

Radio Testing of the

ICOM Inc.
VHF Marine Transceiver IC-M430
In accordance with

FCC CFR Title 47 Part 2
FCC CFR Title 47 Part 80
RSS 182 Issue 6 Amendment 2 (August 2024)

ICOM Inc.



America

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Date: August 2026
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RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Authorized Signatory	Bhagyashree Chaudhary	August 31, 2026	

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

EXECUTIVE SUMMARY

The EUT in general was confirmed to be in compliance with FCC CFR Title 47 Part 2, FCC CFR Title 47 Part 80 and RSS 182 Issue 6 Amendment 2 (August 2024).



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REPORT ON	Radio Testing of the ICOM Inc. Model: IC-M430
TEST REPORT NUMBER	721021487A Rev.1
TEST REPORT DATE	August 2026
PREPARED FOR	ICOM Inc.
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APPROVED BY	 Bhagyashree Chaudhary Name Authorized Signatory Title: Senior Wireless Engineer
DATED	August 31, 2026



Revision History

721021487A Rev.1 ICOM Inc. Model:IC-M430					
DATE	OLD REVISION	NEW REVISION	REASON	PAGES AFFECTED	APPROVED BY
08/28/2026	—	Initial Release			Bhagyashree Chaudhary
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CONTENTS

1	REPORT SUMMARY	5
1.2	Brief Summary of Results	7
1.3	Product Information	8
1.4	EUT Test Configuration	10
1.5	Deviations From The Standard	13
1.6	Modification Record	13
1.7	Test Methodology	13
1.8	Test Facility Location	13
1.9	Test Facility Registration	13
2	TEST DETAILS	15
2.1	Trasmitter Output Power	16
2.2	Audio Frequency Response	21
2.3	Modulation Characteristics – Modulation Limiting	30
2.4	Occupied Bandwidth and Emissions Limitations	32
2.5	Spurious Emissions at The Antenna Terminal	42
2.6	Field Stgrength Spurious Emissions	52
2.7	Frequency Stability	62
2.8	Supression of Interference Aboard Ships	65
2.9	Power Line Conducted Emissions	71
2.10	Electromagnetic Radiation Disturbance	81
3	TEST EQUIPMENT USED	86
3.1	Test Equipment Used	87
3.2	Measurement Uncertainty	89
4	DIAGRAM OF TEST SETUP	92
4.1	Test Setup Diagram	93
5	ACCREDITATION, DISCLAIMERS AND COPYRIGHT	97
5.1	Accreditation, Disclaimers and Copyright	98



SECTION 1

1 REPORT SUMMARY

Radio Testing of the
ICOM Inc.
IC-M430



1.1 INTRODUCTION

The information contained in this report is intended to show verification of the ICOM Inc. Model: IC-M430 to the requirements of FCC CFR Title 47 Part 2, FCC CFR Title 47 Part 80 and RSS 182 Issue 6 Amendment 2 (August 2024).

Operating Mode	Emission Designator	Frequency (MHz)
Marine	16K0G3E	156.050
Merine	16K0G3E	157.425
DSC	16K0G2B	156.525

Objective	To perform Radio testing to determine the Equipment Under Test's (EUT's) compliance with the test specification, for the series of tests carried out.
Manufacturer	ICOM Inc.
EUT	VHF Marine Transceiver
HVIN	460100-01
Software version	N/A
Model Number(s)	IC-M430
Serial Number(s)	Marine: 00000051 DSC: 00000053
Number of Samples Tested	3
Test Specification/Issue/Date	- FCC CFR Title 47 Part 2 - FCC CFR Title 47 Part 80 - RSS 182 Issue 6 Amendment 2 (August 2024)
Start of Test	July 23, 2026
Finish of Test	August 18, 2026
Name of Engineer(s)	Omar Castillo [OC] Ferdinand S. Custodio [FSC] Rafael Aguilar Cota [RAC]
Related Document(s)	- ANSI C63.26, 2015 Edition, 2015- American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services - ANSI/TIA-603-E (2016) Land Mobile FM or PM Communications Equipment Measurement and Performance Standard. - KDB Publication 971168 April 09, 2018 - RSS-Gen Issue 6 – July 30, 2026 — General Requirements for Compliance of Radio Apparatus.

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC CFR Title 47 Part 2, FCC CFR Title 47 Part 80 and RSS 182 Issue 6 Amendment 2 (August 2024) with cross-reference to the corresponding ISED RSS standard are shown below:

Section	Spec Clause			Test Description	Result
	FCC CFR Title 47 Part 2	FCC CFR Title 47 Part 80	RSS 182 / RSS Gen/ ICES-003		
-	-	-	RSS 182, Section 5.2	Channel Spacing and Frequency plan.	Manufacturer Attestation
-	-	-	RSS 182, Section 5.3	Required operating frequencies.	Manufacturer Attestation
2.1	FCC 2.1046	80.215	RSS 182, Section 5.6	RF Power Output	Compliant
2.2	FCC 2.1047(a)	80.213(e)	-	Audio Frequency Response	Compliant
2.3	FCC 2.1047(b)	80.213	RSS 182, Sections 5.7 and 5.8	Modulation Characteristics - Modulation Limiting	Compliant
2.4	FCC 2.1049	80.205	RSS 182, Sections 5.4, 5.9	Occupied Bandwidth and Emission Limitations	Compliant
2.5	FCC 2.1051, 2.1057	80.211(f)(3)	RSS 182, Section 5.9	Spurious Emissions at Antenna Terminal	Compliant
2.6	FCC 2.1053, 2.1057	80.211(f)(3)	RSS 182, Section 5.9	Field Strength of Spurious Emissions	Compliant
2.7	FCC 2.1055	FCC 80.209	RSS 182, Section 5.5	Frequency Stability	Compliant
2.8	-	80.217	-	Suppression of Interference aboard ships	Compliant
-	-	-	RSS-Gen Section 6.4	External Control	Manufacturer Attestation
-	-	-	RSS-Gen, Section 6.8	Transmitter Antenna	Manufacturer Attestation
-	-	FCC 80.225	-	Requirements for selective calling equipment	Manufacturer Attestation
2.9	-	-	RSS-Gen 7.4.2	Digital Apparatus – AC Conducted Emissions	Compliant
2.10	-	-	RSS-Gen 7.4.3	Digital Apparatus Radiated Emissions	Compliant



1.3 PRODUCT INFORMATION

1.3.1 EUT Technical Description

The Equipment Under Test (EUT) VHF Marine Transceiver. Model Number IC-M430.

A full description and detailed product specifications are available from the manufacturer.



1.3.2 EUT General Description

EUT Description	VHF Marine Transceiver
Model Number(s)	IC-M430
Input Voltage	Battery
Mode Verified	Marine 156.050 MHz Marine 157.425 MHz DSC 156.525 MHz
Capability	TBD
Primary Unit (EUT)	☐ Production ☒ Pre-Production ☐ Engineering
Manufacturer Declared Voltage	13.8 VDC (EUT)
Manufacturer Declared Temperature Range	-20°C to 60°C (-4°F to 140°F)
Maximum Antenna Gain	9dBi (with a source-based time average duty cycle of 50% at 246 cm distance)

1.3.3 Maximum Conducted Output Power

Operating Mode	Emission Designator	Frequency (MHz)	Power (dBm)	Power (W)
Marine	16K0G3E	156.050	43.90	24.55
Marine	16K0G3E	157.425	43.90	24.55
DSC	16K0G2B	156.525	43.90	24.55



1.4 EUT TEST CONFIGURATION

1.4.1 Test Configuration Description

Test Configuration	Description
Test Mode (Marine)	The EUT was configured via the front panel menu to transmit on 156.05 MHz and 157.425 MHz. The front panel controls were also used to switch the output power between 25 W and 1 W. A modulation Jig was utilized to inject the Audio Frequency into the EUT.
Test Mode (DSC)	The EUT was configured via the front panel menu to transmit on 156.525 MHz. The front panel controls were also used to switch the output power between 25 W and 1 W and to enable the Audio Frequency at 1200Hz and 1300Hz.

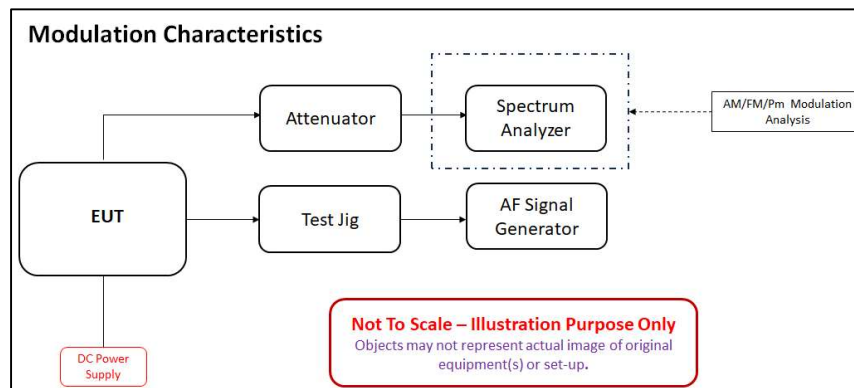
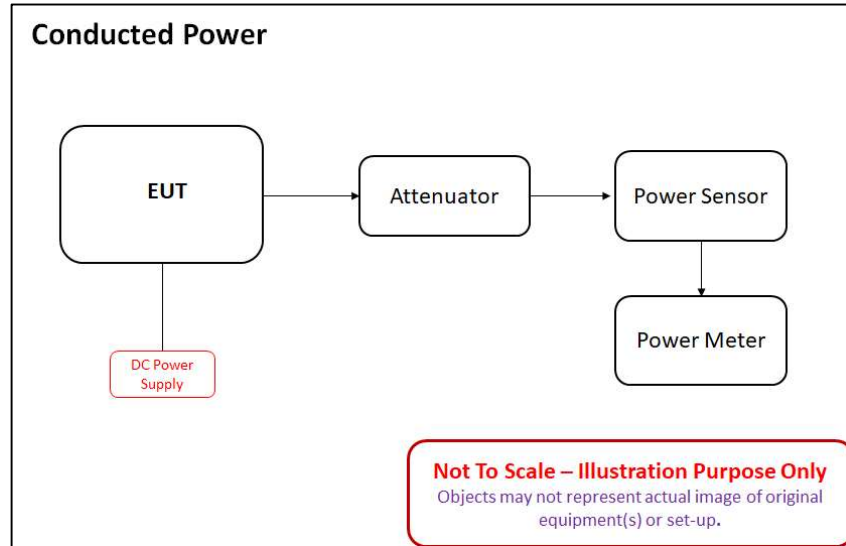
1.4.2 EUT Exercise Software

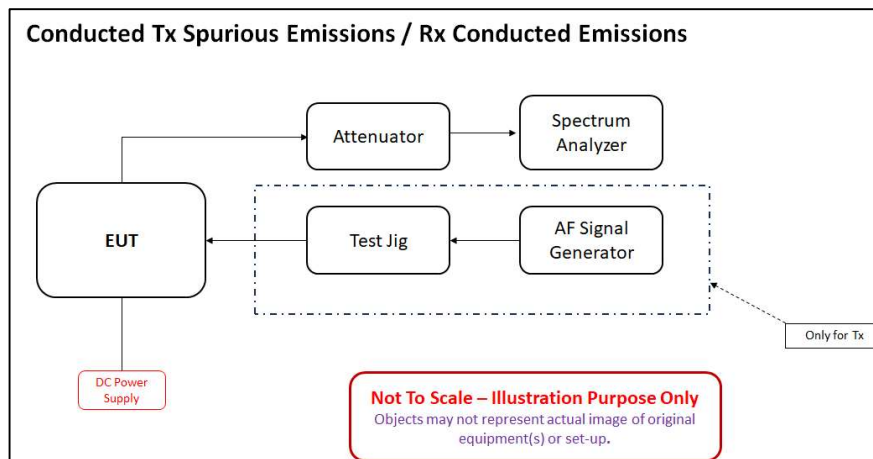
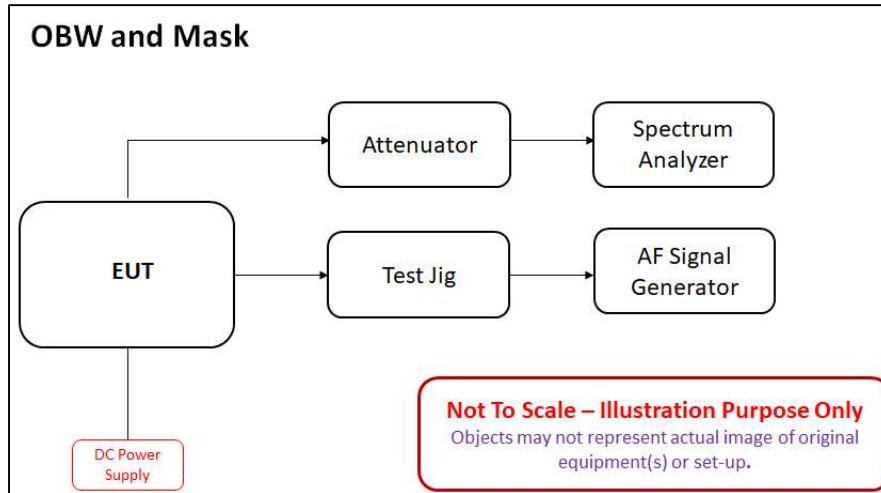
None

1.4.3 Support Equipment and I/O cables

Manufacturer	Equipment/Cable	Description
Icom	Modulation Jig	B-8323
Icom	GNSS Antenna	Model: UX-241 SN: 16010016
Icom	Speaker Microphone	Model: HM-205B
Icom	COMMAND MICROPHONE	Model: HM-195SW SN:02001971

1.4.4 Simplified Test Configuration Diagram







1.5 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.6 MODIFICATION RECORD

Description of Modification	Modification Fitted By	Date Modification Fitted
Serial Number: Marine: 00000051 and DSC: 00000053		
None	—	—

The table above details modifications made to the EUT during the test program. The modifications incorporated during each test (if relevant) are recorded on the appropriate test pages.

1.7 TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.26, 2015 Edition, 2015-American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

For conducted and radiated emissions, the equipment under test (EUT) was configured to measure its highest possible emission level. This level was based on the maximized cable configuration from exploratory testing per ANSI C63.26, 2015. The test modes were adapted according to the Operating Instructions provided by the manufacturer/client.

1.8 TEST FACILITY LOCATION

TÜV SÜD America Inc. (Mira Mesa)

10040 Mesa Rim Road, San Diego, CA 92121-2912 (32.901268,-117.177681). Phone: 858 678 1400
FAX: 858 546 0364

1.9 TEST FACILITY REGISTRATION

1.9.1 FCC – Designation No.: US1146

TÜV SÜD America Inc. (San Diego), is an accredited test facility with the site description report on file and has met all the requirements specified in §2.948 of the FCC rules. The acceptance letter from the FCC is maintained in our files and the Designation is US1146.



1.9.2 Innovation, Science and Economic Development Canada (IC) Registration No.: 3067A-1 & 22806-1

The 3m Semi-anechoic chamber of TÜV SÜD America Inc. (San Diego Mira Mesa) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 22806-1.

1.9.3 BSMI – Laboratory Code: SL2-IN-E-028R (US0102)

TÜV Product Service Inc. (San Diego) is a recognized EMC testing laboratory by the BSMI under the MRA (Mutual Recognition Arrangement) with the United States. Accreditation includes CNS 13438 up to 6GHz.

1.9.4 NCC (National Communications Commission - US0102)

TÜV SÜD America Inc. (San Diego) is listed as a Foreign Recognized Telecommunication Equipment Testing Laboratory and is accredited to ISO/IEC 17025 (A2LA Certificate No.2955.13) which under APEC TEL MRA Phase 1 was designated as a Conformity Assessment Body competent to perform testing of equipment subject to the Technical Regulations covered under its scope of accreditation including RTTE01, PLMN01 and PLMN08 for TTE type of testing and LP002 for Low-Power RF Device type of testing.

1.9.5 VCCI – Registration No. A-0412

TÜV SÜD America Inc. (San Diego) is a VCCI registered measurement facility which includes radiated field strength measurement, radiated field strength measurement above 1GHz, mains port interference measurement and telecommunication port interference measurement.

1.9.6 RRA – Identification No. US0102

TÜV SÜD America Inc. (San Diego) is National Radio Research Agency (RRA) recognized laboratory under Phase I of the APEC Tel MRA.

1.9.7 OFCA – U.S. Identification No. US0102

TÜV SÜD America Inc. (San Diego) is recognized by Office of the Communications Authority (OFCA) under Appendix B, Phase I of the APEC Tel MRA.



SECTION 2

2 TEST DETAILS

Radio Testing of the
ICOM Inc.
IC-M430



2.1 TRANSMITTER OUTPUT POWER

2.1.1 Specification Reference

FCC CFR Title 47 Part 2
FCC CFR Title 47 Part 80.215
RSS 182 Issue 6 Amendment 2 (August 2024) Clause 5.6

2.1.2 Standard Applicable

FCC CFR Title 47 Part 80.215 (e) Ship stations frequencies above 27500 kHz. The maximum power must not exceed the values listed below.

- (1) Ship stations 156-162 MHz—25W[6]
- (2) Ship stations 216-220 MHz—25W[7]
- (3) On board stations 456-468 MHz—4W[8]
- (4) Ship earth stations 1626.5-1646.5 MHz[9]
- (5) Ship radar stations with F3N emission—200 mW
- (6) EPIRB—121.500 and 243.00 MHz[10]
- (7) EPIRB—156.750 and 156.800 MHz¹

RSS 182 Section 5.6

Table 3: Transmitter output power	
Radio equipment type	Maximum power
Coast station	50 W
Ship station	25 W
Shipborne hand-held portable transmitter	6 W

2.1.3 Equipment Under Test and Modification State

Serial No: Marine: 00000051 and DSC: 00000053/ Test Mode Configuration

2.1.4 Date of Test/Initial of test personnel who performed the test

July 23, 2026 / OC.

2.1.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature	22.9 °C
Relative Humidity	40.1 %
ATM Pressure	99.56 kPa

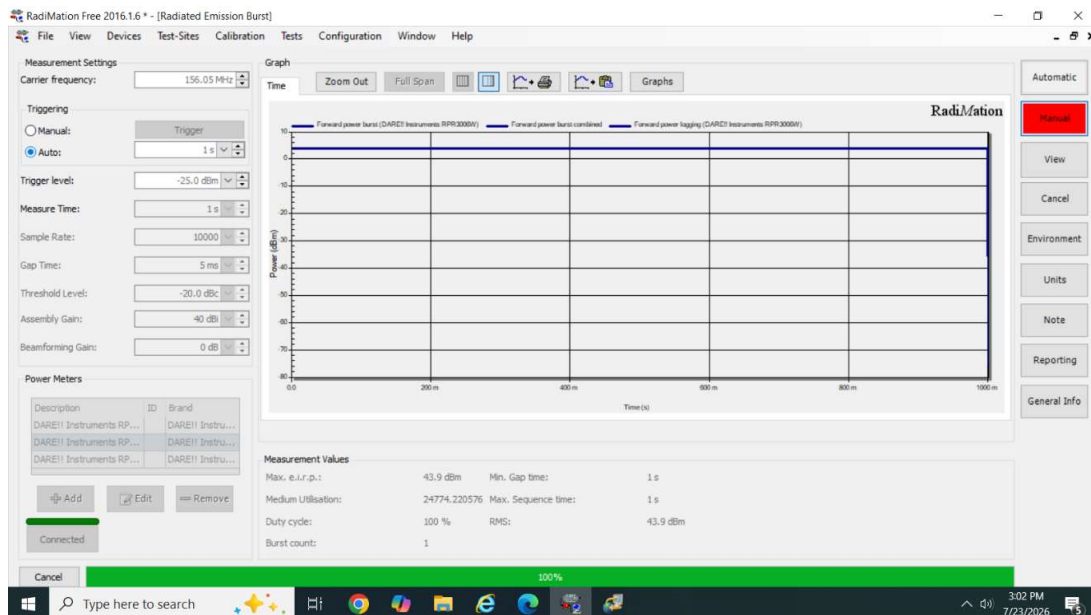
2.1.7 Additional Observations

- This is a conducted test.
- Transmitter Power was measured with a Power Sensor (Burst Measurement).
- Compensation for cable loss and RF attenuator path loss was applied during the measurement.
- Test method was performed per ANSI C63.26, 2015 Edition, 2015 Section 5.2.
- Test was performed under normal environment conditions.
- Test setup Pictures will be provided on separate exhibits.

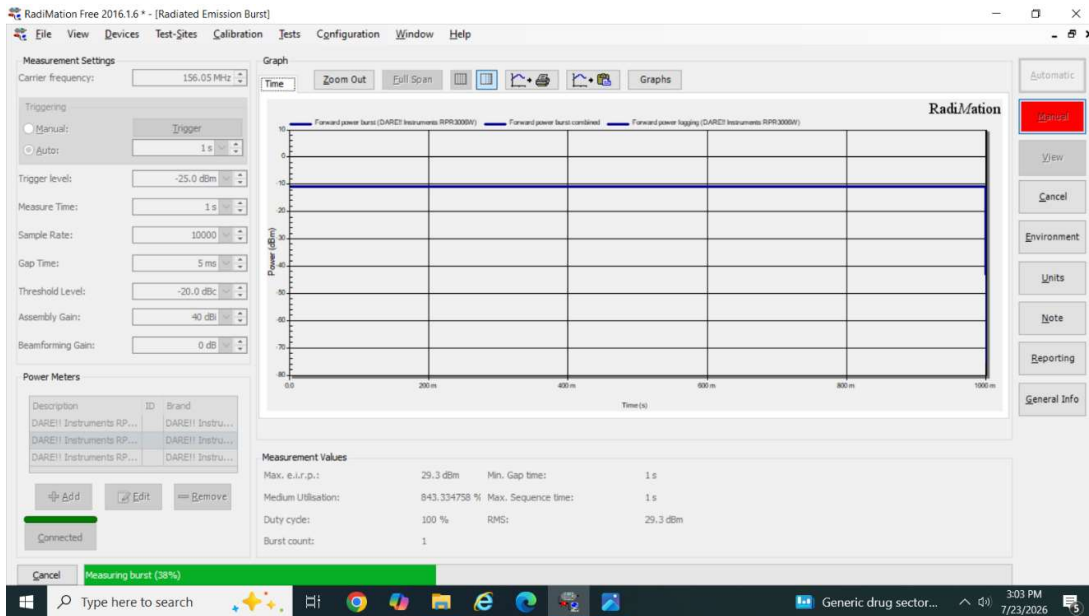
2.1.8 Test Results

Channel	Frequency (MHz)	Power Level on EUT (Watts)	AVG Output Power (dBm)	AVG Output Power (Watts)
CH01A	156.05	25	43.90	24.55
		1	29.30	0.85
CH88	157.425	25	43.90	24.55
		1	29.40	0.87
P4 DSC	156.525	25	43.90	24.55
		1	29.20	0.83
EUT Complies				

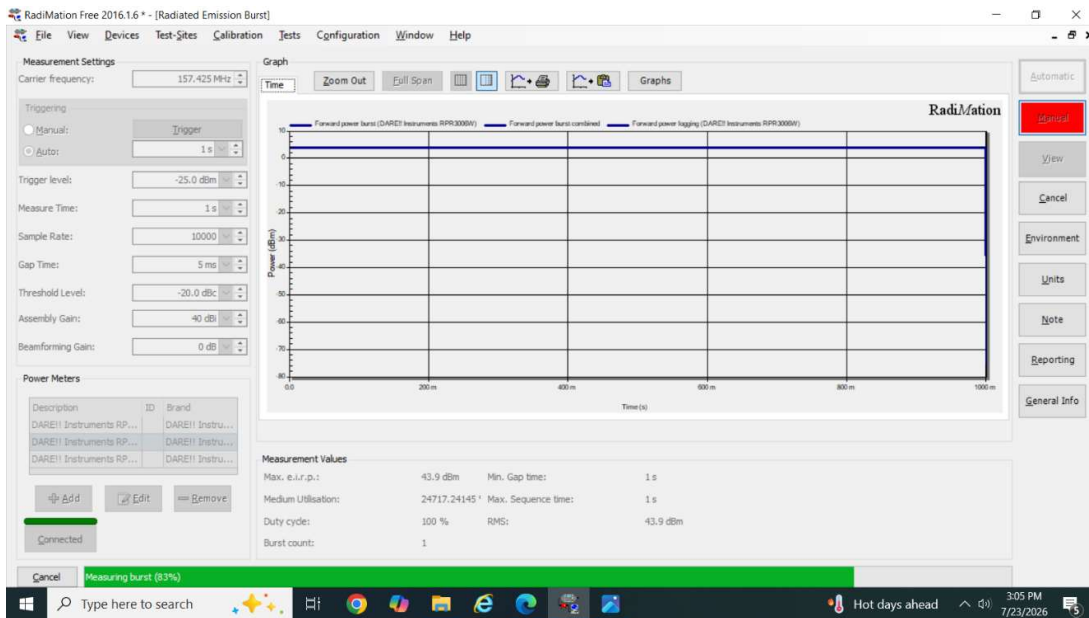
2.1.9 Test Plots



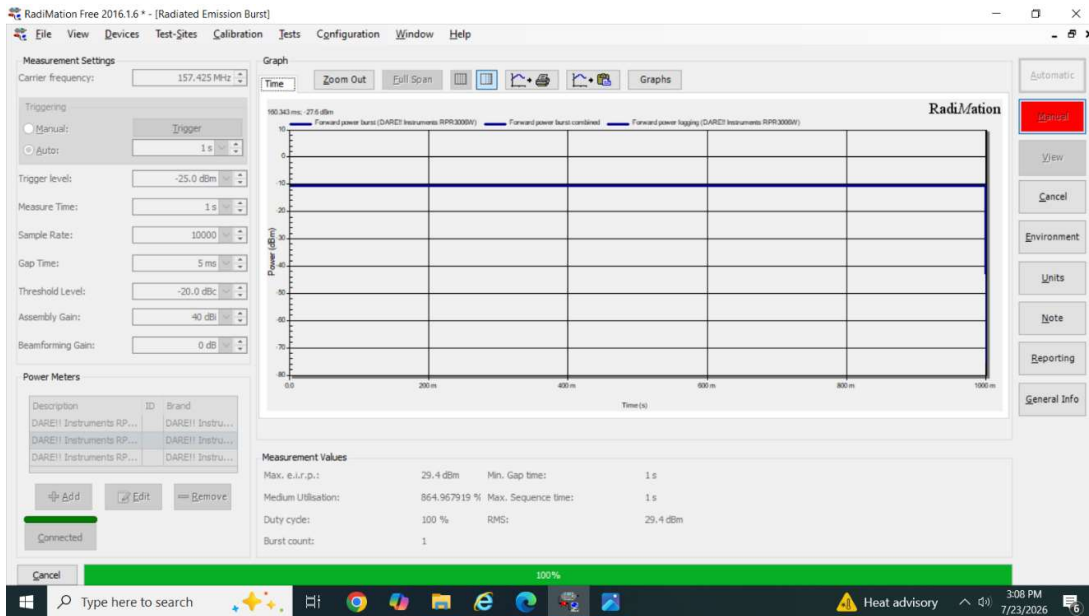
156.05MHz pwr rms_25W



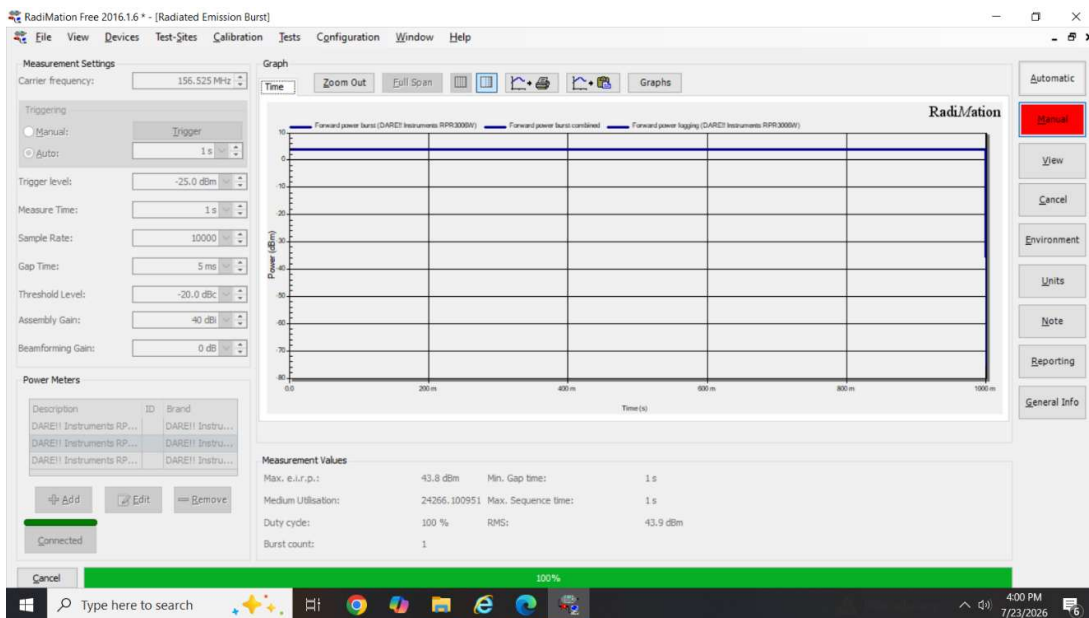
156.05MHz pwr rms_1W



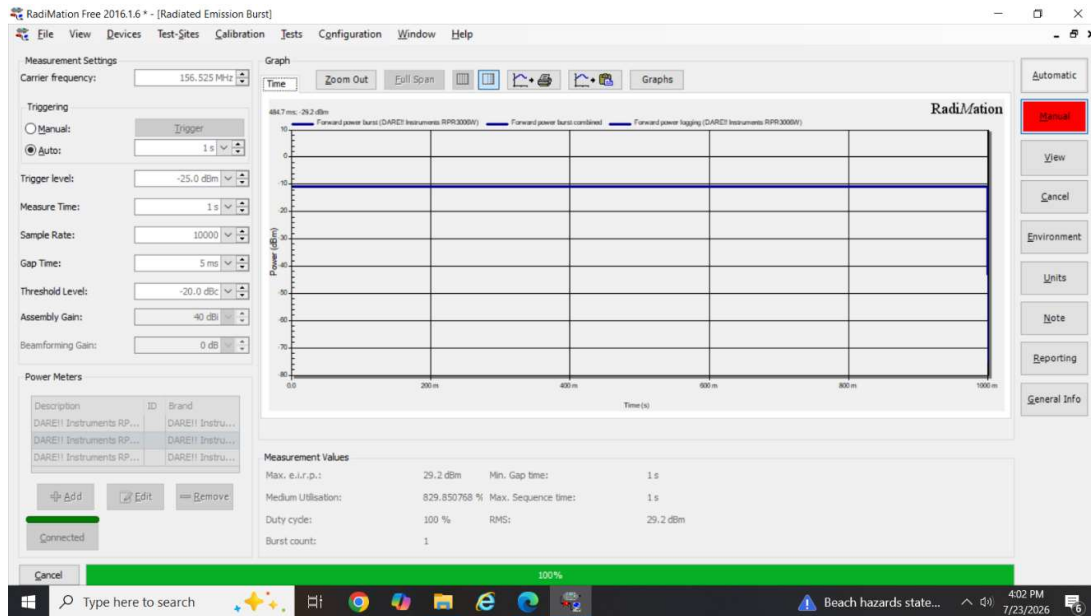
157.425MHz pwr rms_25W



157.425MHz pwr rms_1W



156.525 MHz DSC pwr rms_25W



156.525 DSC 1300Hz pwr rms_1W



2.2 AUDIO FREQUENCY RESPONSE

2.2.1 Specification Reference

FCC CFR Title 47 Part 2.1047(a)
RSS 182 Clause 5.4

2.2.2 Standard Applicable

§2.1047(a) Voice modulated communication equipment. A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted. For equipment required to have an audio low-pass filter, a curve showing the frequency response of the filter, or of all circuitry installed between the modulation limiter and the modulated stage shall be submitted.

2.2.3 Equipment Under Test and Modification State

Serial No: Marine: 00000051 / Test Mode Configuration

2.2.4 Date of Test/Initial of test personnel who performed the test

August 18, 2026 / FSC.

2.2.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature	23.1 °C
Relative Humidity	50.3 %
ATM Pressure	99.9 kPa

2.2.7 Additional Observations

- For AFR, the Constant Input Test Method per TIA-603 E is used.
- Using Peak Positive deviation, the 1kHz tone is adjusted to produce 20% of the rated system deviation. Channel used is 156.05MHz.
- The Audio Frequency Response is calculated using the formula:

$$AFR = 20\log \frac{DEVFREQ}{DEVREF}$$

- There is no specific AFR limit specified under Part 80 other than the modulation limit of 5KHz (full rated system deviation of the EUT is 4.4kHz), limit used is +1 dB / -3 dB per TIA-603 E Clause 3.2.6.
- For Audio Low Pass Filter Response (TIA-603 E Clause 2.2.15), full rated system deviation is used (100%). Channels used is 156.7375MHz.
- Test Setup Photo will be provided as a separate exhibit.

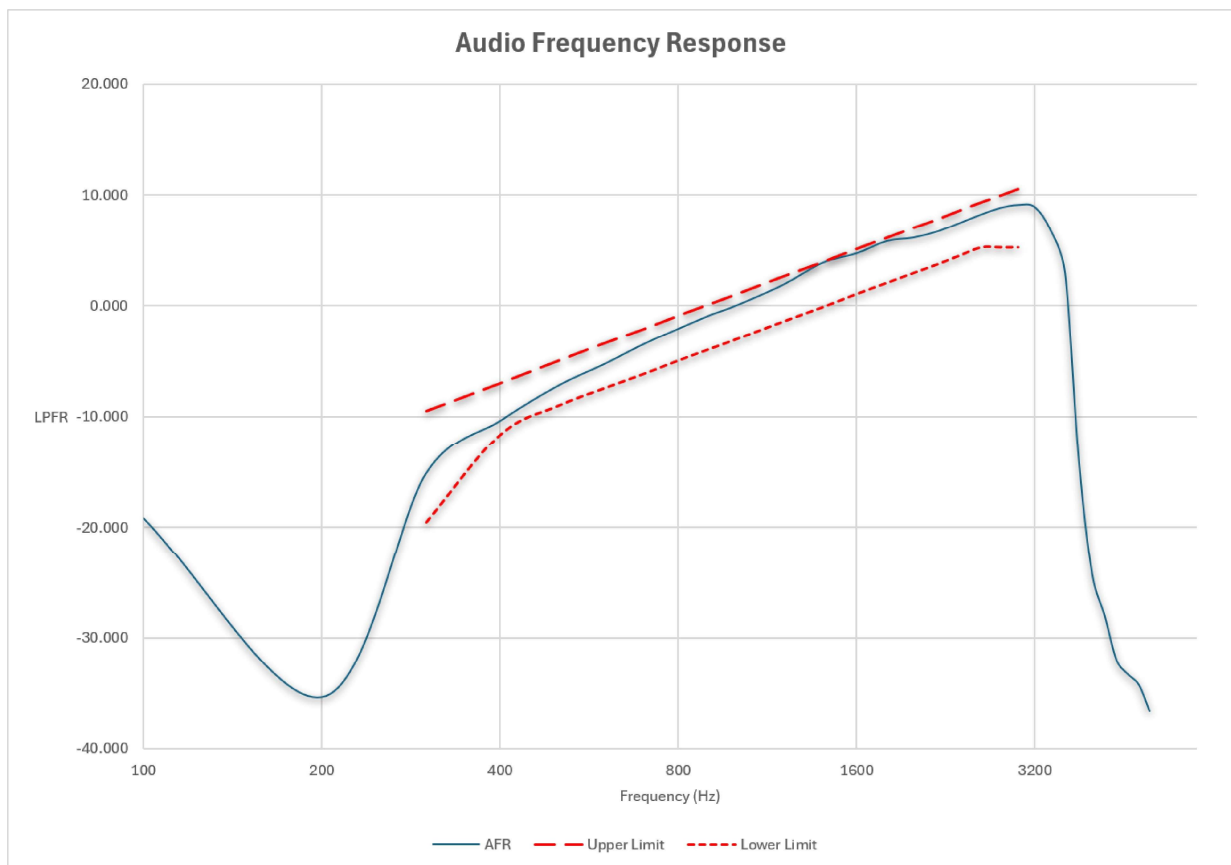


2.2.8 Test Results

Frequency (Hz)	Audio Frequency Response	
	DEV_{FREQ}	AFR
100	0.097	-19.154
200	0.015	-35.368
300	0.153	-15.196
400	0.266	-10.392
500	0.382	-7.248
600	0.48	-5.265
700	0.591	-3.458
800	0.693	-2.075
900	0.793	-0.904
1000	0.88	0.000
1200	1.09	1.859
1400	1.37	3.845
1600	1.515	4.719
1800	1.72	5.821
2000	1.784	6.138
2200	1.906	6.713
2400	2.085	7.492
2600	2.271	8.235
2800	2.429	8.819
3000	2.505	9.087
3200	2.452	8.901
3400	1.935	6.844
3600	1.2369	2.957
3800	0.174	-14.079
4000	0.054	-24.242
4200	0.035	-28.008



4400	0.022	-32.041
4600	0.019	-33.315
4800	0.017	-34.281
5000	0.013	-36.611



Frequency (Hz)	Low Pass Filter Response	
	LEV_{REF} (dB)	LPFR
100	-50.59	-31.55
200	-35.76	-16.72
300	-29.89	-10.85
400	-26.6	-7.56
500	-24.45	-5.41



600	-22.87	-3.83
700	-21.38	-2.34
800	-20.24	-1.2
900	-19.57	-0.53
1000	-19.04	0
1100	-19.07	-0.03
1200	-19.12	-0.08
1300	-19.23	-0.19
1400	-19.89	-0.85
1500	-19.45	-0.41
1600	-19.54	-0.5
1700	-19.79	-0.75
1800	-19.61	-0.57
1900	-19.65	-0.61
2000	-19.79	-0.75
2100	-19.76	-0.72
2200	-19.76	-0.72
2300	-19.76	-0.72
2400	-19.97	-0.93
2500	-20.09	-1.05
2600	-20.26	-1.22
2700	-20.85	-1.81
2800	-20.68	-1.64
2900	-21.06	-2.02
3000	-21.32	-2.28
3100	-21.71	-2.67
3200	-22.15	-3.11
3300	-22.6	-3.56
3400	-23.18	-4.14



3500	-23.8	-4.76
3600	-24.45	-5.41
3700	-25.11	-6.07
3800	-25.76	-6.72
3900	-26.37	-7.33
4000	-27.14	-8.1
4100	-27.74	-8.7
4200	-28.54	-9.5
4300	-29.22	-10.18
4400	-29.87	-10.83
4500	-30.53	-11.49
4600	-31.35	-12.31
4700	-31.94	-12.9
4800	-32.73	-13.69
4900	-33.45	-14.41
5000	-34.13	-15.09
5100	-34.72	-15.68
5200	-35.42	-16.38
5300	-35.94	-16.9
5400	-36.49	-17.45
5500	-37.14	-18.1
5600	-37.78	-18.74
5700	-38.37	-19.33
5800	-38.94	-19.9
5900	-39.67	-20.63
6000	-40.07	-21.03
6100	-40.71	-21.67
6200	-41.15	-22.11
6300	-41.71	-22.67



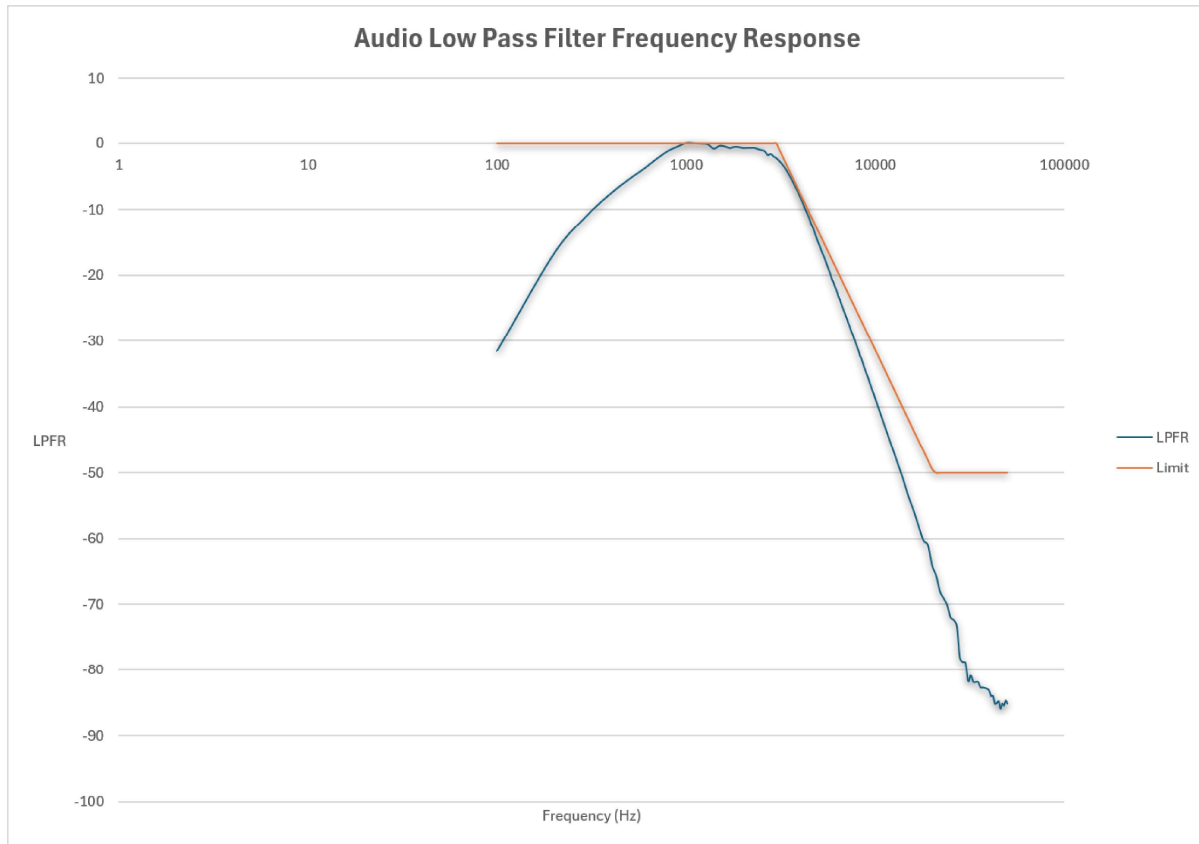
6400	-42.37	-23.33
6500	-42.75	-23.71
6600	-43.36	-24.32
6700	-43.85	-24.81
6800	-44.35	-25.31
6900	-44.82	-25.78
7000	-45.33	-26.29
7100	-45.75	-26.71
7200	-46.32	-27.28
7300	-46.71	-27.67
7400	-47.25	-28.21
7500	-47.73	-28.69
7600	-48.07	-29.03
7700	-48.65	-29.61
7800	-49.01	-29.97
7900	-49.49	-30.45
8000	-49.94	-30.9
8100	-50.34	-31.3
8200	-50.75	-31.71
8300	-51.33	-32.29
8400	-51.57	-32.53
8500	-52.01	-32.97
8600	-52.41	-33.37
8700	-52.9	-33.86
8800	-53.27	-34.23
8900	-53.68	-34.64
9000	-54.07	-35.03
9100	-54.38	-35.34
9200	-54.78	-35.74



9300	-55.22	-36.18
9400	-55.6	-36.56
9500	-55.94	-36.9
9600	-56.38	-37.34
9700	-56.72	-37.68
9800	-56.95	-37.91
9900	-57.43	-38.39
10000	-57.76	-38.72
11000	-61.19	-42.15
12000	-64.29	-45.25
13000	-67.2	-48.16
14000	-69.88	-50.84
15000	-72.65	-53.61
16000	-74.85	-55.81
17000	-77.21	-58.17
18000	-79.31	-60.27
19000	-80.01	-60.97
20000	-83.17	-64.13
21000	-84.7	-65.66
22000	-87.06	-68.02
23000	-88.11	-69.07
24000	-89.11	-70.07
25000	-90.94	-71.9
26000	-91.36	-72.32
27000	-92.25	-73.21
28000	-97.01	-77.97
29000	-97.7	-78.66
30000	-97.8	-78.76
31000	-100.7	-81.66



32000	-99.92	-80.88
33000	-100.86	-81.82
34000	-100.9	-81.86
35000	-100.9	-81.86
36000	-101.7	-82.66
37000	-101.72	-82.68
38000	-101.8	-82.76
39000	-101.9	-82.86
40000	-102.2	-83.16
41000	-103	-83.96
42000	-103.01	-83.97
43000	-104.2	-85.16
44000	-104.05	-85.01
45000	-103.85	-84.81
46000	-104.92	-85.88
47000	-104.17	-85.13
48000	-104.39	-85.35
49000	-103.7	-84.66
50000	-104.16	-85.12





2.3 MODULATION CHARACTERISTICS – MODULATION LIMITING

2.3.1 Specification Reference

FCC CFR Title 47 Part 2.1047(b)
FCC CFR Title 47 Part 80.213 (a)(2), (b) and (d)
RSS 182 Clause 5.8

2.3.2 Standard Applicable

§2.1047(b) Equipment which employs modulation limiting. A curve or family of curves showing the percentage of modulation versus the modulation input voltage shall be supplied. The information submitted shall be sufficient to show modulation limiting capability throughout the range of modulating frequencies and input modulating signal levels employed.

§18.213(a)(2) When phase or frequency modulation is used in the 156-162 MHz band the peak modulation must be maintained between 75 and 100 percent. A frequency deviation of ± 5 kHz is defined as 100 percent peak modulation

§18.213(b) Radiotelephone transmitters using A3E, F3E and G3E emission must have a modulation limiter to prevent any modulation over 100 percent. This requirement does not apply to survival craft transmitters, to transmitters that do not require a license or to transmitters whose output power does not exceed 3 watts.

§18.213(d) Ship and coast station transmitters operating in the 156-162 MHz and 216-220 bands must be capable of proper operation with a frequency deviation that does not exceed ± 5 kHz when using any emission authorized by [§ 80.207](#).

2.3.3 Equipment Under Test and Modification State

Serial No: Marine: 00000051 / Test Mode Configuration

2.3.4 Date of Test/Initial of test personnel who performed the test

August 17, 2026 / FSC.

2.3.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

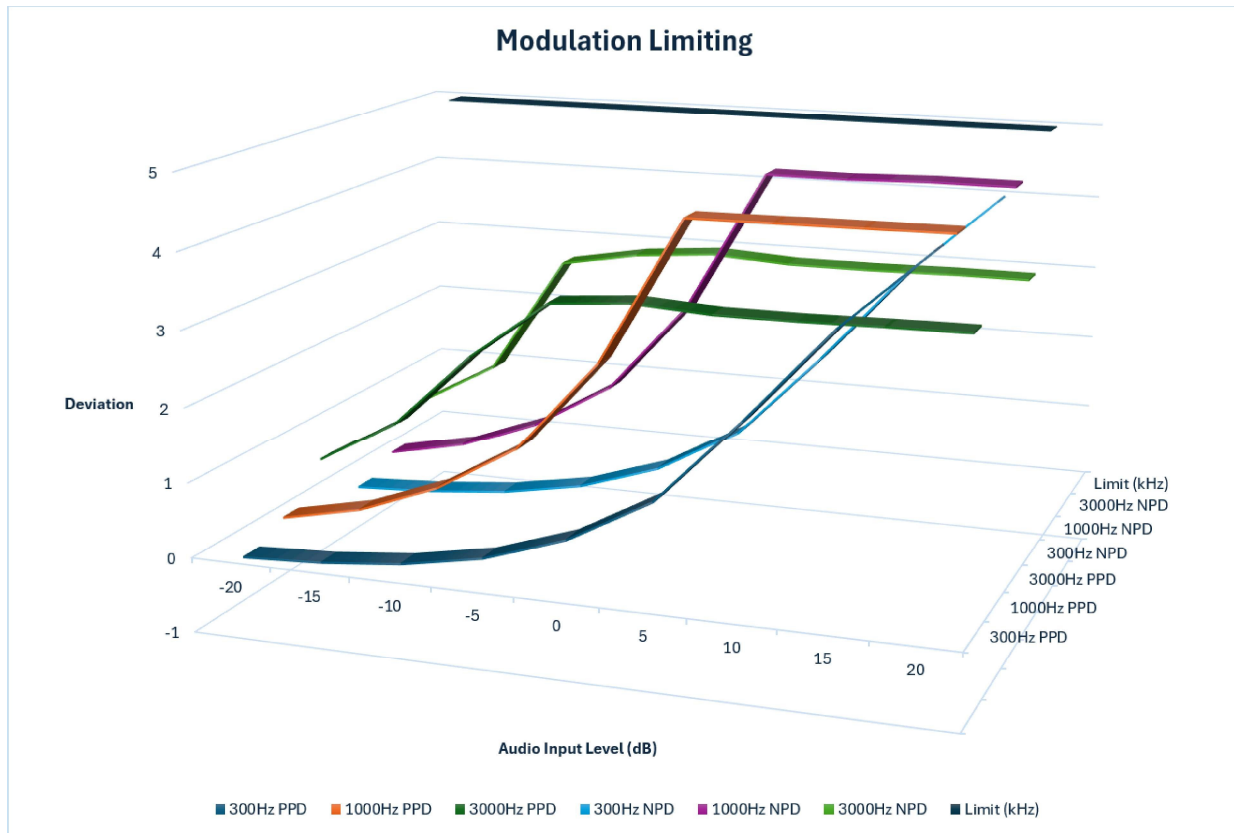
Ambient Temperature	25.7 °C
Relative Humidity	45.4 %
ATM Pressure	99.9 kPa

2.3.7 Additional Observations

For this test, the 1kHz tone is adjusted to produce 60% of the rated system deviation. Channel used is 156.05MHz.

2.3.8 Test Results

Audio Input Level (dB)	Positive Peak Deviation (PPD) (kHz)			Negative Peak Deviation (NPD) (kHz)			Limit (kHz)
	300 Hz	1000 Hz	3000Hz	300 Hz	1000 Hz	3000Hz	
-20	-0.034	0.172	0.672	-0.036	0.175	0.688	5
-15	0.02	0.398	1.28	0.02	0.402	1.283	
-10	0.128	0.805	2.301	0.125	0.803	2.909	
-5	0.326	1.44	3.108	0.319	1.44	3.103	
0	0.69	2.66	3.194	0.677	2.66	3.193	
5	1.29	4.56	3.13	1.29	4.56	3.13	
10	2.41	4.57	3.13	2.4	4.56	3.13	
15	3.61	4.58	3.15	3.61	4.59	3.15	
20	4.59	4.59	3.16	4.59	4.59	3.15	





2.4 OCCUPIED BANDWIDTH AND EMISSIONS LIMITATIONS

2.4.1 Specification Reference

FCC CFR Title 47 Part 2
FCC CFR Title 47 Part 80.205
RSS 182 Issue 6 Amendment 2 (August 2024) Clause 5.4 and 5.9

2.4.2 Standard Applicable

FCC CFR Title 47 Part 80.205 (e)

An emission designator shows the necessary bandwidth for each class of emission of a station except that in ship earth stations it shows the occupied or necessary bandwidth, whichever is greater. The following table gives the class of emission and corresponding emission designator and authorized bandwidth:

Emission Designator	Maximum Authorized Bandwidth (kHz)	Channel Spacing (kHz)	Frequency Deviation (kHz)	Applicable Mask
16K0G3E	20	25	5	<u>FCC CFR Title 47 Part 80.211 (f)</u>

FCC CFR Title 47 Part 80.211 (f)

- (1) On any frequency removed from the assigned frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: At least 25 dB;
- (2) On any frequency removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: At least 35 dB; and
- (3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least 43 plus $10\log_{10}$ (mean power in watts) dB

RSS 182 Section 5.4

The authorized channel bandwidth for voice shall be 16 kHz; and
The authorized channel bandwidth for data shall be 20 kHz.

RSS 182 Section 5.9.1 Emission mask B for equipment with 25 kHz channel spacing

Emission mask B is for FM or PM equipment with 25 kHz channel spacing and an authorized bandwidth of 16 kHz for voice or 20 kHz for data, with or without an audio low-pass filter. The power of unwanted emissions shall be attenuated below the transmitter's output power "p" (dBW) as follows:

- I. at least 25 dB, measured with a bandwidth of 300 Hz, on any frequency removed from the carrier frequency by more than 50%, but not more than 100% of the authorized bandwidth;
- II. at least 35 dB, measured with a bandwidth of 300 Hz, on any frequency removed from the carrier frequency by more than 100%, but not more than 250% of the authorized bandwidth; and
- III. at least $43 + 10 \log_{10} p$ (W) dB, measured with a bandwidth of 30 kHz, on any frequency removed from the carrier frequency by more than 250% of the authorized bandwidth



2.4.3 Equipment Under Test and Modification State

Serial No: Marine: 00000051 and DSC: 00000053/ Test Mode Configuration

2.4.4 Date of Test/Initial of test personnel who performed the test

July 24, 2026 / OC.

2.4.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature 23.0 °C
Relative Humidity 41.3 %
ATM Pressure 99.77 kPa

2.4.7 Additional Observations

- This is a conducted test.
- Both Occupied Bandwidth and Emissions Mask were measured.
- 99% Occupied Function on spectrum analyzer was utilized.
- RBW is 300Hz, VBW is 3kHz, detector is Peak and Trace is maxhold.
- Compensation for cable loss and RF attenuator path loss was applied as an offset during the measurement.
- Compliance was evaluated by modulating the transmitter with a 2500 Hz tone at an audio input level 16 dB greater than that required to achieve 50% modulation. The baseline input level was determined at the frequency of maximum response of the audio modulating circuit.
- The EUT was operated using digital modulation at the maximum rated symbol rate and input amplitude. The modulation signal was applied through all filter networks, pseudo-random generators, and associated circuitry required for normal service. Occupied bandwidth measurements were performed under these conditions and repeated with optional user-selectable spectrum modification functions enabled, as applicable.
- For DSC measurements, the EUT was configured via the user menu with the 1300 Hz and 2100 Hz signal options.
- Test method was performed per ANSI C63.26, 2015 Edition, 2015 Sections 5.4 and 5.7.
- Test was performed under normal environment conditions.
- Test setup Pictures will be provided on separate exhibits.

2.4.8 Test Results 99% OBW

Channel	Frequency (MHz)	Channel Spacing (kHz)	EUT Power Setting (W)	Measured 99% OBW	Authorized Bandwidth
CH01A	156.05	25	25	14.81	16*/20
		25	1	14.82	16*/20
CH88	157.425	25	25	14.82	16*/20
		25	1	14.81	16*/20
P88 DSC 1300 Hz	156.525	25	25	7.95	16*/20
		25	1	7.94	16*/20
P88 DSC 2100 Hz		25	25	12.76	16*/20
		25	1	12.77	16*/20
EUT Complies					

EUT **Complies**

2.4.9 Test Plots OBW



99% OBW 156.05MHz 1W



99% OBW 156.05MHz 25W



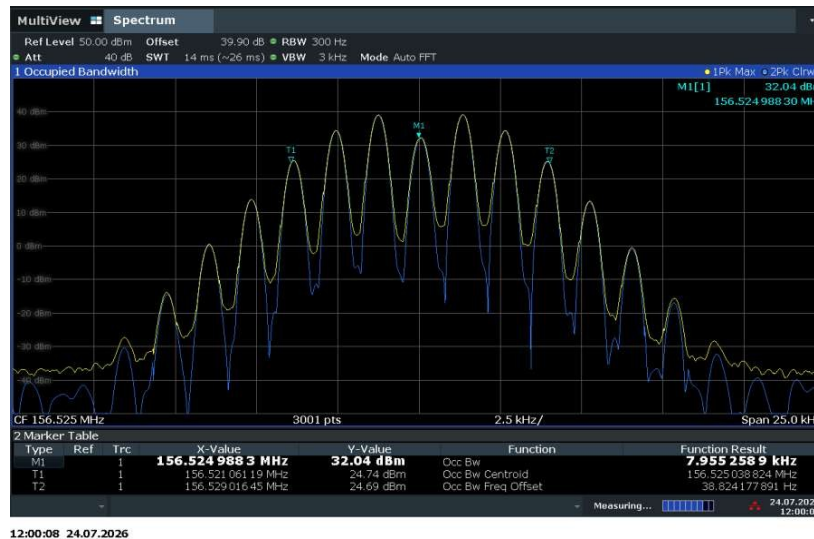
99% OBW 157.425MHz 1W



99% OBW 157.425MHz 25W



99% OBW 156.525MHz DSC 1300Hz 1W



99% OBW 156.525MHz DSC 1300Hz 25W

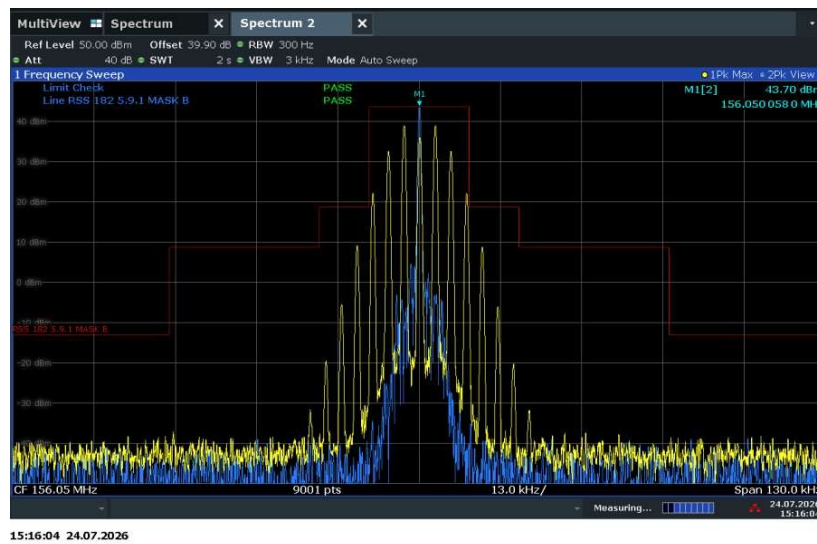
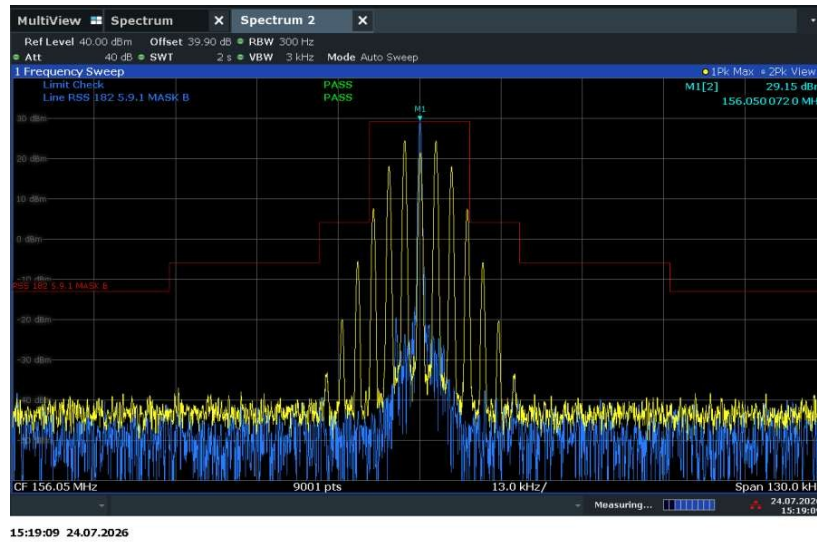


99% OBW 156.525MHz DSC 2100Hz 1W



99% OBW 156.525 DSC 2100Hz 25W

2.4.10 Test Plots Emissions Mask





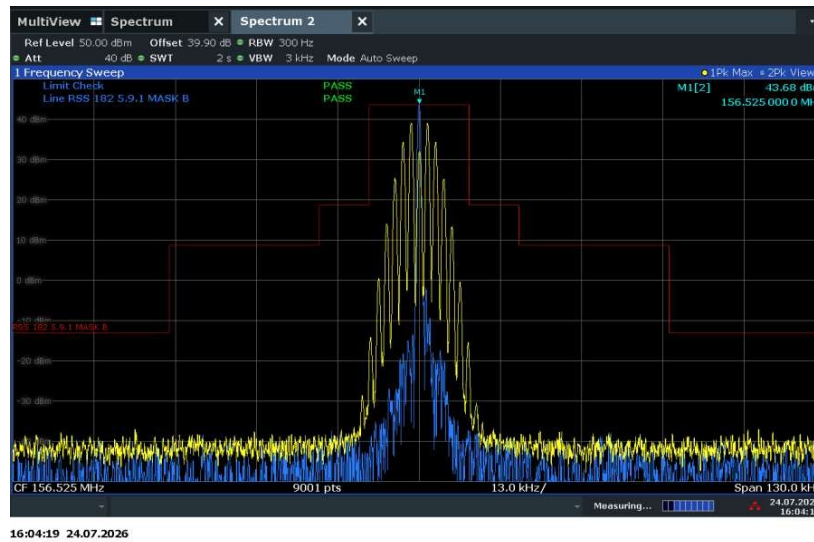
Mask 157.425MHz 1W



Mask 157.425MHz 25W



Mask 156.525MHz DSC 1300Hz 1W



Mask 156.525MHz DSC 1300Hz 25W



Mask 156.525MHz DSC 2100Hz 1W



Mask 156.525MHz DSC 2100Hz 25W



2.5 SPURIOUS EMISSIONS AT THE ANTENNA TERMINAL

2.5.1 Specification Reference

FCC CFR Title 47 Part 2
FCC CFR Title 47 Part 80.211(f)(3)
RSS 182 Issue 6 Amendment 2 (August 2024) Clause 5.9

2.5.2 Standard Applicable

FCC CFR Title 47 Part 80.211 (f)(3)

On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least 43 plus $10\log_{10}$ (mean power in watts) dB.

RSS 182 Section 5.9.1 Emission mask B for equipment with 25 kHz channel spacing

Emission mask B is for FM or PM equipment with 25 kHz channel spacing and an authorized bandwidth of 16 kHz for voice or 20 kHz for data, with or without an audio low-pass filter. The power of unwanted emissions shall be attenuated below the transmitter's output power "p" (dBW) as follows:

- I. at least 25 dB, measured with a bandwidth of 300 Hz, on any frequency removed from the carrier frequency by more than 50%, but not more than 100% of the authorized bandwidth;
- II. at least 35 dB, measured with a bandwidth of 300 Hz, on any frequency removed from the carrier frequency by more than 100%, but not more than 250% of the authorized bandwidth; and
- III. at least $43 + 10 \log_{10} p$ (W) dB, measured with a bandwidth of 30 kHz, on any frequency removed from the carrier frequency by more than 250% of the authorized bandwidth

2.5.3 Equipment Under Test and Modification State

Serial No: Marine: 00000051 and DSC: 00000053/ Test Mode Configuration

2.5.4 Date of Test/Initial of test personnel who performed the test

July 27, 2026 / OC.

2.5.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.



2.5.6 Environmental Conditions/ Test Location

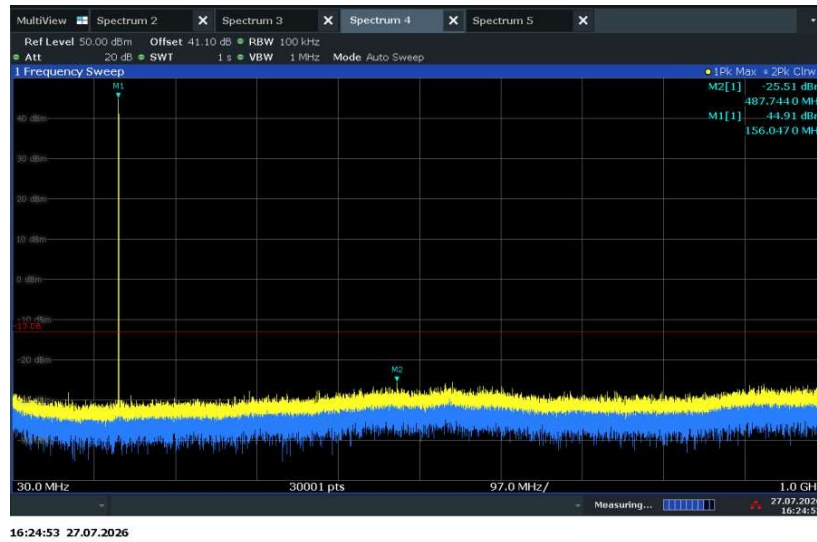
Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature	23.2 °C
Relative Humidity	41.0 %
ATM Pressure	99.9 kPa

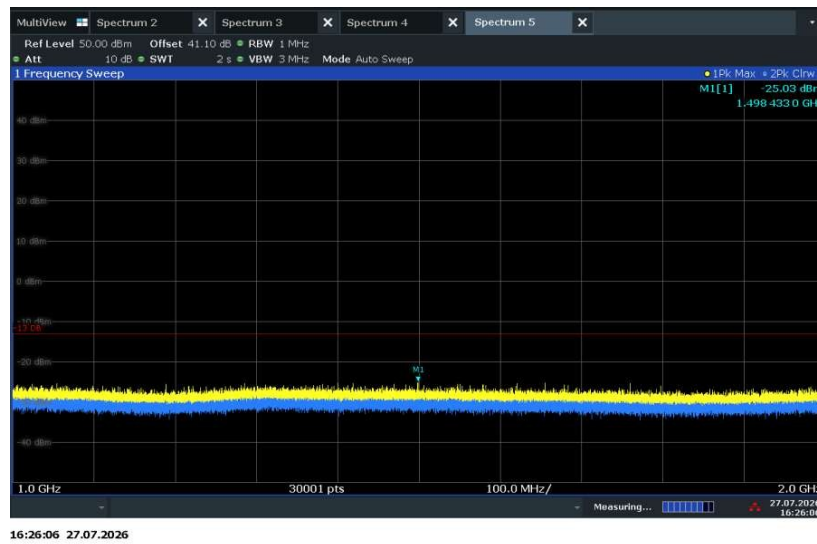
2.5.7 Additional Observations

- This is a conducted test.
- For 30MHz to 1GHz frequency range, the spectrum analyzer settings were as follow: 100kHz RBW and 300kHz VBW detector is Peak and Trace is max-hold.
- For 1GHz to 2GHz frequency range, the spectrum analyzer settings were as follow: 1MHz RBW and 3MHz VBW detector is Peak and Trace is max-hold.
- To cover the fundamental on the test plots, a Single offset was utilized (41.1 dB) which is the worst case of the path loss (30dB+10dB+Cable) on the test frequency range (30MHz to 2GHz).
- Both 25 W and 1 W power settings on EUT were tested.
- Test method was performed per ANSI C63.26, 2015 Edition, 2015 Section 5.7.
- Test was performed under normal environment conditions.
- Test setup Pictures will be provided on separate exhibits.

2.5.8 Test Results

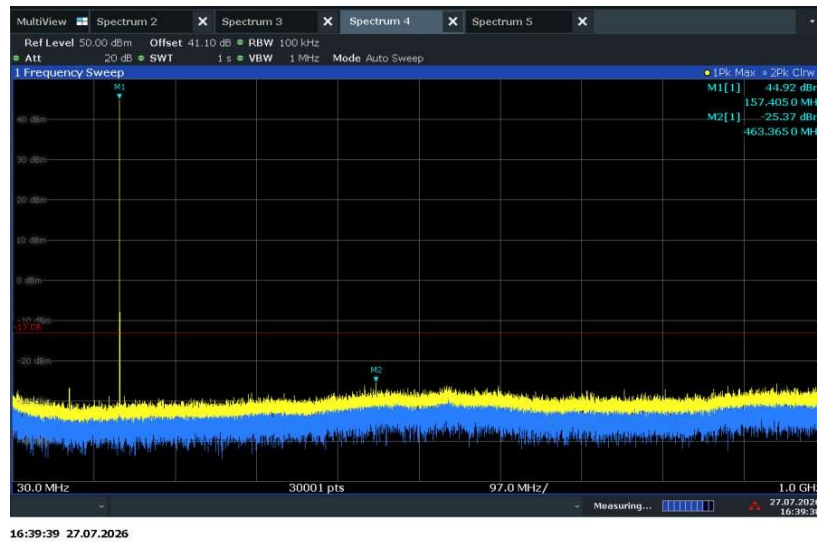


156.050MHz 25W 30MHz to 1GHz

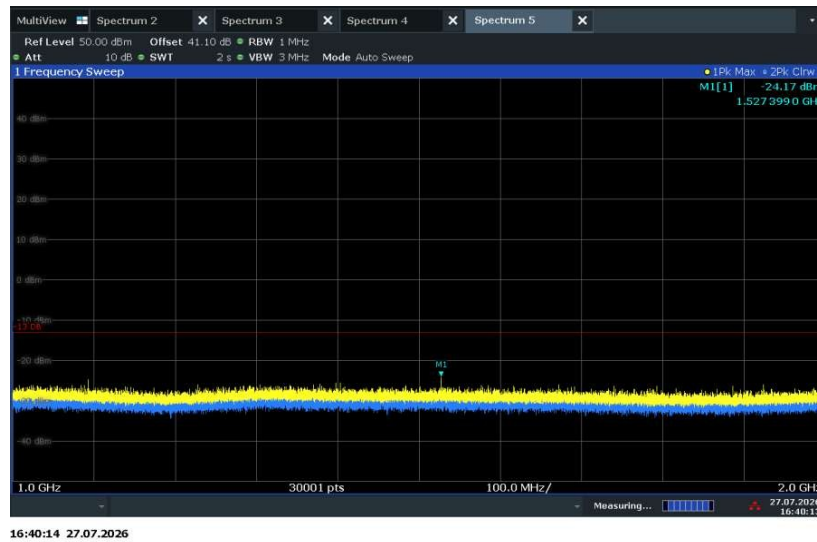


156.050MHz 25W 1GHz to 2GHz





157.425MHz 25W 30MHz to 1GHz



157.425MHz 25W 1GHz to 2GHz

