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FCC PART 80, 74, & 22
UHF TEST REPORT

APPLICANT	**YAESU MUSEN CO., LTD.**
	TENNOZU PARKSIDE BUILDING 2-5-8 HIGASHI-SHINAGAWA, SHINAGAWA-KU, TOKYO 140-0002 JAPAN
FCC ID	K6630394X20
MODEL NUMBER	HX407
PRODUCT DESCRIPTION	HANDHELD UHF MARINE TRANSCEIVER
DATE SAMPLE RECEIVED	12/3/2015
DATE TESTED	12/11/2015
TESTED BY	Tim Royer
APPROVED BY	Cory Leverett
TEST RESULTS	☒ PASS ☐ FAIL

Report Number	Version Number	Description	Issue Date
2540AUT15TestReport_	Rev1	Initial Issue	2/12/2016

TABLE OF CONTENTS

GENERAL REMARKS

The attached report shall not be reproduced except in full without the written permission of Timco Engineering Inc.

Summary

The device under test does:
☒ Fulfill the general approval requirements as identified in this test report
☐ Not fulfill the general approval requirements as identified in this test report

Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.

I attest that the necessary measurements were made at:

Timco Engineering Inc.
849 NW State Road 45
Newberry, FL 32669

Authorized Signatory Name:

Tim Royer
Project Manager/Testing Technician

Date: 2/12/2016

GENERAL INFORMATION

EUT Specification

EUT Description	HANDHELD UHF MARINE TRANSCEIVER
FCC ID	K6630394X20
Model Number	HX407
Operating Frequency	406.1 – 470 MHz
Test Frequencies	450.25, 454.5, 455.5, 459.74, 469.75 MHz
Type of Emission	11K0G3E, 16K0G3E
Modulation	Phase
EUT Power Source	☐ 110–120Vac/50– 60Hz
	☐ DC Power 12V
	☒ Battery Operated Exclusively
Test Item	☐ Prototype
	☐ Pre-Production
	☒ Production
Type of Equipment	☐ Fixed
	☐ Mobile
	☒ Portable
Test Conditions	The temperature was 24-26ºC with a relative humidity of 50 - 65%.
Modification to the EUT	None
Test Exercise	The EUT was operated in a normal mode.
Applicable Standards	ANSI/TIA 603-D:2010, FCC CFR 47 Part 2, 22, 74, 80
Test Facility	**Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA.**

Table of Contents

SUMMARY OF RESULTS

FCC Rule Part No.	Test Item	Result
2.1033, 2.1047, 22.357 , 74.463(c) 80.207(d), 80.213(b)	Modulation Characteristics	Pass
2.1046, 22.565(f), 74.461(b), 80.215	RF Power Output	Pass
2.1049, 22.357, 22.359, 74.462(c), 80.205, 80.211(f)	Occupied Bandwidth	Pass
2.1051, 22.359, 74.462(c), 80.211(f)	Spurious Emissions at Ant Terminals	Pass
2.1053, 22.359, 74.462(c), 80.211(f)	Field Strength of Spurious Emissions	Pass
2.1055, 22.355, 74.464, 80.209(a)	Frequency Stability	Pass

RF EXPOSURE INFORMATION: 47CFR 2.1093

The requirements for this equipment are covered in the included SAR measurements report.

MODULATION CHARACTERISTICS

EMISSION TYPES AND BANDWITHS

Rule Part No.: Part 2.1033(c), 22.357, 74.463 (b), 80.207(d)

Requirements: 22.357

Any authorized station in the Public Mobile Services may transmit emissions of any type(s) that comply with the applicable emission rule, i.e. §22.359, §22.861 or §22.917.

74.463(b)

If frequency modulation is employed, emission shall conform to the requirements specified in §74.462.

80.207 (d)

Type of Station	Frequency Range	Classes of Emissions
Radiotelephony	156 – 470 MHz	G3E

Procedure: Carson's bandwidth rule is expressed by the relation CBR = 2 (\Delta f + f_m) where CBR is the bandwidth requirement, \Delta f is the peak frequency deviation, and f_m is the highest frequency in the modulating signal.

Test Data: 11K0G3E & 16K0G3E Description of Emission Types

Emission Designator	11K0G3E	16K0G3E
Modulation Type	Phase	Phase
Modulation Source	Voice	Voice
Maximum Audio Frequency (KHz)	3.0	3.0
Maximum Rated Deviation (KHz)	2.5	2.5
Bandwidth Necessary (KHz)	11.0	16.0
Authorized Bandwidth (KHz)	12.5	20.0
Channel Spacing (KHz)	12.5	25

Result Meets Requirements

MODULATION CHARACTERISTICS

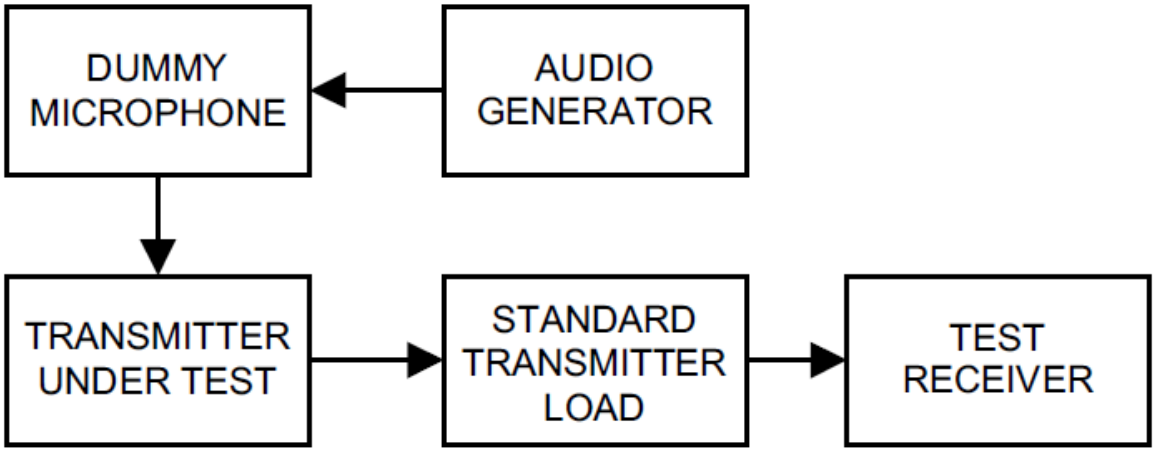
AUDIO FREQUENCY RESPONSE

Rule Part No.: Part 2.1047(a)

Requirements: A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 – 5000Hz shall be submitted

Procedure: Audio frequency response in accordance with ANSI/TIA 603-D:.

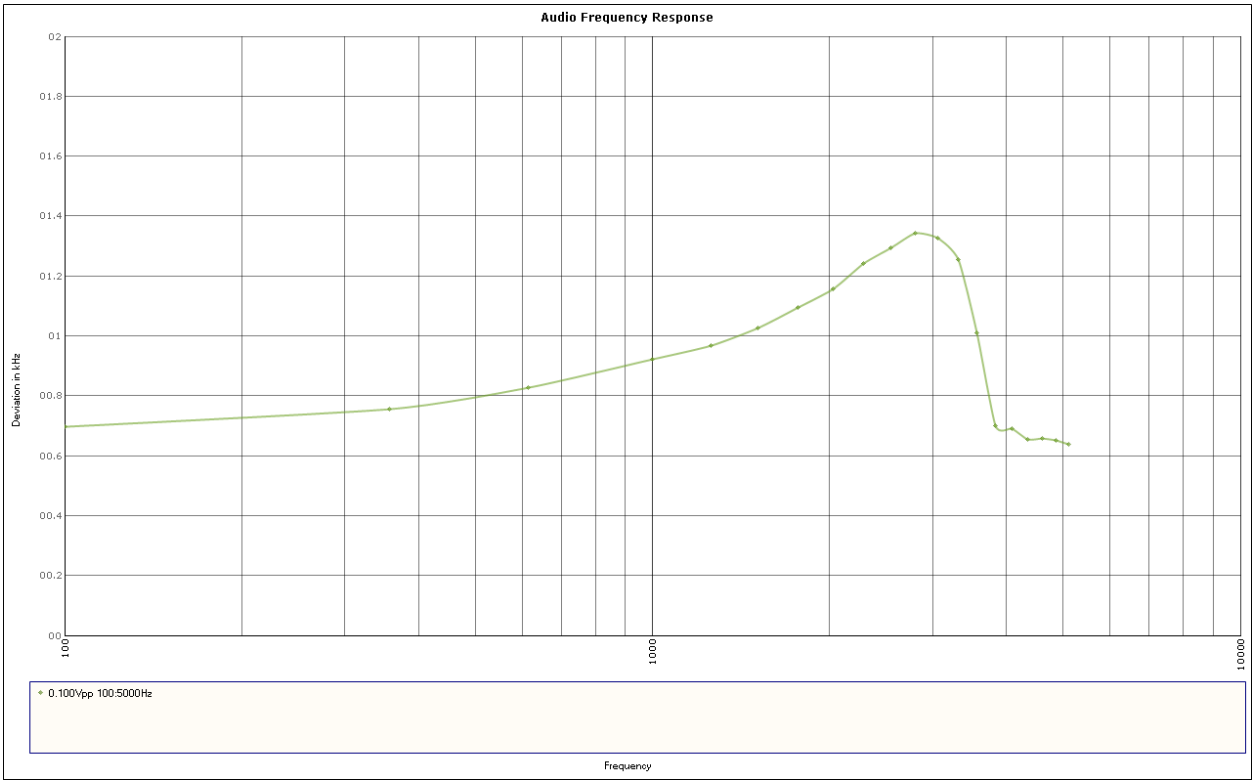
Setup Diagram:



MODULATION CHARACTERISTICS

AUDIO FREQUENCY RESPONSE

Test Data: Curve of 100 Hz to 5000 Hz Audio Frequency Response – 16K0F3E

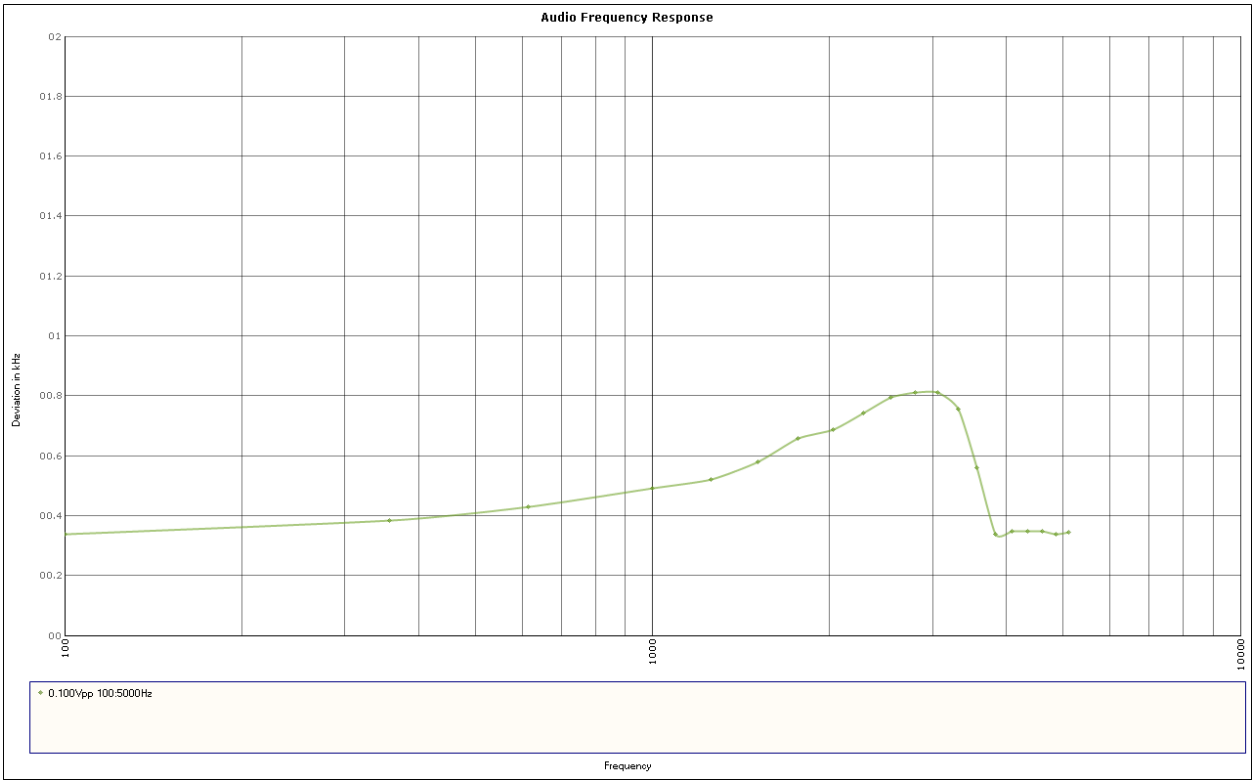


Results Meet Requirements

MODULATION CHARACTERISTICS

AUDIO FREQUENCY RESPONSE

Test Data: Curve of 100 Hz to 5000 Hz Audio Frequency Response – 11K0F3E



Results Meet Requirements

MODULATION CHARACTERISTICS

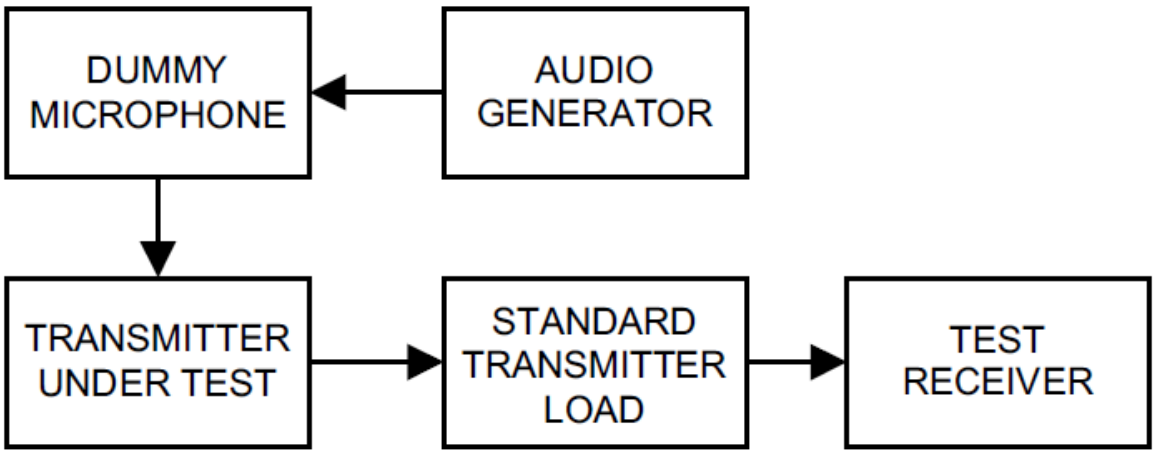
AUDIO LOW PASS FILTER

Rule Part No.: Part 2.1047(a)

Requirements: For equipment required to have an audio low-pass filter, a curve showing the frequency response of the filter or of all the circuitry installed between the modulation limiter and the modulated stage shall be submitted.

Procedure: Audio frequency response in accordance with ANSI/TIA 603-D:

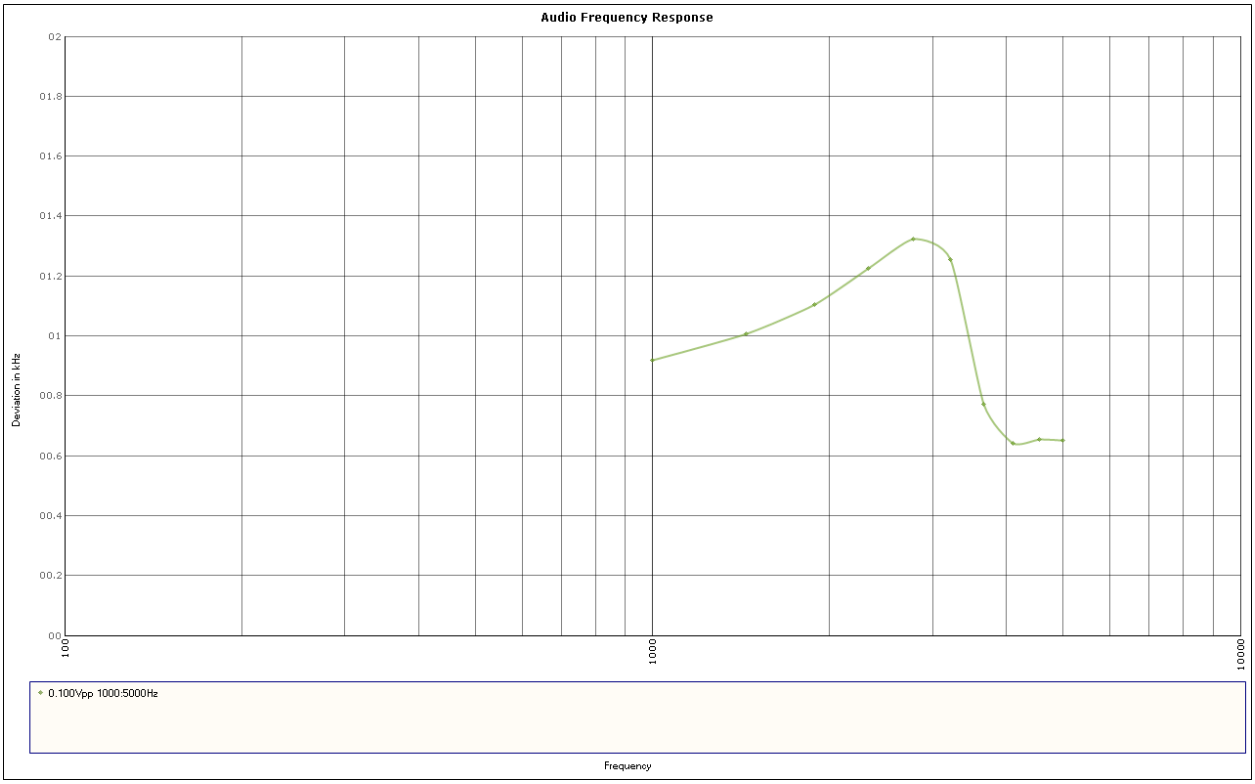
Setup Diagram:



MODULATION CHARACTERISTICS

AUDIO LOW PASS FILTER

Test Data: Curve of 1000 Hz to 5000 Hz Audio Low Pass Filter Response – 16K0F3E

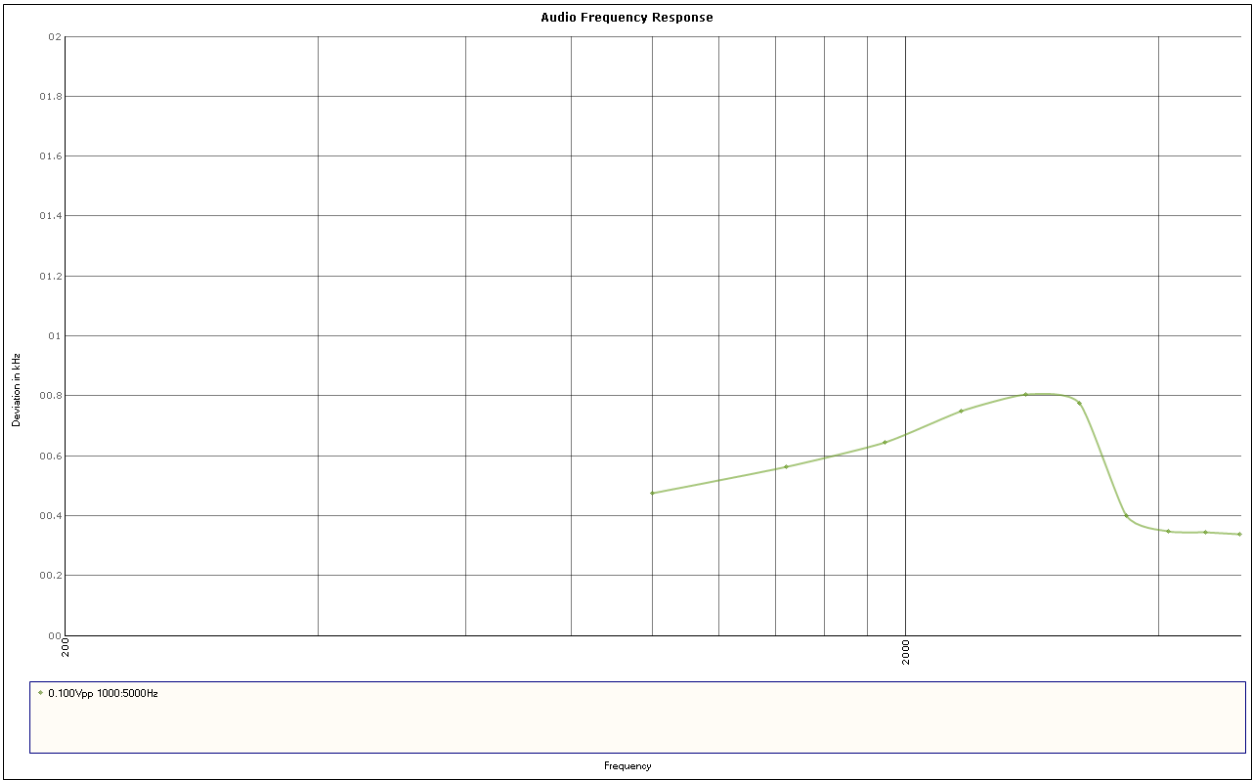


Results Meet Requirements

MODULATION CHARACTERISTICS

AUDIO LOW PASS FILTER

Test Data: Curve of 1000 Hz to 5000 Hz Audio Low Pass Filter Response – 11K0F3E



Results Meet Requirements

MODULATION CHARACTERISTICS

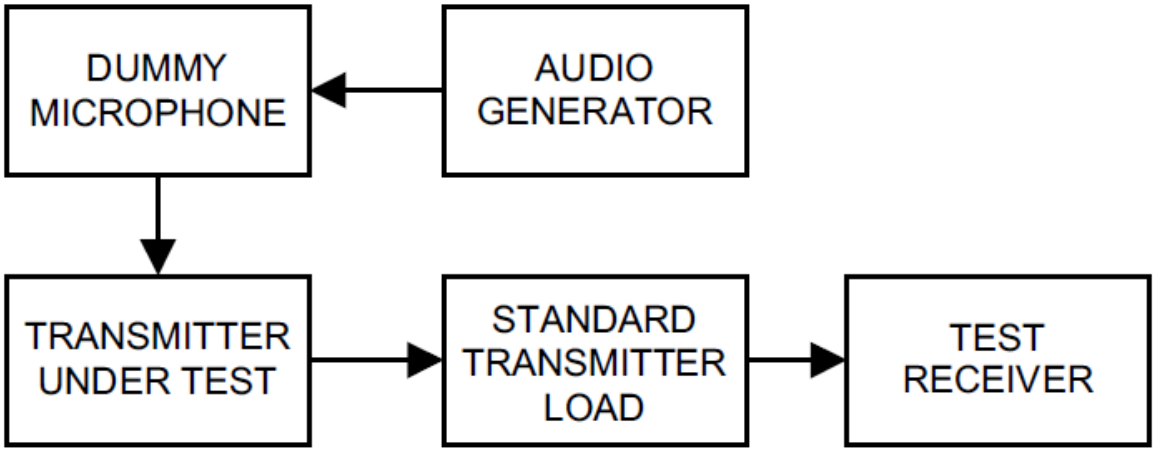
MODULATION LIMITING

Rule Part No.: Part 2.1047(b), 80.213(b)

Requirements: 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.

Procedure: Modulation Limiting in accordance with ANSI/TIA 603-D:

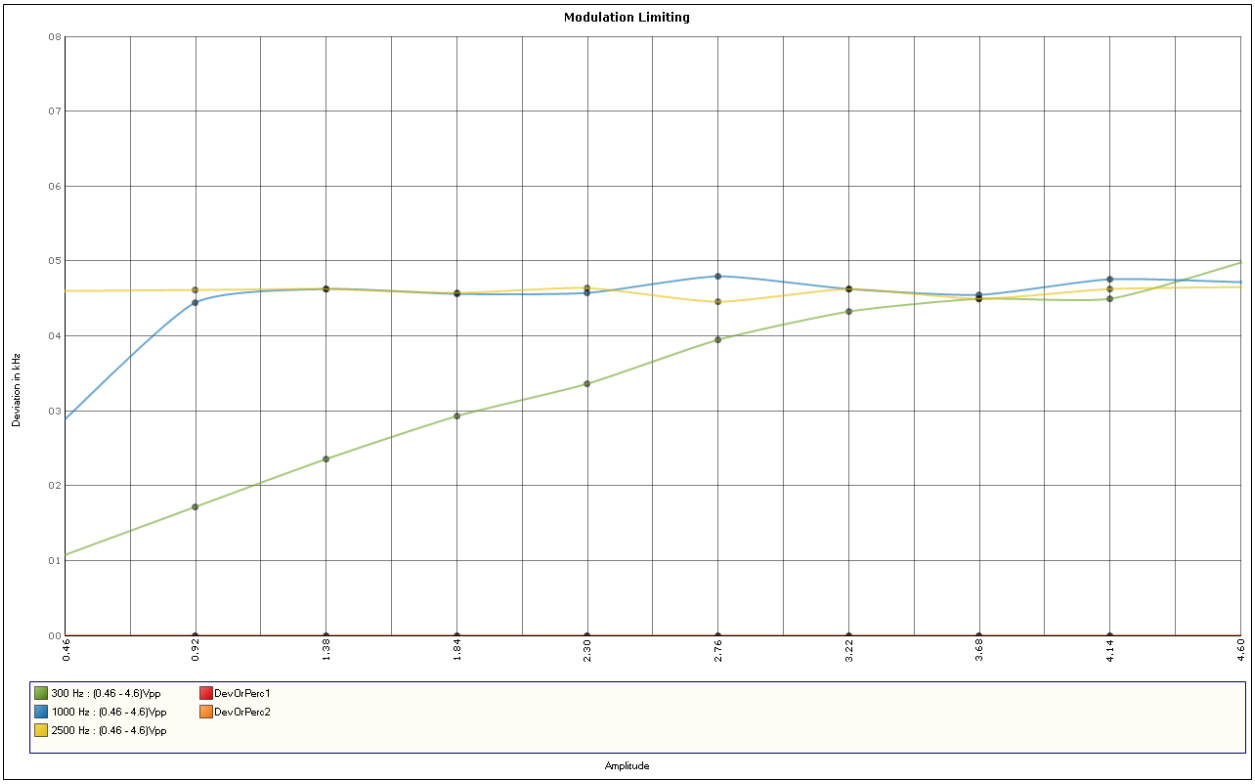
Setup Diagram:



MODULATION CHARACTERISTICS

MODULATION LIMITING

Test Data: Curve of 300 Hz, 1000 Hz , & 2500 Hz Modulation Limiting – 16K0F3E

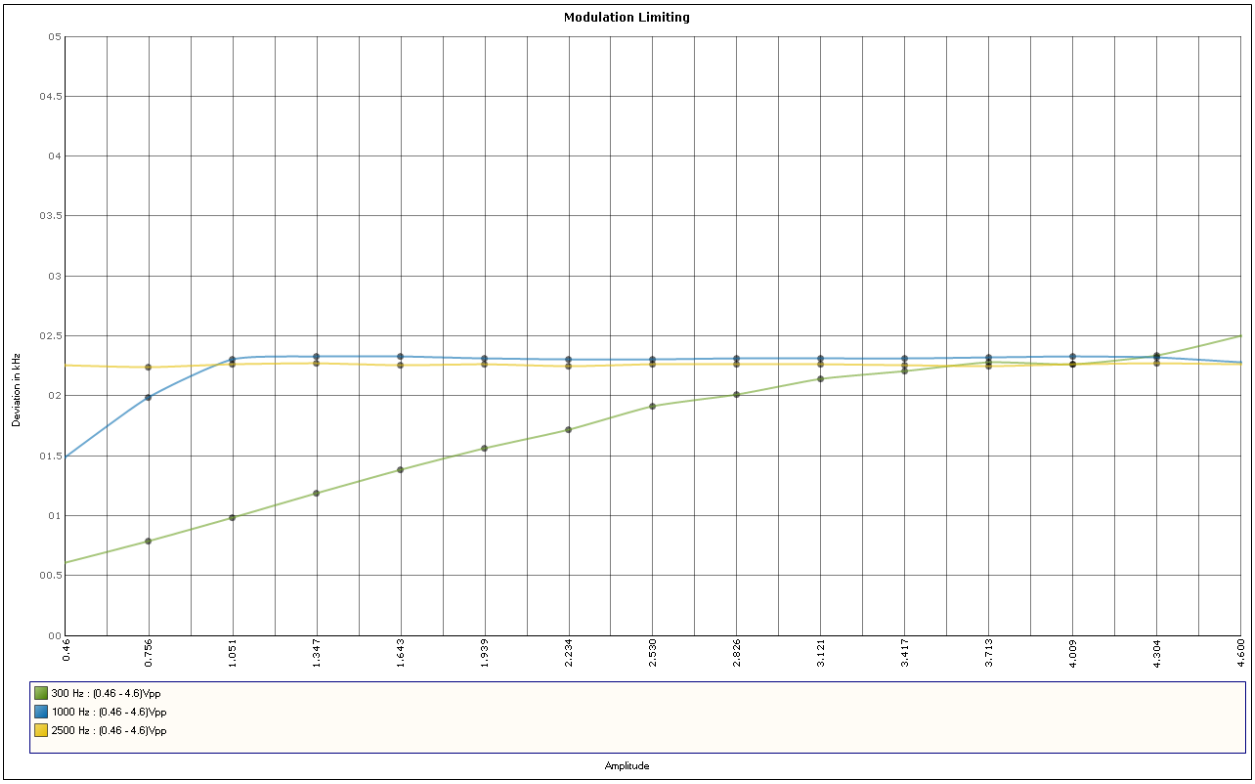


Results Meet Requirements

MODULATION CHARACTERISTICS

MODULATION LIMITING

Test Data: Curve of 300 Hz, 1000 Hz , & 2500 Hz Modulation Limiting – 11K0F3E



Results Meet Requirements

RF POWER OUTPUT

Rule Part No.: Part 2.1046(a), Part 80.215(e)(3), 74.461(b), 22.565(f)

Requirements: Part 80.215(e)(3)

456-468 MHz—4W: Certification based on a carrier power of 4 watts with transmitter connected to a dummy load of matching impedance. The effective radiated power must not exceed 2 watts.

Part 74.461 (b)

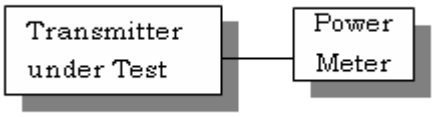
The authorized transmitter power for a remote pickup broadcast station shall be limited to that necessary for satisfactory service and, in any event, shall not be greater than 100 watts

Part 22.565(f)

The transmitter output power of mobile transmitters must not exceed 60 watts.

Procedure: Conducted Power Output in accordance with ANSI/TIA 603-D

Setup Diagram:



Test Data: Conducted Power Output Measurement Table

	RF POWER (W)	
Tuned Frequency (MHz)	HI	LOW
450.25	4.33	
454.50	4.23	-
455.5	4.25	
459.74	4.38	-
469.75	4.01	-

Part 2.1033 (C)(8) DC Input into the final amplifier

FOR HIGH POWER SETTING INPUT POWER: (8.3V) (0.585A) = 4.85 Watts

Results Meet Requirements

OCCUPIED BANDWIDTH

Rule Part No.: Part 2.1049, 22.359(a), 74.462(c), 80.211(f)

Requirement: 22.359(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

74.462 (c)

For emissions on frequencies above 25 MHz with authorized bandwidths up to 30 kHz, the emissions shall comply with the emission mask and transient frequency behavior requirements of §90.210 and § 90.214 of this chapter

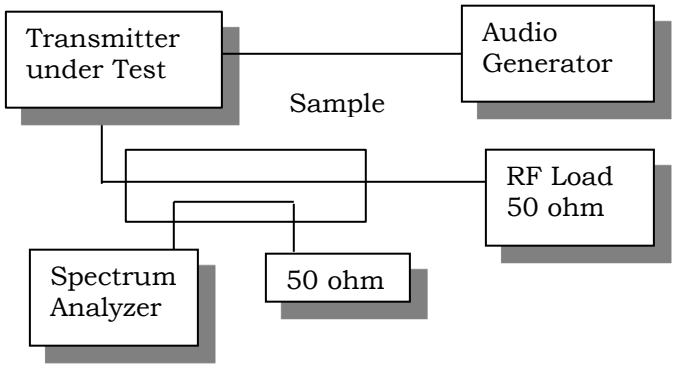
80.211(f) (1) (2)

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;

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

Procedure: Side Band Spectrum in accordance with ANSI/TIA 603-D

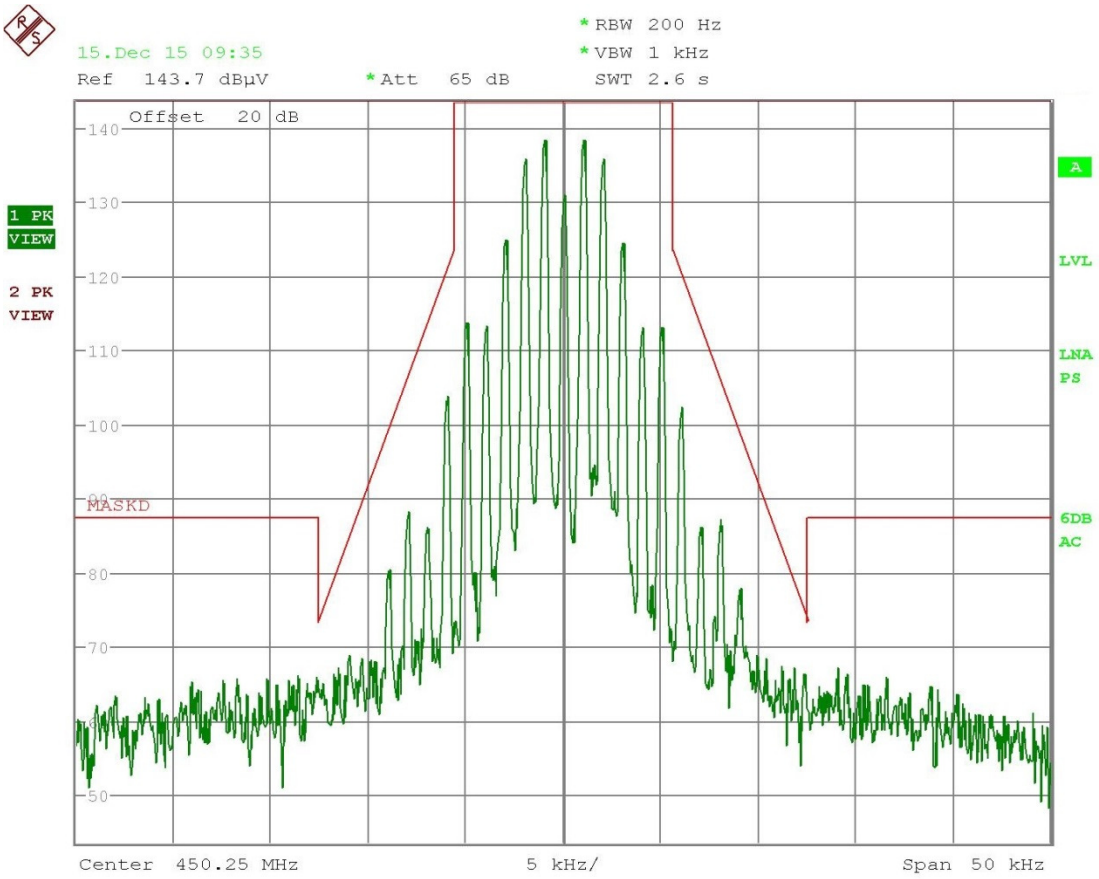
Setup Diagram:



Test Data: See the plots below

OCCUPIED BANDWIDTH

Test Data: 450.25 MHz – 11K0G3E Emission Mask 74.462(c)

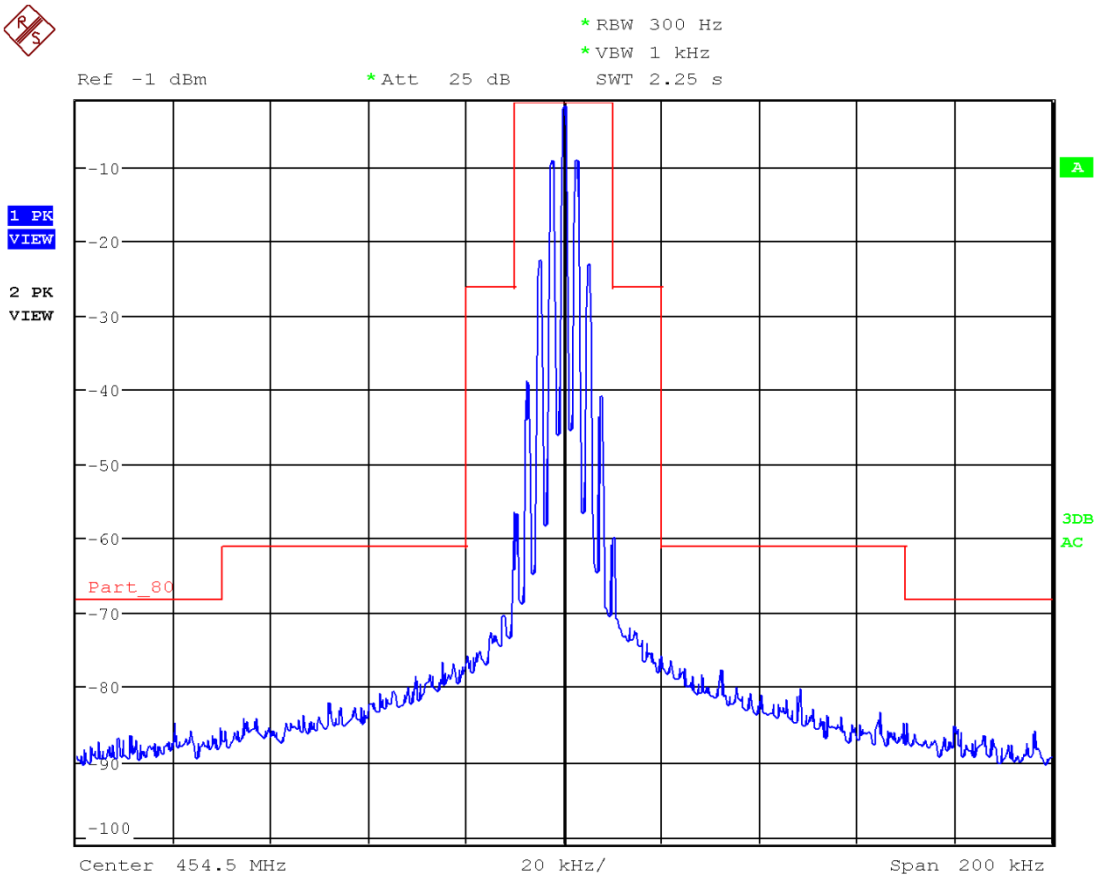


Date: 15.DEC.2015 09:35:57

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 454.50 MHz – 11K0G3E Emission Mask 80.211(f)

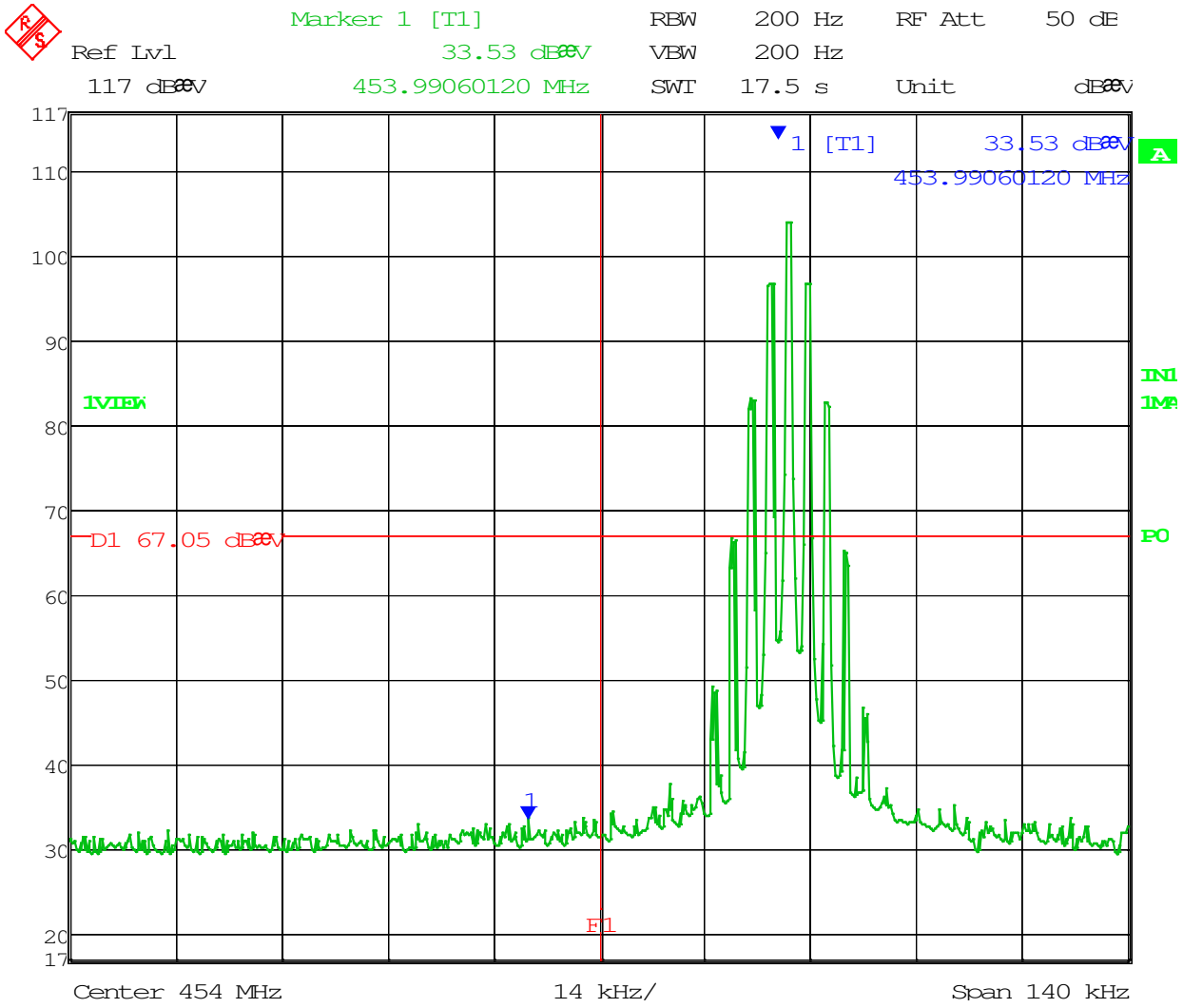


Date: 29.DEC.2015 11:27:00

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 454.50 MHz – 11K0G3E Emission Mask 22.359(a)

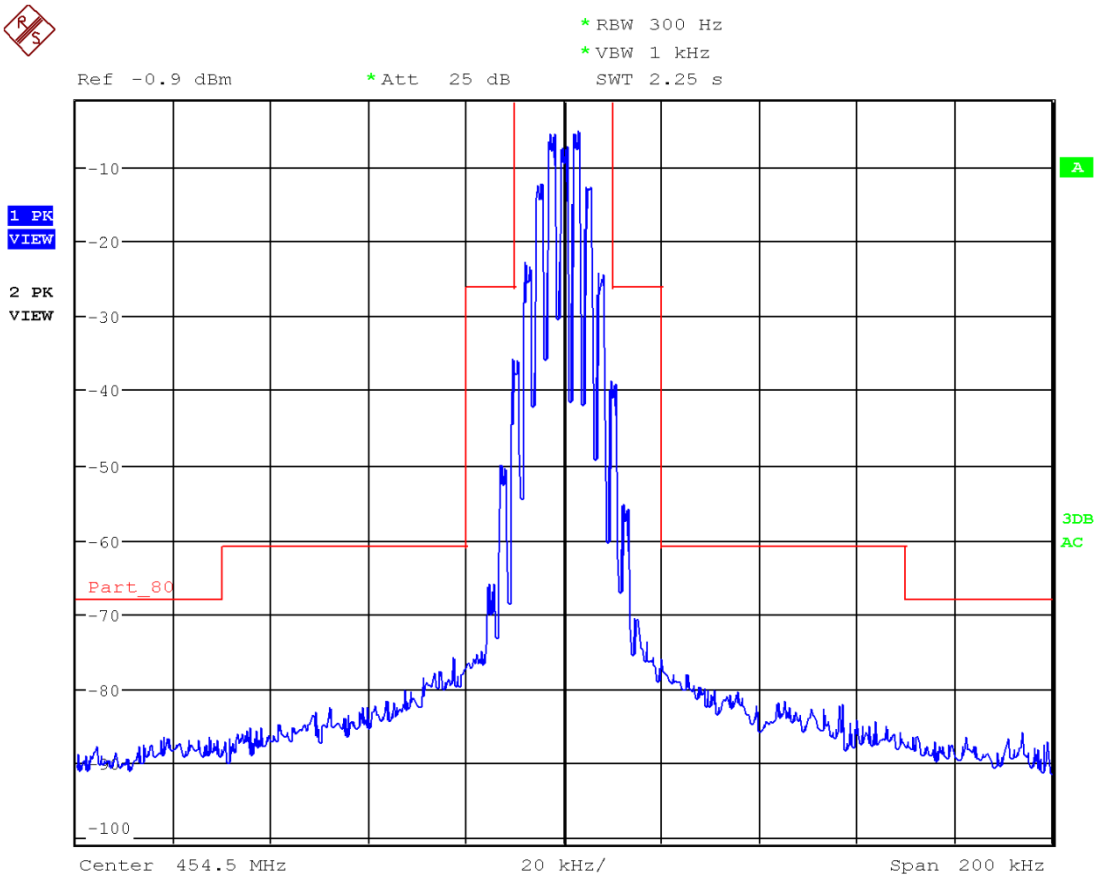


Date: 30.DEC.2015 09:42:56

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 454.50 MHz – 16K0G3E Emission Mask 80.211(f)

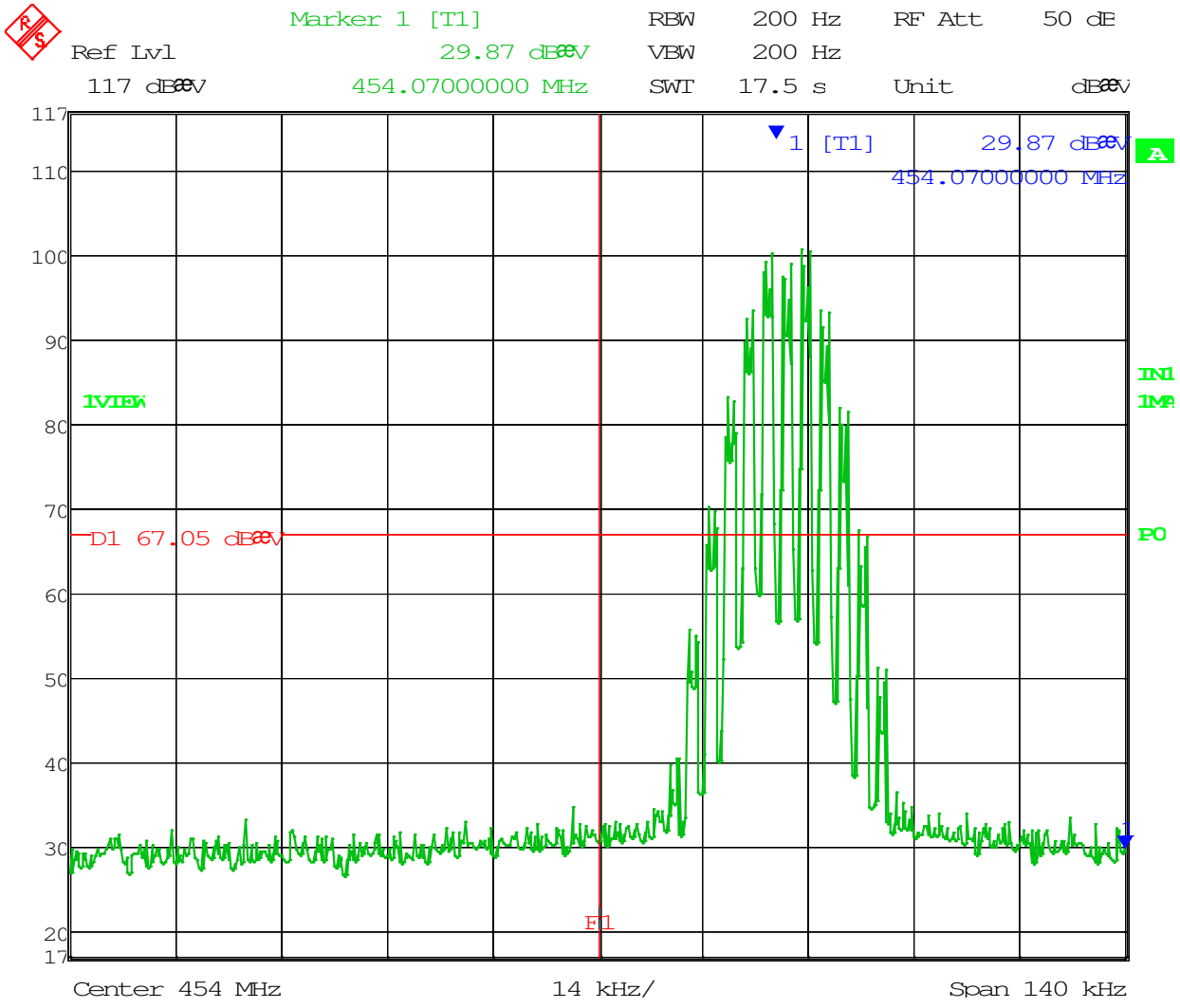


Date: 29.DEC.2015 10:40:35

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 454.50 MHz – 16K0G3E Emission Mask 22.359(a)

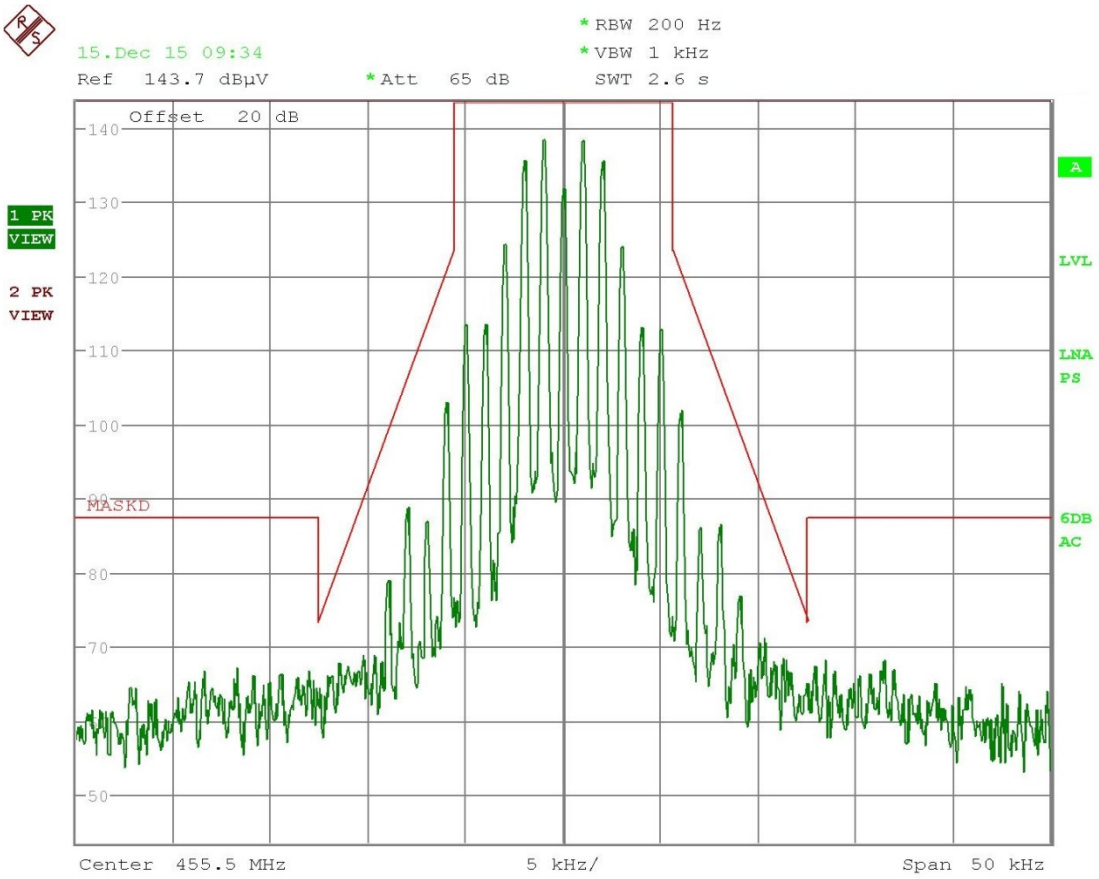


Date: 30.DEC.2015 09:51:35

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 455.50 MHz – 11K0G3E Emission Mask 74.462(c)

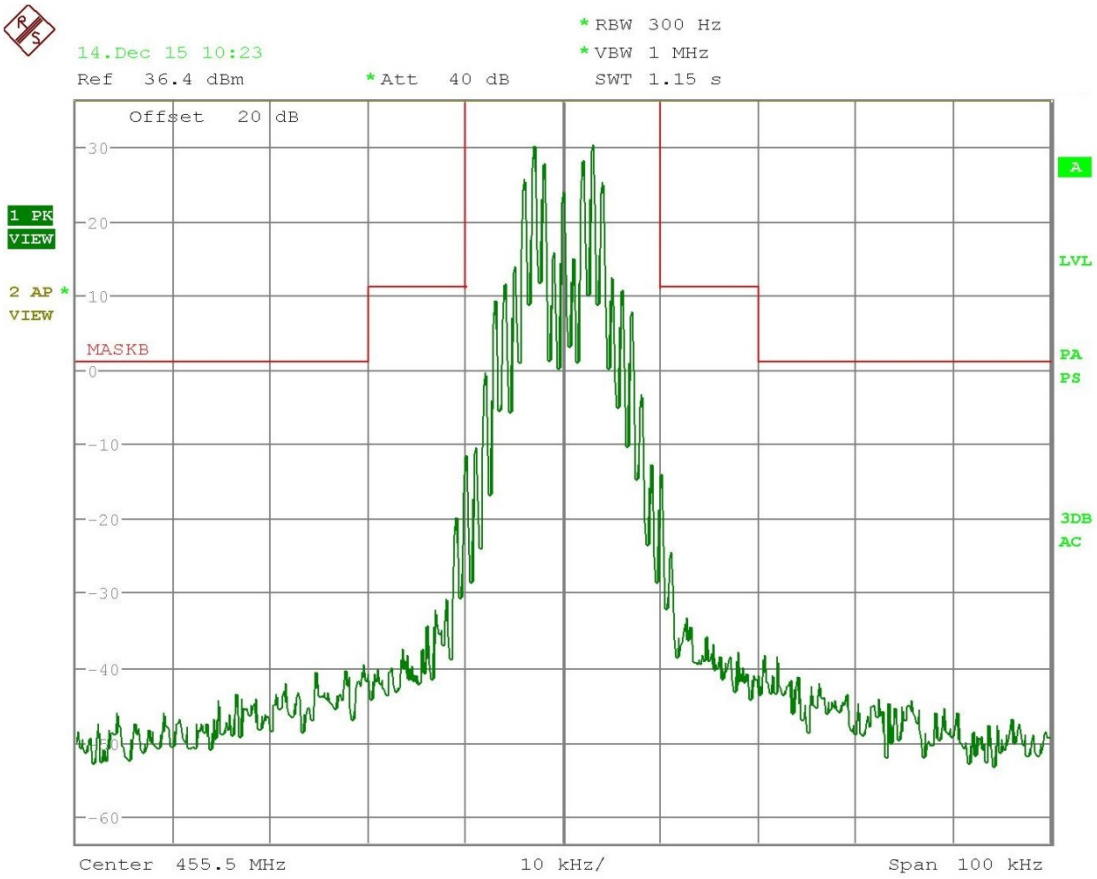


Date: 15.DEC.2015 09:34:00

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 455.50 MHz – 16K0G3E Emission Mask 74.462(c)

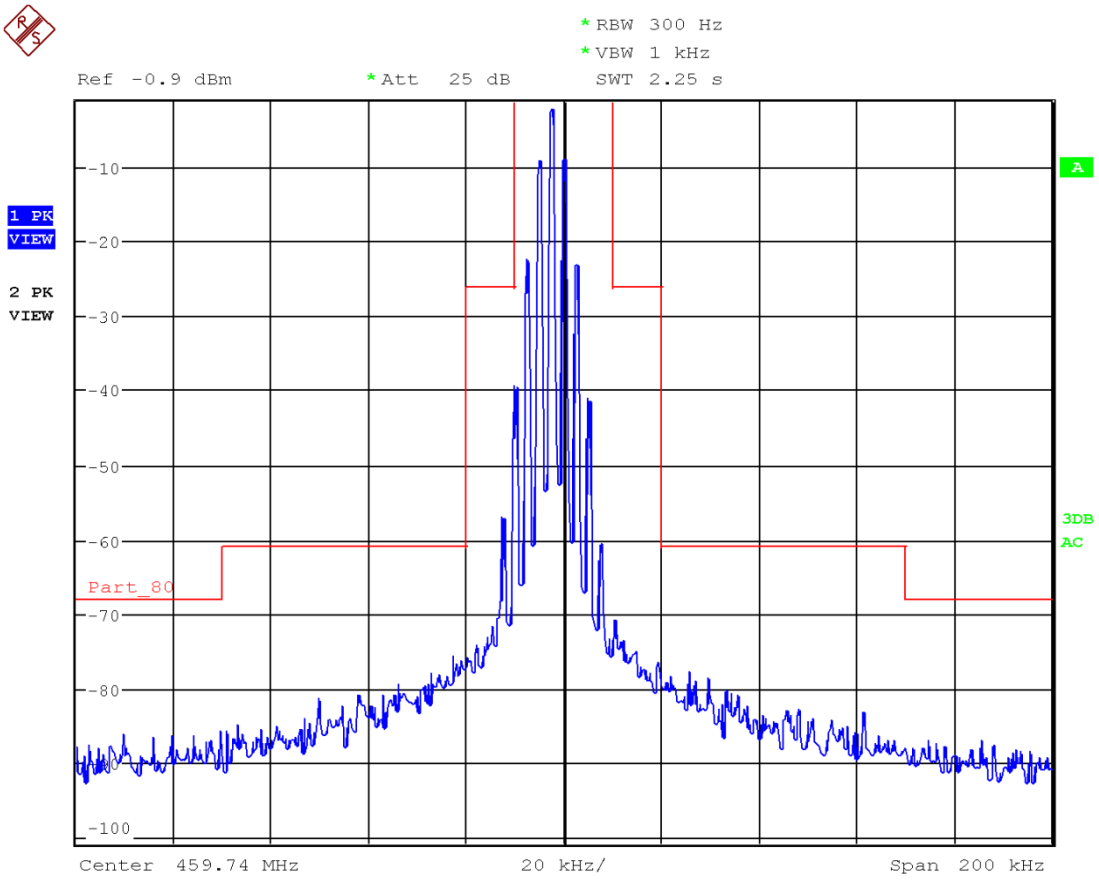


Date: 14.DEC.2015 10:23:43

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 459.74 MHz – 11K0G3E Emission Mask 80.211(f)

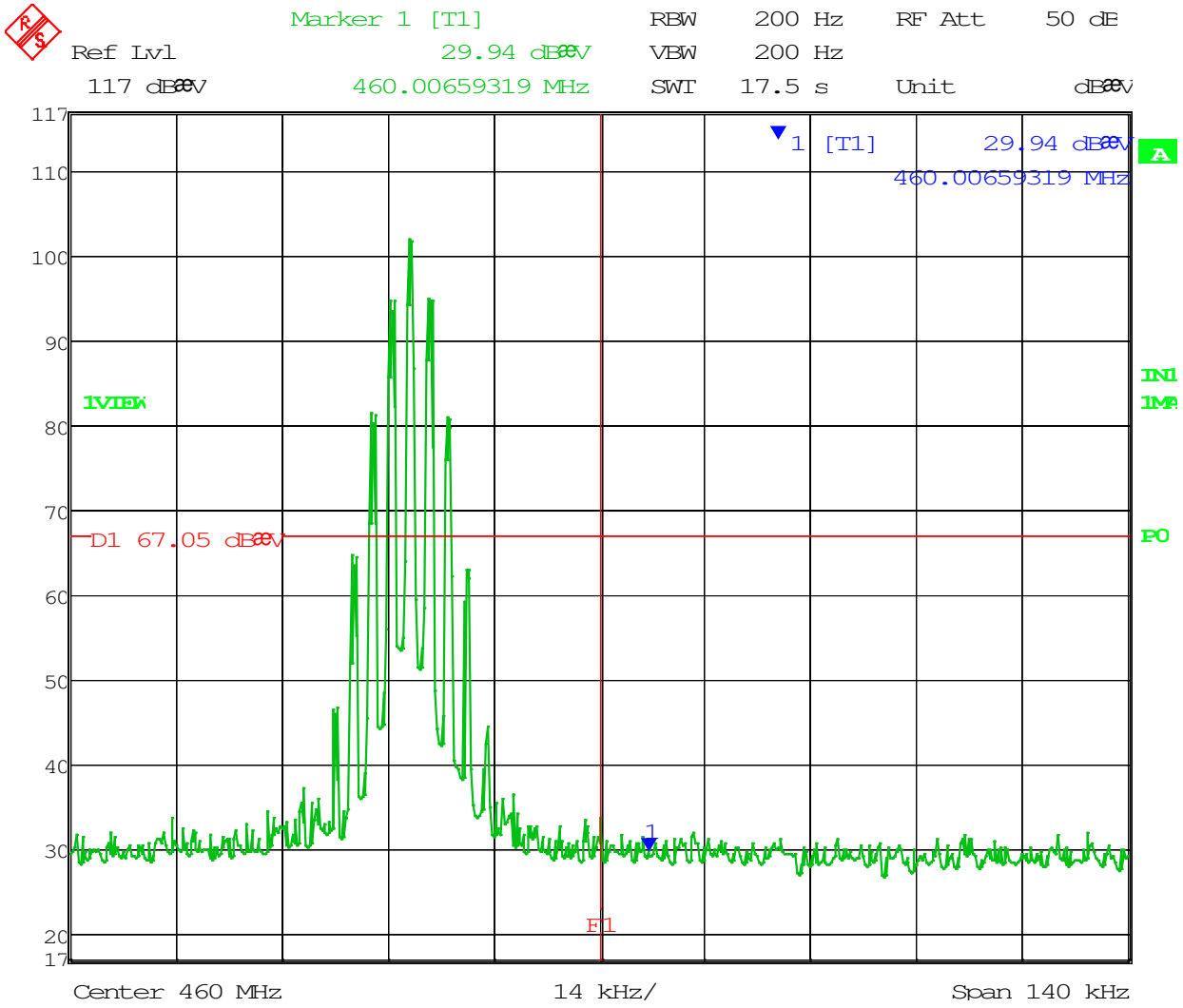


Date: 29.DEC.2015 11:21:57

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 459.74 MHz – 11K0G3E Emission Mask 22.359(a)

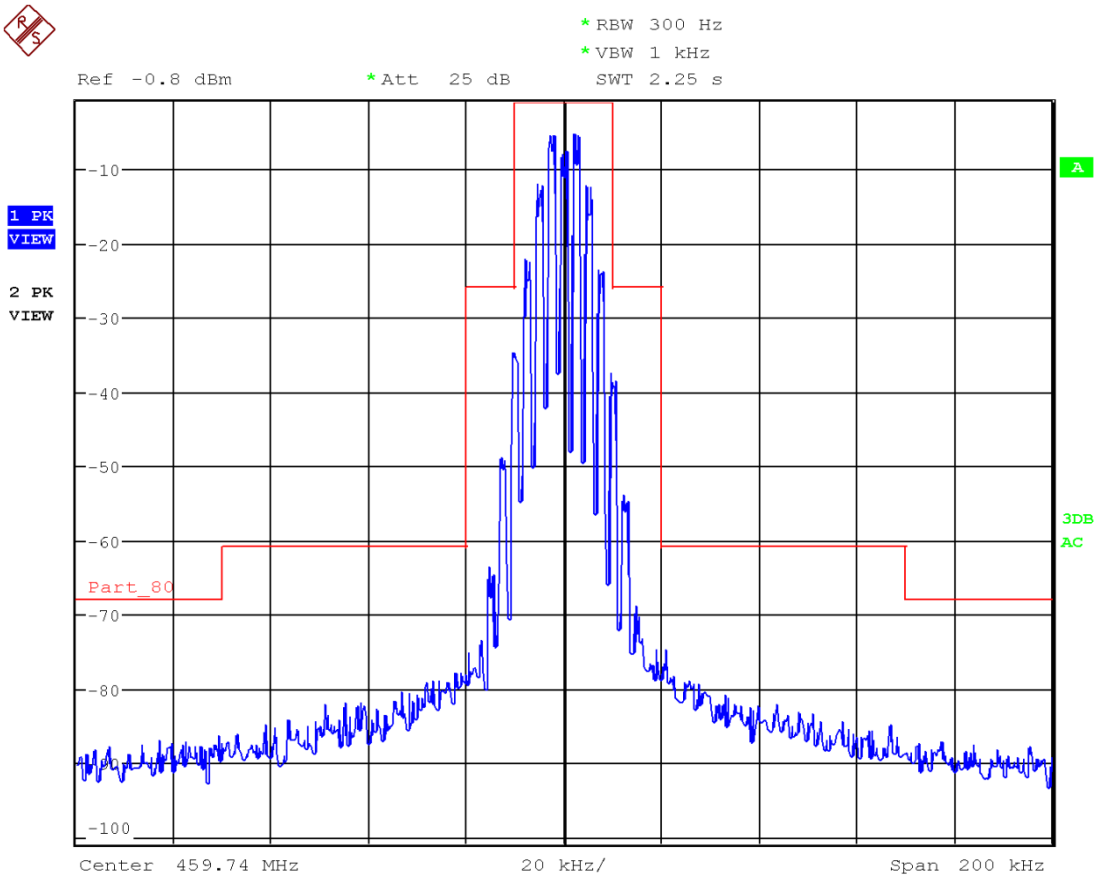


Date: 30.DEC.2015 10:16:56

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 459.74 MHz – 16K0G3E Emission Mask 80.211(f)

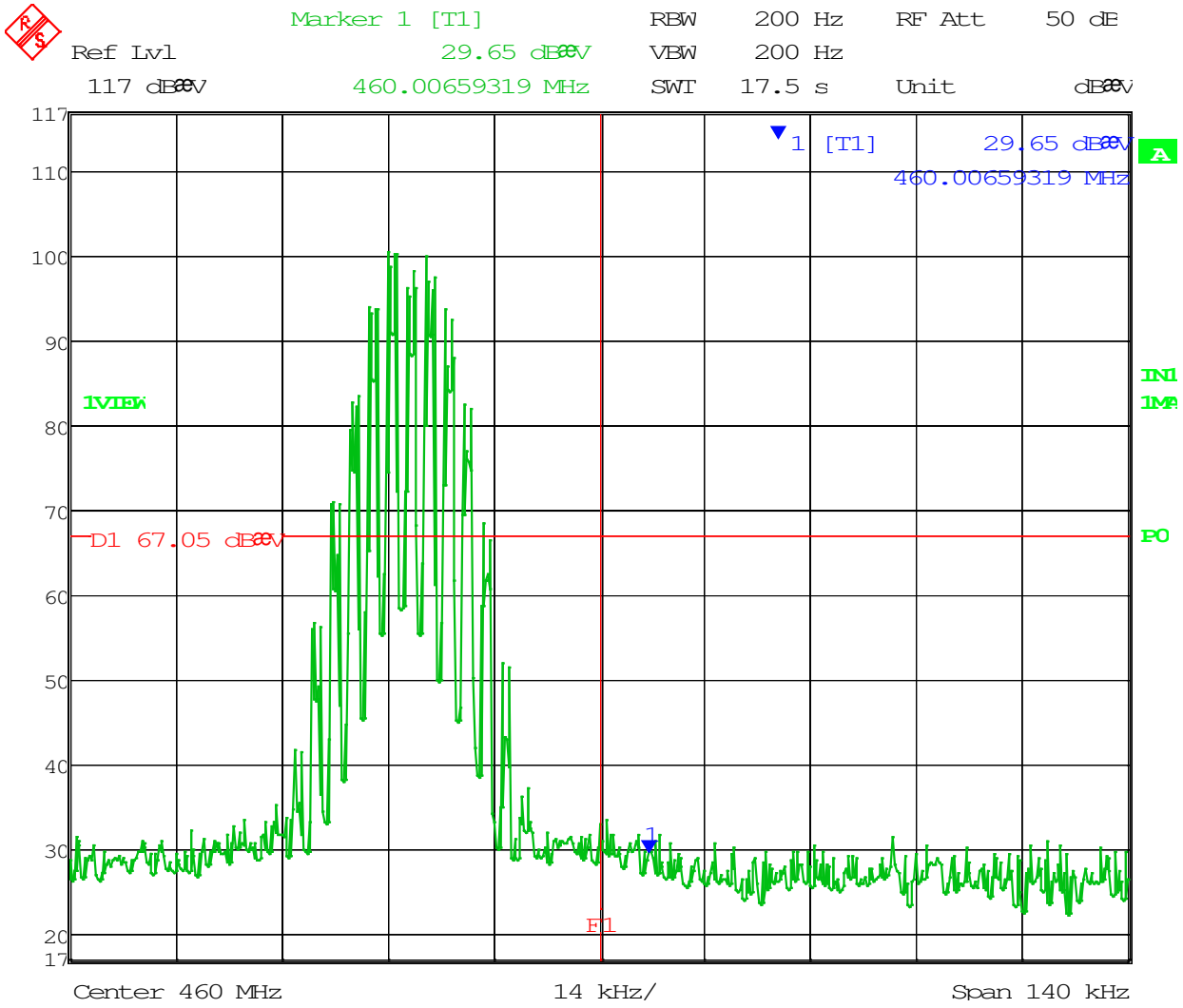


Date: 29.DEC.2015 10:48:15

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 459.74 MHz – 16K0G3E Emission Mask 22.359(a)

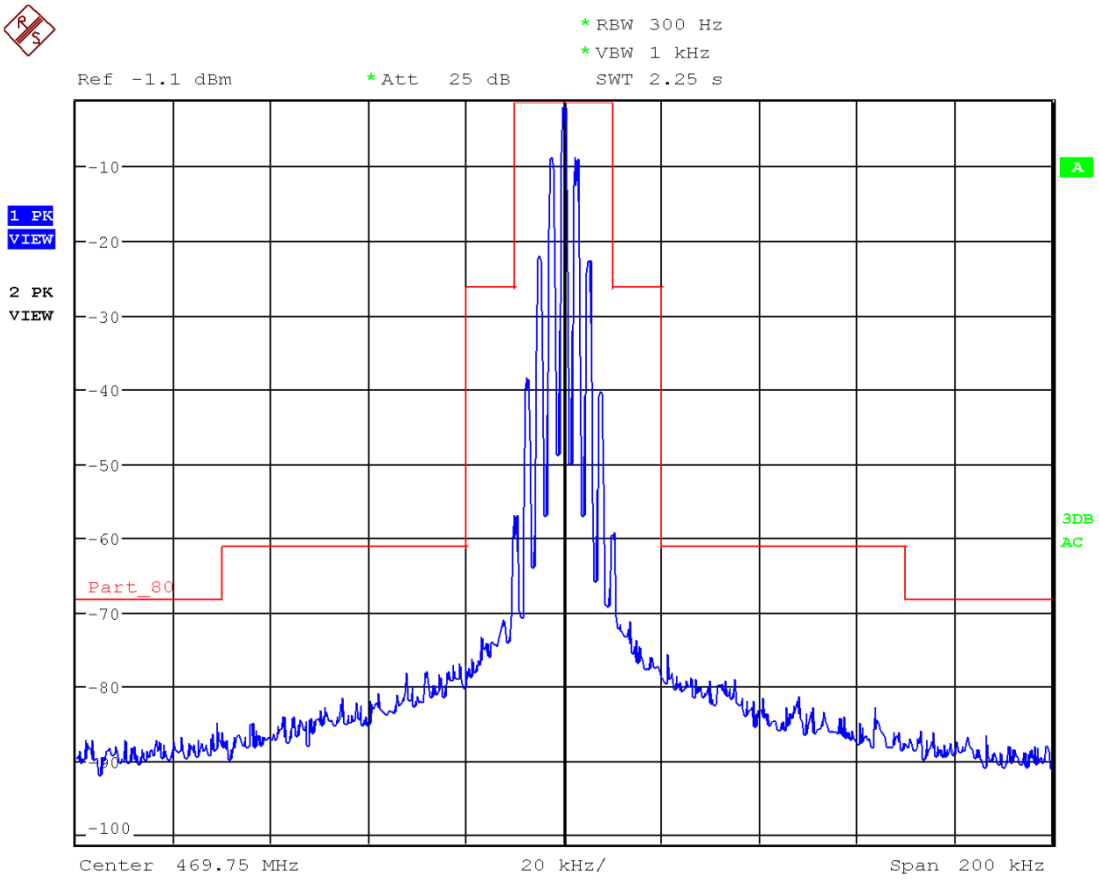


Date: 30.DEC.2015 10:18:27

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 469.75 MHz – 11K0G3E Emission Mask 80.211(f)

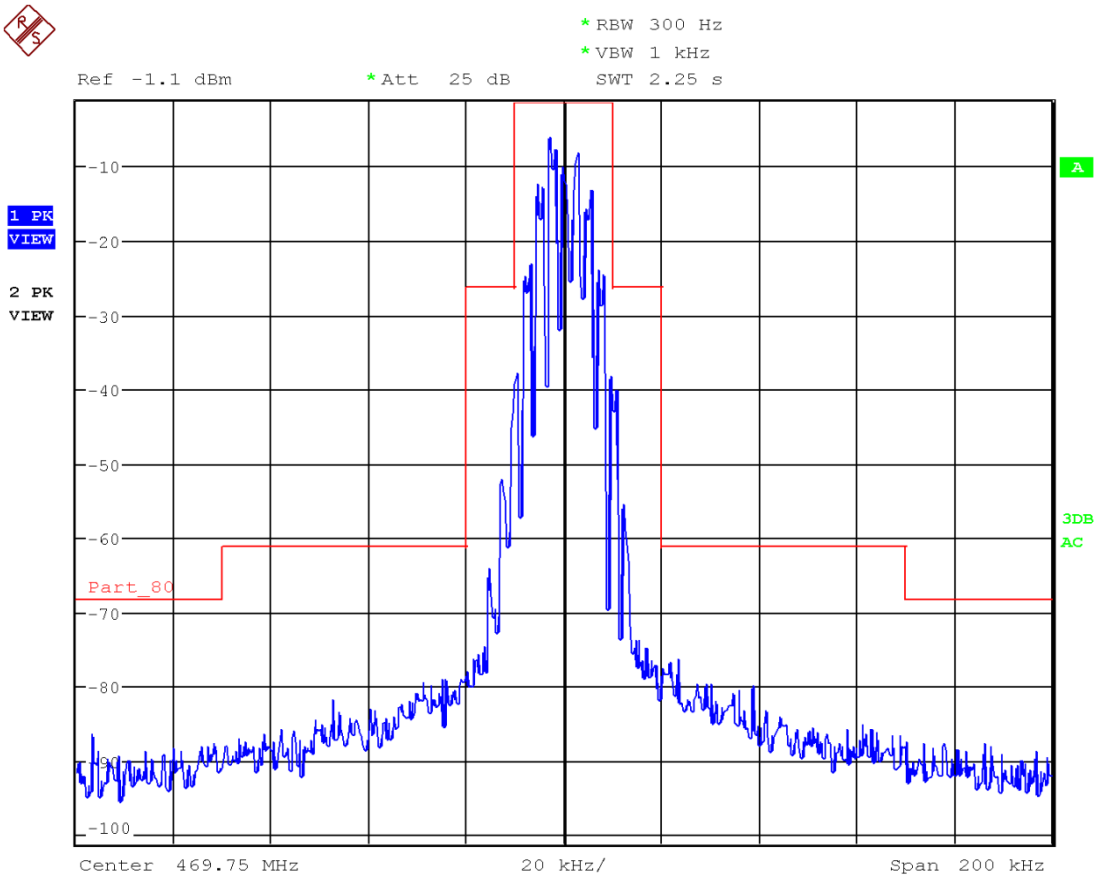


Date: 29.DEC.2015 11:16:36

Results Meet Requirements

OCCUPIED BANDWIDTH

Test Data: 469.75 MHz – 16K0G3E Emission Mask 80.211(f)



Date: 29.DEC.2015 10:54:10

Results Meet Requirements

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Rule Part No.: Part 2.1051(a), 22.359, 74.462 (c), 80.211(f)

Requirements: 22.359

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

74.462 (c)

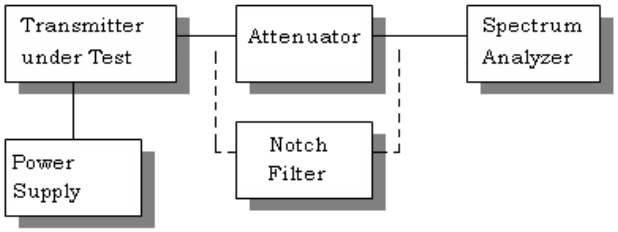
For emissions on frequencies above 25 MHz with authorized bandwidths up to 30 kHz, the emissions shall comply with the emission mask and transient frequency behavior requirements of §90.210 and § 90.214 of this chapter

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 10log10 (mean power in watts) dB.

Procedure: The carrier was modulated 100% using a 2500 Hz tone. 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/TIA 603-D.

Setup Diagram:



SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Data: 450.25 MHz – 11K0G3E

	dBm	Watts	Margin
Power Output	37.4	4	
	Frequency	dBc	dB
	450.25	0	
	900.5	74.6	17.6
	1350.75	78.4	21.4
	1801	104.7	47.7
	2251.25	103.3	46.3
	2701.5	102.9	45.9

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Data: 454.50 MHz – 11K0G3E

	dBm	Watts	Margin
Power Output	36.26	4.23	
	Frequency	dBc	dB
	454.5	0	
	909	74.6	17.6
	1363.5	78.4	21.4
	1818	104.7	47.7
	2272.5	103.3	46.3
	2727	102.9	45.9

Results Meet Requirements

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Data: 455.50 MHz – 11K0G3E

	dBm	Watts	Margin
Power Output	30.69	5	
	frequency	dBc	dB
	455.5	0	
	911	72.31	15.31
	1366.5	81.25	24.25
	1822	96.32	39.32
	2277.5	96.45	39.45
	2733	96.21	39.21

Results Meet Requirements

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Data: 459.74 MHz – 11K0G3E

	dBm	Watts	Margin
Power Output	36.26	4.38	
	frequency	dBc	dB
	459.74	0	
	919.48	71.99	14.99
	1379.22	81.89	24.89
	1838.96	96.89	39.89
	2298.7	96.89	39.89
	2758.44	96.89	39.89

Results Meet Requirements

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Data: 469.75 MHz – 11K0G3E

	dBm	Watts	Margin
Power Output	36	4	
	frequency	dBc	dB
	469.75	0	
	939.5	87.5	30.5
	1409.25	98.6	41.6
	1879	98.9	41.9
	2348.75	98	41

Results Meet Requirements

FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

Rule Part No.: Part 2.1053, 22.359, 74.462 (c), 80.211(f)

Requirements: 22.359

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

74.462 (c)

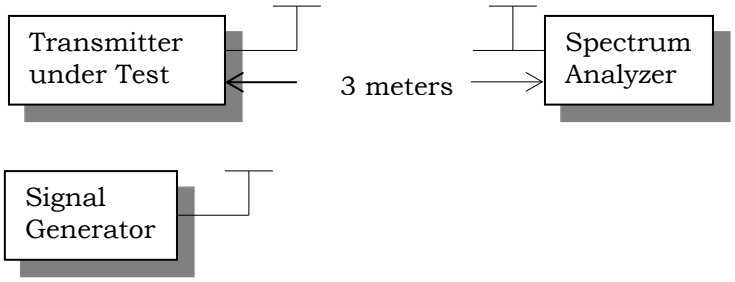
For emissions on frequencies above 25 MHz with authorized bandwidths up to 30 kHz, the emissions shall comply with the emission mask and transient frequency behavior requirements of §90.210 and § 90.214 of this chapter

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 10log10 (mean power in watts) dB.

Procedure: The carrier was modulated 100% using a 2500 Hz tone. 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/TIA 603-D.

Setup Diagram:



FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

Test Data: 450.25 MHz – 16K0G3E

Emission Frequency (MHz)	Power Mode	ERP Power Output (dBm)	ERP Power Output (Watts)	FCC Requirement dB	Bandwidth - BW - kHz
450.25	Hi	37.40	5.50	50.40	25.00

Emission Frequency (MHz)	Ant. Polarity	Below Carrier (dBc)	Margin
57.25	V	114.18	63.78
902.00	H	82.60	32.20
902.00	V	83.57	33.17
1,353.00	V	84.53	34.13
2,255.00	H	79.38	28.98
2,255.00	V	79.26	28.86
2,706.00	V	77.67	27.27
3,608.00	H	74.79	24.39
3,608.00	V	73.63	23.23
4,510.00	H	75.54	25.14

FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

Test Data: 454.50 MHz – 16K0G3E

Emission Frequency (MHz)	Power Mode	ERP Power Output (dBm)	ERP Power Output (Watts)	FCC Requirement dB	Bandwidth - BW - kHz
454.5	Hi	36.26	4.23	49.00	12.5

Emission Frequency (MHz)	Ant. Polarity	Below Carrier (dBc)	Margin
909.000	H	77.381	28.381
909.000	V	75.991	26.991
1363.500	H	73.646	24.646
1363.500	V	73.294	24.294
1818.000	H	68.528	19.528
1818.000	V	67.738	18.738
2272.500	H	67.093	18.093
2272.500	V	66.627	17.627
2727.000	H	66.489	17.489
2727.000	V	65.878	16.878
3181.500	H	64.826	15.826
3181.500	V	64.354	15.354
3636.000	H	64.072	15.072
3636.000	V	63.205	14.205
4090.500	H	60.122	11.122
4090.500	V	60.953	11.953
4545.000	H	66.687	17.687
4545.000	V	65.755	16.755

Results Meet Requirements

FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

Test Data: 459.74 MHz – 11K0G3E

Emission Frequency (MHz)	Power Mode	ERP Power Output (dBm)	ERP Power Output (Watts)	FCC Requirement dB	Bandwidth - BW - kHz
459.74	Hi	36.26	4.38	49.00	12.5

Emission Frequency (MHz)	Ant. Polarity	Below Carrier (dBc)	Margin
919.48	H	77.49	28.49
1,379.22	H	72.84	23.84
1,838.96	H	70.34	21.34
2,298.70	V	65.52	16.52
2,758.44	V	65.07	16.07
3,218.18	V	64.34	15.34
3,677.92	V	62.09	13.09
4,137.66	H	61.15	12.15
4,597.40	H	70.18	21.18

Results Meet Requirements

FIELD STRENGTH OF SPURIOUS RADIATION EMISSIONS

Test Data: 469.75 MHz – 11K0G3E

Emission Frequency (MHz)	Power Mode	ERP Power Output (dBm)	ERP Power Output (Watts)	FCC Requirement dB	Bandwidth - BW - kHz
469.75	Hi	36	4	49.00	12.5

Emission Frequency (MHz)	Ant. Polarity	Below Carrier (dBc)	Margin
939.50	V	76.01	27.01
1,409.25	H	73.85	24.85
1,879.00	V	70.74	21.74
2,348.75	V	62.65	13.65
2,818.50	H	66.79	17.79
3,288.25	V	62.10	13.10
3,758.00	V	60.74	11.74
4,227.75	H	63.77	14.77
4,697.50	H	67.14	18.14

Results Meet Requirements

TRANSIENT FREQUENCY RESPONSE

Rule Part No.: Part 74.462(c)

Requirements: Transmitters designed to operate in the 406.1 – 430 MHz and 450 - 512 MHz frequency bands must maintain transient frequencies within the maximum transient frequencies within the maximum frequency difference limits during the time intervals indicated:

Time intervals[1] [2]	Maximum frequency difference[3]	All equipment	
		150 to 174 MHz	421 to 512 MHz
Transient Frequency Behavior for Equipment Designed to Operate on 25 kHz Channels			
t_1[4]	±25.0 kHz	5.0 ms	10.0 ms
t_2	±12.5 kHz	20.0 ms	25.0 ms
t_3[4]	±25.0 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 12.5 kHz Channels			
t_1[4]	±12.5 kHz	5.0 ms	10.0 ms
t_2	±6.25 kHz	20.0 ms	25.0 ms
t_3[4]	±12.5 kHz	5.0 ms	10.0 ms
Transient Frequency Behavior for Equipment Designed to Operate on 6.25 kHz Channels			
t_1[4]	±6.25 kHz	5.0 ms	10.0 ms
t_2	±3.125 kHz	20.0 ms	25.0 ms
t_3[4]	±6.25 kHz	5.0 ms	10.0 ms

[1] t_{on} is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing.

t_1 is the time period immediately following t_{on}.

t_2 is the time period immediately following t_1.

t_3 is the time period from the instant when the transmitter is turned off until t_{off}.

t_{off} is the instant when the 1 kHz test signal starts to rise.

[2] During the time from the end of t_2 to the beginning of t_3, the frequency difference must not exceed the limits specified in §90.213.

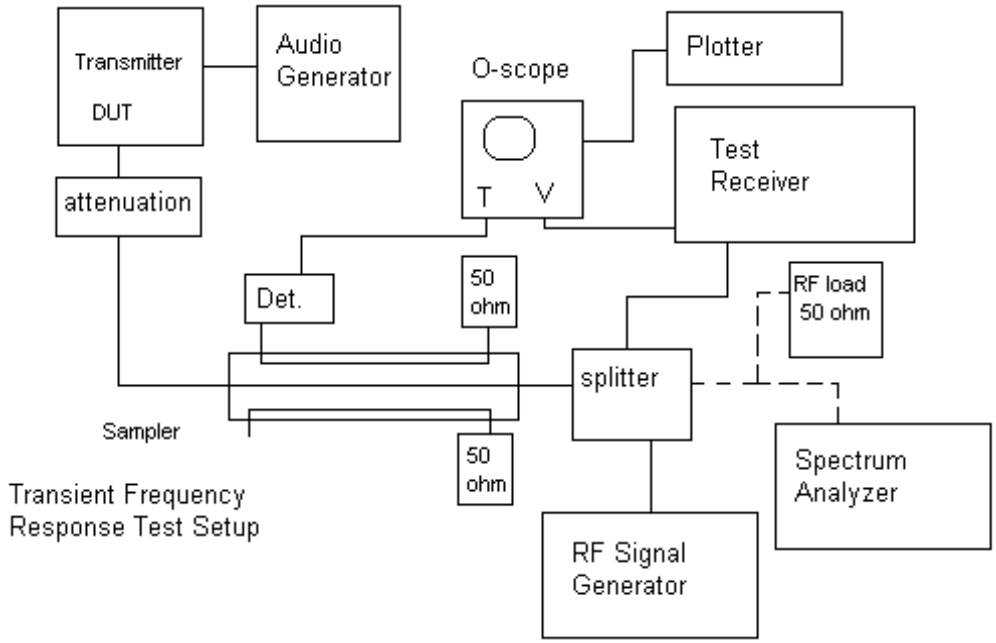
[3] Difference between the actual transmitter frequency and the assigned transmitter frequency.

[4] If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

TRANSIENT FREQUENCY RESPONSE

Procedure: ANSI/TIA-603§ 2.2.19 Transient Frequency Behavior

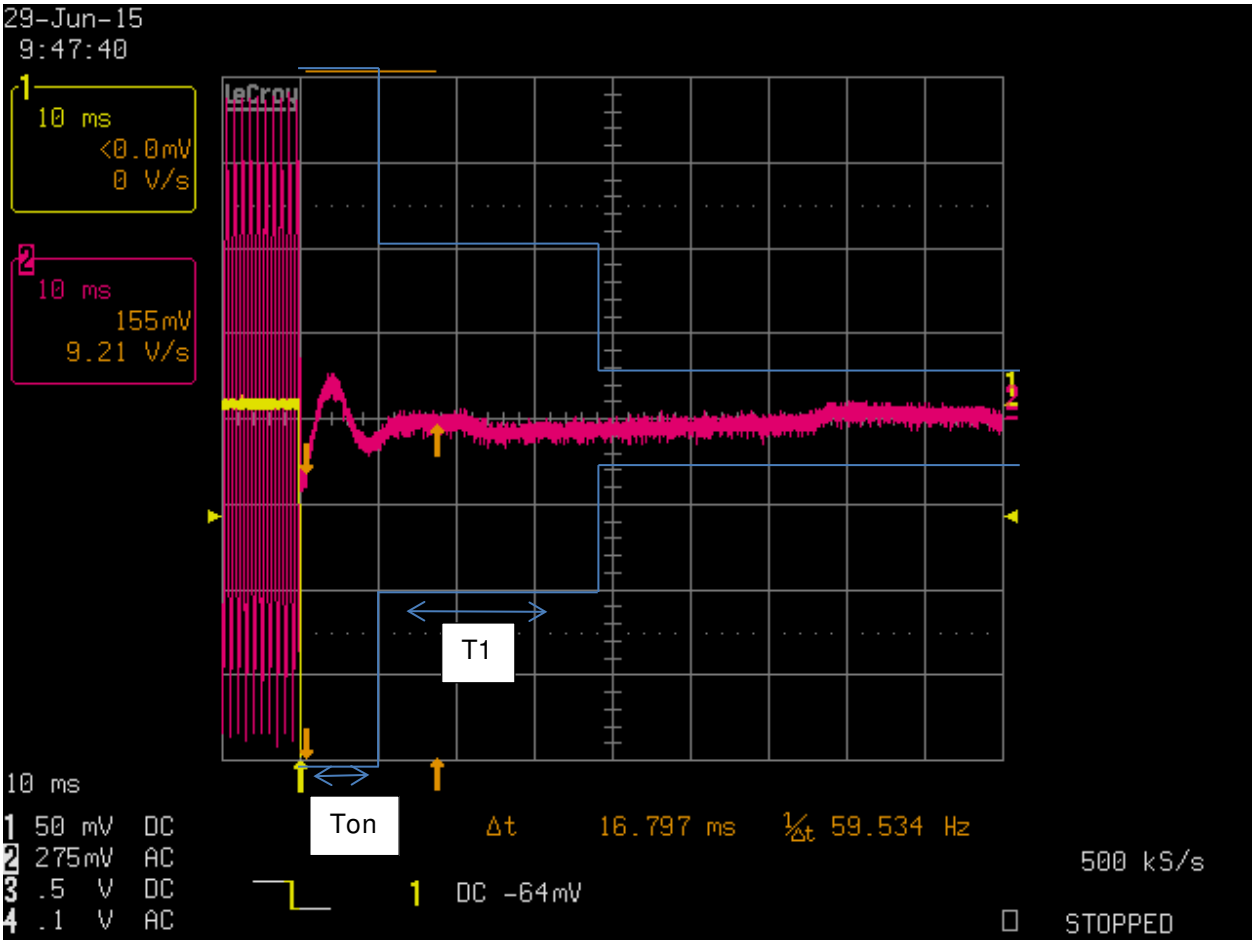
Setup Diagram:



Transient Frequency Response Test Setup

TRANSIENT FREQUENCY RESPONSE

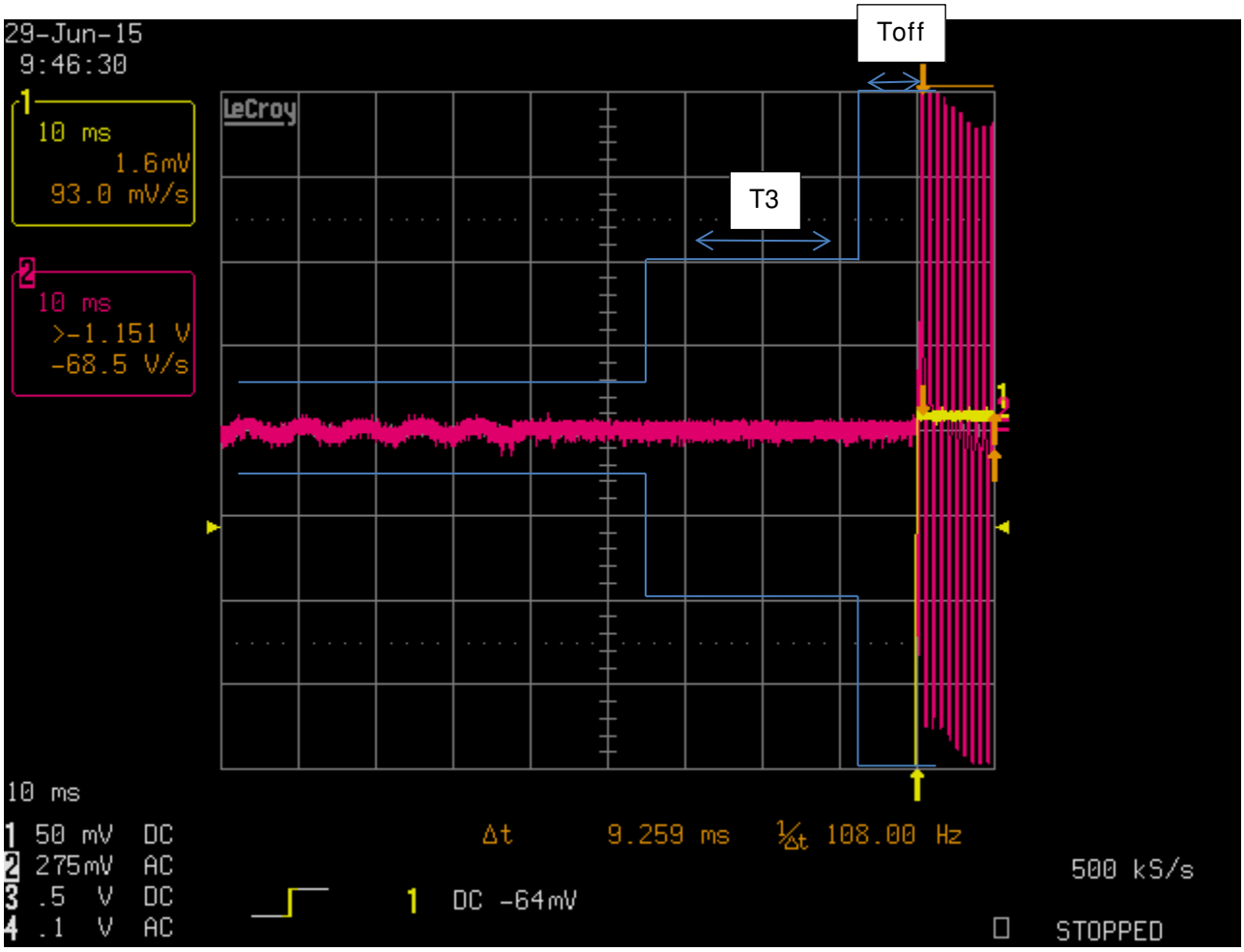
Test Data: 11K0G3E Turn On



Results meet requirements

TRANSIENT FREQUENCY RESPONSE

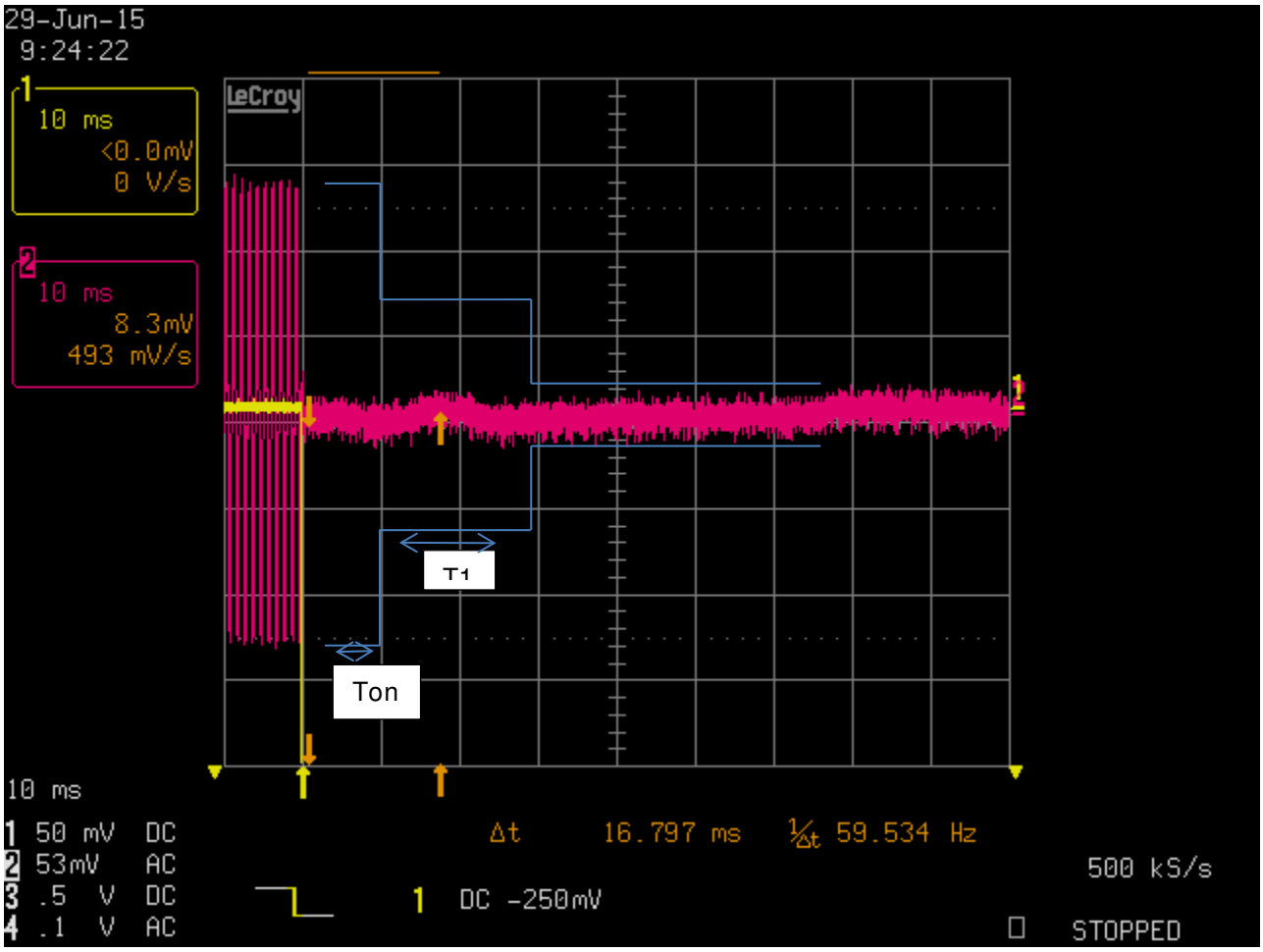
Test Data: 11K0G3E Turn Off



Results meet requirements

TRANSIENT FREQUENCY RESPONSE

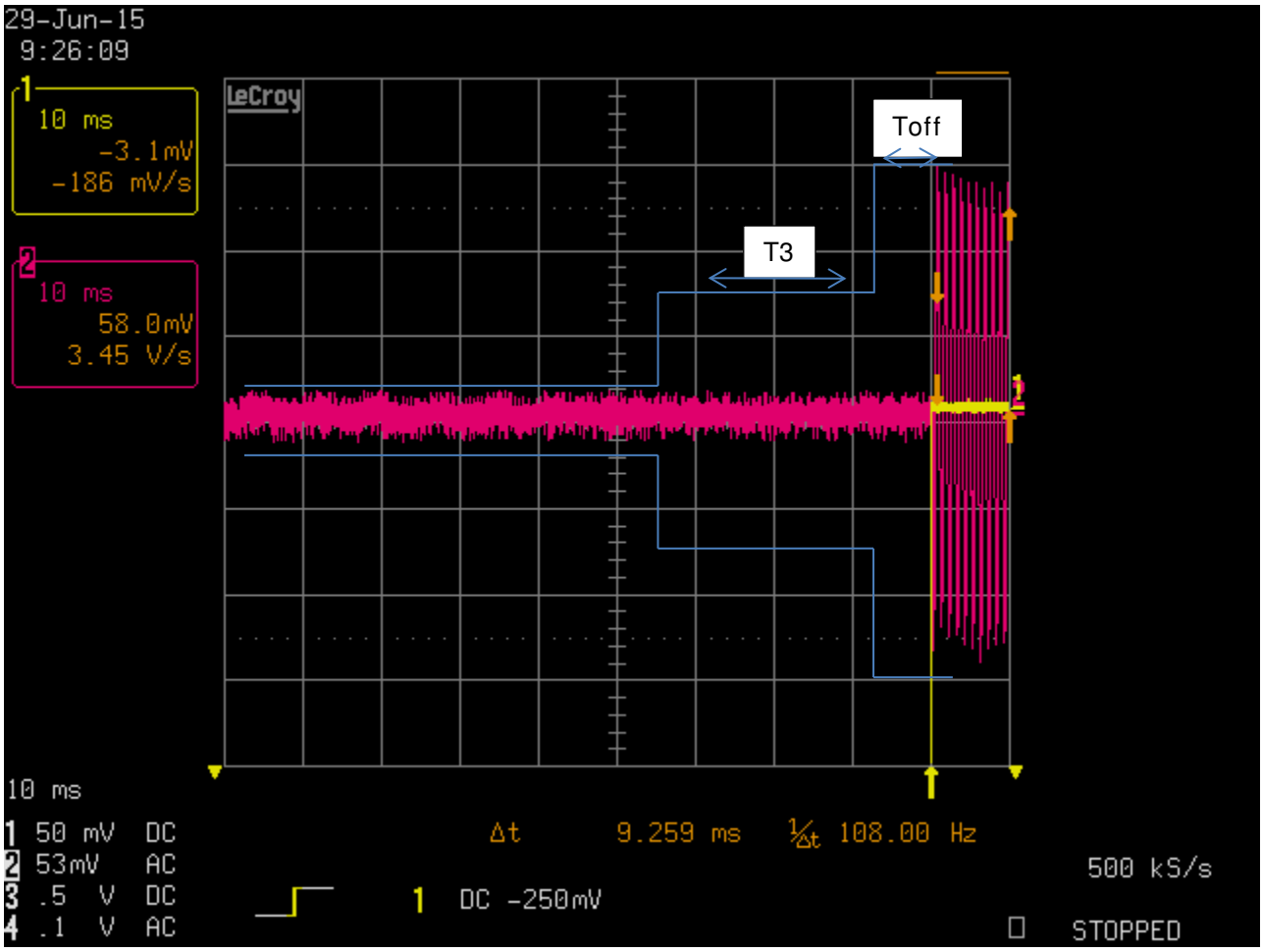
Test Data: 16K0G3E Turn On



Results meet requirements

TRANSIENT FREQUENCY RESPONSE

Test Data: 16K0G3E Turn Off



Results meet requirements

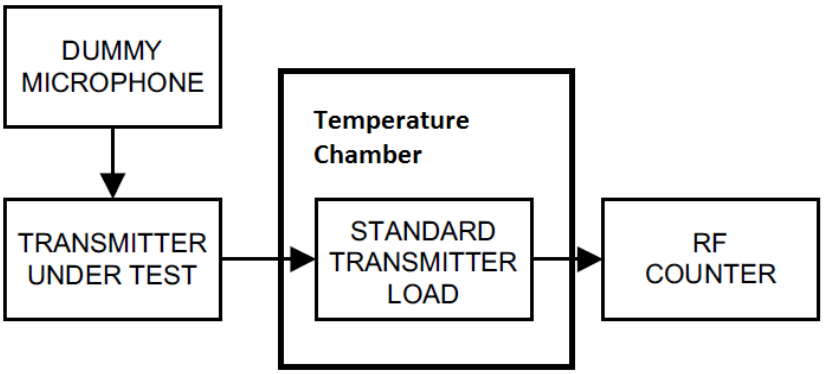
FREQUENCY STABILITY

Rule Parts. No.: Part 2.1055, 22.355, 74.464, 80.209

Requirements: Temperature range requirements: -30 to +50º C.
Voltage Variation +, -15%
±5 PPM

Procedure: Measured in accordance with ANSI/TIA 603-D

Setup Diagram:



Test Data: 459.74 MHz – 11K0G3E

Temperature	Frequency MHz	Cycles	PPM
25°C (reference)	459.74434		
-30°C	459.74504	700	1.523
-20°C	459.74505	710	1.544
-10°C	459.74513	790	1.718
0°C	459.74502	680	1.479
10°C	459.745	660	1.436
20°C	459.745	660	1.436
30°C	459.745	660	1.436
40°C	459.7451	760	1.653
50°C	459.74518	840	1.827
Battery Voltage	Frequency	Cycles	PPM
-15%	459.74432	-20	-0.044
15%	459.74434	0	0.000

Results Meet Requirements

EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/ Char Date	Due Date
Antenna: Biconnical	Eaton	94455-1	1057	11/18/15	11/18/17
Antenna: Log-Periodic	Eaton	96005	1243		
Temperature Chamber LARGE	Tenney Engineering	TTRC	11717-7	08/19/14	08/19/16
Audio Analyzer	HP	8903B	3011A13084	01/23/16	01/23/16
Frequency Counter Small Chamber	HP	5385A	3242A07460	07/01/15	07/01/17
CHAMBER	Panashield	N/A	N/A	01/05/16	03/01/16
Antenna: Double-Ridged Horn/ETS Horn 1	ETS-Lindgren	3117	00035923	06/13/14	06/13/16
Temperature Chamber Small	Thermotron Corp.	S1.2 Mini Max	25-1420-09	08/20/14	08/20/16
EMI Test Receiver R & S ESIB 40 Screen Room	Rohde & Schwarz	ESIB 40	100274	08/12/14	08/12/16
Software: Field Strength Program	Timco	N/A	Version 4.0	N/A	N/A
Antenna: Active Loop	ETS-Lindgren	6502	00062529	11/18/15	11/18/17
Hygro-Thermometer	Extech	445703	0602	06/30/15	06/30/17
EMI Test Receiver R & S ESU 40 Chamber	Rohde & Schwarz	ESU 40	100320	03/11/14	03/11/16
Signal Generator HP 8648C	HP	8648C	3623A02898	08/29/13	02/29/16

*** EMI RECEIVER SOFTWARE VERSION**

The receiver firmware used was version 4.43 Service Pack 3