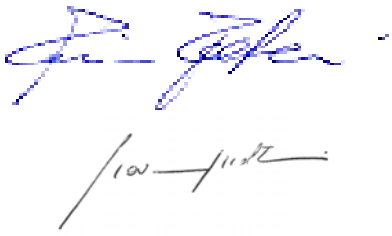
TEST REPORT

APPLICANT:	**MOELCA S.R.L.** Sede Legale: VIA ENRICO TOTI 101 – 22070 LIMIDO COMASCO – CO Sede Operativa: VIA DEL LAVORO 19 – 22070 LIMIDO COMASCO – CO Tel. +39 031 3520153 Fax +39 031 3524732 Mail: ivo.milani@moelca.it
EUT DESCRIPTION	**AUTOMATIC EXTRACTOR OF EMOCOMPONENTS**
EUT TRADEMARK	**MOELCA**
EUT MODEL	**ARCHIMEDE**
REFERENCE STANDARDS :	**FCC 47 CFR part 15 subpart C section 15.247**
TEST REPORT NUMBER	**FCC.08.0398-5**
TEST REPORT ISSUE DATE	**06/07/2009**
TESTING LABORATORY	**Prima Ricerca & Sviluppo S.r.l.** **Via Campagna, 92 -22020 Faloppio (Co) –Italy**
TESTING LOCATION	**As Above**
DATE OF TEST SAMPLE RECEIPT	**24/05/2009**
DATE OF TEST	**06-05-2008/ 20/05/2009**
TESTED BY	Massimo Maltempi
APPROVED BY	Giovanni Molteni



The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have be obtained.
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0. CONTENTS

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Prima Ricerca & Sviluppo Srl soggetta a direzione e coordinamento da parte della Giovanni Maspero & C. S.p.A. – C.I. 026347801
Sede legale : 22100 Tavernola (CO) Via Conciliazione, 1 Cod. FISC. e N. R.I. CO 02635860139
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1. TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 Identification

Brand name:	*MOELCA*
Manufacturer:	*MOELCA S.R.L.*
Equipment :	AUTOMATIC EXTRACTOR OF EMOCOMPONENTS
Serial number :	Not present
FCC ID :	V991504
Country of manufacturer:	ITALY

1.2 Technical data

FCC class:	47 CFR FCC Part 15 Subpart C § 15.247	
Product type:	WLAN	
Radio type:	Intentional transceiver	
Power type :	Power adapter	
Modulation:	DSSS for IEEE 802.11b; OFDM for IEEE 802.11g;	
Data Modulation :	DSSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK /)	
Data Rate (Mbps) :	DSSS (1 / 5.5 / 11) ; OFDM (6 / 36 / 54)	
Frequency range :	2400 – 2483.5 MHz	
Channel number :	11	
Channel Band Width :	11b:10.33 MHz; 11g:16.83 MHz	
Conducted Output Power :	11b:16.80 dBm; 11g:19.83 dBm	
Carrier Frequency	Channel No.1: 2412 MHz	Channel No.7: 2442 MHz
(protocol b/g/):	Channel No.2: 2417 MHz	Channel No.8: 2447 MHz
	Channel No.3: 2422 MHz	Channel No.9: 2452 MHz
	Channel No.4: 2417 MHz	Channel No.10: 2457 MHz
	Channel No.5: 2432 MHz	Channel No.11: 2462 MHz
	Channel No.6: 2437 MHz	
Field Antenna :	Wanshi model WSS002 (Lantronix 930-033)	
	Gain: 5 dBi	

1.3 Modifications incorporated in E.U.T.

The following items are the modifications introduced in the equipment under test :

- None

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1.4 Ports identification

This section contains descriptions of all signal ports and AC/DC power input/output ports, the length and the type of the cable provided by manufacturer needed for the tests.

Moreover it is specified if the ports are ever or optionally connected.

Port		Description	Connection
1	Enclosure	Metallic enclosure	Metallic screw
2	AC power input/output ports	Input 100-240V ~ 50/60 Hz (phase-neutral+protective earth)	By plug
3	DC power input/output ports	----	Port not present
4	Signals / control lines	Not present	
5	Telecommunication ports	**********	**********
6	Potential Equalization Conductor	Line not present	**********

Note: During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.

1.5 Auxiliary equipment

None

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2. TEST CONDITIONS

2.1 Operating test modes and test conditions

The equipment has been tested according to the operative conditions described in the user/installation manual provided by the manufacturer and by following reference standards :

Reference Standard:

- 47 CFR FCC Part 15 Subpart C § 15.247

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” of all technical sheets of the tests (see Section 4)

Operating condition	***Description***
#1	Continuous Operating working “stress test software application” trhough Wi-Fi link connection

2.2 Test overview

The appliance is classified as “*Intentional radiator”* in conformity to FCC Part 15 Subpart C § 15.247.

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3. REFERENCE STANDARD FOR PERFORMED TESTS

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.4-2003 and 47 CFR FCC Part 15 Subpart C.

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4. SUMMARY OF TEST RESULTS

4.1 Emission tests

	Phenomena	Basic standard FCC part 15 section	Operating condition[1]	Result
1	AC conducted emission	15.207	#1	PASS
2	Radiated Emissions (30-1000 MHz)	15 209	#1	PASS
3	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)). (RADIATED SPURIUS EMISSION)	15.247(d)	#1	PASS
4	Conducted spurius emission	15.247(d) 15.209 (a)	#1	PASS
5	Band edge	15.247	#1	PASS

Note:

The tests 6dB Spectrum Bandwidth , Maximum Peak Output Power, public exposure to radio frequency energy levels, Radiated emissions in the restricted bands, Radio frequency power in the 100 kHz bandwidth outside the frequency band Power Spectral Density, 26dB emissions bandwidth , Radiated emission limits; general Requirements (fundamental), can be extended to the relationship of Report Number: LANTR-070125F FCC Report issued by Aegis Labs, Inc. : there are no modification on RF transmitter only antenna has been changed.

5. TEST RESULTS

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TEST 1	EMISSION OF MAINS TERMINAL DISTURBANCE VOLTAGE (CONTINUOUS DISTURBANCE)

REFERENCE DOCUMENT FCC 47CFR Part 15

- **TEST SETUP:** According to reference standard
- **TEST LOCATION:** Semianechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40
  Artificial Network Rohde & Schwarz Mod. ESH3-Z5

- **TESTED PORT:** AC mains : Phase and Neutral Line
- **FREQUENCY RANGE:** 0.15 - 30 MHz
- **EMISSION LIMITS:** Section 15.207 of Standard
- **MEASUREMENT UNCERTAINTY:** Total uncertainty (k=2) ± 2.5 dB

TEST CONDITIONS:			MEASURED
Ambient temperature :	15 - 35 °C		24 ± 3 °C
Ambient humidity :	25 - 75 %rH		38 ± 5 %rH
Pressure :	85 - 106 kPa	(860 mbar - 1060 mbar)	975 ± 50 mbar

OPERATING CONDITION (Rif. Section. 2) : #1

RESULT: WITHIN THE LIMIT

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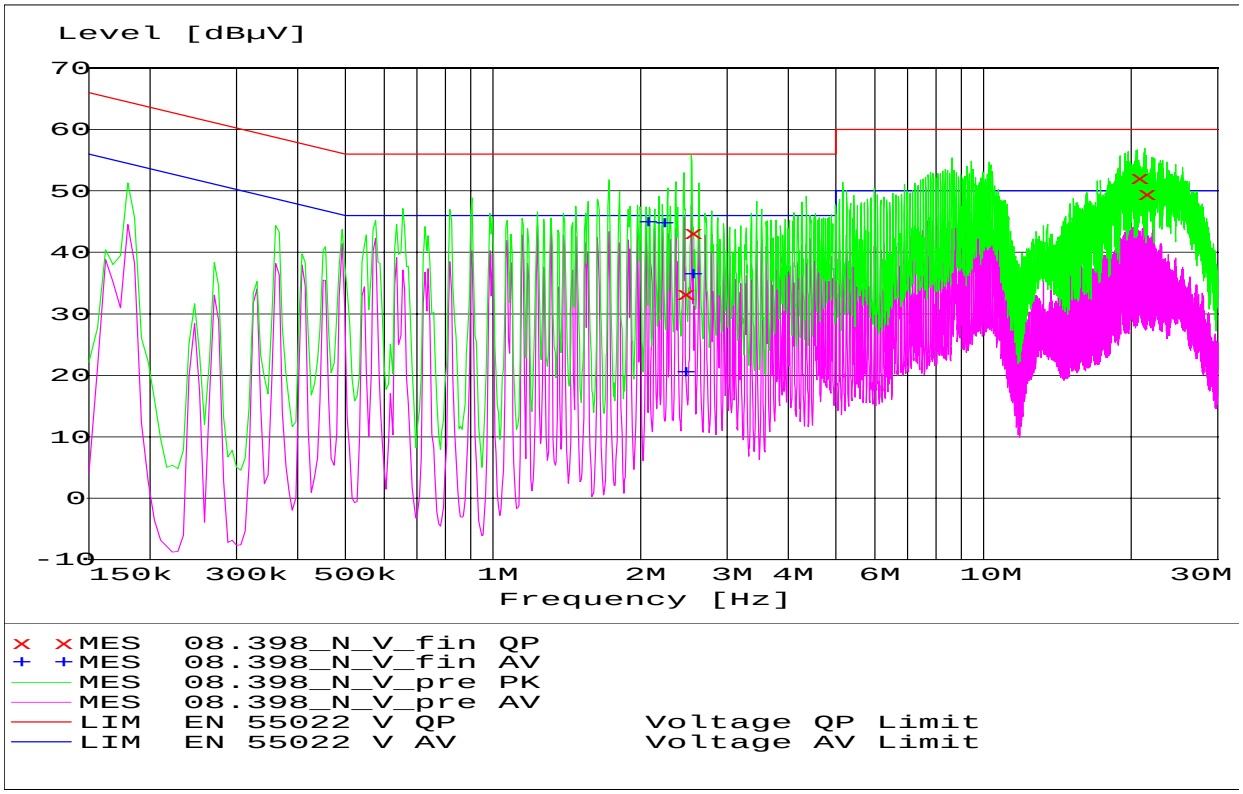
Neutral



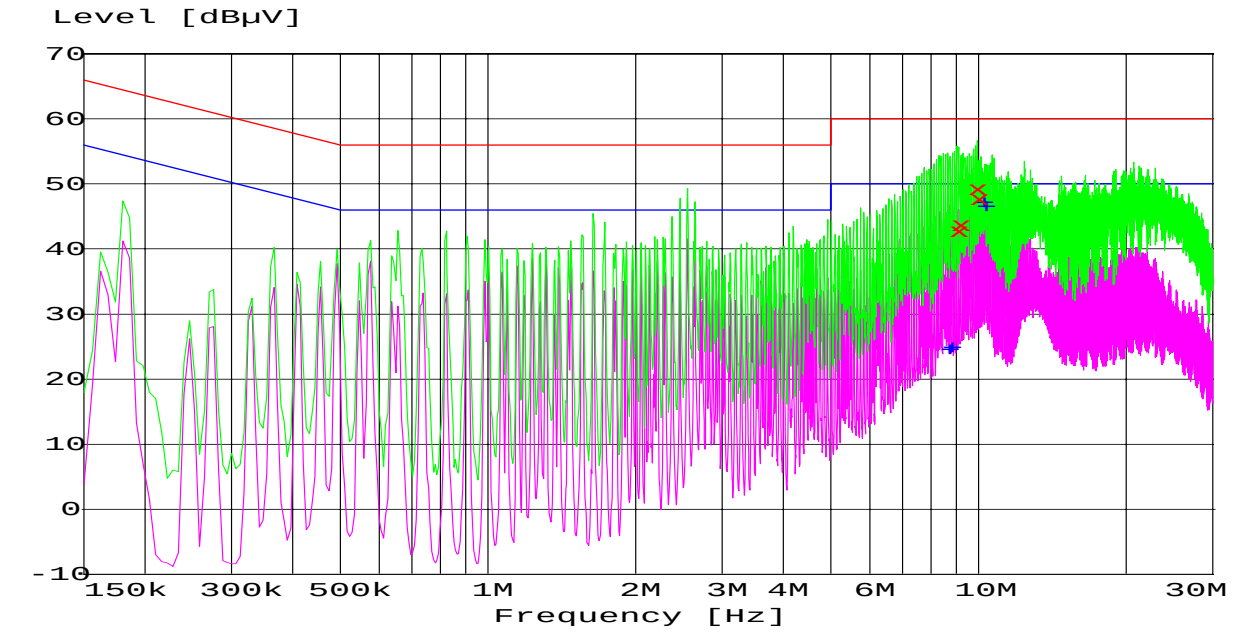
Final measurement results in QP detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
2.448000	33.20	0.20	56.00	22.80	N	GND
2.538000	43.20	0.20	56.00	12.80	N	GND
20.586000	52.00	1.10	60.00	8.00	N	GND
21.330000	49.40	1.20	60.00	10.60	N	GND

Final measurement results in AV detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
2.052000	44.90	0.20	46.00	1.10	N	GND
2.214000	44.70	0.20	46.00	1.30	N	GND
2.448000	20.60	0.20	46.00	25.40	N	GND
2.538000	36.40	0.20	46.00	9.60	N	GND

Phase



Final measurement results in QP detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
9.018000	42.70	0.40	60.00	17.30	L1	GND
9.102000	43.70	0.40	60.00	16.30	L1	GND
9.846000	49.20	0.40	60.00	10.80	L1	GND
9.930000	47.70	0.40	60.00	12.30	L1	GND

Final measurement results in AV detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
8.658000	24.50	0.40	50.00	25.50	L1	GND
8.748000	24.80	0.40	50.00	25.20	L1	GND
10.170000	47.10	0.40	50.00	2.90	L1	GND
10.254000	46.40	0.40	50.00	3.60	L1	GND

TEST 2

RADIATED EMISSIONS (30-1000 MHZ)

REFERENCE DOCUMENT FCC 47CFR Part 15
Section 15.209

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40
  Chase Antenna Mod. CBL 6111 A
  Bonn elektronik blma 1840-1A
  Bonn elektronik blma 0118-m
  R&S Antenna Mod. HL025
- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.209 of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty = ± 1.75 dB
  Total uncertainty = (k=2) ± 3.5 dB

TEST CONDITIONS:			**MEASURED**
Ambient temperature :	15 - 35 °C		23,5 ± 3 °C
Ambient humidity :	25 - 75 %rH		39 ± 5 %rH
Pressure :	85 - 106 kPa	(860 mbar - 1060 mbar)	950 ± 50 mbar

OPERATING CONDITION (Rif. Section. 2) : *#1*

RESULT: WITHIN THE LIMIT

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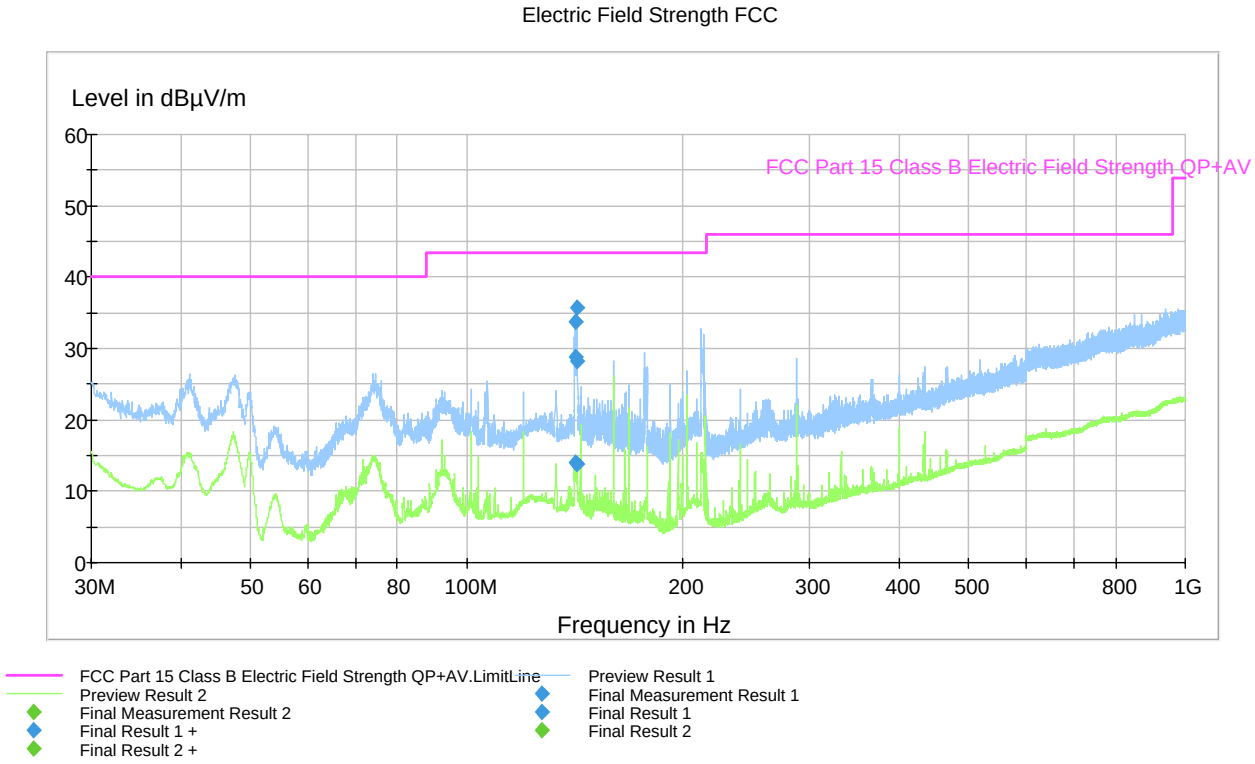
Note for radiated emission (9kHz – 30 MHz)

The amplitude of spurious emission which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Radiated emission in band 30MHz 1GHz have the same level characteristics for all protocol and channel

Pol Horizontal



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
141.400000	33.8	14.1	108.0	H	44.0	14.0	9.7	43.5	
142.520000	35.7	13.8	112.0	H	48.0	14.0	7.8	43.5	

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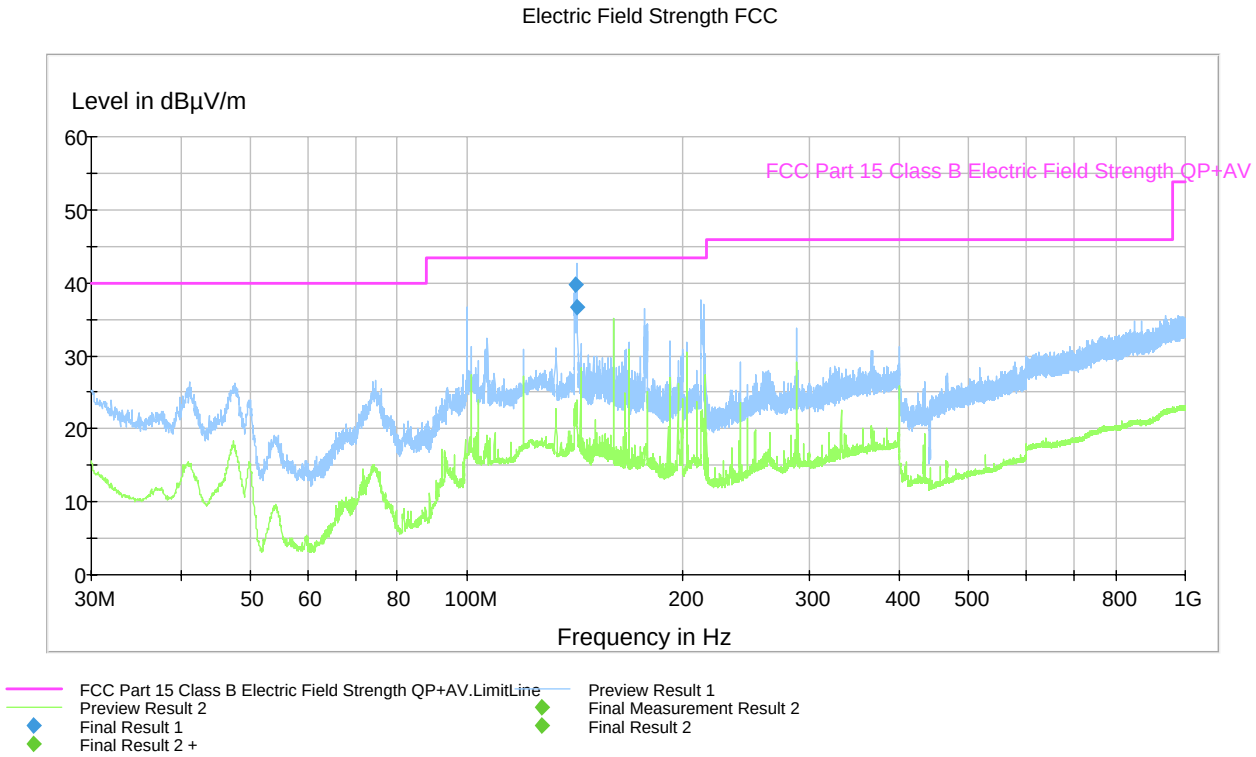
Radiated emission in band 30MHz 1GHz have the same level characteristics for all protocol and channel

Pol Vertical



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
141.400000	39.8	24.1	112.0	V	36.0	14.0	3.7	43.5	
142.520000	36.7	23.8	123.0	V	41.0	14.0	6.8	43.5	

TEST 3

RADIATED SPURIUS EMISSION

REFERENCE DOCUMENT FCC 47CFR Part 15
15.247 (c)

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40
  Bonn elektronik blma 1840-1A
  Bonn elektronik blma 0118-m
  R&S Antenna Mod. HL025
- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.209 of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty = ± 1.75 dB
  Total uncertainty = (k=2) ± 3.5 dB

TEST CONDITIONS:			**MEASURED**
Ambient temperature :	15 - 35 °C		23,5 ± 3 °C
Ambient humidity :	25 - 75 %rH		39 ± 5 %rH
Pressure :	85 - 106 kPa	(860 mbar - 1060 mbar)	950 ± 50 mbar

OPERATING CONDITION (Rif. Section. 2) : #1

RESULT: WITHIN THE LIMIT

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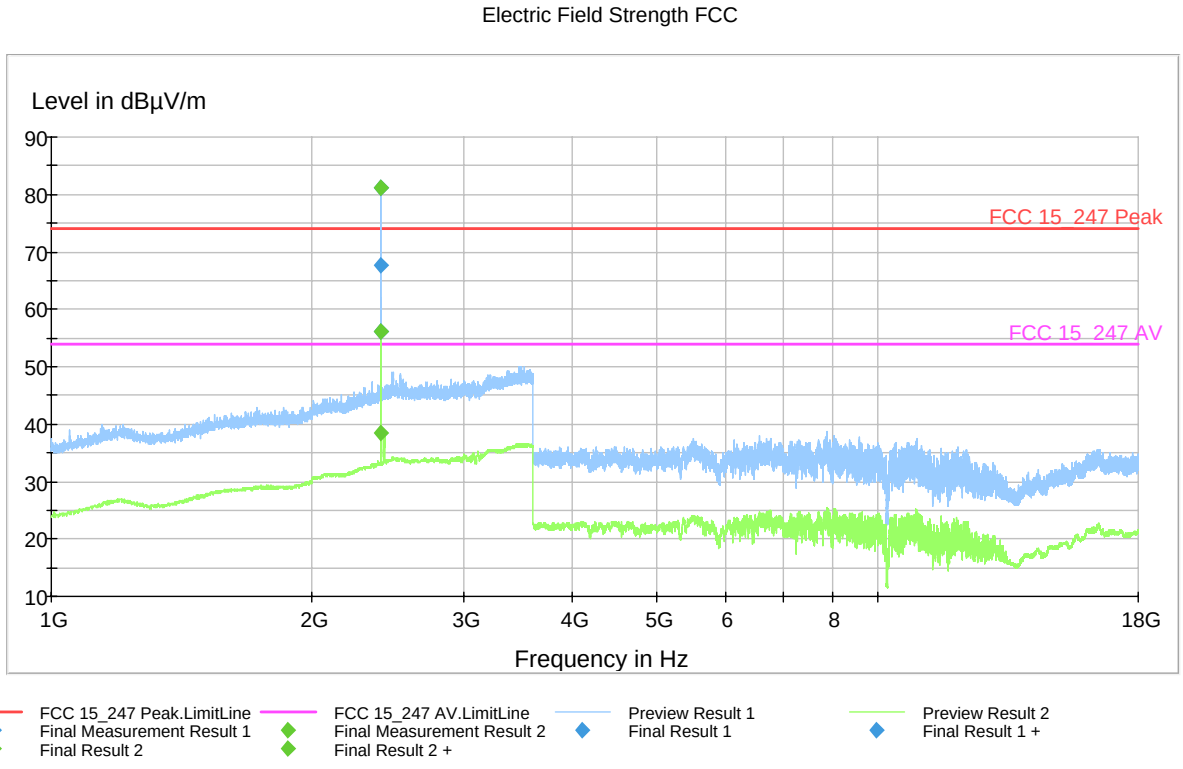
Protocol b

CH1	2412MHz
CH6	2437MHz
CH11	2462MHz

Vertical Polarization

CH1



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
2413.750000	**81.1**	**81.2**	**145.0**	**V**	**198.0**	**29.4**	**-7.10**	**74.00**	

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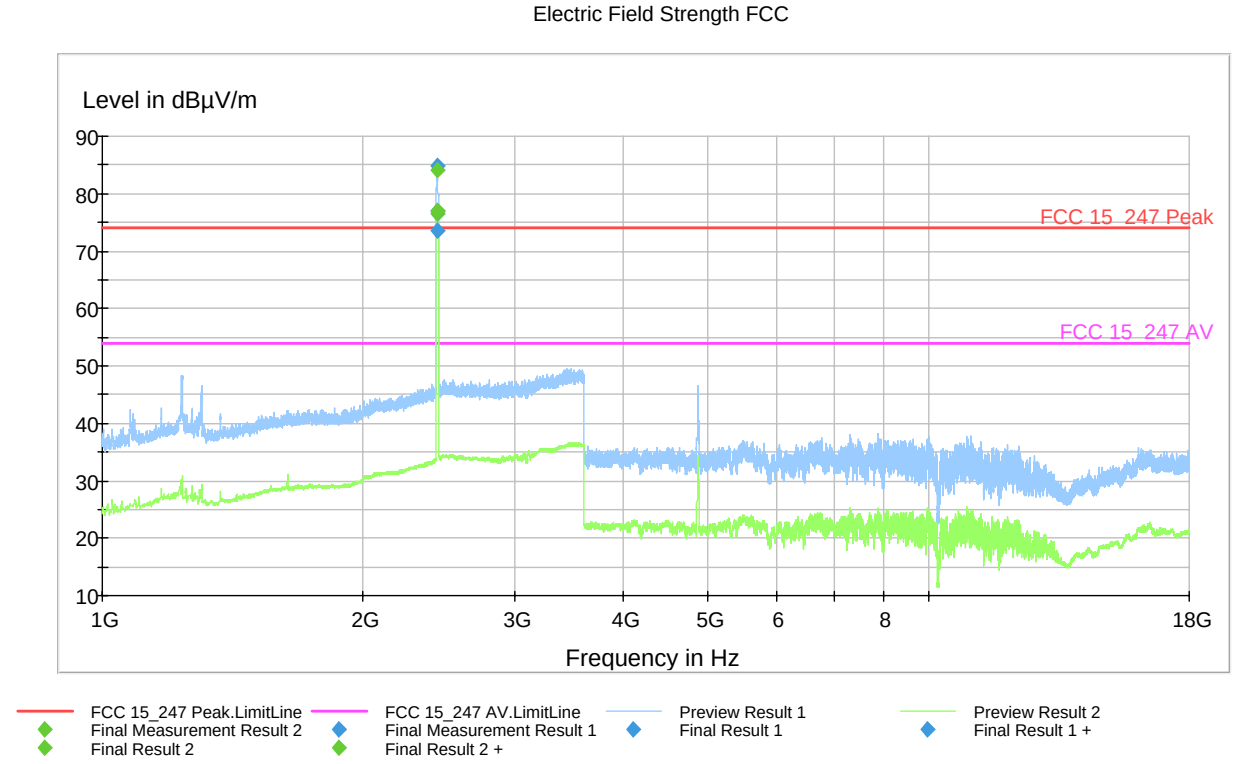
CH6



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
2438.250000	**84.8**	**76.9**	**140.0**	**V**	**4.0**	**29.5**	**-10.80**	**74.00**	

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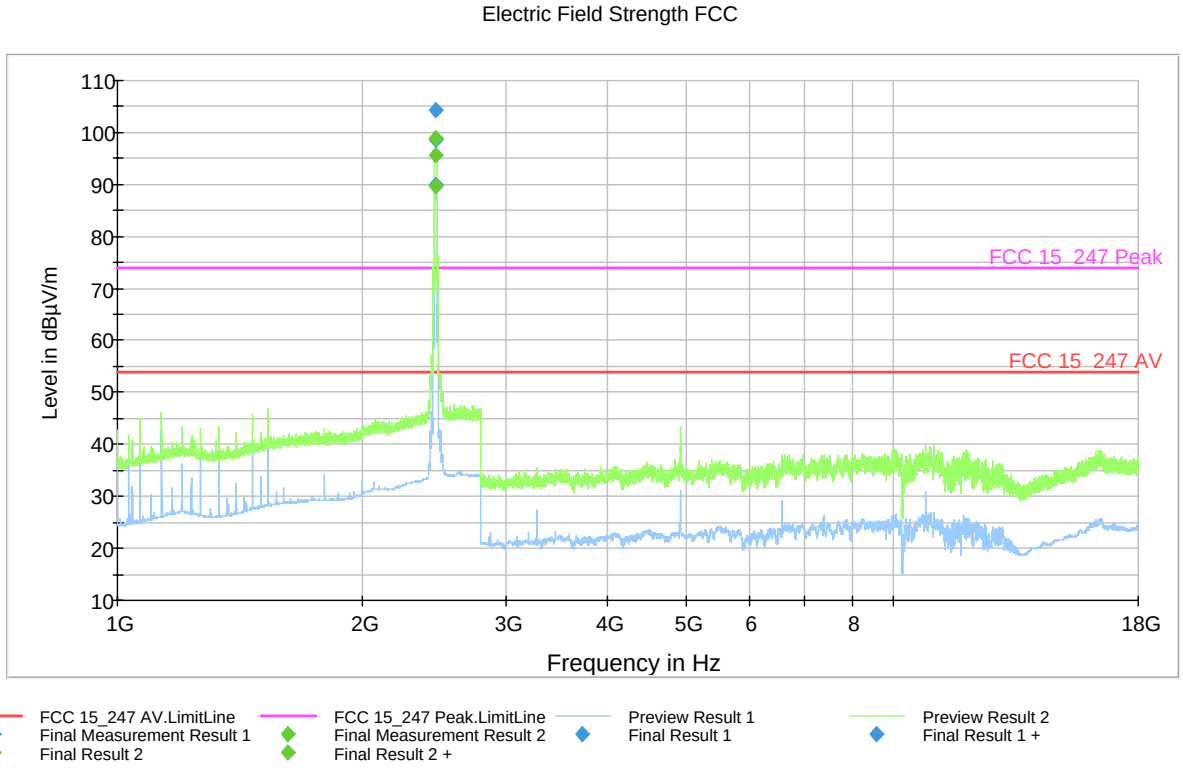
CH11



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2464.00000	90.1	98.7	98.7	100.0	V

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2464.40000	89.8	98.9	98.9	100.0	V

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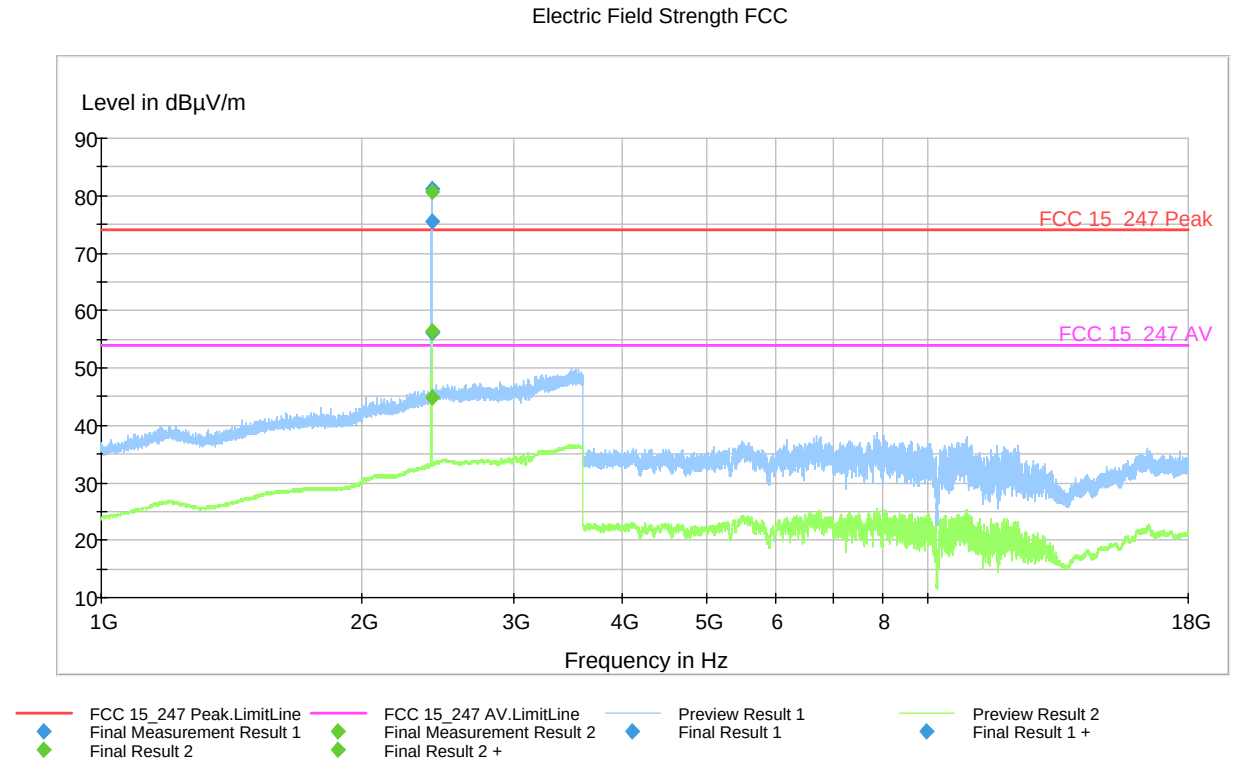
Horizontal polarization

CH1



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
2413.200000	**81.1**	**56.2**	**100.0**	**H**	**14.0**	**29.4**	**-7.10**	**74.00**	

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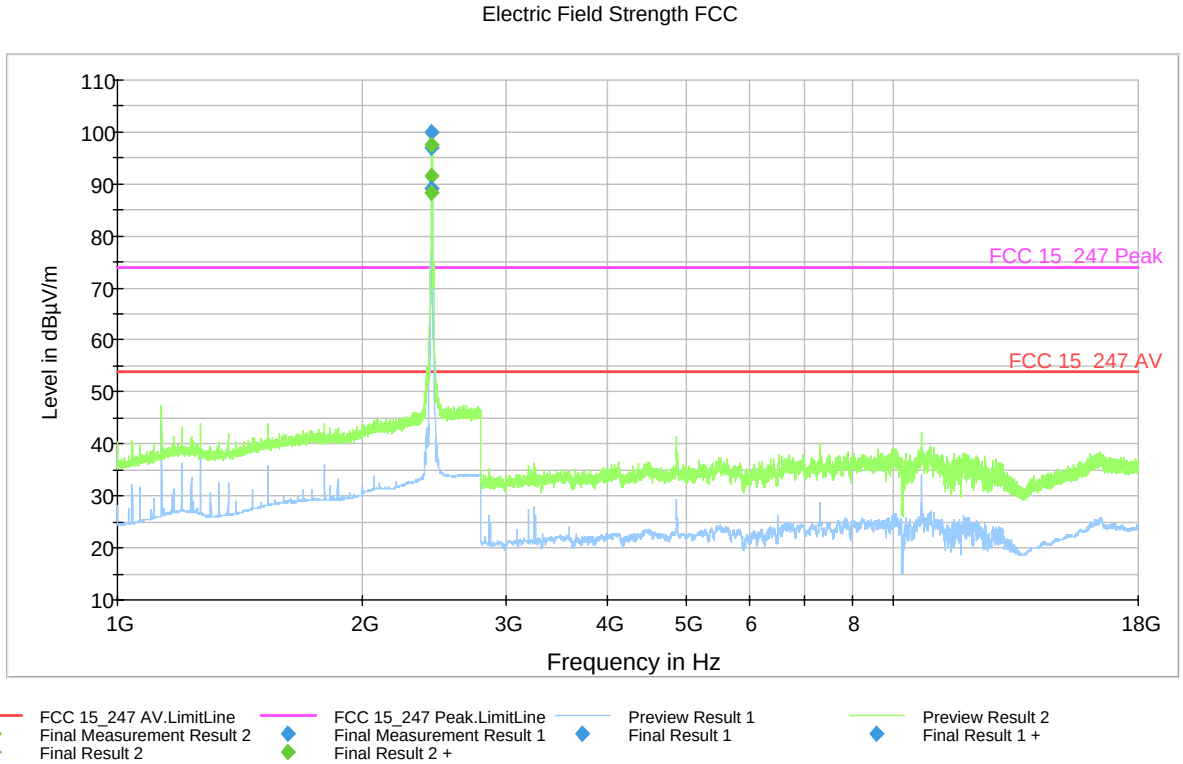
CH6



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2434.80000	89.0	96.9	96.9	100.0	H

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2434.40000	88.4	97.5	97.5	100.0	H

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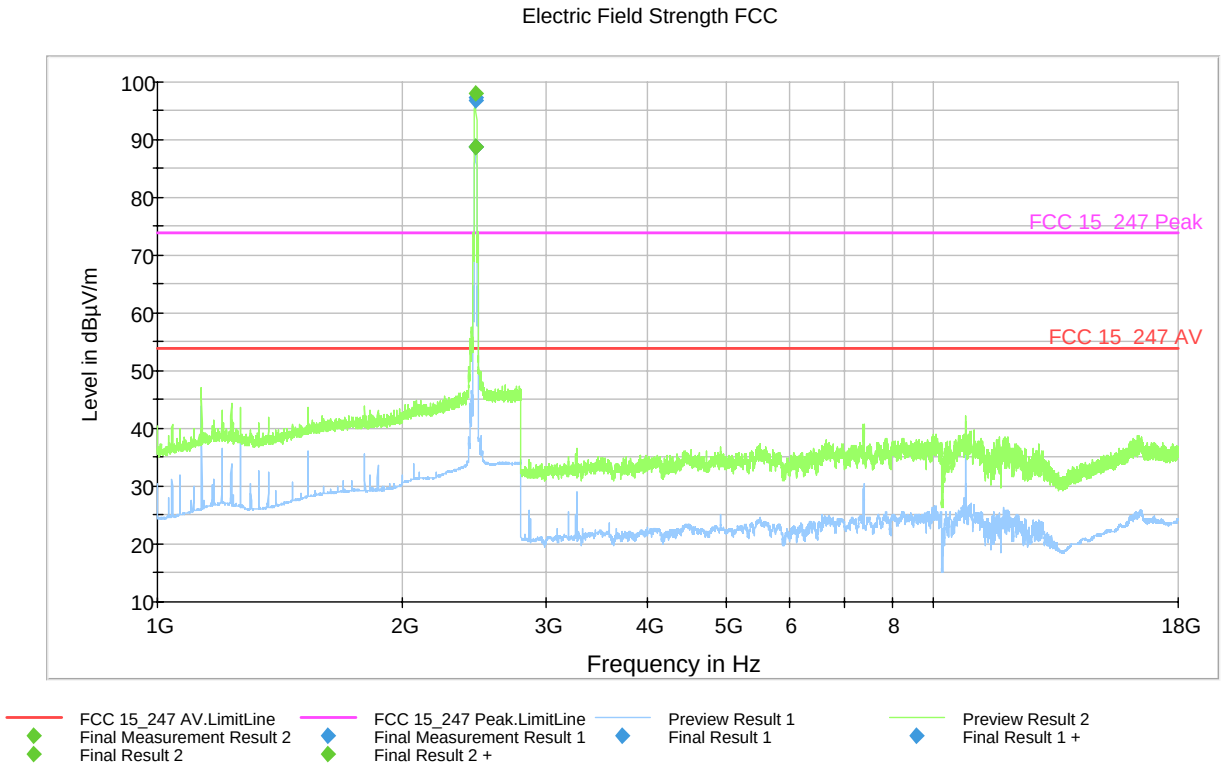
CH11



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2460.40000	88.8	96.7	96.7	250.0	H

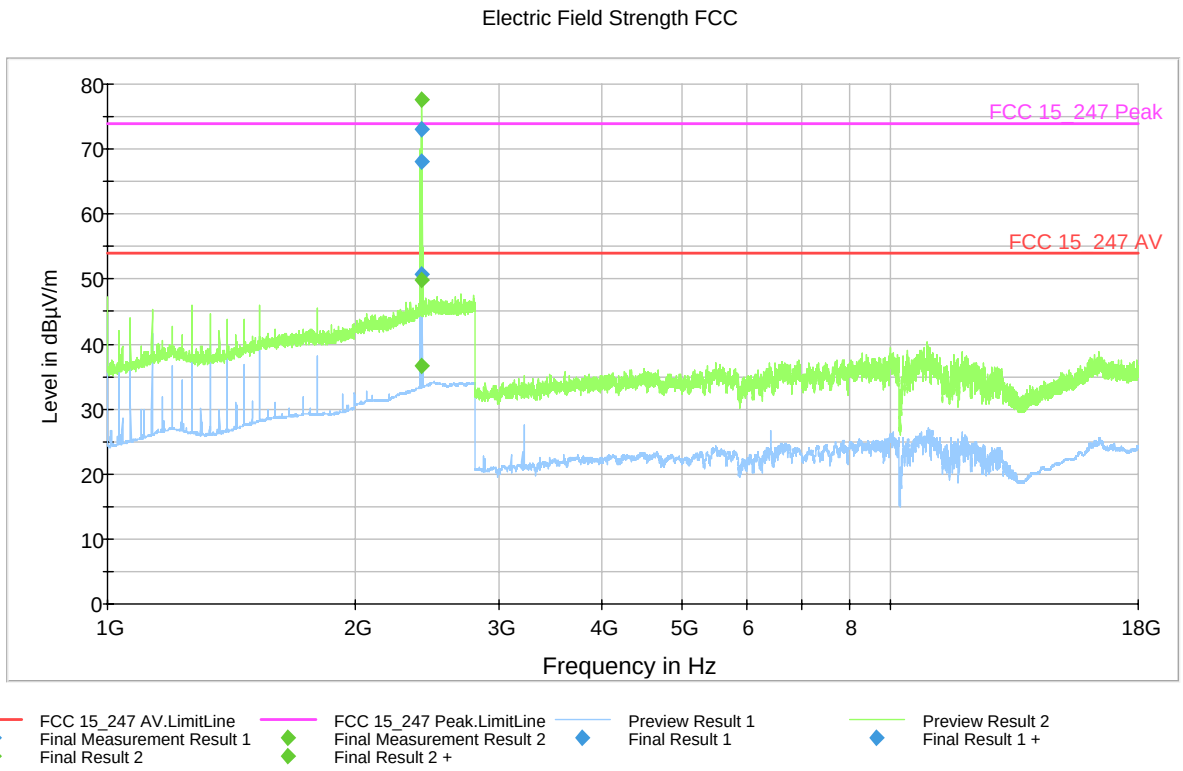
Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2459.20000	88.8	98.0	98.0	250.0	H

Protocol g

CH1	2412MHz
CH6	2437MHz
CH11	2462MHz

Vertical polarization

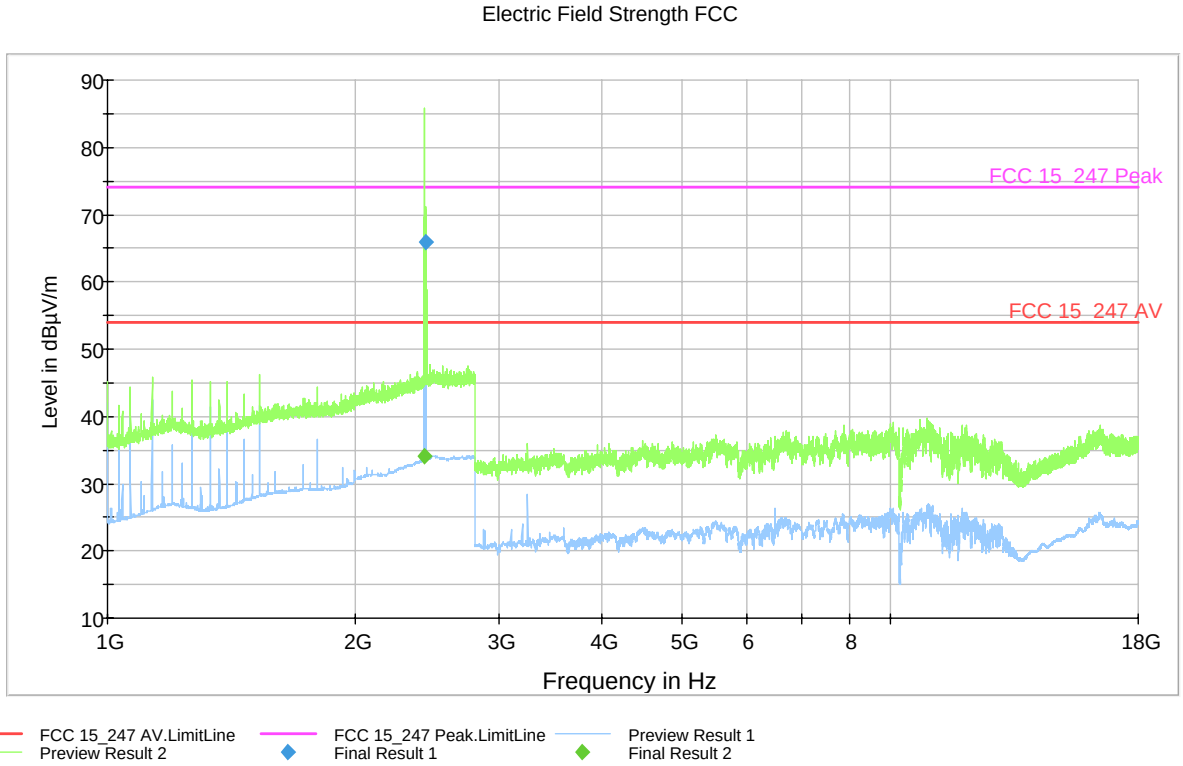
CH1



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2408.40000	50.8	73.2	73.2	250.0	V

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2416.80000	49.8	77.6	77.6	250.0	V

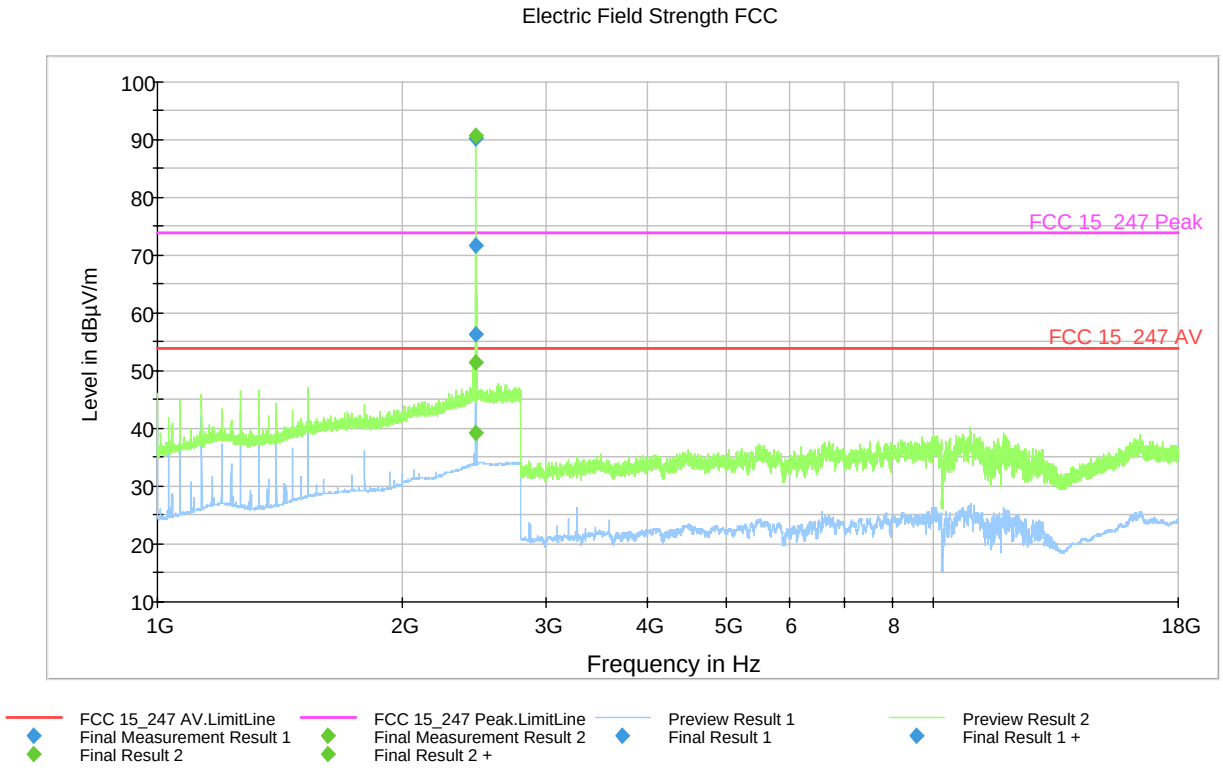
CH6



Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)
2438.00000	65.8	100.00	1000.000	217.0	V	179.0	29.5	-11.80

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)
2429.20000	34.0	100.00	1000.000	139.0	V	179.0	29.5	40.00

CH11



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2458.80000	56.2	90.3	90.3	100.0	V

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2459.20000	51.4	90.7	90.7	100.0	V

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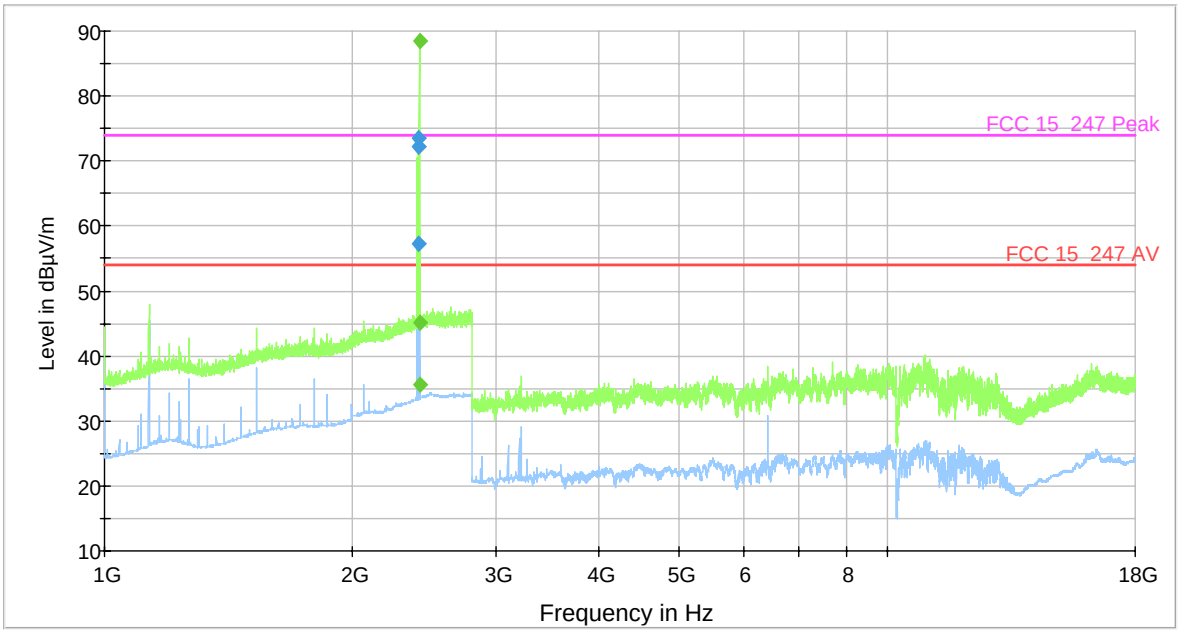
Horizontal polarization

CH1

Electric Field Strength FCC



FCC 15_247 AV.LimitLine
Final Measurement Result 1
Final Result 2

FCC 15_247 Peak.LimitLine
Final Measurement Result 2
Final Result 2 +

Preview Result 1
Final Result 1

Preview Result 2
Final Result 1 +

Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2409.20000	57.2	73.6	73.6	100.0	H

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2417.20000	45.2	88.5	88.5	250.0	H

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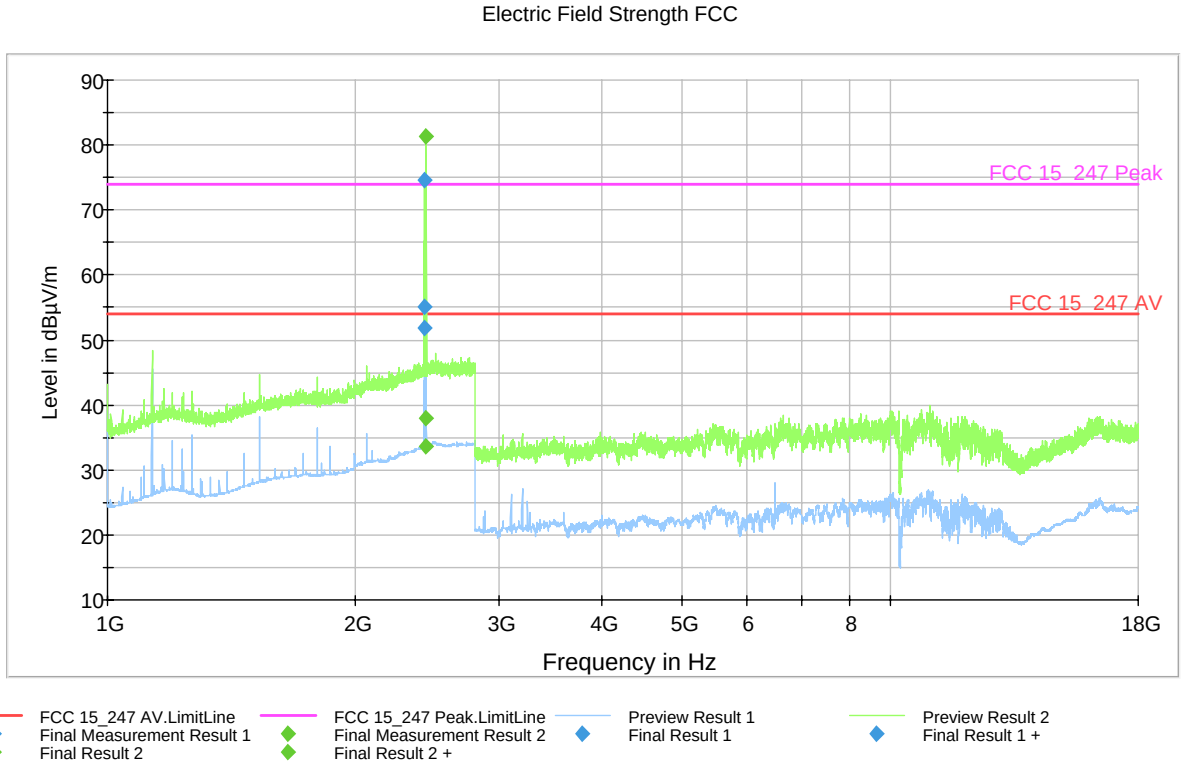
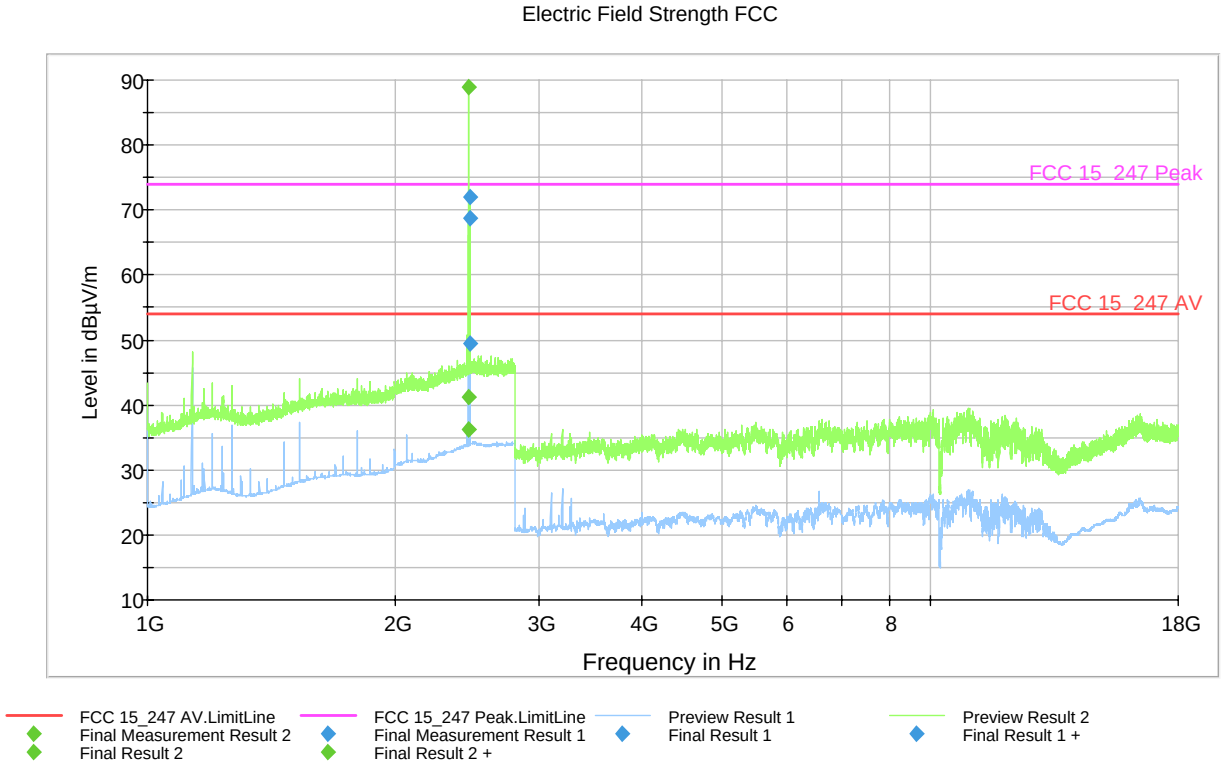
CH6



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2433.60000	51.9	74.5	74.5	100.0	H

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2445.60000	37.9	81.4	81.4	250.0	H

CH11



Frequency (MHz)	Average-ClearWrite (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2466.00000	49.4	72.0	72.0	250.0	H

Frequency (MHz)	Average-MaxHold (dBµV/m)	MaxPeak-ClearWrite (dBµV/m)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity
2457.60000	41.3	88.8	88.8	250.0	H

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TEST 4	CONDUCTED EMISSION 9 KHZ ÷10TH HARMONIC

REFERENCE DOCUMENT FCC 47CFR Part 15

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** EMI receiver Rohde & Schwarz Mod. ESU 40

- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.209 of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty = ± 1.75 dB
  Total uncertainty = (k=2) ± 3.5 dB

TEST CONDITIONS:			**MEASURED**
Ambient temperature :	15 - 35 °C		23,5 ± 3 °C
Ambient humidity :	25 - 75 %rH		39 ± 5 %rH
Pressure :	85 - 106 kPa	(860 mbar - 1060 mbar)	950 ± 50 mbar

OPERATING CONDITION (Rif. Section. 2) : *#1*

RESULT: WITHIN THE LIMIT

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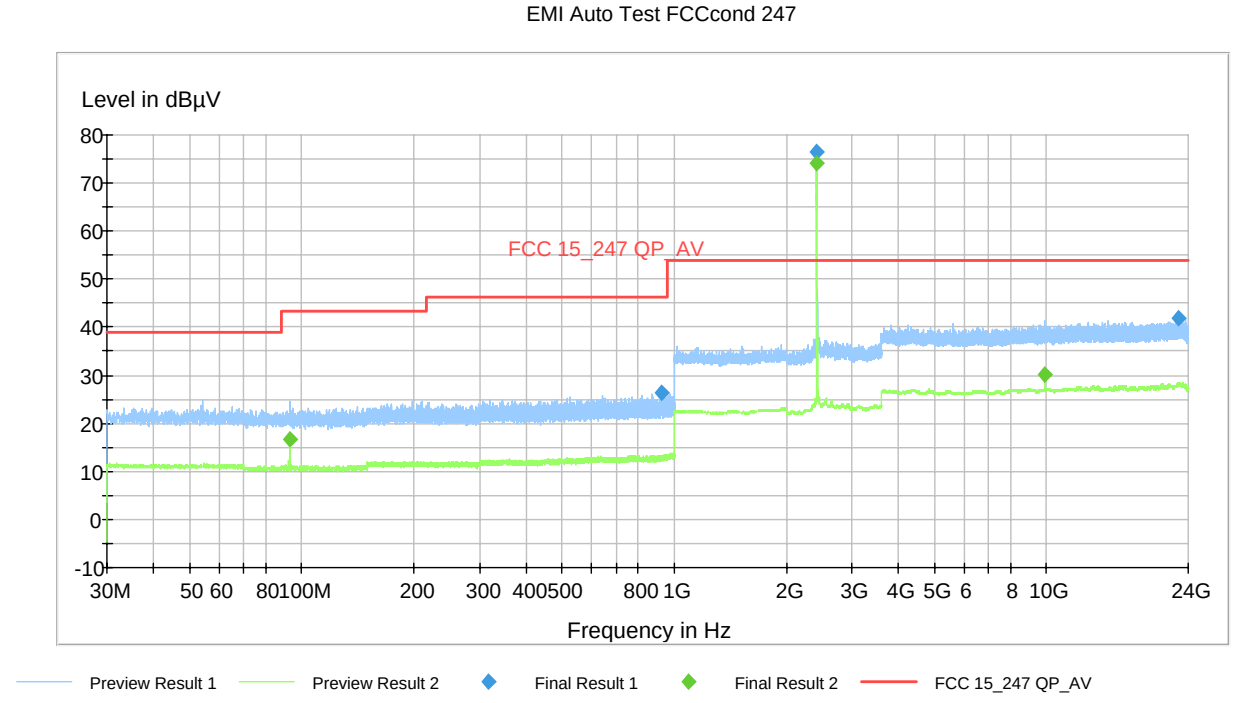
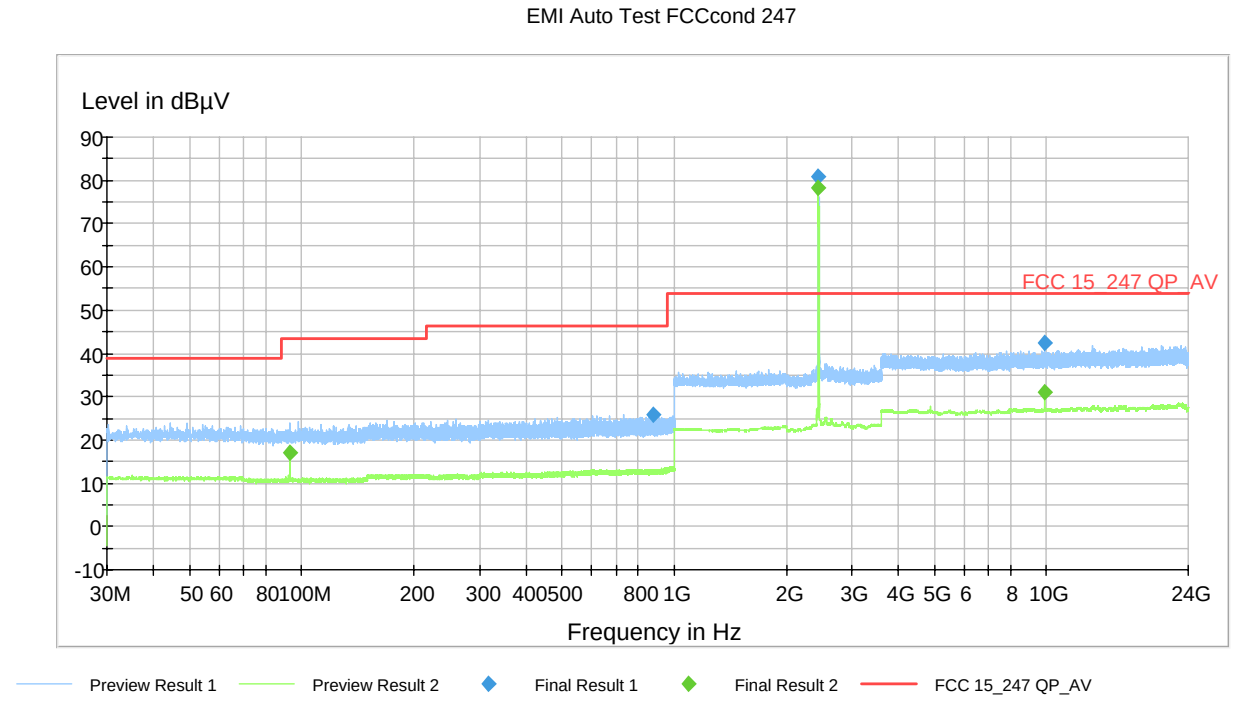
Prot b ch1



Prot b ch 6



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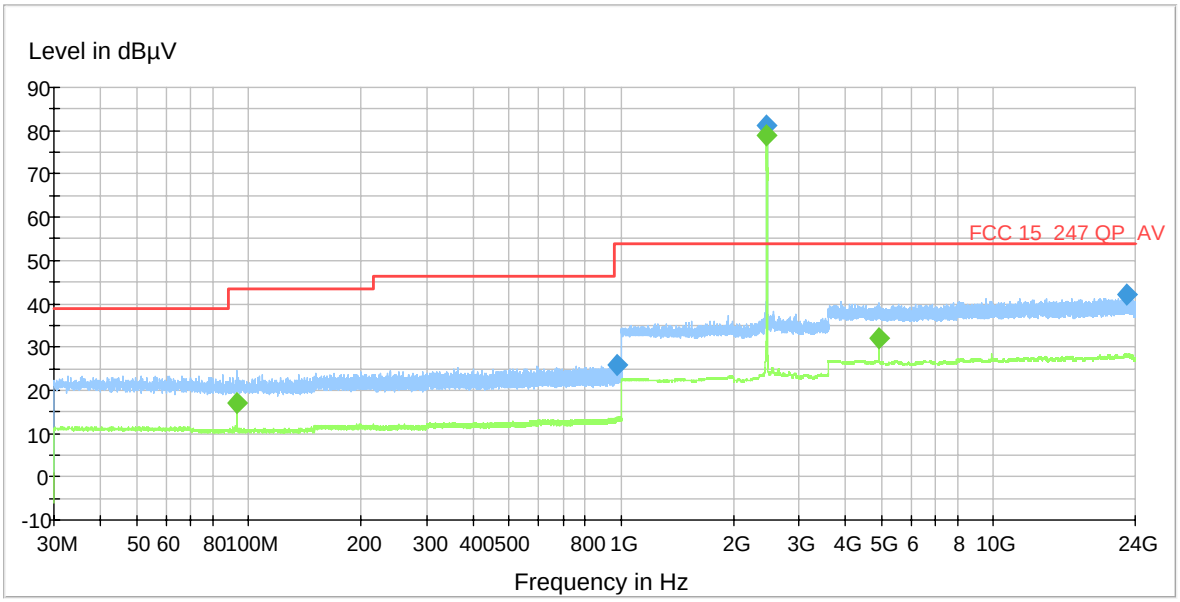
prot b ch11

EMI Auto Test FCCcond 247



Prima Ricerca & Sviluppo Srl soggetta a direzione e coordinamento da parte della Giovanni Maspero & C. S.p.A. – C.I. 026347801
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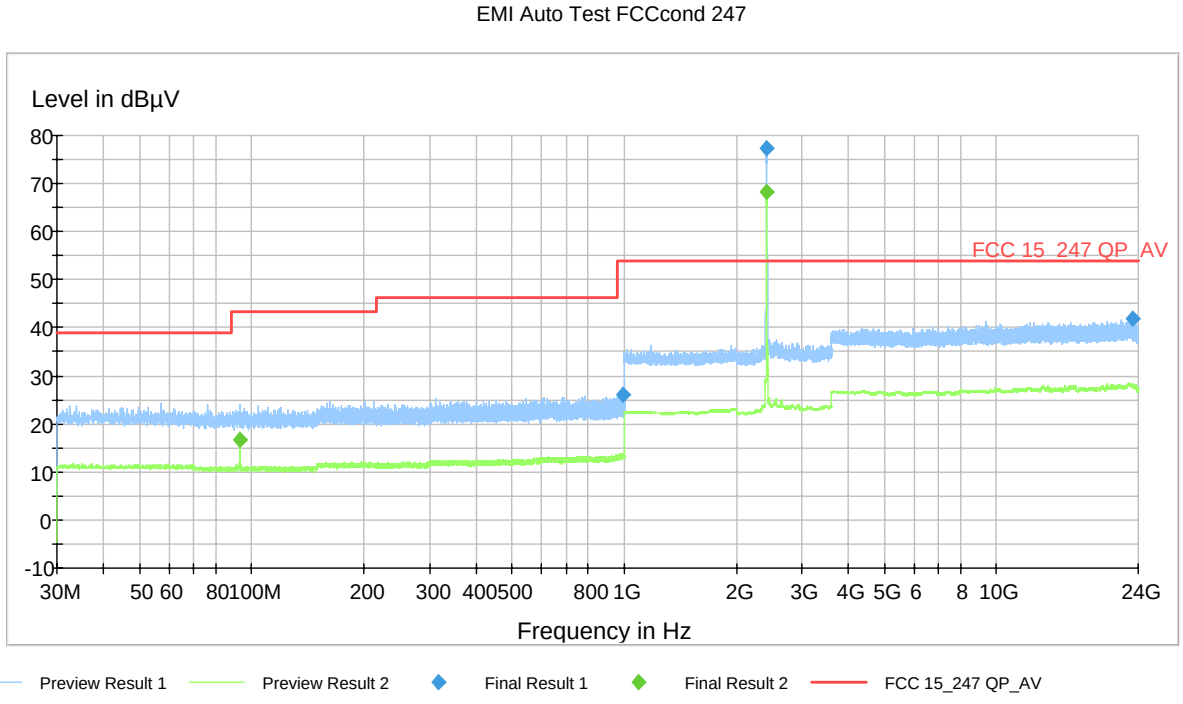
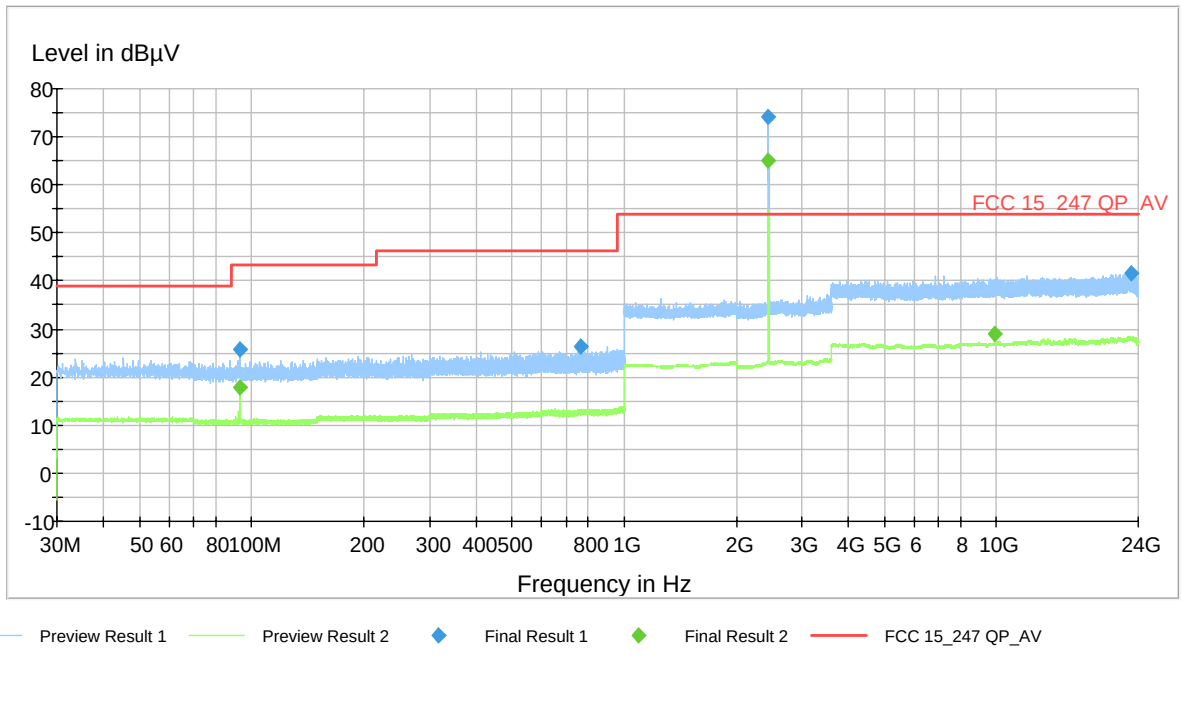
prot g ch1



prot g ch6



Prima Ricerca & Sviluppo Srl soggetta a direzione e coordinamento da parte della Giovanni Maspero & C. S.p.A. – C.I. 026347801
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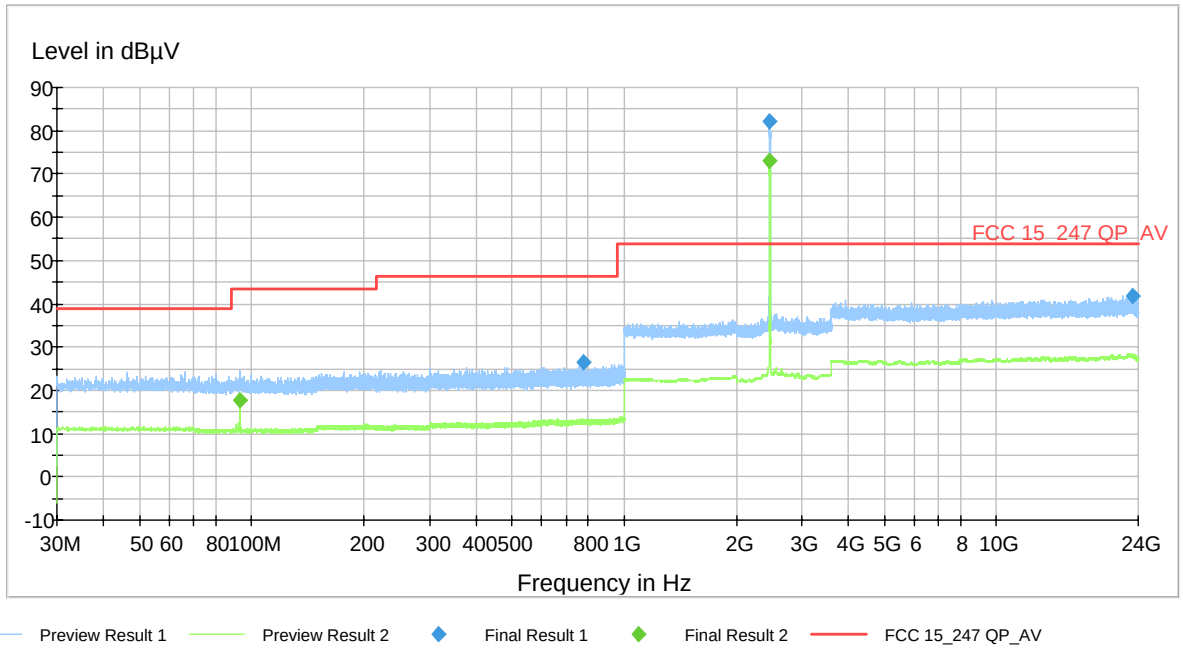
Prot g ch11

EMI Auto Test FCCcond 247



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TEST 5	**BAND EDGE**

REFERENCE DOCUMENT FCC 47CFR Part 15

- **TEST LOCATION:** Semi-anechoic chamber
- **TEST EQUIPMENT USED FOR TEST:** Rohde & Schwarz Mod. ESU40

- **TESTED PORT:** Enclosure
- **EMISSION LIMITS:** Acc. to Section 15.247c of reference document
- **UNCERTAINTY OF MEASURE:** Combined uncertainty = ± 1.75 dB
  Total uncertainty = (k=2) ± 3.5 dB

TEST CONDITIONS:			**MEASURED**
Ambient temperature :	15 - 35 °C		23,5 ± 3 °C
Ambient humidity :	25 - 75 %rH		39 ± 5 %rH
Pressure :	85 - 106 kPa	(860 mbar - 1060 mbar)	950 ± 50 mbar

OPERATING CONDITION (Rif. Section. 2) : *#1*

RESULT: WITHIN THE LIMIT

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EMI Auto Test Template: Electric Field Strength FCC

Hardware Setup:	Electric Field Strengh FCC
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2.35 GHz - 2.44 GHz - 2.433 GHz - 2.533 GHz
Graphics Level Range:	0 dBuV/m - 80 dBuV/m

Preview Measurements:

Scan Test Template:	Electric Field Strength FCC pre

Data Reduction:

Limit Line #1:	FCC 15 109 Peak
Limit Line #2:	FCC 15 109 AV
Peak Search:	6 dB
Maximum Results:	5
Subrange Maxima:	0
Maxima per Subrange:	1
Acceptance Offset:	-10 dB
Maximum Number of Results:	0

Adjustment:

Template for Single Meas.:	Electric Field Strength FCC fin

Final Measurements:

Template for Single Meas.:	Electric Field Strength FCC fin

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak; Average	120 kHz	1 s	Receiver
1 GHz - 3.6 GHz	MaxPeak; Average	1 MHz	1 s	Receiver
3.6 GHz - 18 GHz	MaxPeak ; Average	1 MHz	1 s	Receiver

Report Settings:

Report Template:	Sample EMI Auto Test Report
Create Electronic Report:	RTF
Document Name:	EMI Report

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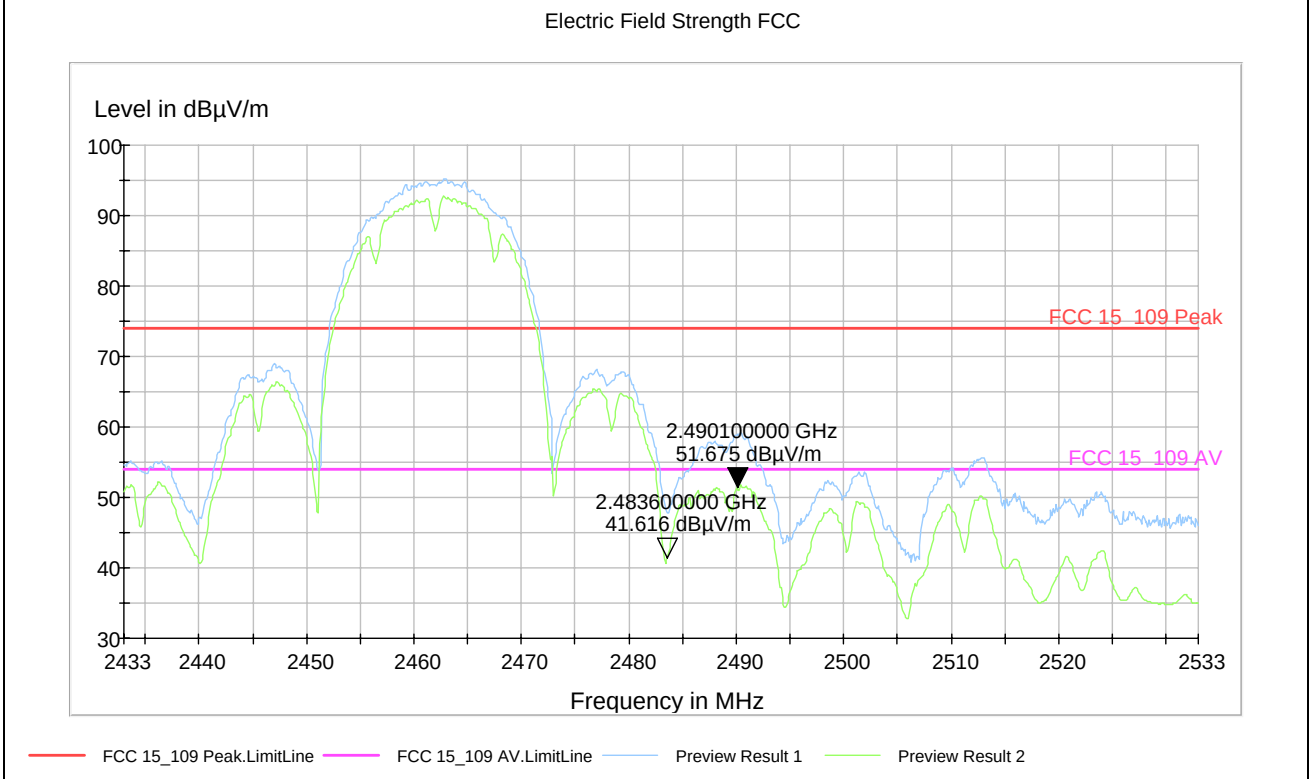
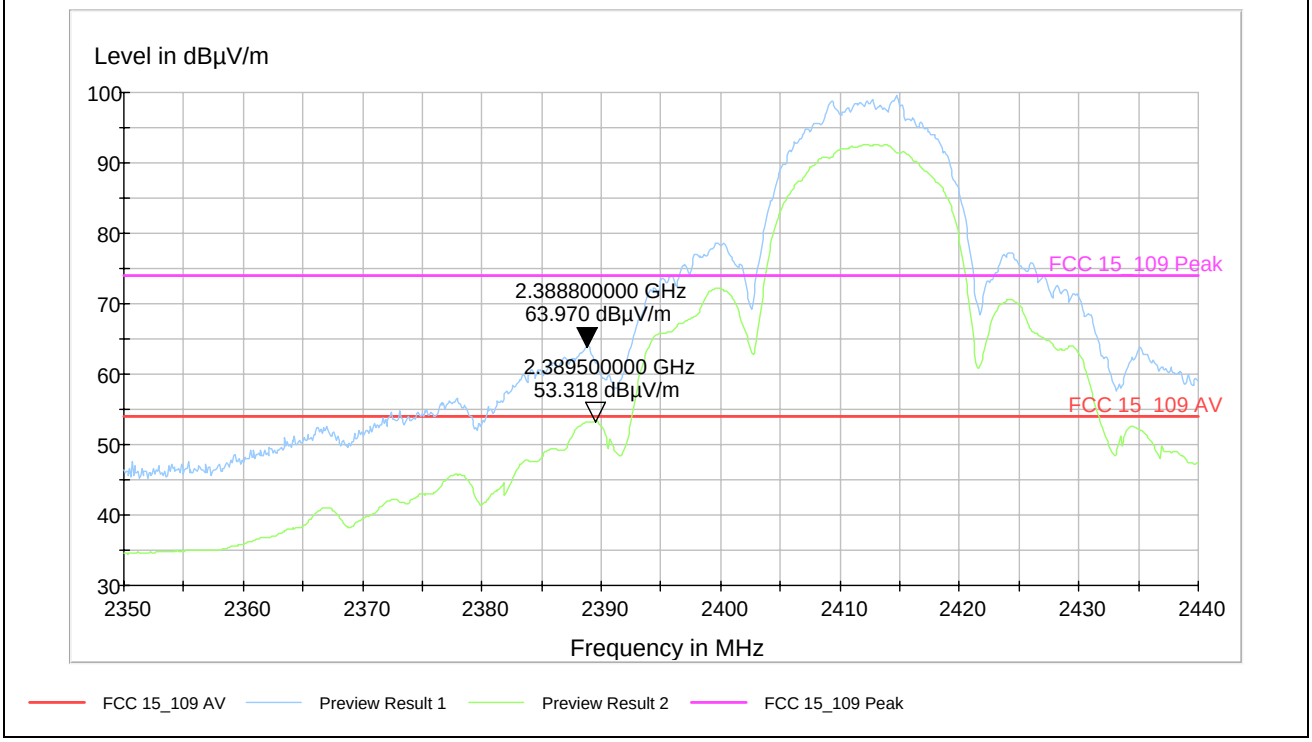
Prot b ch11



Prot b ch1



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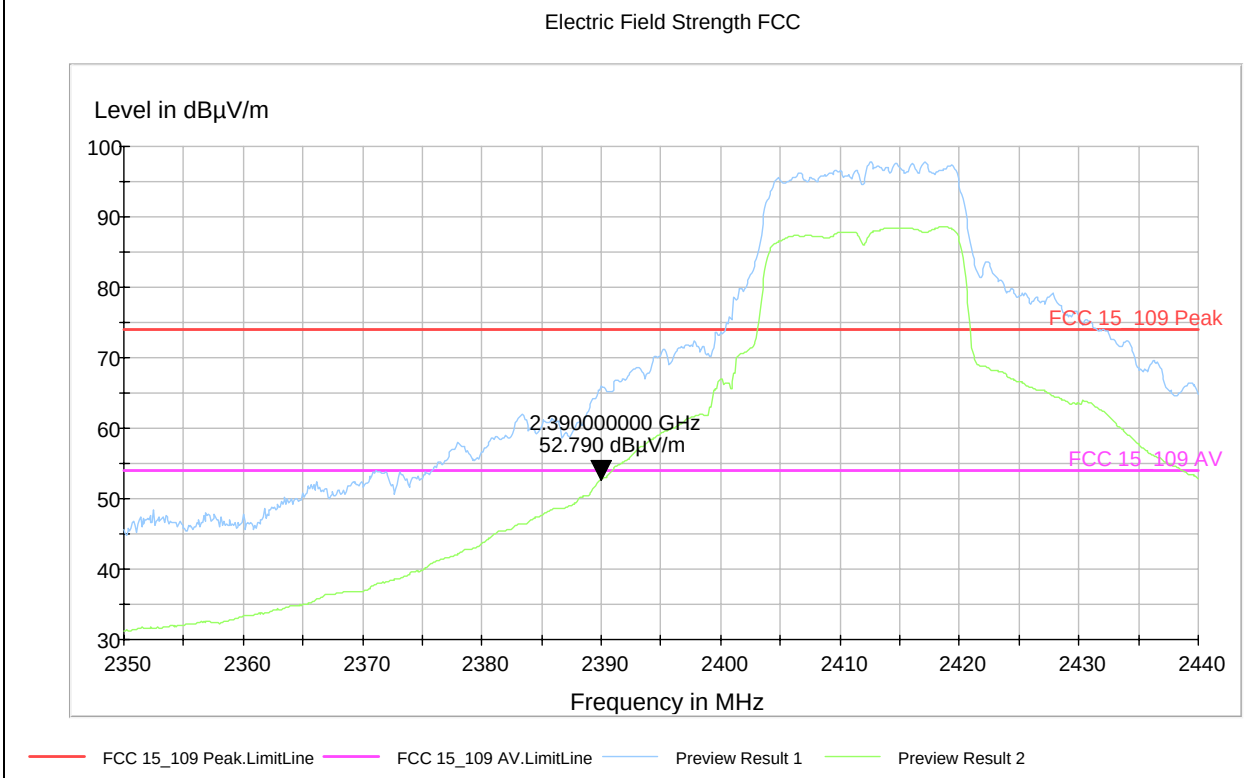
Prot g ch1



Prot g ch11

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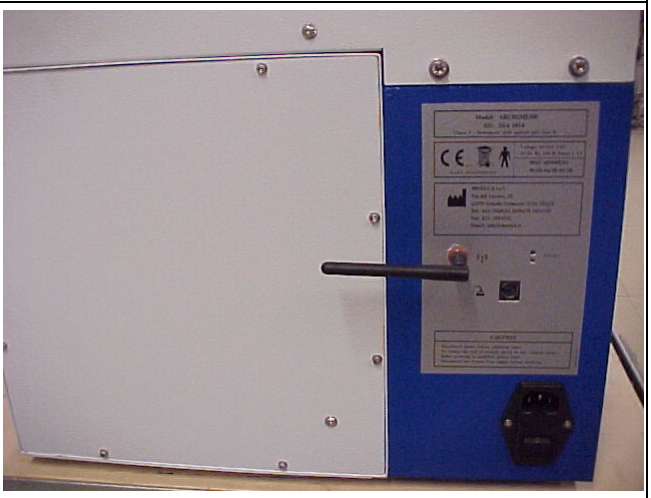
5.1 Photographic documentation

PHOTO 1 – E.U.T. IDENTIFICATION



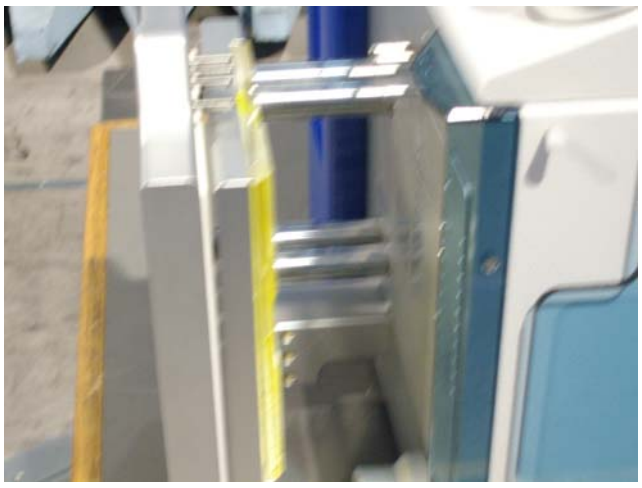



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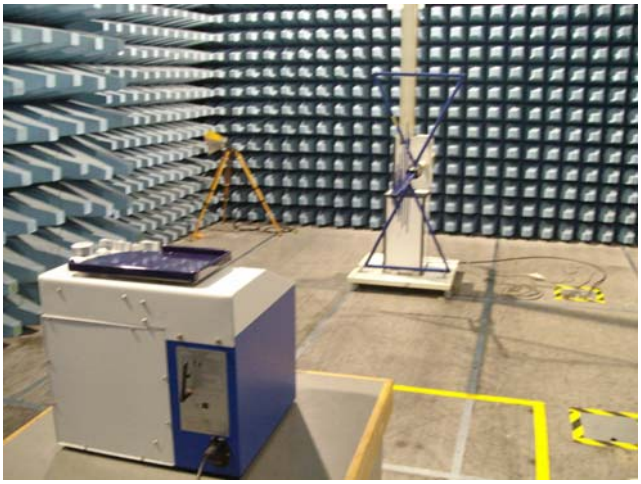
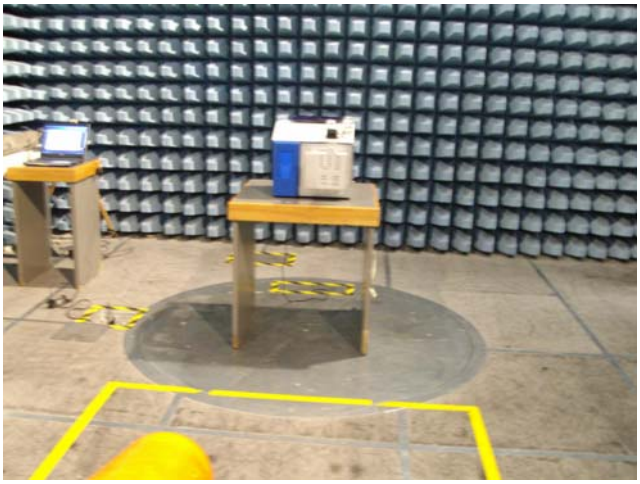
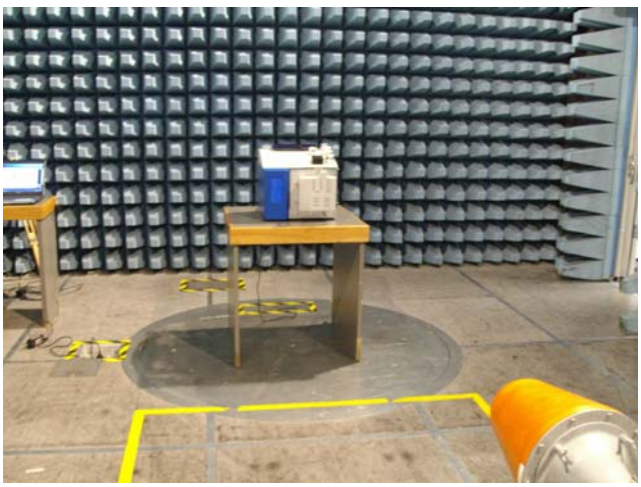
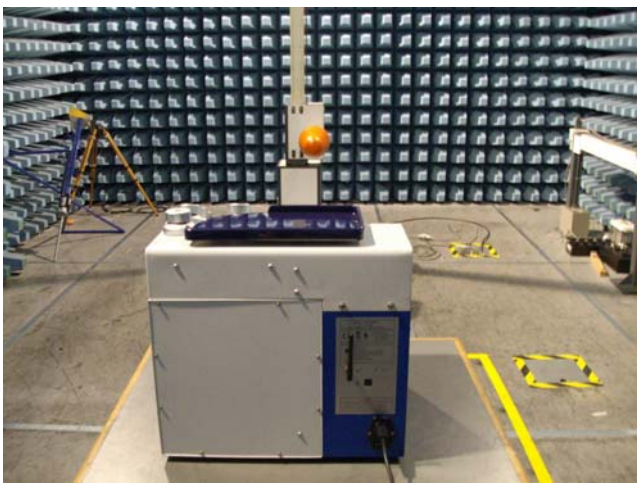
PHOTO 3 – SET-UP FOR EMISSION RADIATED TEST



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6. TEST EQUIPMENT LIST

6.1 Equipment List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL N.	CAL. DUE
EMI TEST RECEIVER 20HZ 40GHZ	ROHDE & SCHWARZ	ESU40	100111	JUL 2009
ARTIFICIAL MAINS NETWORK	ROHDE & SCHWARZ	ESH 2 - Z5	841887/011	SEPT.2009
ABSORBING CLAMP	ROHDE & SCHWARZ	MDS21	840031/005	JUL.2009
RF SEMI-ANECHOIC CHAMBER (CSSA)	SIEMENS	B83117-D6019-T232	003-005-134/94C	APR.2010
BILOG ANTENNA	CHASE	CBL6111A	1798	JUL.2009
BILOG ANTENNA	CHASE	CBL6111C	2717	JUL.2009
ESD GENERATOR	SCHAFFNER	NSG435-01	1063	APR.2009
RF SIGNAL GENERATOR 9 KHZ - 6 GHZ	ROHDE & SCHWARZ	SMB100A	100831	JUN 2011
LOG PERIODIC ANTENNA BROAD BAND 1-18 GHZ	ROHDE & SCHWARZ	HL025	350380/007	DEC.2009
SPECTRUM ANALYZER	ROHDE & SCHWARZ	FSP40	100038	DEC.2009
PROGRAMMABLE DC POWER SUPPLY	HEWLETT PACKARD	6623A	3448A04501	SEPT.2009
RF PREAMPLIFIER	BONN ELEKTRONIK	BLMA 1840-1A	087084B	AUG 2009
RF PREAMPLIFIER	BONN ELEKTRONIK	BLMA 0118-M	087084A	AUG 2009
RF SIGNAL GENERATOR 40 GHZ	ROHDE & SCHWARZ	SMP 04	825007/005	AUG 2009
DOUBLE RIDGED GUIDE ANTENNA	ELECTRO-METRICS	EM-6961	6278	JUL.2009
DIGITAL OSCILLOSCOPE	TEKTRONIX	TDS 680B	B010130	MAY.2010

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