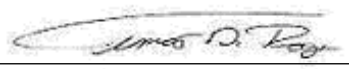
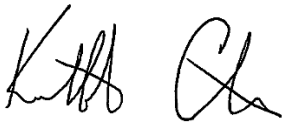
Test Report - FCC PART 95- CB Transceiver
Applicant: Uniden America Corporation

Signature:  Sr. EMC Engineer EMC-003838-NE

Name & Title: Tim Royer, EMC Engineer

Date of Signature 2/12/2025

Signature: 

Name & Title: Kristoffer Costa, EMC Technician

Date of Signature 2/12/2025

This test report relates only to the items tested as identified and is not valid for any subsequent changes or modifications made to the equipment under test.

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1. Applicant Information

Applicant: Uniden America Corporation
Address: 301 International Pkway
Suite 360
Flower Mound, Texas, 75022, United States

1.1 Part 95 Test Result Summary

The following test procedure and guidance were used for measuring 90(PRIVATE LAND MOBILE RADIO SERVICES) known as Licensed Land Mobile; ANSI C63.26-2015. Full test results are available in this report.

Applicable Clauses			
FCC/IC Rule Parts	Description of the requirements	Requirement	Result: (Pass, Fail, N/A)
2.1046(a), 95.967, RSS-236 5.2	RF Power Output	< 4 W	Pass
2.1047(a)(b), 95.975, RSS-236 5.3.2	Modulation Characteristics	85% < dev < 100%	Reported
2.1049(c)(1),95.973, 95.979(1)(3), RSS-236 5.4.2, 5.4.4	Occupied Bandwidth	Comply with Mask	Pass
2.1051, 95.979(5)(6), RSS-236 5.4.2, 5.4.4	Antenna Conducted Emissions	Comply with Mask	Pass
2.1053, 95.979(5)(6), RSS-236 5.4.2, 5.4.4	Field Strength Spurious Emissions	Comply with Mask	Pass
2.1055(a)(b)(d), 95.965, RSS-236 5.3.2	Frequency Stability	< 50 ppm	Pass

No additions to the test methods were needed. There were no deviations, or exclusions from the test methods. No test results are from external providers or from the customer. The test results relate only to the items tested. Timco does not offer opinions and interpretations, only a pass/fail statement.

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2. Location of Testing

2.1 Test Laboratory

Timco Engineering Inc. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at IIA's permanent laboratory located at 13146 NW 86th Drive, Suite 400, Alachua, Florida 32615.

FCC test firm # 578780
FCC Designation # US1070
FCC site registration is under A2LA certificate # 0955.01
ISED Canada test site registration # 2056A
EU Notified Body # 1177
For all designations see A2LA scope # 0955.01

3. Test Sample(s) (EUT/DUT)

The test sample was received: 1/29/2025

Dates of Testing: 2/10/2025 – 2/12/2025

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3.1 Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

Identification	
FCC ID:	AMWUT447
Brief Description	40-CH AM/FM CB Radio
Model(s) #	PC68LTXFM
Firmware version	N/A
Software version	1.04
Serial Number	N/A

Technical Characteristics	
Frequency Range	26.965 MHz- 27.405 MHz
RF O/P Power (Max.)	FM: 35.61 dBm/ 3.64 W AM: 35.58 dBm/ 3.61 W
Modulation	AM/FM
Bandwidth & Emission Class	7K54F3E, 2K60A3E
Number of Channels	40
Duty Cycle	100%
Antenna Connector	UHF
Voltage Rating (AC or Batt.)	13.8 VDC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	n/a	n/a	3 dBi

- Note: Information such as antenna gain, firmware/software numbers are provided by manufacturer and cannot be validated by the test lab.

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3.2 Configuration of EUT

Test Modes			
Mode (#)	Channel	Test Frequencies (MHz)	BW (nominal) (kHz)
1 (FM)	1	26.965	7.534
	20	27.205	7.524
	40	27.405	7.534
2 (AM)	1	26.965	2.585
	20	27.205	2.600
	40	27.405	2.595

Operating conditions during Testing:

The device was operated without the provided antenna(s).

No other modifications of the device under test (including firmware, specific software settings, and input/output signal levels to the EUT) were made.

Peripherals used during Testing:

No peripherals used.

3.3 Test Setup of EUT

Equipment, antenna, and cable arrangement. The setup of the equipment and cable or wire placement on the test site that produces the highest radiated and the highest ac power line conducted emissions shall be shown clearly and described. Information on the orientation of portable equipment during testing shall be included. Drawings or photographs may be used for this purpose.

Test Setups are included in the test report.

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4. Test methods & Applicable Regulatory Limits

4.1 Test methods/Standards/Guidance:

Test procedures and guidance for measuring Licensed Part 95 & RSS 236 Licensed Devices

1) ANSI C63.10

4.2 Applied Limits and Regulatory Limits:

FCC CFR 47 Part 2, FCC CFR 47 Part 95 D (2021), RSS-Gen Issue 4, RSS-236 Issue 5, EIA/TIA-382-A, ANSI C63.10, NOTICE 2012-DRS0126

5. Measurement Uncertainty

Parameter	Uncertainty (dB)
Conducted Emissions	± 3.14 dB
Radiated Emissions (9kHz – 30 MHz)	± 3.08 dB
Radiated Emissions (30 – 200 MHz)	± 2.16 dB
Radiated Emissions (200 – 1000 MHz)	± 2.15 dB
Radiated Emissions (1 GHz – 18 GHz)	± 2.14 dB
Radiated Emissions (18 GHz – 40 GHz)	± 2.31 dB
Note: The uncertainties provided in this table represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of K=2.	

6. Environmental Conditions

6.1 Temperature & Humidity

Measurements performed at the test site did not exceed the following:

Parameter	Measurement
Temperature	23 C +/- 5%
Humidity	55% +/- 5%
Barometric Pressure	30.05 in Hg
Note: Specific environmental conditions that are applicable to a specific test are available in the test result section.	

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7. List of Test Equipment and Test Facility

The test equipment used identified by type, manufacturer, serial number, or other identification and the date on which the next calibration or service check is due.

Description of the firmware or software used to operate EUT for testing purposes.

A complete list of all test equipment used shall be included with the test report. The manufacturer's model and serial numbers, and date of last calibration, and calibration interval shall be included. Measurement cable loss, measuring instrument bandwidth and detector function, video bandwidth, if appropriate, and antenna factors shall also be included where applicable.

7.1 List of Test Equipment

Test Equipment						
Type	Device	Manufacturer	Model	SN#	Current Cal	Cal Due
Antenna, NSA	Log-Periodic 1243	Eaton	96005	1243	5/4/24	12/18/2027
Antenna	Double-Ridged Horn/ETS Horn 1	ETS-Lindgren	3117	00035923	5/31/24	12/18/2027
CHAMBER	CHAMBER	Panashield	3M	N/A	12/29/23	12/18/2025
Receiver	EMI Test Receiver R&S ESU 40	Rohde & Schwarz	ESU 40	100320	9/18/24	9/18/2027
Receiver	EMI Test Receiver R&S ESW44	Rohde & Schwarz	ESW44	103049	10/13/24	12/12/2027
Function Generator	Function Generator	Standford	DS340	25200	2/22/24	2/21/2027
Signal Generator	Signal Generator HP 8648C	HP	8648C	35537A01679	8/4/22	8/03/2025
Frequency Counter	Frequency Counter Small	HP	5385A	2730A03025	12/12/23	12/11/2026

Software			
Software	Author	Version	Validation on
ESU Firmware	Rohde & Schwarz	4.43 SP3; BIOS v5.1-24-3	2018
RSCommander	Rohde & Schwarz	1.6.4	2014
ScopeExplorer	LeCroy	v2.25.0.0	2009
Field Strength	Timco	v4.10.7.0	2016

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8. Test Results

The results of the test are usually indicated in the form of tables, spectrum analyzer plots, charts, sample calculations, as appropriate for each test procedure.

A description and/or a block diagram of the test setup is usually provided.

The measurement results, along with the appropriate limits for comparison, may be presented in tabular or graphical form. In addition, any variation in the measurement environment may be reported if applicable (e.g., a significant change of temperature that could affect the cable loss and amplifier response).

Unless noted otherwise in the referenced standard, the measurements of **ac power-line conducted emissions and conducted power output** will be reported in units of dBµV. Unless noted otherwise in the referenced standard, the measurements of **radiated emissions** will be reported in units of decibels, referenced to one microvolt per meter (dBµV/m) for electric fields, or to one ampere per meter (dBA/m) for magnetic fields, at the distance specified in the appropriate standards or requirements. The measurements of antenna-conducted power for receivers may be reported in units of dBµV if the impedance of the measuring instrument is also reported. Otherwise, antenna-conducted power will be reported in units of decibels referenced to one milliwatt (dBm). All formulas for data conversions and conversion factors, if used, will be included in this measurement report.

Example:

Freq (MHz)	Meter Reading	+ ACF	+CL	= FS
33	20 dBµV	+ 10.36 dB/m	+0.40 dB	=30.36 dBµV/m @ 3m

EIRP = Pcond (dBm) + dBi

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8.1 Power at the Final Amplifier

Limits from FCC Part 2.1033 (c)(8). No method of measurement is specified.

Test Results		
EUT Operating Voltage (V)	EUT Current (A)	Power at the Final Amplifier (W)
13.8	0.289855072	4

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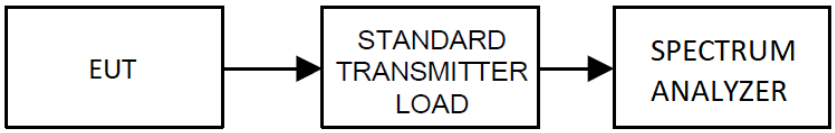
8.2 RF Output Power

Limits from FCC Parts 2.1046(a), 95.967; RSS-236 5.2and test procedure from ANSI C63.10

Test Requirements: 4 W Mean Carrier power when transmitting emission type A1D or A3E

Test Setup



Test Results, FM, Mode 1				
Channel	Tuned Frequency (MHz)	Power Output (dBm)	Power Output (W)	Limit (W)
1	26.905	35.61	3.64	4
20	27.205	35.47	3.52	4
40	27.405	35.35	3.43	4

Test Results, AM, Mode 2				
Channel	Tuned Frequency (MHz)	Power Output (dBm)	Power Output (W)	Limit (W)
1	26.905	35.58	3.61	4
20	27.205	35.44	3.50	4
40	27.405	35.32	3.40	4

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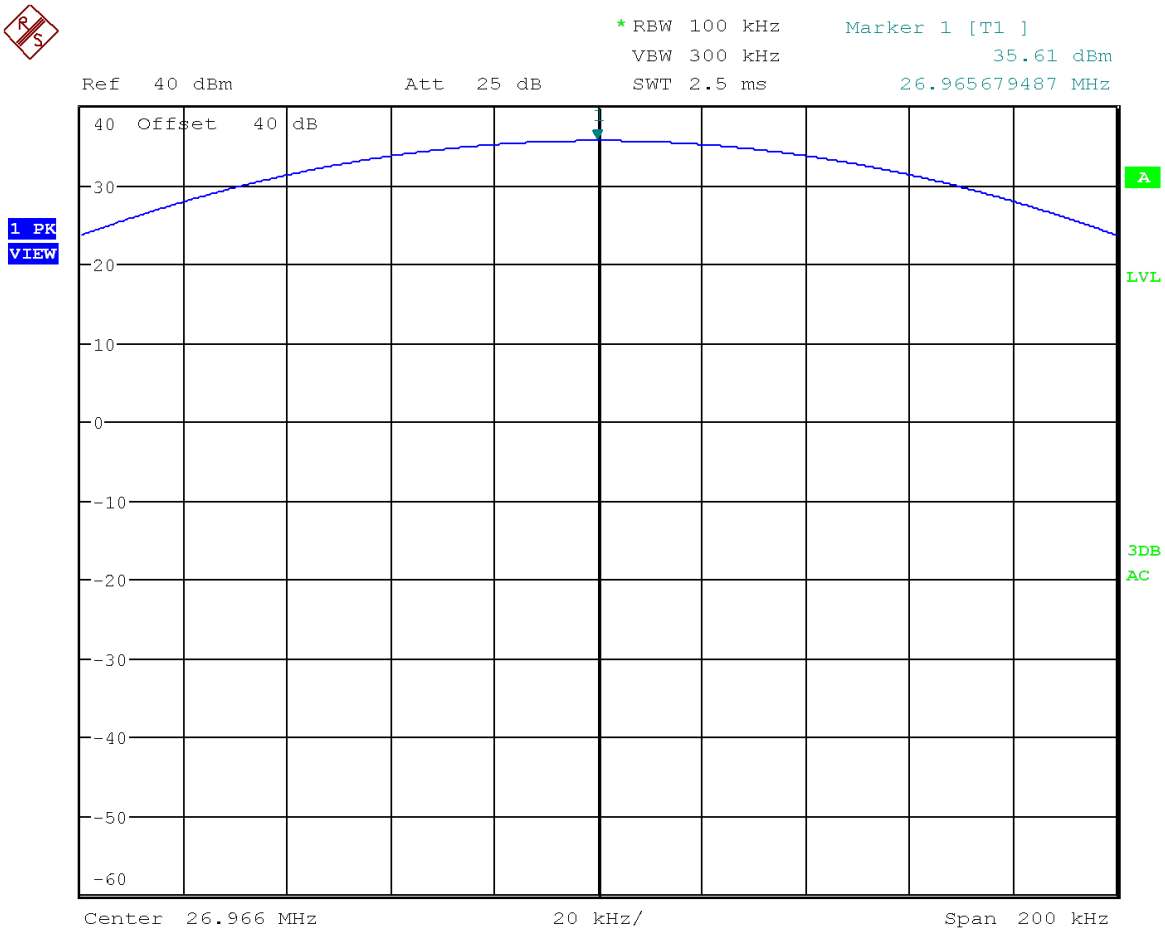
8.2.1 RF Power Output FM, 26.965 MHz



Date: 10.FEB.2025 15:11:24

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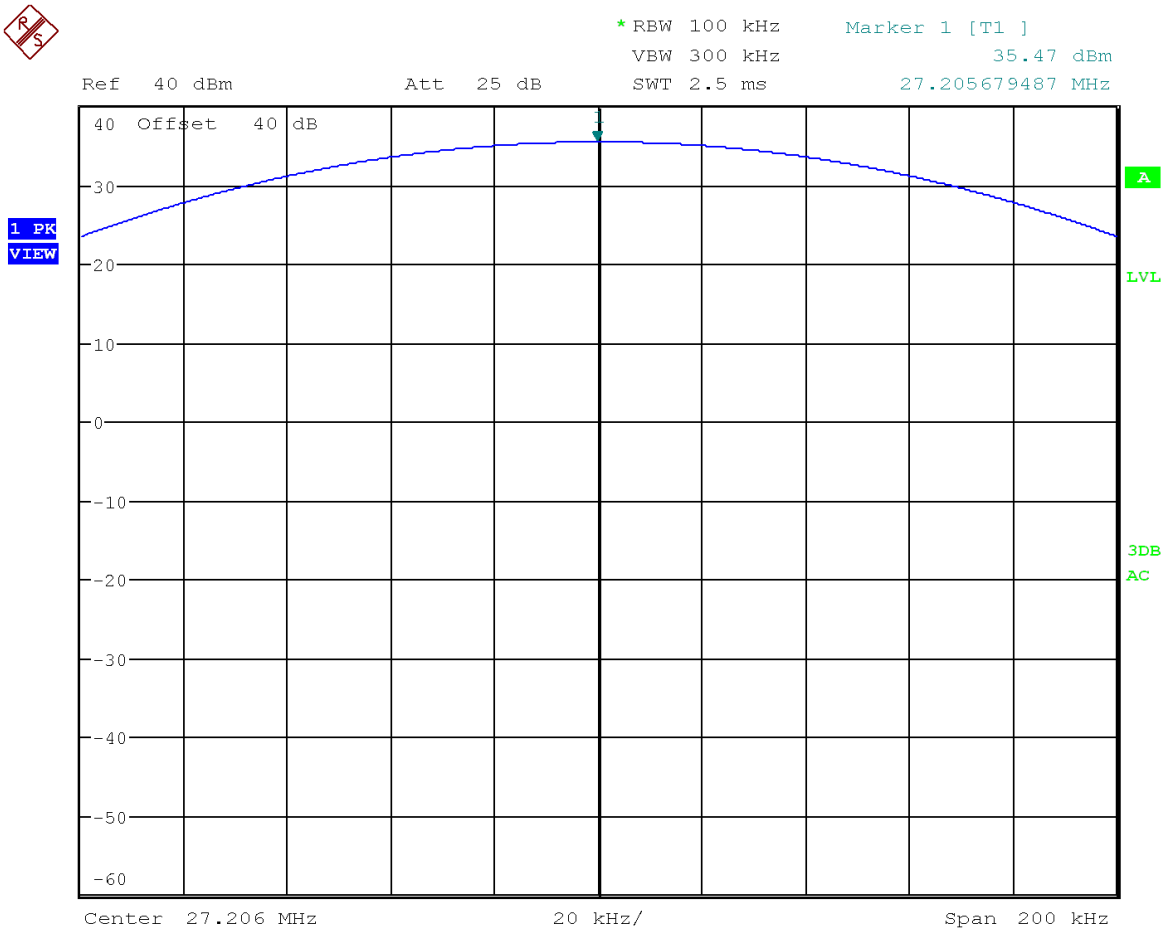
8.2.2 RF Power Output FM, 27.205 MHz



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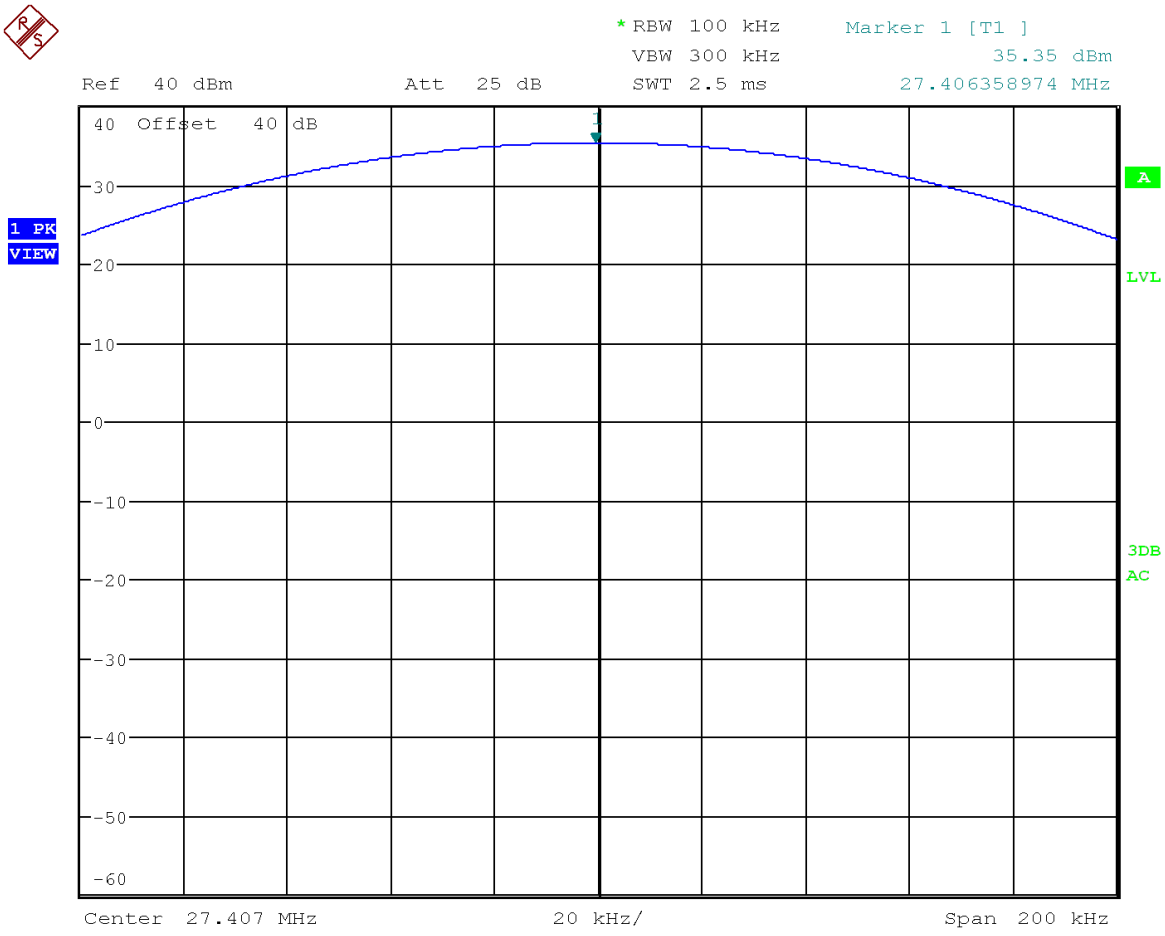
8.2.3 RF Power Output FM, 27.405 MHz



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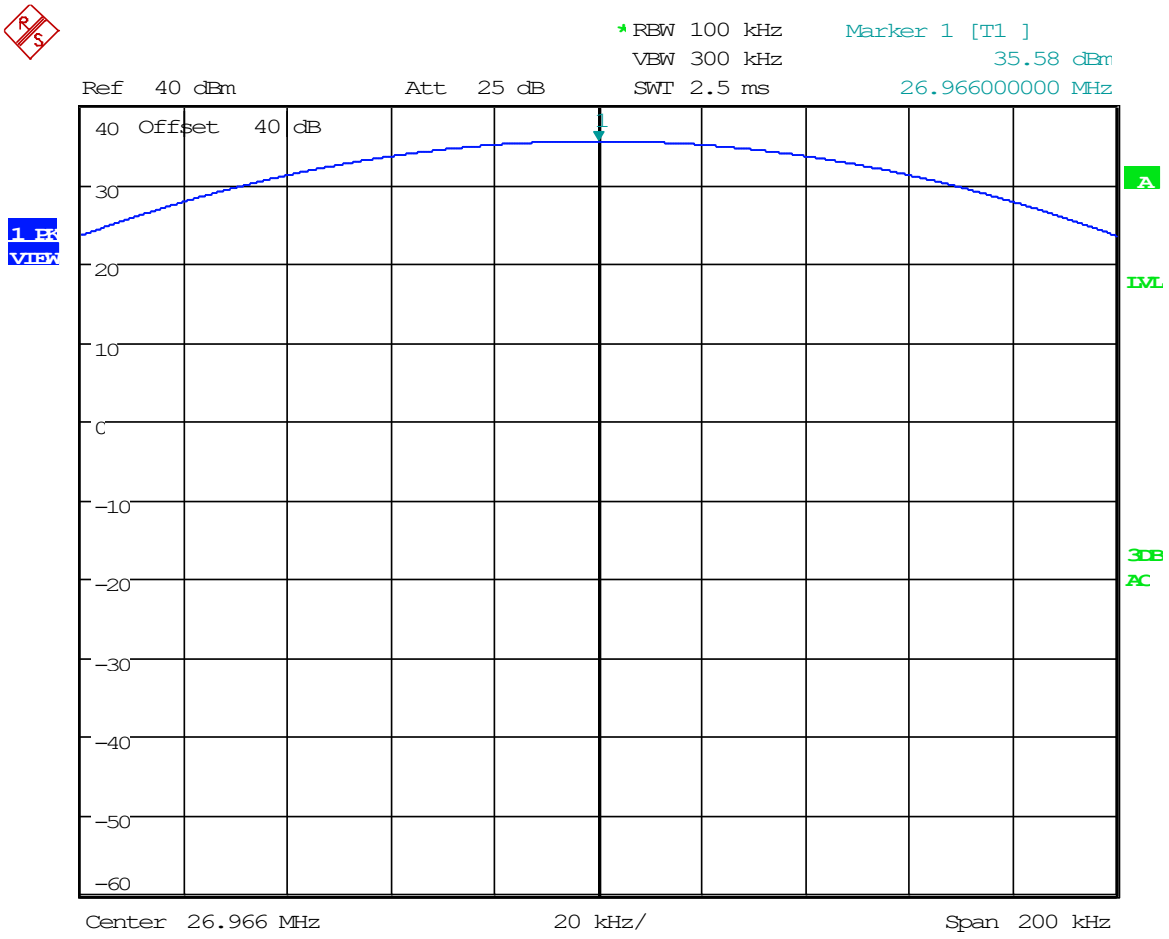
8.2.4 RF Power Output AM, 26.965 MHz



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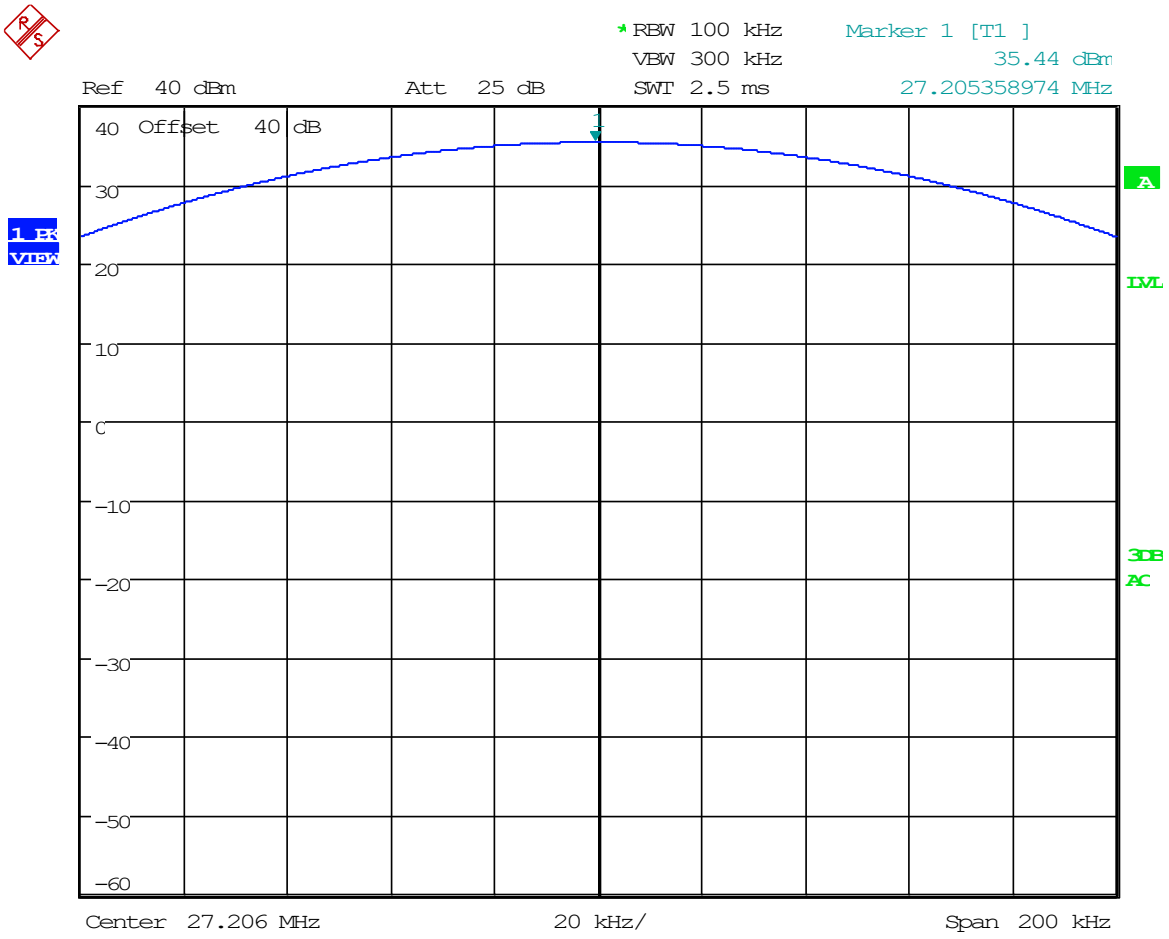
8.2.5 RF Power Output AM, 27.205 MHz



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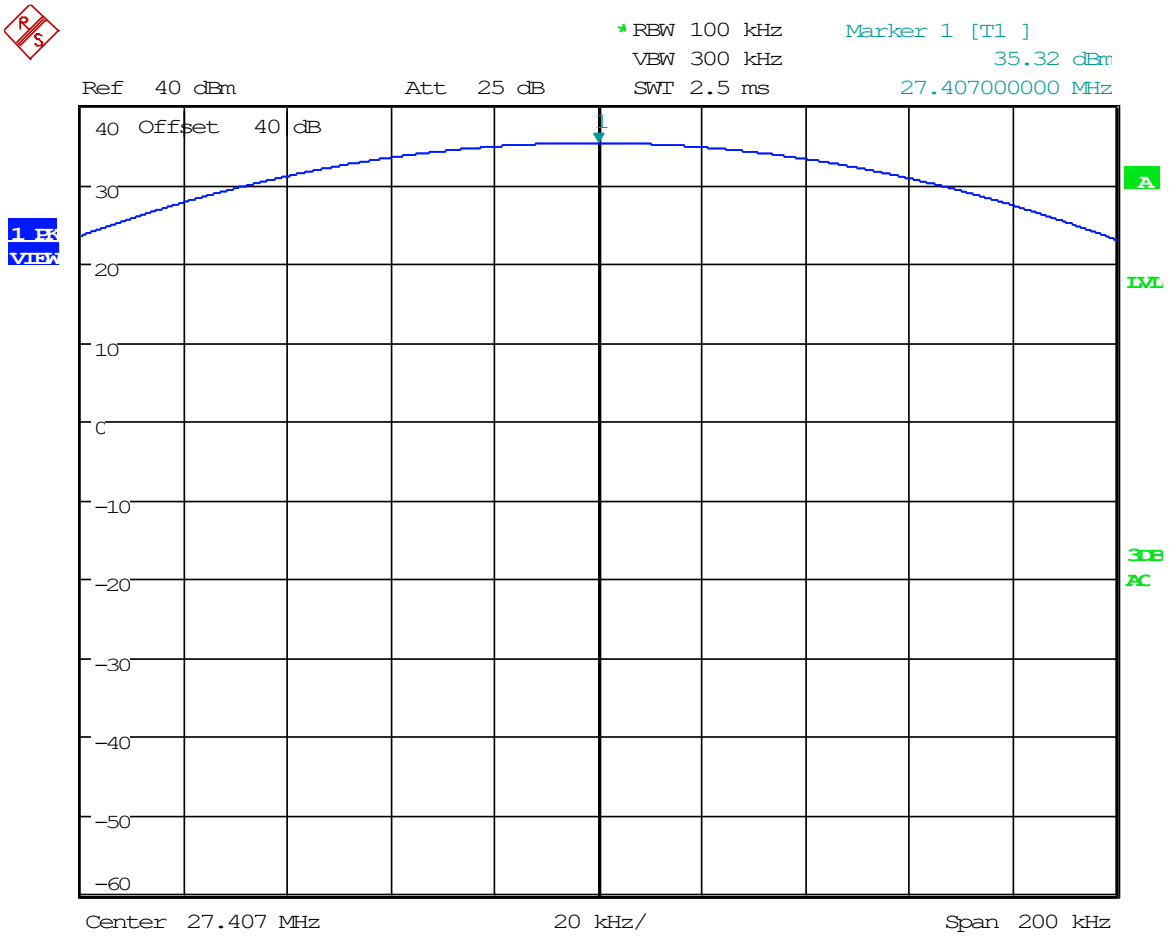
8.2.6 RF Power Output AM, 27.405 MHz



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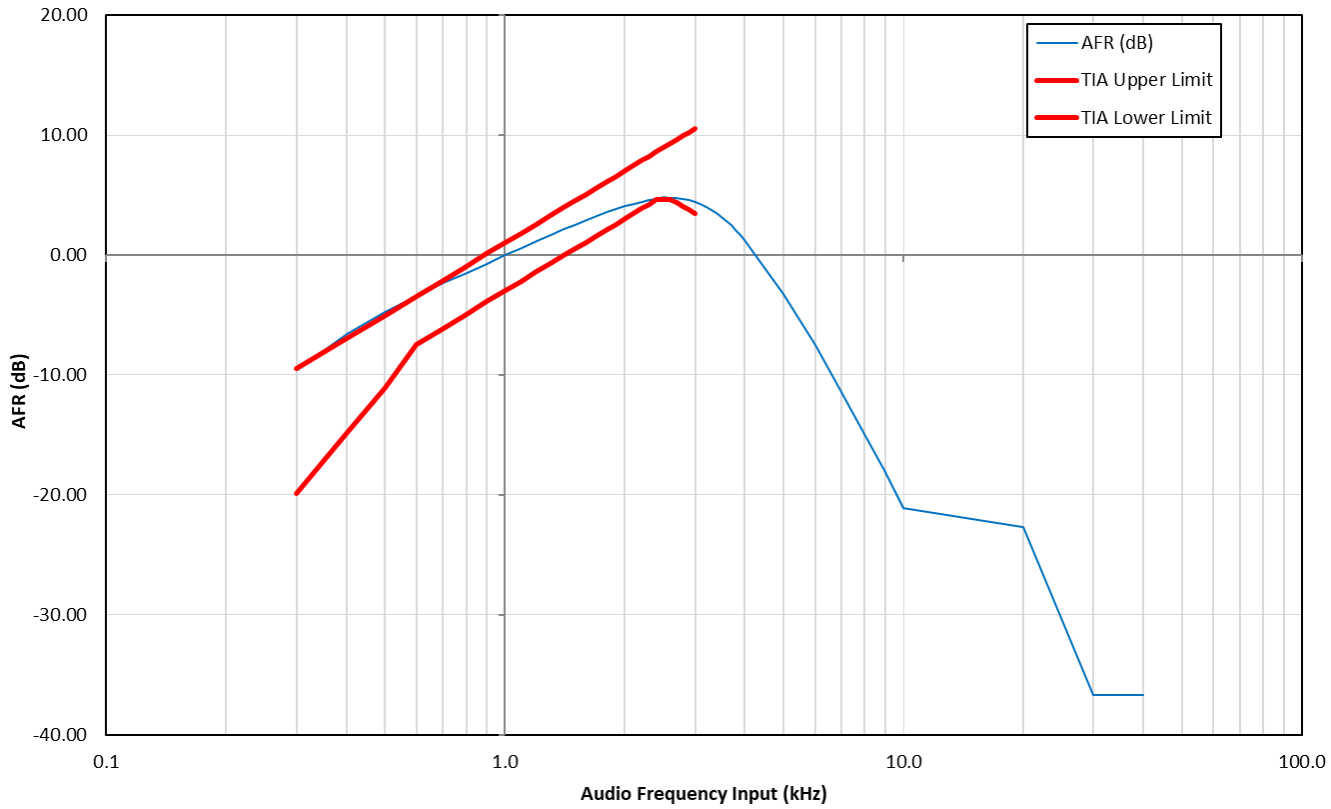
8.3 Audio Frequency Response

Limits from: FCC Pt. 2.1047(a), 95.975; RSS-236 5.3.2

Method of Measurement: The audio frequency response was measured in accordance with ANSI C63.26 with no exception. A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 – 5000 Hz shall be submitted. The audio frequency response curve is shown below.



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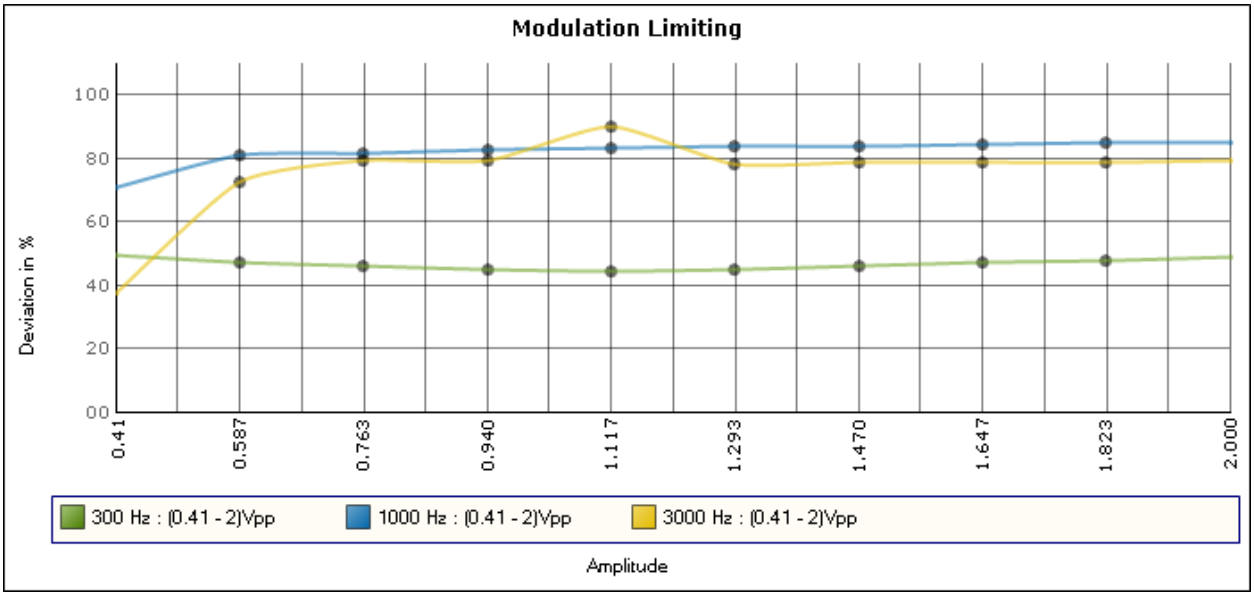
8.4 Audio Input Vs Modulation (A3E)

Limits from: FCC Pt. 2.1047(b), 95.975; RSS-236 5.3.2

Test Requirements: Modulation must be greater than 85% and cannot exceed 100%

Method of Measurement: The audio input level needed for a particular percentage of modulation was measured in accordance with ANSI C63.26. The audio input curves versus modulation are shown below. Curves are provided for audio input frequencies of 300, 1000, and 3000 Hz.



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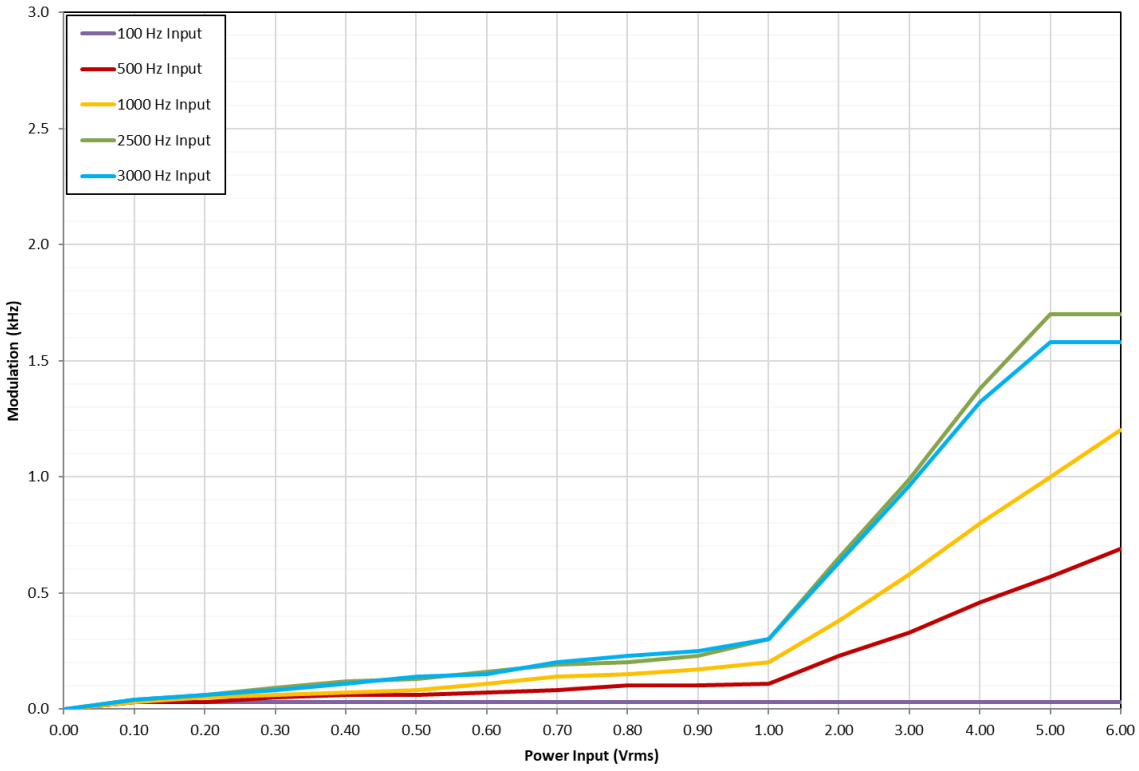
8.5 Audio Input Vs Modulation (F3E)

Limits from: FCC Pt. 2.1047(b), 95.975; RSS-236 5.3.2

Test Requirements: When emission type F3E is transmitted the peak frequency deviation shall not exceed ±2 kHz

Method of Measurement: The audio input level needed for a particular percentage of modulation was measured in accordance with ANSI C63.26. The audio input curves versus modulation are shown below. Curves are provided for audio input frequencies of 300, 1000, and 3000 Hz.



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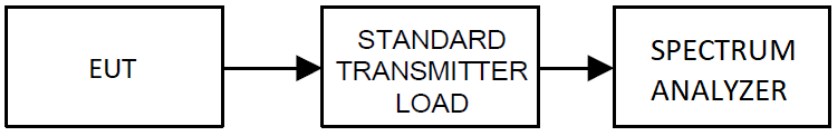
8.6 Occupied Bandwidth

Limits from FCC Parts 2.1049(c)(1), 95.973, RSS-236 5.4.2, and test procedure from ANSI C63.26-2015.

Test Setup


Test Results, Authorized Bandwidth		
Rule Part	Operating Range (MHz)	Authorized Bandwidth (kHz)
Part 95	26.965-27.405	4/8

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Test Results, Occupied Bandwidth				
Tuned Frequency (MHz)	Mode	Emission Designator	Occupied Bandwidth (kHz)	Bandwidth Type
26.905	1: FM	F3E	7.534	99%
	2: AM	F3E	2.585	99%
27.205	1: FM	F3E	7.524	99%
	2: AM	F3E	2.600	99%
27.405	1: FM	F3E	7.534	99%
	2: AM	F3E	2.595	99%

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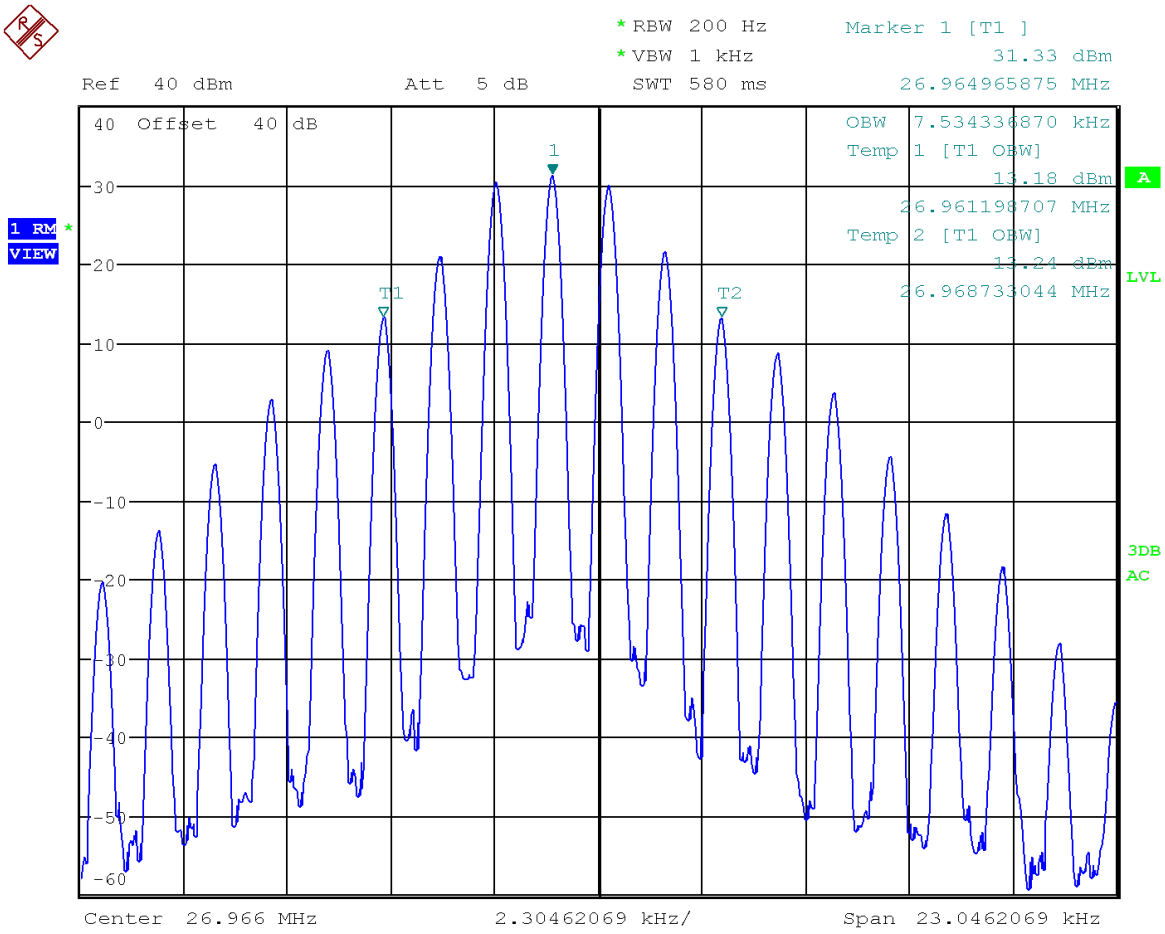
Occupied Bandwidth, Spectrum Plots

8.6.1 99% Bandwidth Plot, Ch 1, FM, 26.965 MHz



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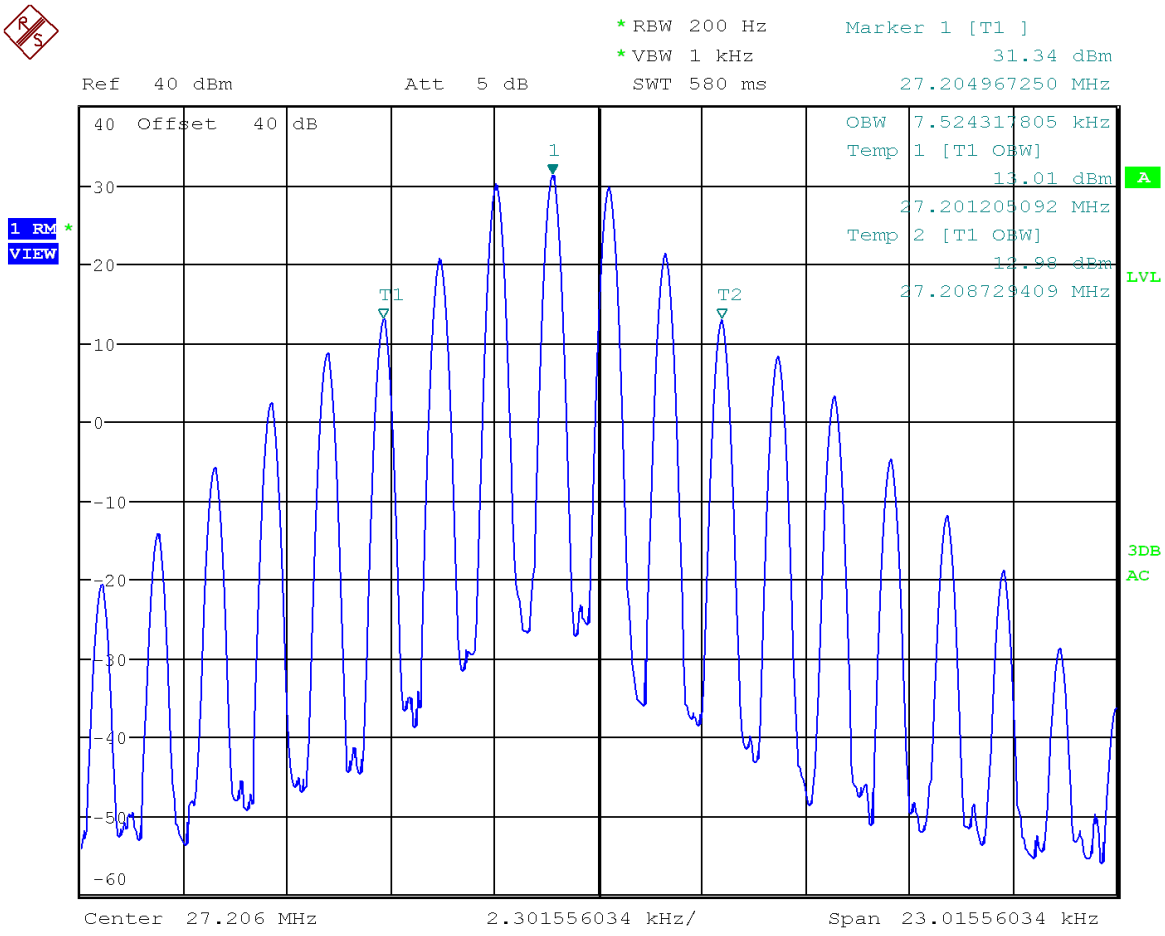
8.6.2 99% Bandwidth Plot, Ch 20, FM, 27.205 MHz



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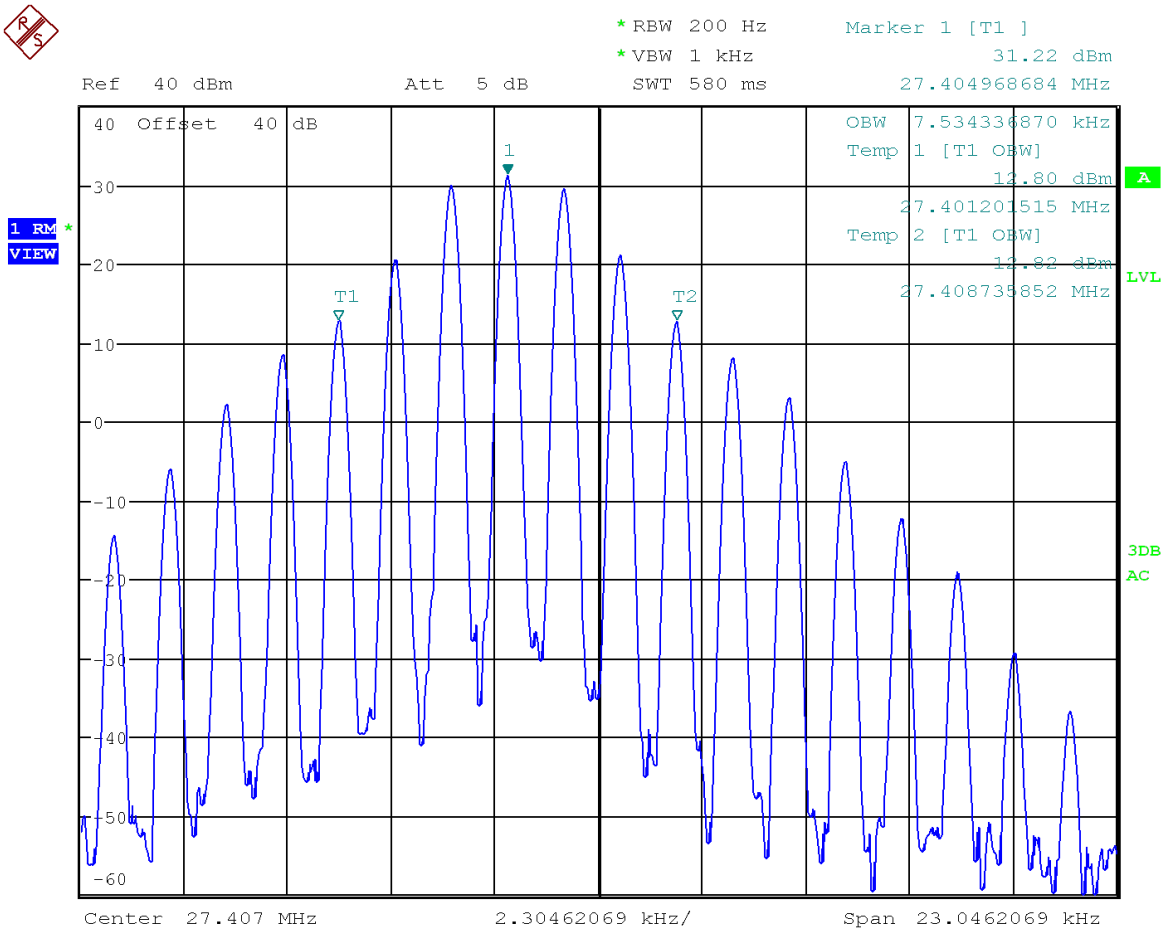
8.6.3 99% Bandwidth Plot, Ch 40, FM, 27.405 MHz



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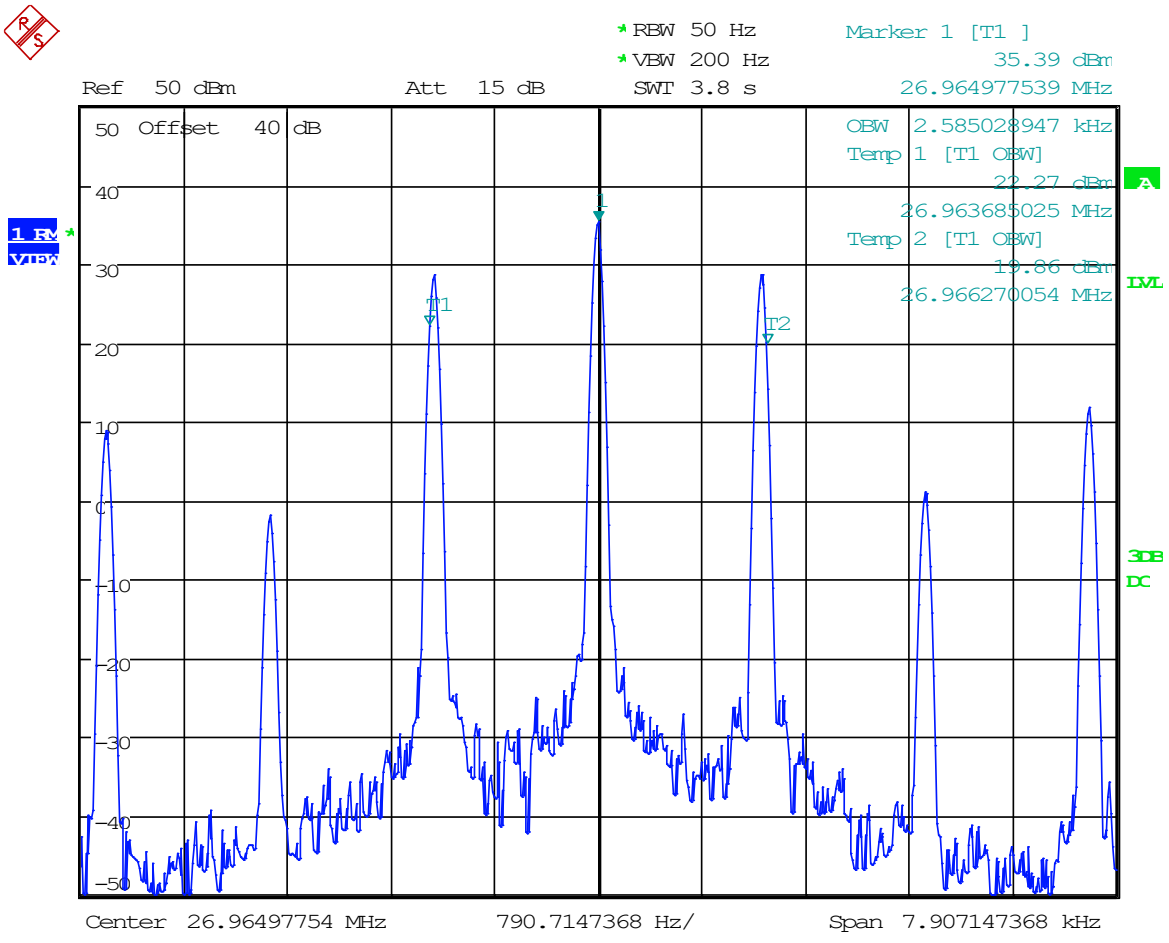
8.6.4 99% Bandwidth Plot, Ch 1, AM, 26.905 MHz



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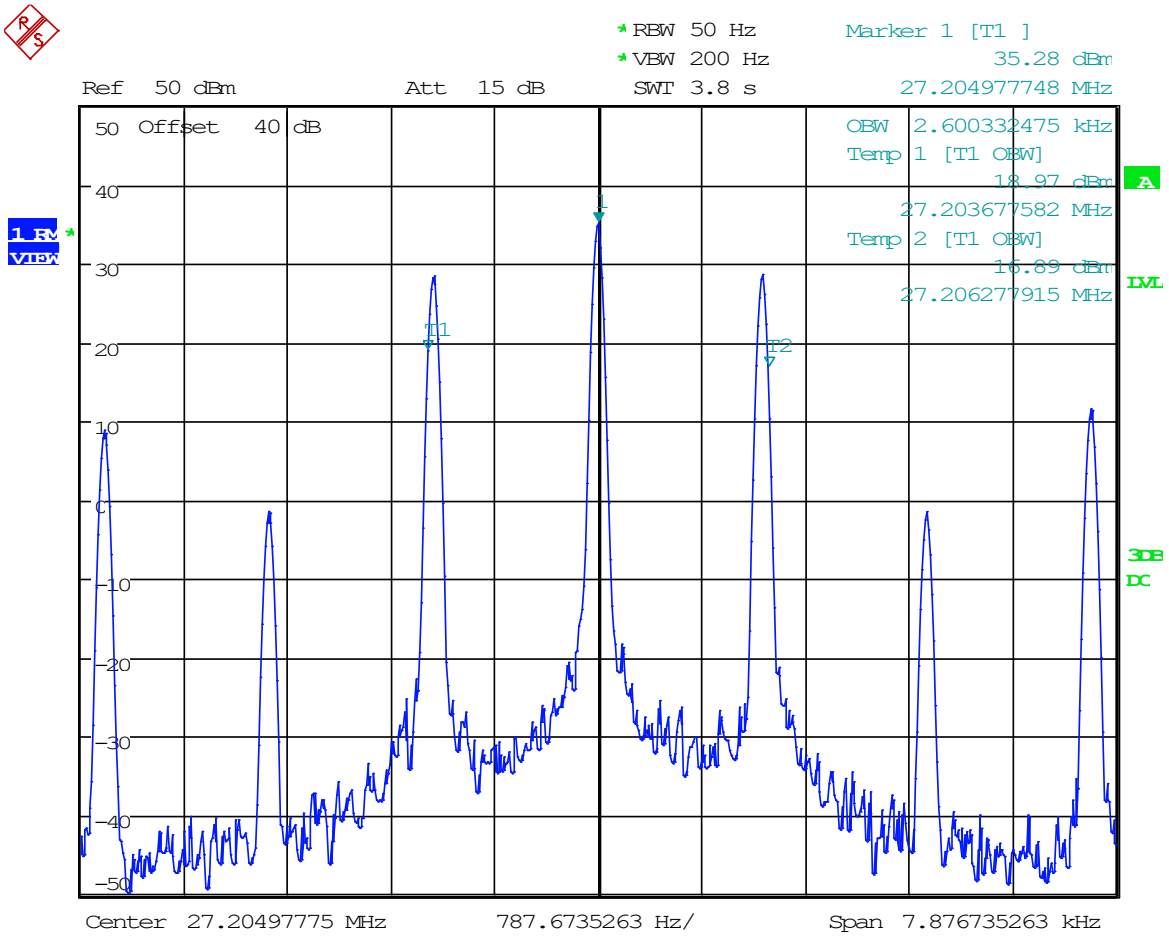
8.6.5 99% Bandwidth Plot, Ch 20, AM, 27.205 MHz



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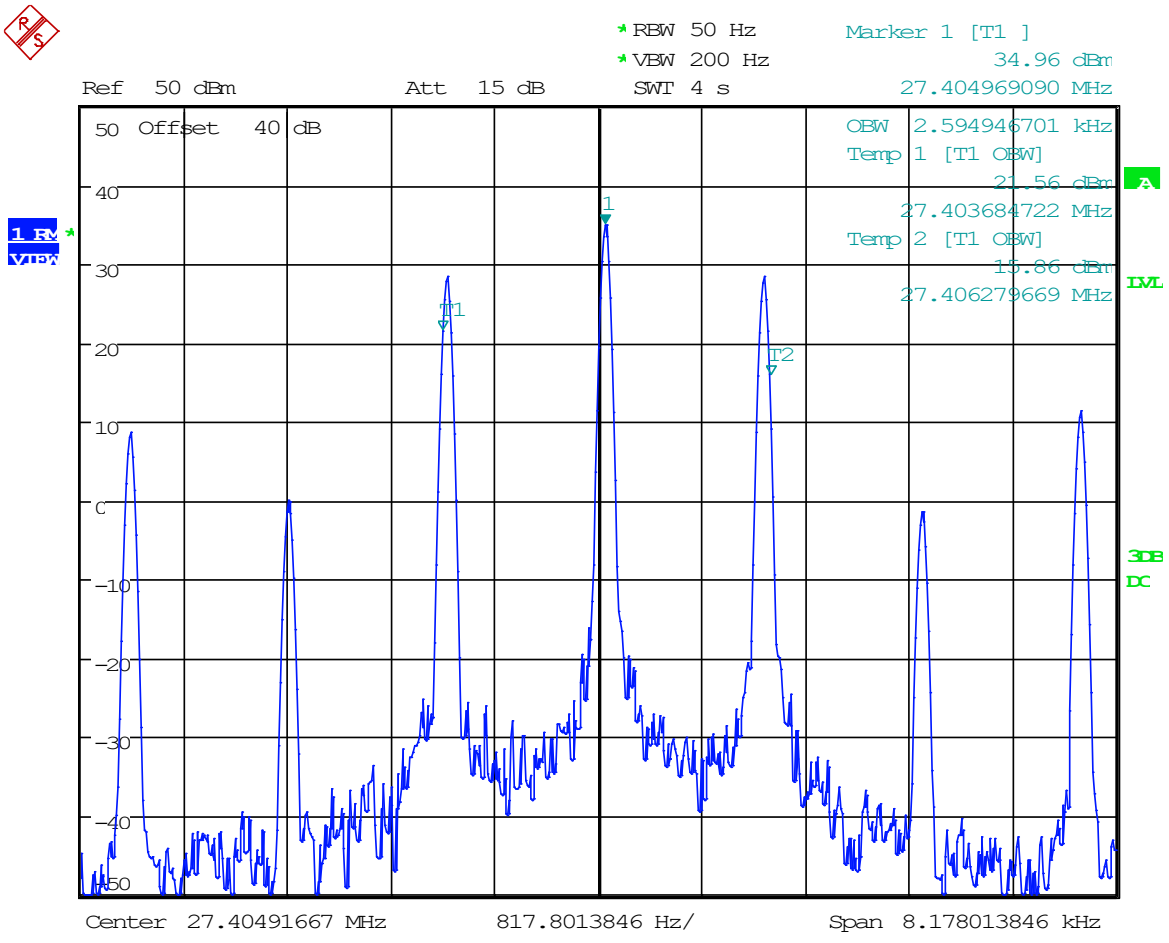
8.6.6 99% Bandwidth Plot, Ch 40, AM, 27.405 MHz



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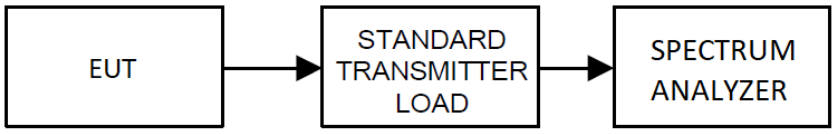
8.7 Occupied Bandwidth- Part 95 Mask

Limits from FCC 2.1049(c)(1), 95.979, RSS-236 5.4.2; and test procedure from ANSI C63.26-2015.

Conducted Test Setup


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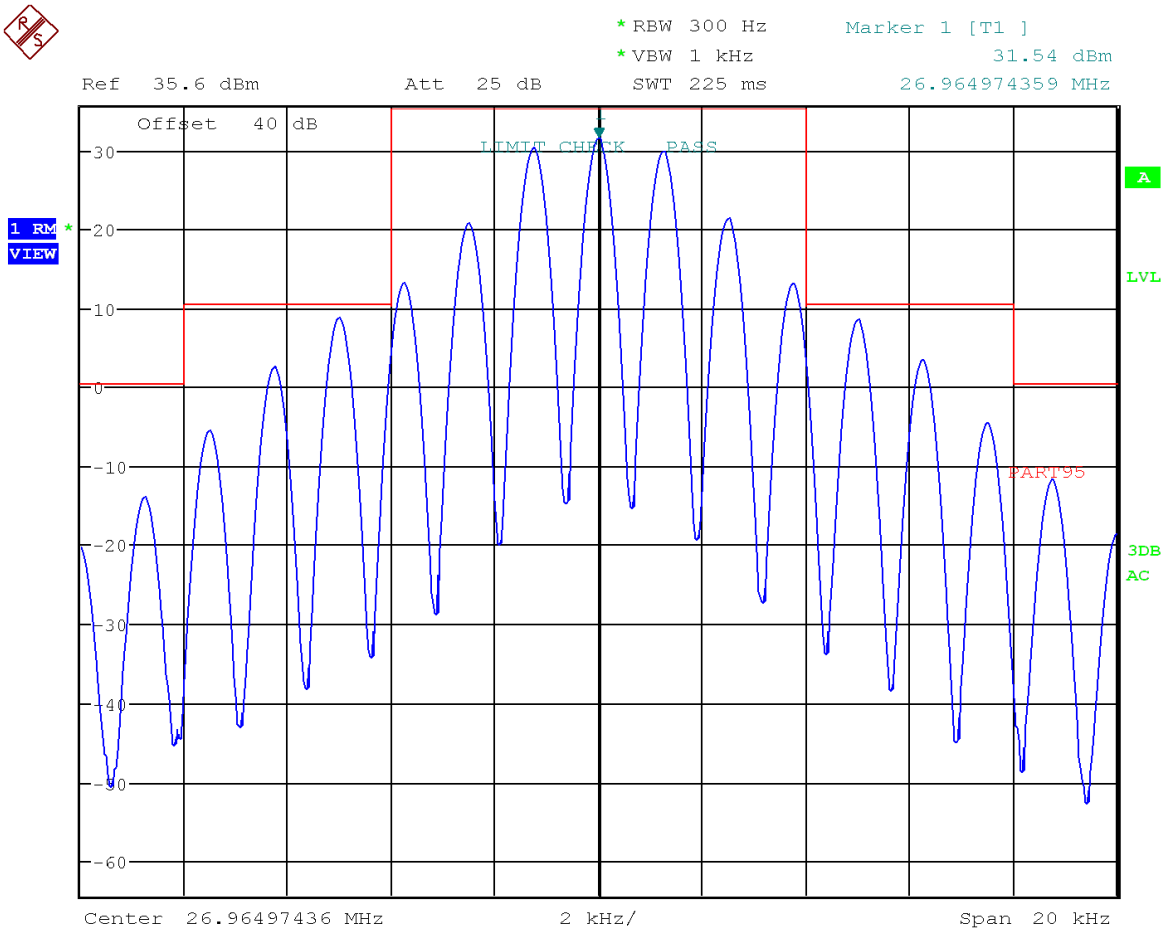
8.7.1 Emission Mask, Ch 1, FM, 26.905 MHz



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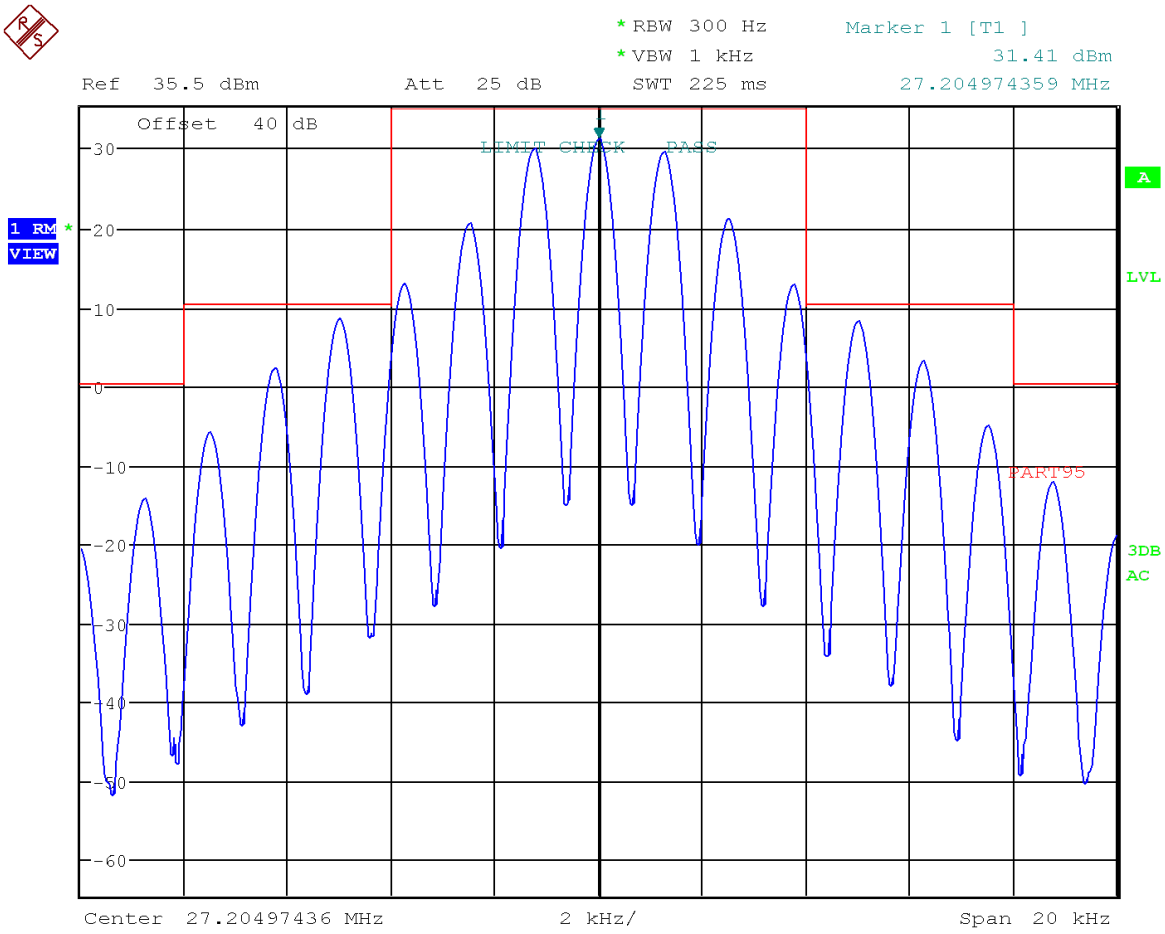
8.7.2 Emission Mask, Ch 20, FM, 27.205 MHz



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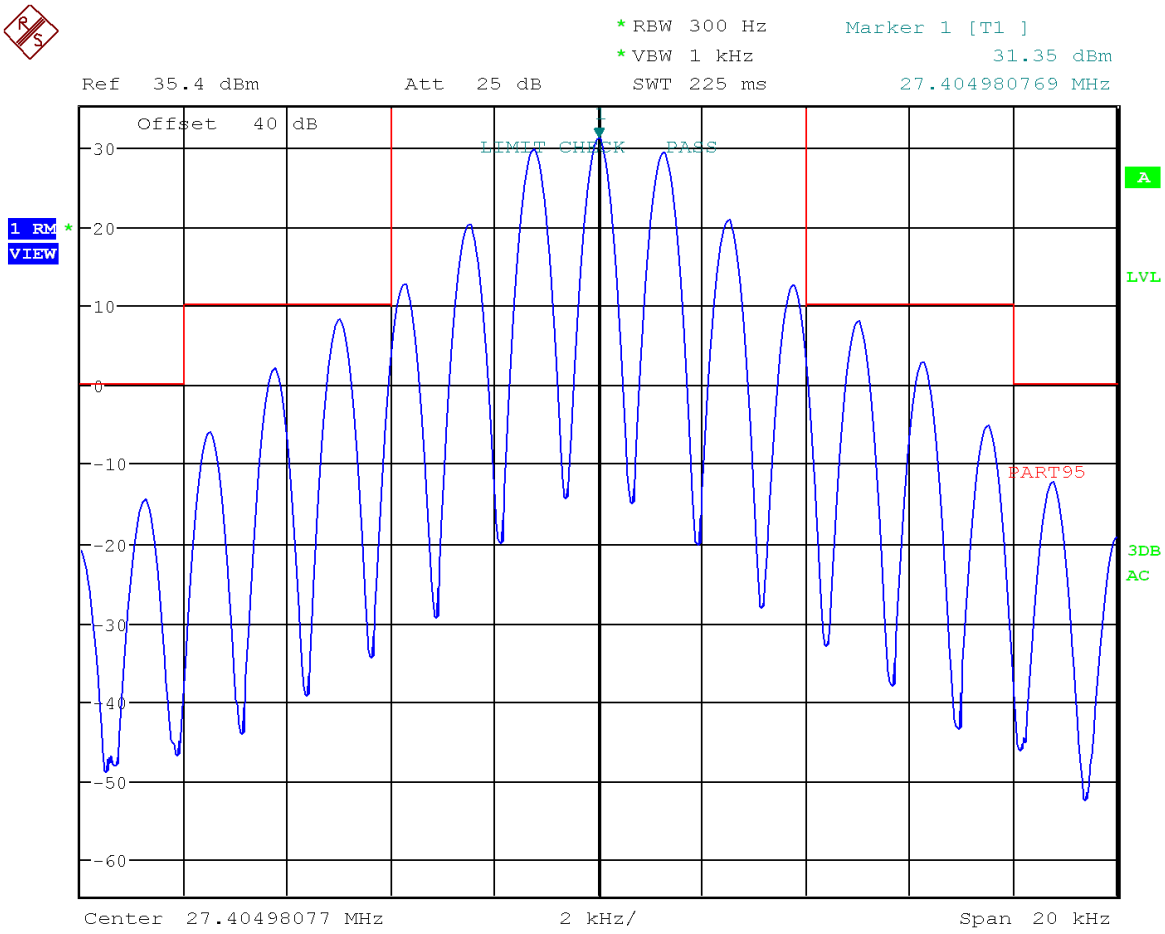
8.7.3 Emission Mask, Ch 40, FM, 27.405 MHz



Date: 10.FEB.2025 15:26:48

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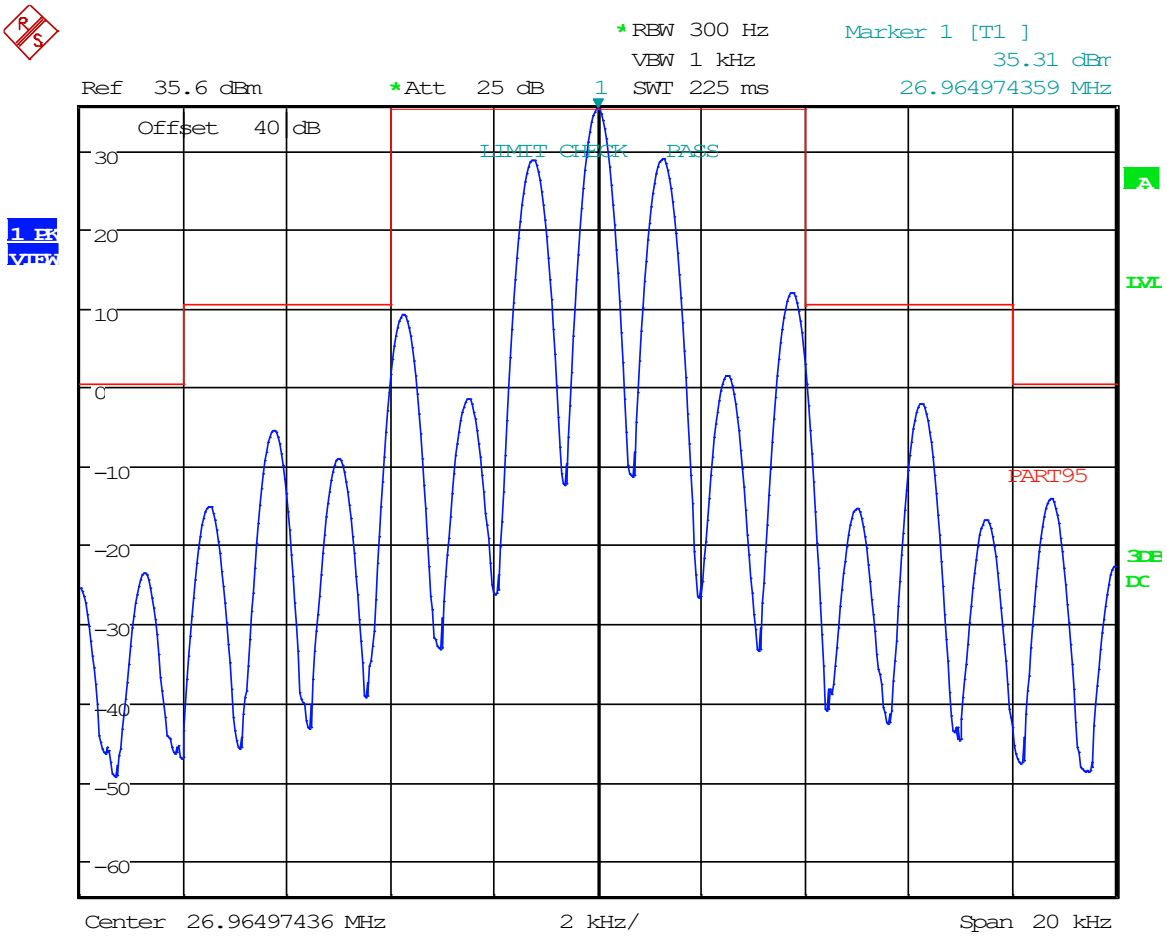
8.7.4 Emission Mask, Ch 1, AM, 26.905 MHz



Date: 11.FEB.2025 11:33:54

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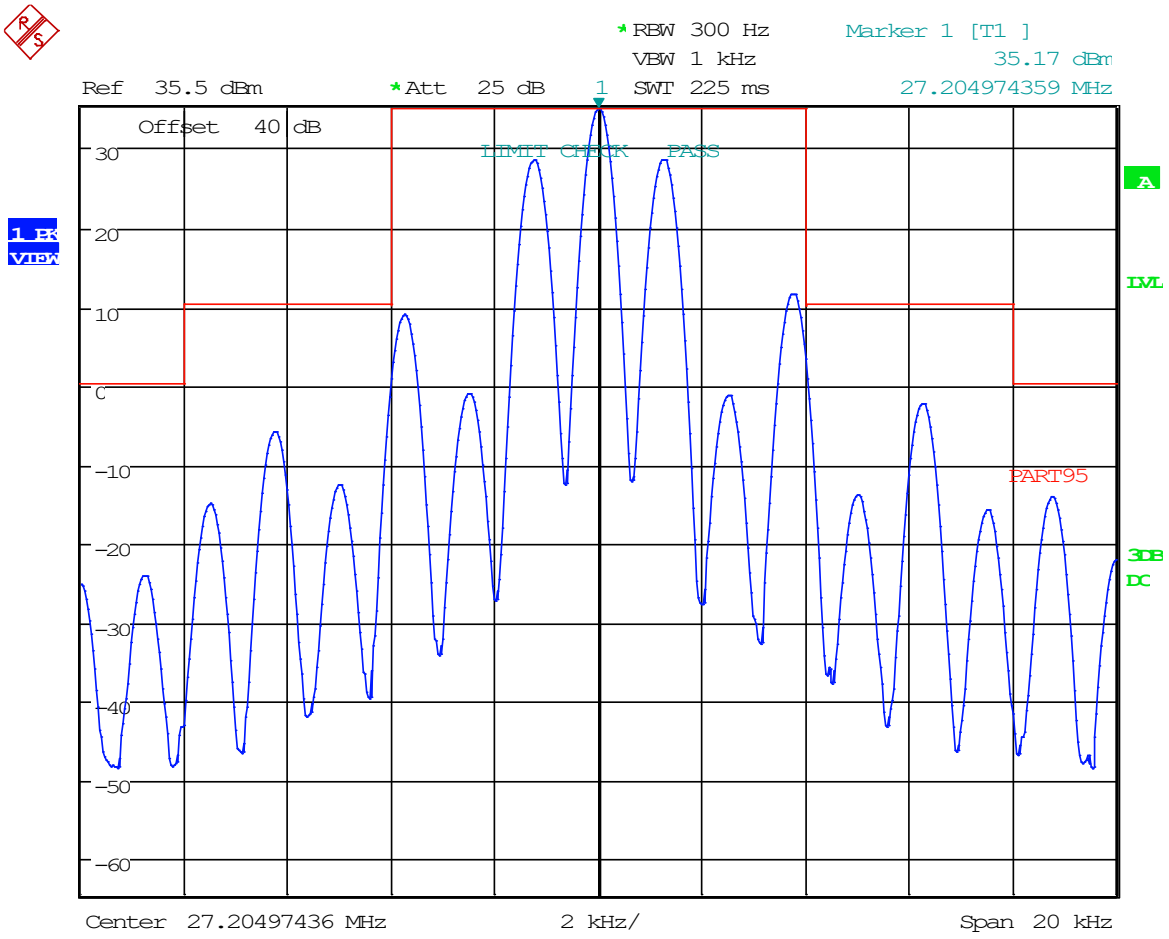
8.7.5 Emission Mask, Ch 20, AM, 27.205 MHz



Date: 11.FEB.2025 11:36:36

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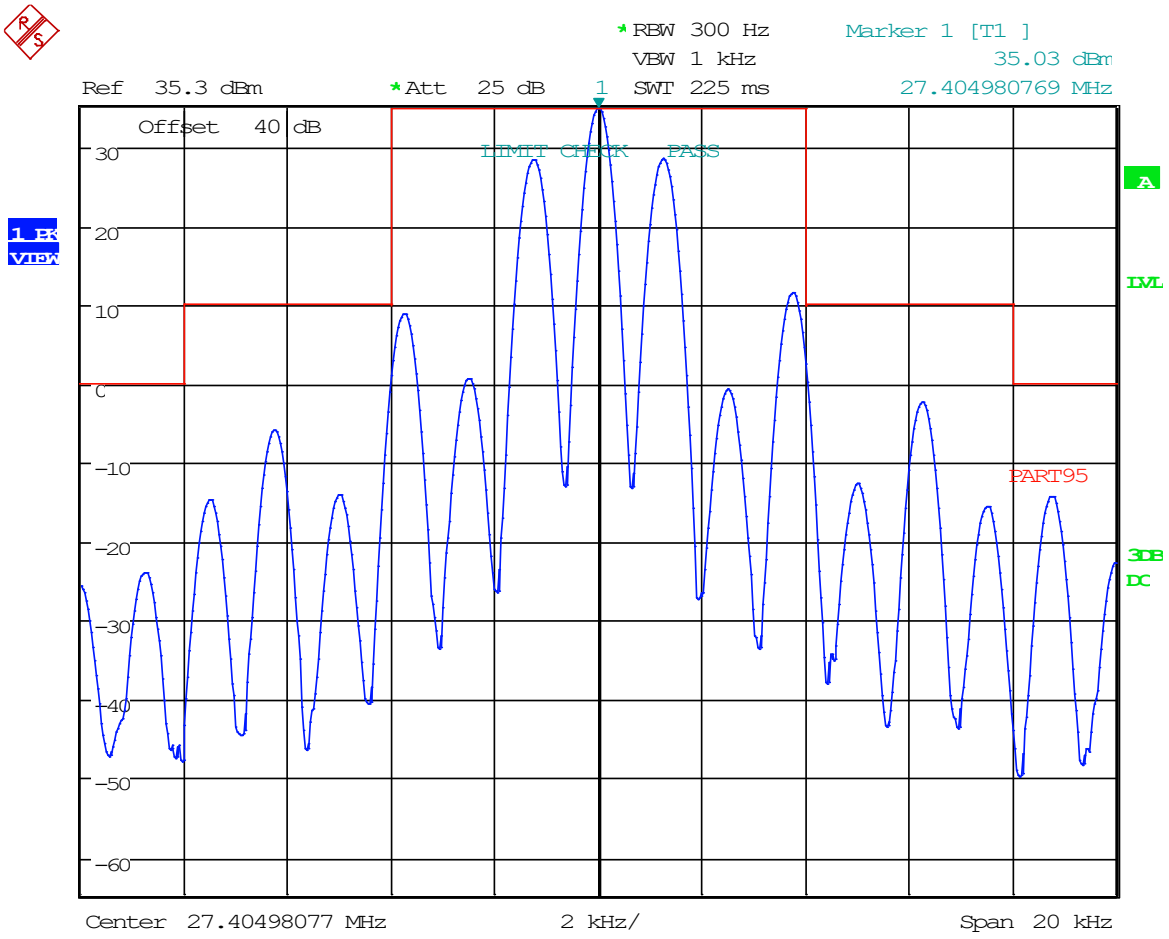
8.7.6 Emission Mask, Ch 40, AM, 27.405 MHz



Date: 11.FEB.2025 11:37:31

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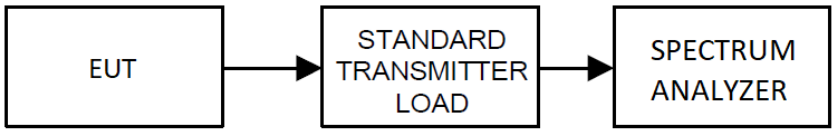
8.8 Spurious Emissions At Antenna Terminals (Conducted)

Limits from FCC Part 2.1051(a), 95.979(5)(6), RSS-236 5.4.4 and test procedure from ANSI C63.26-2015.

Requirements: 53+ 10log (P) dBc. Any harmonic emissions must be > 60 dBc.

Method of Measurement: The carrier was modulated with a 2500 Hz tone at a level 16 dB above the level to produce 50% modulation at frequency of highest response. The spectrum was scanned from 9 KHz to at least the 10th harmonic of the fundamental. The measurements were made in accordance with standard ANSI C63.26.

Conducted Test Setup



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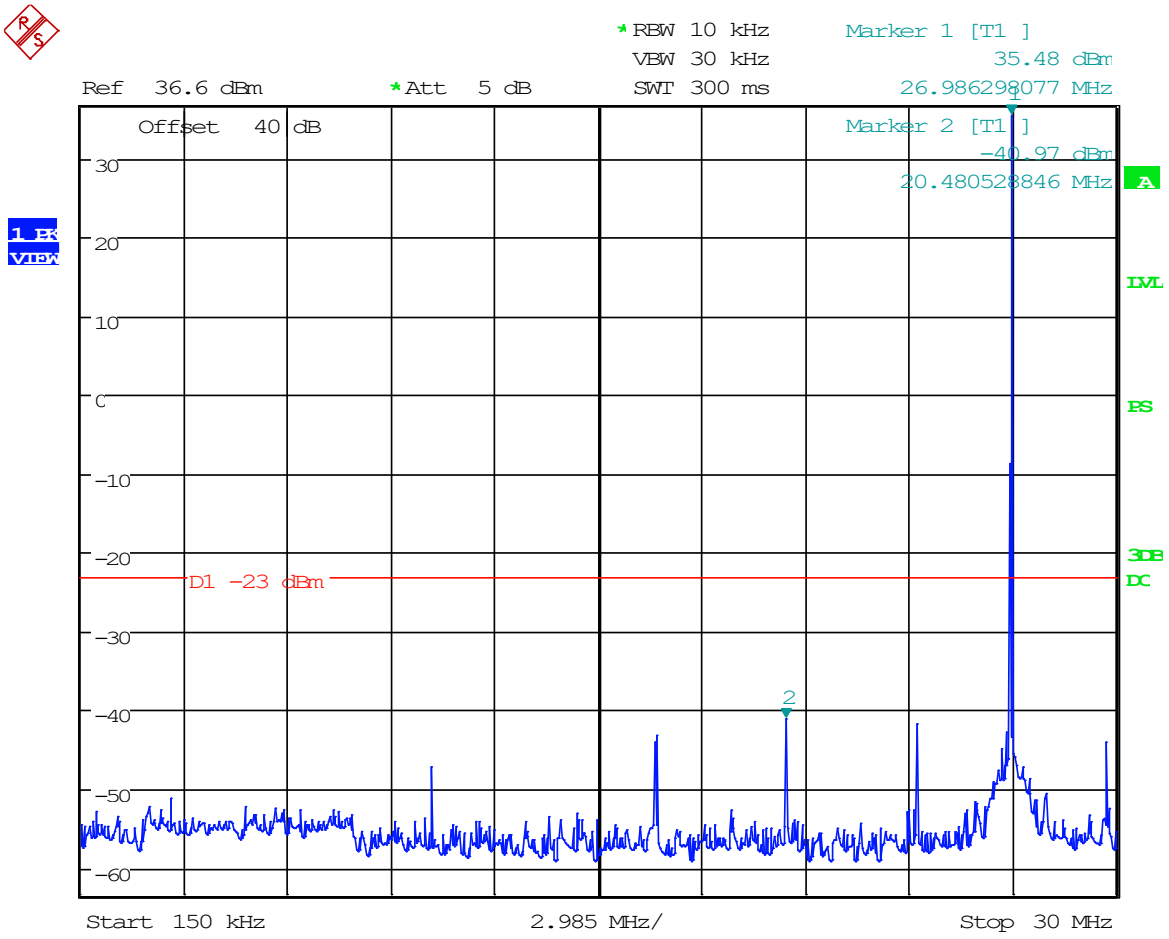
8.8.1 Spurious Emissions, 150 kHz-30 MHz, Ch 1, FM, 26.905 MHz



Date: 11.FEB.2025 10:30:27

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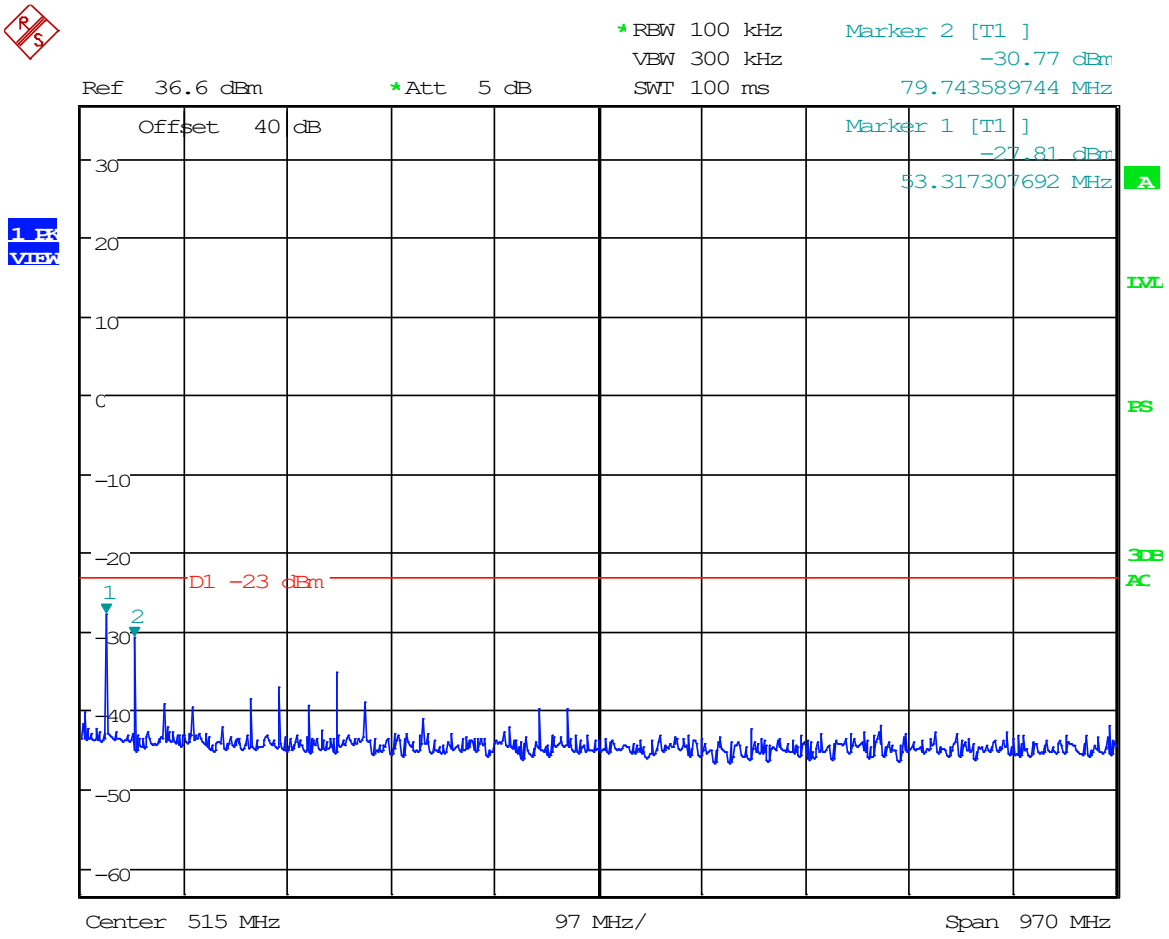
8.8.2 Spurious Emissions, 30 MHz-1 GHz, Ch 1, FM, 26.905 MHz



Date: 11.FEB.2025 10:26:41

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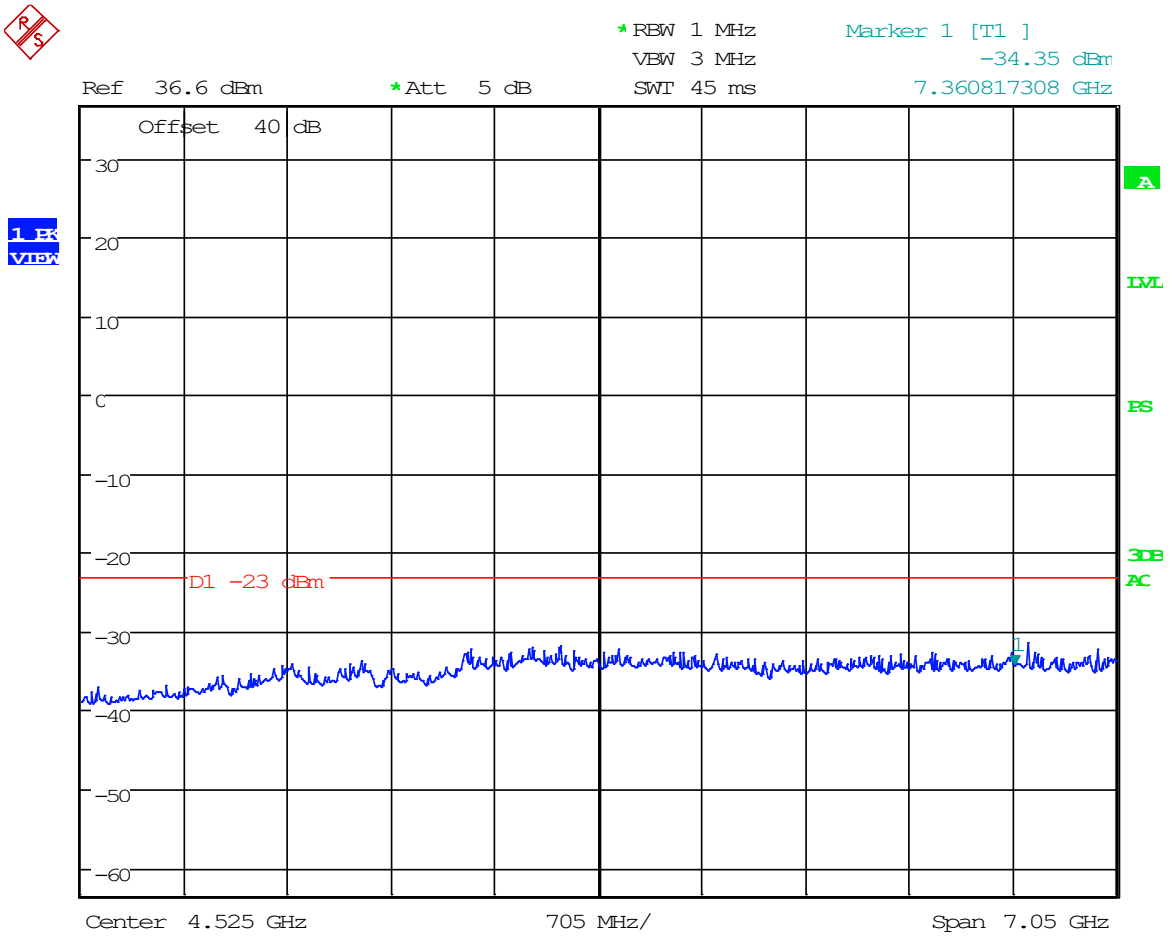
8.8.3 Spurious Emissions, Above 1 GHz, Ch 1, FM, 26.905 MHz



Date: 11.FEB.2025 10:34:24

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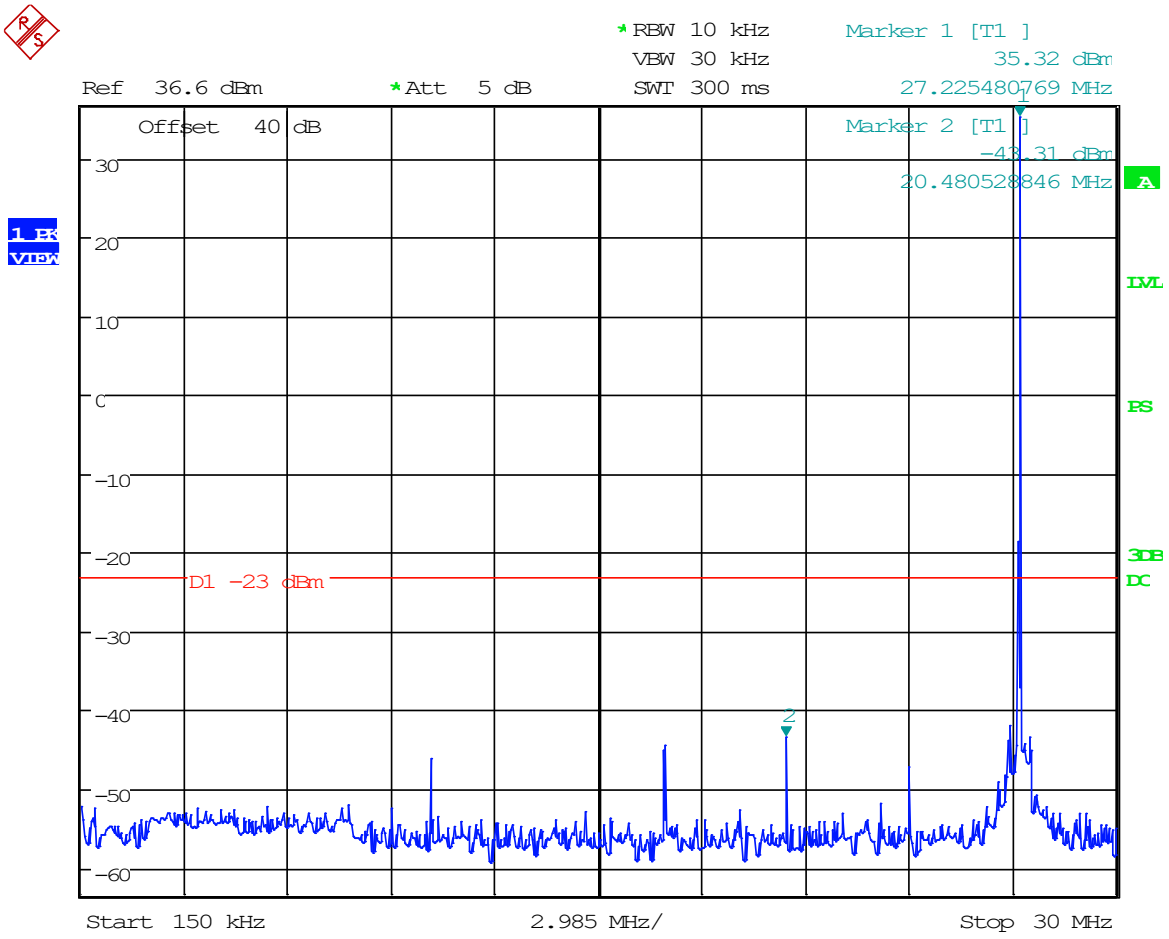
8.8.4 Spurious Emissions, 150 kHz-30 MHz, Ch 20, FM, 27.205 MHz



Date: 11.FEB.2025 10:31:08

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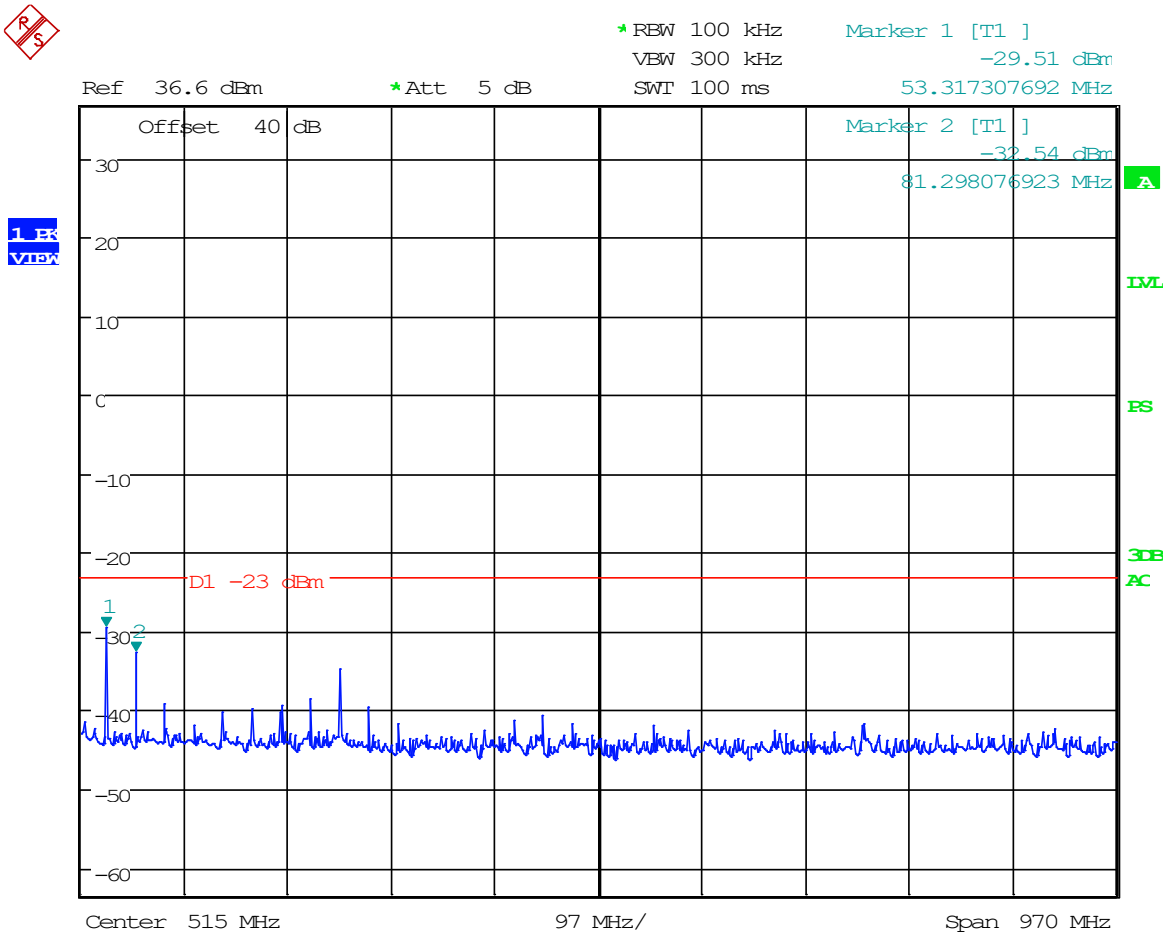
8.8.5 Spurious Emissions, 30 MHz-1 GHz, Ch 20, FM, 27.205 MHz



Date: 11.FEB.2025 10:28:10

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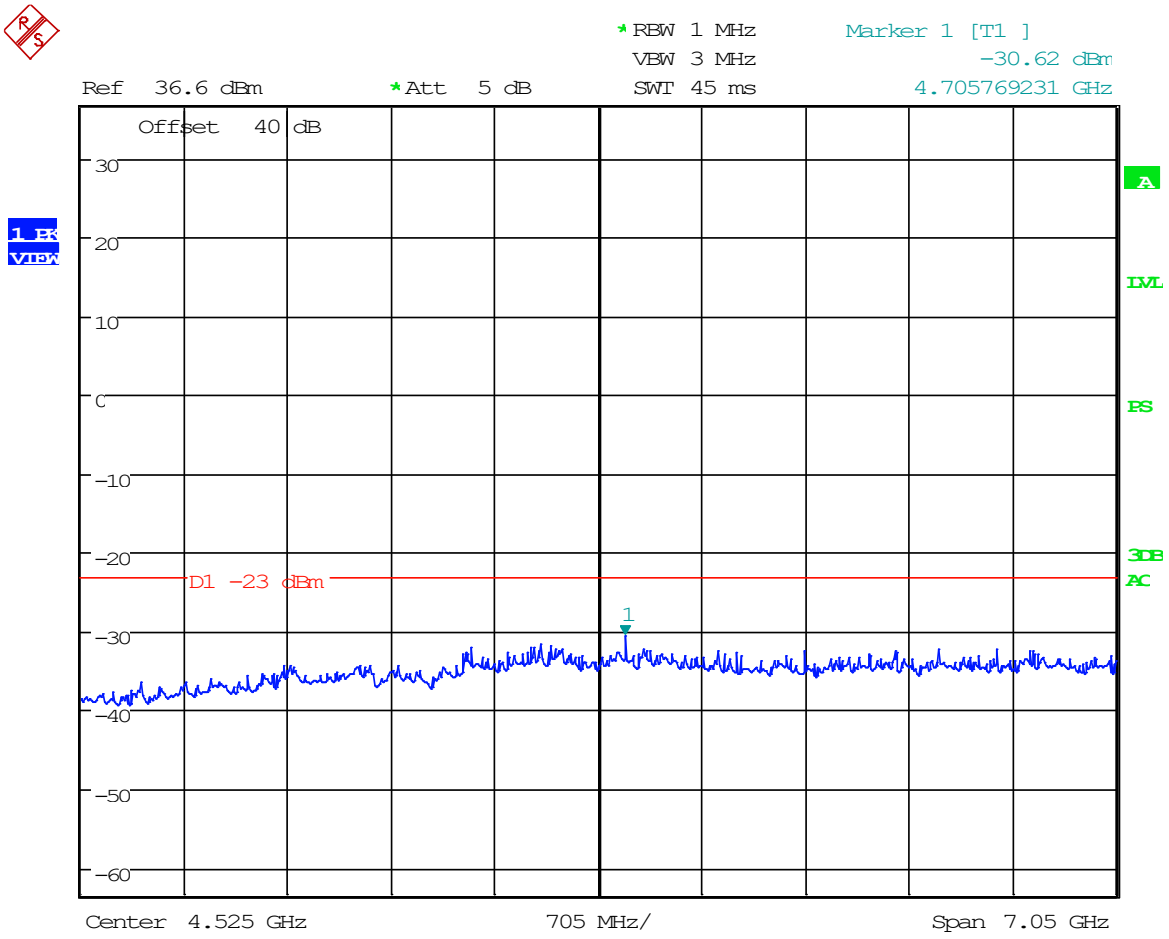
8.8.6 Spurious Emissions, Above 1 GHz, Ch 20, FM, 27.205 MHz



Date: 11.FEB.2025 10:35:01

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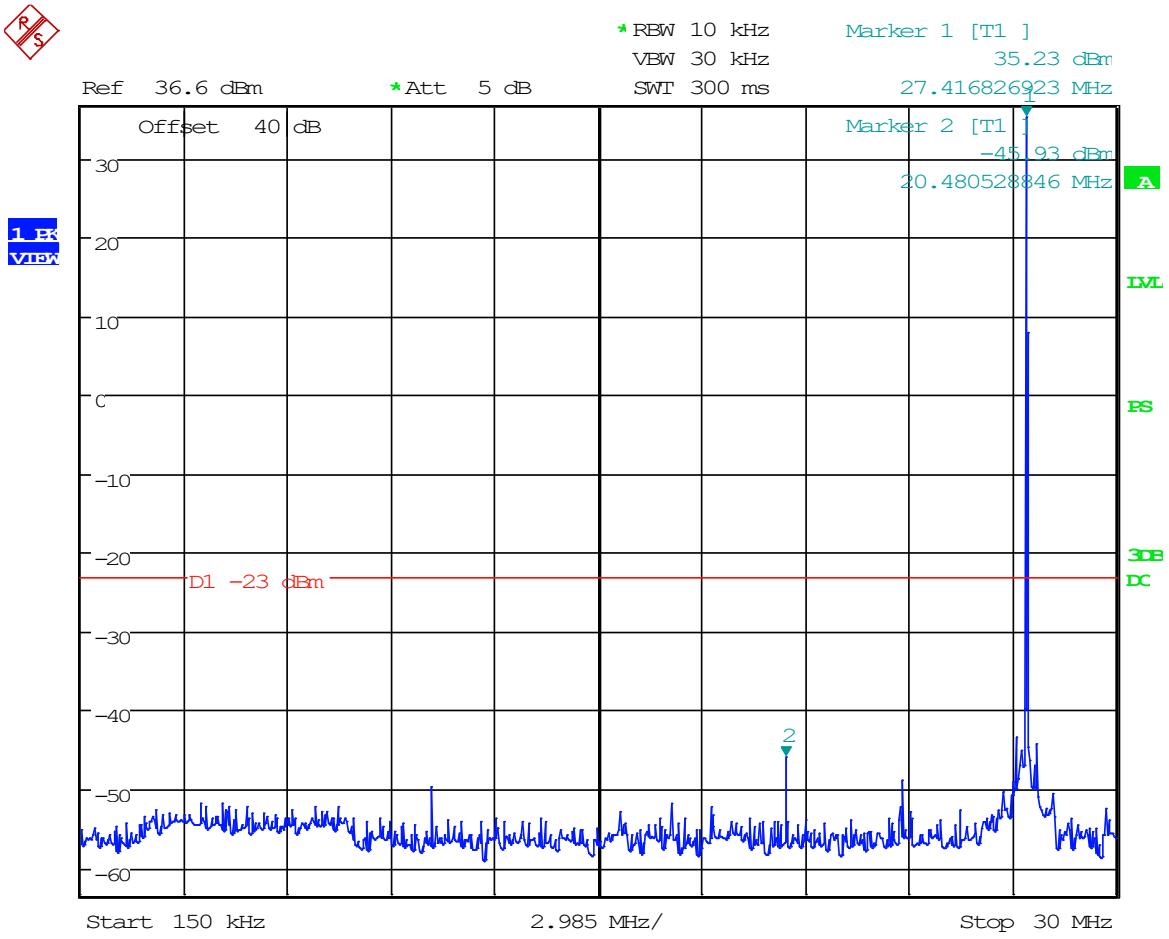
8.8.7 Spurious Emissions, 150 kHz-30 MHz, Ch 40, FM, 27.405 MHz



Date: 11.FEB.2025 10:31:48

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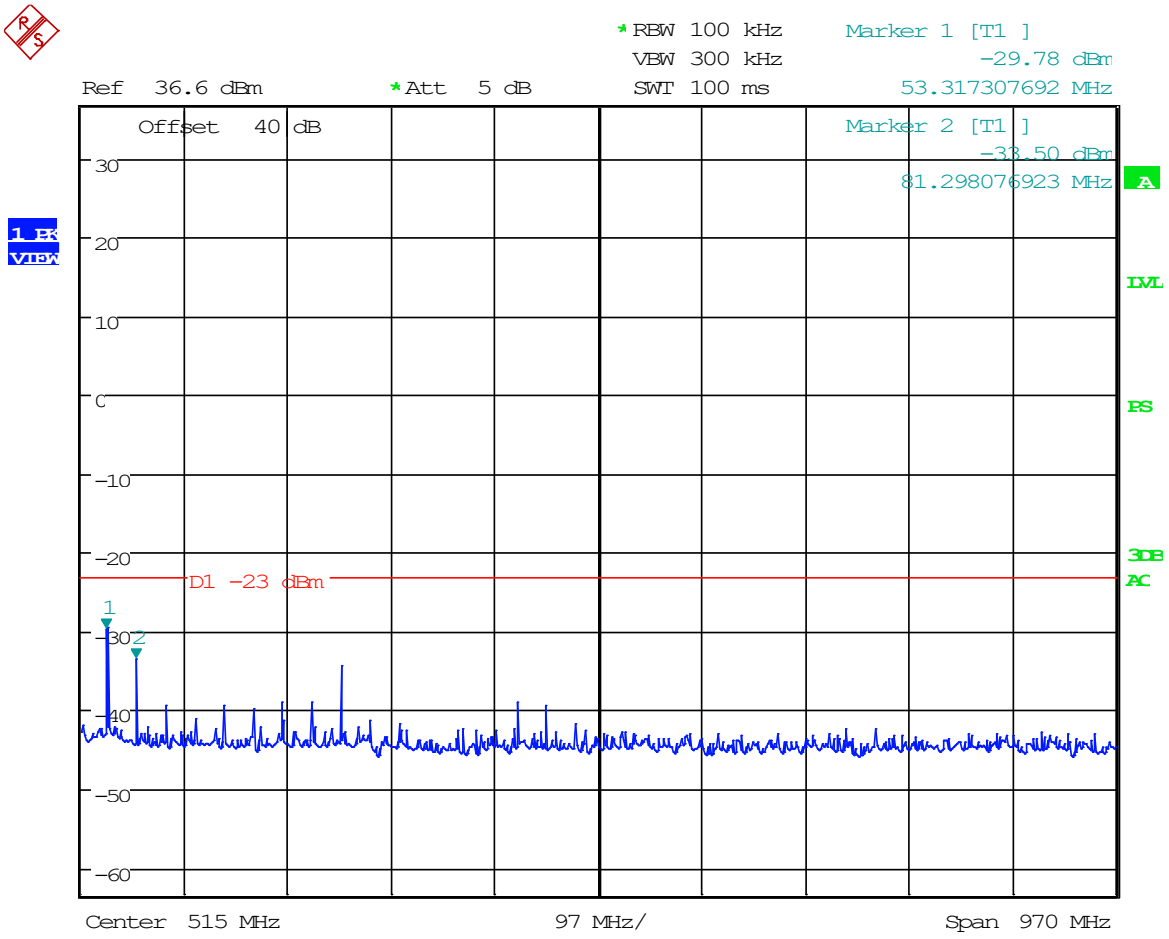
8.8.8 Spurious Emissions, 30 MHz-1 GHz, Ch 40, FM, 27.405 MHz



Date: 11.FEB.2025 10:28:44

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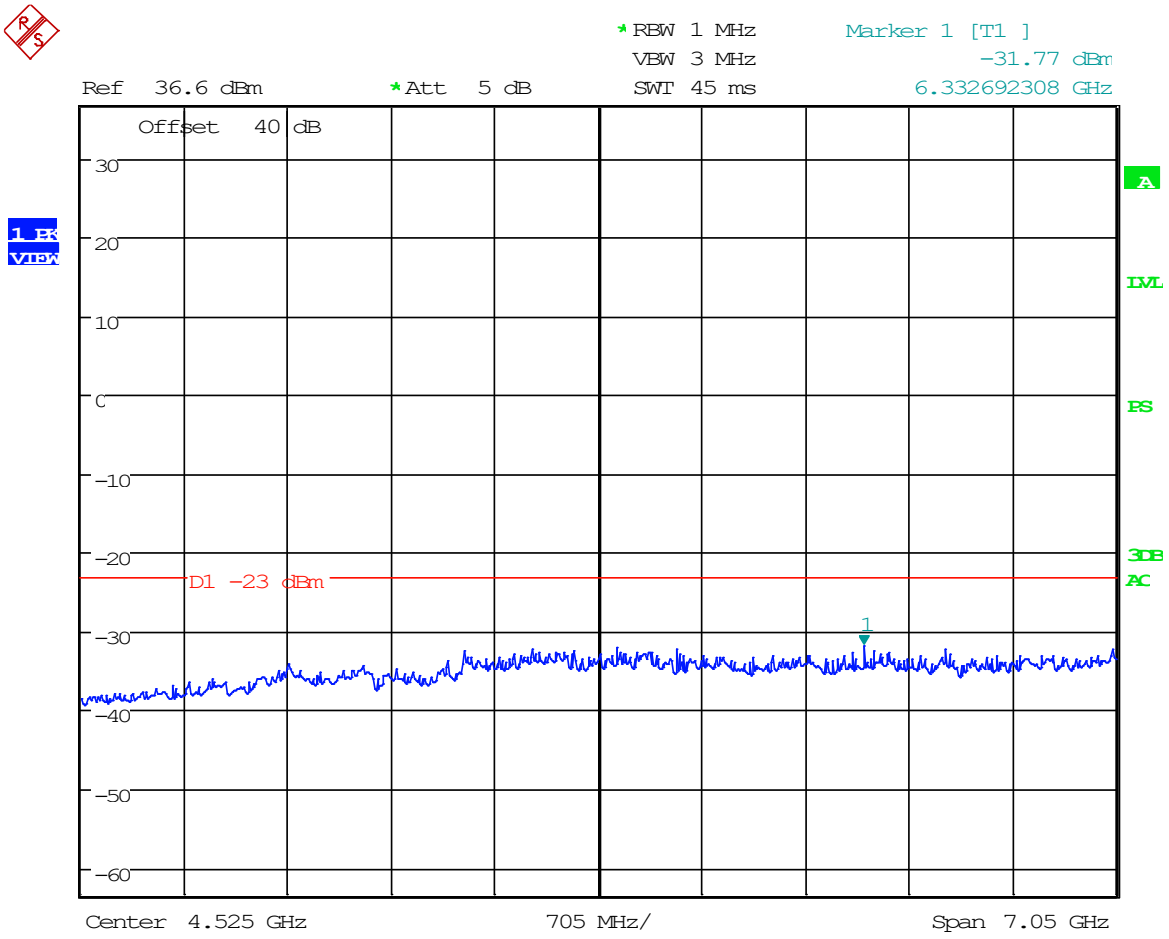
8.8.9 Spurious Emissions, Above 1 GHz, Ch 40, FM, 27.405 MHz



Date: 11.FEB.2025 10:35:39

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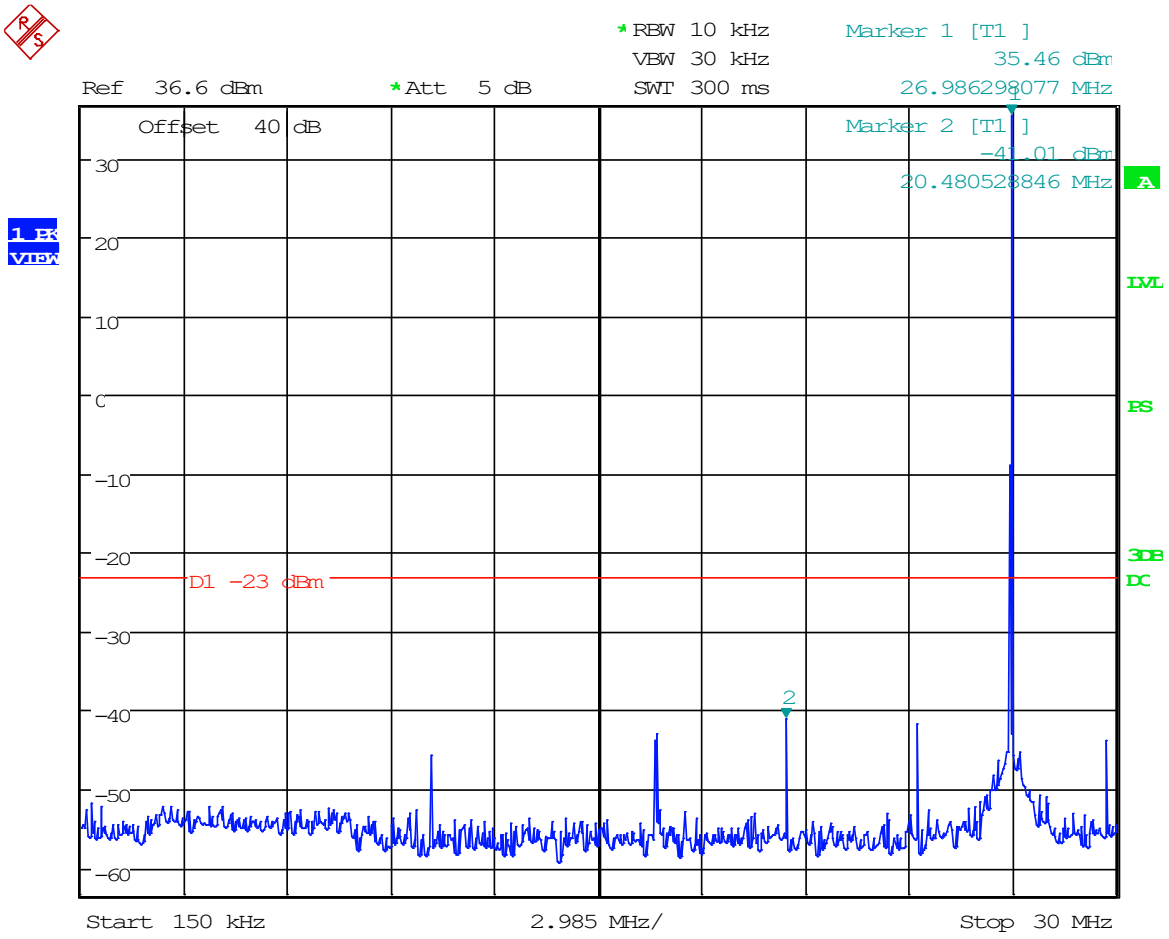
8.8.10 Spurious Emissions, 150 kHz-30 MHz, Ch 1, AM, 26.905 MHz



Date: 11.FEB.2025 11:42:15

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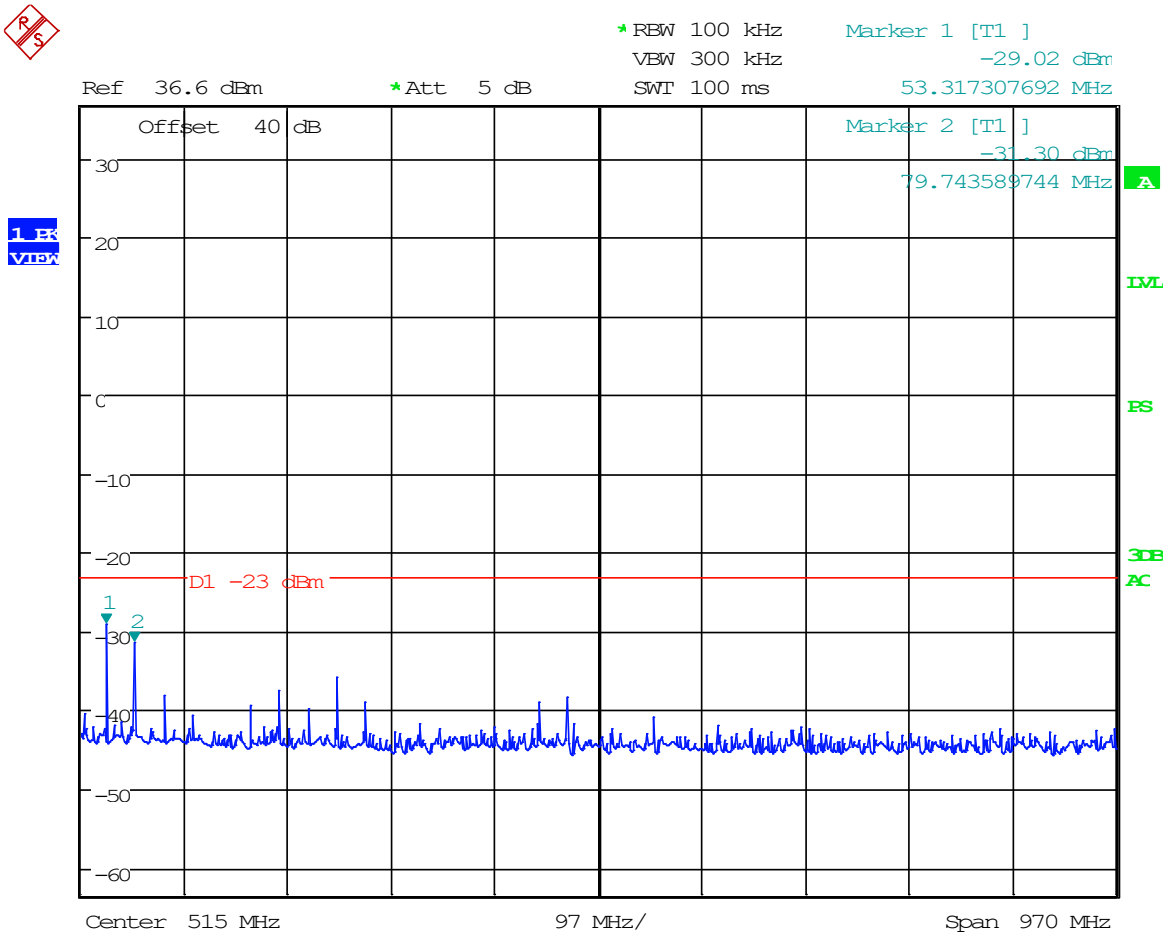
8.8.11 Spurious Emissions, 30 MHz-1 GHz, Ch 1, AM, 26.905 MHz



Date: 11.FEB.2025 11:45:12

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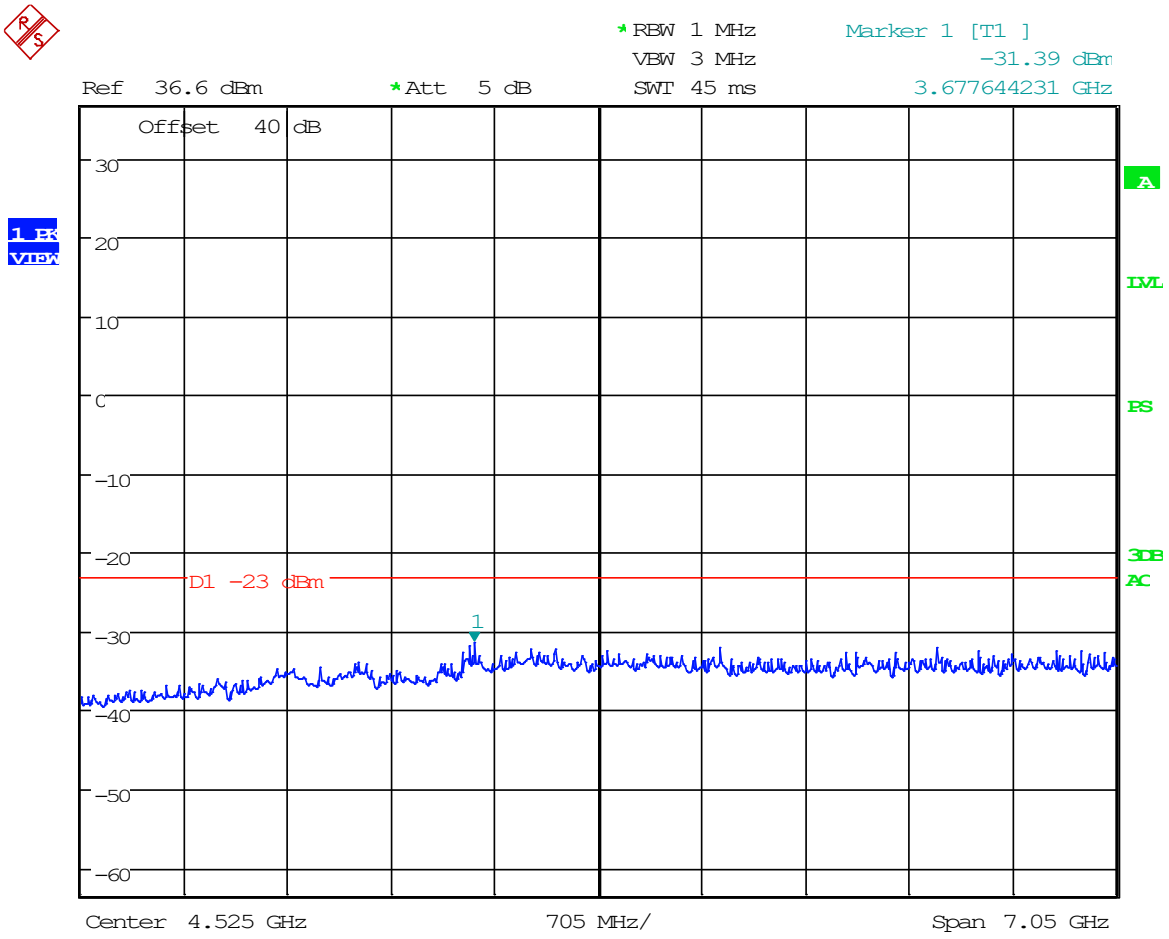
8.8.12 Spurious Emissions, Above 1 GHz, Ch 1, AM, 26.905 MHz



Date: 11.FEB.2025 13:52:35

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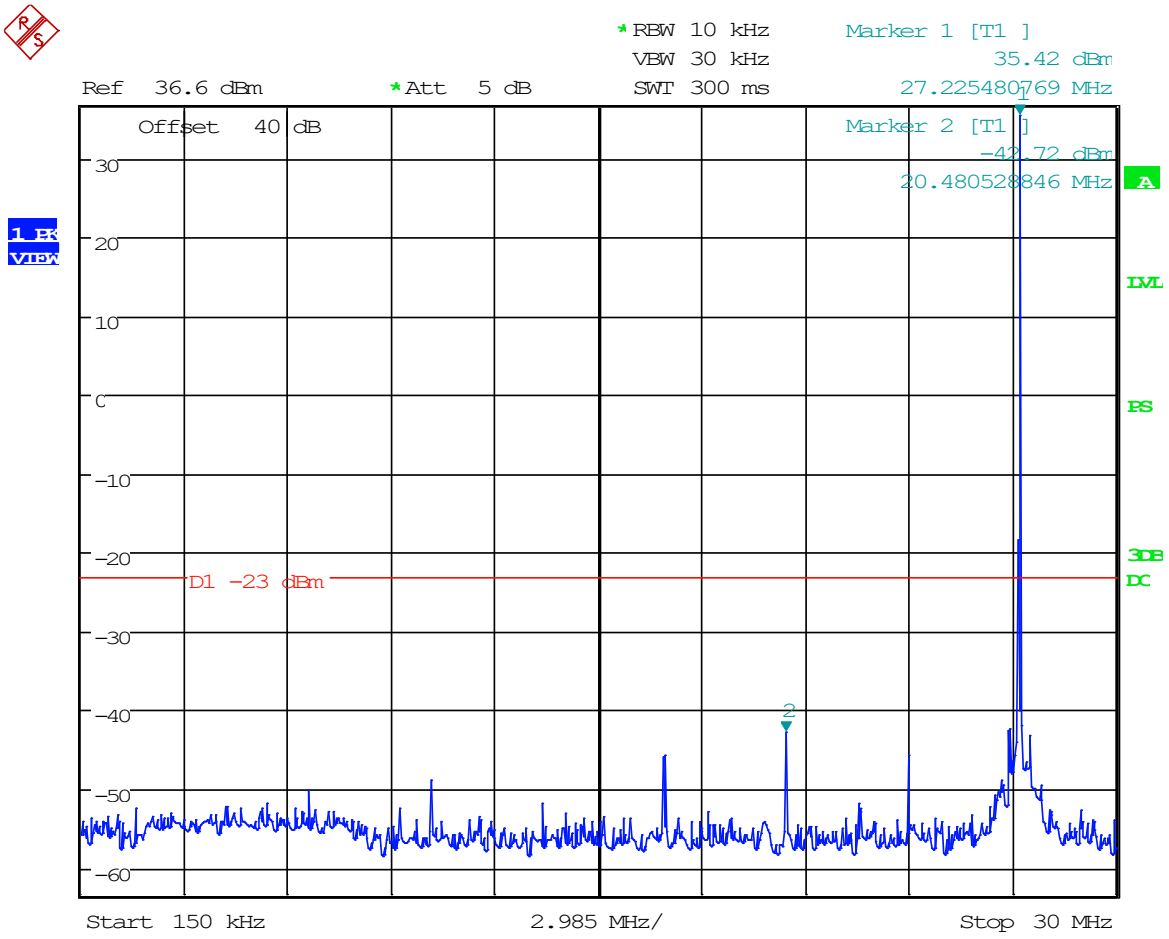
8.8.13 Spurious Emissions, 150 kHz-30 MHz, Ch 20, AM, 27.205 MHz



Date: 11.FEB.2025 11:43:14

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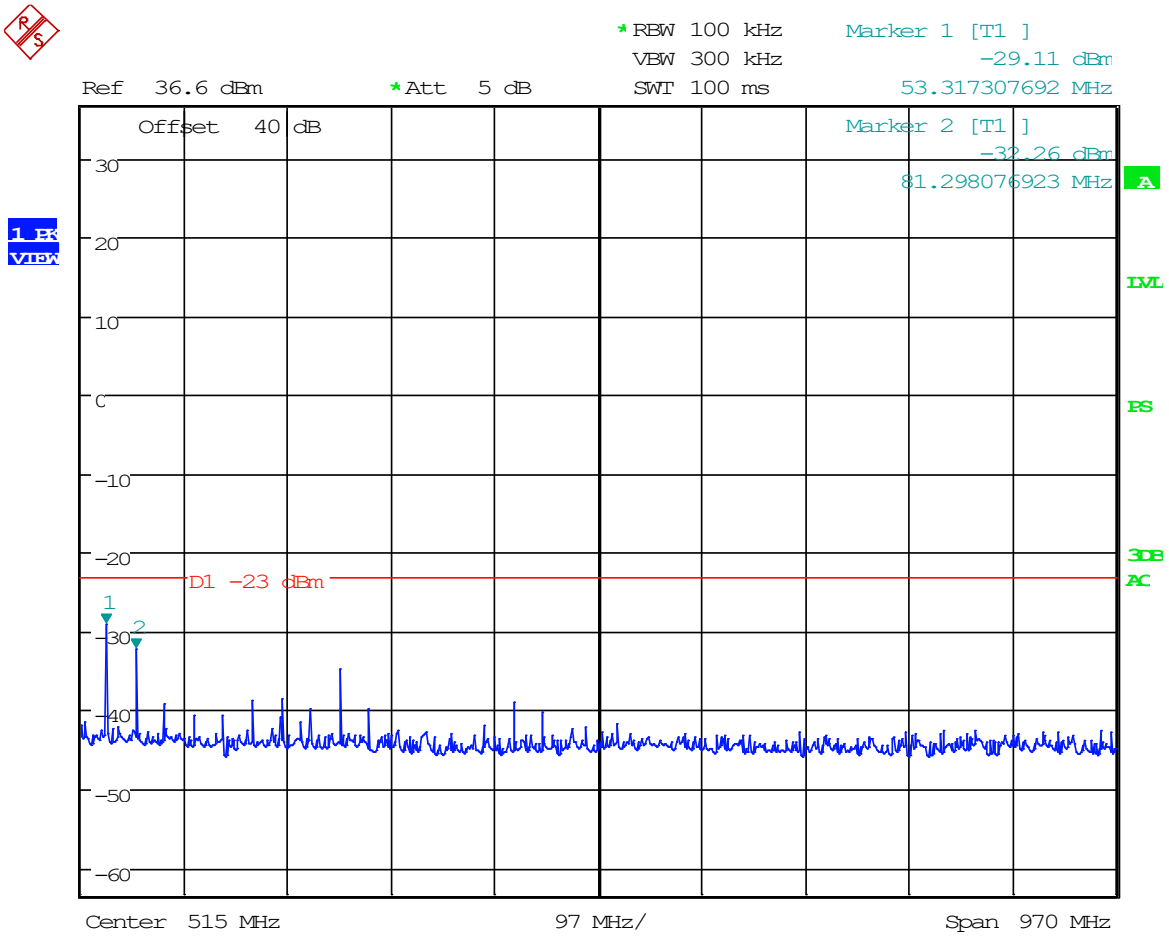
8.8.14 Spurious Emissions, 30 MHz-1 GHz, Ch 20, AM, 27.205 MHz



Date: 11.FEB.2025 11:45:58

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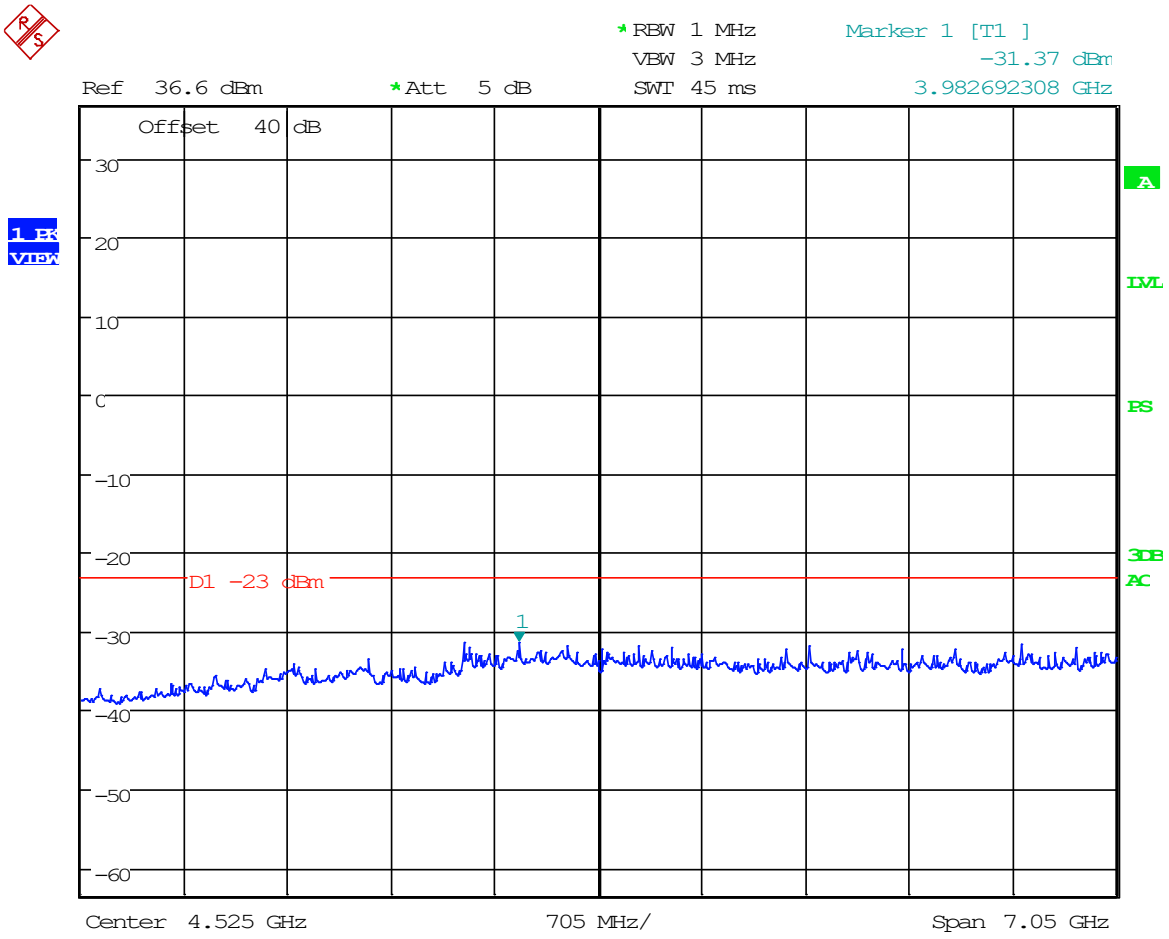
8.8.15 Spurious Emissions, Above 1 GHz, Ch 20, AM, 27.205 MHz



Date: 11.FEB.2025 13:55:11

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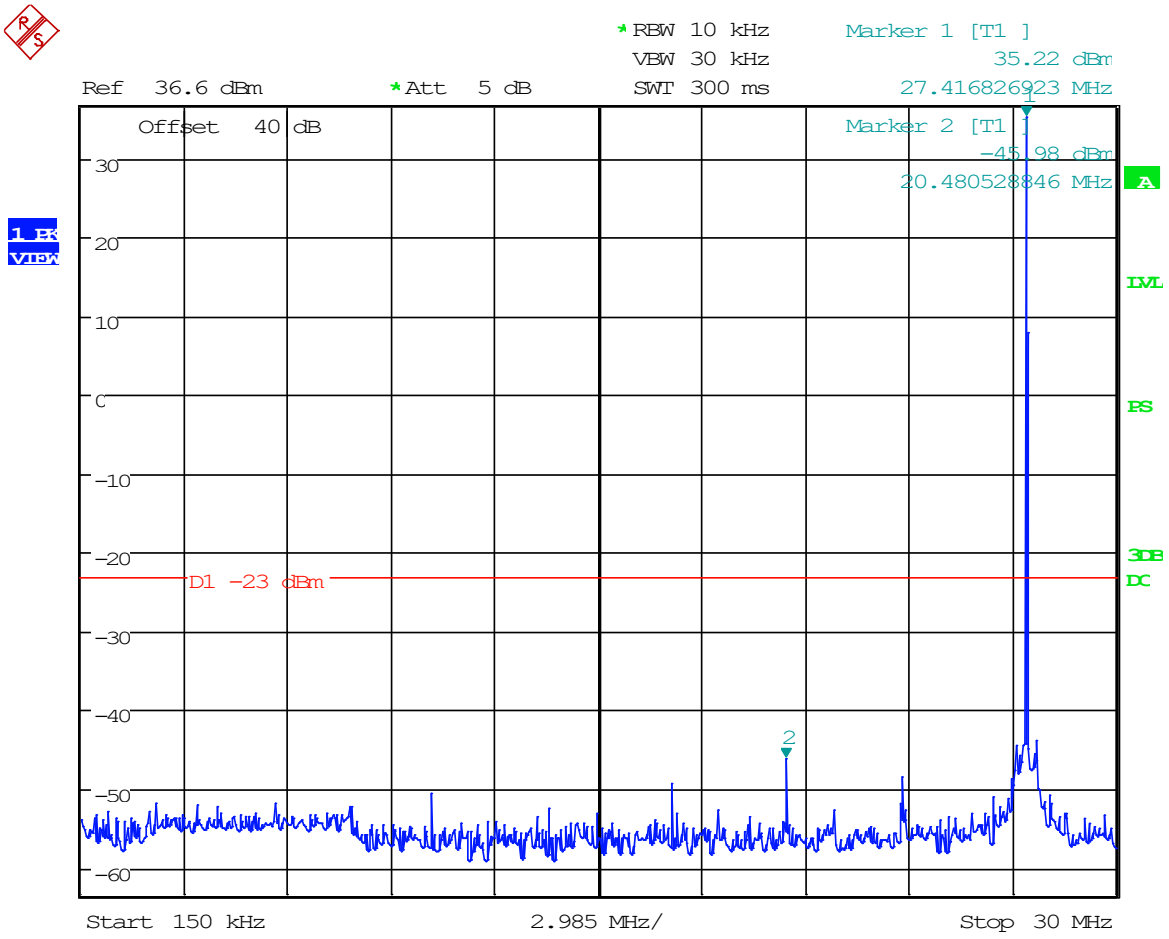
8.8.16 Spurious Emissions, 150 kHz-30 MHz, Ch 40, AM, 27.405 MHz



Date: 11.FEB.2025 11:43:48

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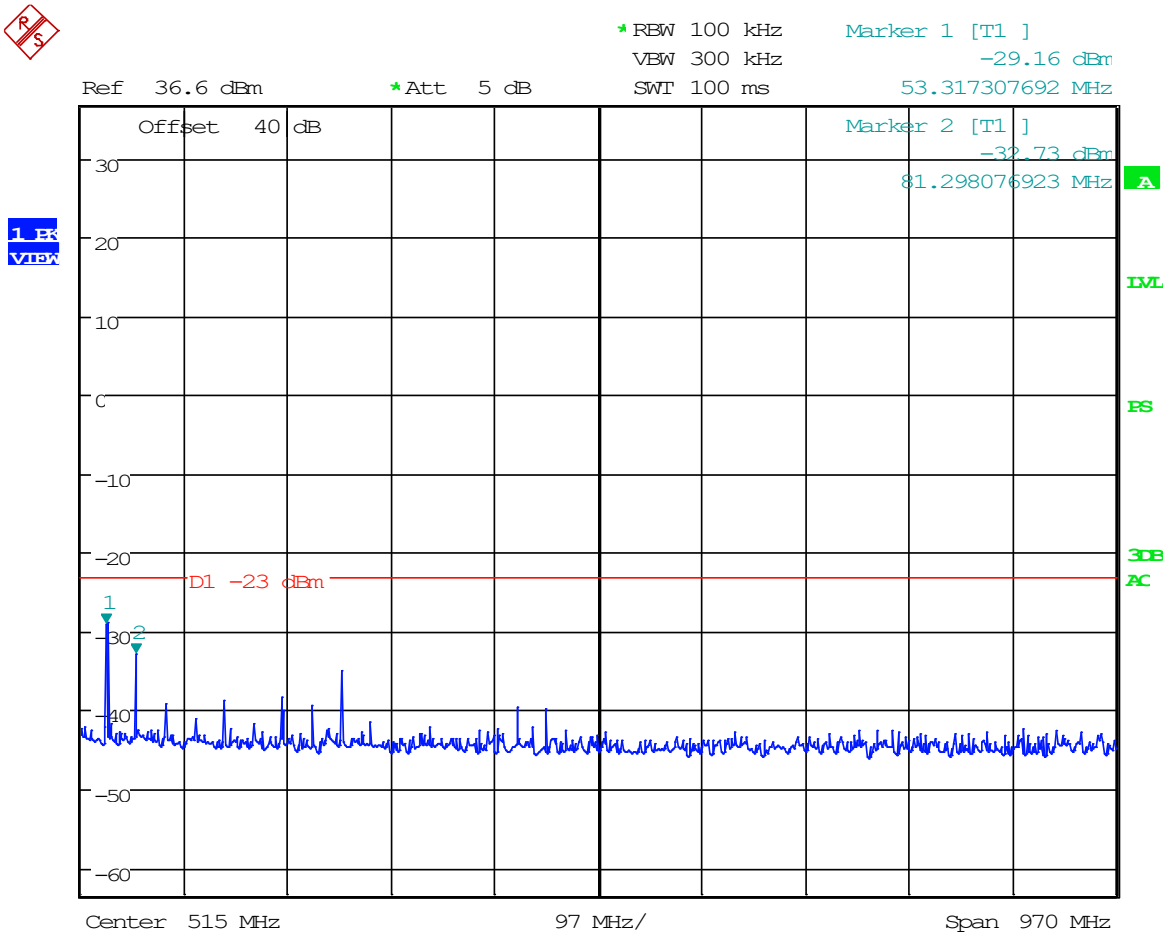
8.8.17 Spurious Emissions, 30 MHz-1 GHz, Ch 40, AM, 27.405 MHz



Date: 11.FEB.2025 12:00:53

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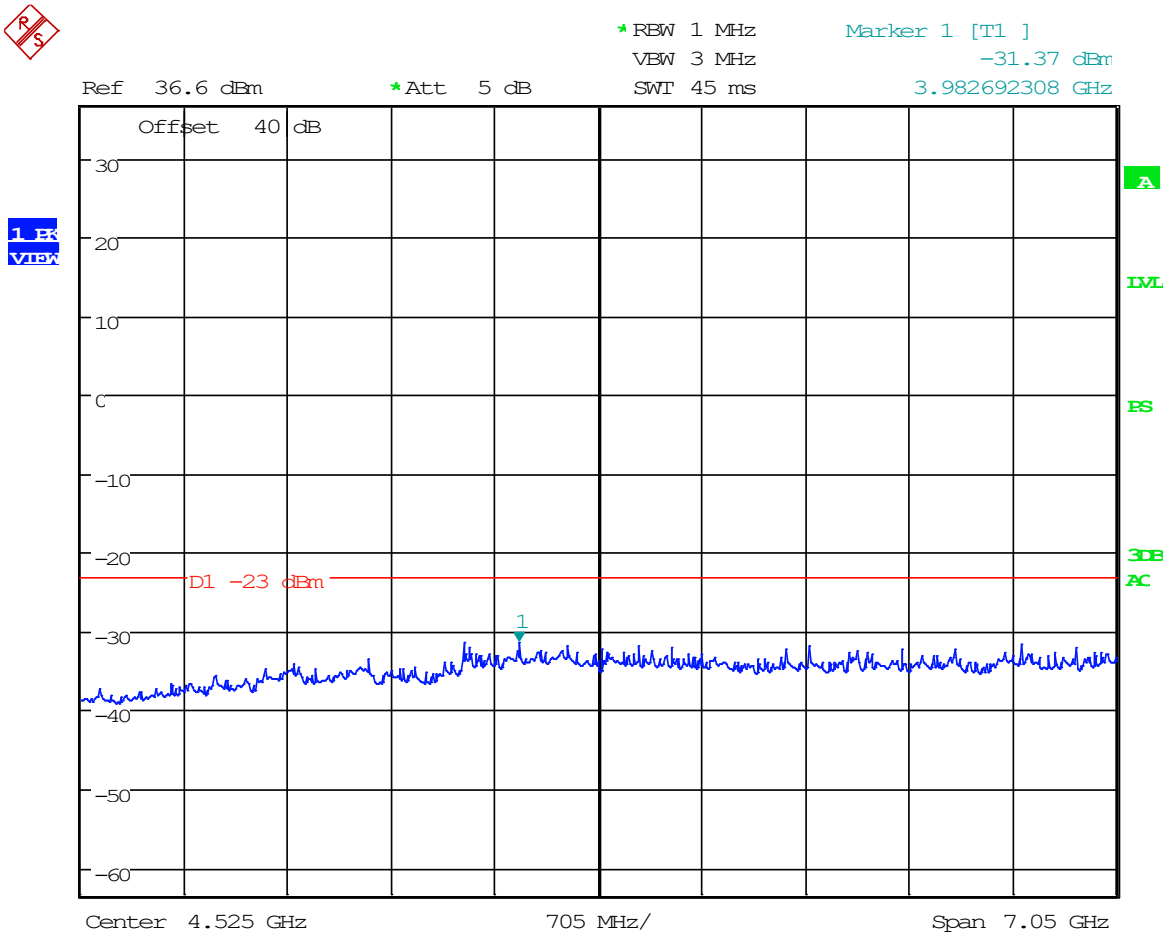
8.8.18 Spurious Emissions, Above 1 GHz, Ch 40, AM, 27.405 MHz



Date: 11.FEB.2025 13:55:11

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8.9 Field Strength of Spurious Emissions

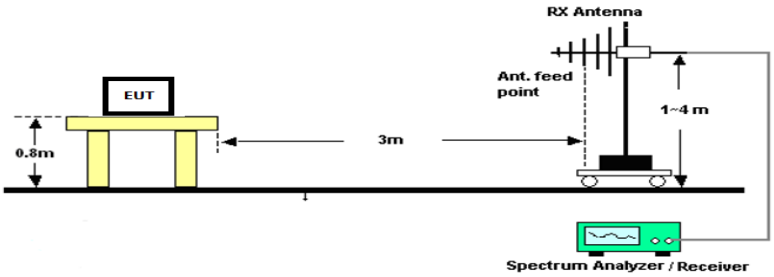
Limits from FCC Part 2.1053, 95.979(5)(6), RSS-236 5.4.4 and test procedure from ANSI C63.26-2015.

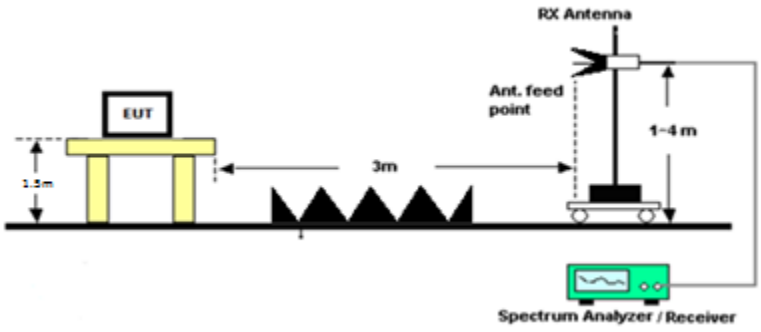
Requirements: Emissions must be attenuated by at least the following below the output of the transmitter.

At least 53 + 10 log(P) dBc on any frequency removed from the center of the authorized bandwidth by more than 250%. At least 60dB on any harmonic frequency.

METHOD OF MEASUREMENT

The tabulated data shows the results of the radiated field strength emissions test. The spectrum was scanned from 9 kHz to at least the tenth harmonic of the fundamental. This test was conducted per ANSI C63.26 using the substitution method

Radiated Test Setup, 30 – 1000 MHz


Radiated Test Setup, Above 1000 MHz


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Radiated Emissions Tabular Data

8.9.1 Radiated Emissions, Ch 1, 26.905 MHz

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBuV)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dB)
26.966	53.932	PK	13.00	H	-0.86	9.63	3.00	21.77	-75.61	-23.00	52.61
26.966	53.932	PK	28.40	V	-0.86	9.63	3.00	37.17	-60.21	-23.00	37.21
26.966	80.898	PK	17.40	H	-1.09	8.57	3.00	24.88	-72.49	-23.00	49.49
26.966	80.898	PK	27.30	V	-1.09	8.57	3.00	34.78	-62.59	-23.00	39.59
26.966	107.864	PK	16.80	H	-1.19	10.50	3.00	26.11	-71.27	-23.00	48.27
26.966	107.864	PK	17.90	V	-1.19	10.50	3.00	27.21	-70.17	-23.00	47.17
26.966	134.830	PK	18.70	H	-1.31	14.35	3.00	31.73	-65.64	-23.00	42.64
26.966	134.830	PK	14.40	V	-1.31	14.35	3.00	27.43	-69.94	-23.00	46.94
26.966	161.796	PK	4.40	H	-1.46	16.82	3.00	19.76	-77.62	-23.00	54.62
26.966	161.796	PK	4.50	V	-1.46	16.82	3.00	19.86	-77.52	-23.00	54.52
26.966	188.762	PK	23.80	H	-1.59	13.65	3.00	35.87	-61.51	-23.00	38.51
26.966	188.762	PK	23.40	V	-1.59	13.65	3.00	35.47	-61.91	-23.00	38.91
26.966	215.728	PK	18.40	H	-1.67	11.25	3.00	27.98	-69.40	-23.00	46.40
26.966	215.728	PK	19.00	V	-1.67	11.25	3.00	28.58	-68.80	-23.00	45.80
26.966	242.694	PK	10.90	H	-1.80	11.98	3.00	21.08	-76.30	-23.00	53.30
26.966	242.694	PK	7.30	V	-1.80	11.98	3.00	17.48	-79.90	-23.00	56.90
26.966	269.660	PK	15.00	H	-2.07	12.92	3.00	25.85	-71.52	-23.00	48.52
26.966	269.660	PK	8.90	V	-2.07	12.92	3.00	19.75	-77.62	-23.00	54.62

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8.9.2 Radiated Emissions, Ch 20, 27.205 MHz

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBuV)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dB)
27.206	54.412	PK	11.10	H	-0.86	9.44	3.00	19.68	-77.70	-23.00	54.70
27.206	54.412	PK	33.00	V	-0.86	9.44	3.00	41.58	-55.80	-23.00	32.80
27.206	81.618	PK	11.90	H	-1.09	8.79	3.00	19.60	-77.78	-23.00	54.78
27.206	81.618	PK	25.50	V	-1.09	8.79	3.00	33.20	-64.18	-23.00	41.18
27.206	108.824	PK	13.40	H	-1.20	10.42	3.00	22.62	-74.75	-23.00	51.75
27.206	108.824	PK	13.40	V	-1.20	10.42	3.00	22.62	-74.75	-23.00	51.75
27.206	136.030	PK	9.60	H	-1.32	14.61	3.00	22.89	-74.49	-23.00	51.49
27.206	136.030	PK	12.80	V	-1.32	14.61	3.00	26.09	-71.29	-23.00	48.29
27.206	163.236	PK	12.20	H	-1.47	16.68	3.00	27.40	-69.97	-23.00	46.97
27.206	163.236	PK	5.90	V	-1.47	16.68	3.00	21.10	-76.27	-23.00	53.27
27.206	190.442	PK	12.50	H	-1.59	14.09	3.00	25.00	-72.38	-23.00	49.38
27.206	190.442	PK	15.10	V	-1.59	14.09	3.00	27.60	-69.78	-23.00	46.78
27.206	217.648	PK	13.30	H	-1.68	11.21	3.00	22.82	-74.56	-23.00	51.56
27.206	217.648	PK	17.30	V	-1.68	11.21	3.00	26.82	-70.56	-23.00	47.56
27.206	244.854	PK	10.30	H	-1.83	12.08	3.00	20.56	-76.82	-23.00	53.82
27.206	244.854	PK	9.10	V	-1.83	12.08	3.00	19.36	-78.02	-23.00	55.02
27.206	272.060	PK	15.40	H	-2.07	13.04	3.00	26.37	-71.01	-23.00	48.01
27.206	272.060	PK	8.60	V	-2.07	13.04	3.00	19.57	-77.81	-23.00	54.81

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8.9.3 Radiated Emissions, Ch 40, 27.405 MHz

Tuned Frequency (MHz)	Emission Frequency (MHz)	Detector	Meter Reading (dBuV)	Antenna Polarity	Coax Loss (dB)	Antenna Correction Factor (dB/m)	Distance (m)	Field Strength (dBµV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dB)
27.407	54.814	PK	19.90	H	-0.86	9.27	3.00	28.31	-69.07	-23.00	46.07
27.407	54.814	PK	35.60	V	-0.86	9.27	3.00	44.01	-53.37	-23.00	30.37
27.407	82.221	PK	8.90	H	-1.09	8.97	3.00	16.77	-80.60	-23.00	57.60
27.407	82.221	PK	17.30	V	-1.09	8.97	3.00	25.17	-72.20	-23.00	49.20
27.407	109.628	PK	5.20	H	-1.20	10.40	3.00	14.40	-82.98	-23.00	59.98
27.407	109.628	PK	10.80	V	-1.20	10.40	3.00	20.00	-77.38	-23.00	54.38
27.407	137.035	PK	2.60	H	-1.33	14.91	3.00	16.18	-81.20	-23.00	58.20
27.407	137.035	PK	2.10	V	-1.33	14.91	3.00	15.68	-81.70	-23.00	58.70
27.407	164.442	PK	0.80	H	-1.48	16.56	3.00	15.87	-81.50	-23.00	58.50
27.407	164.442	PK	0.40	V	-1.48	16.56	3.00	15.47	-81.90	-23.00	58.90
27.407	191.849	PK	0.10	H	-1.60	14.54	3.00	13.04	-84.33	-23.00	61.33
27.407	191.849	PK	0.40	V	-1.60	14.54	3.00	13.34	-84.03	-23.00	61.03
27.407	219.256	PK	0.10	H	-1.69	11.17	3.00	9.58	-87.80	-23.00	64.80
27.407	219.256	PK	0.20	V	-1.69	11.17	3.00	9.68	-87.70	-23.00	64.70
27.407	246.663	PK	2.70	H	-1.85	12.16	3.00	13.01	-84.37	-23.00	61.37
27.407	246.663	PK	0.10	V	-1.85	12.16	3.00	10.41	-86.97	-23.00	63.97
27.407	274.070	PK	-0.20	H	-2.06	13.14	3.00	10.88	-86.50	-23.00	63.50
27.407	274.070	PK	0.30	V	-2.06	13.14	3.00	11.38	-86.00	-23.00	63.00

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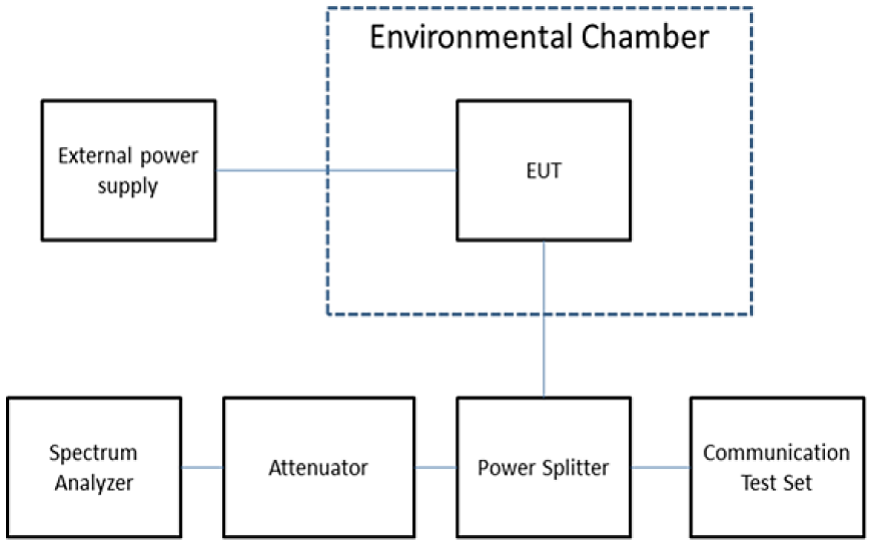
8.10 Frequency Stability

Limits from FCC 2.1055(a) (b) (d), Part 95.965, RSS-236 5.3.2; and test procedure from ANSI C63.26-2015.

Requirements: Maintain a frequency tolerance of less than 50 ppm

Temperature and voltage tests were performed to verify that the frequency remains within the 50 ppm specification limit. The test was conducted as follows: The transmitter was placed in the temperature chamber at 25 ºC and allowed to stabilize for one hour. The transmitter was keyed ON for one minute during which four frequency readings were recorded at 15-second intervals. The worst case number was taken for temperature plotting. The assigned channel frequency was considered to be the reference frequency. The temperature was then reduced to -30 ºC after which the transmitter was again allowed to stabilize for one hour. The transmitter was keyed ON for one minute, and again frequency readings were noted at 15-second intervals. The worst case number was recorded for temperature plotting. This procedure was repeated in 10 degree increments up to + 50 ºC.

Test Setup



Test Results, Mode 1

Tuned Frequency (MHz)	Max Deviation (kHz)	Limit (ppm)
26.905	0.028	50

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8.10.1 Frequency Stability Data

FCC Part 95 Limit	50.0	ppm
FCC Part 95 Limit, as ppb	50000	ppb (Parts per Billion)
FCC Part 95 Limit, as %	0.00500	%
Strictest Combined Limit, as Hz	1348.249	Hz
Combined Lower Limit	26.963638	MHz
Combined Upper Limit	26.966334	MHz
Rated Supply Voltage	13.8	○ AC ◉ DC

Temperature / Voltage Variation

Temperature (°C)	Supplied Voltage (V)	Frequency (MHz)	Deviation (kHz)
-30	13.8	26.965008	-0.022
-20	13.8	26.965012	-0.026
-10	13.8	26.965004	-0.018
0	13.8	26.964990	-0.004
+10	13.8	26.964985	0.001
+20 (reference)	13.8	26.964986	0.000
+20	11.7	26.964984	0.002
+20	15.9	26.964958	0.028
+30	13.8	26.964998	-0.012
+40	13.8	26.965004	-0.018
+50	13.8	26.965007	-0.021

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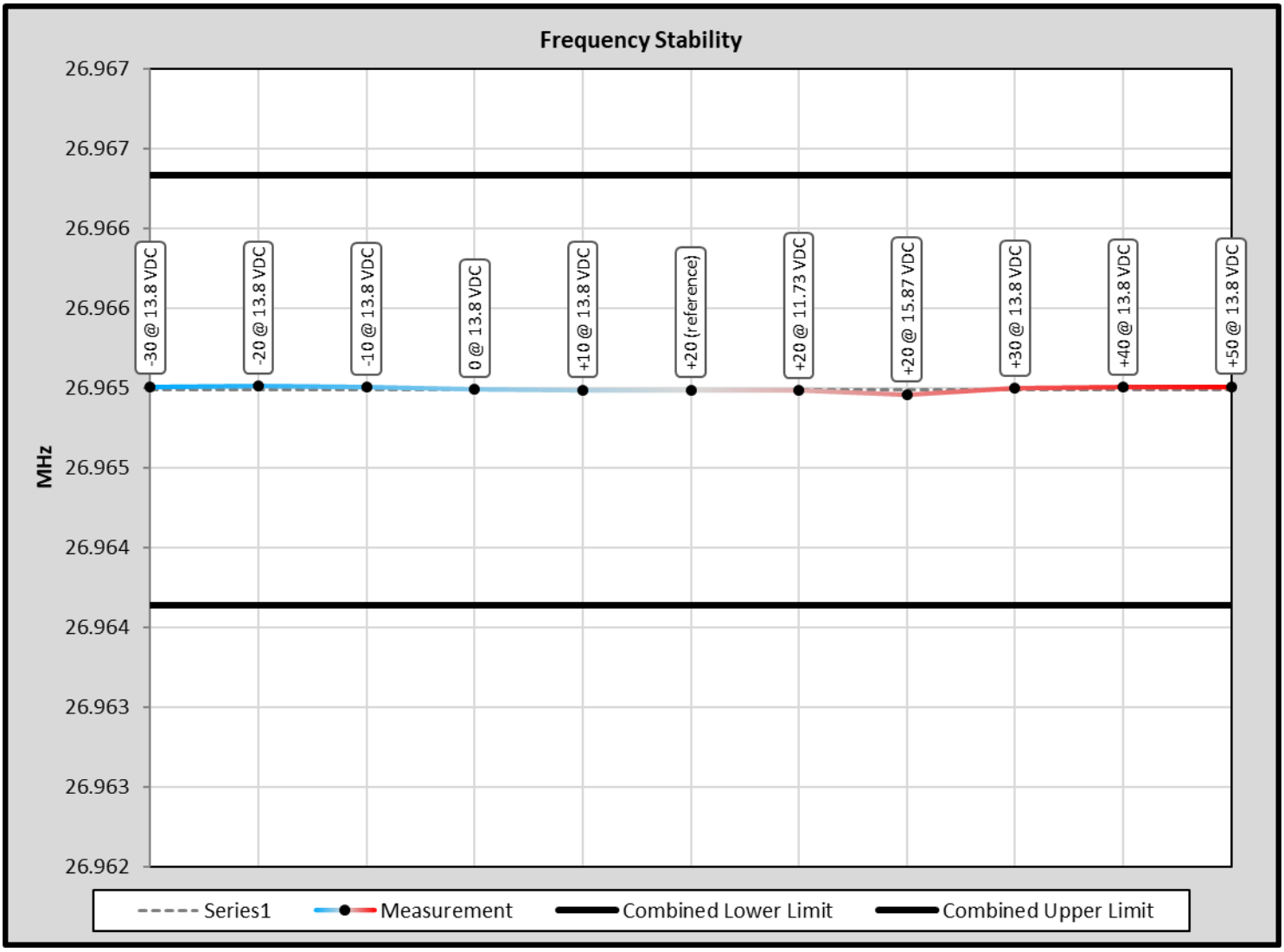
8.10.2 Frequency Stability Plot



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9. ANNEX-B – Test Setup Photographs

Test setup photographs are located in a separate supplementary ANNEX-B document.

10. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_18763-25_FCC 95_	1	Initial release	2/12/2025
	2	Added sec 8.5, revised frequencies	2/24/2025
	3	Updated Page 7	2/25/2025

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END OF TEST REPORT

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