



Test Report – FCC Part 74H-C2PC- Low Power Licensed  
Wireless Microphone  
Applicant: Wisycom s.r.l.

Approved for Release By:

Signature: Bruno Clavier

Name & Title: Bruno Clavier, General Manager

Date of Signature 3/20/2024

This test report shall not be reproduced except in full without the written and signed permission of Timco Engineering Inc. (IIA). 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.

## Table of Contents

---

1.	APPLICANT INFORMATION.....	3
1.1	TEST RESULT SUMMARY.....	3
2.	LOCATION OF TESTING.....	4
2.1	TEST LABORATORY.....	4
2.2	TESTING WAS PERFORMED, REVIEWED BY.....	4
3.	TEST SAMPLE(S) (EUT/DUT).....	5
3.1	DESCRIPTION OF THE EUT.....	5
3.2	CONFIGURATION OF EUT.....	6
3.3	TEST SETUP OF EUT.....	6
4.	TEST METHODS & APPLICABLE REGULATORY LIMITS.....	7
4.1	TEST METHODS/STANDARDS/GUIDANCE.....	7
5.	MEASUREMENT UNCERTAINTY.....	7
6.	ENVIRONMENTAL CONDITIONS.....	7
7.	LIST OF TEST EQUIPMENT AND TEST FACILITY.....	8
8.	TEST RESULTS.....	9
8.1	RF POWER OUTPUT.....	10
8.1.1	RF Power Output Plot, Mode 1, 941.5 MHz.....	11
8.1.2	RF Power Output Plot, Mode 1, 954 MHz.....	12
8.1.3	RF Power Output Plot, Mode 1, 959.85 MHz.....	13
8.1.4	RF Power Output Plot, Mode 2, 941.5 MHz.....	14
8.1.5	RF Power Output Plot, Mode 2, 954 MHz.....	15
8.1.6	RF Power Output Plot, Mode 2, 959.85 MHz.....	16
8.2	OCCUPIED BANDWIDTH.....	17
8.2.1	99% Bandwidth Plot, Mode 1, 941.5 MHz.....	18
8.2.2	99% Bandwidth Plot, Mode 1, 954 MHz.....	19
8.2.3	99% Bandwidth Plot, Mode 1, 959.85 MHz.....	20
8.2.4	99% Bandwidth Plot, Mode 2, 941.5 MHz.....	21
8.2.5	99% Bandwidth Plot, Mode 2, 954 MHz.....	22
8.2.6	99% Bandwidth Plot, Mode 2, 959.85 MHz.....	23
8.3	RADIATED EMISSIONS.....	24
8.3.1	Radiated Emissions Table, 941.5 MHz.....	25
8.3.2	Radiated Emissions Table, 954 MHz.....	26
8.3.3	Radiated Emissions Table, 959.85 MHz.....	27
9.	ANNEX-B – TEST SETUP PHOTOGRAPHS.....	28
10.	HISTORY OF TEST REPORT CHANGES.....	28

## 1. Applicant Information

Applicant: Wisycom s.r.l.  
 Address: Via Tiepolo, 7/E  
 Tombolo, 35019, Italy

### 1.1 Test Result Summary

The following test procedure was used ANSI C63.26 and KDB 206256 D01 Wireless Microphone Certification. Full test results are available in this report.

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.

Clauses	Description of the Requirements	Result (Pass, Fail or N/A)
PART 2.1046(a), 74.861(e) (1) (ii), (iii)	Conducted Power	Pass
2.1049(c), 74.861(d)(4)(i)	Occupied Bandwidth	Pass
74.861(e)(7), ETSI EN 300-422-1 s. 8.3.2	Unwanted Emissions	N/A
2.1051(a), 74.861(e)(6)(iii)	Spurious Emissions at Antenna Terminal (Conducted)	N/A
2.1053, 74.861(e)(6)(iii)	Radiated Field Strength of Spurious Emissions	Pass
2.1053, 74.861(e) (4)	Frequency Stability	N/A

## 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 86<sup>th</sup> 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

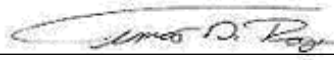
EU Notified Body # 1177

For all designations see A2LA scope # 0955.01

### 2.2 Testing was performed, reviewed by

Dates of Testing: 2/23/2024 – 2/27/2024

Signature:



Sr. EMC Engineer  
EMC-003838-NE



Name & Title:

Tim Royer, EMC Engineer

Date of Signature

3/20/2024

Signature:



Name & Title:

Kristoffer Costa, EMC Technician

Date of Signature

3/20/2024

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

The test sample was received: 2/22/2024

#### 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:	POUMTK982
Brief Description	Dual UHF Transmitter with CSI16T2 Combiner
Model(s) #	MTK982
Firmware version	N/A
Software version	N/A
Serial Number	MTK982: 29900009, CSI16T2: 29900020

Technical Characteristics	
Frequency Range	941 MHz- 952 MHz 952.85 MHz- 956.25 MHz 956.45 MHz- 959.85 MHz
RF O/P Power (Max.)	1W Max
Modulation	FM
Bandwidth & Emission Class	F3E
Number of Channels	N/A
Duty Cycle	100%
Antenna Connector	BNC
Voltage Rating (AC or Batt.)	90 - 264 VAC, 47/63 Hz; 10-28 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.

### 3.2 Configuration of EUT

Test Modes				
Mode (#)	Mode (Type)	Test Frequencies (MHz)	BW (nominal) (kHz)	Emission Designator
1	8:1 Transmit	941.5 MHz 954 MHz 959.85 MHz	62.804	F3E, F8E
2	16:1 Transmit	941.5 MHz 954 MHz 959.85 MHz	62.844	F3E, F8E

#### Operating conditions during Testing:

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

#### 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.

#### 4. Test methods & Applicable Regulatory Limits

##### 4.1 Test methods/Standards/Guidance

The measurement was performed as per ANSI C63.2 and KDB 206256 D01 Wireless Microphone Certification. Full test results are available in this report.

##### Limits and Regulatory Limits:

- 1) FCC Part 74 H (2020)

#### 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
<b>Note:</b> 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

##### 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
<b>Note:</b> Specific environmental conditions that are applicable to a specific test are available in the test result section.	

## 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.

### List of Test Equipment

Test Equipment						
Type	Device	Manufacturer	Model	SN#	Current Cal	Cal Due
Antenna, NSA	Log-Periodic 1243	Eaton	96005	1243	5/4/21	5/3/2024
Antenna	Double-Ridged Horn/ETS Horn 1	ETS-Lindgren	3117	00035923	5/31/23	5/30/2026
CHAMBER	CHAMBER	Panashield	3M	N/A	12/29/23	12/29/2025
Receiver	EMI Test Receiver R&S ESU 40	Rohde & Schwarz	ESU 40	100320	5/27/21	5/26/2024
Receiver	EMI Test Receiver R&S ESW44	Rohde & Schwarz	ESW44	103049	10/13/21	10/12/2024
Signal Generator	Signal Generator HP 8648C	HP	8648C	35537A01679	8/4/22	8/03/2025

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



## 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).

### Units of measurement

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 dB $\mu$ V. 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 (dB $\mu$ V/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 dB $\mu$ V 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.

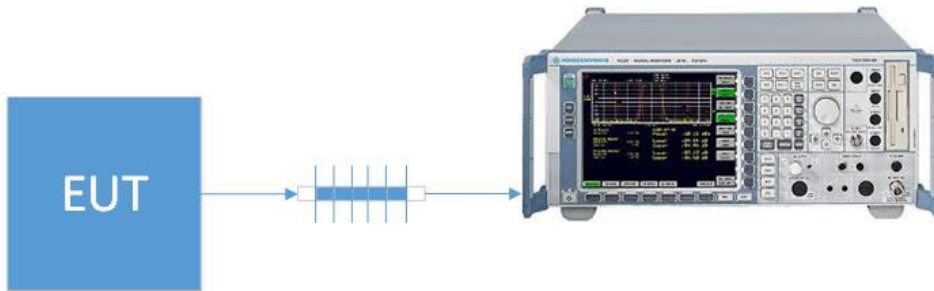
### Example:

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

EIRP = Pcond (dBm) + dBi

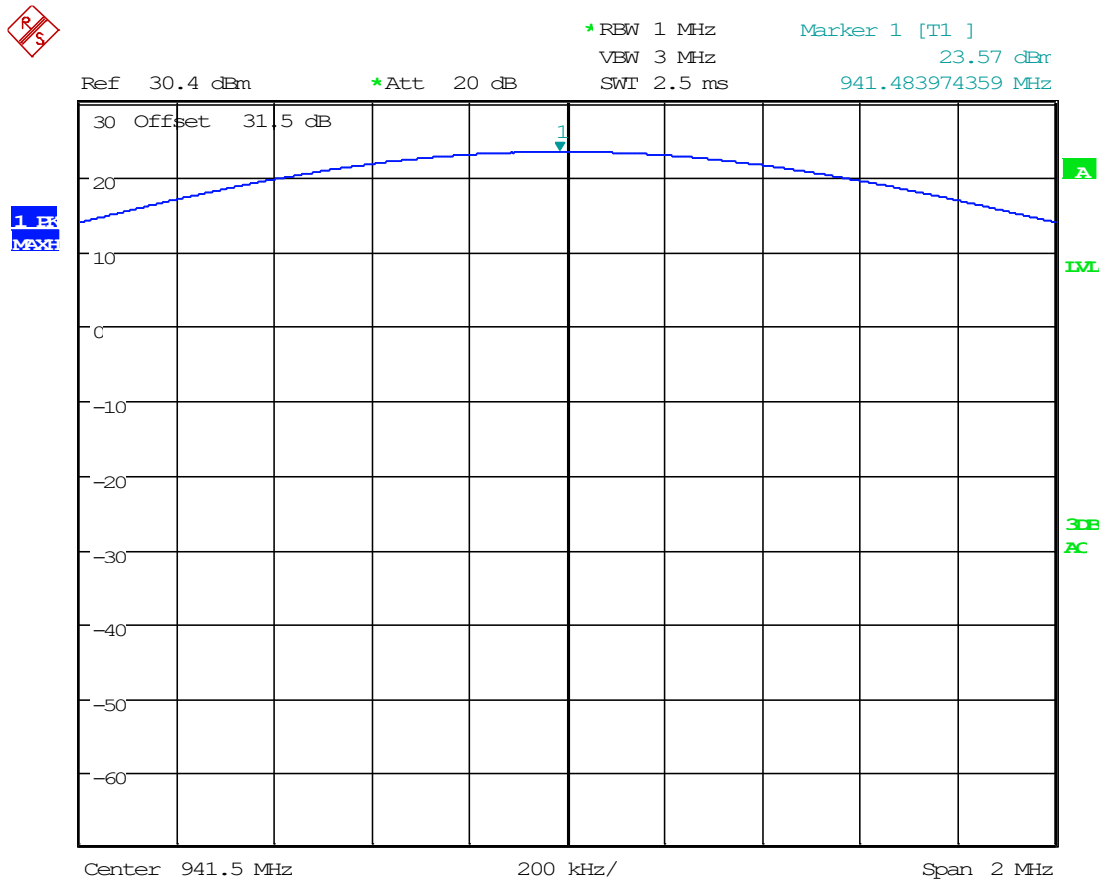
### 8.1 RF POWER OUTPUT

Limits from 2.1046(a), 74.861(e) (1) (ii) and test procedure from ANSI C63.26 and KDB 206256 D01 Wireless Microphone Certification.



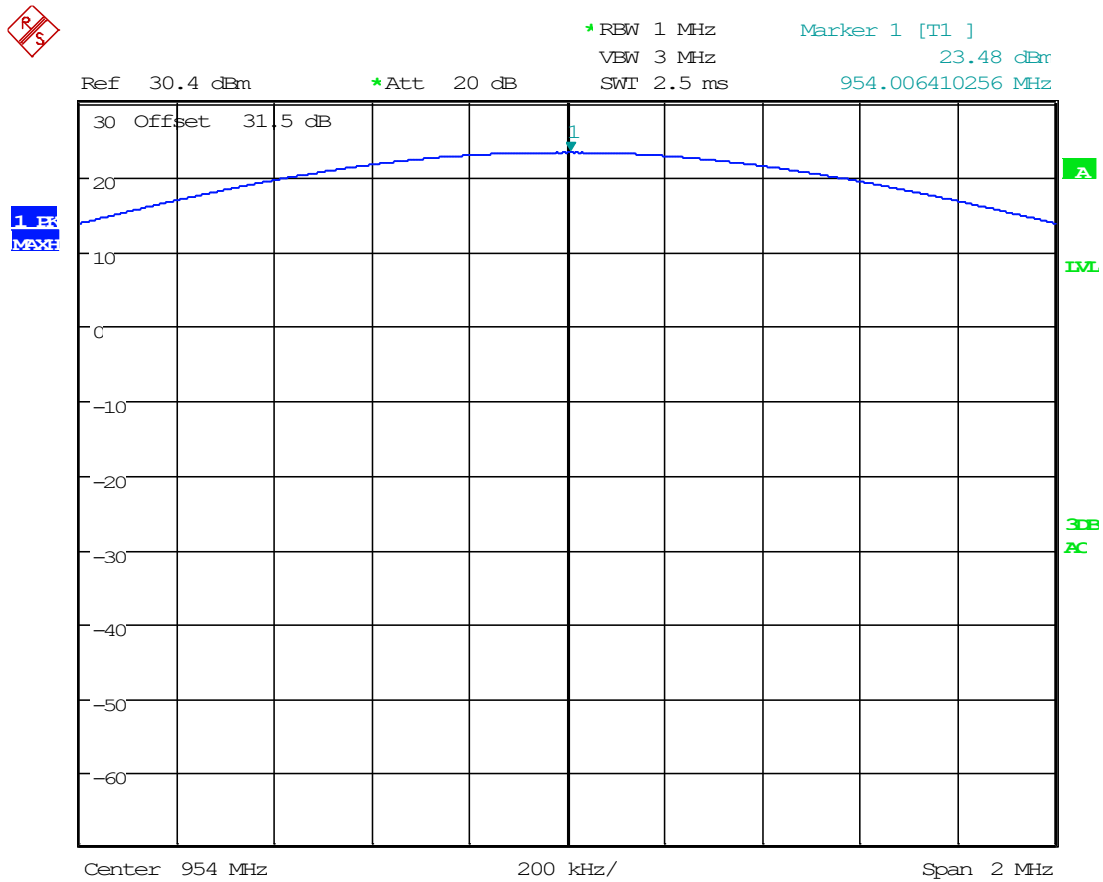
Test Results				
Mode	Type	Tuned Frequency (MHz)	Power Output (dBm)	Power Output (W)
1	8:1	941.5	23.57	0.228
1	8:1	954	23.48	0.223
1	8:1	959.85	23.39	0.218
2	16:1	941.5	20.79	0.120
2	16:1	954	20.44	0.111
2	16:1	959.85	20.52	0.113

### 8.1.1 RF Power Output Plot, Mode 1, 941.5 MHz



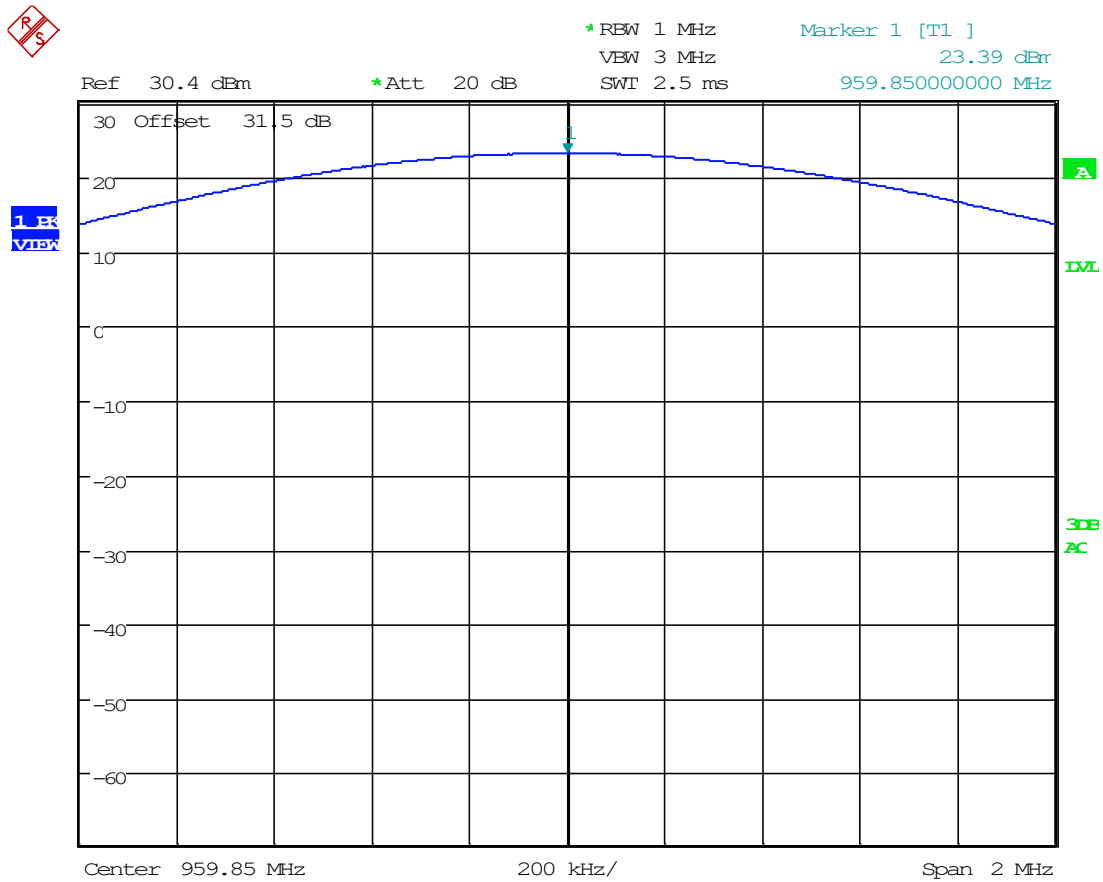
Date: 26.FEB.2024 16:25:09

### 8.1.2 RF Power Output Plot, Mode 1, 954 MHz



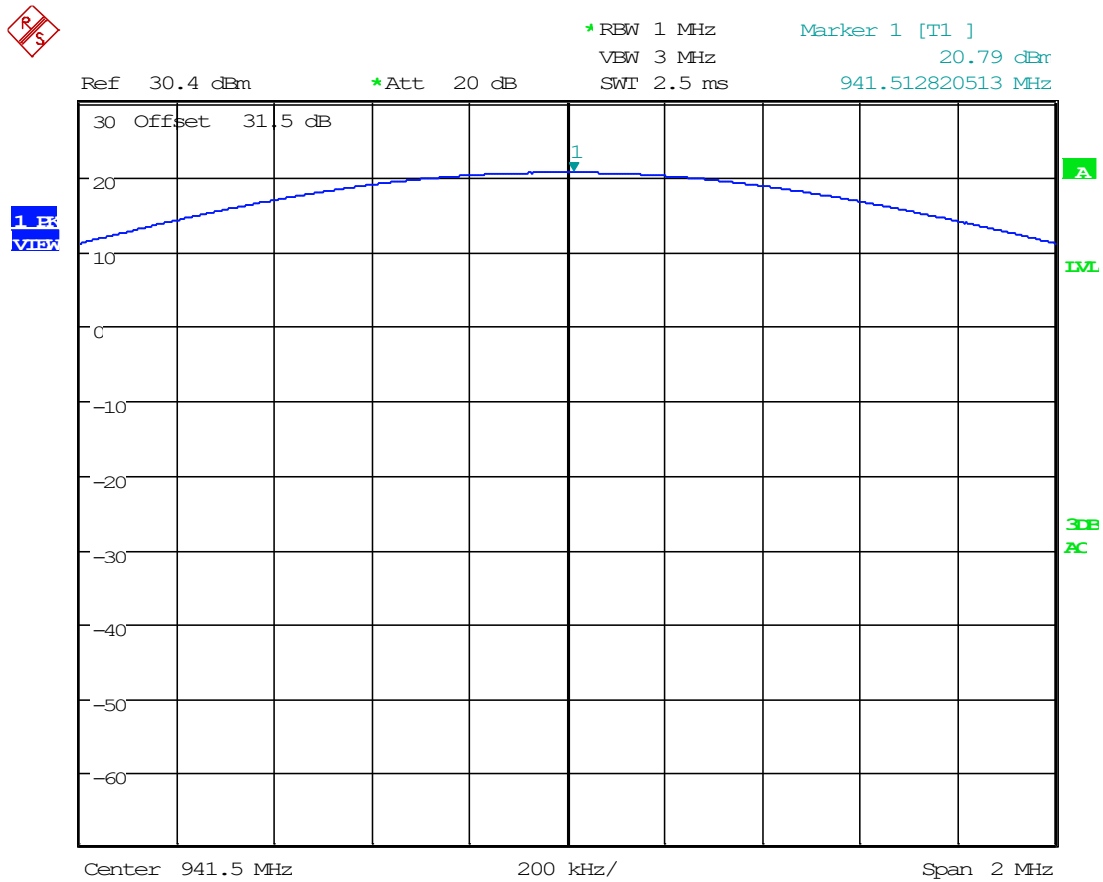
Date: 26.FEB.2024 16:26:35

### 8.1.3 RF Power Output Plot, Mode 1, 959.85 MHz



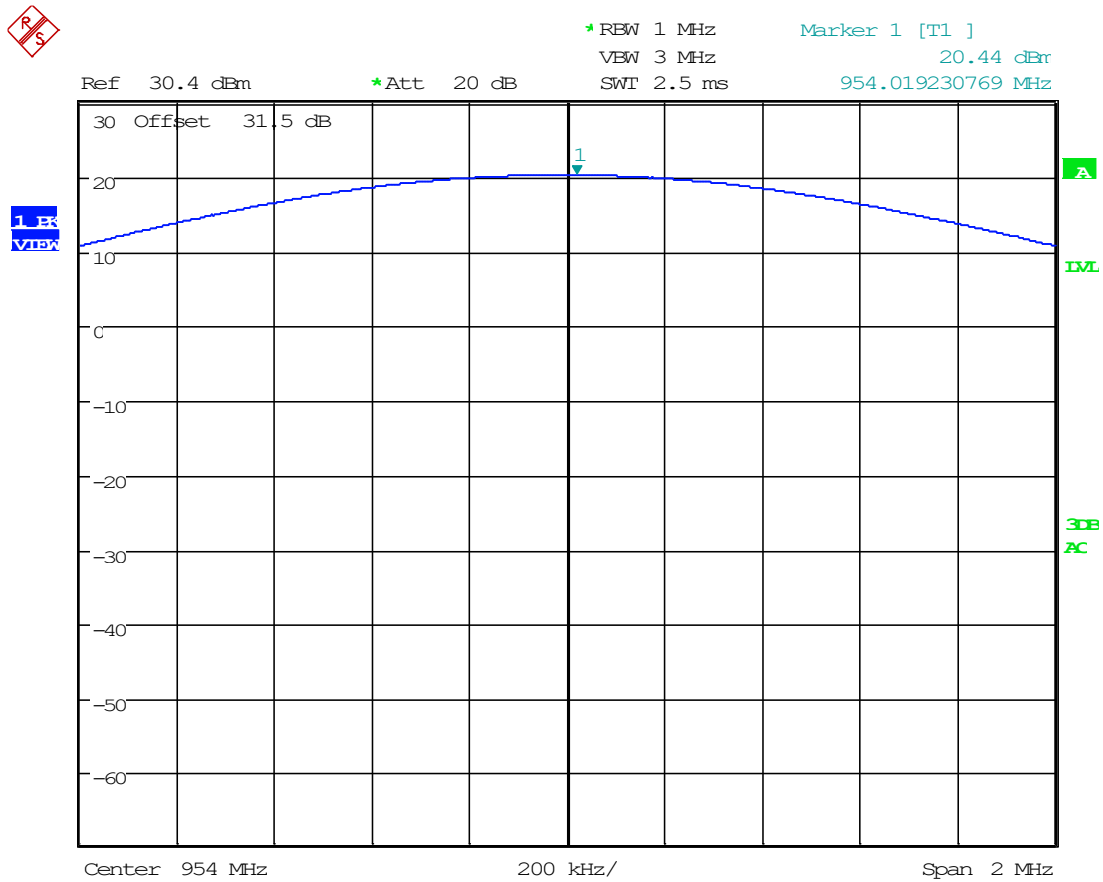
Date: 26.FEB.2024 16:30:01

### 8.1.4 RF Power Output Plot, Mode 2, 941.5 MHz



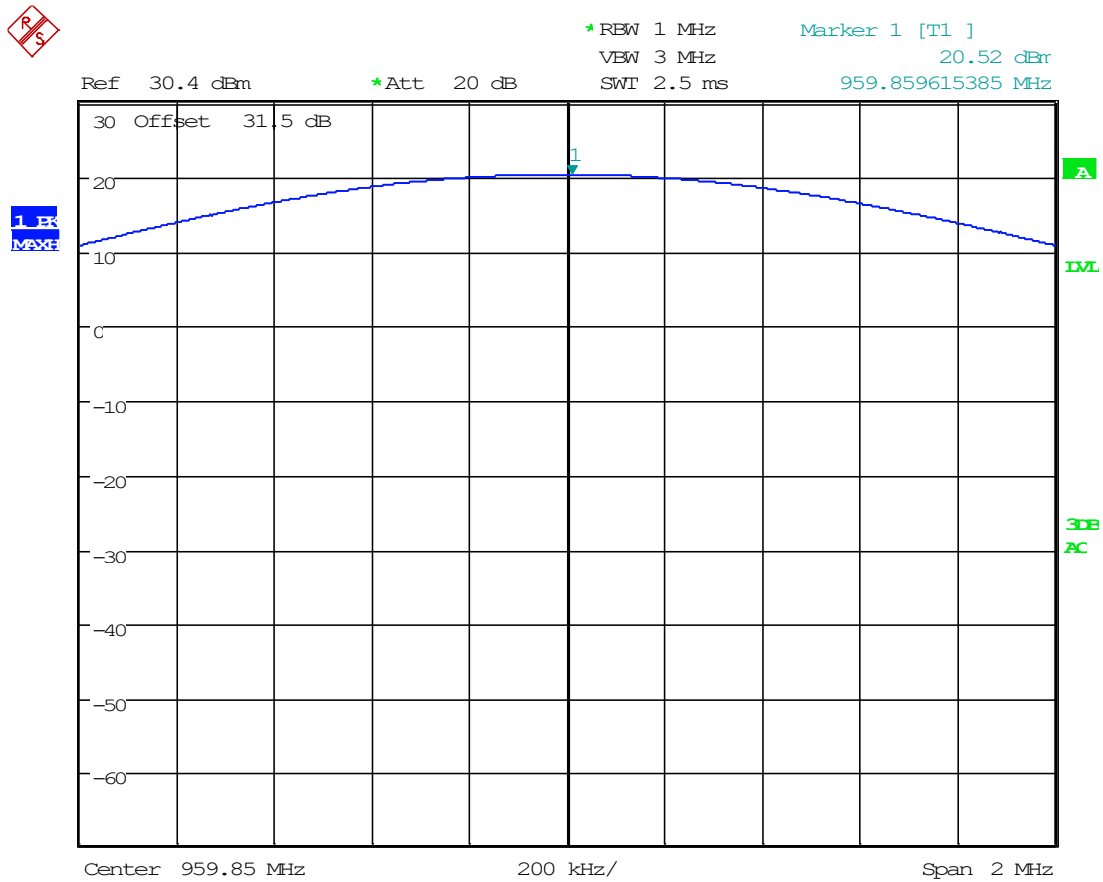
Date: 26.FEB.2024 16:48:38

### 8.1.5 RF Power Output Plot, Mode 2, 954 MHz



Date: 26.FEB.2024 16:49:30

### 8.1.6 RF Power Output Plot, Mode 2, 959.85 MHz

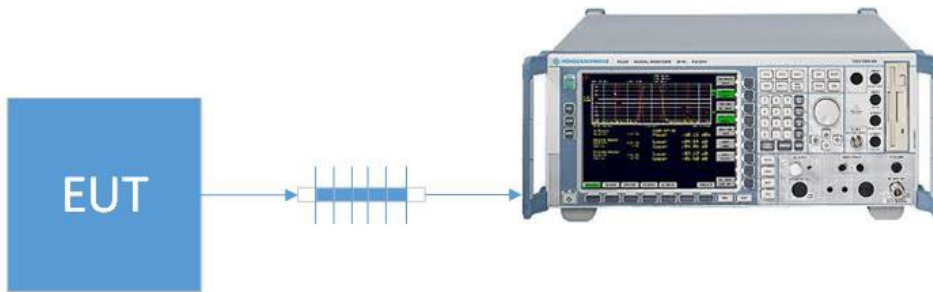


Date: 26.FEB.2024 16:50:20



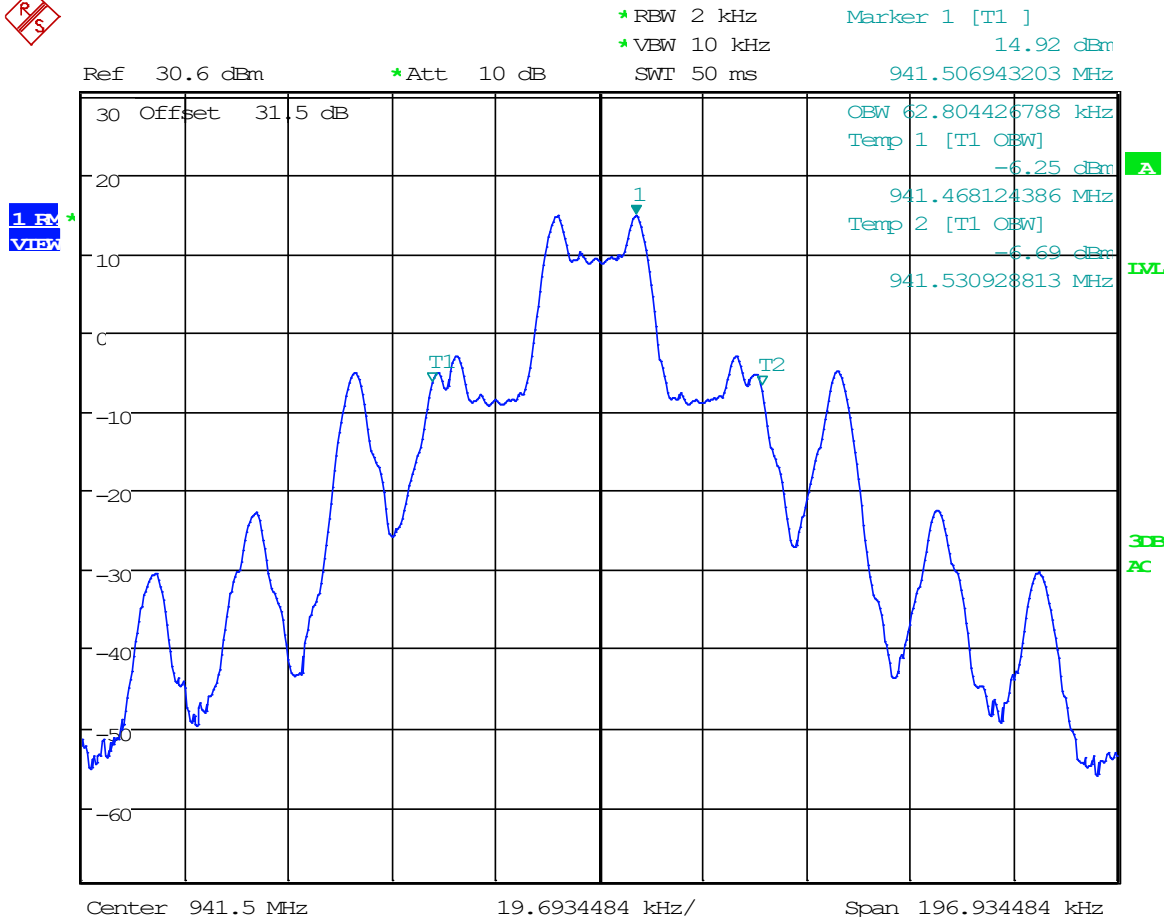
## 8.2 OCCUPIED BANDWIDTH

Limits from 2.1049(c), 74.861(d)(4)(i) and test procedure from ANSI C63.26



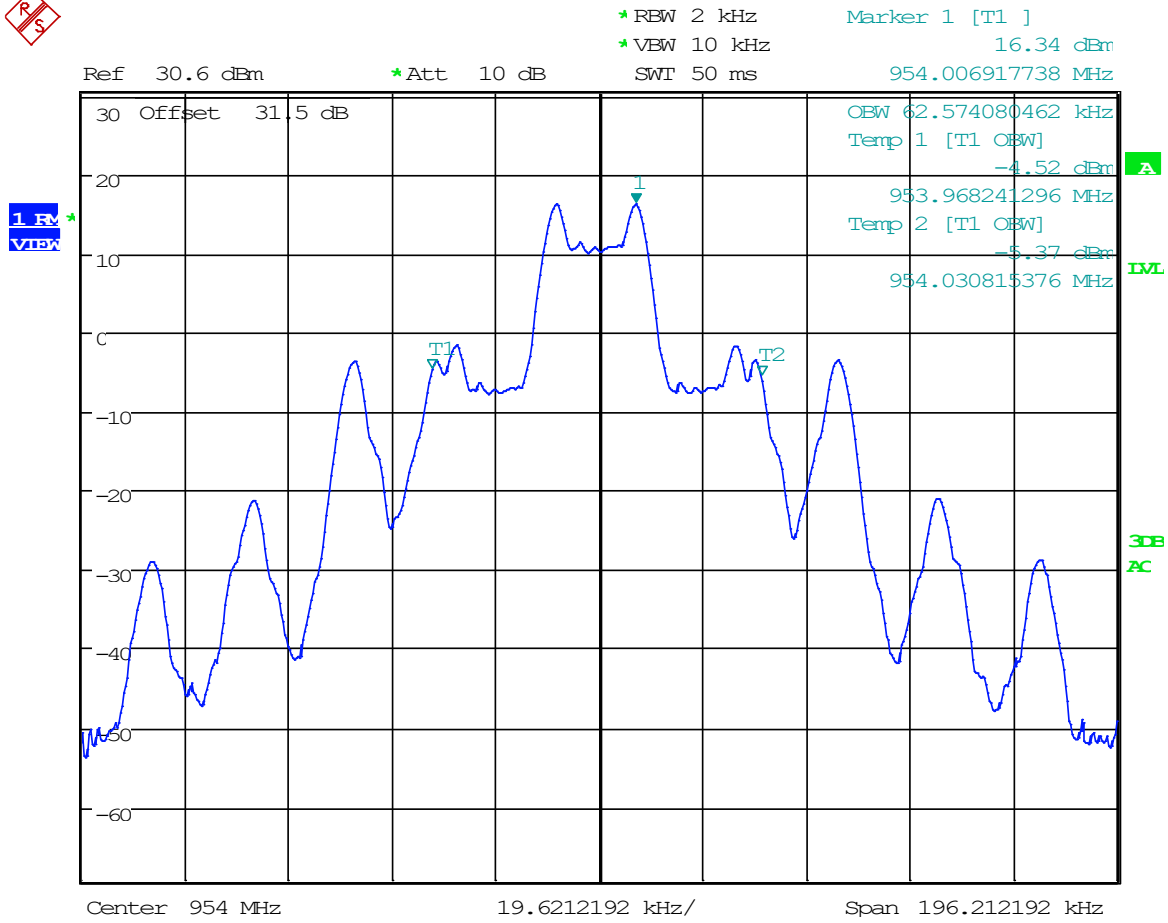
Test Results, Occupied Bandwidth			
Mode	Tuned Frequency (MHz)	Occupied Bandwidth (kHz)	Bandwidth Type
1	941.5	62.804	99%
1	954	62.574	99%
1	959.85	62.664	99%
2	941.5	62.844	99%
2	954	62.389	99%
2	959.85	62.787	99%

### 8.2.1 99% Bandwidth Plot, Mode 1, 941.5 MHz



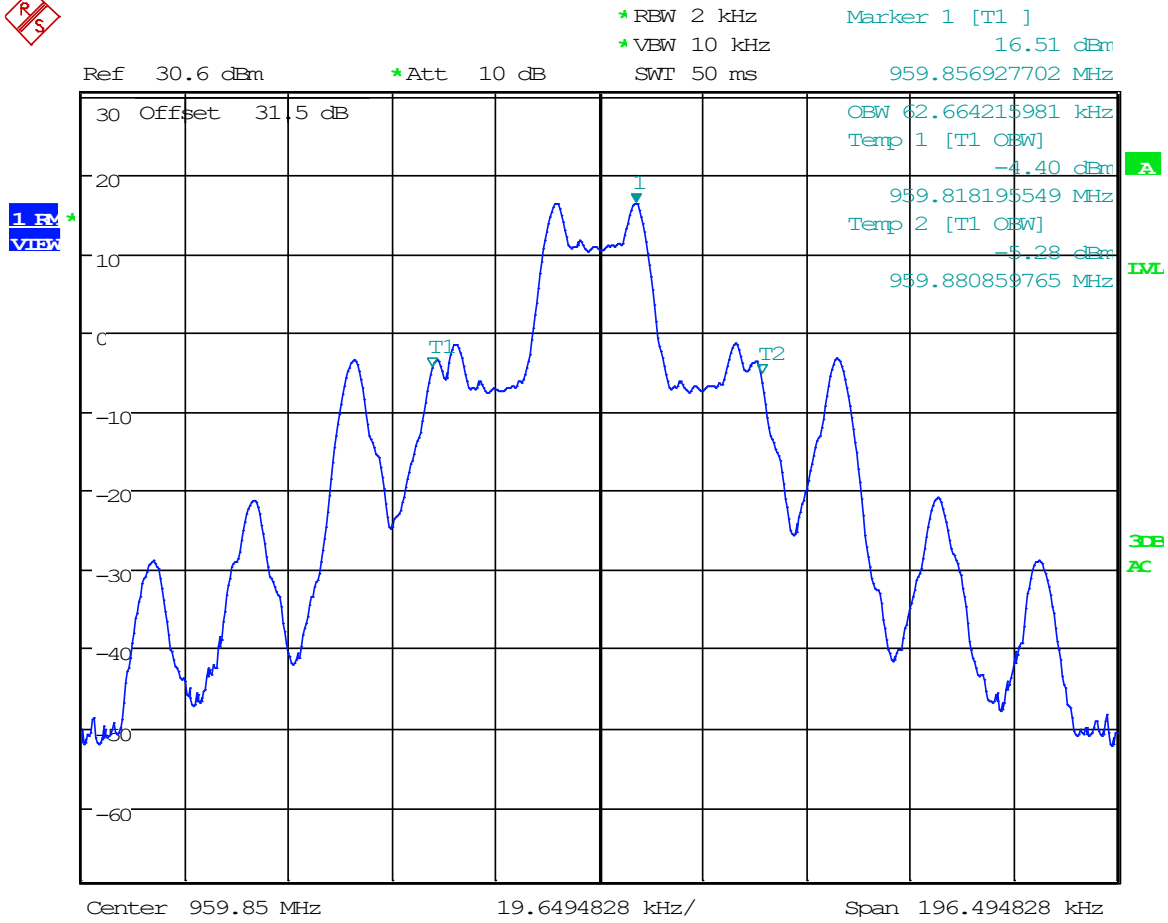
Date: 26.FEB.2024 10:27:07

### 8.2.2 99% Bandwidth Plot, Mode 1, 954 MHz



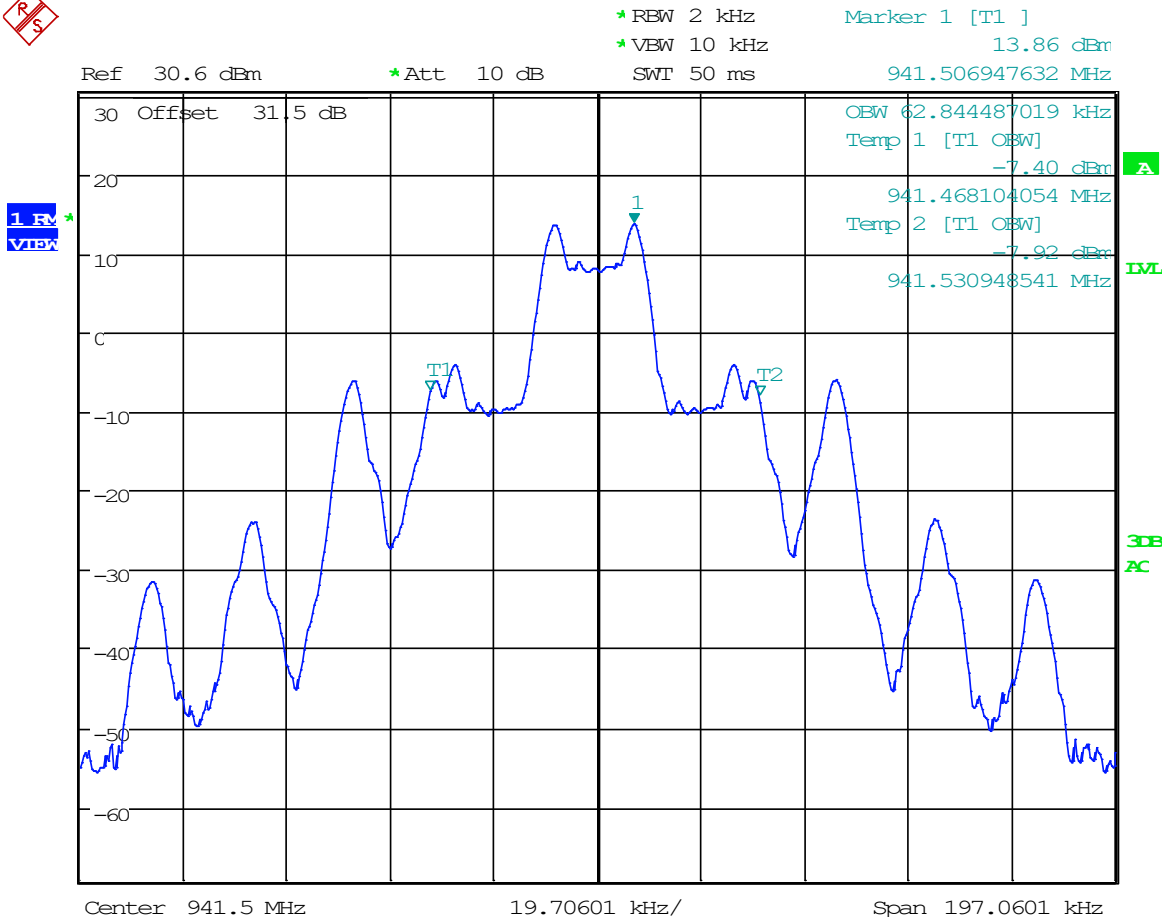
Date: 26.FEB.2024 10:28:10

### 8.2.3 99% Bandwidth Plot, Mode 1, 959.85 MHz



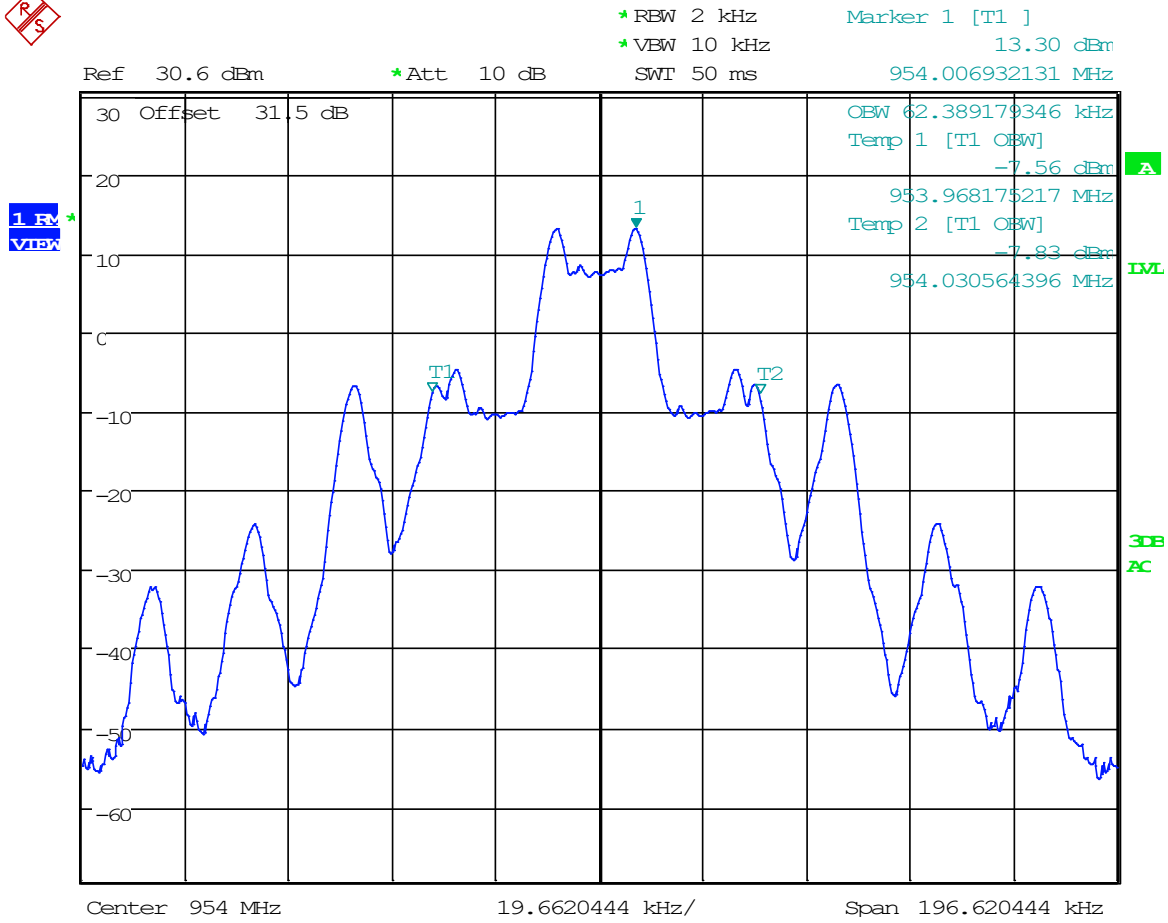
Date: 26.FEB.2024 10:29:30

### 8.2.4 99% Bandwidth Plot, Mode 2, 941.5 MHz



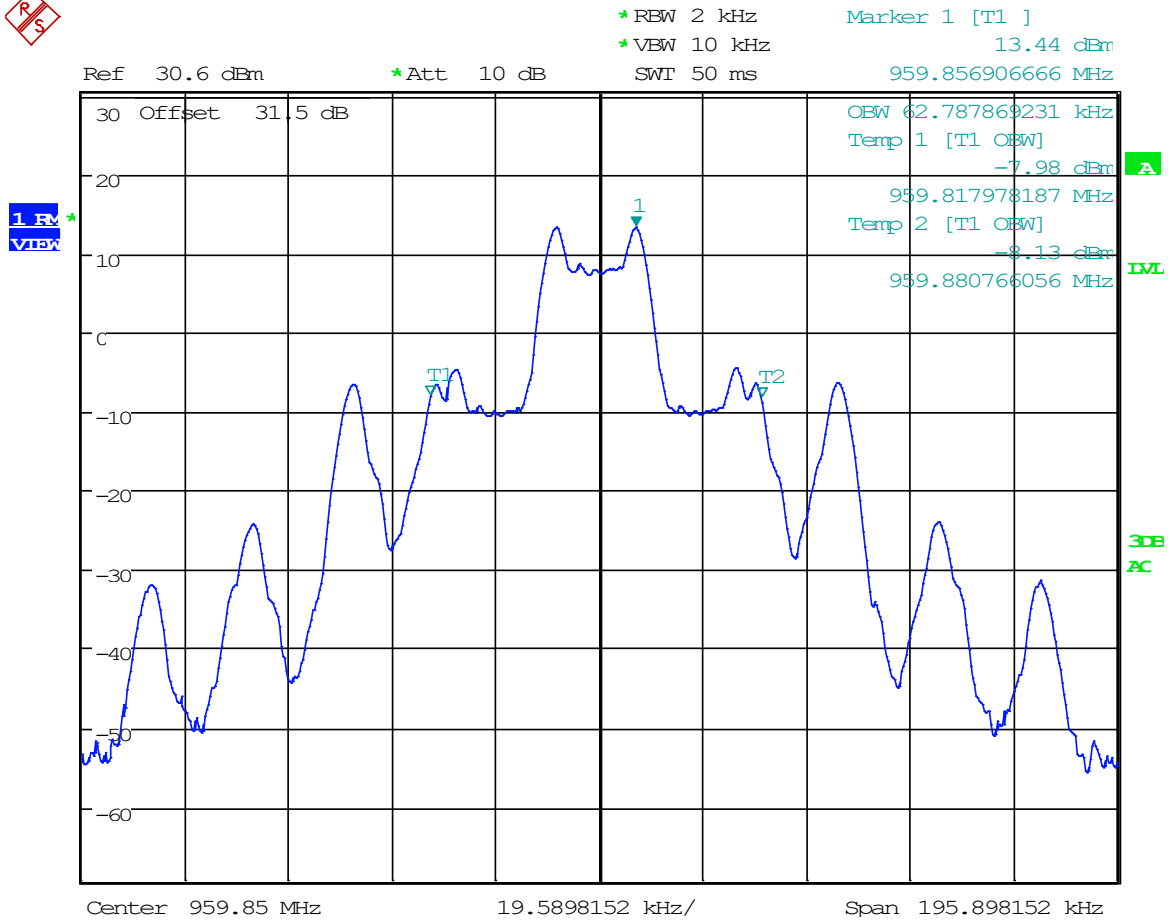
Date: 26.FEB.2024 10:44:06

### 8.2.5 99% Bandwidth Plot, Mode 2, 954 MHz



Date: 26.FEB.2024 10:46:15

### 8.2.6 99% Bandwidth Plot, Mode 2, 959.85 MHz

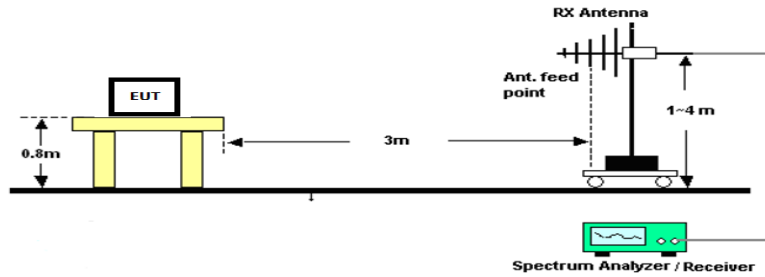


Date: 26.FEB.2024 10:47:21

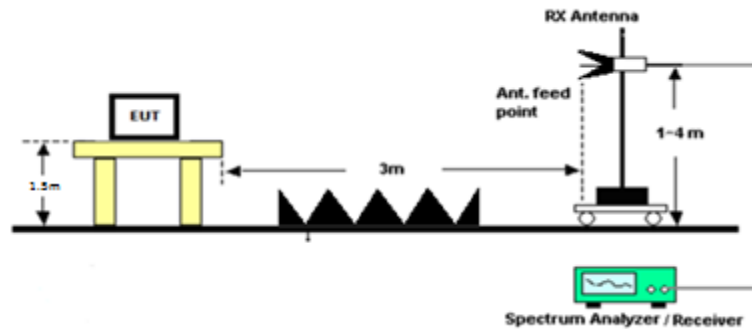
### 8.3 Radiated Emissions

Limits from 2.1053, 74.861(e)(6)(iii) and test procedure from ANSI C63.26 and KDB 206256 D01 Wireless Microphone Certification.

Radiated Test Setup, 30 – 1000 MHz



Radiated Test Setup, Above 1000 MHz





Radiated Emissions Tabular Data

8.3.1 Radiated Emissions Table, 941.5 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 (dBuV/m)	ERP (dBm)	Spurious Limit (dBm)	Margin (dB)
941.50	1883.00	PK	30.90	H	-5.11	31.39	3.00	57.18	-40.20	-13.00	27.20
941.50	1883.00	PK	41.90	V	-5.11	31.39	3.00	68.18	-29.20	-13.00	16.20
941.50	2824.50	PK	20.20	H	-6.34	32.50	3.00	46.37	-51.01	-13.00	38.01
941.50	2824.50	PK	24.40	V	-6.34	32.50	3.00	50.57	-46.81	-13.00	33.81
941.50	3766.00	PK	18.50	H	-7.30	33.22	3.00	44.42	-52.96	-13.00	39.96
941.50	3766.00	PK	22.00	V	-7.30	33.22	3.00	47.92	-49.46	-13.00	36.46
941.50	4707.50	PK	27.60	H	-8.20	34.07	3.00	53.48	-43.90	-13.00	30.90
941.50	4707.50	PK	32.20	V	-8.20	34.07	3.00	58.08	-39.30	-13.00	26.30
941.50	5649.00	PK	15.00	H	-9.02	34.95	3.00	40.93	-56.45	-13.00	43.45
941.50	5649.00	PK	15.10	V	-9.02	34.95	3.00	41.03	-56.35	-13.00	43.35
941.50	6590.50	PK	30.90	H	-9.78	35.79	3.00	56.91	-40.47	-13.00	27.47
941.50	6590.50	PK	30.10	V	-9.78	35.79	3.00	56.11	-41.27	-13.00	28.27
941.50	7532.00	PK	25.80	H	-10.38	36.14	3.00	51.56	-45.81	-13.00	32.81
941.50	7532.00	PK	27.70	V	-10.38	36.14	3.00	53.46	-43.91	-13.00	30.91
941.50	8473.50	PK	19.00	H	-11.03	35.97	3.00	43.94	-53.44	-13.00	40.44
941.50	8473.50	PK	21.90	V	-11.03	35.97	3.00	46.84	-50.54	-13.00	37.54
941.50	9415.00	PK	21.00	H	-11.56	36.47	3.00	45.91	-51.47	-13.00	38.47
941.50	9415.00	PK	20.70	V	-11.56	36.47	3.00	45.61	-51.77	-13.00	38.77

### 8.3.2 Radiated Emissions Table, 954 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)
954.00	1908.00	PK	28.80	H	-5.13	31.44	3.00	55.10	-42.27	-13.00	29.27
954.00	1908.00	PK	39.60	V	-5.13	31.44	3.00	65.90	-31.47	-13.00	18.47
954.00	2862.00	PK	21.20	H	-6.38	32.30	3.00	47.12	-50.25	-13.00	37.25
954.00	2862.00	PK	25.60	V	-6.38	32.30	3.00	51.52	-45.85	-13.00	32.85
954.00	3816.00	PK	20.40	H	-7.36	33.41	3.00	46.44	-50.93	-13.00	37.93
954.00	3816.00	PK	23.10	V	-7.36	33.41	3.00	49.14	-48.23	-13.00	35.23
954.00	4770.00	PK	31.10	H	-8.24	34.11	3.00	56.97	-40.41	-13.00	27.41
954.00	4770.00	PK	32.40	V	-8.24	34.11	3.00	58.27	-39.11	-13.00	26.11
954.00	5724.00	PK	17.20	H	-9.05	34.85	3.00	43.00	-54.38	-13.00	41.38
954.00	5724.00	PK	17.10	V	-9.05	34.85	3.00	42.90	-54.48	-13.00	41.48
954.00	6678.00	PK	27.40	H	-9.84	35.75	3.00	53.31	-44.07	-13.00	31.07
954.00	6678.00	PK	28.30	V	-9.84	35.75	3.00	54.21	-43.17	-13.00	30.17
954.00	7632.00	PK	23.70	H	-10.44	36.13	3.00	49.39	-47.98	-13.00	34.98
954.00	7632.00	PK	22.30	V	-10.44	36.13	3.00	47.99	-49.38	-13.00	36.38
954.00	8586.00	PK	21.60	H	-11.07	35.96	3.00	46.49	-50.89	-13.00	37.89
954.00	8586.00	PK	25.00	V	-11.07	35.96	3.00	49.89	-47.49	-13.00	34.49
954.00	9540.00	PK	20.90	H	-11.59	36.68	3.00	46.00	-51.38	-13.00	38.38
954.00	9540.00	PK	21.50	V	-11.59	36.68	3.00	46.60	-50.78	-13.00	37.78

### 8.3.3 Radiated Emissions Table, 959.85 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)
959.85	1919.70	PK	29.40	H	-5.17	31.36	3.00	55.59	-41.78	-13.00	28.78
959.85	1919.70	PK	39.20	V	-5.17	31.36	3.00	65.39	-31.98	-13.00	18.98
959.85	2879.55	PK	21.20	H	-6.40	32.28	3.00	47.08	-50.30	-13.00	37.30
959.85	2879.55	PK	25.40	V	-6.40	32.28	3.00	51.28	-46.10	-13.00	33.10
959.85	3839.40	PK	19.90	H	-7.40	33.46	3.00	45.97	-51.41	-13.00	38.41
959.85	3839.40	PK	22.70	V	-7.40	33.46	3.00	48.77	-48.61	-13.00	35.61
959.85	4799.25	PK	31.30	H	-8.26	34.19	3.00	57.23	-40.15	-13.00	27.15
959.85	4799.25	PK	33.90	V	-8.26	34.19	3.00	59.83	-37.55	-13.00	24.55
959.85	5759.10	PK	20.10	H	-9.08	34.83	3.00	45.84	-51.53	-13.00	38.53
959.85	5759.10	PK	20.70	V	-9.08	34.83	3.00	46.44	-50.93	-13.00	37.93
959.85	6718.95	PK	24.00	H	-9.86	35.74	3.00	49.88	-47.50	-13.00	34.50
959.85	6718.95	PK	25.50	V	-9.86	35.74	3.00	51.38	-46.00	-13.00	33.00
959.85	7678.80	PK	22.80	H	-10.47	36.15	3.00	48.48	-48.90	-13.00	35.90
959.85	7678.80	PK	21.90	V	-10.47	36.15	3.00	47.58	-49.80	-13.00	36.80
959.85	8638.65	PK	20.50	H	-11.12	35.96	3.00	45.34	-52.04	-13.00	39.04
959.85	8638.65	PK	26.40	V	-11.12	35.96	3.00	51.24	-46.14	-13.00	33.14
959.85	9598.50	PK	21.20	H	-11.58	36.80	3.00	46.42	-50.96	-13.00	37.96
959.85	9598.50	PK	21.70	V	-11.58	36.80	3.00	46.92	-50.46	-13.00	37.46

### 9. ANNEX-B – Test Setup Photographs

Test setup photographs are located in a separate document.

### 10. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_12361-24_FCC 74H_	1	Initial release	3/6/2024
	2		



13146 NW 86<sup>th</sup> Drive, Suite 400, Alachua, Florida 32615  
(352) 472-5500 / [testing@industrial-ia.com](mailto:testing@industrial-ia.com)

---

END OF TEST REPORT

---