
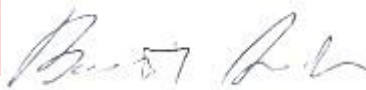
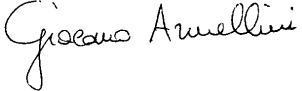




PRIMA

RICERCA & SVILUPPO

RAPPORTO DI PROVA / TEST REPORT

Rif./Ref.No. FCCTR_151062H-1	Data / Date: 19/01/2016	Pagine / Pages :41
Scopo delle prove / Test object :	Prove di tipo in accordo a / Type test according to 47 CFR Part 74	
Richiedente / Applicant :	AEB Industriale S.r.l. Via Brodolini, 8 – 40056 Crespellano (BO) – ITALY Tel. +39 051 969870	
Persona di riferimento / Applicant's referee :	Mr. Andrea Molinari (a.molinari@ssc-info.it)	
Marchio commerciale / Trademark :		
Fabbricante / Manufacturer :	AEB Industriale S.r.l.	
Prodotto / Product :	Digital Wireless Handheld Microphone	
Modello / Model :	MOVING D	
FCC ID:	2ADDV-MOVINGDH	
Data ricevimento campioni / Date of test samples receipt :	25/03/2015	
Campioni verificati / No. of tested samples	1	
Data verifiche / Testing date :	31/07-10/08/2015-19/01/2016	
Sito di prova / Testing site :	Prima Ricerca & Sviluppo Via Campagna - 92 I-22020 FALOPPIO CO FCC test registration number: 421808	
Esito delle valutazioni / Assessment results :	CONFORME / COMPLIANT	
Verifiche effettuate da / Verifications carried out by :	Andrea Bortolotti Tecnico Laboratorio EMC e RADIO/ EMC and RADIO Laboratory technician	
Approvato / Approved by :	Giacomo ARMELLINI Responsabile Laboratorio EMC e RADIO/ EMC and RADIO Laboratory Manager	

I risultati delle prove riportati nel presente rapporto di prova si riferiscono solo ai campioni esaminati./

The test results reported in this test report shall refer only to the samples tested

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0 RELEASE CONTROL RECORD

TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
FCCTR_151062H-0	Original release	19/10/2015
FCCTR_151062H-1	Editorial Change	19/01/2016

1 TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 EUT Identification

DESCRIPTION	Digital Wireless Handheld Microphone
TYPE	MOVING D
TRADEMARK	
S/N	Not present (prototype)
HW HARDWARE STATUS	Not available
SW SOFTWARE STATUS	Not available
FCC ID	2ADDV-MOVINGDH
MANUFACTURER	AEB Industriale Srl
COUNTRY OF MANUFACTURER	Italy
SINGLE UNIT OR SYSTEM	Single Unit

1.2 EUT technical information

FREQUENCY RANGE:	470.1MHz to 698MHz
FREQUENCY BAND:	470.1MHz to 608MHz 614MHz to 698MHz
MODULATION:	Digital Multilevel modulation: FM - 4FSK, 2 bit / symbol - 304 Kbps, max freq dev +/- 55 kHz Symbol time = 6.61 uS
ANTENNA:	Internal Integral
POWER SUPPLY:	3Vdc powered by internal battery (2x1,5Vdc type AA alkaline battery)
TEMPERATURE RANGE:	-30°C to + 55°C

1.3 Modification introduced in the EUT

R103 value changed from 39kΩ to 56kΩ (this modification has been introduced in order to achieve compliance with Occupied Bandwidth requirements)

1.4 Additional information

Test setup and EUT photos are included in test report:

TSupPhotos_151062H-0

2 REFERENCE STANDARDS FOR PERFORMED TESTS

47 CFR Part 74	Title 47 of the Code of Federal Regulations; Chapter I part 74 – Experimental radio, auxiliary. Special broadcast and other program distribution services
ANSI/TIA-603-C-2004	Land Mobile FM or PM – Communications Equipment – Measurement and Performance Standards

3 EUT OPERATING CONDITIONS

In the following table there are the operating conditions adopted during tests identified by an indicator (#..) at which has been referred the item “Operating condition of the equipment under test”

<i>Operating condition</i>	<i>Description</i>
#1	Continuous Modulated Transmission (modulation type: FM Digital modulation)
#2	Continuous Unmodulated Transmission

4 SUMMARY OF TEST RESULTS

TRANSMITTER PARAMETERS (TX)								
TEST SPECIFICATION CLAUSE	TEST	TEMPERATURE CONDITIONS	POWER SOURCE VOLTAGES	PASS	FAIL	NA	NP	RESULTS
FCC 47 CFR § 74.861 (e)(1)(i)	Output power	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPLIANT
FCC 47 CFR § 74.861 (e)(4)	Frequency Stability	Nominal	Extreme	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPLIANT
		Extreme	Nominal					
FCC 47 CFR § 2.1049 § 74.861 (e)(5)	Occupied bandwidth	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPLIANT
FCC 47 CFR § 74.861 (e)(6)(i)(ii)	Unwanted radiation (spectrum mask)	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPLIANT
FCC 47 CFR § 74.861 (e)(3)	Modulation Characteristics	Nominal	Nominal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	---
FCC 47 CFR § 74.861 (e)(6)(iii)	Field strength of spurious radiation Transmitter unwanted emissions	Nominal	Nominal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COMPLIANT

Note: NA = Not Applicable; NP = Not Performed

**TEST
1.**

TRANSMITTER OUTPUT POWER

REFERENCE DOCUMENT FCC 47 CFR§ 74.861 (e)(1)(i)

TEST SETUP	In according to ref std
TEST LOCATION	Radio test area
TEST METHOD	ANSI/TIA-603-C (2004) 2.2.1 FCC CFR 47 Part 2.1046
TYPE OF MEASUREMENT	CONDUCTED
TEST EQUIPMENT	Spectrum AnalyzerRohde&Schwarz mod. FSP40
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	31/07/2015

TEST CONDITIONS:		MEASURED
Ambient temperature :	23°C±5°C	24°C
Ambient humidity :	25 - 75 %rH	45%
Pressure :	85 - 106 kPa (860 mbar - 1060 mbar)	960mbar
Voltage		3Vdc

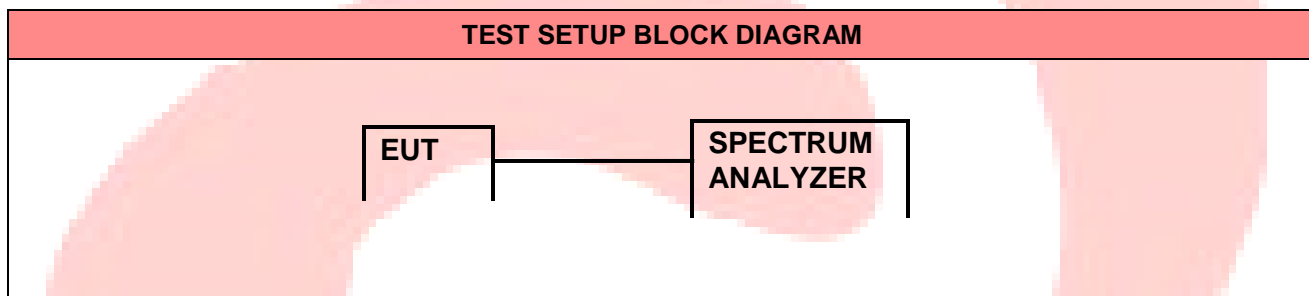
OPERATING CONDITION	#2
----------------------------	----

TEST RESULT	WITHIN THE LIMITS
--------------------	--------------------------

MEASUREMENT PARAMETER	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	300kHz (see note 1)
Video bandwidth:	1MHz
Span:	2 MHz
Trace-Mode:	Max. hold

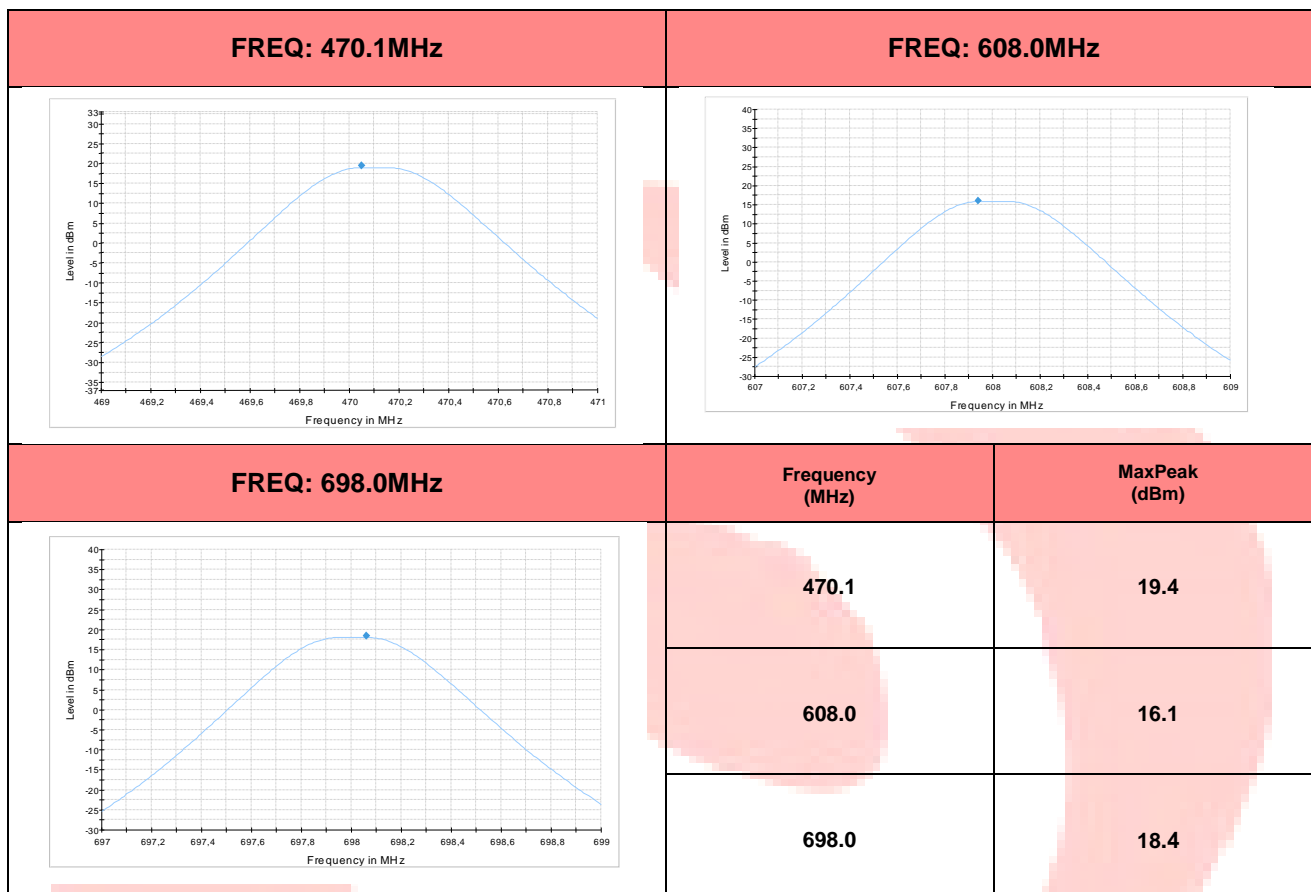
Note 1: The output power has been measured with a RBW of 300kHz because the resolution bandwidth must always be wider than the signal it is measuring, for an output power test.”

LIMITS
47 CFR § 74.861 (e)(1)(i)
Maximum transmitter power
470-608 and 614-698 MHz bands—250 mW



TEST RESULTS				
FREQUENCY (MHz)	TRANSMITTER OUTPUT POWER (dBm)	TRANSMITTER OUTPUT POWER (mW)	LIMIT (mW)	RESULT
470.1	19.4	87.1	250	PASS
608.0	16.1	40.7	250	PASS
698.0	18.4	69.2	250	PASS

PLOTS OF THE MEASUREMENTS



**TEST
2.**

FREQUENCY STABILITY

REFERENCE DOCUMENT FCC 47 CFR§ 74.861 (e)(4)

TEST SETUP	In according to ref std
TEST LOCATION	Radio test area
TEST METHOD	ANSI/TIA-603-C (2004) 2.2.2 FCC CFR 47 Part 2. 1055
TYPE OF MEASUREMENT	CONDUCTED
TEST EQUIPMENT	Spectrum AnalyzerRohde&Schwarz mod. FSP40 Climatic Chamber
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	03/08/2015; 19/01/2016

TEST CONDITIONS:		MEASURED
Ambient temperature :	23°C±5°C	24°C
Ambient humidity :	25 - 75 %rH	45%
Pressure :	85 - 106 kPa (860 mbar - 1060 mbar)	960mbar
Voltage		See test results

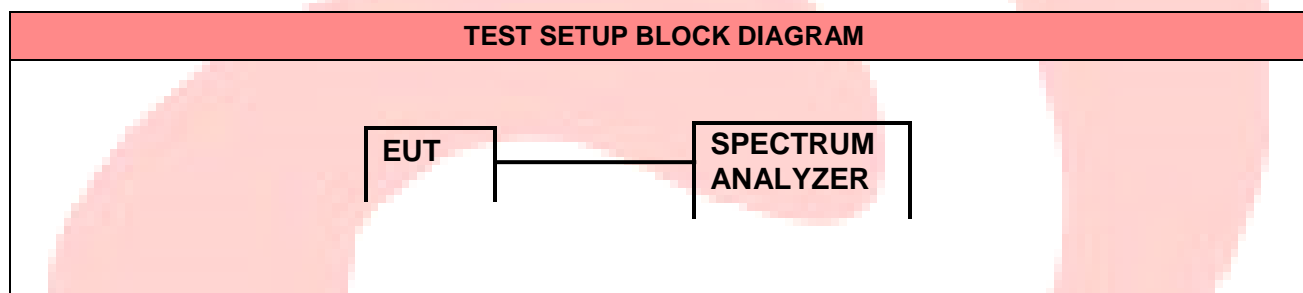
OPERATING CONDITION	#2
----------------------------	----

TEST RESULT	WITHIN THE LIMITS
--------------------	--------------------------

FREQUENCY ERROR VS TEMPERATURE

MEASUREMENT PARAMETER	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	100 Hz
Video bandwidth:	100 Hz
Span:	1 kHz
Trace-Mode:	Max. hold
Voltage (nominal)	3Vdc

LIMITS
FCC 47 CFR§ 74.861 (e)(4)
The frequency tolerance of the transmitter shall be 0.005 percent (50ppm)



TEST RESULTS

Freq: 470.1MHz

TEMPERATURE (°C)	FREQUENCY (MHz)	DEVIATION (Hz)	DEVIATION (ppm)	LIMIT (ppm)	RESULT
-30°C	470.099998865	-1.135	-0.0024	50	PASS
-20°C	470.099998760	-1.240	-0.0026	50	PASS
-10°C	470.099968750	-31.250	-0.0665	50	PASS
0°C	470.100055385	55.385	0.1178	50	PASS
10°C	470.100055275	55.275	0.1176	50	PASS
20°C	470.100055485	55.485	0.1180	50	PASS
30°C	470.100045865	45.865	0.0976	50	PASS
40°C	470.100038645	38.645	0.0822	50	PASS
50°C	470.100029555	29.555	0.0629	50	PASS

Freq: 608.0MHz

TEMPERATURE (°C)	FREQUENCY (MHz)	DEVIATION (Hz)	DEVIATION (ppm)	LIMIT (ppm)	RESULT
-30°C	607.999968485	-31.515	-0.0518	50	PASS
-20°C	607.999949670	-50.330	-0.0828	50	PASS
-10°C	607.999945825	-54.175	-0.0891	50	PASS
0°C	608.000057625	57.625	0.0948	50	PASS
10°C	608.000047805	47.805	0.0786	50	PASS
20°C	608.000046425	46.425	0.0764	50	PASS
30°C	608.000041365	41.365	0.0680	50	PASS
40°C	608.000032385	32.385	0.0533	50	PASS
50°C	608.000025435	25.435	0.0418	50	PASS

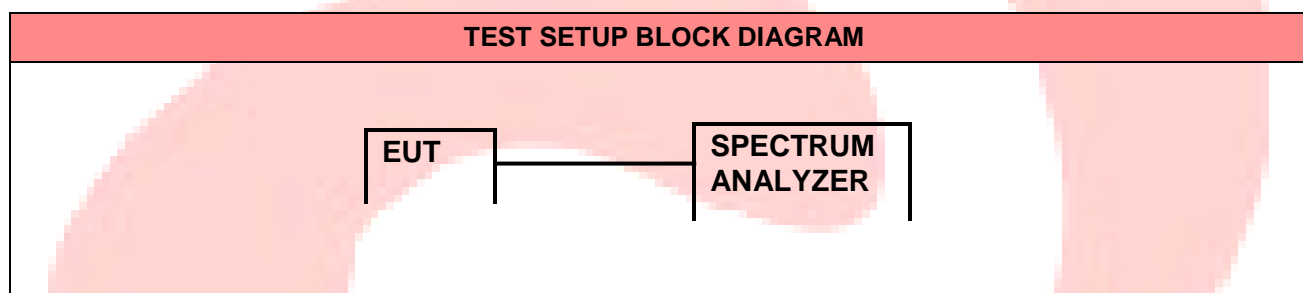
Freq: 698.0MHz

TEMPERATURE (°C)	FREQUENCY (MHz)	DEVIATION (Hz)	DEVIATION (ppm)	LIMIT (ppm)	RESULT
-30°C	697.999986440	-13.560	-0.0194	50	PASS
-20°C	697.999976520	-23.480	-0.0336	50	PASS
-10°C	697.999946555	-53.445	-0.0766	50	PASS
0°C	698.000045425	45.425	0.0651	50	PASS
10°C	697.999946215	-53.785	-0.0771	50	PASS
20°C	697.999947645	-52.355	-0.0750	50	PASS
30°C	697.999946545	-53.455	-0.0766	50	PASS
40°C	697.999983125	-16.875	-0.0242	50	PASS
50°C	698.000014105	14.105	0.0202	50	PASS

FREQUENCY ERROR VS VOLTAGE

MEASUREMENT PARAMETER	
Detector:	Peak
Sweep time:	Auto
Resolutionbandwidth:	100 Hz
Video bandwidth:	100 Hz
Span:	1 kHz
Trace-Mode:	Max. hold
Temperature	22°C

LIMITS
FCC 47 CFR§ 74.861 (e)(4)
The frequency tolerance of the transmitter shall be 0.005 percent (50ppm)



TEST RESULTS

CHANNEL FREQUENCY (MHz)	VOLTAGE (V)	MEASURED FREQUENCY (MHz)	DEVIATION (Hz)	DEVIATION (PPM)	LIMIT (ppm)	RESULT
470.1	2.0	470.100067125	67.125	0.143	50	PASS
	2.7	470.100066930	66.930	0.142	50	PASS
	3V	470.100055420	55.420	0.118	50	PASS
608.0	2.0	608.000069250	69.250	0.113	50	PASS
	2.7	608.000068620	68.620	0.113	50	PASS
	3V	608.000063970	63.970	0.105	50	PASS
698.0	2.0	698.000057175	57.175	0.082	50	PASS
	2.7	698.000055225	55.225	0.079	50	PASS
	3V	698.000049360	49.360	0.071	50	PASS

NOTE: 2.0V is the Battery Operating End Point declared by the manufacturer

**TEST
3.**

OCCUPIED BANDWIDTH

REFERENCE DOCUMENT FCC 47 CFR§2.1049 §74.861 (e)(5)

TEST SETUP	In according to ref std
TEST LOCATION	Radio test area
TEST METHOD	FCC CFR 47 Part 2.1049
TYPE OF MEASUREMENT	CONDUCTED
TEST EQUIPMENT	Spectrum Analyzer Rohde &Schwarz mod. FSP40
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	10/08/2015

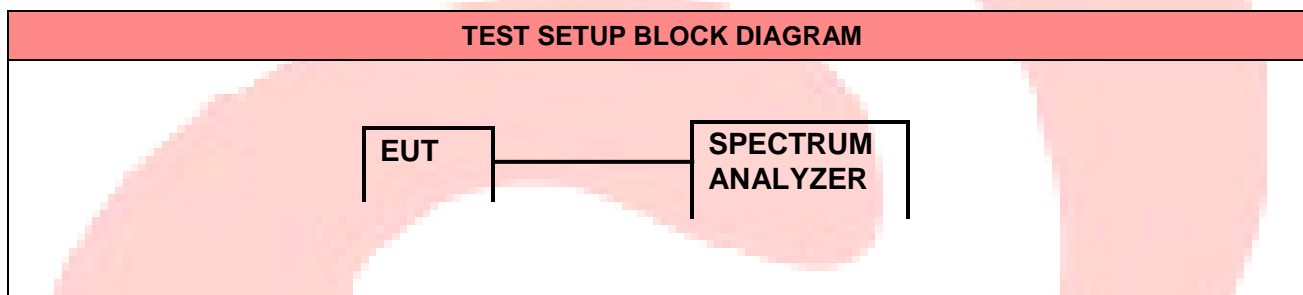
TEST CONDITIONS:	MEASURED
Ambient temperature : 23°C±5°C	24 °C
Ambient humidity : 25 - 75 %rH	45%
Pressure : 85 - 106 kPa (860 mbar - 1060 mbar)	960 mbar
Voltage :	3Vdc

OPERATING CONDITION (Rif. Section 3) :#1 (modulation type: Digital Multilevel)

TEST RESULTS: COMPLIANT

MEASUREMENT PARAMETER	
Detector:	Peak
Sweep time:	Auto
Resolution bandwidth:	3kHz
Video bandwidth:	3kHz
Span:	see plots
Trace-Mode:	Max. hold

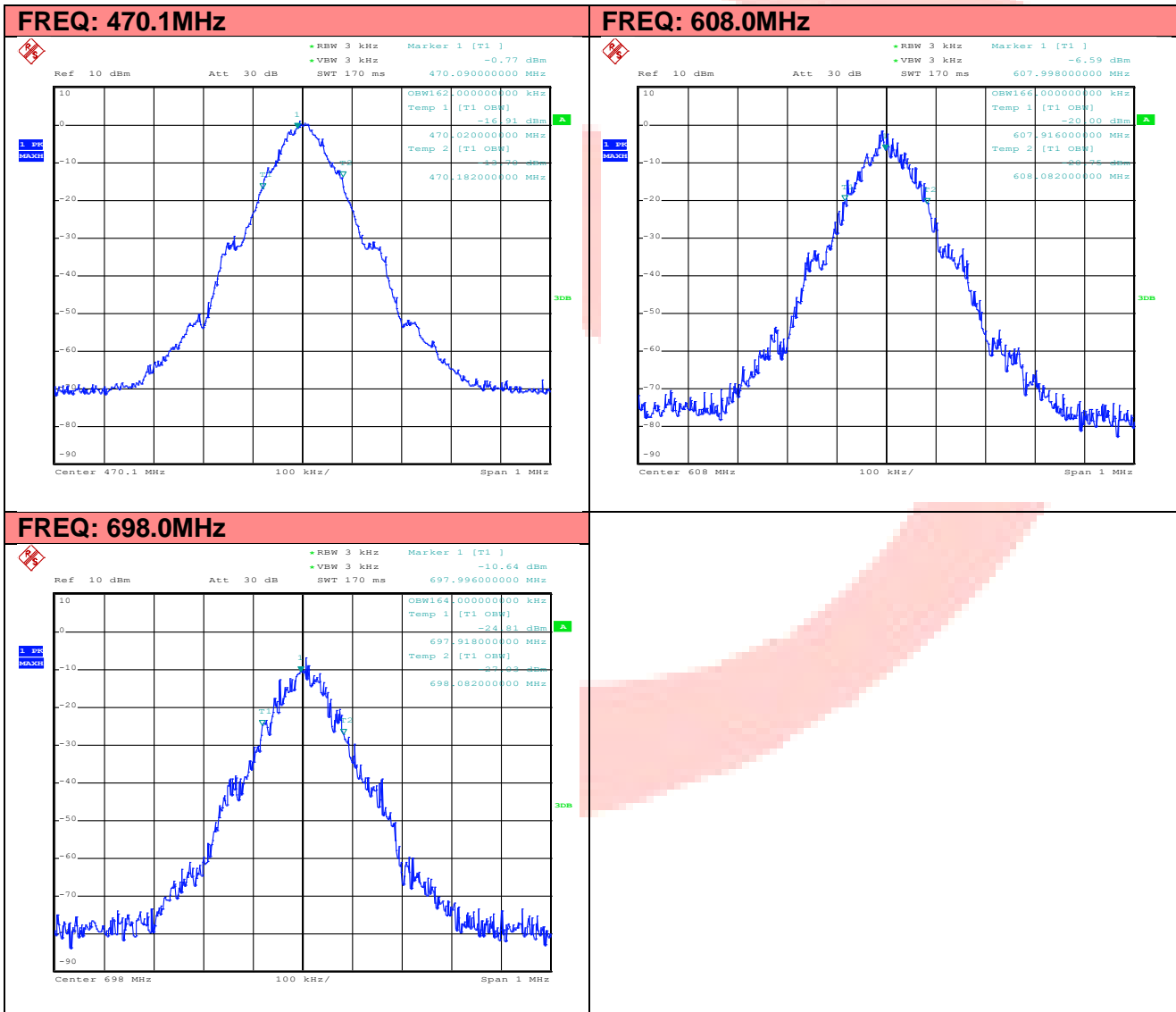
LIMITS
Occupied bandwidth 99%. Other than single sideband or independent sideband transmitters – when modulated by a 2500 Hz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation. The input level shall be established at the frequency of maximum response of the audio modulating circuit.
The operating bandwidth shall not exceed 200 kHz



TEST RESULTS

Frequency (MHz)	99% dB bandwidth (kHz)	Limit (kHz)	RESULT
470.1	162	200	PASS
608.0	166	200	PASS
698.0	164	200	PASS

PLOTS OF THE MEASUREMENTS



**TEST
4.**

UNWANTED RADIATION (SPECTRUM MASK)

REFERENCE DOCUMENT FCC 47 CFR§ 74.861 (e)(6)(i)(ii)

TEST SETUP	In according to ref std
TEST LOCATION	Radio test area
TEST METHOD	ANSI/TIA-603-C (2004) 2.2.11 FCC CFR 47 Part 2.1051
TYPE OF MEASUREMENT	CONDUCTED
TEST EQUIPMENT	Spectrum AnalyzerRohde&Schwarz mod. FSP40
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	04/08/2015; 19/01/2016

TEST CONDITIONS:	MEASURED
Ambient temperature : 23°C±5°C	24 °C
Ambient humidity : 25 - 75 %rH	45%
Pressure : 85 - 106 kPa (860 mbar - 1060 mbar)	960 mbar
Voltage :	3Vdc

OPERATING CONDITION (Rif. Section 3) :#1(modulation type: Digital Multilevel)

TEST RESULTS: COMPLIANT

MEASUREMENT PARAMETER

Detector:	Peak
Sweep time:	Auto
Resolutionbandwidth:	3kHz
Video bandwidth:	3kHz
Span:	see plots
Trace-Mode:	Max. hold

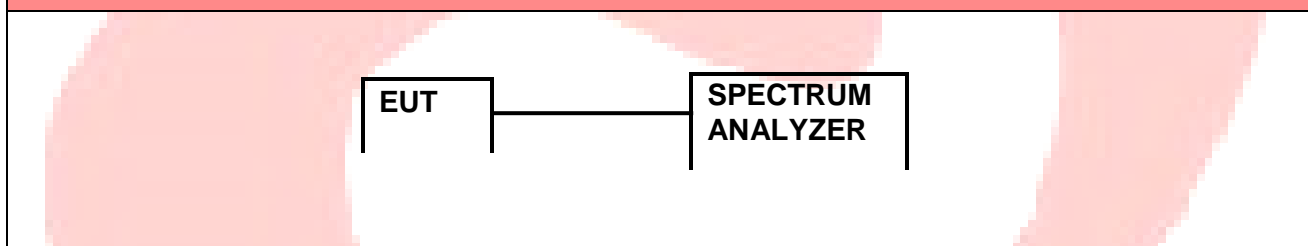
LIMITS

47 CFR § 74.861

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

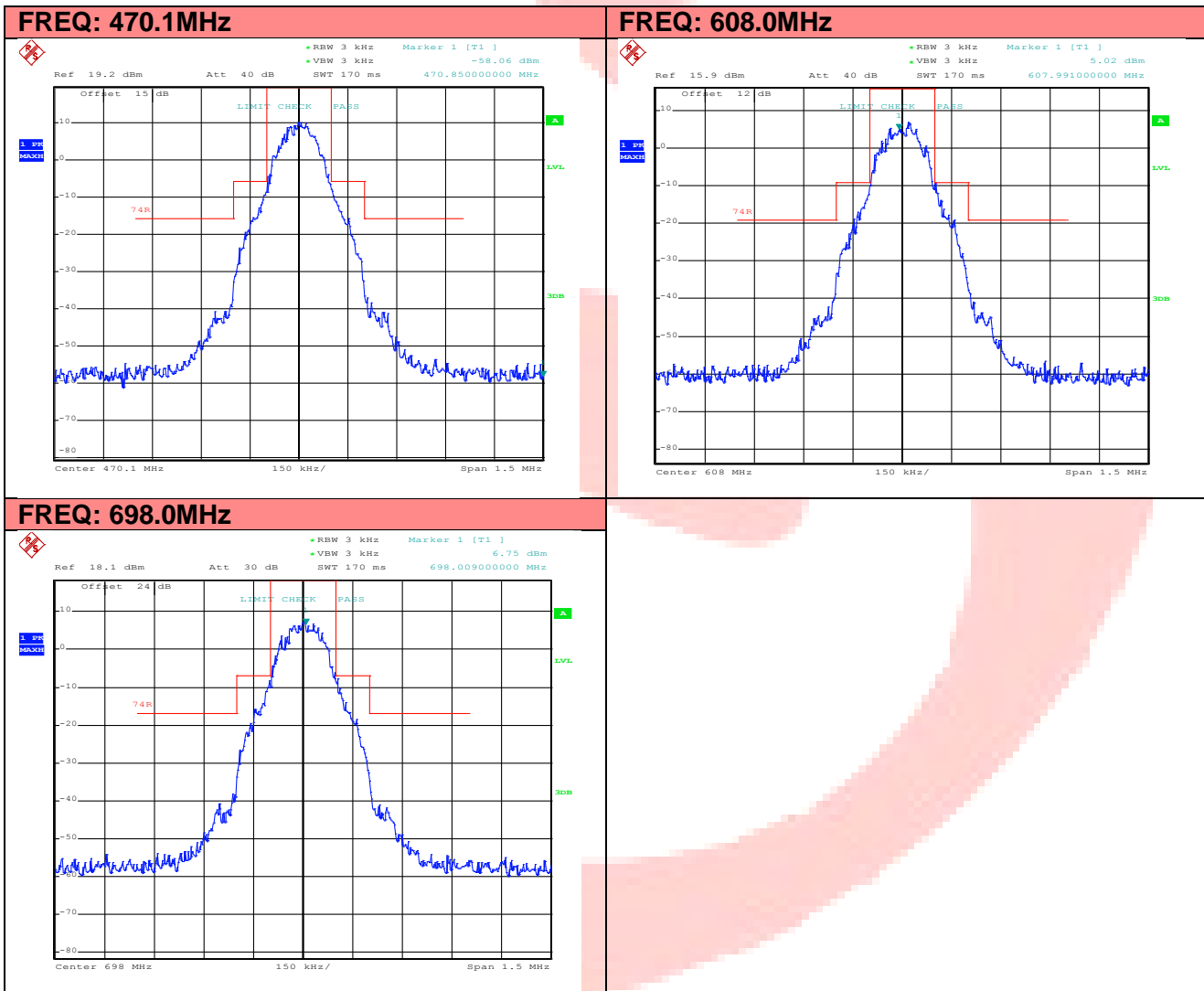
- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
- (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
- (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43+10\log_{10}$ (mean output power in watts) dB.

TEST SETUP BLOCK DIAGRAM

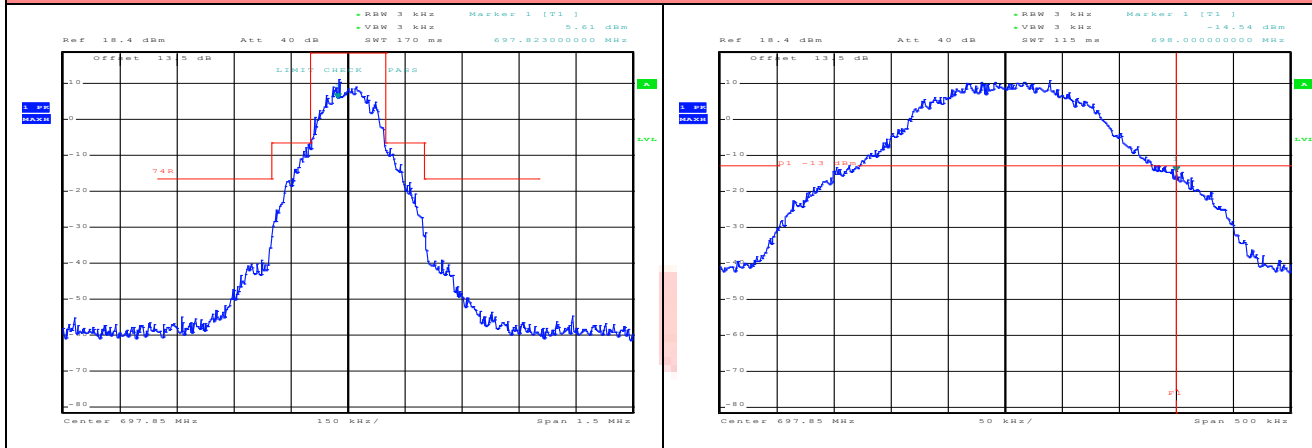


Note: radiated output power measurement has been performed in order to set the properly reference level

PLOTS OF THE MEASUREMENTS



TOP CHANNEL FREQUENCY USED: 697.85MHz



**TEST
5.**

MODULATION CHARACTERISTICS

REFERENCE DOCUMENT FCC 47 CFR§ 74.861 (e)(3)

TEST SETUP	In according to ref std
TEST LOCATION	Radio test area
TEST METHOD	FCC CFR 47 Part 2.1047
TYPE OF MEASUREMENT	CONDUCTED
TEST EQUIPMENT	Audio Analyzer Rohde&Schwarz mod. UPD
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	05/08/2015

TEST CONDITIONS:	MEASURED
Ambient temperature : 23°C±5°C	24 °C
Ambient humidity : 25 - 75 %rH	45%
Pressure : 85 - 106 kPa (860 mbar - 1060 mbar)	960 mbar
Voltage :	3Vdc

OPERATING CONDITION (Rif. Section 3) : ---

TEST RESULTS: NOT APPLICABLE

LIMITS

47 CFR § 74.861

TEST SETUP BLOCK DIAGRAM



TEST RESULTS

NOT APPLICABLE: DIGITAL MODULATION SYSTEM

**TEST
6.**

RADIATED SPURIOUS EMISSIONS

REFERENCE
DOCUMENT

FCC 47 CFR§ 74.861 (e)(6)(iii)

TEST SETUP	In according to ref std
TEST LOCATION	Anechoic chamber with a conductive ground plane. Distance 3m
TEST METHOD	ANSI/TIA-603-C (2004) 2.2.12 FCC CFR 47 Part 2.1053
TYPE OF MEASUREMENT	RADIATED
TEST EQUIPMENT	EMI Receiver Rohde&Schwarz mod. ESU40 Bi-log antenna CHASE mod. CBL6111C Log-periodica Broadband Antenna R&S mod. HL050 Loop Antenna R&S mod. HFH2-Z2
TEST PERFORMED BY	Andrea Bortolotti
TESTING DATE	06/08/2015, 19/01/2016

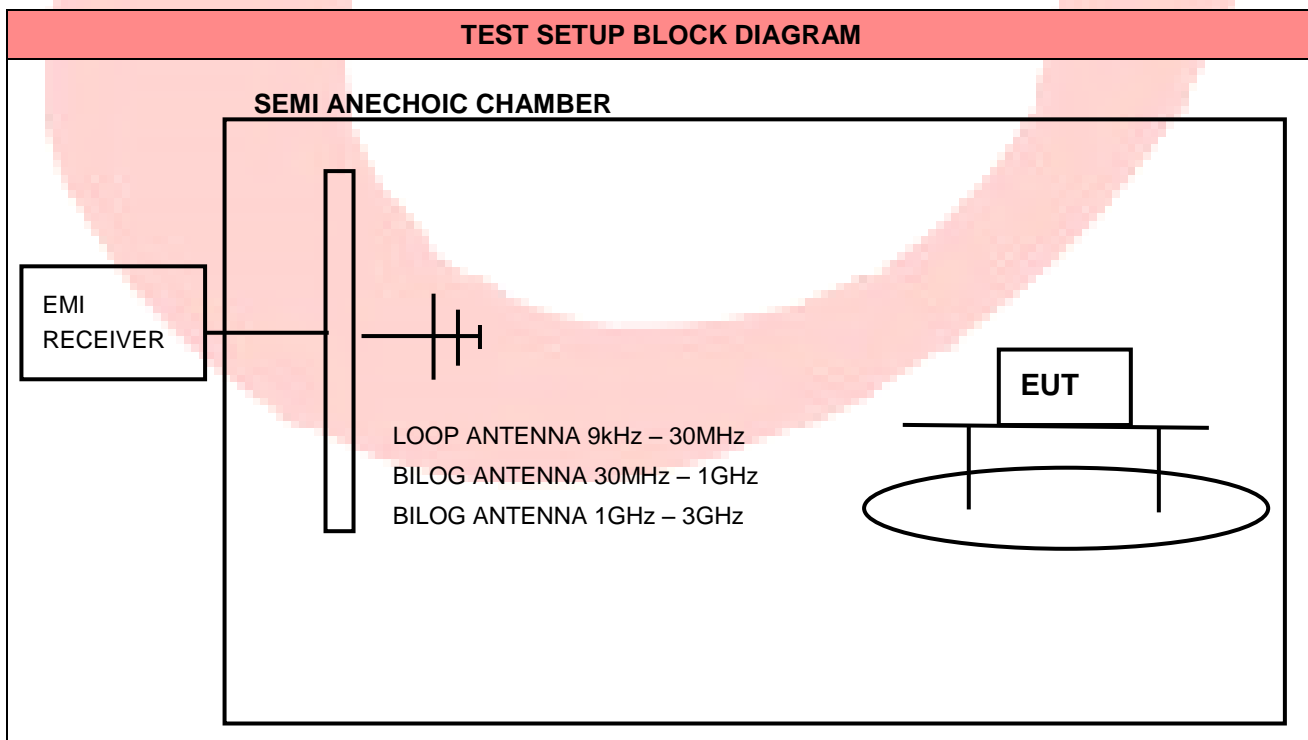
TEST CONDITIONS:	MEASURED
Ambient temperature : 23°C±5°C	24 °C
Ambient humidity : 25 - 75 %rH	45%
Pressure : 85 - 106 kPa (860 mbar - 1060 mbar)	960 mbar
Voltage :	3Vdc

OPERATING CONDITION (Rif. Section 3) :#1

TEST RESULTS: COMPLIANT

MEASUREMENT PARAMETER	
Detector:	Peak / Quasi Peak
Resolution bandwidth:	9kHz (f<150kHz) 100kHz (150kHz< f < 30MHz) 100kHz (30MHz< f <1GHz) 1MHz (f>1GHz)
Video bandwidth:	200Hz (f<150kHz) 9kHz (150kHz< f < 30MHz) 100kHz (30MHz< f <1GHz) 1MHz (f>1GHz)
Span:	see plots
Trace-Mode:	Max. hold

LIMITS
47 CFR § 74.861 (e)(6)(iii)
The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule: (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB; (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB; (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least 43+10log ₁₀ (mean output power in watts) dB.



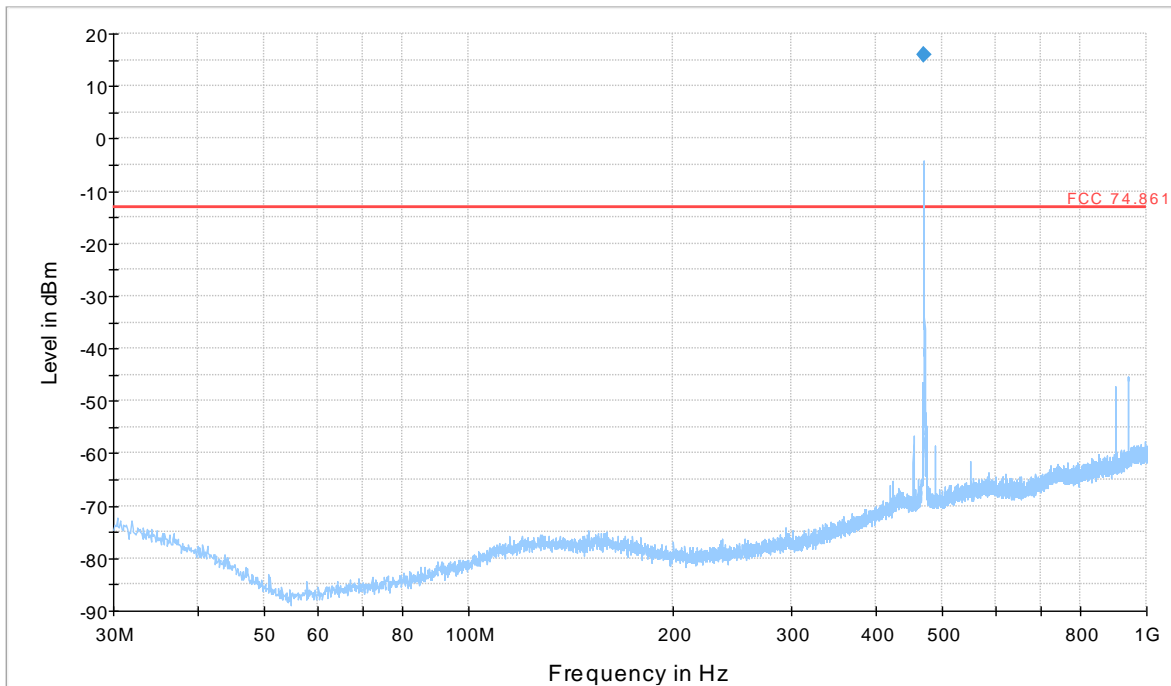
FREQUENCY RANGE 9kHz - 30MHz – Freq. 470.1MHz

VERTICAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 470.1MHz

VERTICAL POLARIZATION



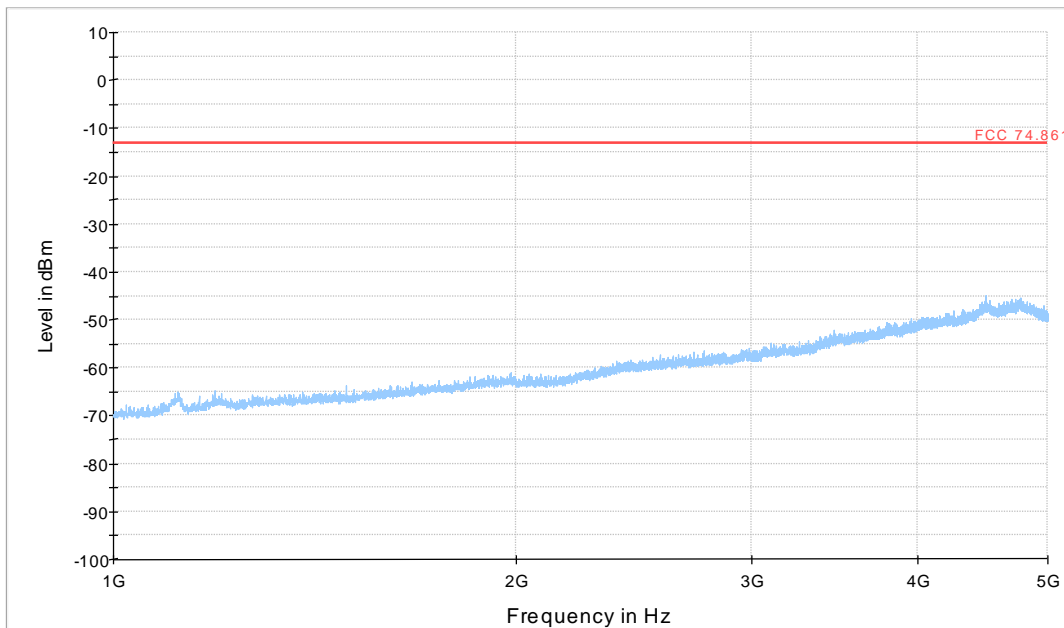
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
469.992000	16.0	103.0	V	270.0	-29.0	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 470.1MHz

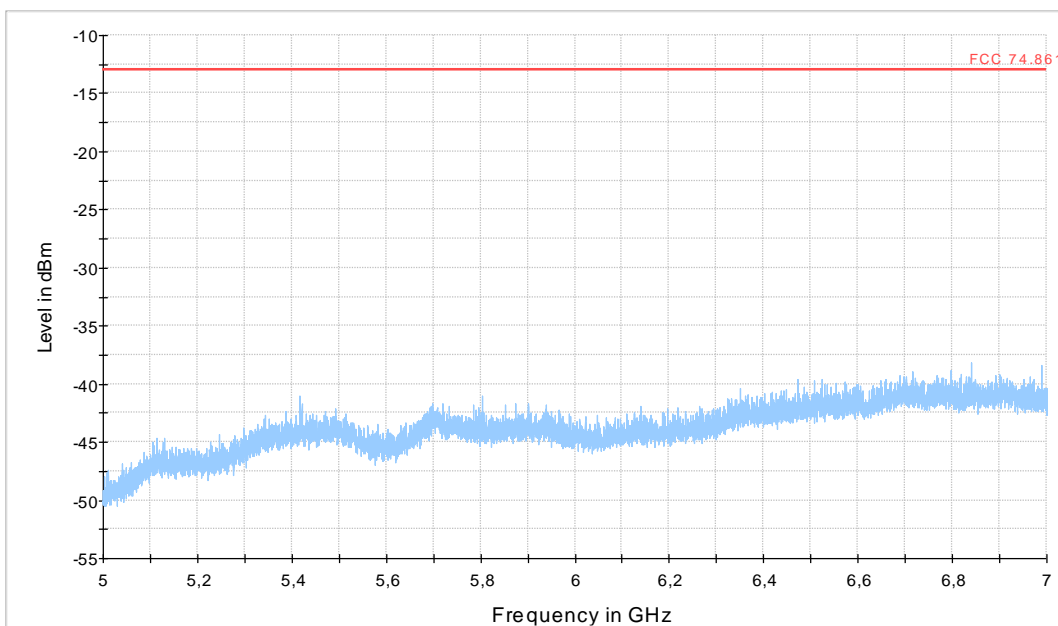
VERTICAL POLARIZATION



Blue trace Peak detector

FREQUENCY RANGE 5GHz – 7GHz Freq. 470.1MHz

VERTICAL POLARIZATION



Blue trace Peak detector

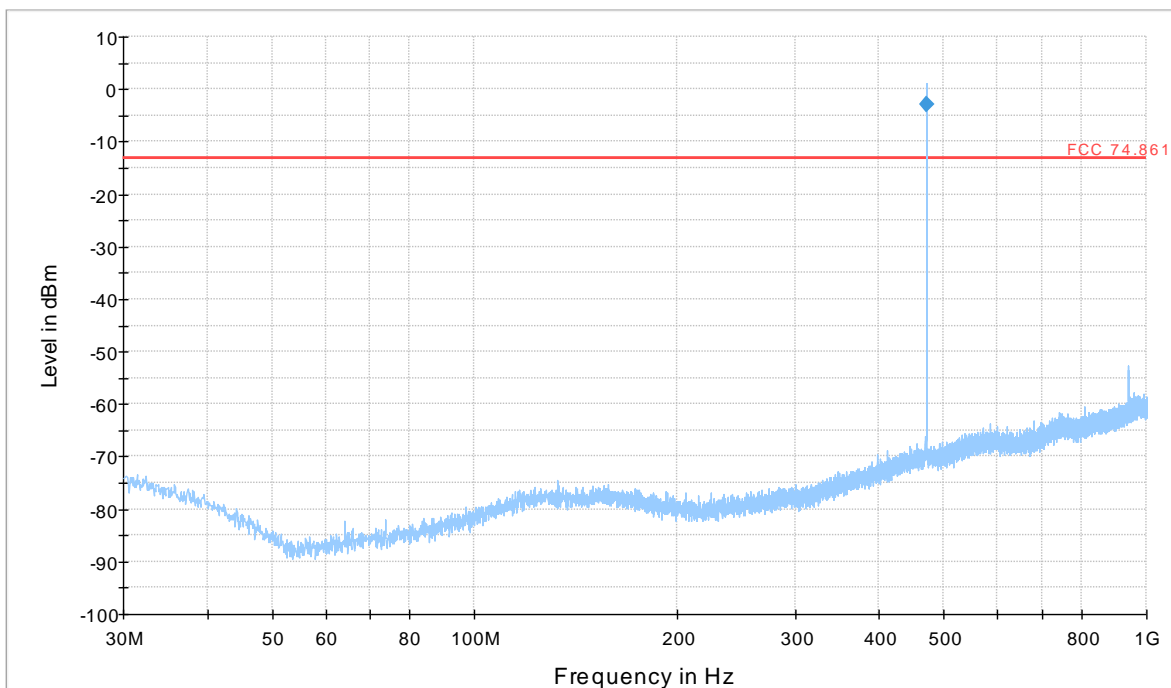
FREQUENCY RANGE 9kHz - 30MHz – Freq. 470.1MHz

HORIZONTAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 470.1MHz

HORIZONTAL POLARIZATION



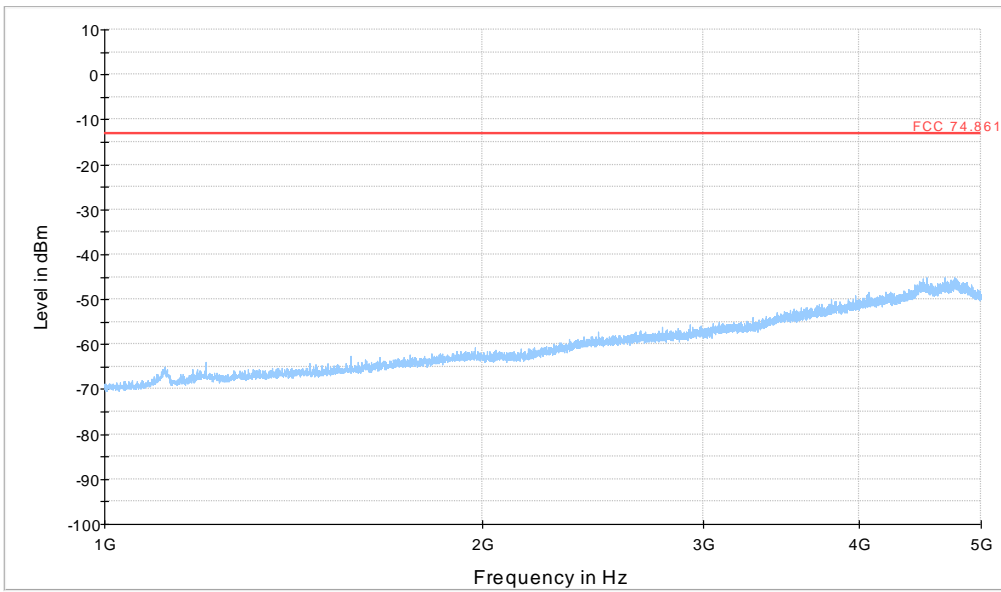
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
469.992000	-2.9	259.0	H	89.0	-10.1	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 470.1MHz

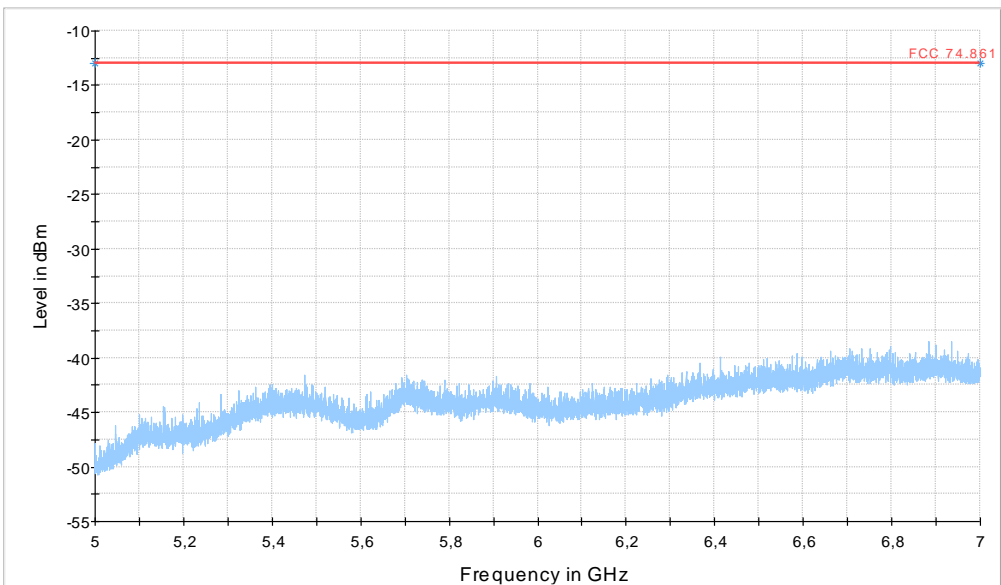
HORIZONTAL POLARIZATION



Blue trace Peak detector

FREQUENCY RANGE 5GHz – 7GHz Freq. 470.1MHz

HORIZONTAL POLARIZATION



Blue trace Peak detector

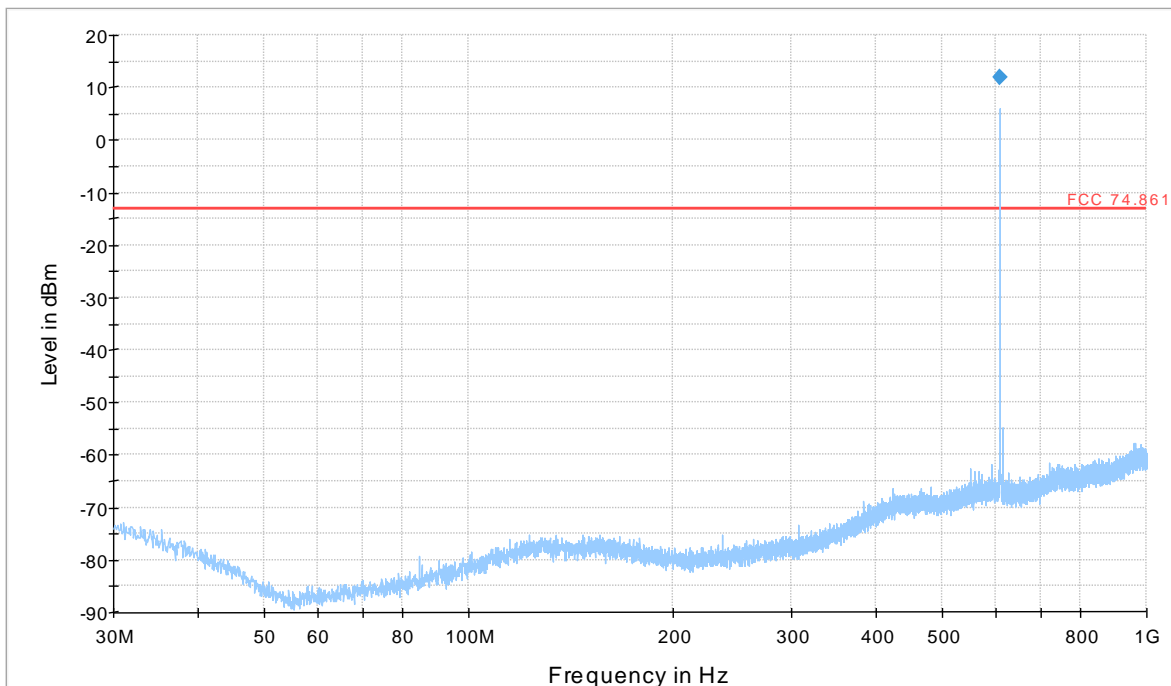
FREQUENCY RANGE 9kHz - 30MHz – Freq. 608.0MHz

VERTICAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 608.0MHz

VERTICAL POLARIZATION



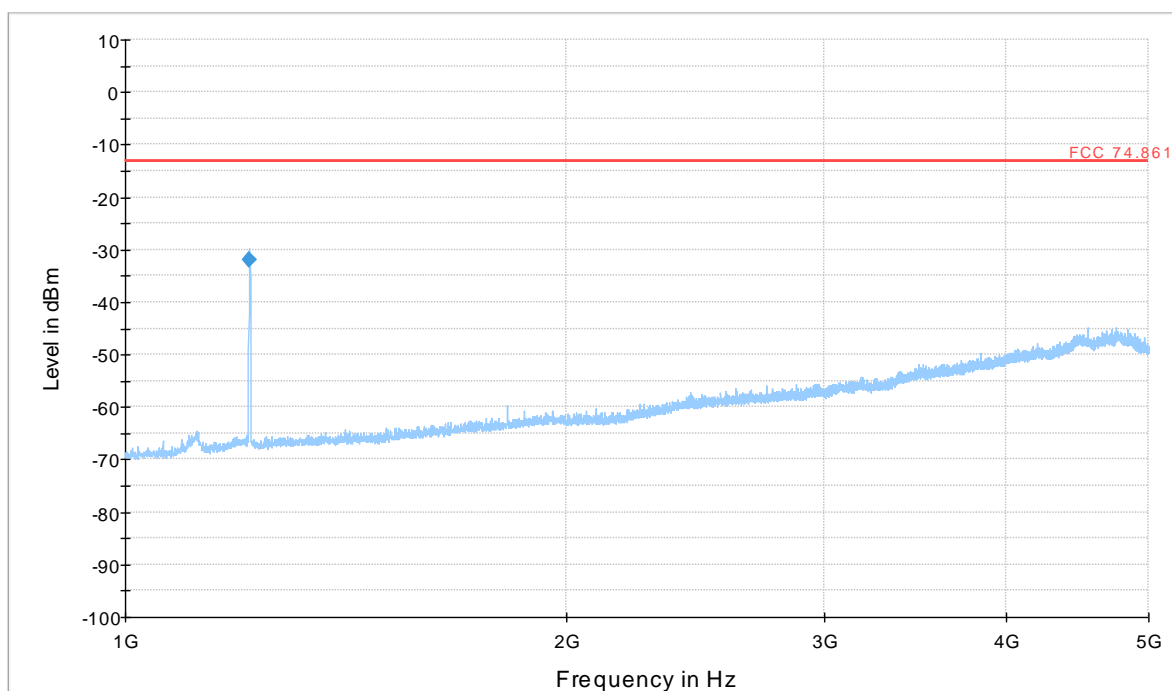
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
607.926000	11.9	104.0	V	0.0	-24.9	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 608.0MHz

VERTICAL POLARIZATION



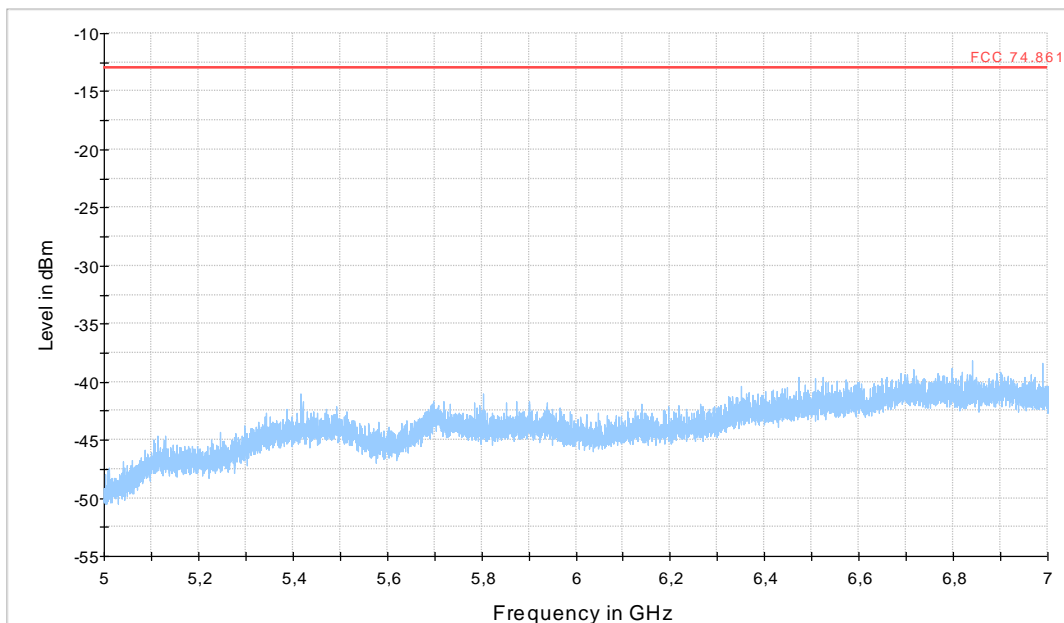
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
1215.600000	-31.9	259.0	V	180.0	18.9	-13.0	2 nd harmonic

FREQUENCY RANGE 5GHz – 7GHz Freq. 608.0MHz

VERTICAL POLARIZATION



Blue trace Peak detector

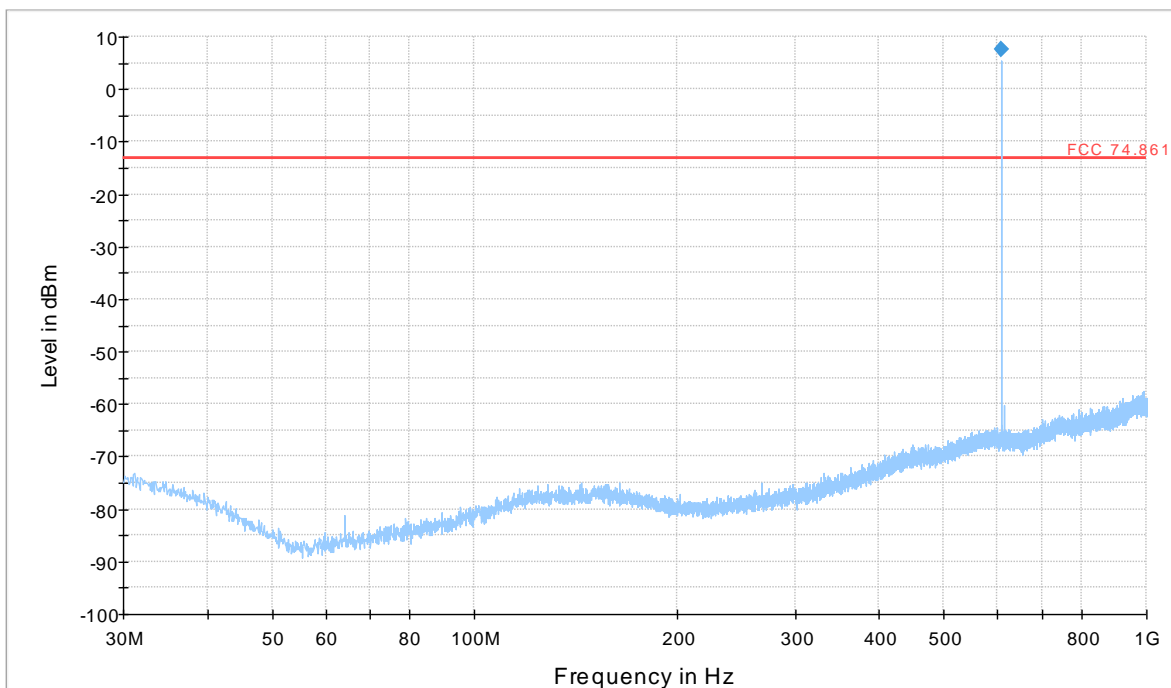
FREQUENCY RANGE 9kHz - 30MHz– Freq. 608.0MHz

HORIZONTAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 608.0MHz

HORIZONTAL POLARIZATION



Blue trace Peak detector, Blue Marker Peak detector

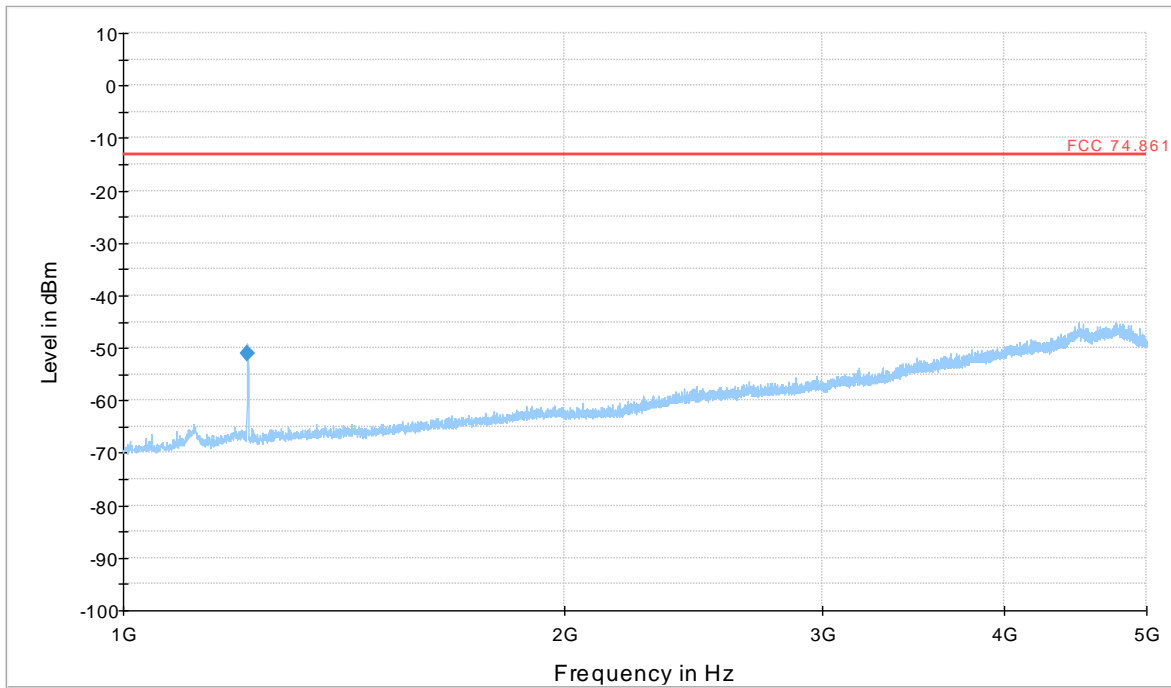
Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
608.023000	7.5	259.0	H	269.0	-20.5	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 608.0MHz

HORIZONTAL POLARIZATION

EN300422_spurious_sweep_OPEN



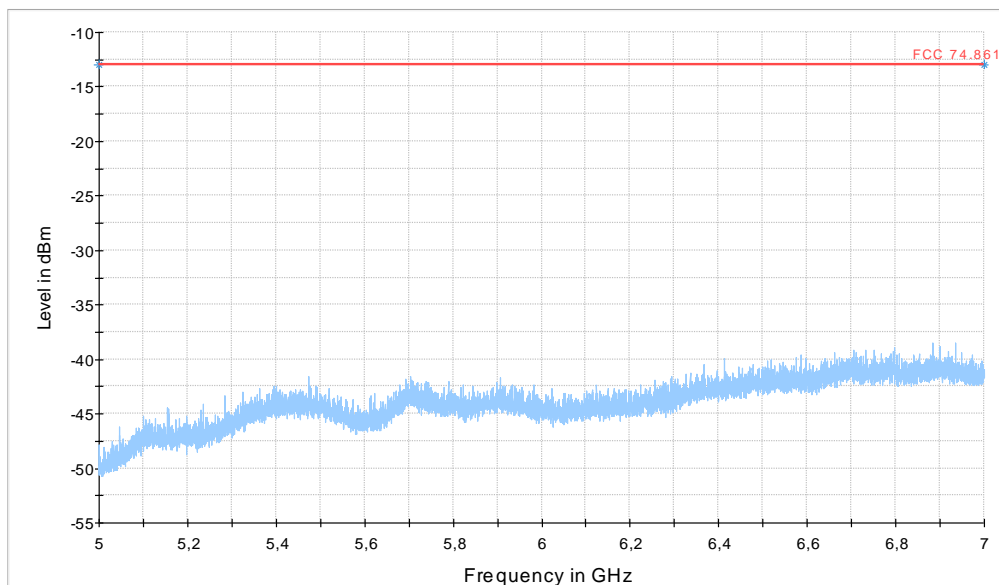
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
1215.600000	-50.9	103.0	H	91.0	37.9	-13.0	2 nd harmonic

FREQUENCY RANGE 5GHz – 7GHz Freq. 608.0MHz

HORIZONTAL POLARIZATION



Blue trace Peak detector

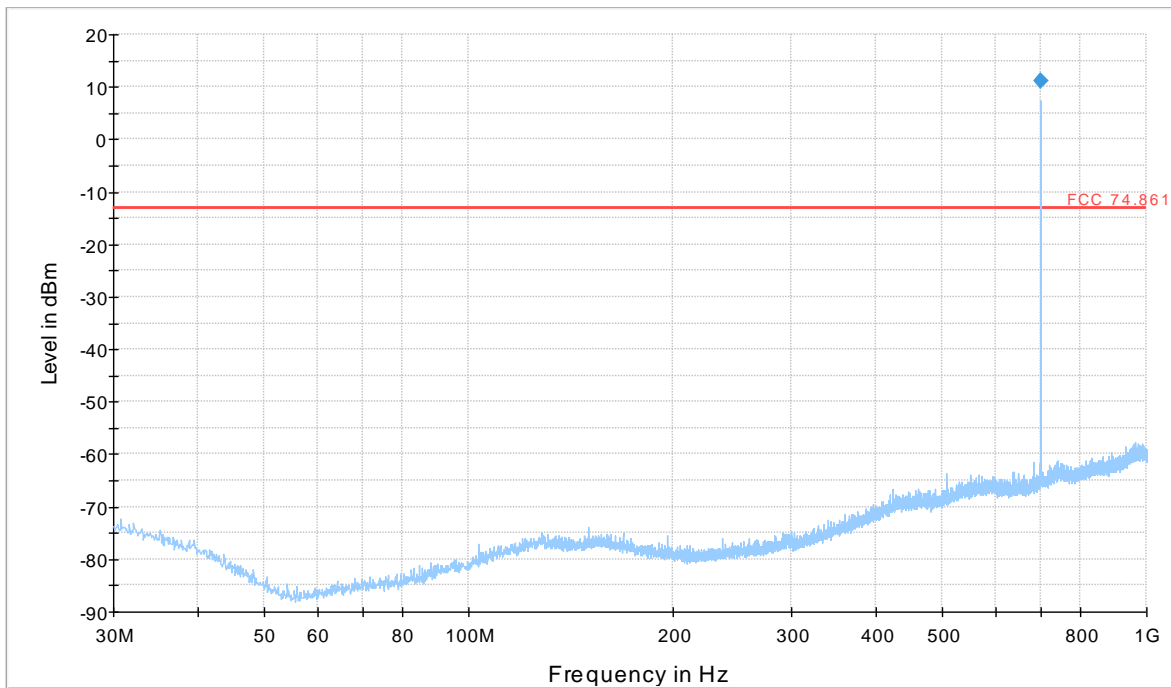
FREQUENCY RANGE 9kHz - 30MHz – Freq. 698.0MHz

VERTICAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 698.0MHz

VERTICAL POLARIZATION



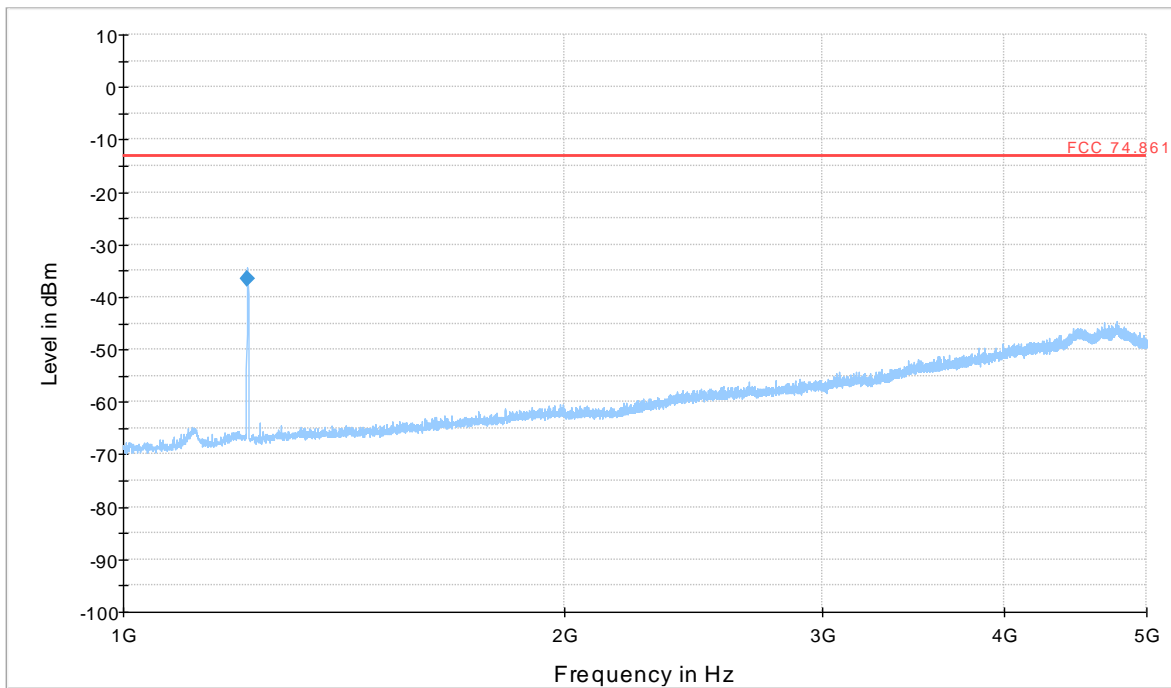
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
697.942000	11.3	259.0	V	180.0	-24.3	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 698.0MHz

VERTICAL POLARIZATION



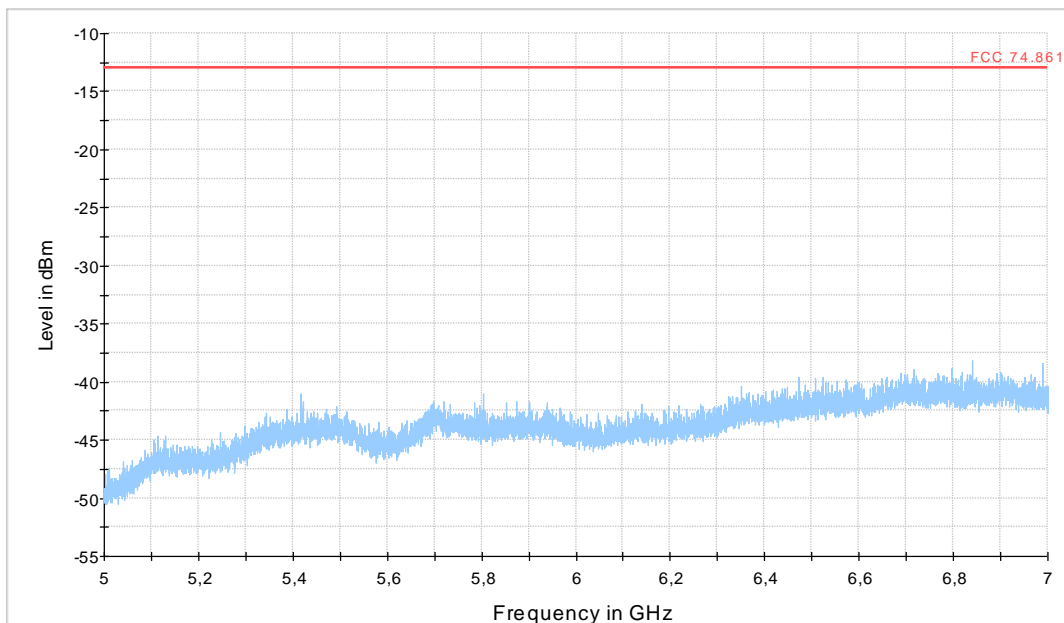
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
1215.600000	-36.5	259.0	V	180.0	23.5	-13.0	2 nd harmonic

FREQUENCY RANGE 5GHz – 7GHz Freq. 698.0MHz

VERTICAL POLARIZATION



Blue trace Peak detector

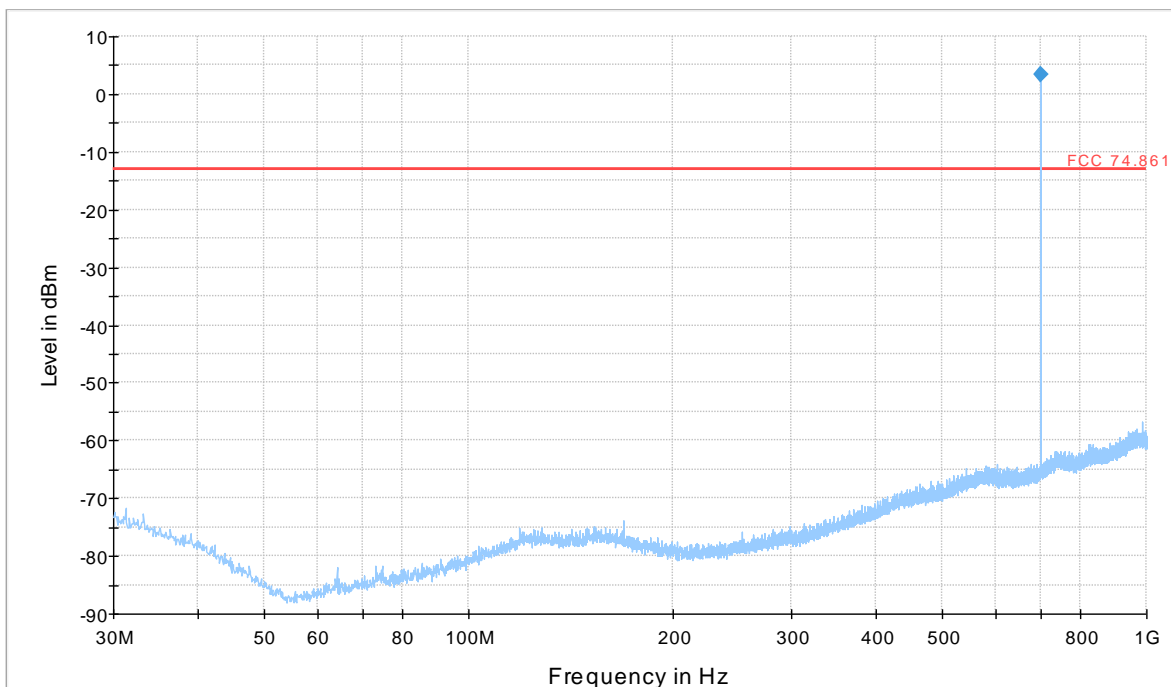
FREQUENCY RANGE 9kHz - 30MHz – Freq. 698.0MHz

HORIZONTAL POLARIZATION

The amplitude of spurious emissions are attenuated more than 20 dB so the permissible value need not be reported

FREQUENCY RANGE 30MHz – 1GHz – Freq. 698.0MHz

HORIZONTAL POLARIZATION



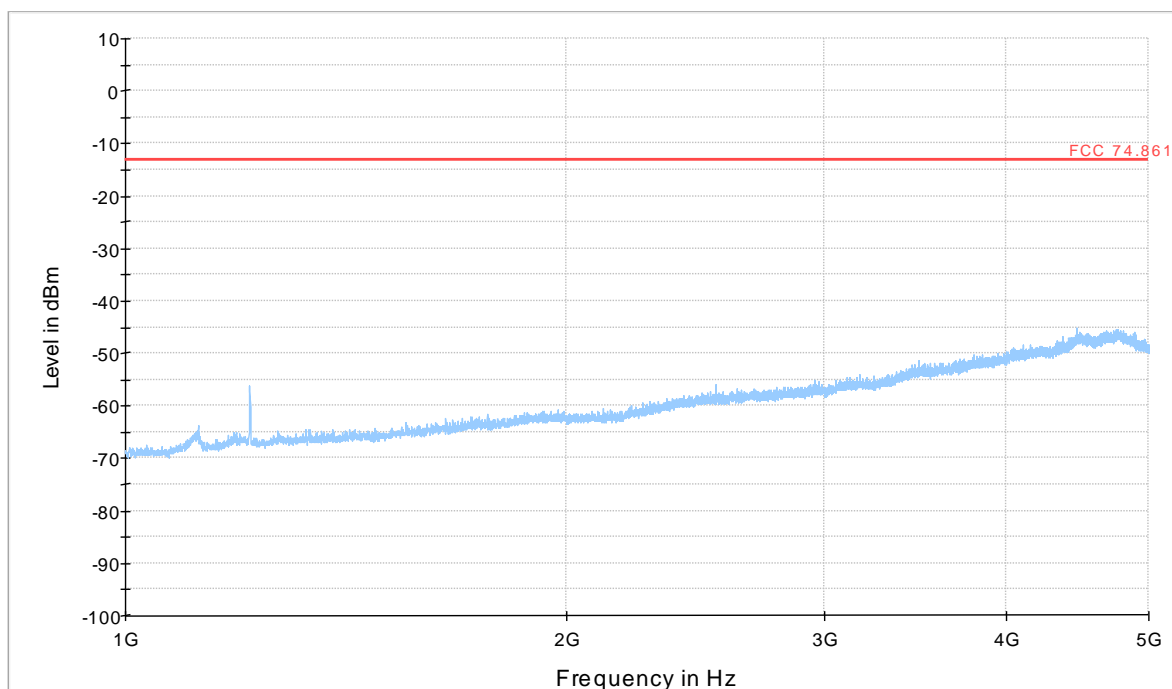
Blue trace Peak detector, Blue Marker Peak detector

Result

Frequency (MHz)	Peak (dBm)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBm)	Note
698.039000	3.3	103.0	H	270.0	-16.3	-13.0	Carrier

FREQUENCY RANGE 1GHz – 5GHz – Freq. 698.0MHz

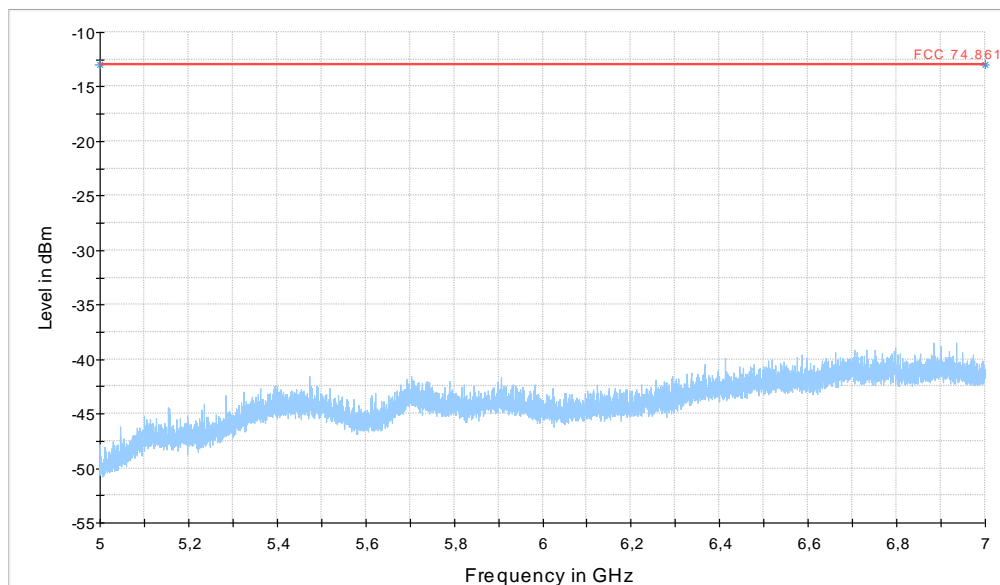
HORIZONTAL POLARIZATION



Blue trace Peak detector

FREQUENCY RANGE 5GHz – 7GHz Freq. 698.0MHz

HORIZONTAL POLARIZATION



Blue trace Peak detector

5 LIST OF EQUIPMENT USED

EQUIPMENT	IDENTIFICATION NUMBER	CAL. DUE	CAL. INTERVAL
EMI TEST RECEIVER	EMC.359	MARCH.2016	1 YEAR
RF SEMI-ANECHOIC CHAMBER (CSSA)	EMC.191	JAN. 2016	1 YEAR
AUDIO ANALYZER	TLC.006	FEB 2016	1 YEAR
BILOG ANTENNA	EMC.023	JUN 2016	3 YEAR
LOG PERIODICA ANTENNA	EMC.391	DEC 2016	3 YEAR
SPECTRUM ANALYZER	EMC.332	APR.2016	1 YEAR
CLIMATIC CHAMBER	EMC.110	APR 2016	1 YEAR