

FCC Test Report

Report No.: 2605P05715EB
Applicant: VTech (Dongguan) Communications Limited
Address: Xia Ling Bei Management Zone, Liaobu Town Dongguan China
Product Name: EXTREME GMRS
Product Model: VTR-3320
Multiple Models: N/A
Trade Mark: N/A
FCC ID: 2AZ2A-VTR3320
Standards: FCC CFR Title 47 Part 95E

Test Date: 2026-01-31 to 2026-04-21
Test Result: Complied
Issue Date: 2026-04-21

Reviewed by:

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Revision History

Version No.	Issued Date	Description
00	2026-04-21	Original

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1 General Information

1.1 Client Information

Applicant:	VTech (Dongguan) Communications Limited
Address:	Xia Ling Bei Management Zone, Liaobu Town Dongguan China
Manufacturer:	VTech Communications Limited
Address:	23/F, Tai Ping Industrial Centre, Block 1, 57 Ting Kok Road, Tai Po, New Territories, Hong Kong

1.2 Product Description of EUT

The EUT is EXTREME GMRS that contains GMRS radio, this report covers the full testing of the GMRS radio.

Sample Serial number	3GUV-1 for RE Test, 3GUV-2 for RF conducted test (assigned by WATC)
Sample Received Date	2026-01-29
Sample Status	Good Condition
Frequency Range	462 MHz main channels: 462.5500- 462.7250MHz 462 MHz interstitial channels: 462.5625-462.7125MHz 467 MHz main channels: 467.5500- 467.7250MHz 467 MHz interstitial channels: 467.5625-467.7125MHz
Maximum Conducted Output Power	462 MHz main channels: 32.67dBm 467 MHz main channels: 32.47dBm
Maximum ERP	462 MHz interstitial channels: 28.46dBm 467 MHz interstitial channels: 23.61dBm
Modulation Technology	FM
Channel Bandwidth	12.5kHz
Emission Type	F3E
Spatial Streams	SISO (1TX, 1RX)
Antenna Type	Helical Antenna
Antenna Gain [#]	-2dBi
Power Supply	DC 5V from USB or DC 3.7V from battery
Adapter Information	N/A
Modification	Sample No Modification by the test lab

1.3 Measurement Uncertainty

Parameter		Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
AC Power Lines Conducted Emissions		±3.14dB
Emissions, Radiated	Below 30MHz	±2.78dB
	Below 1GHz	±4.84dB
	Above 1GHz	±5.44dB
Emissions, Conducted		1.75dB
Conducted Power		0.74dB
Frequency Error		150Hz
Bandwidth		0.34%
Modulation Limiting		1.32%
Note 1: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. Note 2: The Decision Rule is based on simple acceptance with ISO Guide 98-4:2012 Clause 8.2 (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)		

1.4 Laboratory Location

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: ga@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.5 Test Methodology

FCC CFR Title 47 Part 2, 95E

ANSI C63.26-2015

ANSI TIA-603-E-2016

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method

2 Description of Measurement

2.1 Test Configuration

Operating channels:					
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
462 MHz main channels					
1	462.5500	4	462.6250	7	462.7000
2	462.5750	5	462.6500	8	462.7250
3	462.6000	6	462.6750	/	/
462 MHz interstitial channels					
1	462.5625	4	462.6375	7	462.7125
2	462.5875	5	462.6625	/	/
3	462.6125	6	462.6875	/	/
467 MHz main channels					
1	467.5500	4	467.6250	7	467.7000
2	467.5750	5	467.6500	8	467.7250
3	467.6000	6	467.6750	/	/
467 MHz interstitial channels					
1	467.5625	4	467.6375	7	467.7125
2	467.5875	5	467.6625	/	/
3	467.6125	6	467.6875	/	/
According to Per C63.26-2015, section 5.1, the frequencies in Bold were selected to test					

Test Mode:	
Transmitting mode:	Keep the EUT in continuous transmitting with modulation

Worst-Case Configuration:
For radiated emissions, EUT was investigated in three orthogonal orientation, the worst-case orientation was recorded in report
For radiated emission was investigated from 30MHz to 10 times of fundamental with the EUT transmits at the highest output power as worst-case scenario.

2.2 Test Auxiliary Equipment

Manufacturer	Description	Model	Serial Number
/	/	/	/

2.3 Interconnecting Cables

Manufacturer	Description	Length(m)	From	To
/	/	/	/	/

2.4 Block Diagram of Connection between EUT and AE

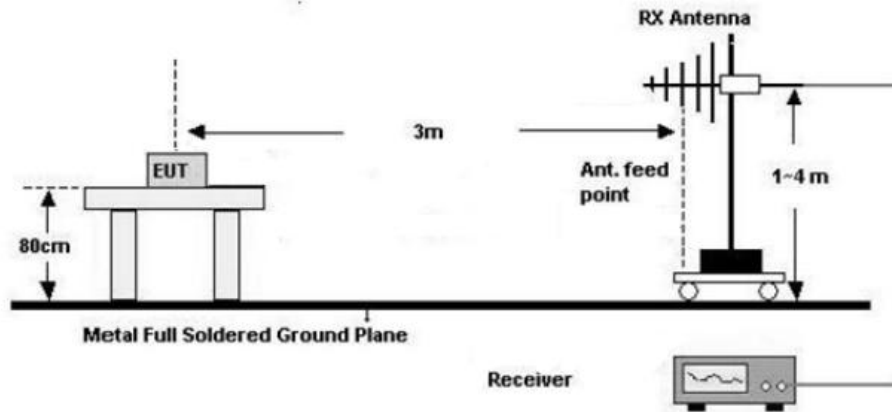


Note: for reference only, the actual connection setup used for testing please refer to the test photos.

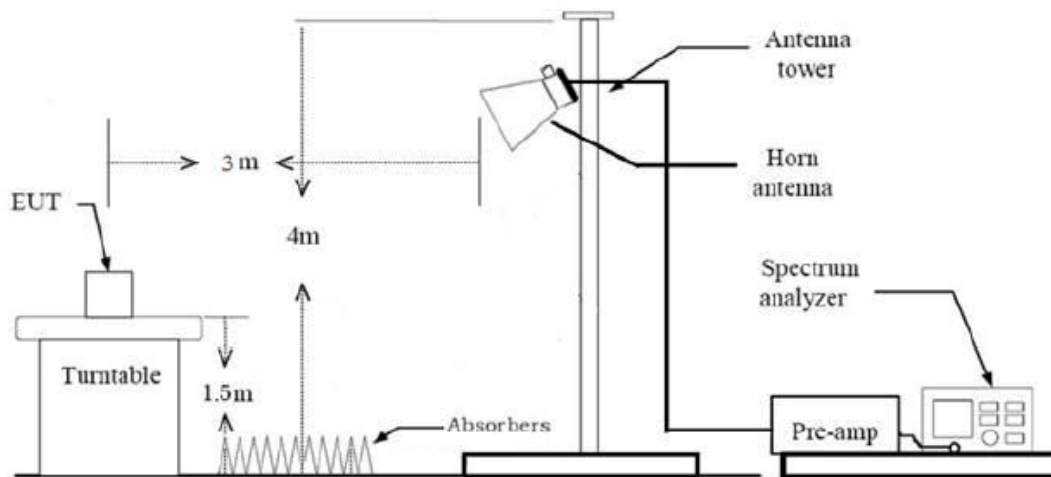
2.5 Test Setup

1) Radiated emission measurement:

30MHz-1GHz (3m SAC)

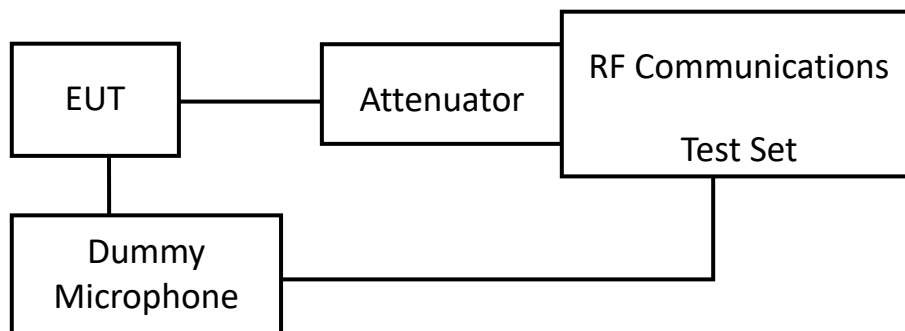


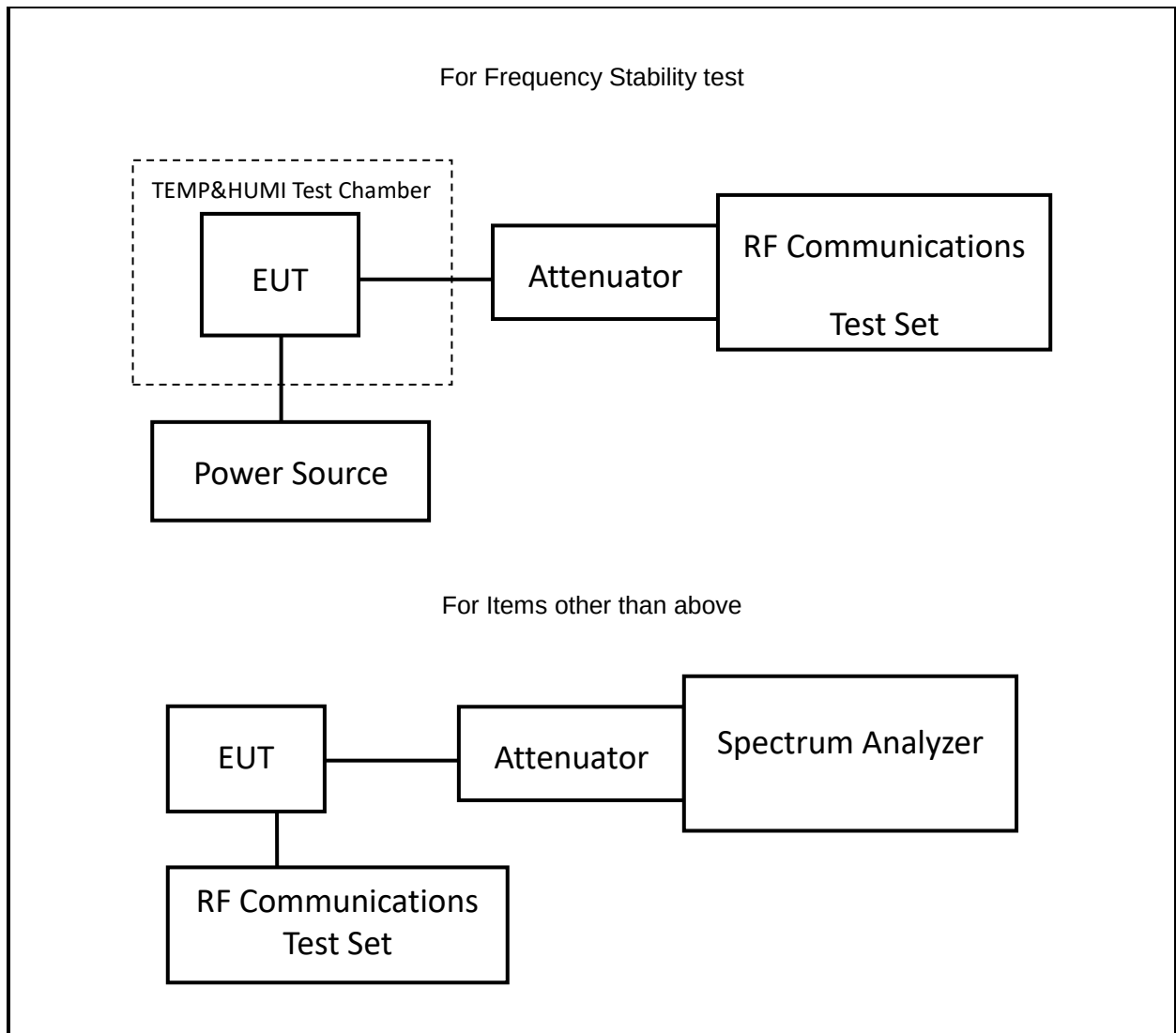
1GHz-5GHz



2) RF Conducted Test

For Modulation Limiting/Audio Frequency Response test





2.6 Test Procedure

Radiated Emission Procedure:

a) For 30MHz-1GHz:

1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

b) For above 1GHz:

1. The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.

RF Conducted Test:

1. The antenna port of EUT was connected to the RF port of the test equipment (RF Communications Test Set or Spectrum analyzer) through Attenuator and RF cable.
2. The cable assembly insertion loss of 31.0dB (including 30.0dB Attenuator and 1.0dB cable) was entered as an offset in the spectrum analyzer. Note: Actual cable loss was unavailable at the time of testing, therefore a loss of 1.0dB was assumed as worst case. This was later verified to be true by laboratory. (if the RF cable provided by client, the cable loss declared by client)
3. The EUT is keeping in continuous transmission mode with modulation signals required.

2.7 Measurement Method

Description of Test	Measurement Method
Modulation Limiting	ANSI C63.26-2015 section 5.3.2
Audio Frequency Response	ANSI C63.26-2015 section 5.3.3.2
Audio frequency filter	ANSI TIA-603-E-2016 section 2.2.15
Authorized Bandwidth	ANSI C63.26-2015 section 5.4.4
Transmitter output power and effective radiated power (e.r.p.)	ANSI C63.26-2015 section 5.2.3.3&5.2.5.5 or ANSI C63.26-2015 section 5.5.4
Emission Mask	ANSI C63.26-2015 section 5.7.3
Frequency Stability	ANSI C63.26-2015 section 5.6
Conducted Unwanted Emissions	ANSI C63.26-2015 section 5.7.4
Radiated Unwanted Emissions	ANSI C63.26-2015 section 5.5.4

2.8 Measurement Equipment

Manufacturer	Description	Model	Management No.	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI test receiver	ESR3	102758	2025/5/23	2026/5/22
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2025/5/23	2026/5/22
SONOMA INSTRUMENT	Low frequency amplifier	310	186014	2025/9/19	2026/9/18
A.H. Systems	PREAMPLIFIER	PAM-0118P	531	2025/9/19	2026/9/18
SCHWARZBECK	Log - periodic wideband antenna	VULB 9163	9163-872	2023/7/7	2026/7/6
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5
N/A	Coaxial Cable	NO.9	T-01-EM065	2025/9/19	2026/9/18
N/A	Coaxial Cable	NO.15	T-01-EM115	2025/9/19	2026/9/18
N/A	Coaxial Cable	NO.16	T-01-EM116	2025/9/19	2026/9/18
Audix	Test Software	E3	191218 V9	/	/
RF Conducted Test					
ROHDE& SCHWARZ	EMI TEST RECEIVER	ESR	101817	2025/5/23	2026/5/22
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSU-26	200680/026	2025/5/23	2026/5/22
HP	RF communication test set	HP8920A	T-01-EM046	2025/9/19	2026/9/18
BACL	TEMP&HUMI Test Chamber	BTH-150	30022	2025/9/19	2026/9/18
FLUKE	Digital Multimeter	15B+	T-01-EM112	2025/9/19	2026/9/18
BIRD	30dB attenuator	300-WA-FFN-30	1207	2025/5/23	2026/5/22
UNI-T	DC Power Supply	UTP1310S	C221286498	NCR	NCR

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

3 Test Results

3.1 Test Summary

FCC Rules	Description of Test		Result
§2.1055(d), §95.1765	GMRS Frequency Accuracy		Compliance
§2.1046, §95.1767	GMRS Transmit Power Limits		Compliance
§95.1771	GMRS Emission Types		Compliance
§2.1049, §95.1773, §95.1779	GMRS Authorized Bandwidth and Emission Mask		Compliance
§2.1047, §95.1775	GMRS Modulation requirements	Modulation Limiting	Compliance
		Audio Frequency Response	Compliance
		Audio frequency filter	Not Applicable
§2.1053, §95.1779	GMRS Unwanted Emissions Limits		Compliance
§95.1787	GMRS Additional Requirements		Not Applicable*

Not Applicable: the device complies with the § 95.1779 Emission mask limit for without filtering.

Not Applicable*: the device not support digital data transmissions function.

3.2 Limit

Test items	Limit
GMRS Frequency Accuracy	Each GMRS transmitter type must be designed to comply with the frequency accuracy requirements in this section under normal operating conditions. Operators of GMRS stations must also ensure compliance with these requirements. (a) The carrier frequency of each GMRS transmitter transmitting an emission with an occupied bandwidth greater than 12.5 kHz must remain within 5 parts-per-million (ppm) of the channel center frequencies listed in § 95.1763 under normal operating conditions. (b) The carrier frequency of each GMRS transmitter transmitting an emission with an occupied bandwidth of 12.5 kHz or less must remain within 2.5 ppm of the channel center frequencies listed in § 95.1763 under normal operating conditions.
GMRS transmit Power	This section contains transmitting power limits for GMRS stations. The maximum transmitting power depends on which channels are being used and the type of station. (a) 462/467 MHz main channels. The limits in this paragraph apply to stations transmitting on any of the 462 MHz main channels or any of the 467 MHz main channels. Each GMRS transmitter type must be capable of operating within the allowable power range. GMRS licensees are responsible for ensuring that their GMRS stations operate in compliance with these limits. (1) The transmitter output power of mobile, repeater and base stations must not exceed 50 Watts. (2) The transmitter output power of fixed stations must not exceed 15 Watts. (b) 462 MHz interstitial channels. The effective radiated power (ERP) of mobile, hand-held portable and base stations transmitting on the 462 MHz interstitial channels must not exceed 5 Watts. (c) 467 MHz interstitial channels. The effective radiated power (ERP) of hand-held portable units transmitting on the 467 MHz interstitial channels must not exceed 0.5 Watt. Each GMRS transmitter type capable of transmitting on these channels must be designed such that the ERP does not exceed 0.5 Watt.
GMRS Emission Types	Each GMRS transmitter type must be designed to satisfy the emission capability rules in this section. Operation of GMRS stations must also be in compliance with these rules. (a) Each GMRS transmitter type must have the capability to transmit F3E or G3E emissions. (b) Only emission types A1D, F1D, G1D, H1D, J1D, R1D, A3E, F3E, G3E, H3E, J3E, R3E, F2D, and G2D are authorized for use in the GMRS. Equipment for which certification is sought under this subpart may have capabilities to transmit other emission types intended for use in other services, provided that these emission types can be deactivated when the equipment is used in the GMRS.
GMRS Authorized Bandwidth	Each GMRS transmitter type must be designed such that the occupied bandwidth does not exceed the authorized bandwidth for the channels used. Operation of GMRS stations must also be in compliance with these requirements. (a) Main channels. The authorized bandwidth is 20 kHz for GMRS transmitters operating on any of the 462 MHz main channels (see § 95.1763(a)) or any of the 467 MHz main channels (see § 95.1763(c)). (b) Interstitial channels. The authorized bandwidth is 20 kHz for GMRS transmitters operating on any of the 462 MHz interstitial channels (see § 95.1763(b)) and is 12.5 kHz for GMRS transmitters operating on any of the 467 MHz interstitial channels (see § 95.1763(d)). (c) Digital data transmissions. Digital data transmissions are limited to the 462 MHz main channels and interstitial channels in the 462 MHz and 467 MHz bands.

GMRS Modulation Limits	Each GMRS transmitter type must be designed to satisfy the modulation requirements in this section. Operation of GMRS stations must also be in compliance with these requirements. (a) Main channels. The peak frequency deviation for emissions to be transmitted on the main channels must not exceed ± 5 kHz. (b) 462 MHz interstitial channels. The peak frequency deviation for emissions to be transmitted on the 462 MHz interstitial channels must not exceed ± 5 kHz. (c) 467 MHz interstitial channels. The peak frequency deviation for emissions to be transmitted on the 467 MHz interstitial channels must not exceed ± 2.5 kHz, and the highest audio frequency contributing substantially to modulation must not exceed 3.125 kHz. (d) Overmodulation. Each GMRS transmitter type, except for a mobile station transmitter type with a transmitter power output of 2.5 W or less, must automatically prevent a higher than normal audio level from causing overmodulation. (e) Audio filter. Each GMRS transmitter type must include audio frequency low pass filtering, unless it complies with the applicable paragraphs of § 95.1779 (without filtering). (1) The filter must be between the modulation limiter and the modulated stage of the transmitter. (2) At any frequency (f in kHz) between 3 and 20 kHz, the filter must have an attenuation of at least $60 \log (f/3)$ dB more than the attenuation at 1 kHz. Above 20 kHz, it must have an attenuation of at least 50 dB more than the attenuation at 1 kHz.								
GMRS Unwanted Emissions Limits	(a) Emission masks. Emission masks applicable to transmitting equipment in the GMRS are defined by the requirements in the following table. The numbers in the attenuation requirements column refer to rule paragraph numbers under paragraph (b) of this section. <table border="1" data-bbox="564 1075 1398 1290"> <thead> <tr> <th>Emission types filter</th><th>Attenuation requirements</th></tr> </thead> <tbody> <tr> <td>A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter</td><td>(1), (2), (7)</td></tr> <tr> <td>A1D, A3E, F1D, G1D, F3E, G3E without audio filter</td><td>(3), (4), (7)</td></tr> <tr> <td>H1D, J1D, R1D, H3E, J3E, R2E</td><td>(5), (6), (7)</td></tr> </tbody> </table> (b) Attenuation requirements. The power of unwanted emissions must be attenuated below the transmitter output power in Watts (P) by at least: (1) 25 dB (decibels) on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 100% of the authorized bandwidth. (2) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 100% up to and including 250% of the authorized bandwidth. (3) $83 \log (f_d \div 5)$ dB on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5 kHz up to and including 10 kHz. (4) $116 \log (f_d \div 6.1)$ dB or $50 + 10 \log (P)$ dB, whichever is the lesser attenuation, on any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz), of more than 10 kHz up to and including 250% of the authorized bandwidth. (5) 25 dB on any frequency removed from the center of the authorized bandwidth by more than 50% up to and including 150% of the authorized bandwidth. (6) 35 dB on any frequency removed from the center of the authorized bandwidth by more than 150% up to and including 250% of the authorized bandwidth. (7) $43 + 10 \log (P)$ dB on any frequency removed from the center of the authorized bandwidth by more than 250%. (c) Measurement bandwidths. The power of unwanted emissions in the frequency bands specified in paragraphs (b)(1) through (4) of this section is measured with a reference bandwidth of 300 Hz. The power of unwanted emissions in the frequency range specified in paragraph (b)(5) of this section is measured with a reference bandwidth of at least 30 kHz.	Emission types filter	Attenuation requirements	A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter	(1), (2), (7)	A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(3), (4), (7)	H1D, J1D, R1D, H3E, J3E, R2E	(5), (6), (7)
Emission types filter	Attenuation requirements								
A1D, A3E, F1D, G1D, F2D, F3E, G3E with audio filter	(1), (2), (7)								
A1D, A3E, F1D, G1D, F3E, G3E without audio filter	(3), (4), (7)								
H1D, J1D, R1D, H3E, J3E, R2E	(5), (6), (7)								

3.3 Radiated emission Test Data

3.3.1 Radiated Unwanted Emissions

Test Date:	2026-02-02	Test By:	Tim Lai
Environment condition:	Temperature:22.5°C; Relative Humidity: 44%; ATM Pressure: 101.8kPa		

Frequency (MHz)	Reading level (dBμV)	Polar (H/V)	Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	EIRP CF	Result (dBm)	Limit (dBm)	Margin (dB)	Remark
462 MHz interstitial									
462.6375MHz									
925.275	26.04	horizontal	30.19	56.23	95.2	-38.97	-13	-25.97	Peak
1387.913	73.59	horizontal	-5.57	68.02	95.2	-27.18	-13	-14.18	Peak
1850.550	54.68	horizontal	-3.89	50.79	95.2	-44.41	-13	-31.41	Peak
2313.188	58.02	horizontal	-3.05	54.97	95.2	-40.23	-13	-27.23	Peak
2775.825	62.30	horizontal	-2.35	59.95	95.2	-35.25	-13	-22.25	Peak
3238.463	55.41	horizontal	-2.74	52.67	95.2	-42.53	-13	-29.53	Peak
925.275	34.91	vertical	30.19	65.10	95.2	-30.10	-13	-17.10	Peak
1387.913	74.30	vertical	-5.57	68.73	95.2	-26.47	-13	-13.47	Peak
1850.550	57.97	vertical	-3.89	54.08	95.2	-41.12	-13	-28.12	Peak
2313.188	57.34	vertical	-3.05	54.29	95.2	-40.91	-13	-27.91	Peak
2775.825	61.06	vertical	-2.35	58.71	95.2	-36.49	-13	-23.49	Peak
3238.463	53.95	vertical	-2.74	51.21	95.2	-43.99	-13	-30.99	Peak
467 MHz interstitial									
467.6375MHz									
935.275	27.32	horizontal	30.20	57.52	95.2	-37.68	-13	-24.68	Peak
1402.913	61.73	horizontal	-5.42	56.31	95.2	-38.89	-13	-25.89	Peak
1870.550	50.45	horizontal	-3.99	46.46	95.2	-48.74	-13	-35.74	Peak
2338.188	61.49	horizontal	-2.97	58.52	95.2	-36.68	-13	-23.68	Peak
2805.825	57.78	horizontal	-2.35	55.43	95.2	-39.77	-13	-26.77	Peak
935.275	30.67	vertical	30.20	60.87	95.2	-34.33	-13	-21.33	Peak
1402.913	60.99	vertical	-5.42	55.57	95.2	-39.63	-13	-26.63	Peak
1870.550	53.05	vertical	-3.99	49.06	95.2	-46.14	-13	-33.14	Peak
2338.188	57.95	vertical	-2.97	54.98	95.2	-40.22	-13	-27.22	Peak
2805.825	58.49	vertical	-2.35	56.14	95.2	-39.06	-13	-26.06	Peak
3273.463	51.70	vertical	-2.69	49.01	95.2	-46.19	-13	-33.19	Peak
462 MHz Main									
462.625MHz									

925.250	33.16	horizontal	30.19	63.35	95.2	-31.85	-13	-18.85	Peak
1387.875	67.38	horizontal	-5.57	61.81	95.2	-33.39	-13	-20.39	Peak
1850.500	50.97	horizontal	-3.89	47.08	95.2	-48.12	-13	-35.12	Peak
2313.125	71.33	horizontal	-3.05	68.28	95.2	-26.92	-13	-13.92	Peak
2775.750	78.47	horizontal	-2.35	76.12	95.2	-19.08	-13	-6.08	Peak
3238.375	61.57	horizontal	-2.74	58.83	95.2	-36.37	-13	-23.37	Peak
3701.000	50.56	horizontal	-2.55	48.01	95.2	-47.19	-13	-34.19	Peak
4163.625	51.70	horizontal	-3.59	48.11	95.2	-47.09	-13	-34.09	Peak
4626.250	54.09	horizontal	-2.59	51.50	95.2	-43.70	-13	-30.70	Peak
925.250	35.00	vertical	30.19	65.19	95.2	-30.01	-13	-17.01	Peak
1387.875	66.33	vertical	-5.57	60.76	95.2	-34.44	-13	-21.44	Peak
1850.500	55.04	vertical	-3.89	51.15	95.2	-44.05	-13	-31.05	Peak
2313.125	64.45	vertical	-3.05	61.40	95.2	-33.80	-13	-20.80	Peak
2775.750	78.20	vertical	-2.35	75.85	95.2	-19.35	-13	-6.35	Peak
3238.375	58.37	vertical	-2.74	55.63	95.2	-39.57	-13	-26.57	Peak
3701.000	50.96	vertical	-2.55	48.41	95.2	-46.79	-13	-33.79	Peak
4163.625	53.55	vertical	-3.59	49.96	95.2	-45.24	-13	-32.24	Peak
4626.250	52.50	vertical	-2.59	49.91	95.2	-45.29	-13	-32.29	Peak
467 MHz Main									
467.625MHz									
935.250	30.66	horizontal	30.20	60.86	95.2	-34.34	-13	-21.34	Peak
1402.875	70.17	horizontal	-5.43	64.74	95.2	-30.46	-13	-17.46	Peak
1870.500	50.42	horizontal	-3.99	46.43	95.2	-48.77	-13	-35.77	Peak
2338.125	75.42	horizontal	-2.97	72.45	95.2	-22.75	-13	-9.75	Peak
2805.750	77.70	horizontal	-2.35	75.35	95.2	-19.85	-13	-6.85	Peak
3273.375	67.01	horizontal	-2.69	64.32	95.2	-30.88	-13	-17.88	Peak
3741.000	50.30	horizontal	-2.61	47.69	95.2	-47.51	-13	-34.51	Peak
4208.625	54.11	horizontal	-3.77	50.34	95.2	-44.86	-13	-31.86	Peak
4676.250	53.25	horizontal	-2.18	51.07	95.2	-44.13	-13	-31.13	Peak
935.250	34.32	vertical	30.20	64.52	95.2	-30.68	-13	-17.68	Peak
1402.875	70.66	vertical	-5.43	65.23	95.2	-29.97	-13	-16.97	Peak
1870.500	51.43	vertical	-3.99	47.44	95.2	-47.76	-13	-34.76	Peak
2338.125	63.46	vertical	-2.97	60.49	95.2	-34.71	-13	-21.71	Peak
2805.750	75.61	vertical	-2.35	73.26	95.2	-21.94	-13	-8.94	Peak
3273.375	62.57	vertical	-2.69	59.88	95.2	-35.32	-13	-22.32	Peak
3741.000	50.95	vertical	-2.61	48.34	95.2	-46.86	-13	-33.86	Peak
4208.625	55.22	vertical	-3.77	51.45	95.2	-43.75	-13	-30.75	Peak
4676.250	53.44	vertical	-2.18	51.26	95.2	-43.94	-13	-30.94	Peak

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss – Amplifier gain

Margin = Result – Limit

According to ANSI C63.26-2015 section 5.2.7:

$EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.

Test was performed on 3meters distance, so

Result = Corrected Amplitude + $20\log(3) - 104.8$

= Corrected Amplitude - 95.2

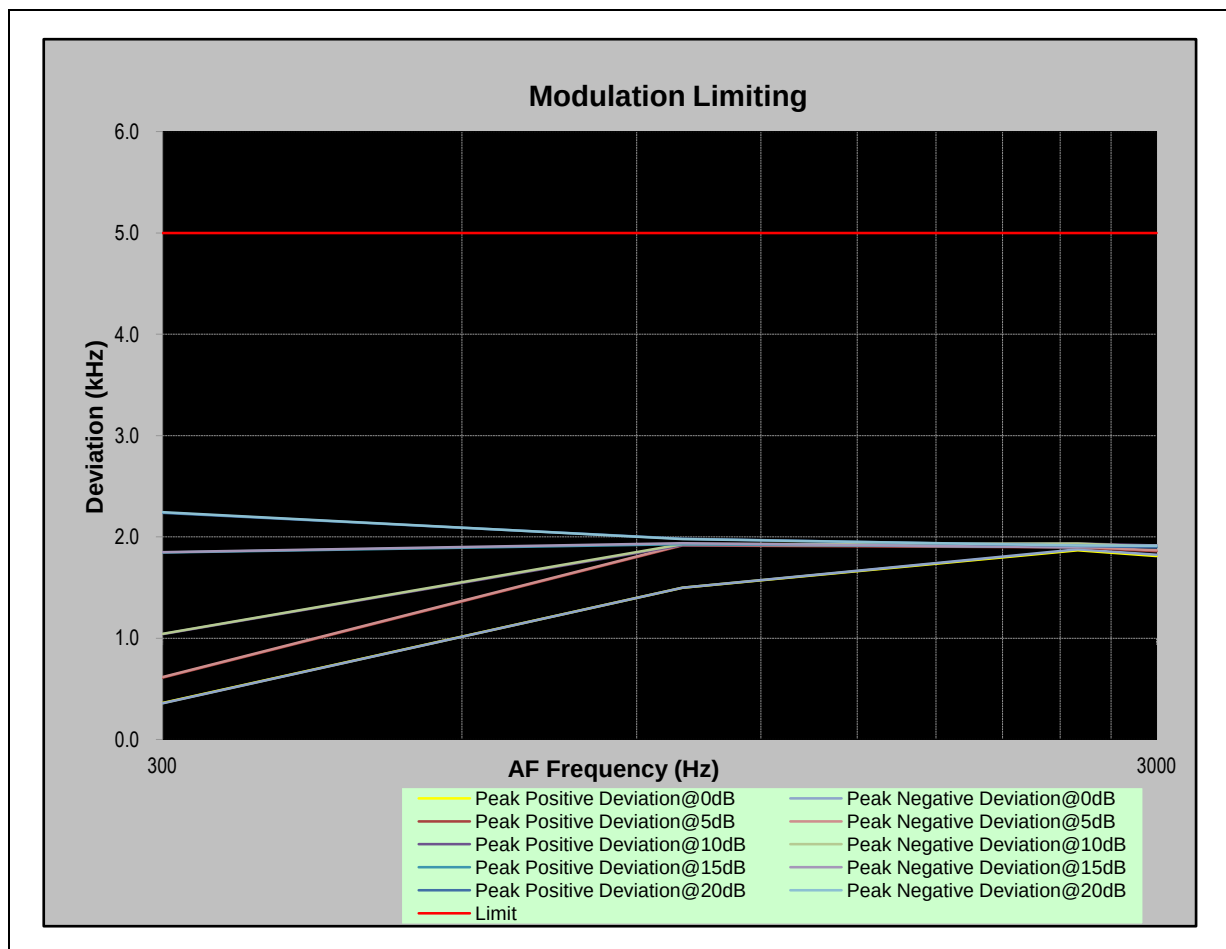
The emission levels of other frequencies that were lower than the limit 20dB, not show in test report.

3.4 RF Conducted Test Data

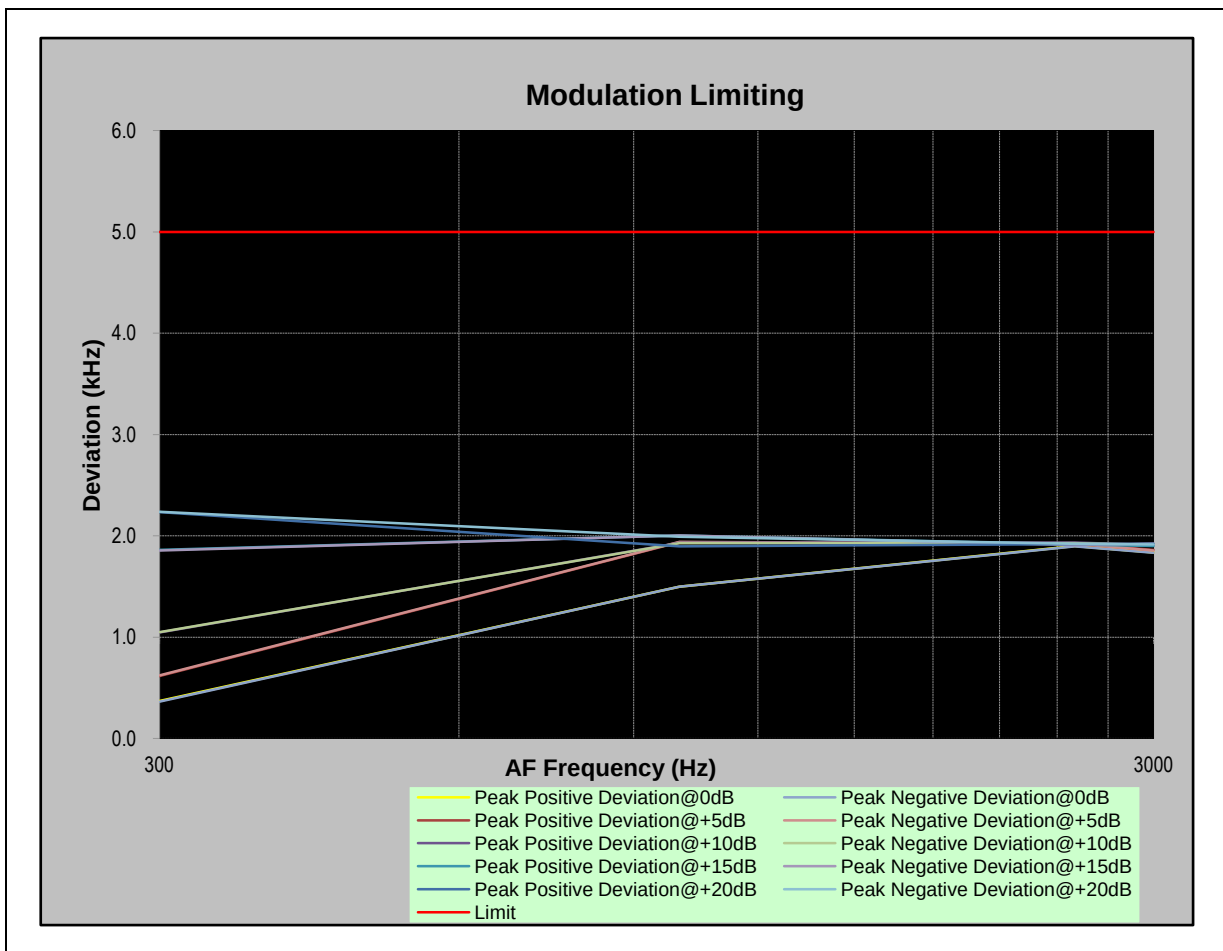
Test Date:	2026-01-31~2026-04-21	Test By:	Ryan Zhang
Environment condition:	Temperature: 24-25°C; RelativeHumidity:44-52%; ATM Pressure: 100.1-100.3kPa		

3.4.1 MODULATION LIMITING

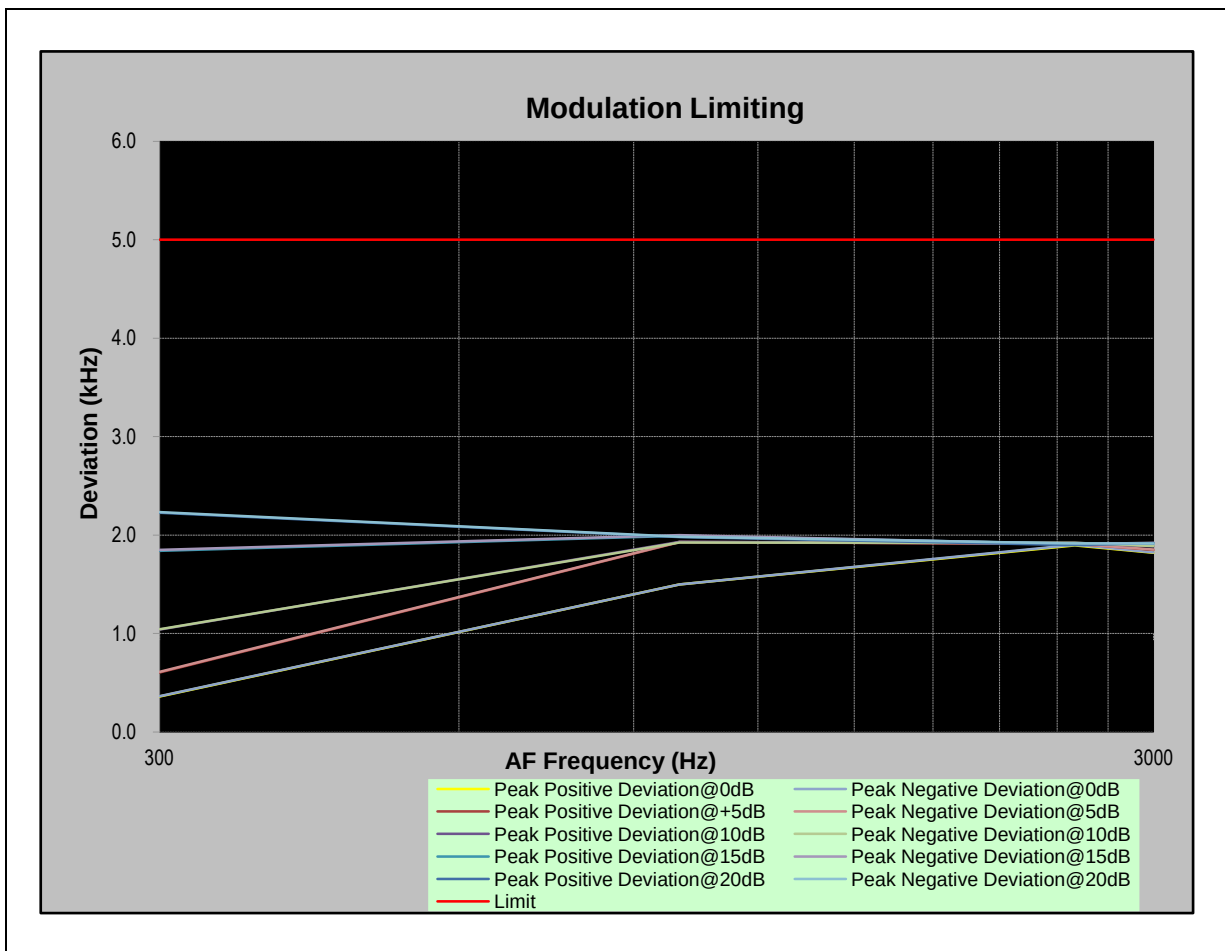
Carrier Frequency: 462.6250MHz Bandwidth:12.5kHz											
Audio Frequency (Hz)	Deviation (@+0dB) [kHz]		Deviation (@+5dB) [kHz]		Deviation (@+10dB) [kHz]		Deviation (@+15dB) [kHz]		Deviation (@+20dB) [kHz]		Limit [kHz]
	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	
300	0.361	0.359	0.611	0.617	1.039	1.044	1.847	1.849	2.238	2.243	5.000
1000	1.500	1.500	1.915	1.922	1.918	1.927	1.928	1.939	1.981	1.978	5.000
2500	1.869	1.878	1.897	1.903	1.936	1.934	1.901	1.896	1.912	1.917	5.000
3000	1.811	1.823	1.858	1.868	1.914	1.902	1.911	1.916	1.897	1.911	5.000



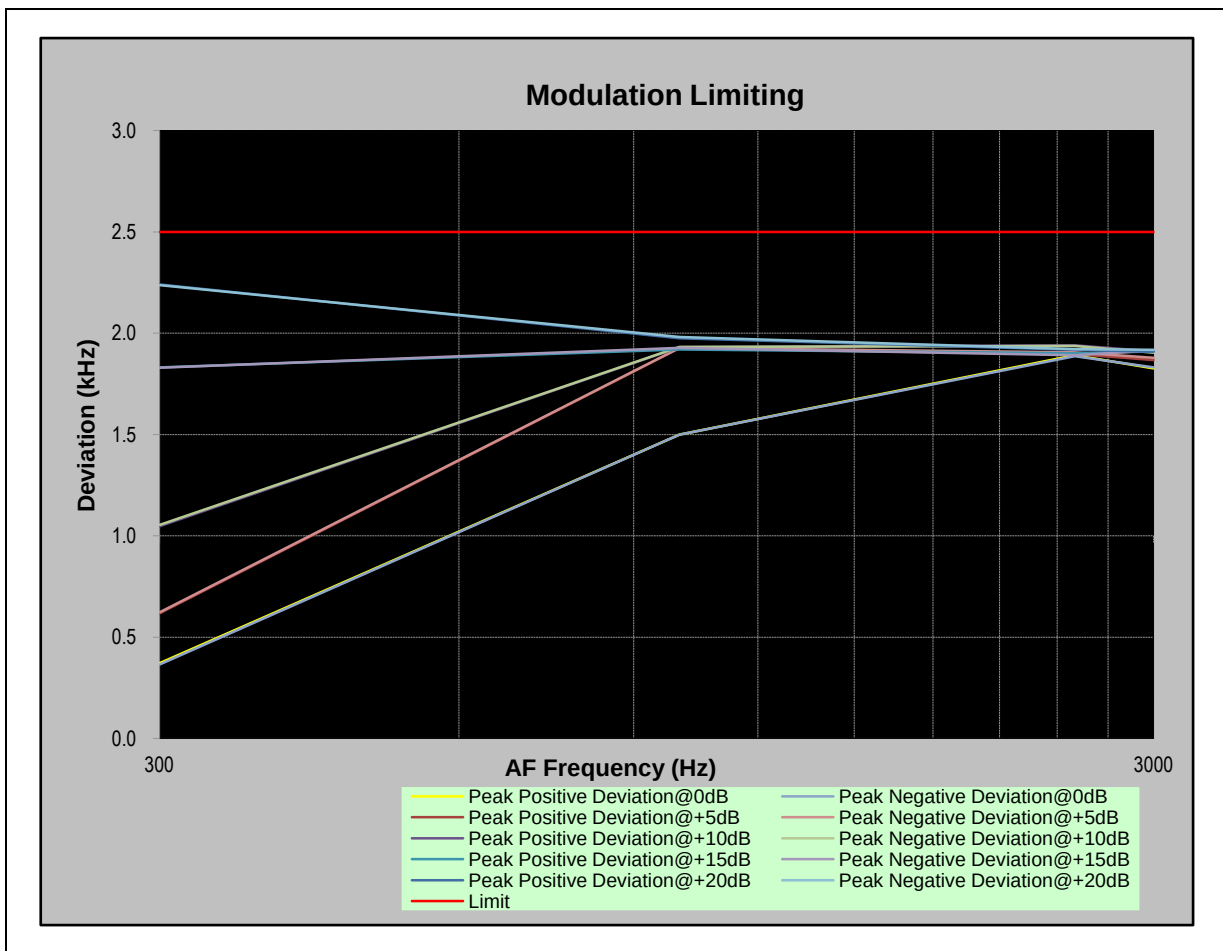
Carrier Frequency: 462.6375MHz Bandwidth:12.5kHz											
Audio Frequency (Hz)	Deviation (@+0dB) [kHz]		Deviation (@+5dB) [kHz]		Deviation (@+10dB) [kHz]		Deviation (@+15dB) [kHz]		Deviation (@+20dB) [kHz]		Limit [kHz]
	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	
300	0.371	0.365	0.618	0.623	1.048	1.051	1.862	1.856	2.234	2.238	5.000
1000	1.500	1.500	1.937	1.941	1.931	1.928	2.004	2.003	1.897	1.991	5.000
2500	1.901	1.896	1.921	1.923	1.935	1.929	1.915	1.910	1.918	1.923	5.000
3000	1.835	1.832	1.863	1.856	1.908	1.911	1.899	1.926	1.921	1.917	5.000



Carrier Frequency: 467.6250MHz Bandwidth:12.5kHz											
Audio Frequency (Hz)	Deviation (@+0dB) [kHz]		Deviation (@+5dB) [kHz]		Deviation (@+10dB) [kHz]		Deviation (@+15dB) [kHz]		Deviation (@+20dB) [kHz]		Limit [kHz]
	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	
300	0.359	0.364	0.603	0.612	1.039	1.042	1.839	1.851	2.227	2.232	5.000
1000	1.500	1.500	1.929	1.932	1.930	1.926	1.993	1.998	1.981	1.984	5.000
2500	1.896	1.901	1.911	1.913	1.921	1.920	1.912	1.909	1.897	1.915	5.000
3000	1.821	1.824	1.849	1.852	1.886	1.890	1.916	1.921	1.918	1.914	5.000

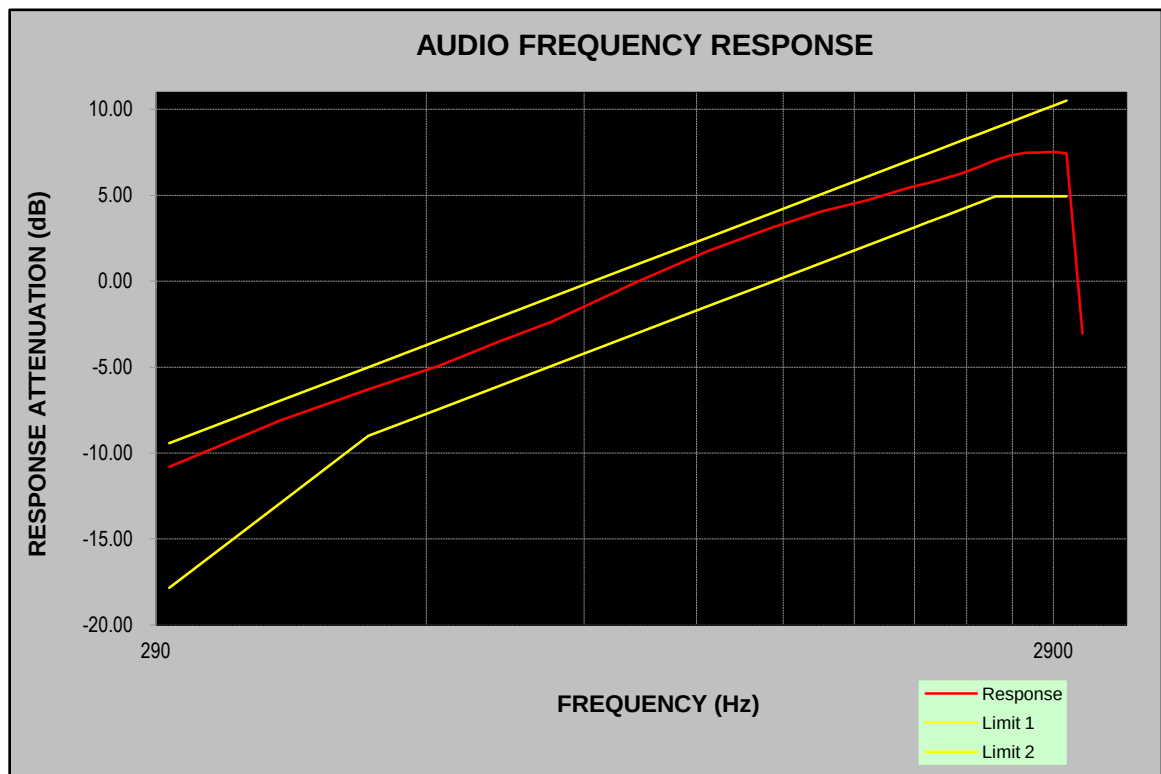


Carrier Frequency: 467.6375MHz Bandwidth:12.5kHz											
Audio Frequency (Hz)	Deviation (@+0dB) [kHz]		Deviation (@+5dB) [kHz]		Deviation (@+10dB) [kHz]		Deviation (@+15dB) [kHz]		Deviation (@+20dB) [kHz]		Limit [kHz]
	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	Peak+	Peak-	
300	0.371	0.365	0.618	0.623	1.048	1.054	1.832	1.829	2.241	2.238	2.500
1000	1.500	1.500	1.926	1.928	1.931	1.933	1.919	1.928	1.975	1.981	2.500
2500	1.892	1.887	1.897	1.906	1.940	1.937	1.901	1.892	1.918	1.921	2.500
3000	1.826	1.832	1.868	1.879	1.911	1.904	1.911	1.915	1.909	1.918	2.500

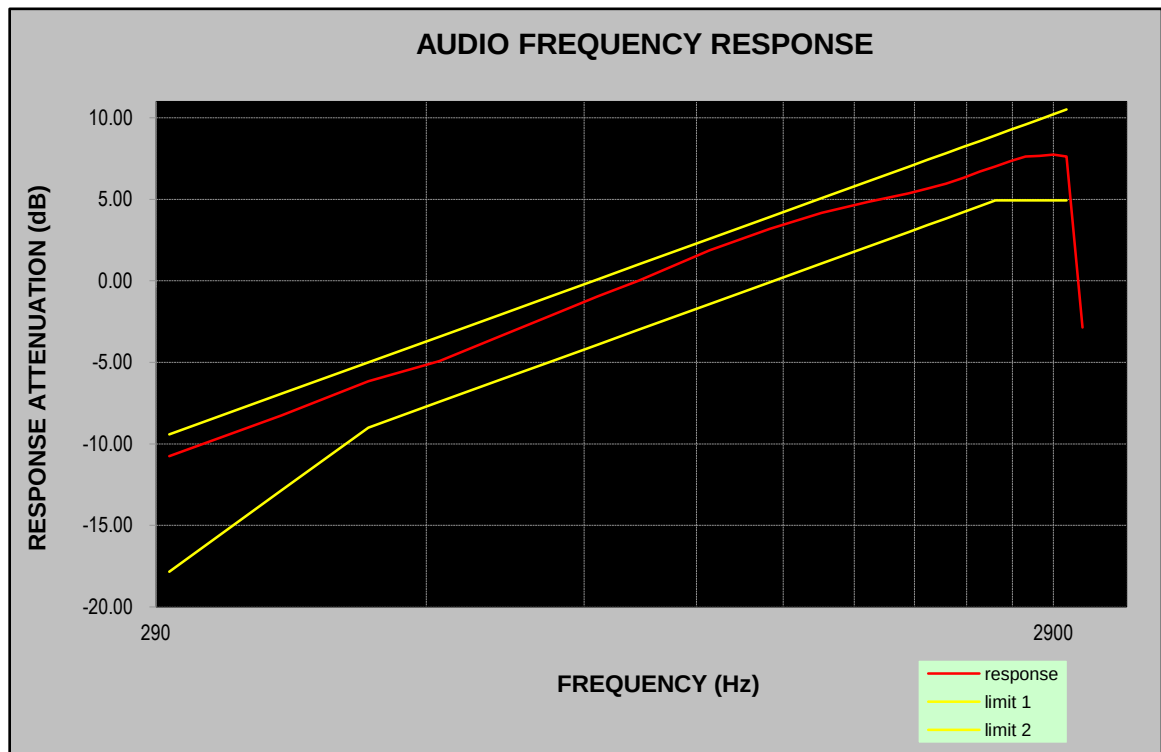


3.4.2 Audio Frequency Response

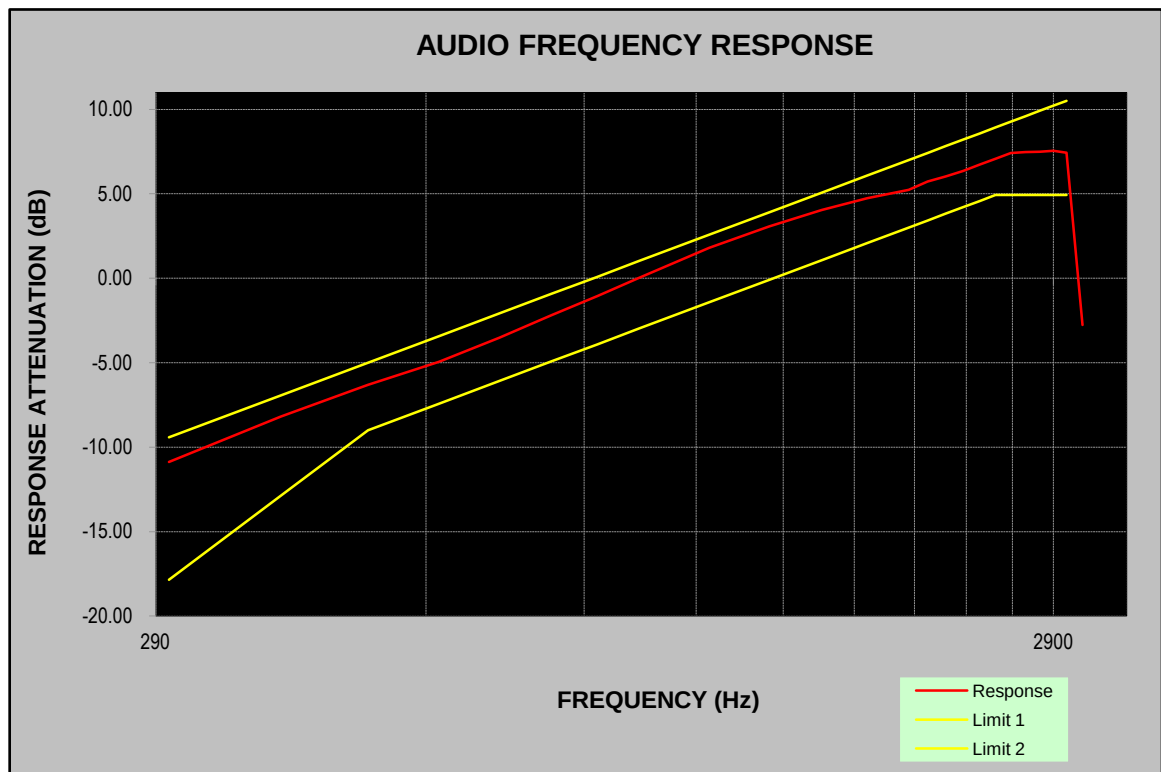
Test Frequency: 462.6250MHz			
Audio Frequency (Hz)	Response Attenuation (dB)	High Limit (dB)	Low Limit (dB)
300	-10.81	-9.4	-17.8
400	-8.09	-6.9	-12.9
500	-6.30	-5.0	-9.0
600	-4.91	-3.4	-7.4
700	-3.50	-2.1	-6.1
800	-2.36	-0.9	-4.9
900	-1.11	0.1	-3.9
1000	0.00	1.0	-3.0
1200	1.78	2.6	-1.4
1400	3.07	3.9	-0.1
1600	4.06	5.1	1.1
1800	4.72	6.1	2.1
2000	5.45	7.0	3.0
2100	5.71	7.4	3.4
2200	5.99	7.8	3.8
2300	6.30	8.2	4.2
2400	6.67	8.6	4.6
2500	7.04	8.9	4.9
2600	7.32	9.3	4.9
2700	7.47	9.6	4.9
2800	7.49	9.9	4.9
2900	7.54	10.2	4.9
3000	7.44	10.5	4.9
3125	-3.05	/	/



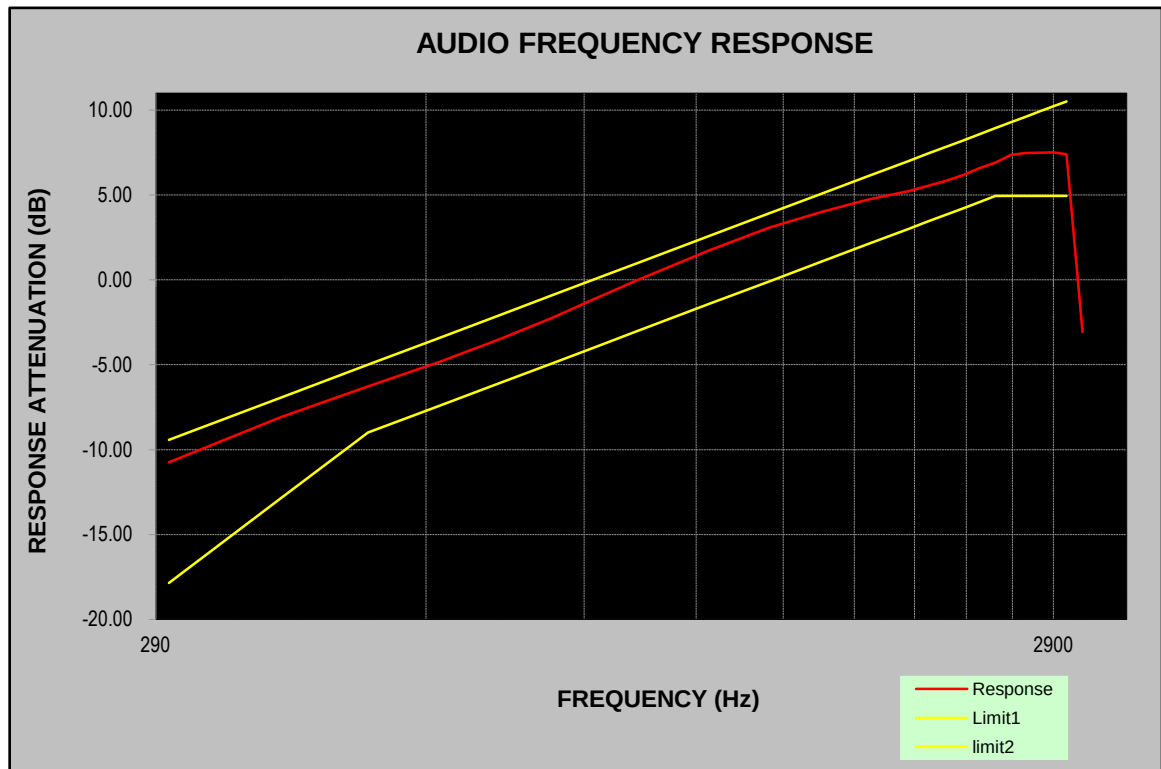
Test Frequency: 462.6375MHz			
Audio Frequency (Hz)	Response Attenuation (dB)	High Limit (dB)	Low Limit (dB)
300	-10.75	-9.4	-17.8
400	-8.27	-6.9	-12.9
500	-6.16	-5.0	-9.0
600	-4.91	-3.4	-7.4
700	-3.40	-2.1	-6.1
800	-2.11	-0.9	-4.9
900	-0.95	0.1	-3.9
1000	0.00	1.0	-3.0
1200	1.88	2.6	-1.4
1400	3.19	3.9	-0.1
1600	4.17	5.1	1.1
1800	4.84	6.1	2.1
2000	5.36	7.0	3.0
2100	5.67	7.4	3.4
2200	5.96	7.8	3.8
2300	6.31	8.2	4.2
2400	6.71	8.6	4.6
2500	7.03	8.9	4.9
2600	7.35	9.3	4.9
2700	7.63	9.6	4.9
2800	7.66	9.9	4.9
2900	7.75	10.2	4.9
3000	7.62	10.5	4.9
3125	-2.85	/	/



Test Frequency: 467.6250MHz			
Audio Frequency (Hz)	Response Attenuation (dB)	High Limit (dB)	Low Limit (dB)
300	-10.87	-9.4	-17.8
400	-8.18	-6.9	-12.9
500	-6.30	-5.0	-9.0
600	-4.94	-3.4	-7.4
700	-3.53	-2.1	-6.1
800	-2.20	-0.9	-4.9
900	-1.05	0.1	-3.9
1000	0.00	1.0	-3.0
1200	1.80	2.6	-1.4
1400	3.08	3.9	-0.1
1600	4.05	5.1	1.1
1800	4.75	6.1	2.1
2000	5.24	7.0	3.0
2100	5.72	7.4	3.4
2200	6.04	7.8	3.8
2300	6.36	8.2	4.2
2400	6.73	8.6	4.6
2500	7.07	8.9	4.9
2600	7.41	9.3	4.9
2700	7.47	9.6	4.9
2800	7.49	9.9	4.9
2900	7.54	10.2	4.9
3000	7.44	10.5	4.9
3125	-2.76	/	/



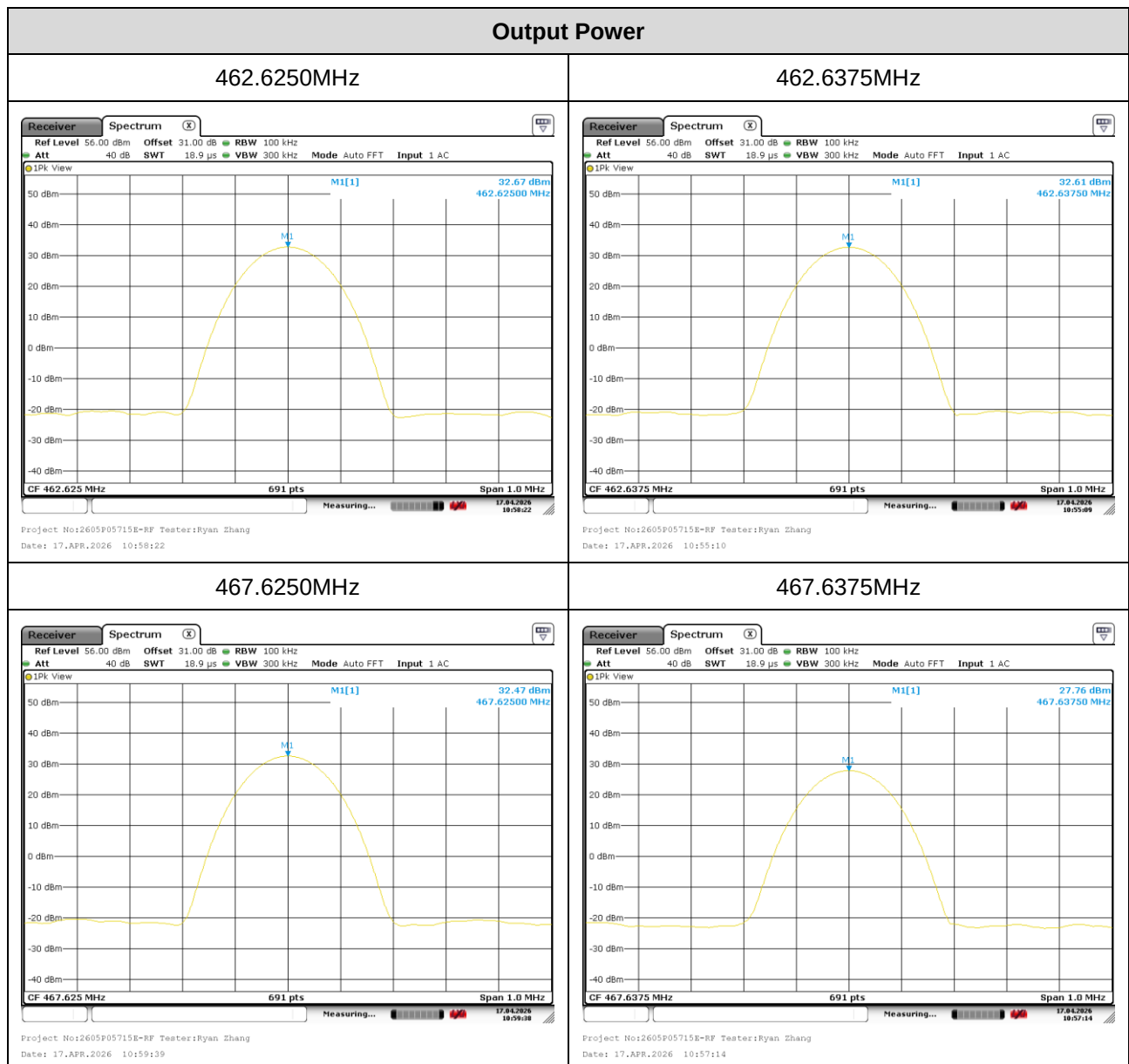
Test Frequency: 467.6375MHz			
Audio Frequency (Hz)	Response Attenuation (dB)	High Limit (dB)	Low Limit (dB)
300	-10.75	-9.4	-17.8
400	-8.09	-6.9	-12.9
500	-6.27	-5.0	-9.0
600	-4.85	-3.4	-7.4
700	-3.50	-2.1	-6.1
800	-2.27	-0.9	-4.9
900	-1.05	0.1	-3.9
1000	0.00	1.0	-3.0
1200	1.74	2.6	-1.4
1400	3.07	3.9	-0.1
1600	4.01	5.1	1.1
1800	4.72	6.1	2.1
2000	5.22	7.0	3.0
2100	5.53	7.4	3.4
2200	5.82	7.8	3.8
2300	6.17	8.2	4.2
2400	6.58	8.6	4.6
2500	6.90	8.9	4.9
2600	7.35	9.3	4.9
2700	7.47	9.6	4.9
2800	7.49	9.9	4.9
2900	7.51	10.2	4.9
3000	7.40	10.5	4.9
3125	-3.07	/	/



3.4.3 Transmitter output power

Test Frequency (MHz)	Conducted Output Power (dBm)	Conducted Output Power Limit (dBm)	ERP (dBm)	ERP Limit (dBm)	Verdict
462.6250	32.67	≤47.00	28.52	/	pass
462.6375	32.61	/	28.46	≤37.00	pass
467.6250	32.47	≤47.00	28.32	/	pass
467.6375	27.76	/	23.61	≤27.00	pass

Note: ERP = Conducted Output Power + Antenna Gain(dBd)



3.4.4 Authorized Bandwidth and Emission Mask

Test Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Emission Mask	Limit	Verdict
462.6250	5.282	≤ 20	Refer test plot	Refer test plot	pass
462.6375	5.210	≤ 20	Refer test plot	Refer test plot	pass
467.6250	5.282	≤ 20	Refer test plot	Refer test plot	pass
467.6375	5.210	≤ 12.5	Refer test plot	Refer test plot	pass

Note:

Emission bandwidth was based on calculation method instead of measurement.

Emission Designator: Per CFR 47 §2.201& §2.202, $BW = 2M + 2D$

For FM Mode (Channel Spacing: 12.5 kHz)

Emission Designator: 11K0F3E

In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

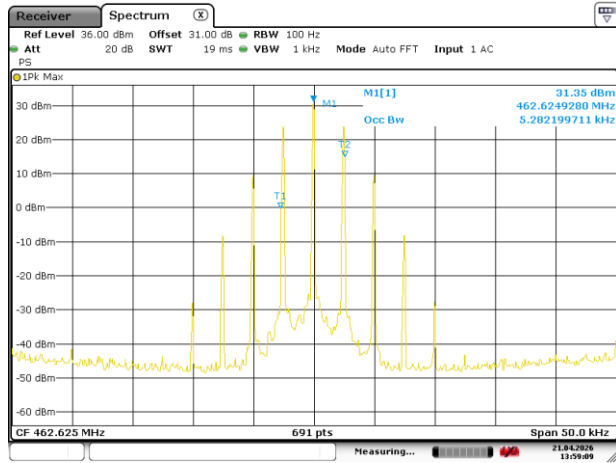
$$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} = 11K0$$

F3E portion of the designator represents an FM voice transmission

Therefore, the entire designator for 12.5 kHz channel spacing FM mode is 11K0F3E.

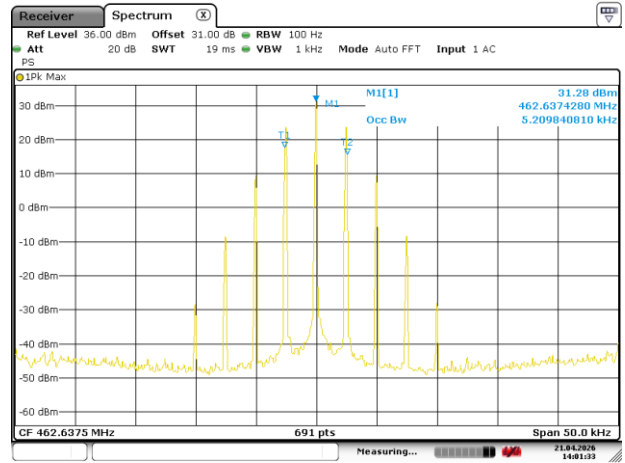
BW

462.6250MHz



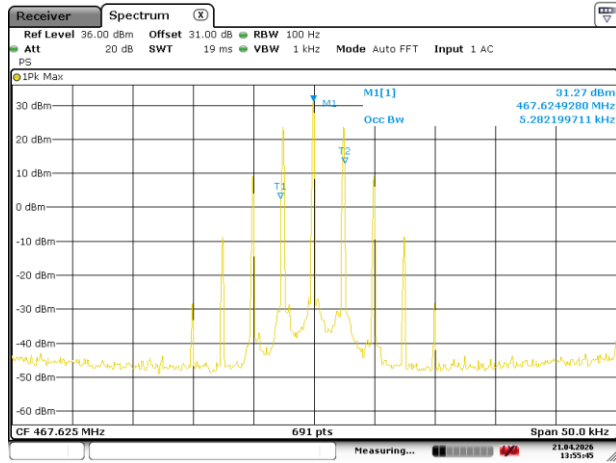
Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 13:59:10

462.6375MHz



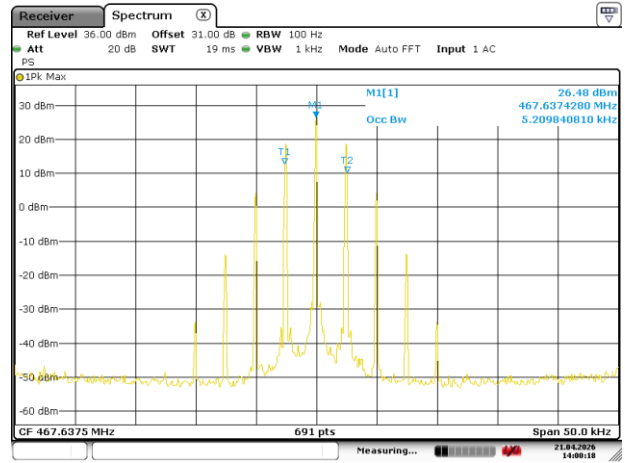
Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:01:33

467.6250MHz



Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 13:55:45

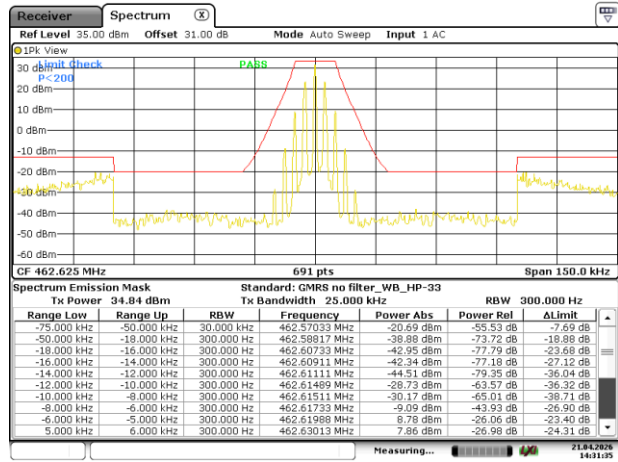
467.6375MHz



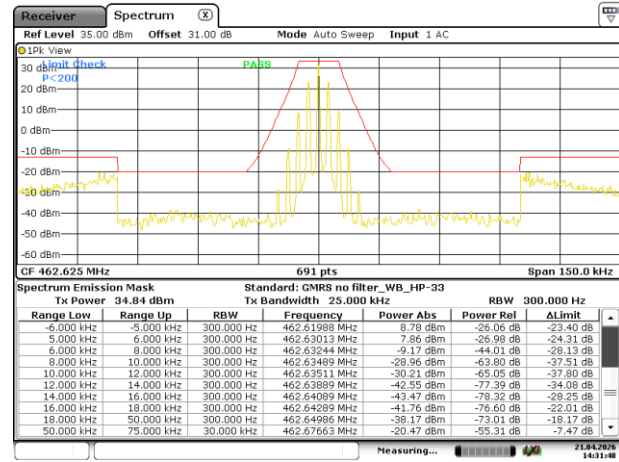
Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:00:18

Emission Mask

462.6250MHz

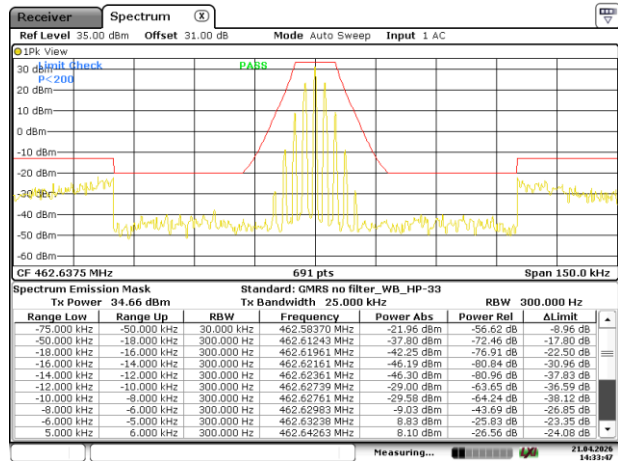


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:31:34

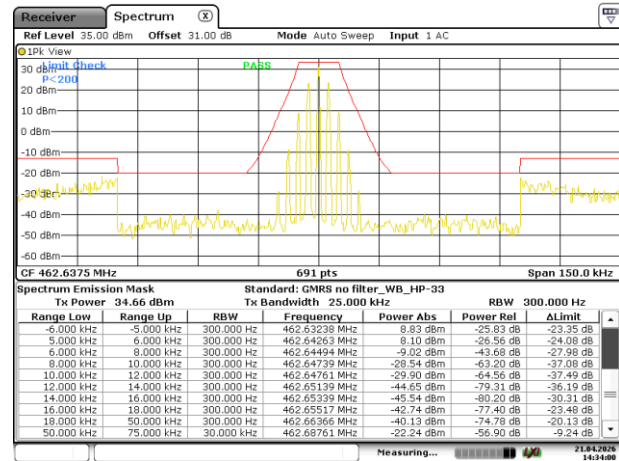


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:31:48

462.6375MHz

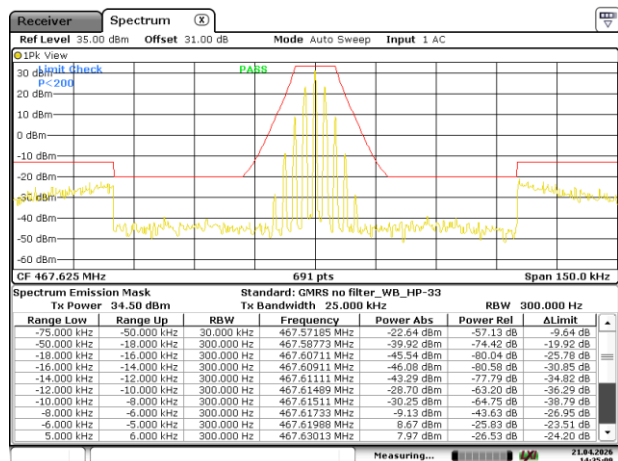


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:33:47

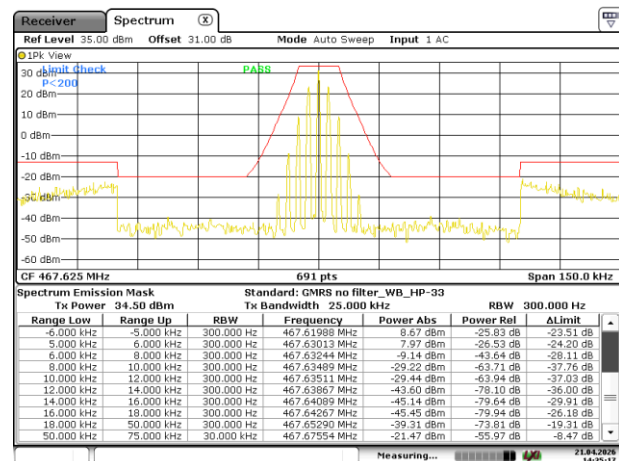


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:33:59

467.6250MHz

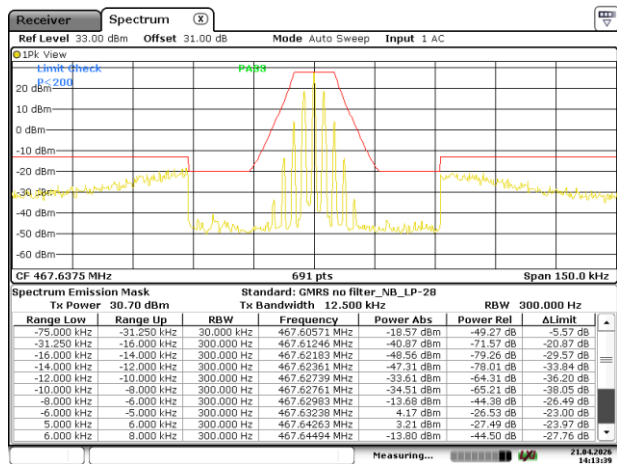


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:35:08

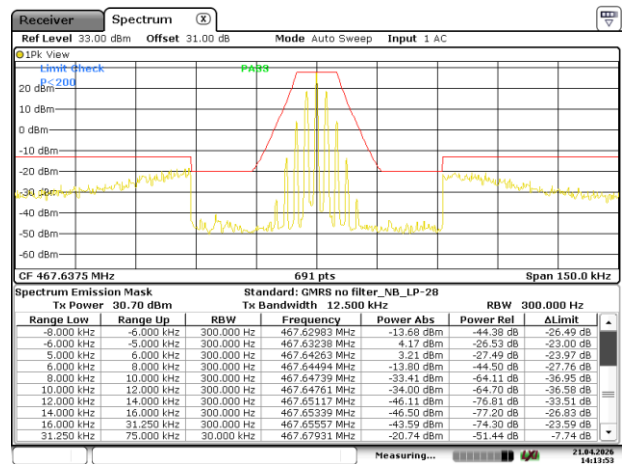


Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:35:17

467.6375MHz



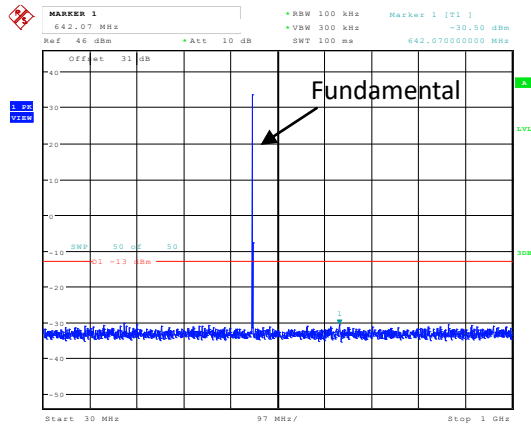
Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:13:39



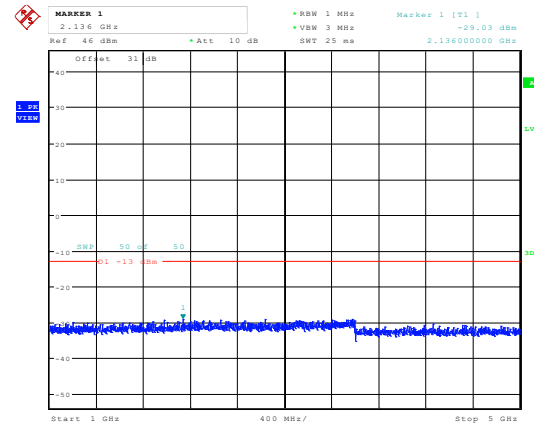
Project No:2605P05715E-RF Tester:Ryan Zhang
Date: 21.APR.2026 14:13:53

3.4.5 Conducted Unwanted Emissions at Antenna Port

462.6250MHz

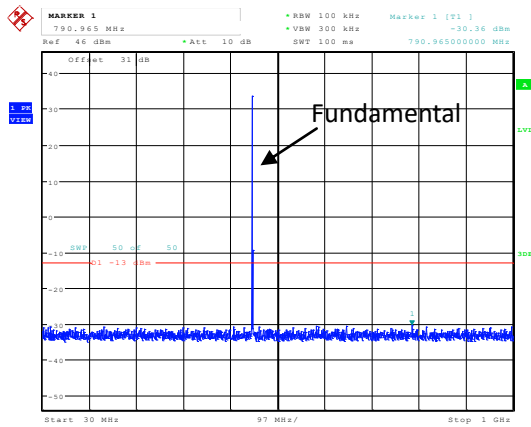


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:46:28

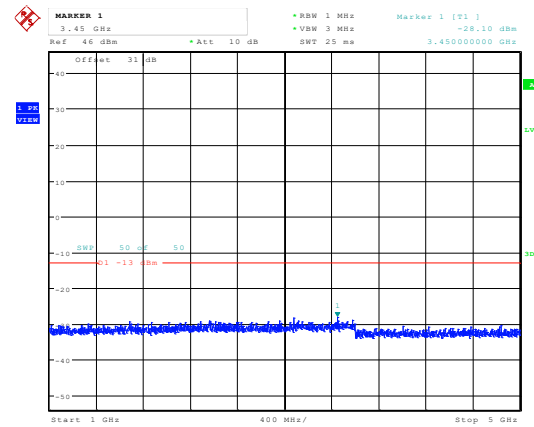


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:41:19

462.6375MHz

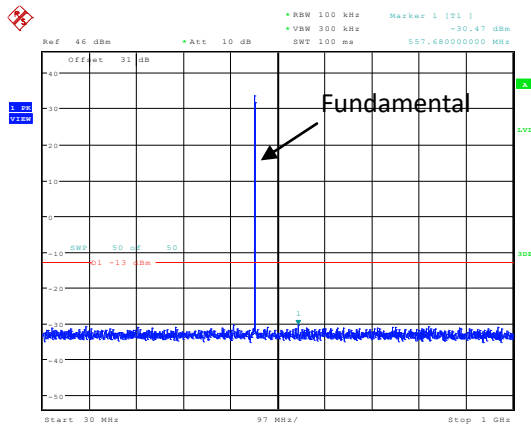


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:47:15

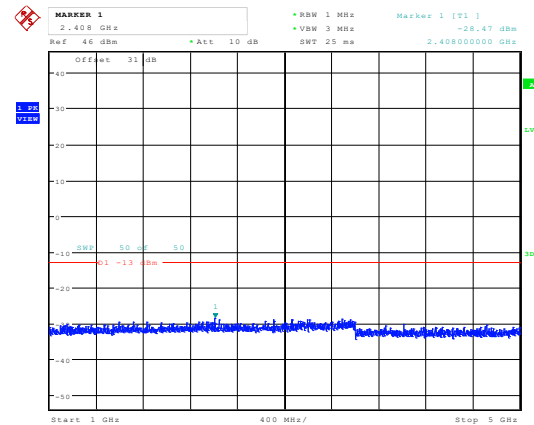


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:47:54

467.6250MHz

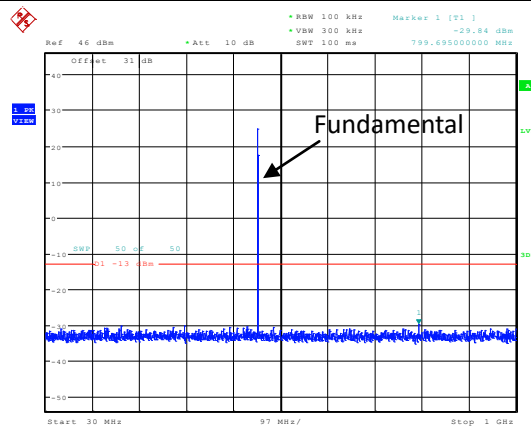


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:39:06

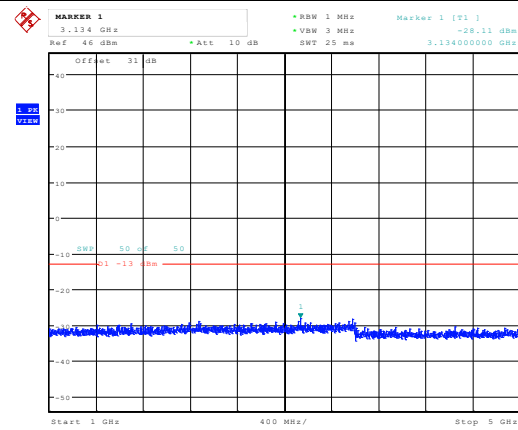


ProjectNo.:2605P05715E-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:36:35

467.6375MHz



ProjectNo.:2605P05715B-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:43:42



ProjectNo.:2605P05715B-RF Tester:Ryan Zhang
Date: 31.JAN.2026 18:48:36

3.4.6 Frequency stability

Test Item	Temperature (°C)	Voltage (Vdc)	Center Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
Frequency Stability vs. Temperature & Voltage	-30	3.7	462.625	462.624933	-0.14	≤2.5
	-20	3.7	462.625	462.624944	-0.12	≤2.5
	-10	3.7	462.625	462.624951	-0.11	≤2.5
	0	3.7	462.625	462.625123	0.27	≤2.5
	10	3.7	462.625	462.625032	0.07	≤2.5
	20	3.7	462.625	462.62497	-0.06	≤2.5
	30	3.7	462.625	462.625124	0.27	≤2.5
	40	3.7	462.625	462.625024	0.05	≤2.5
	50	3.7	462.625	462.625137	0.3	≤2.5
	20	3.3	462.625	462.624961	-0.08	≤2.5
	20	4.2	462.625	462.624996	-0.01	≤2.5

Test Item	Temperature (°C)	Voltage (Vdc)	Center Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
Frequency Stability vs. Temperature & Voltage	-30	3.7	462.6375	462.637531	0.07	≤2.5
	-20	3.7	462.6375	462.637487	-0.03	≤2.5
	-10	3.7	462.6375	462.637445	-0.12	≤2.5
	0	3.7	462.6375	462.637633	0.29	≤2.5
	10	3.7	462.6375	462.637505	0.01	≤2.5
	20	3.7	462.6375	462.637706	0.45	≤2.5
	30	3.7	462.6375	462.637526	0.06	≤2.5
	40	3.7	462.6375	462.63756	0.13	≤2.5
	50	3.7	462.6375	462.637522	0.05	≤2.5
	20	3.3	462.6375	462.637462	-0.08	≤2.5
	20	4.2	462.6375	462.637619	0.26	≤2.5

Test Item	Temperature (°C)	Voltage (Vdc)	Center Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
Frequency Stability vs. Temperature& Voltage	-30	3.7	467.625	467.625045	0.10	≤2.5
	-20	3.7	467.625	467.624982	-0.04	≤2.5
	-10	3.7	467.625	467.624920	-0.17	≤2.5
	0	3.7	467.625	467.625070	0.15	≤2.5
	10	3.7	467.625	467.625142	0.30	≤2.5
	20	3.7	467.625	467.624919	-0.17	≤2.5
	30	3.7	467.625	467.625100	0.21	≤2.5
	40	3.7	467.625	467.625053	0.11	≤2.5
	50	3.7	467.625	467.624942	-0.12	≤2.5
	20	3.3	467.625	467.625119	0.25	≤2.5
	20	4.2	467.625	467.624952	-0.10	≤2.5

Test Item	Temperature (°C)	Voltage (Vdc)	Center Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (ppm)	limit (ppm)
Frequency Stability vs. Temperature& Voltage	-30	3.7	467.6375	467.637541	0.09	≤2.5
	-20	3.7	467.6375	467.637555	0.12	≤2.5
	-10	3.7	467.6375	467.637523	0.05	≤2.5
	0	3.7	467.6375	467.637504	0.01	≤2.5
	10	3.7	467.6375	467.637455	-0.10	≤2.5
	20	3.7	467.6375	467.637425	-0.16	≤2.5
	30	3.7	467.6375	467.637604	0.22	≤2.5
	40	3.7	467.6375	467.637434	-0.14	≤2.5
	50	3.7	467.6375	467.637621	0.26	≤2.5
	20	3.3	467.6375	467.637447	-0.11	≤2.5
	20	4.2	467.6375	467.637687	0.40	≤2.5

Note: the voltage range was provided by applicant.

4 Test Setup Photo

Please refer to the attachment 2605P05715E Test Setup photo.

5 E.U.T Photo

Please refer to the attachment 2605P05715E External photo and 2605P05715E Internal photo.

---End of Report---