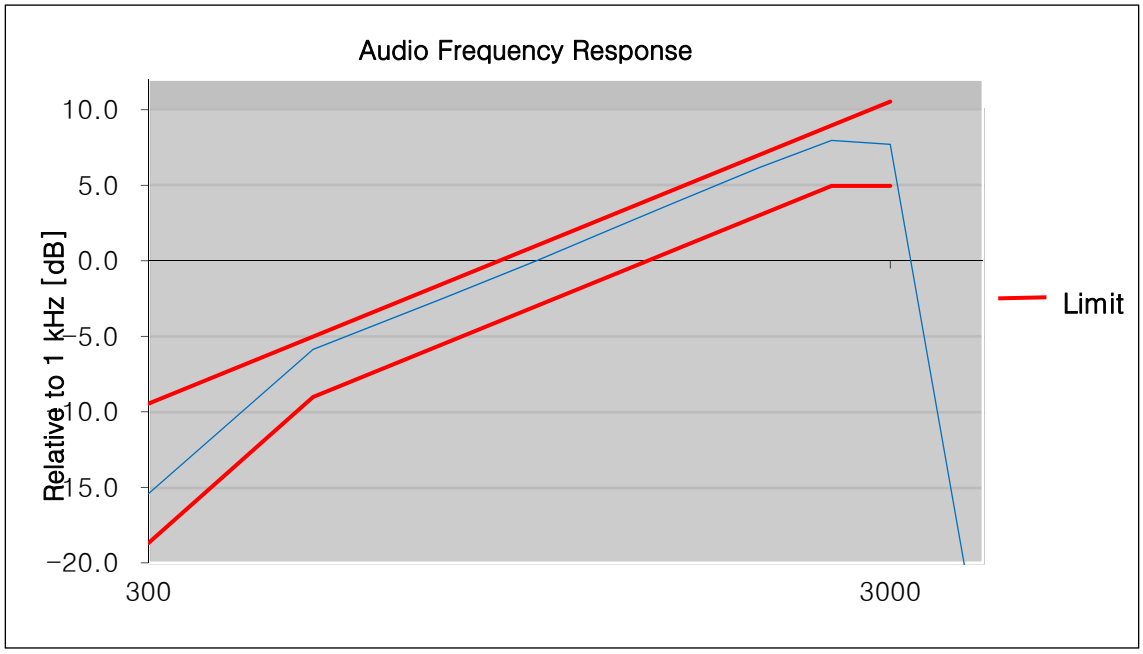
Note

Audio Filter of the above result is substituted with the same structure as Audio Frequency Response.
On the transmission condition below 3kHz, Transceiver shows pre-emphasis condition of transmission function.
On the transmission condition above 3kHz, Transceiver shows Audio Low Pass Filter.

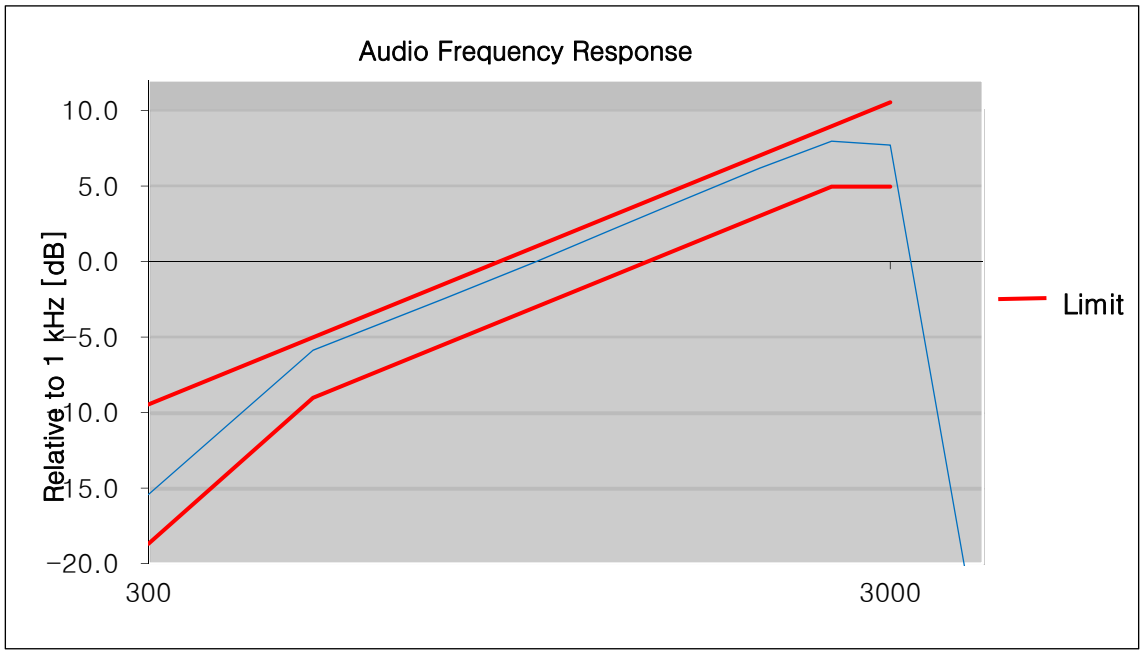
▣ TEST RESULTS (Type of emission: 16K0F3E)

HIGH POWER

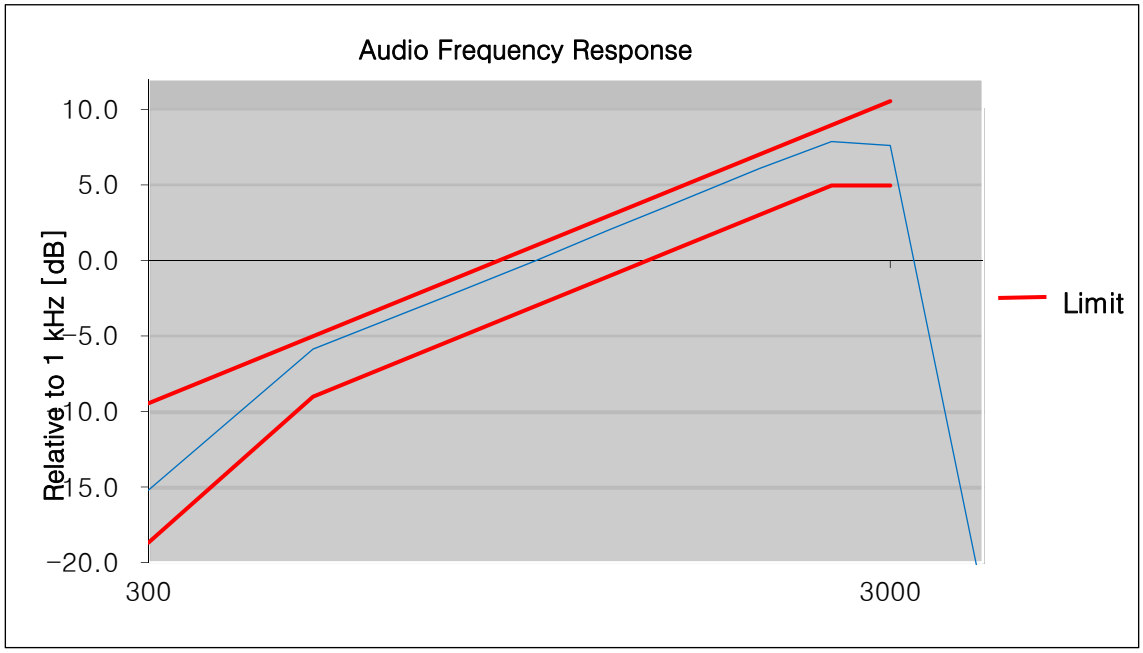
138.05 MHz



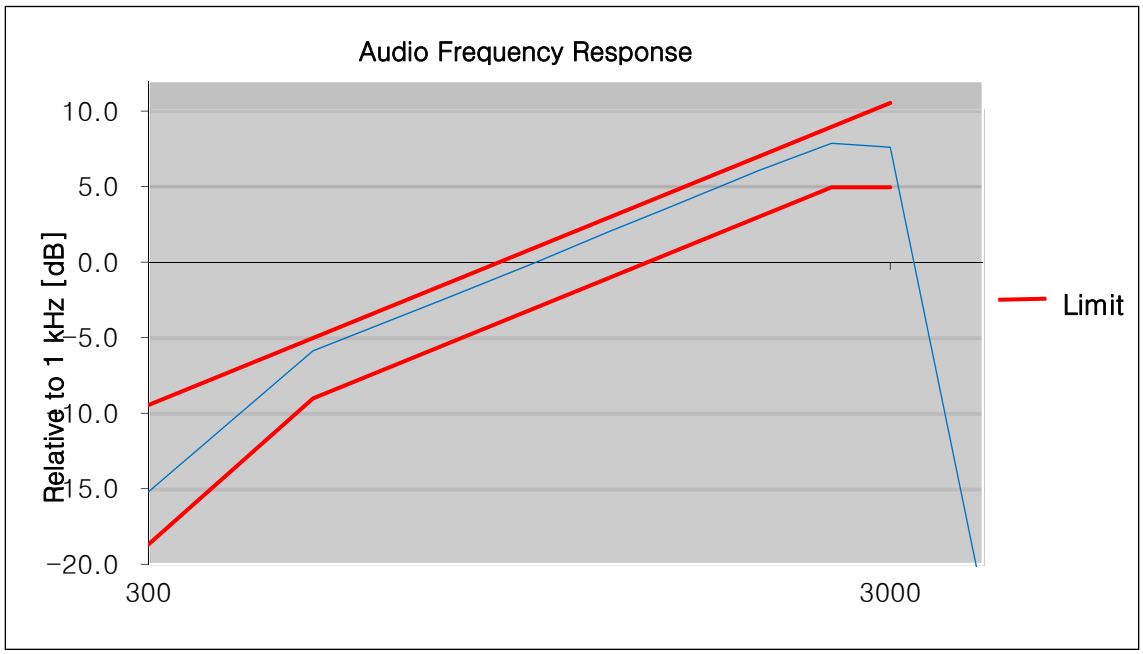
150.05 MHz



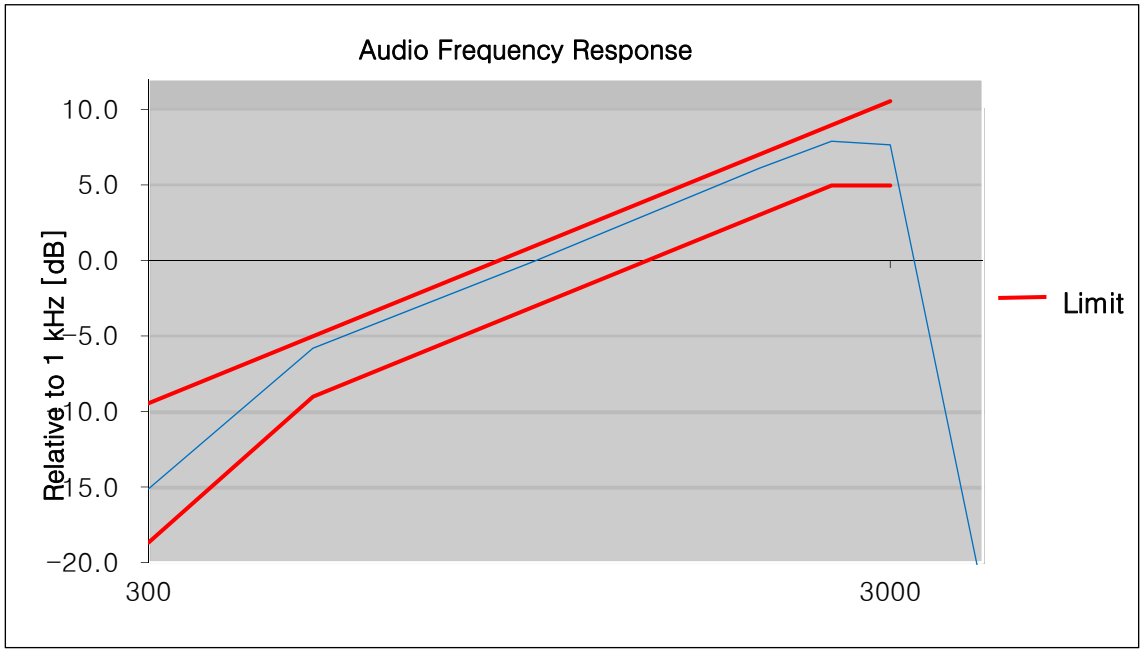
162.05 MHz



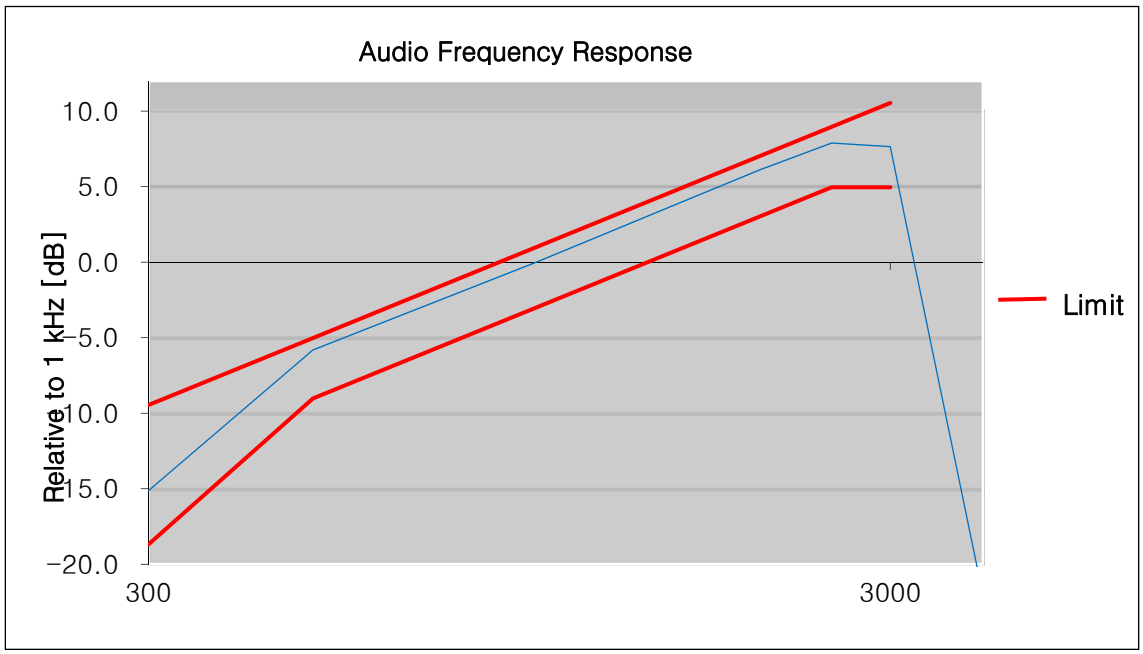
173.95 MHz



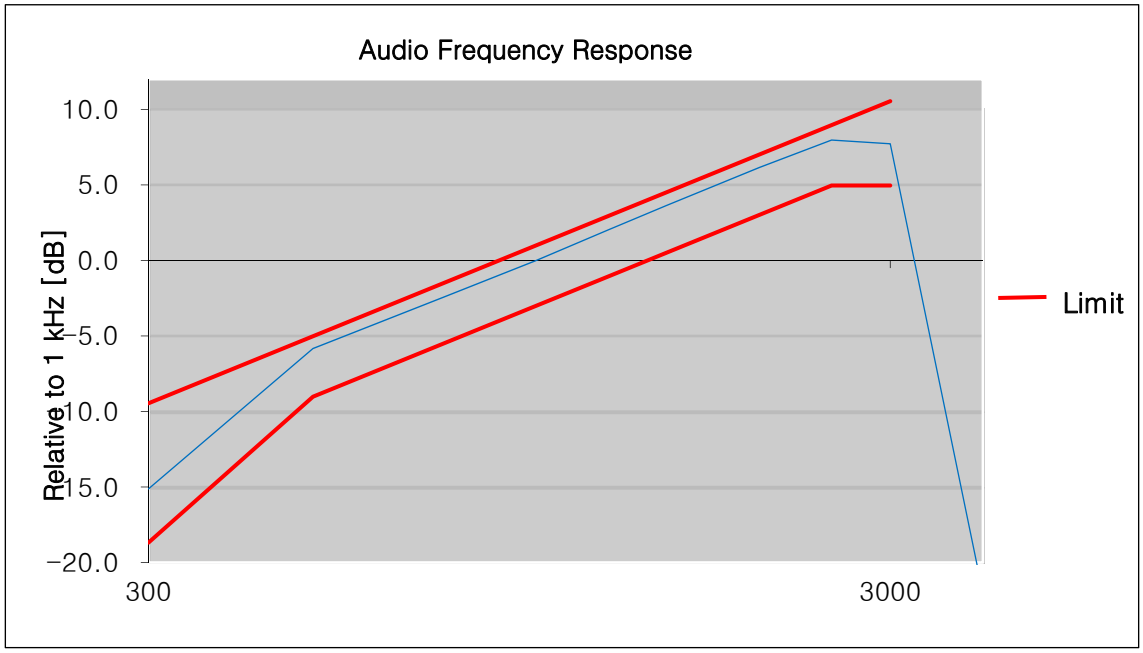
406.15 MHz



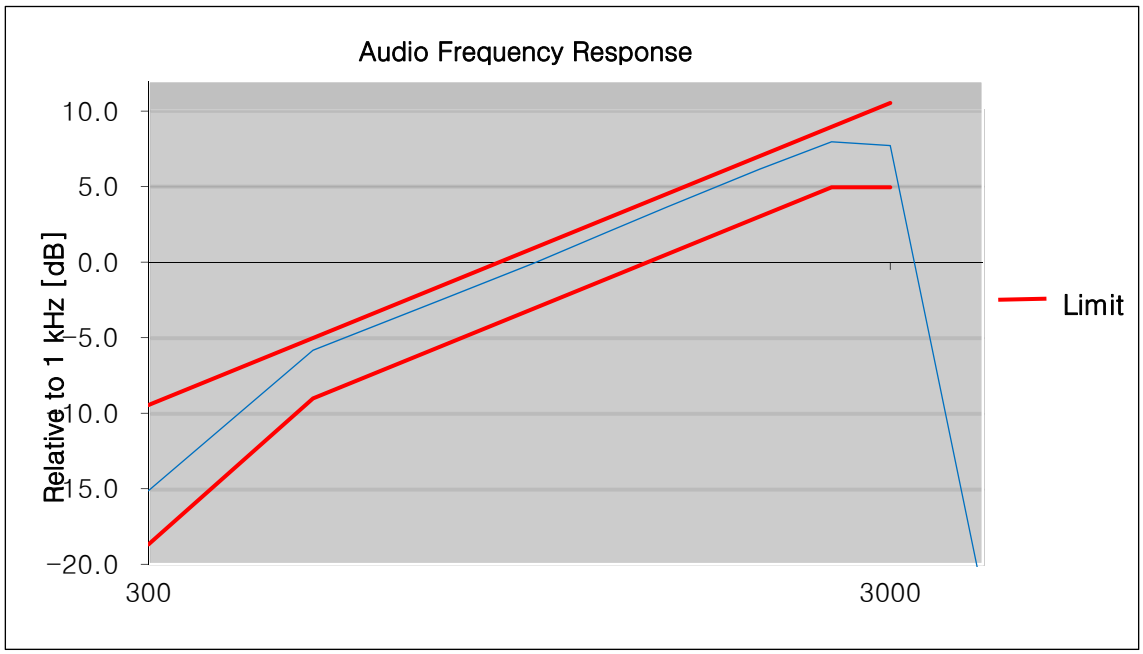
429.95 MHz



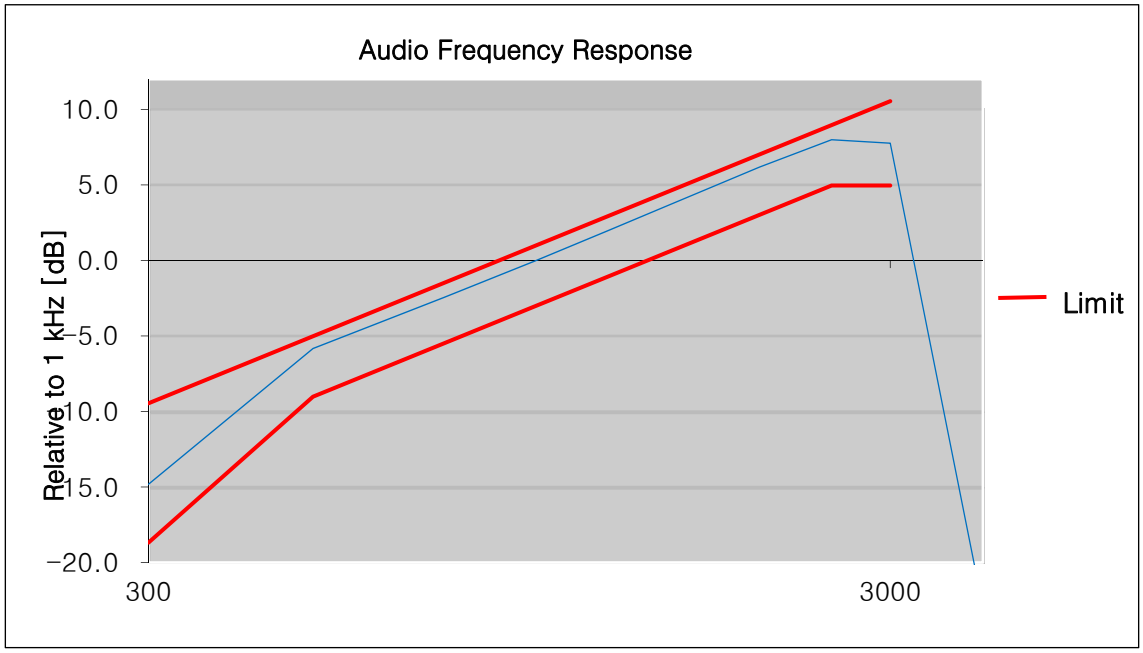
469.95 MHz



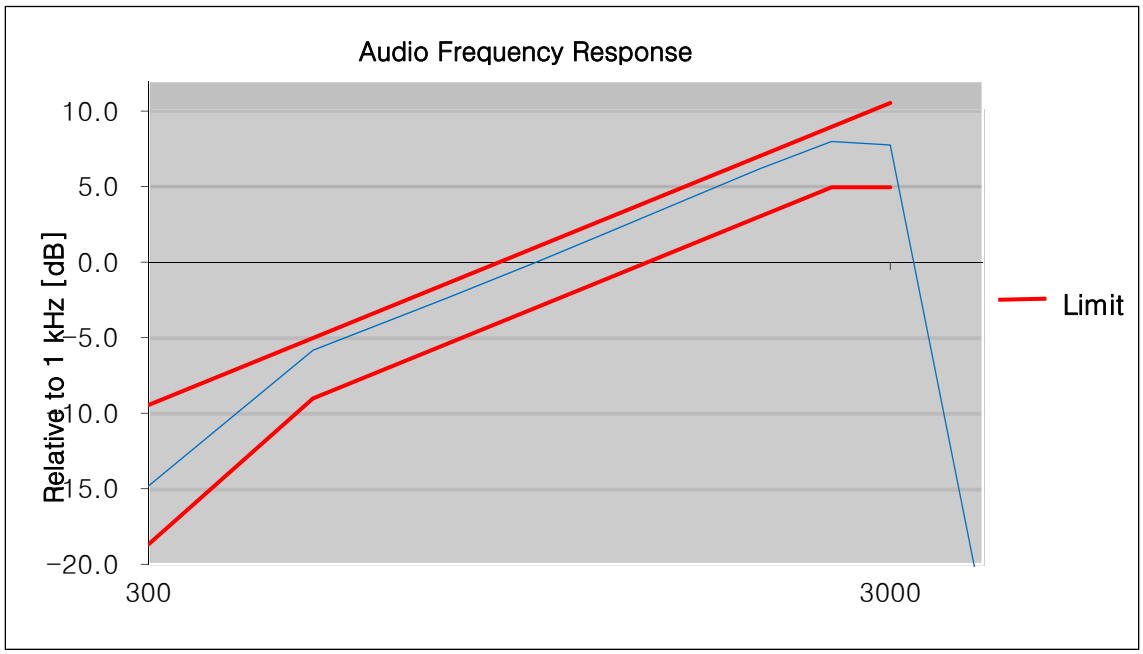
470.05 MHz



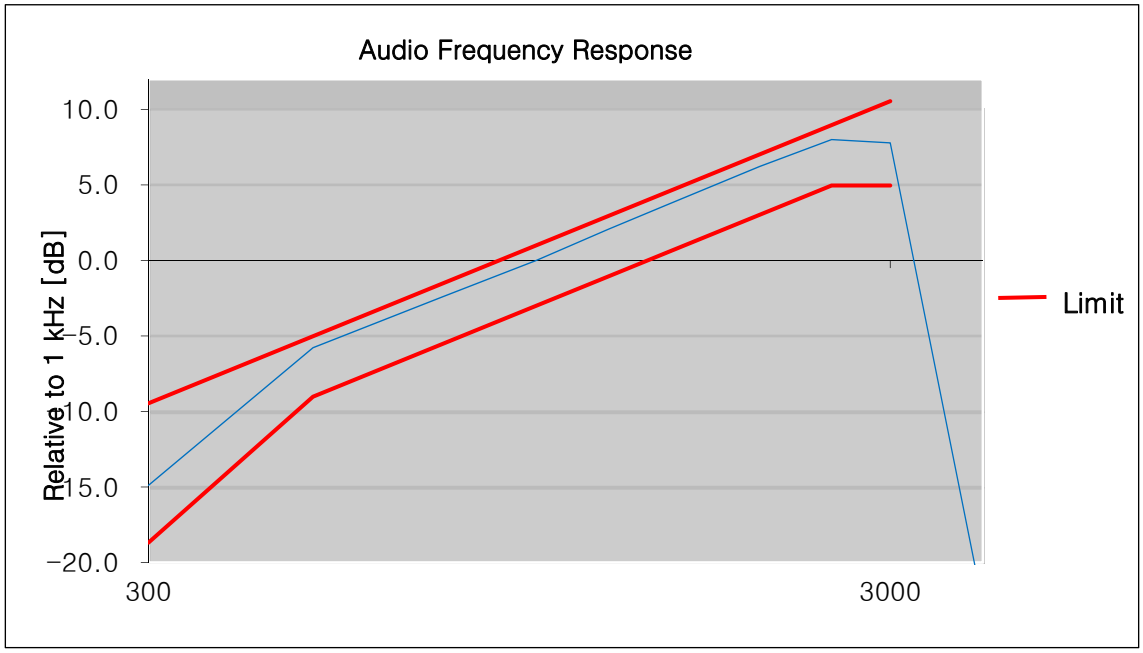
495.05 MHz



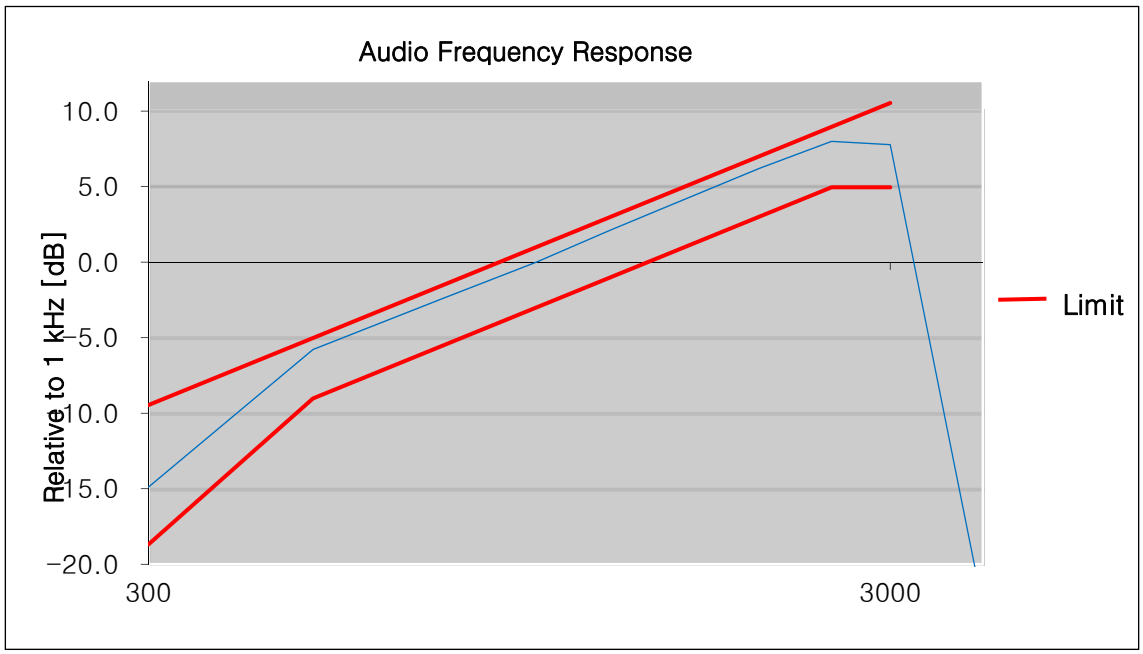
511.95 MHz



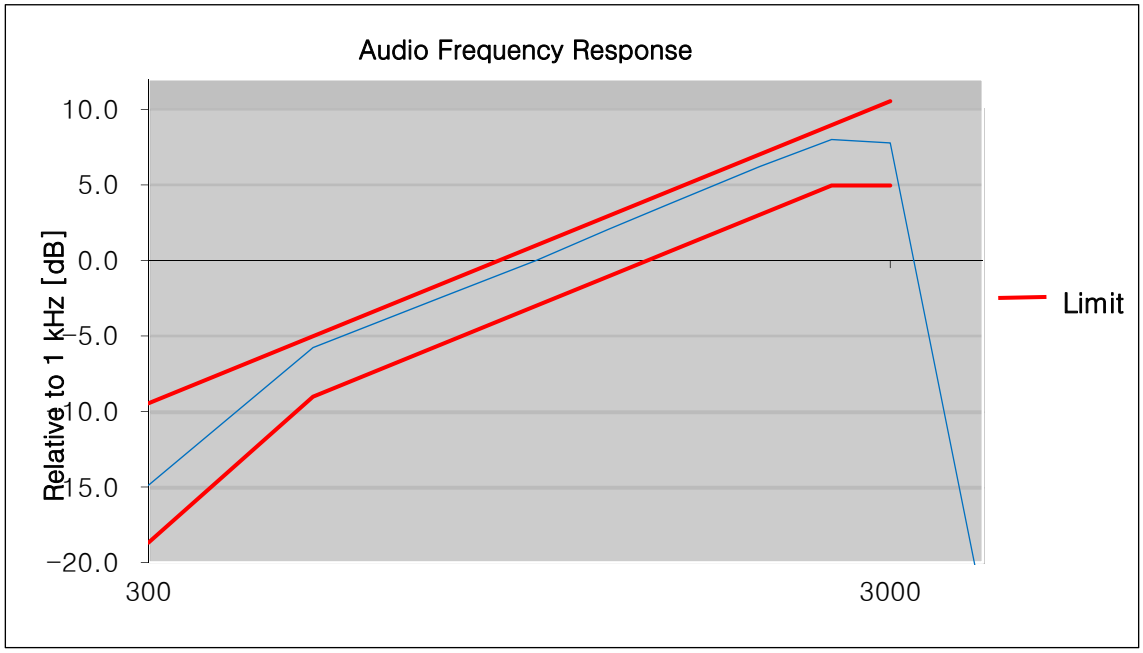
768.05 MHz



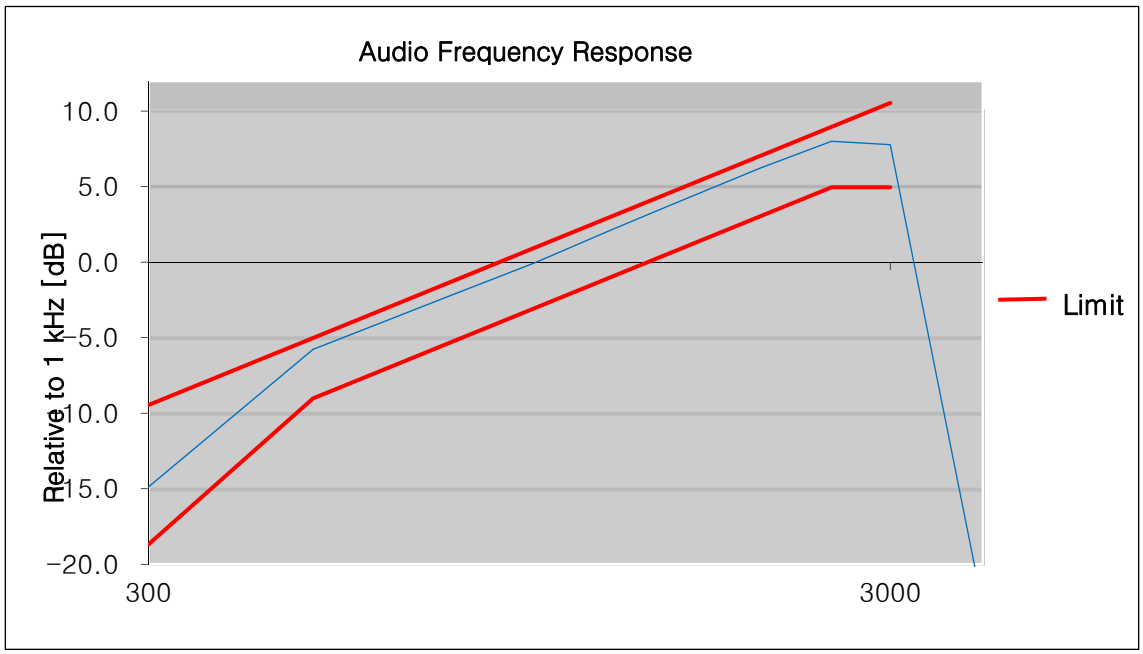
769.05 MHz



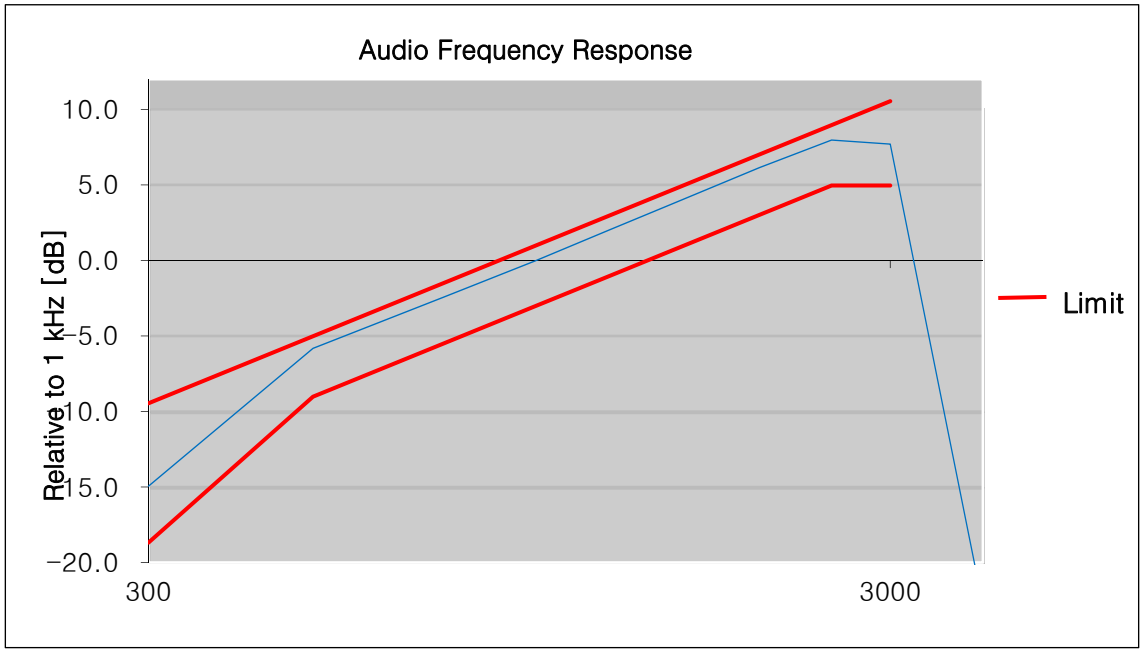
798.05 MHz



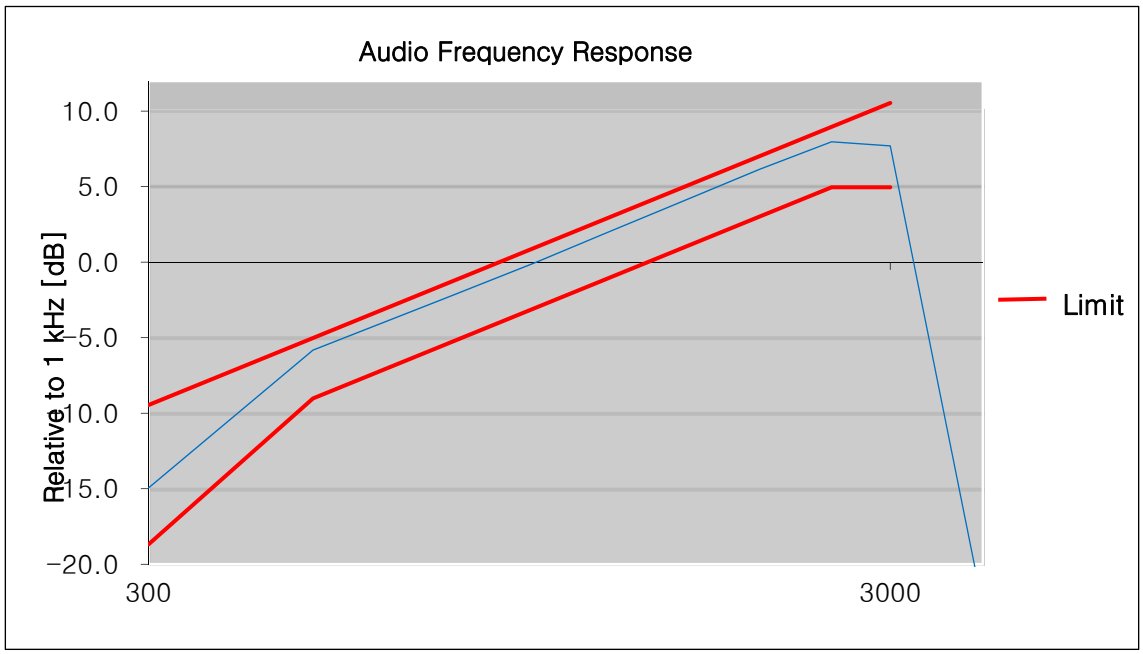
774.95 MHz



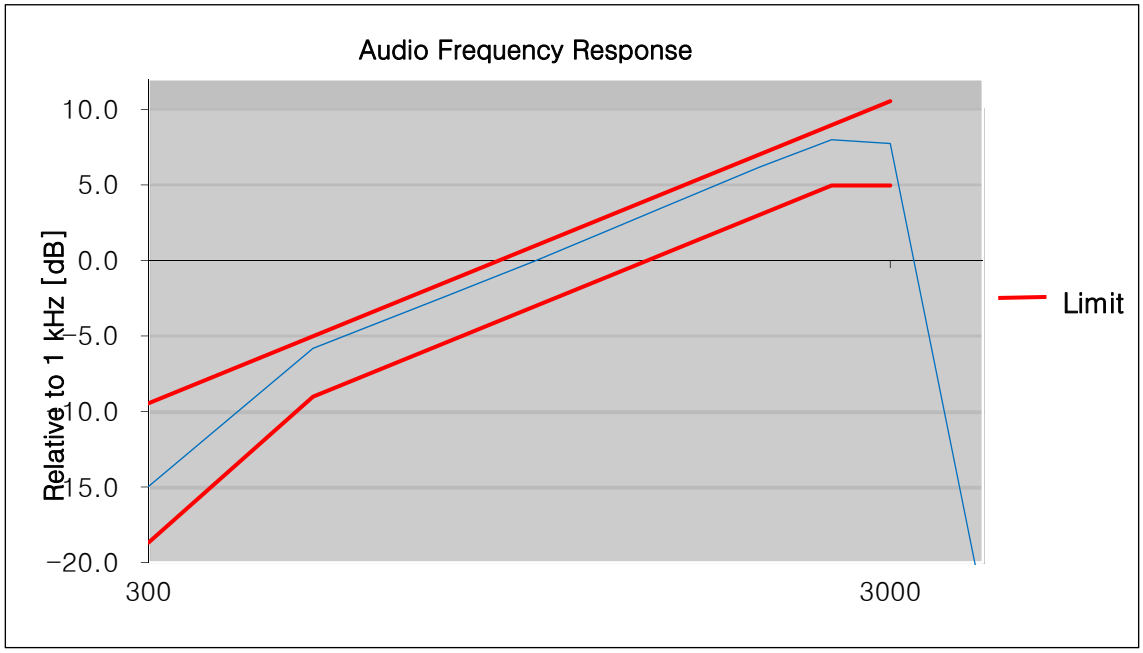
775.95 MHz



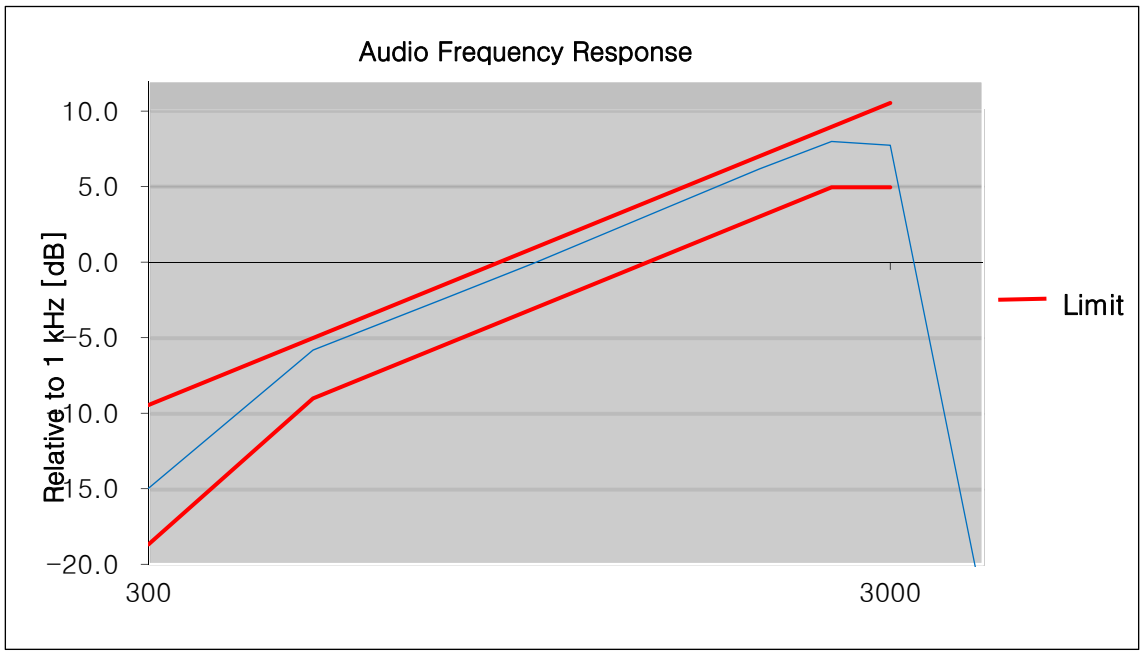
799.05 MHz



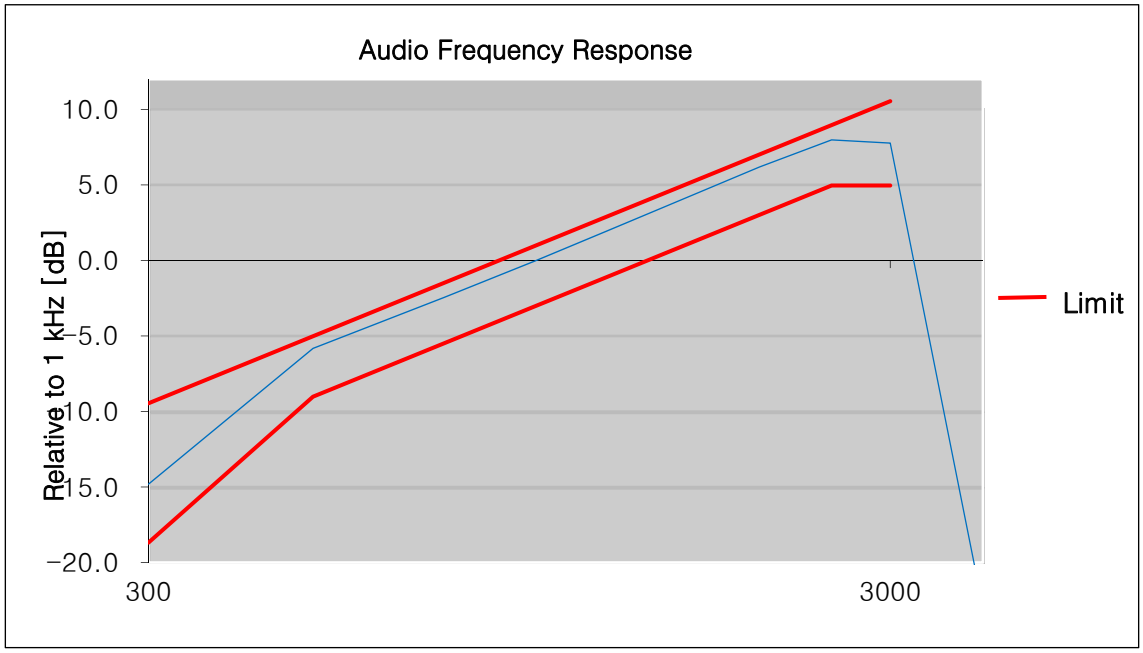
804.95 MHz



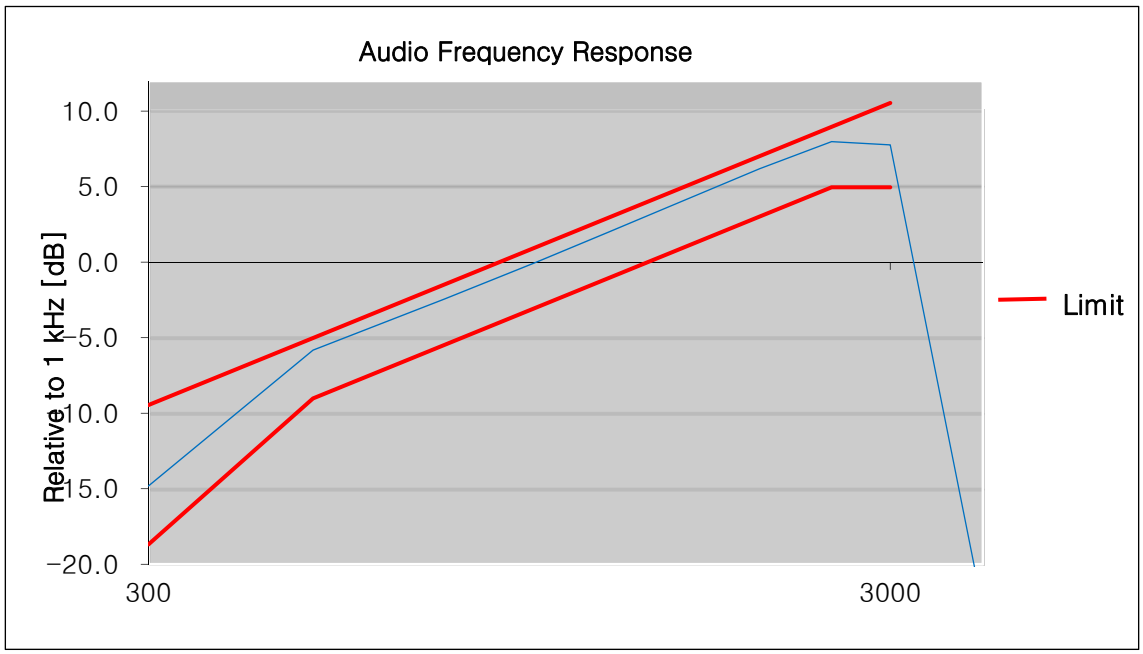
805.95 MHz



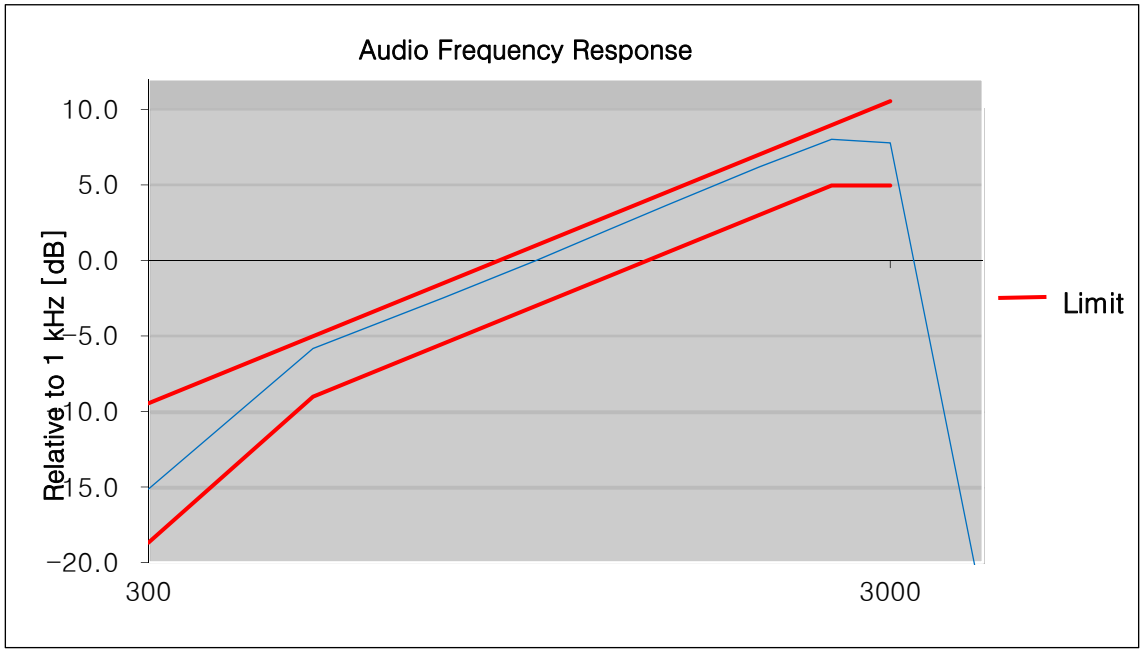
806.05 MHz



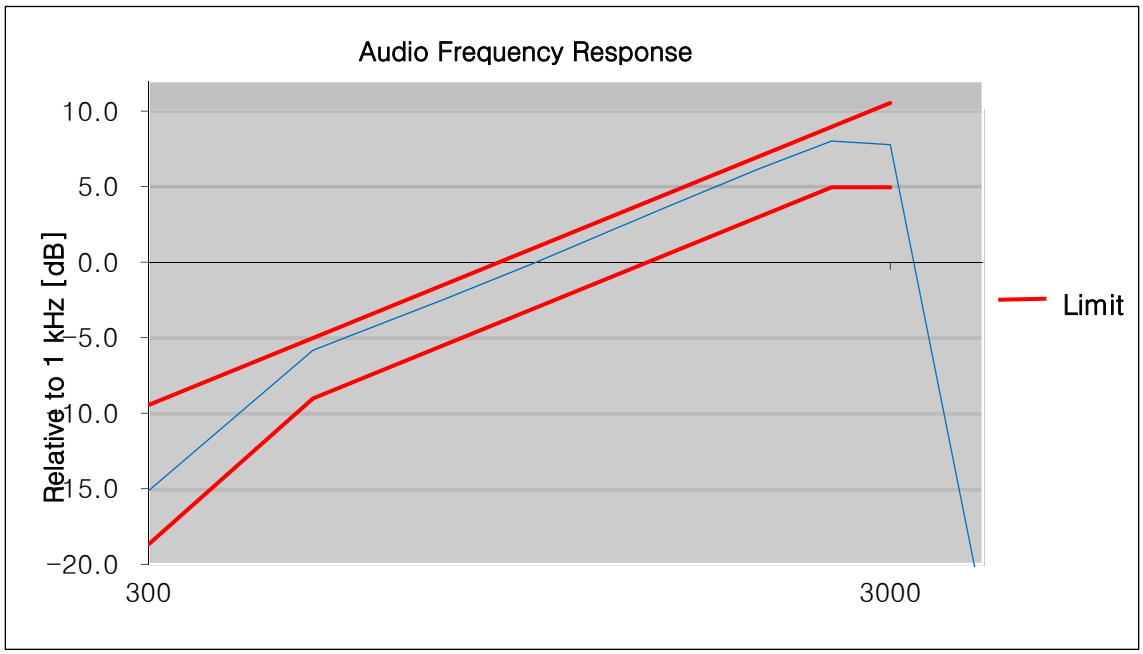
823.95 MHz



851.05 MHz



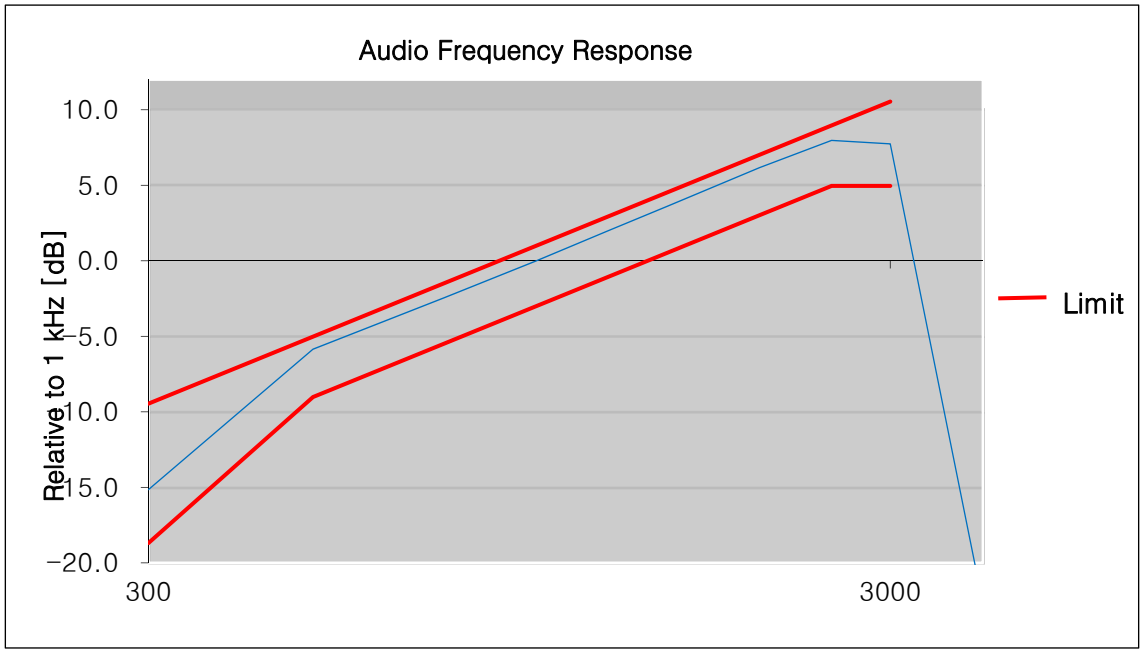
868.95 MHz



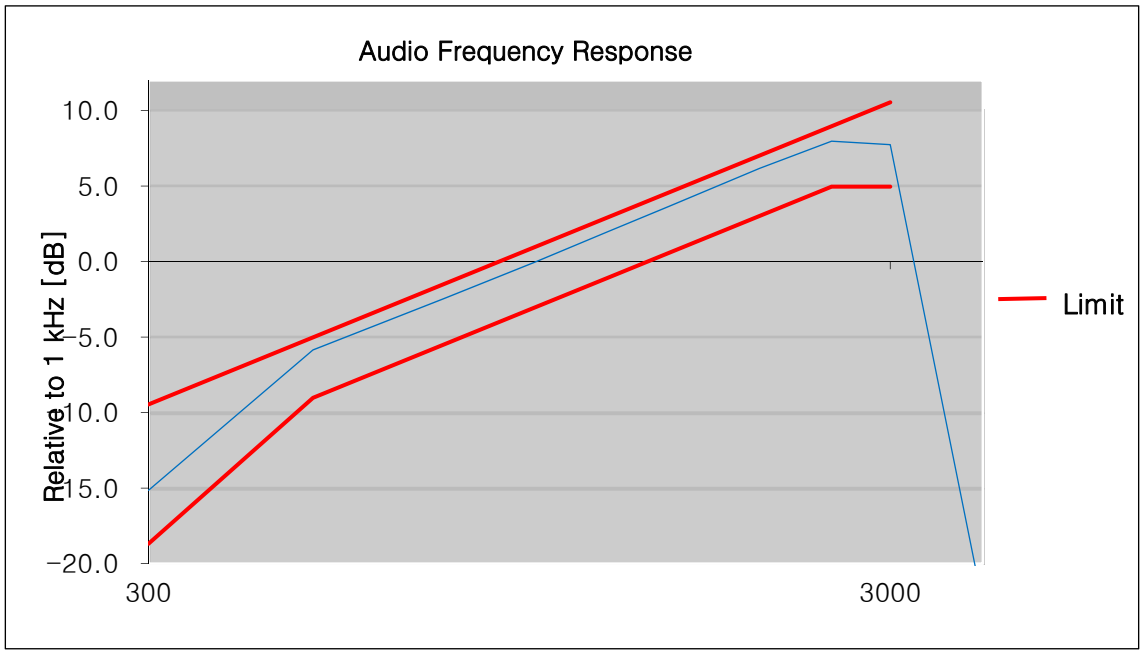
▣ TEST RESULTS (Type of emission: 11K0F3E)

HIGH POWER

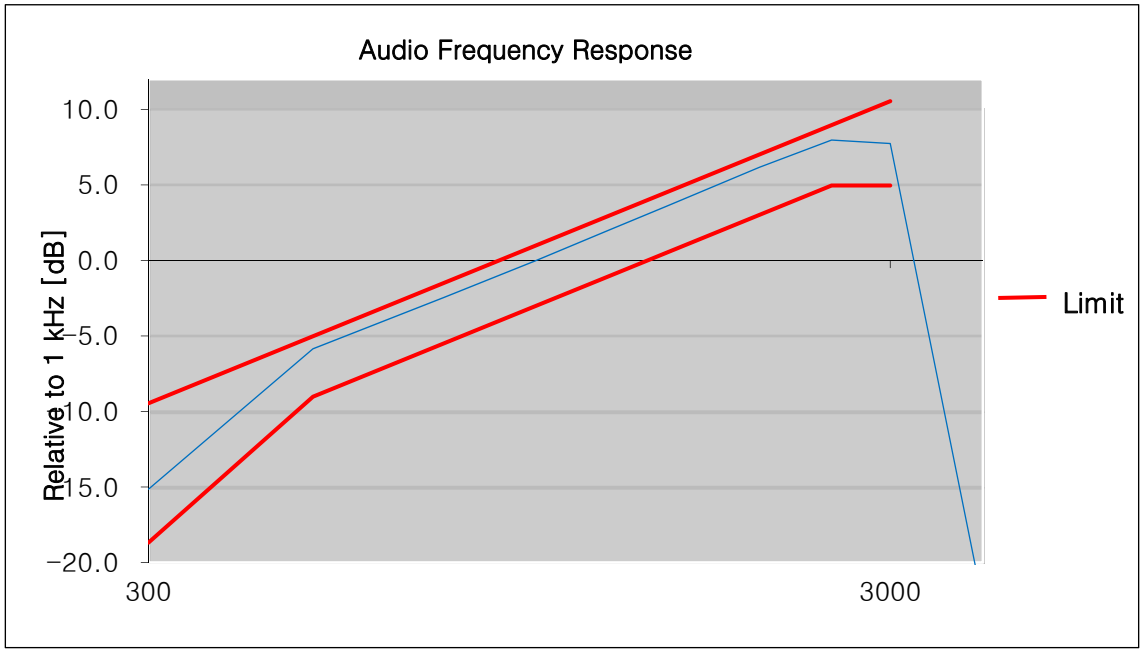
138.05 MHz



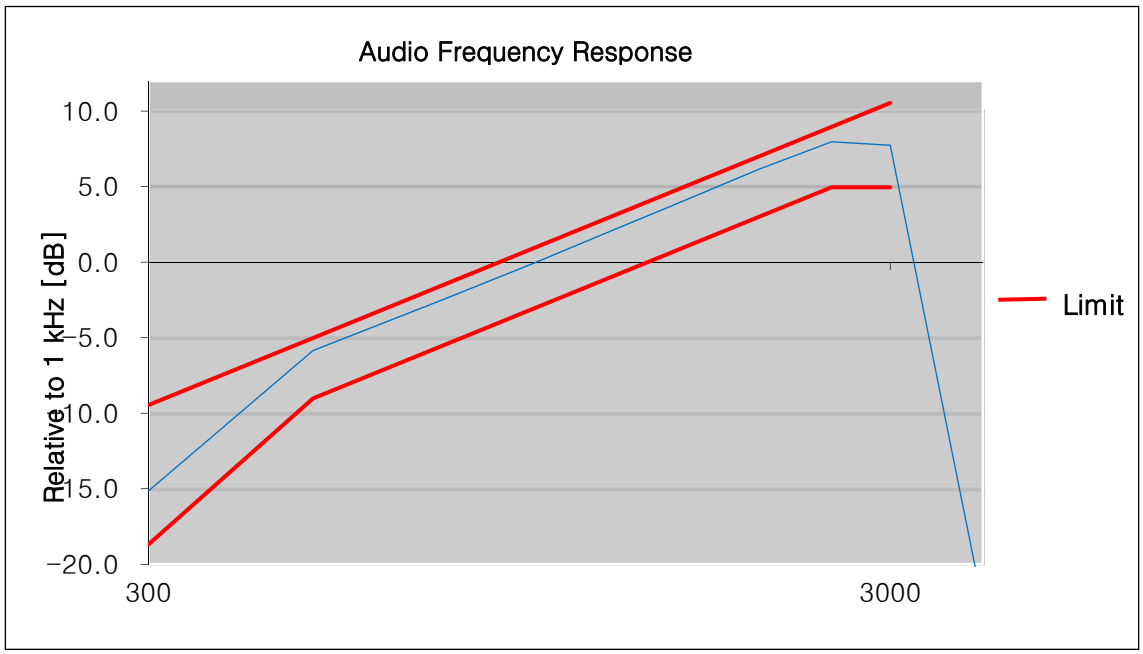
150.05 MHz



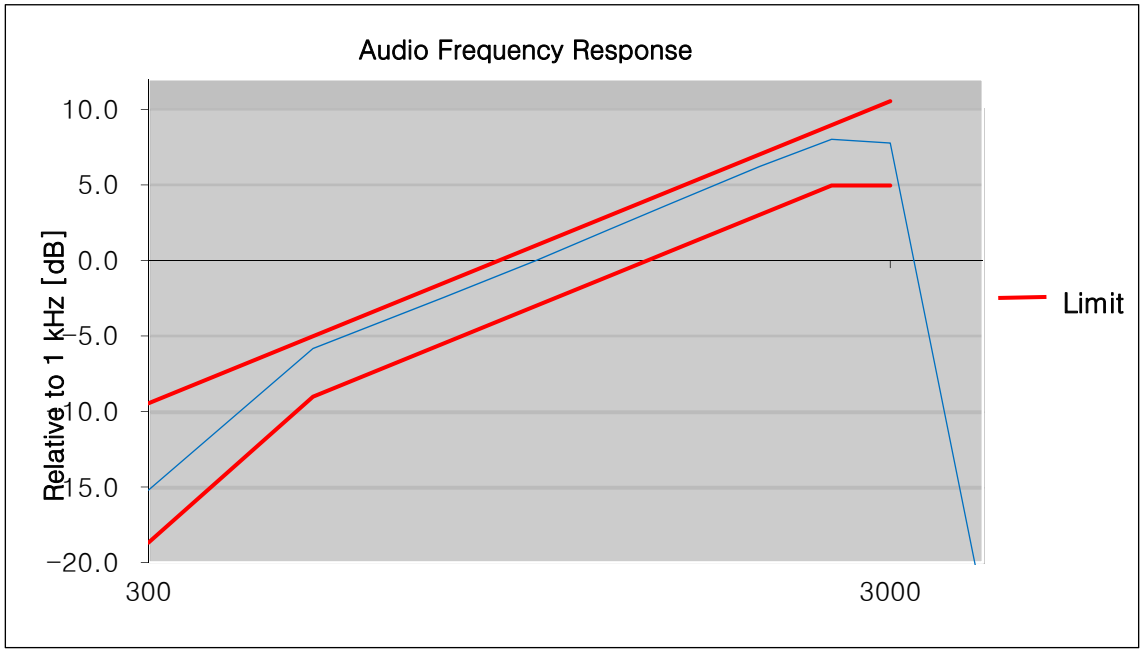
162.05 MHz



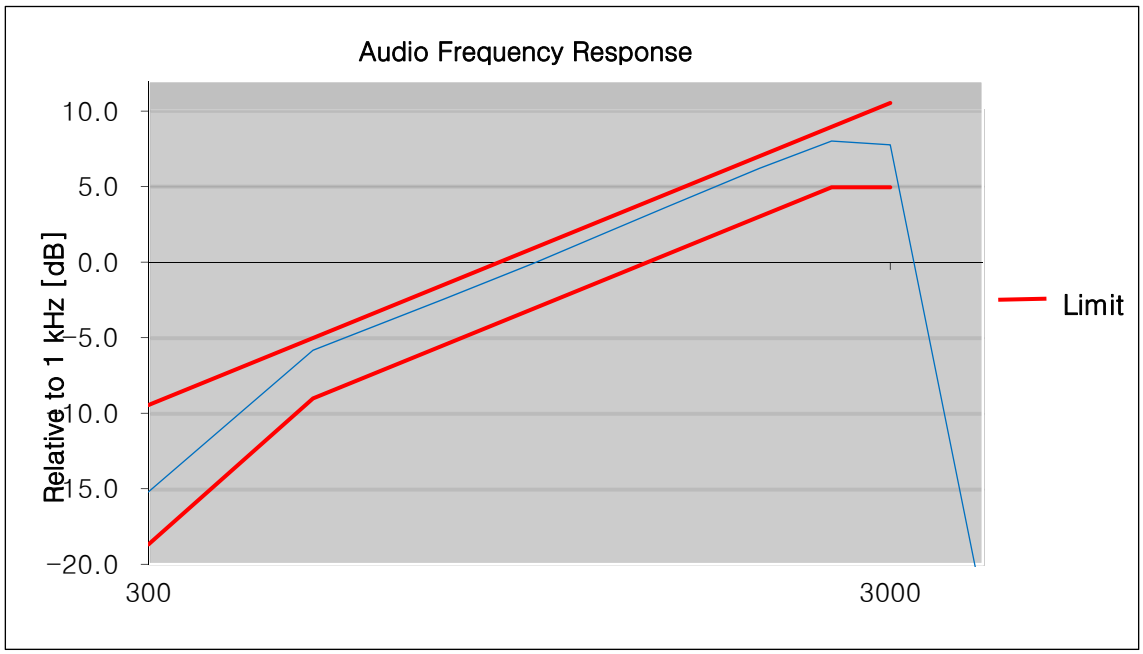
173.95 MHz



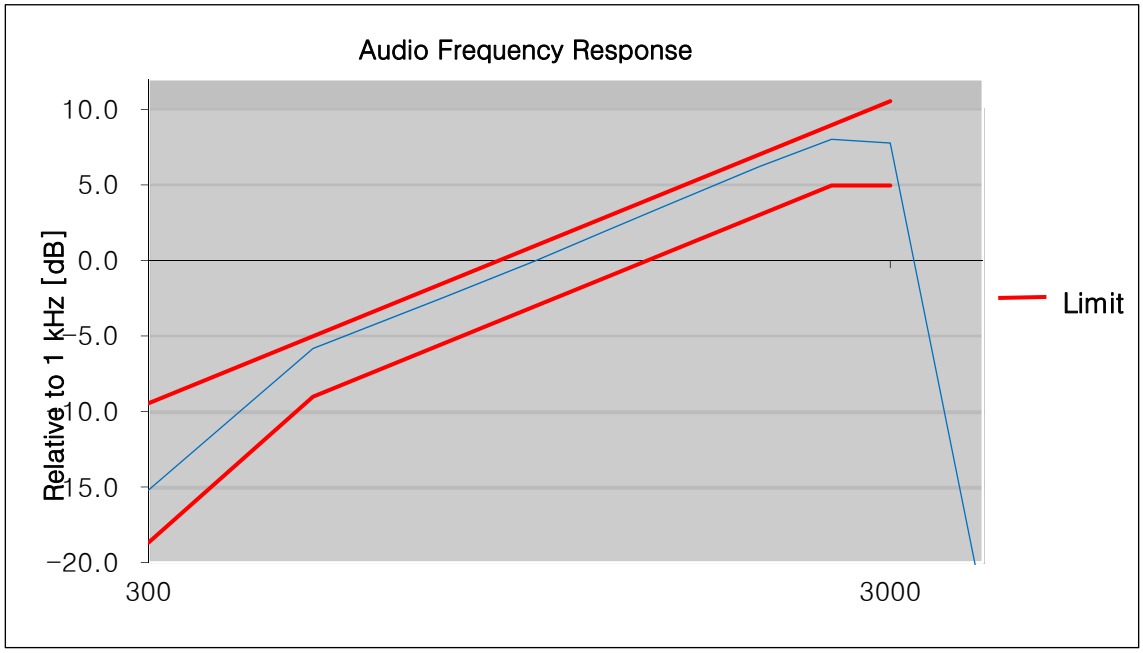
406.15 MHz



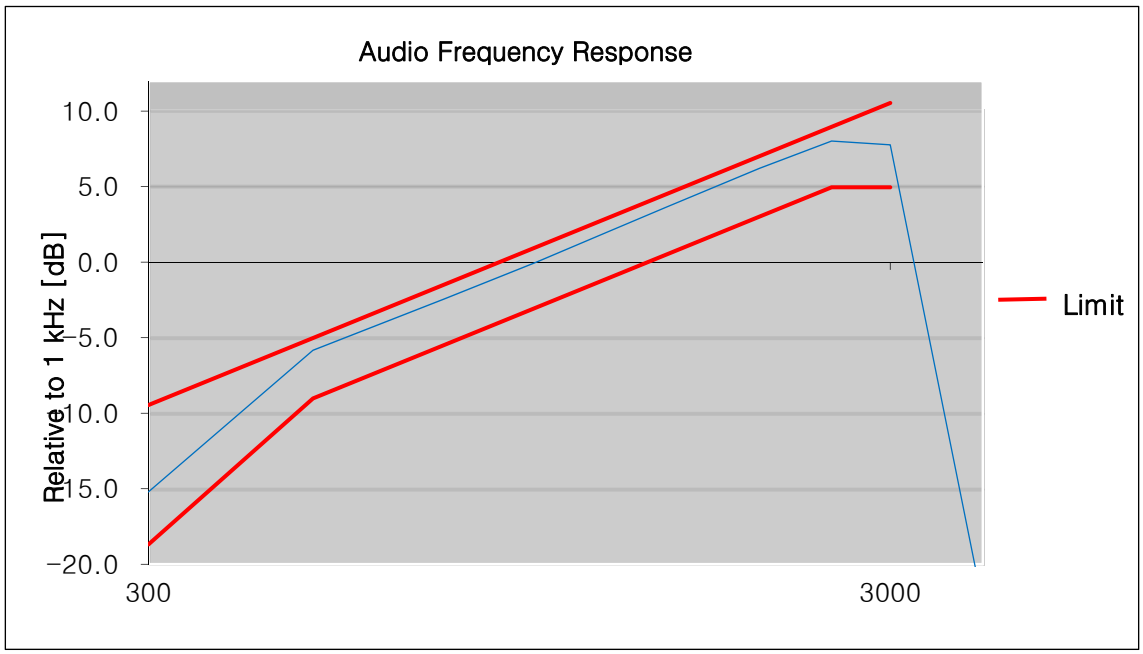
429.95 MHz



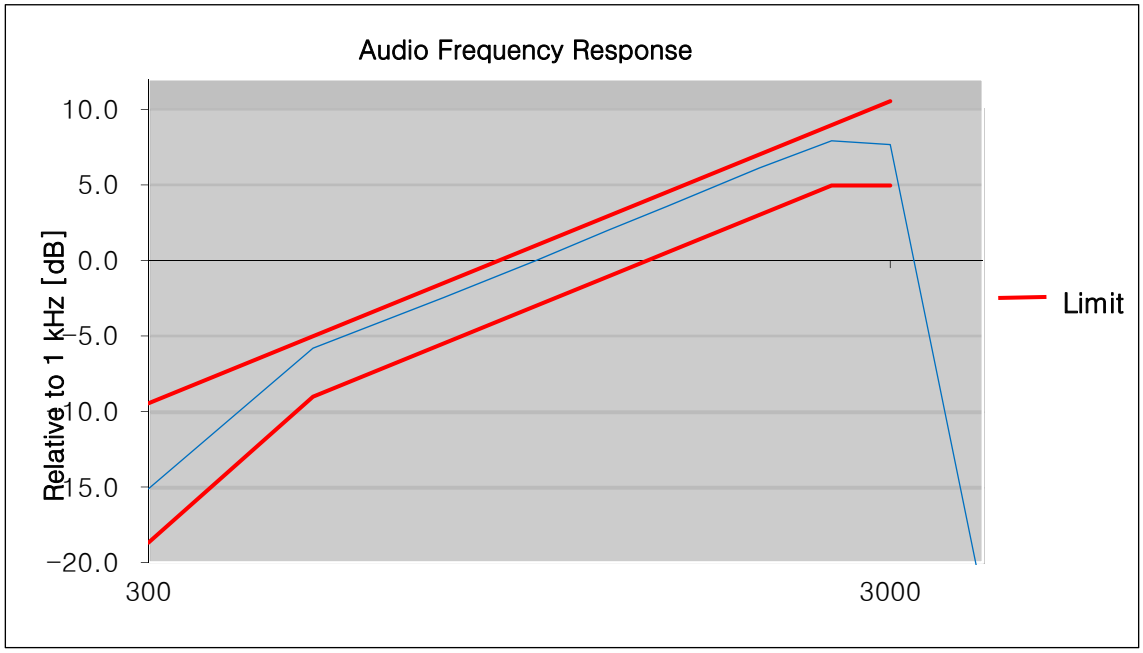
469.95 MHz



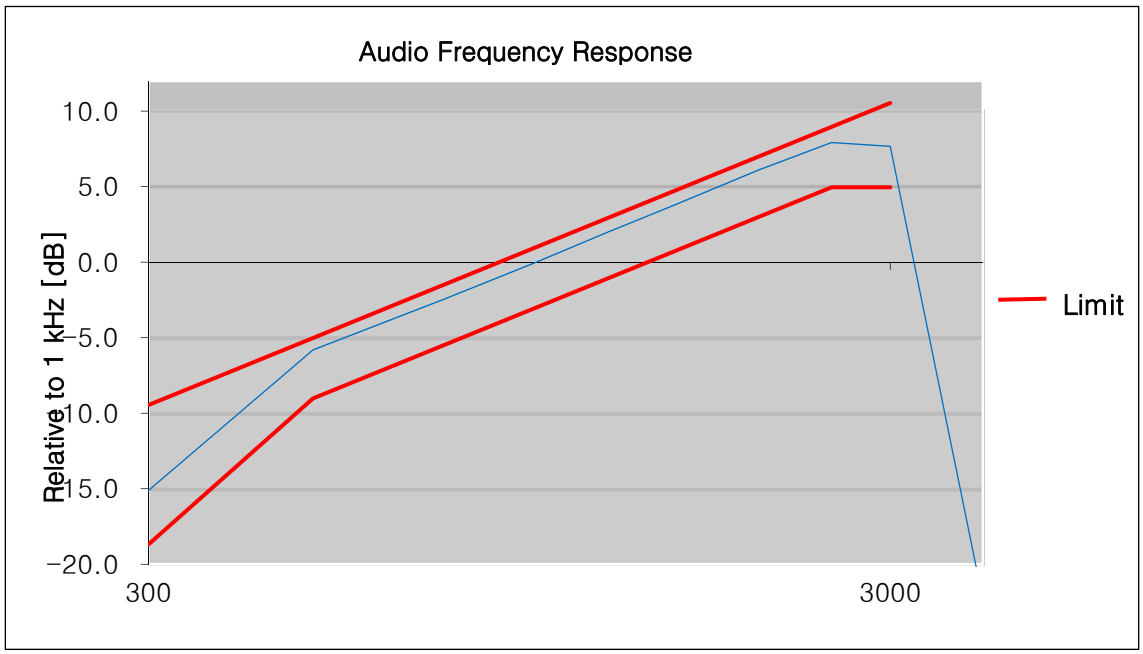
511.95 MHz



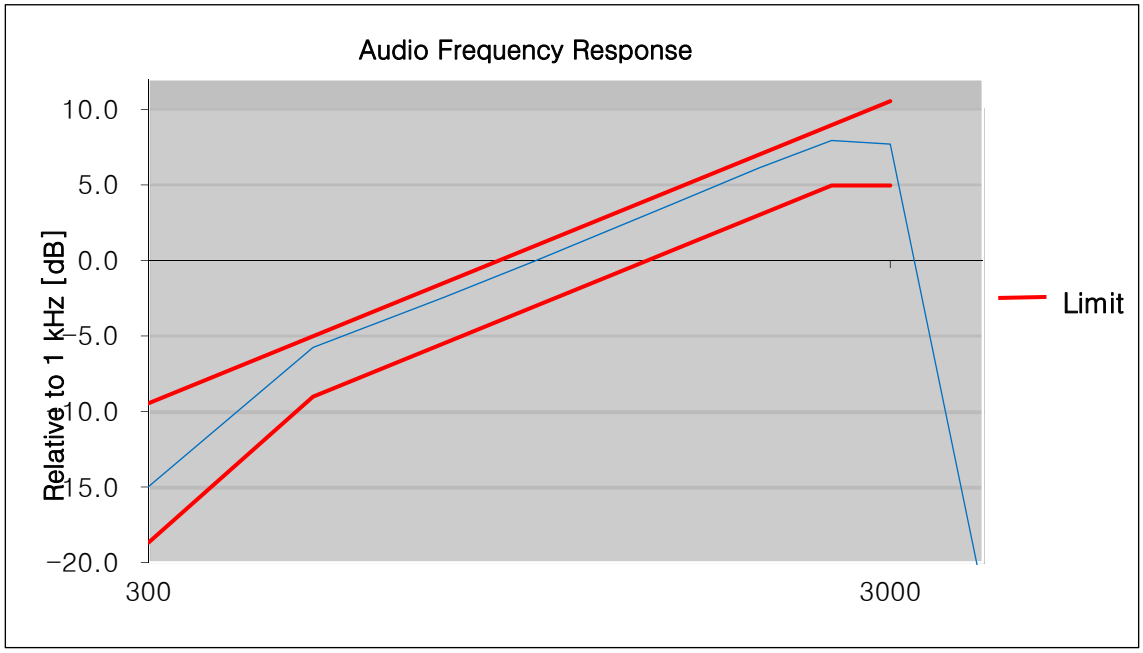
768.05 MHz



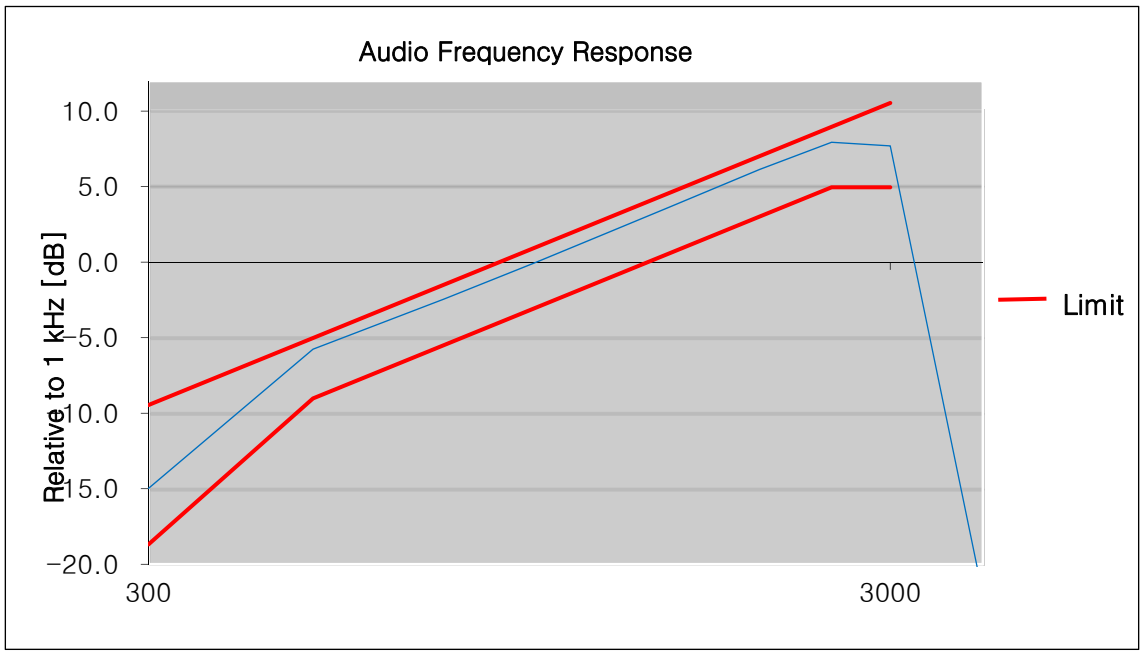
769.05 MHz



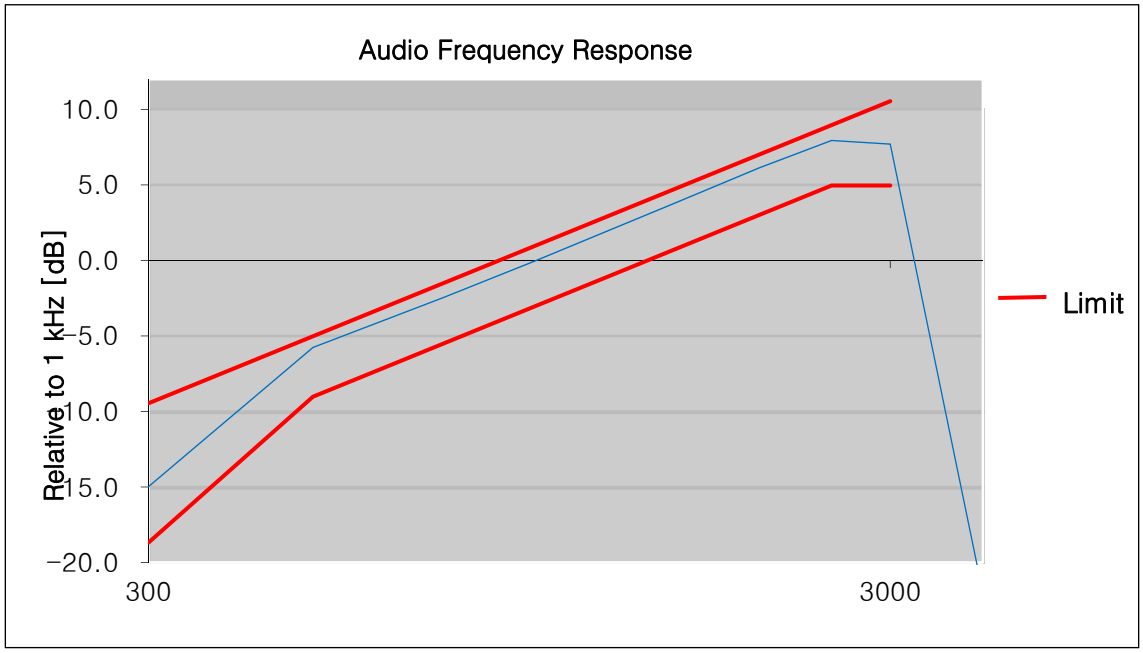
798.05 MHz



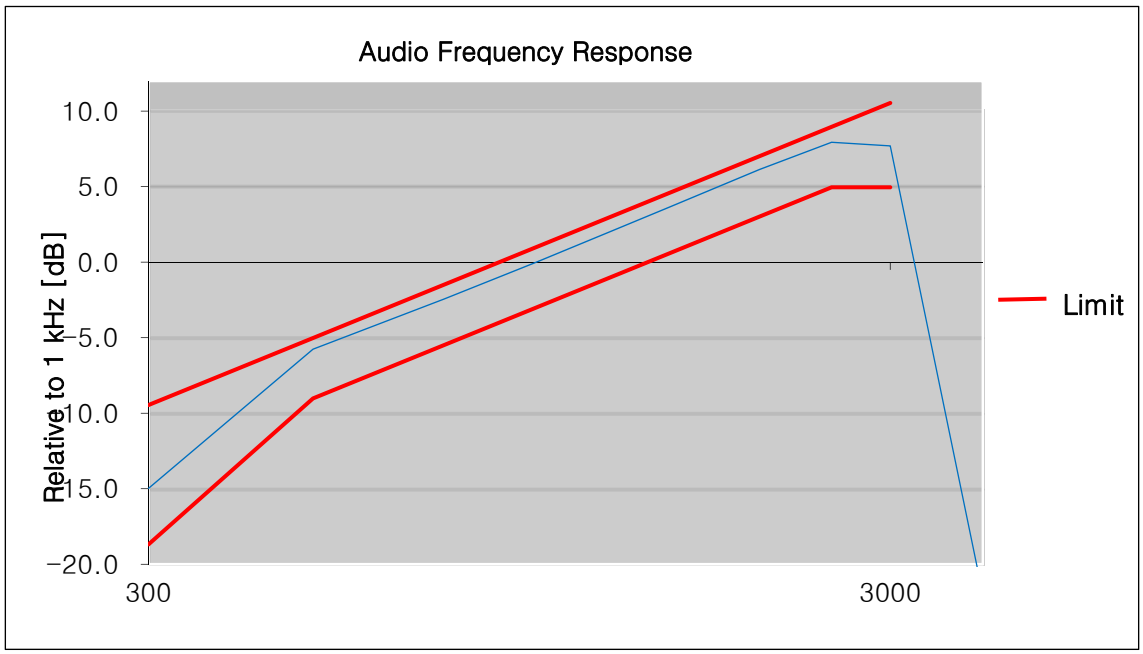
774.95 MHz



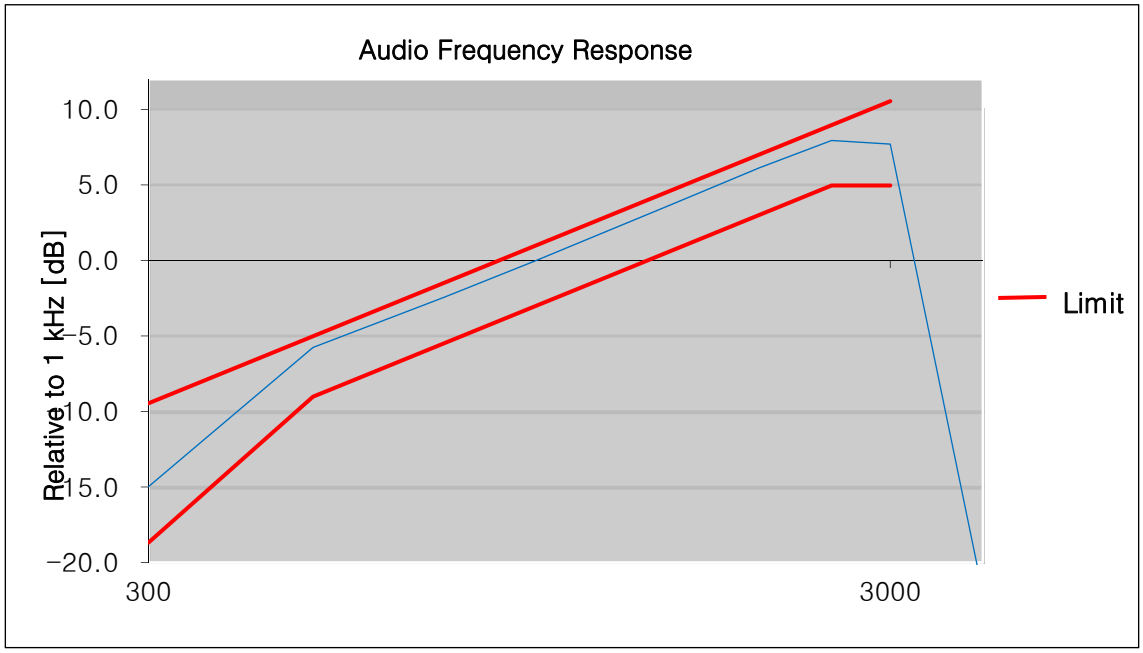
775.95 MHz



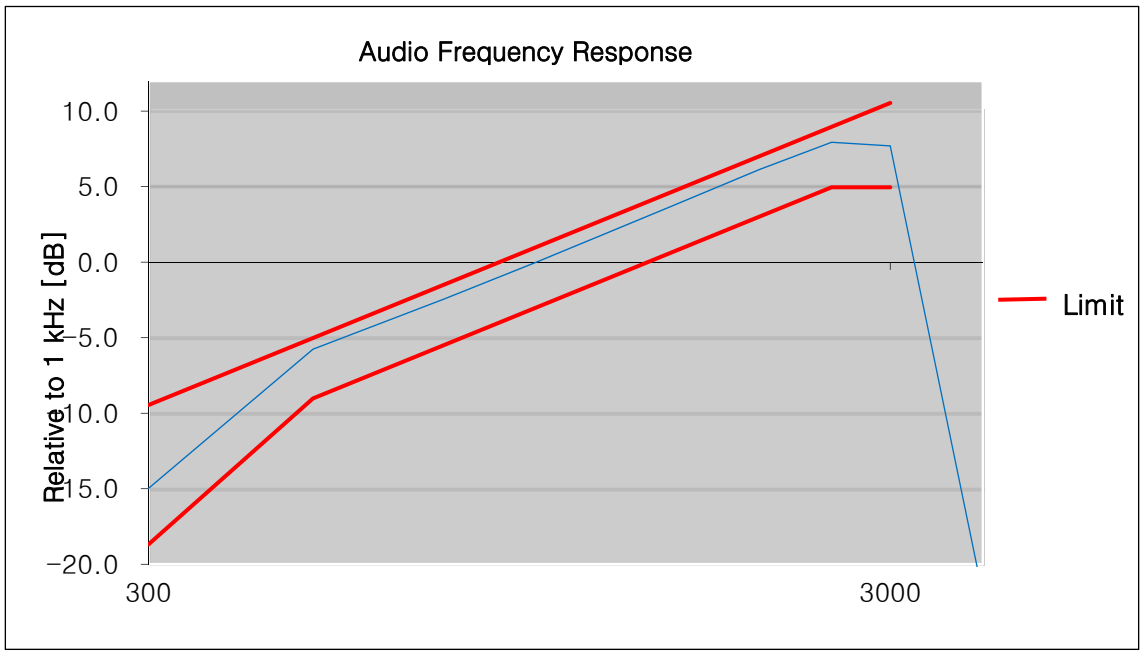
799.05 MHz



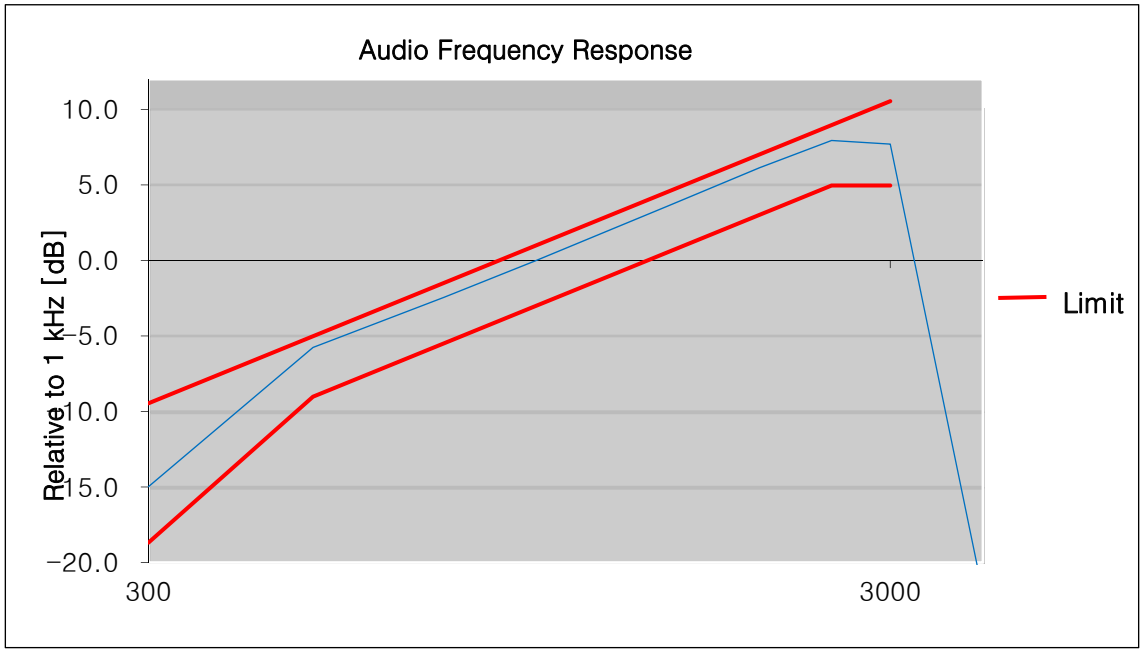
804.95 MHz



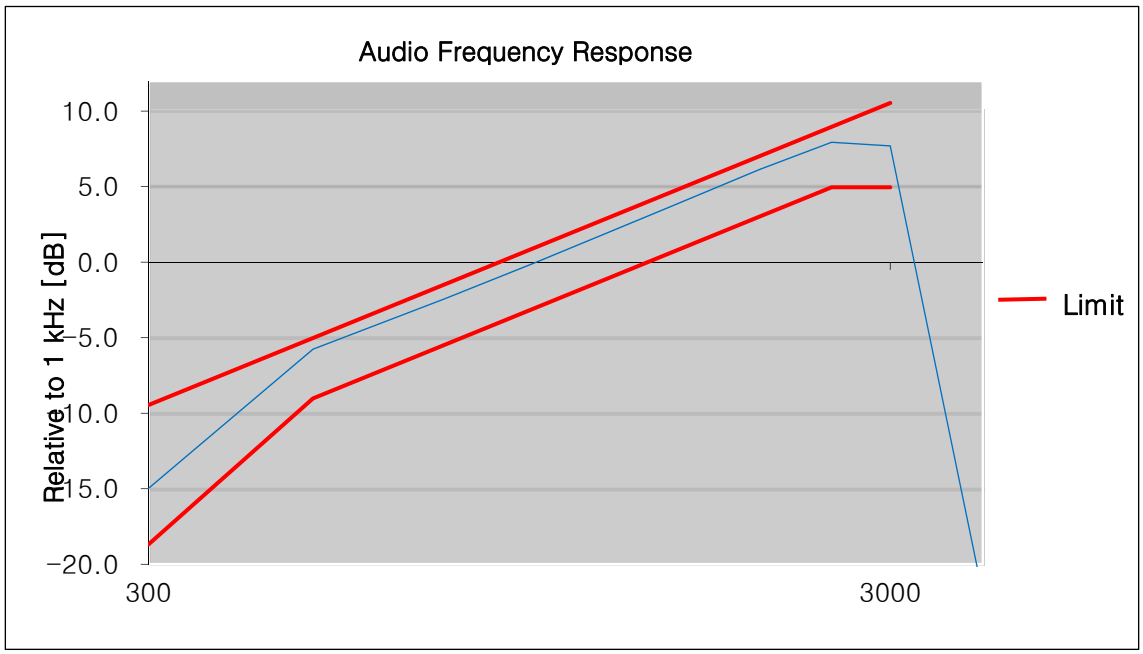
805.95 MHz



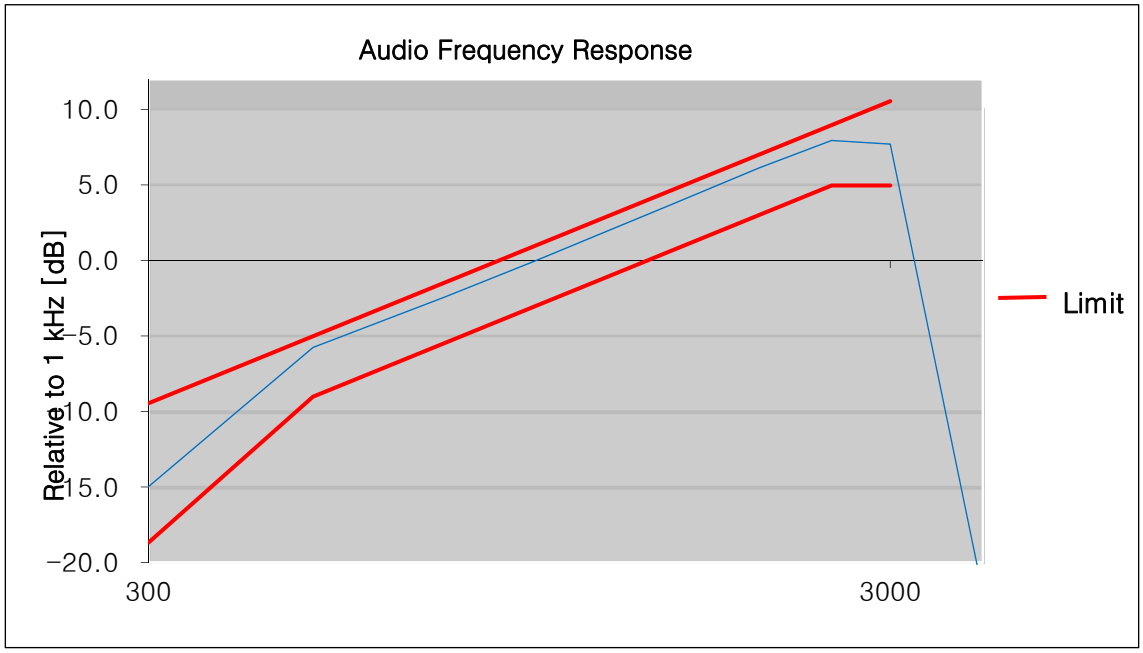
806.05 MHz



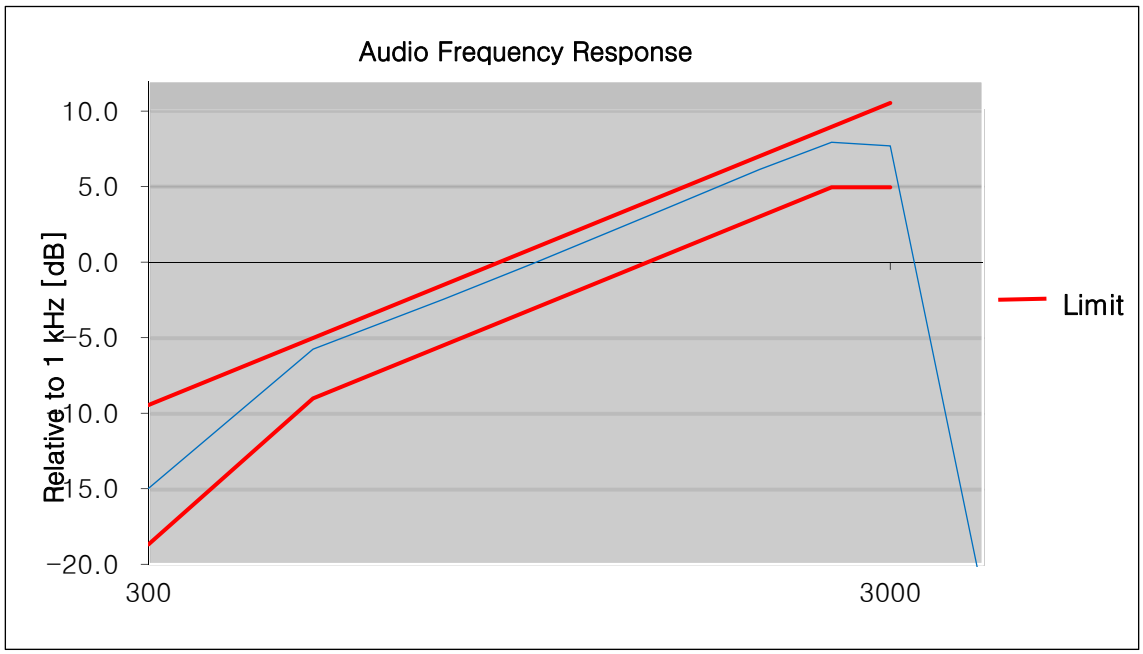
823.95 MHz



851.05 MHz



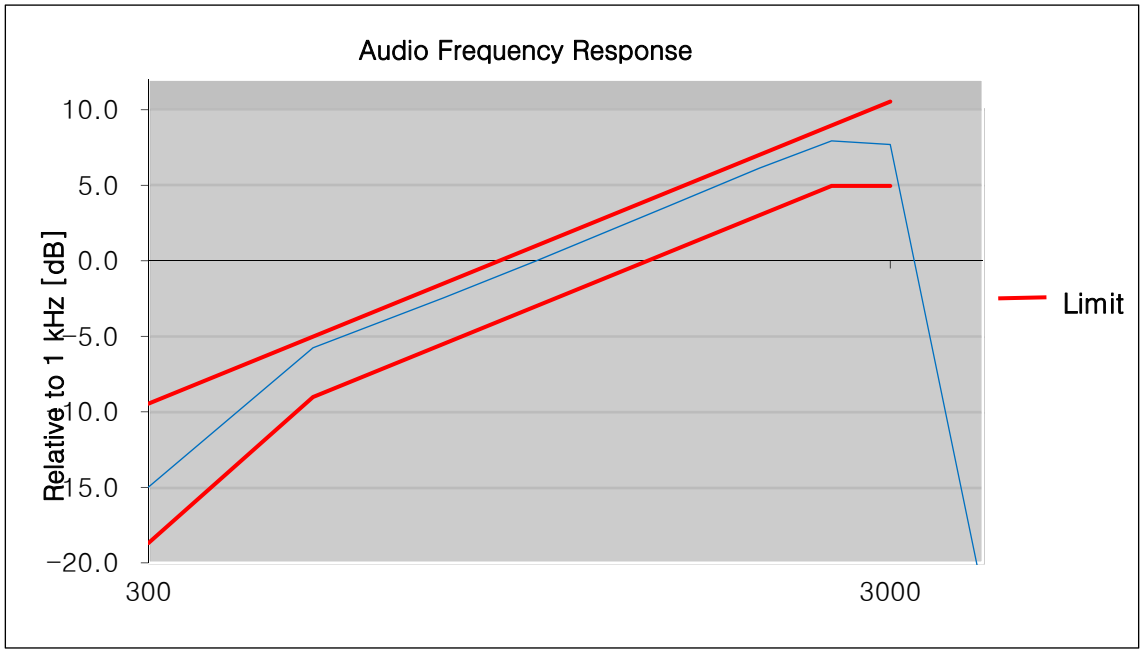
868.95 MHz



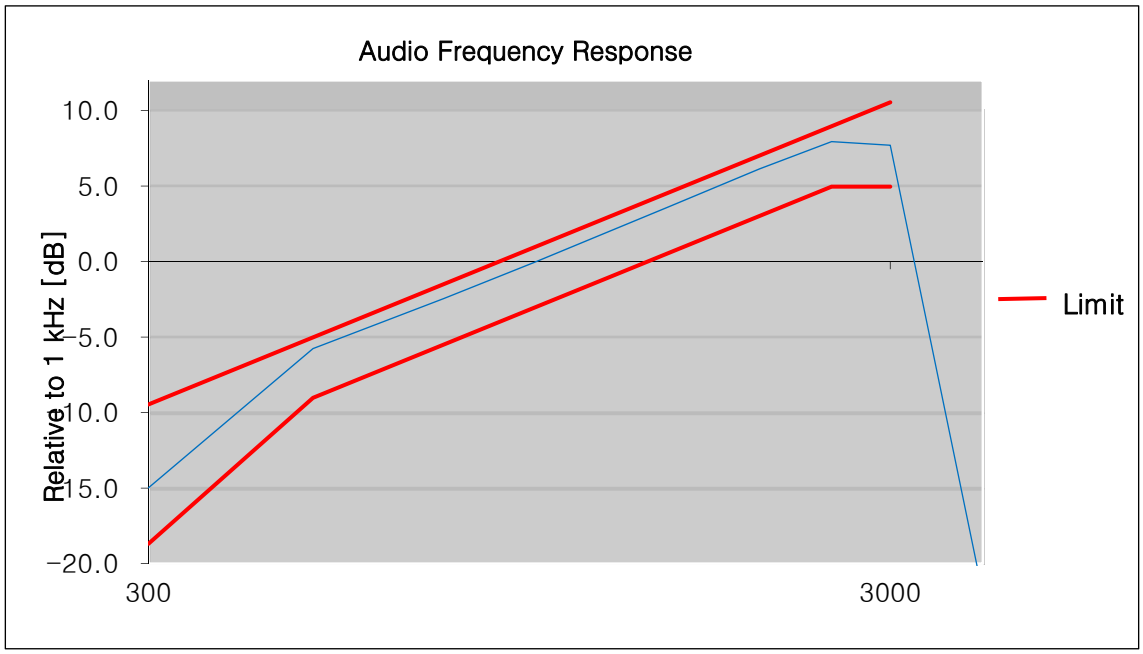
▣ TEST RESULTS (Type of emission: 14K0F3E)

HIGH POWER

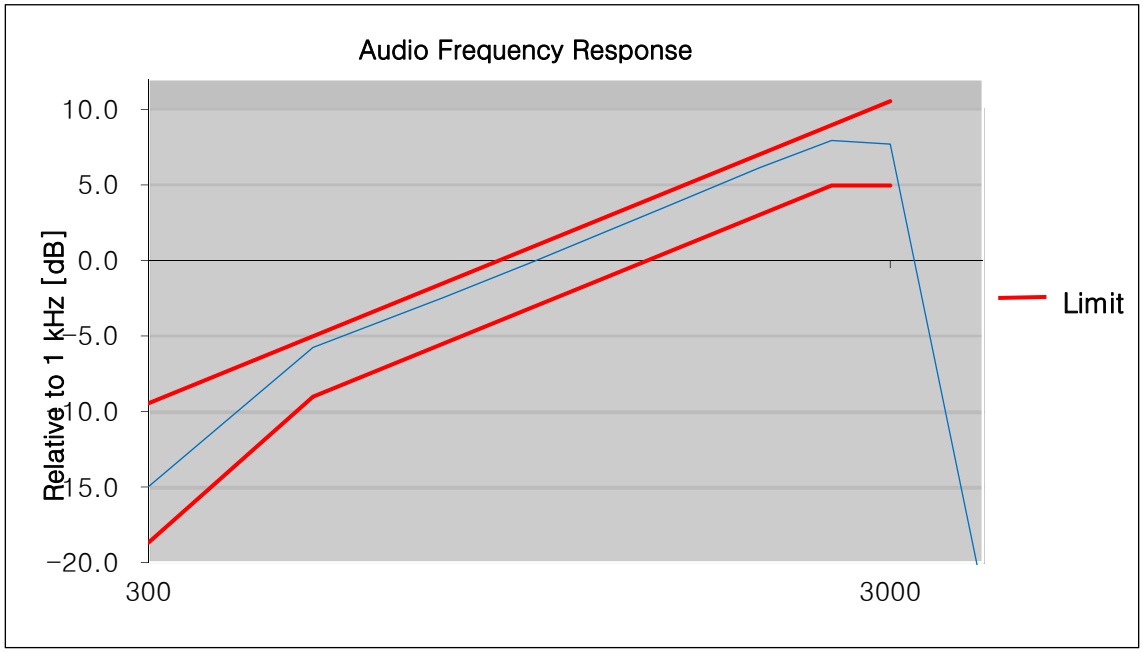
768.05 MHz



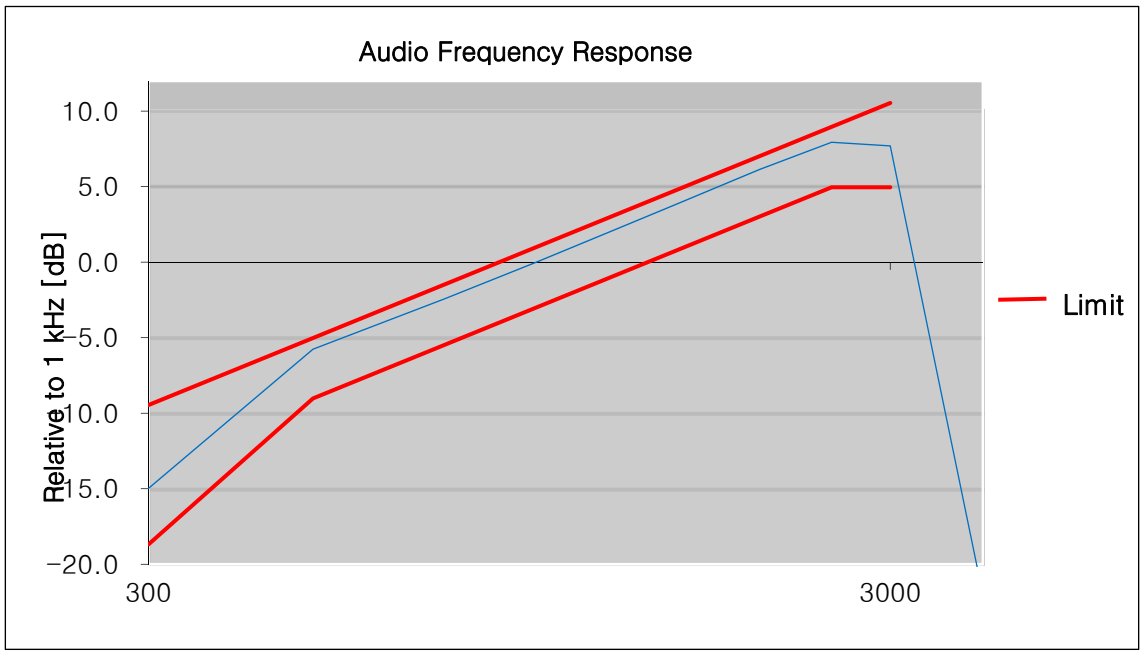
769.05 MHz



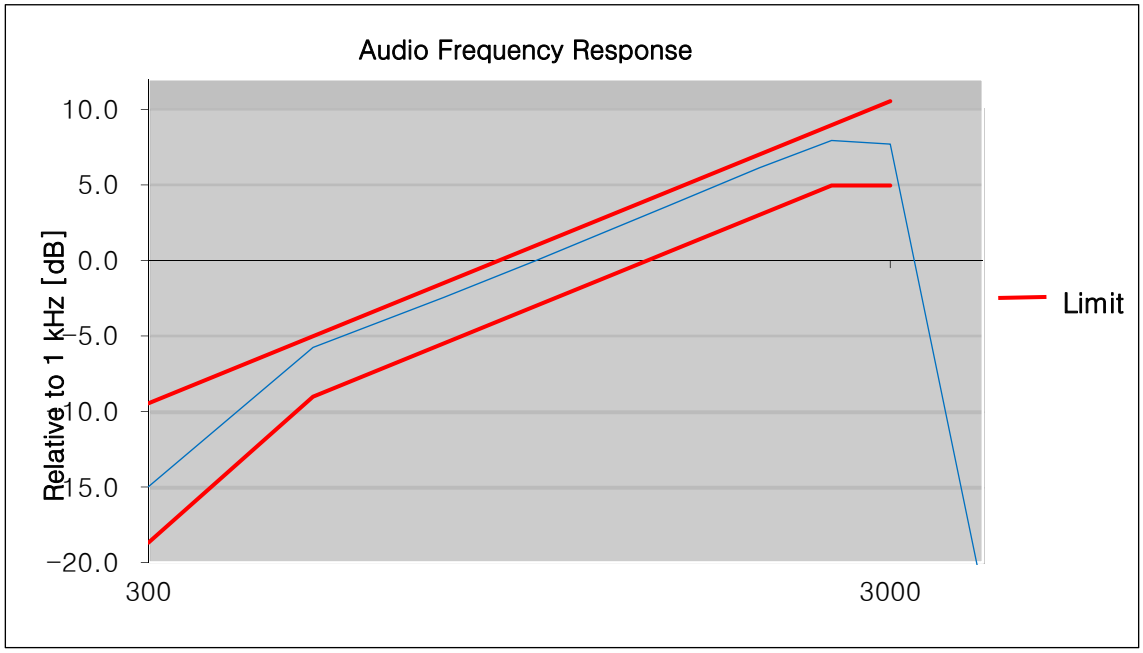
798.05 MHz



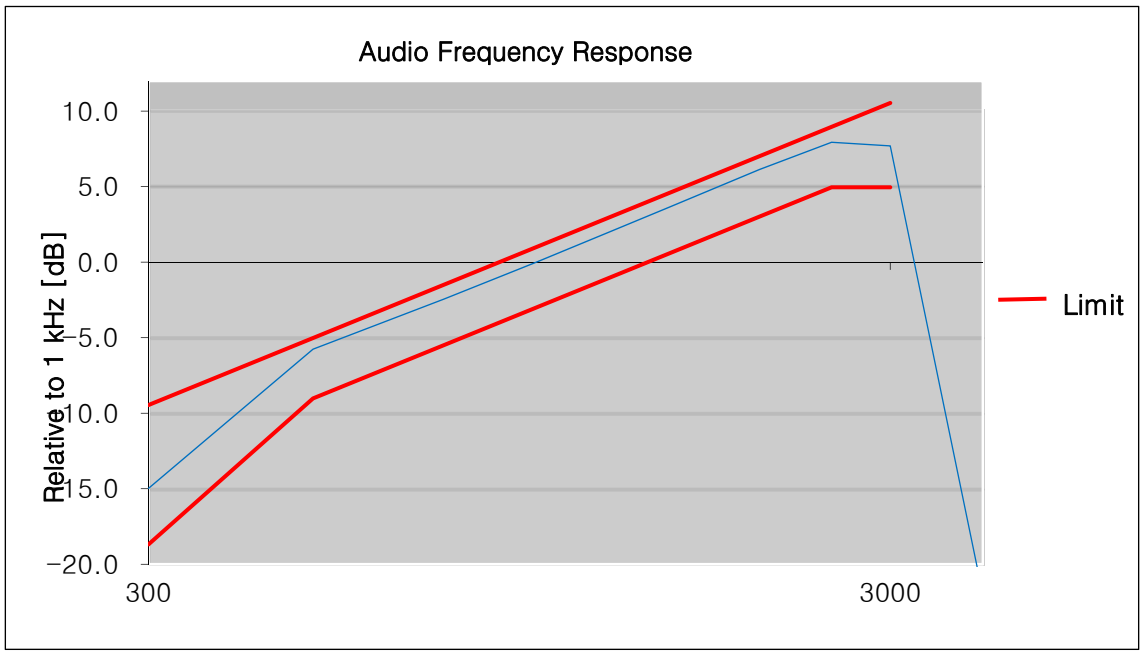
774.95 MHz



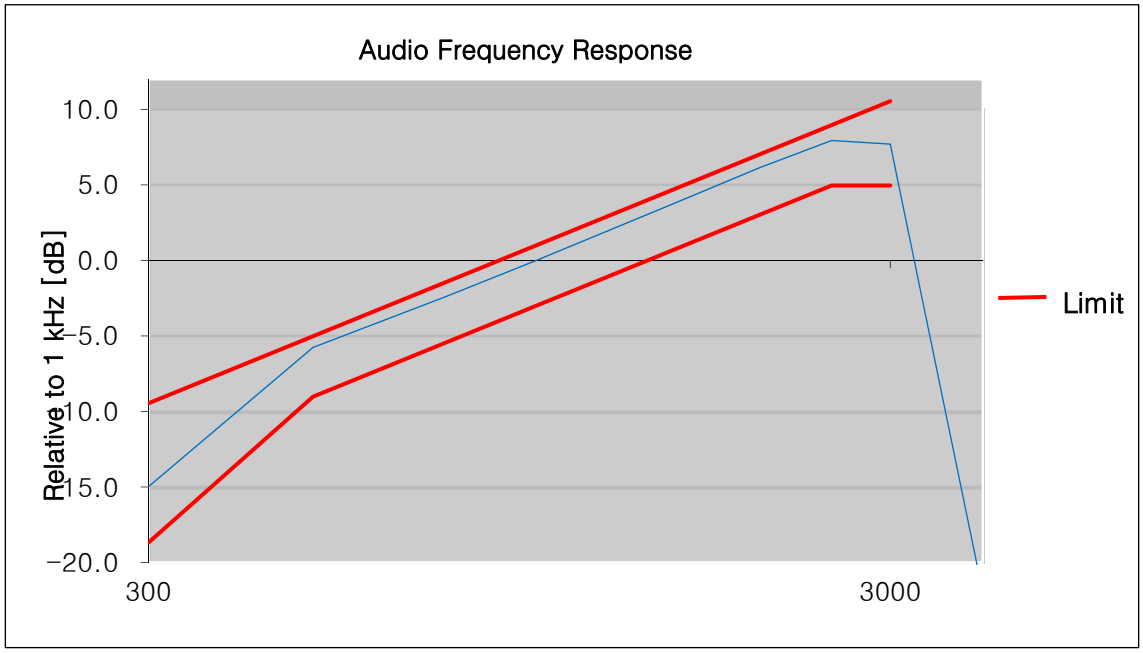
775.95 MHz



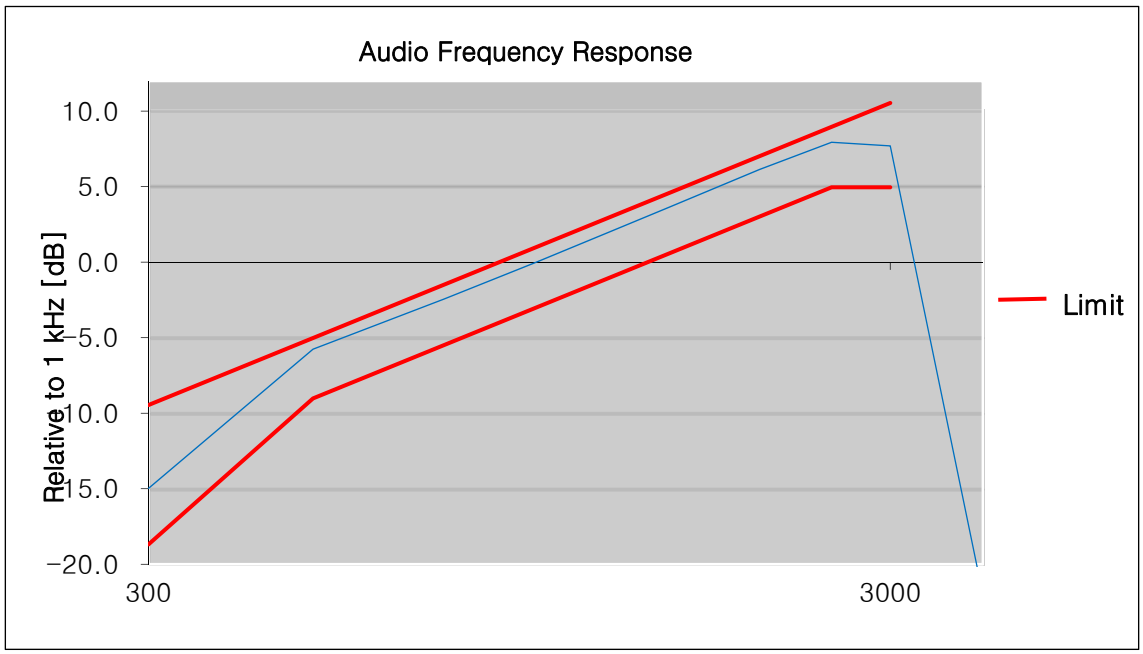
799.05 MHz



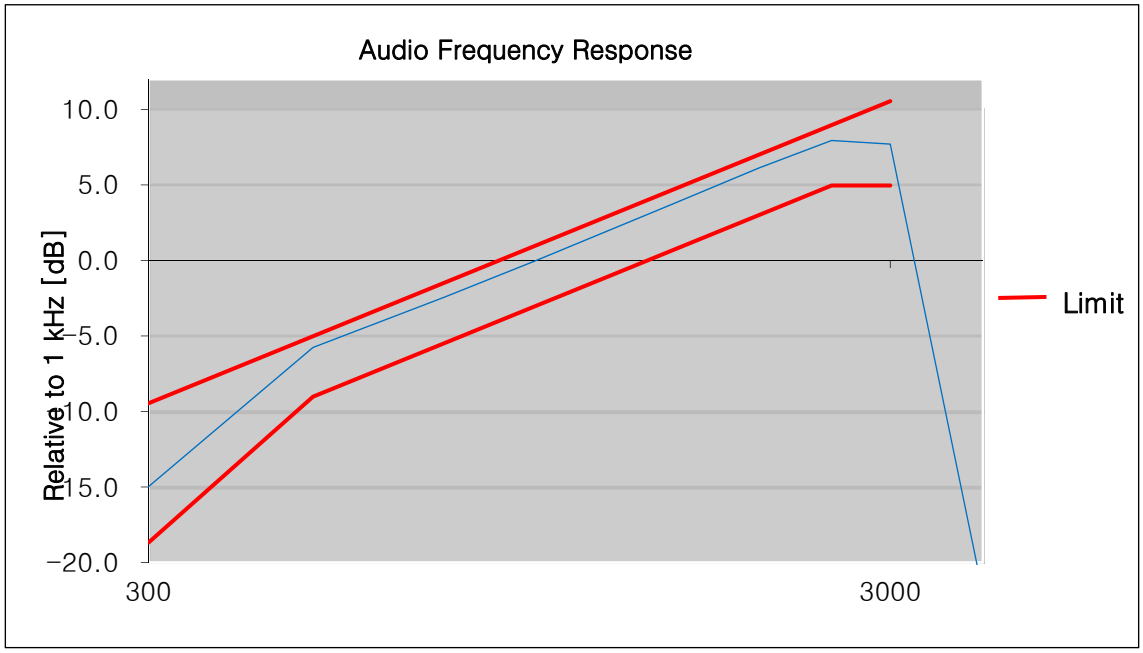
804.95 MHz



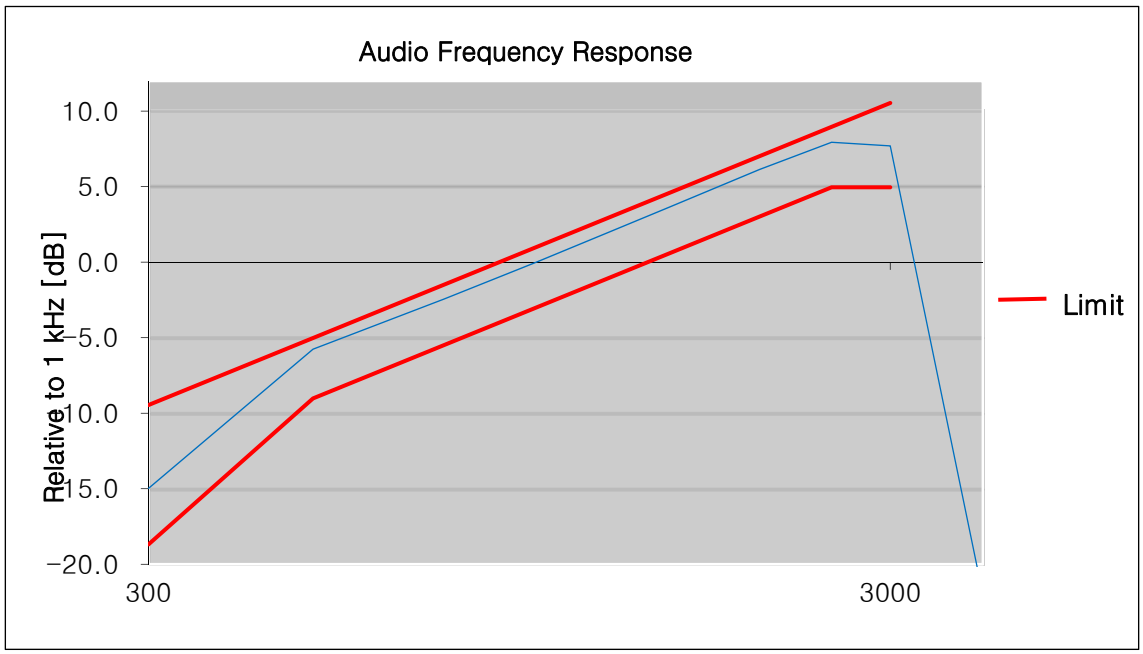
805.95 MHz



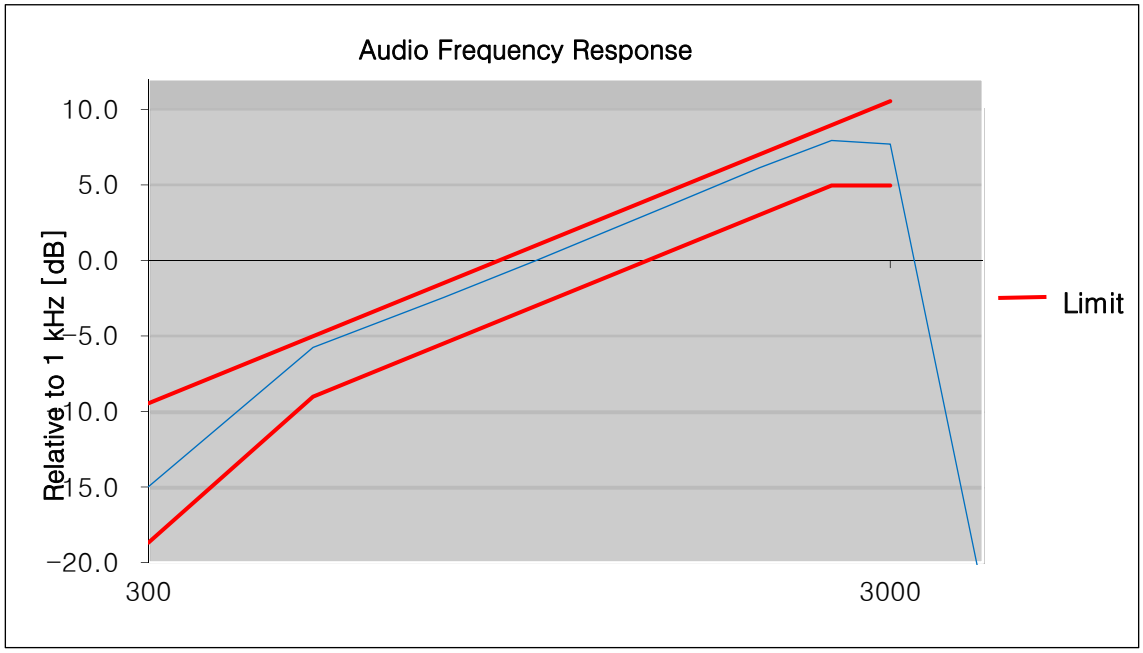
806.05 MHz



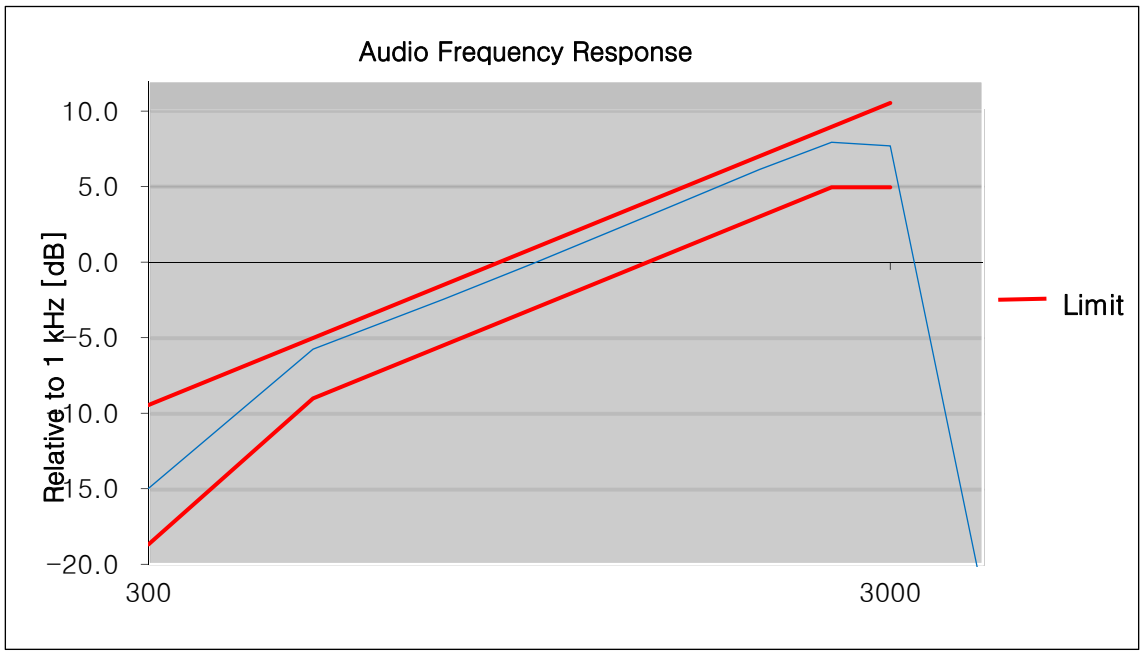
823.95 MHz



851.05 MHz



868.95 MHz

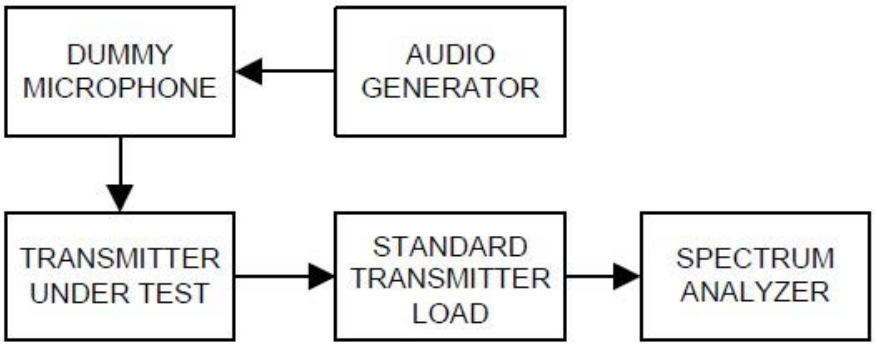


8.6 Emission Mask

▣ Definition

The transmitter sideband spectrum denotes the sideband power produced at a discrete frequency separation from the carrier up to the test bandwidth (see 1.3.4.4) due to all sources of unwanted noise within the transmitter in a modulated condition.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.11 in TIA-603-E Standard.

a) Connect the equipment as illustrated. Use the table to determine the spectrum analyzer resolution bandwidth:

Spectrum Analyzer Resolution Bandwidth

Frequency Band (MHz)	Mask for Equipment with Audio Low Pass Filter	Mask for Equipment without Low Pass Filter	Spectrum Analyzer Resolution Bandwidth (Hz)
25-50	B	C	300
72-76	B	C	300
138-174	NTIA	NTIA	300
150-174	B	C	300
150-174	D or E	D or E	100
406-420	NTIA	NTIA	300
421-512	B	C	300
421-512	D or E	D or E	100
806-821/851-866	B or EA	G or EA	300
821-824/866-869	B	H	300
896-901/935-940	I	J	300

b) Adjust the spectrum analyzer for the following settings:

1) Resolution Bandwidth per the above table

2) Video Bandwidth at least 10 times the resolution bandwidth.

3) Sweep Speed slow enough to maintain measurement calibration.

4) Detector Mode = Positive Peak.

5) Span that will allow proper viewing of the test bandwidth (see 1.3.4.4).

c) Set the center frequency of the spectrum analyzer to the assigned transmitter frequency. Key the transmitter, and set the level of the unmodulated carrier to a full scale reference line.
This is the 0 dB reference for the measurement.

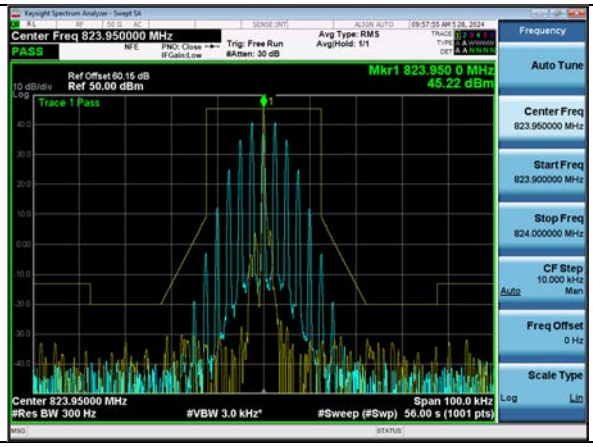
d) Modulate the transmitter with a 2500 Hz sine wave at an input level 16 dB greater than that necessary to produce 50% of rated system deviation. The input level shall be established at the frequency of maximum response of the audio modulating circuit. Transmitters employing digital modulation techniques that bypass the limiter and the audio low-pass filter shall be modulated as specified by the manufacturer.

e) Record the resulting spectrum analyzer presentation of the emission level with an on-line recording device or in a photograph. It is recommended that the emission limit (as given in 3.2.11) be drawn on the plotted graph or photograph. The spectrum analyzer presentation is the sideband spectrum.

▣ Plots of Emission Mask

Type of emission: 16K0F3E

Emission Mask EA

806.05 MHz	823.95 MHz
	
851.05 MHz	**868.95 MHz**