



**FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 9**

CERTIFICATION TEST REPORT

FOR

Fibaro KeyFob

MODEL NUMBER: FGKF-601

**FCC ID: 2AA9MFGKF601
IC: 20430- FGKF601**

REPORT NUMBER: 11408588A

ISSUE DATE: March 23, 2017

Prepared for
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NVLAP Lab code: 100414-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	March 23, 2017	Initial Issue	V Sabalvaro

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Fibar Group S.A.
Ul. Lotnicza 1
Poznań, Poland 60-421

EUT DESCRIPTION: Fibaro KeyFob

MODEL: FGKF-601

SERIAL NUMBER: Non-serialized

DATE TESTED: November 22 – November 30, 2016

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 9 Annex B.10	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL LLC By:



Bart Mucha
Staff Engineer
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Tested By:



Vincent Sabalvaro
EMC WISE Engineer
UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 4, and RSS-210 Issue 9.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, IL 60062 USA.

UL NBK is accredited by NVLAP, Laboratory Code 100414-0. The full scope of accreditation can be viewed at <http://ts.nist.gov>

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Sample Calculations

Radiated Field Strength and Conducted Emissions data contained within this report is calculated on the following basis:

Field Strength (dBuV/m) = Meter Reading (dBuV) + AF (dB/m) - Gain (dB) + Cable Loss (dB)

Conducted Voltage (dBuV) = Meter Reading (dBuV) + Cable Loss (dB) + LISN IL (dB)

Conducted Current (dBuA) = Meter Reading (dBuV) + Cable Loss (dB) - Transducer Factor (dBohms)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test	Range	Equipment	Uncertainty k=2
Radiated Emissions	9k-30MHz	H-Field Loop	3.15dB
Radiated Emissions	30-200MHz	Bicon 3m Horz	3.64dB
Radiated Emissions	30-200MHz	Bicon 3m Vert	5.10dB
Radiated Emissions	200-1000MHz	LogP 3m Horz	4.00dB
Radiated Emissions	200-1000MHz	LogP 3m Vert	5.36dB
Radiated Emissions	30-200MHz	Bicon 10m Horz	4.48dB
Radiated Emissions	30-200MHz	Bicon 10m Vert	4.49dB
Radiated Emissions	200-1000MHz	LogP 10m Horz	3.79dB
Radiated Emissions	200-1000MHz	LogP 10m Vert	3.84dB
Radiated Emissions	1-18GHz	Horn	4.32dB
Conducted Ant Port	30MHz-26GHz	Spectrum Analyzer	2.94dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a 908.4MHz, 908.42MHz, and 916MHz transceiver. It is internal battery powered. The transmitter utilizes Z-wave technologies to communicate with other devices for home automation.

The device is manufactured by Fibar Group S.A

5.2. MAXIMUM OUTPUT E-FIELD STRENGTH

The transmitter has a maximum output peak E-field as follows:

Frequency Range (MHz)	Mode	Output QP E-field Strength (dBuV/m)
908.4 - 916	TX	91.64

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio is equipped with an embedded, impedance matched quarter-wave antenna. Antenna was designed as a trace on PCB.

5.4. WORST-CASE CONFIGURATION AND MODE

The EUT was set in worst axis as found in preliminary testing. The Z-axis was determined to be the worst axis.

For radiated emissions, the worst-case configuration is determined to be the transmitting channel with the highest measured output power.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
None	-	-	-	-

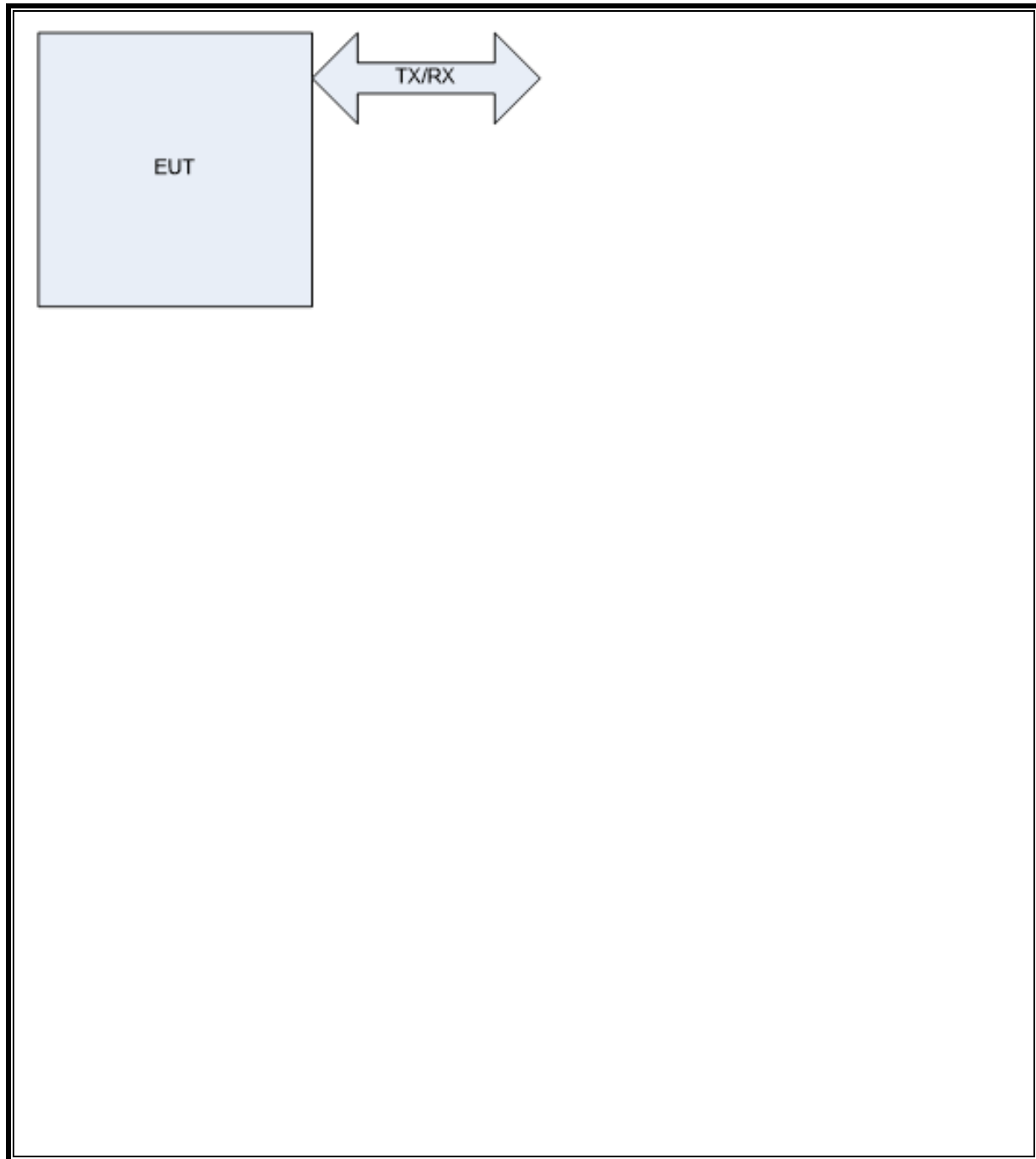
I/O CABLES

Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
0	Enclosure	-	Non-Electrical	-	-	None

TEST SETUP

The EUT is programmed for continuous TX mode

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List					
Description	Manufacturer	Model	T No.	Cal Date	Cal Due
Radiated Software	UL	UL EMC	Ver 9.5, Nov, 2015		
Signal Analyzer	Agilent	PXA	EMC4360	1/8/2016	1/31/2017
Near Field Probe	EMCO	7405	1270	N/A	N/A
Test Receiver	Rhode & Schwarz	ESCI	EMC4328	11/18/2015	11/30/2016
Log-P Antenna	Chase	UPA6109	EMC4313	1/22/2016	1/31/2017
Bicon Antenna	Chase	UPA6106A	EMC4078	12/28/2015	12/31/2016
Antenna Array	UL	BOMS	EMC4276	12/1/2015	12/31/2016
Test Receiver	Rhode & Schwarz	ESU	EMC4323	1/2/2016	1/31/2017
Loop Antenna	EMCO	6502/1	EMC4026	7/22/2016	7/31/2017

7. TEST RESULTS

7.1. 20 dB AND 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

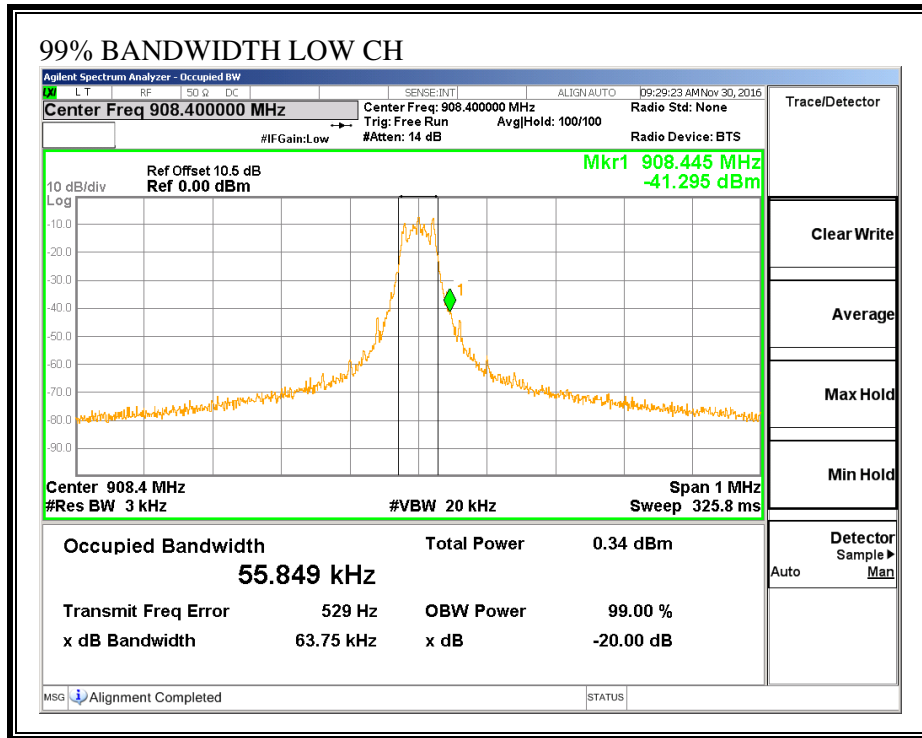
TEST PROCEDURE

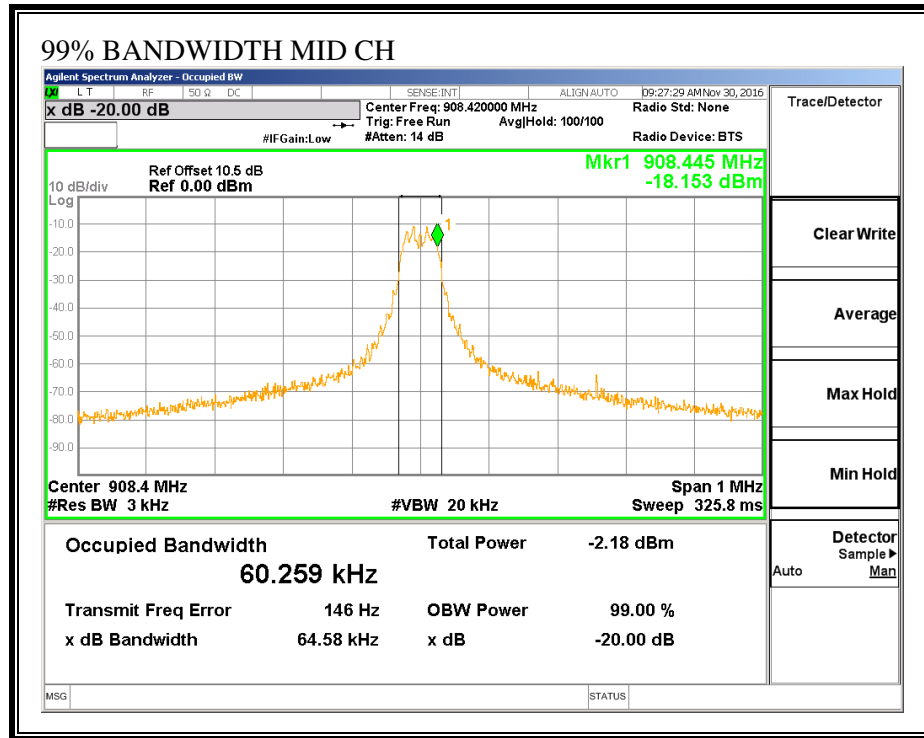
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 5% of the Occupied Bandwidth. The VBW is set to at least 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

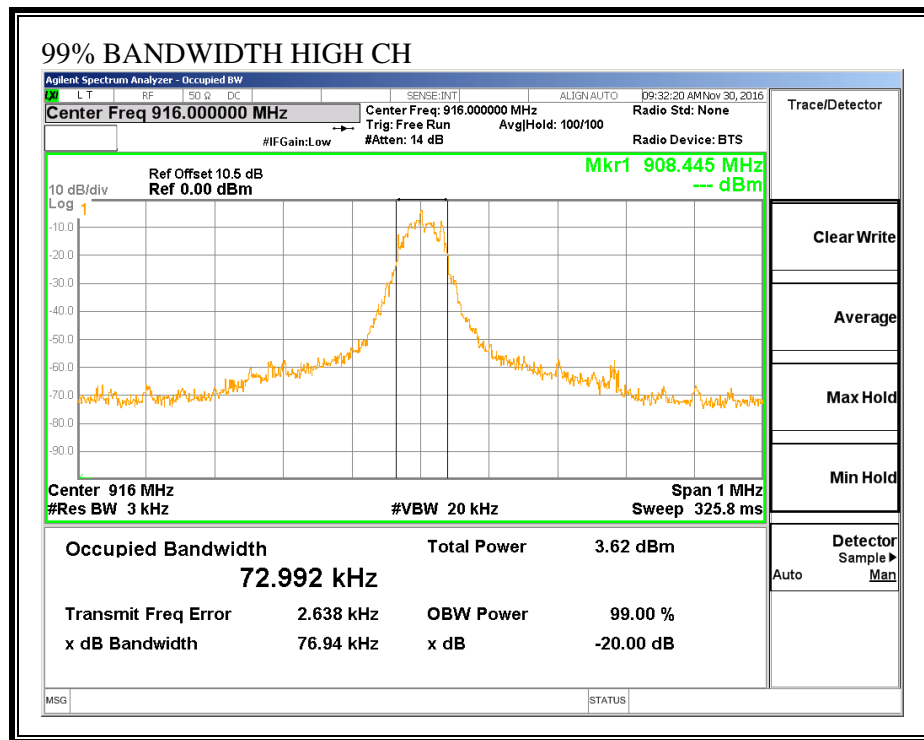
RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (kHz)	99% Bandwidth (kHz)
Low	908.4	63.83	55.849
Middle	908.42	67.27	60.259
High	916	79.2	72.992

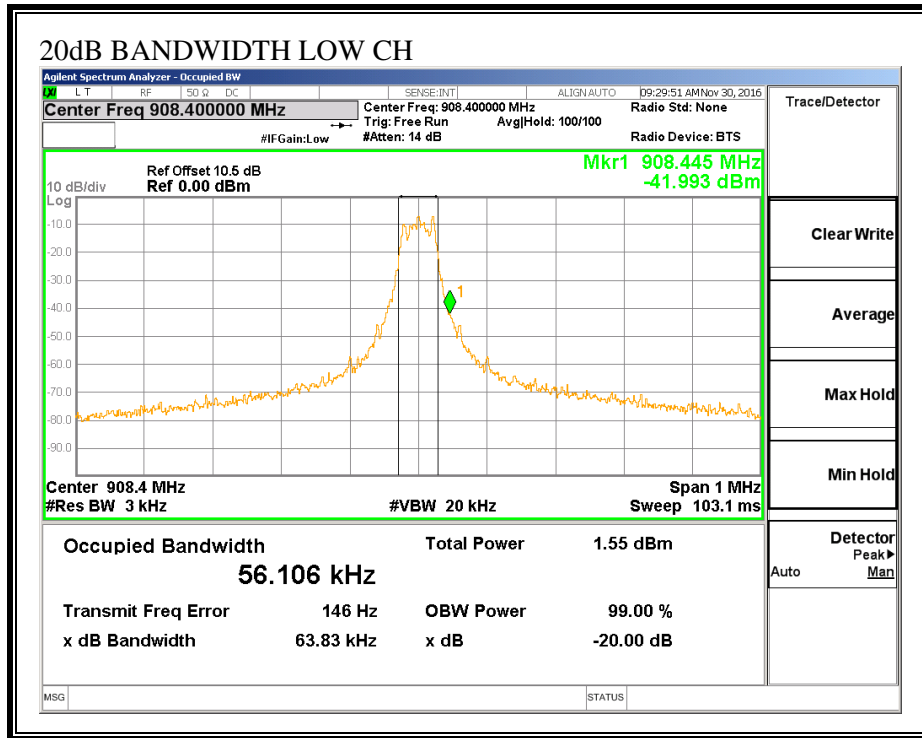
99% BANDWIDTH

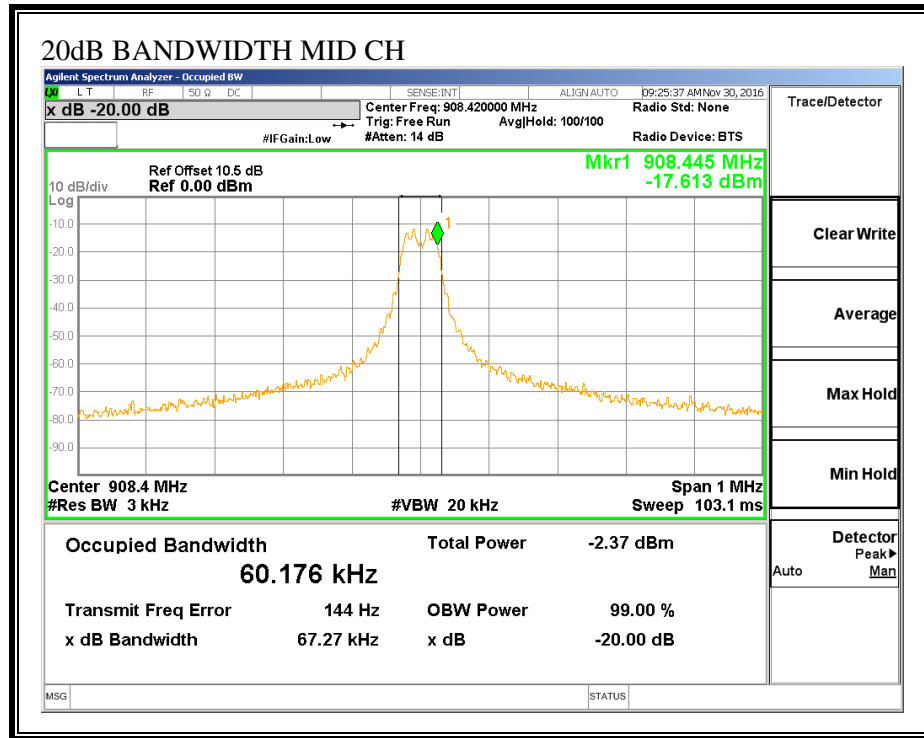


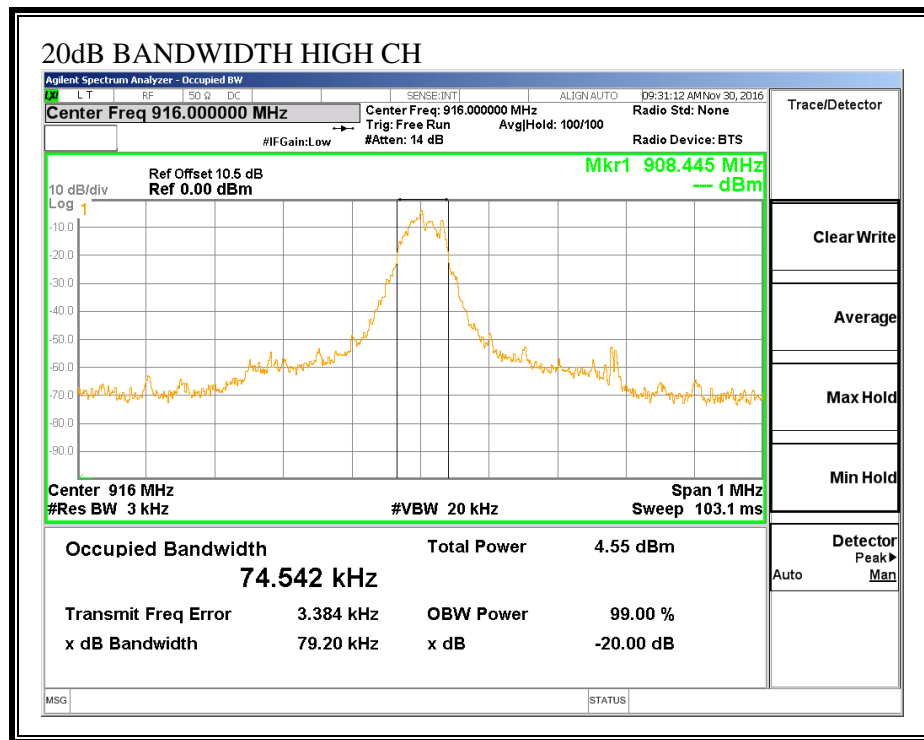




20dB BANDWIDTH







7.2. RADIATED EMISSIONS

LIMIT

IC RSS-210, B.10
FCC 15.249

Operation within the bands 902–928 MHz, 2400–2483.5 MHz, 5725–5875 MHz, and 24.0–24.25 GHz.

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

RESULTS

7.2.1. FUNDAMENTAL FREQUENCY RADIATED EMISSION

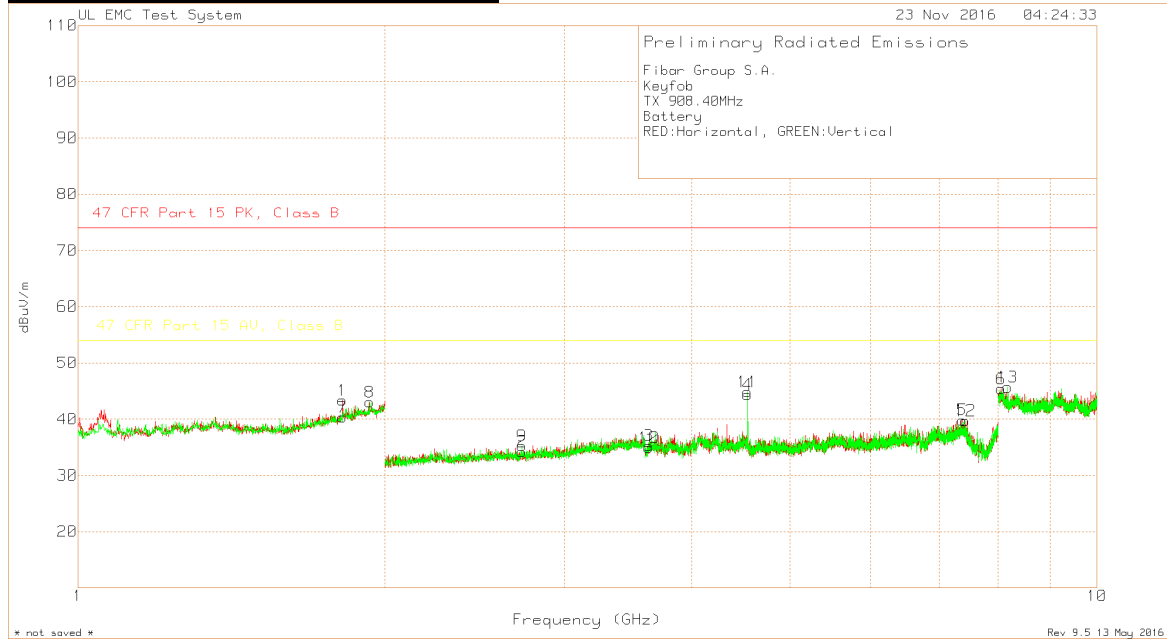
Fibar Group S.A.
Keyfob
TX 908.40MHz
Battery

Test Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor dBm	Path dB	Corrected Reading dB(uVolts/meter)	PK Limit dBuV/m	PK Margin (dB)	QP Limit dBuV/m	QP Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
908.4083	59.17 Pk	23.1	9.5	91.77	114	-22.23	-	-	57	101	H
908.4	59.04 Qp	23.1	9.5	91.64	-	-	94	-2.36	57	101	H
908.4083	49.83 Pk	23.1	9.5	82.43	114	-31.57	-	-	182	182	V
908.4	49.54 Qp	23.1	9.5	82.14	-	-	94	-11.86	182	182	V
908.4434	48.51 Pk	23.1	9.5	81.11	114	-32.89	-	-	163	183	V
908.42	48.09 Qp	23.1	9.5	80.69	-	-	94	-13.31	163	183	V
908.4387	57.47 Pk	23.1	9.5	90.07	114	-23.93	-	-	62	102	H
908.42	57.27 Qp	23.1	9.5	89.87	-	-	94	-4.13	62	102	H
915.9993	49.16 Pk	23.3	9.6	82.06	114	-31.94	-	-	352	176	V
916	48.92 Qp	23.3	9.6	81.82	-	-	94	-12.18	352	176	V
916.0023	58.31 Pk	23.3	9.6	91.21	114	-22.79	-	-	237	101	H
916	58.19 Qp	23.3	9.6	91.09	-	-	94	-2.91	237	101	H

Pk - Peak detector
Qp - Quasi-Peak detector

7.2.2. HARMONICS AND SPURIOUS EMISSIONS ABOVE 1GHz

Transmitter Low Channel – GRAPH



All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter Low Channel – DATA

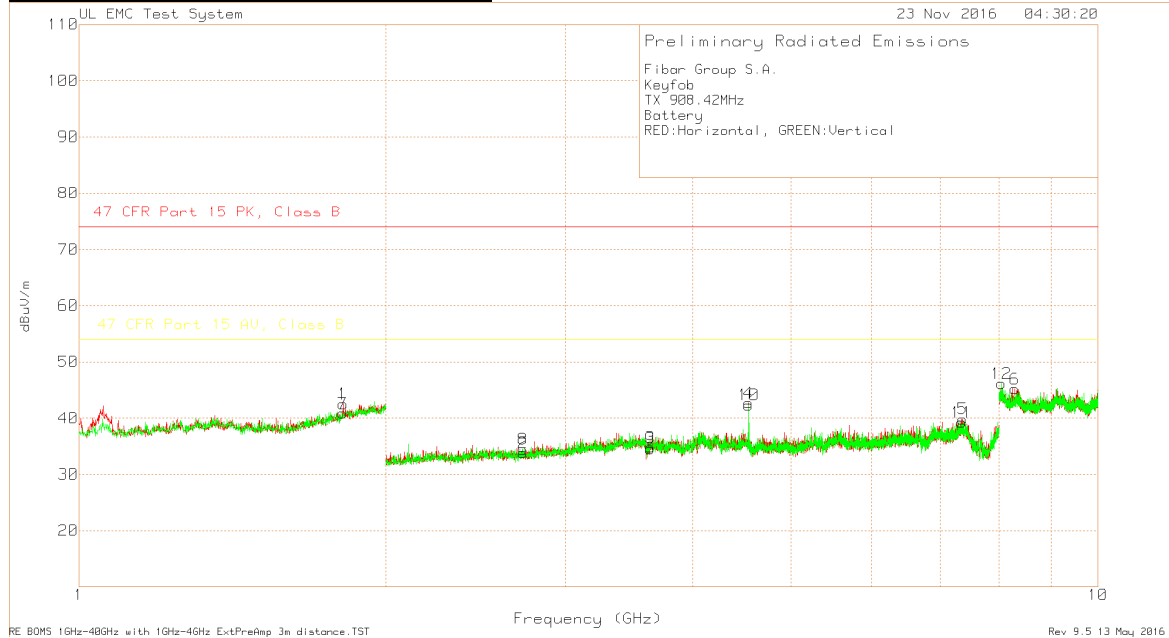
Fibar Group S.A.
Keyfob
TX 908.40MHz
Battery

Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Antenna Factor dBm	Path (dB)	Corrected Reading	PK		AV		Azimuth [Degs]	Height [cm]	Polarity
		Detector			dBuV/m	Limit	Margin	Limit	Margin			
1	1.817	67.76 Pk	30.4	-54.78	43.38	74	-30.62	54	-10.62	0-360	150 H	
2	2.725	63.1 Pk	22.1	-50.96	34.24	74	-39.76	54	-19.76	0-360	150 H	
3	3.633	61.91 Pk	23.3	-49.88	35.33	74	-38.67	54	-18.67	0-360	150 H	
4	4.542	68.38 Pk	27.8	-51.81	44.37	74	-29.63	54	-9.63	0-360	102 H	
5	7.374	55.39 Pk	31	-46.53	39.86	74	-34.14	54	-14.14	0-360	148 H	
6	8.053	55.69 Pk	36.2	-46.47	45.42	74	-28.58	54	-8.58	0-360	98 H	
7	1.817	64.69 Pk	30.4	-54.78	40.31	74	-33.69	54	-13.69	0-360	99 V	
8	1.932	66.11 Pk	31.4	-54.5	43.01	74	-30.99	54	-10.99	0-360	99 V	
9	2.725	64.1 Pk	22.1	-50.96	35.24	74	-38.76	54	-18.76	0-360	99 V	
10	3.633	61.5 Pk	23.3	-49.88	34.92	74	-39.08	54	-19.08	0-360	99 V	
11	4.542	68.88 Pk	27.8	-51.81	44.87	74	-29.13	54	-9.13	0-360	100 V	
12	7.43	56.2 Pk	30.7	-47.16	39.74	74	-34.26	54	-14.26	0-360	100 V	
13	8.176	58.09 Pk	36.3	-48.69	45.7	74	-28.3	54	-8.3	0-360	100 V	

Pk - Peak detector

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter Mid Channel – GRAPH



All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter Mid Channel – DATA

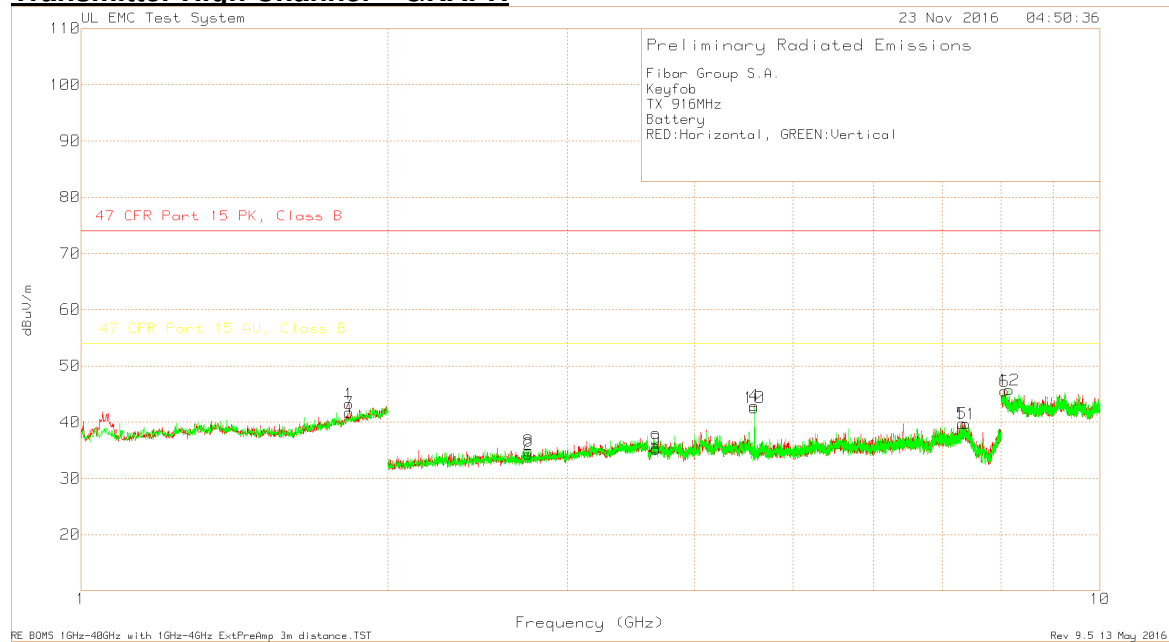
Fibar Group S.A.
Keyfob
TX 908.42MHz
Battery

Marker No.	Test		Meter		Antenna		Corrected		PK		AV		Azimuth [Degs]	Height [cm]	Polarity
	Frequency (GHz)	Reading (dBuV)	Detector	Factor dBm	Path (dB)	Reading dBuV/m	PK Limit dBuV/m	Margin (dB)	AV Limit dBuV/m	Margin (dB)					
1	1.816	66.94	Pk	30.4	-54.8	42.54	74	-31.46	54	-11.46	0-360	98	H		
2	2.725	62.7	Pk	22.1	-50.96	33.84	74	-40.16	54	-20.16	0-360	100	H		
3	3.634	61.4	Pk	23.3	-49.87	34.83	74	-39.17	54	-19.17	0-360	100	H		
4	4.542	66.71	Pk	27.8	-51.81	42.7	74	-31.3	54	-11.3	0-360	102	H		
5	7.363	55.28	Pk	30.9	-46.32	39.86	74	-34.14	54	-14.14	0-360	102	H		
6	8.29	56.95	Pk	36.4	-48.13	45.22	74	-28.78	54	-8.78	0-360	99	H		
7	1.815	65.32	Pk	30.4	-54.81	40.91	74	-33.09	54	-13.09	0-360	150	V		
8	2.725	63.33	Pk	22.1	-50.96	34.47	74	-39.53	54	-19.53	0-360	150	V		
9	3.634	61.12	Pk	23.3	-49.87	34.55	74	-39.45	54	-19.45	0-360	100	V		
10	4.542	66.35	Pk	27.8	-51.81	42.34	74	-31.66	54	-11.66	0-360	100	V		
11	7.35	54.75	Pk	30.8	-46.26	39.29	74	-34.71	54	-14.71	0-360	150	V		
12	8.041	56.77	Pk	36.1	-46.71	46.16	74	-27.84	54	-7.84	0-360	150	V		

Pk - Peak detector

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter High Channel – GRAPH



All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter High Channel – DATA

Fibar Group S.A.
Keyfob
TX 916MHz
Battery

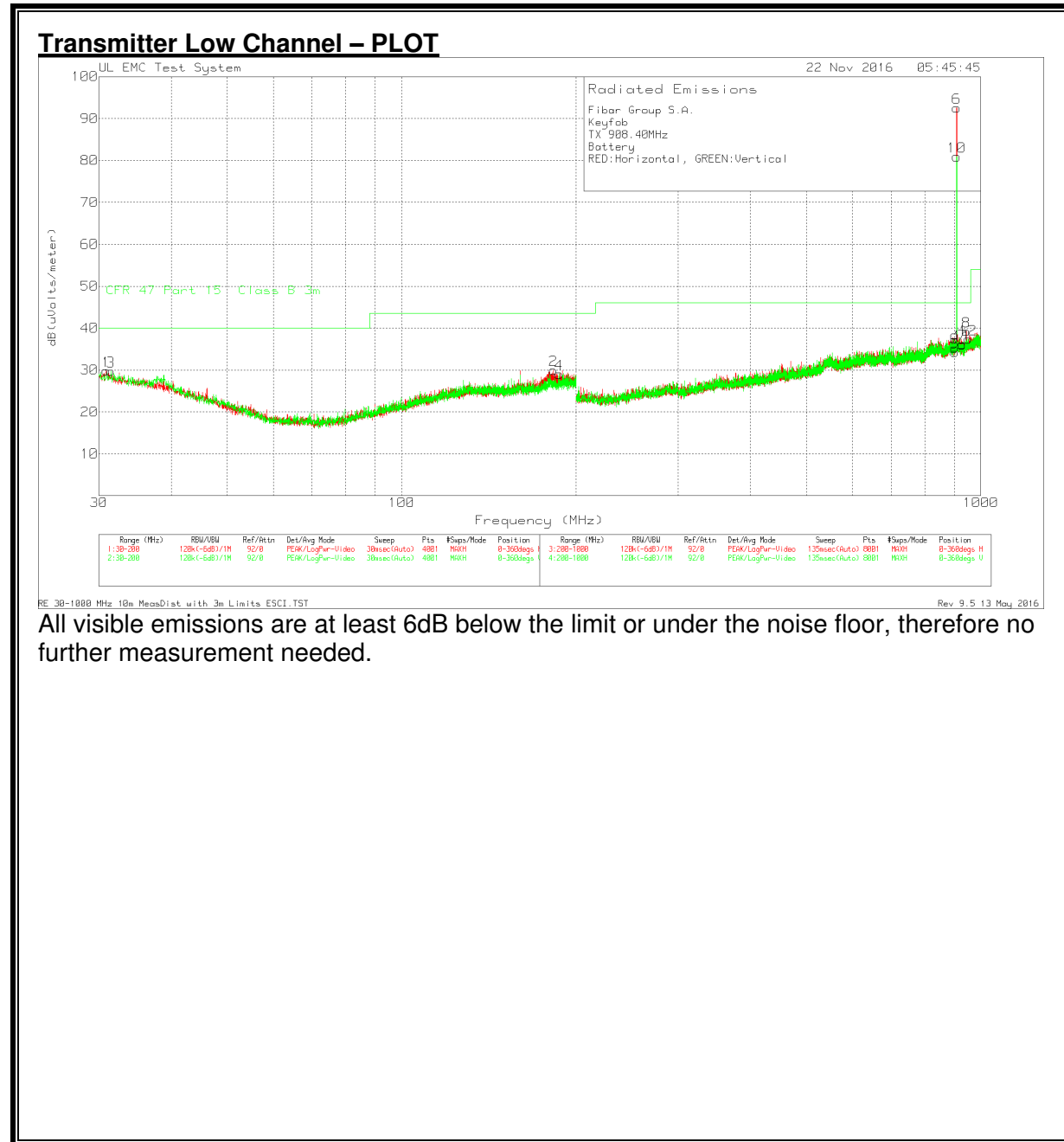
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna		Corrected Reading	PK		AV		Azimuth [Degs]	Height [cm]	Polarity
				Factor dBm	Path (dB)	dBuV/m	Limit dBuV/m	Margin (dB)	Limit dBuV/m	Margin (dB)			
1	1.832	67.43	Pk	30.5	-54.66	43.27	74	-30.73	54	-10.73	0-360	150	H
2	2.748	63.11	Pk	22.1	-50.86	34.35	74	-39.65	54	-19.65	0-360	99	H
3	3.664	61.06	Pk	23.4	-49.31	35.15	74	-38.85	54	-18.85	0-360	99	H
4	4.58	67.12	Pk	27.7	-51.85	42.97	74	-31.03	54	-11.03	0-360	101	H
5	7.329	55.12	Pk	30.7	-46.06	39.76	74	-34.24	54	-14.24	0-360	148	H
6	8.066	55.99	Pk	36.2	-46.68	45.51	74	-28.49	54	-8.49	0-360	150	H
7	1.832	65.87	Pk	30.5	-54.66	41.71	74	-32.29	54	-12.29	0-360	150	V
8	2.748	63.65	Pk	22.1	-50.86	34.89	74	-39.11	54	-19.11	0-360	150	V
9	3.664	61.33	Pk	23.4	-49.31	35.42	74	-38.58	54	-18.58	0-360	150	V
10	4.58	66.72	Pk	27.7	-51.85	42.57	74	-31.43	54	-11.43	0-360	100	V
11	7.384	55.33	Pk	31.1	-46.73	39.7	74	-34.3	54	-14.3	0-360	150	V
12	8.145	57.71	Pk	36.3	-48.25	45.76	74	-28.24	54	-8.24	0-360	99	V

Pk - Peak detector

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

7.2.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz



Transmitter Low Channel – DATA

Fibar Group S.A.

Keyfob

TX 908.40MHz

Battery

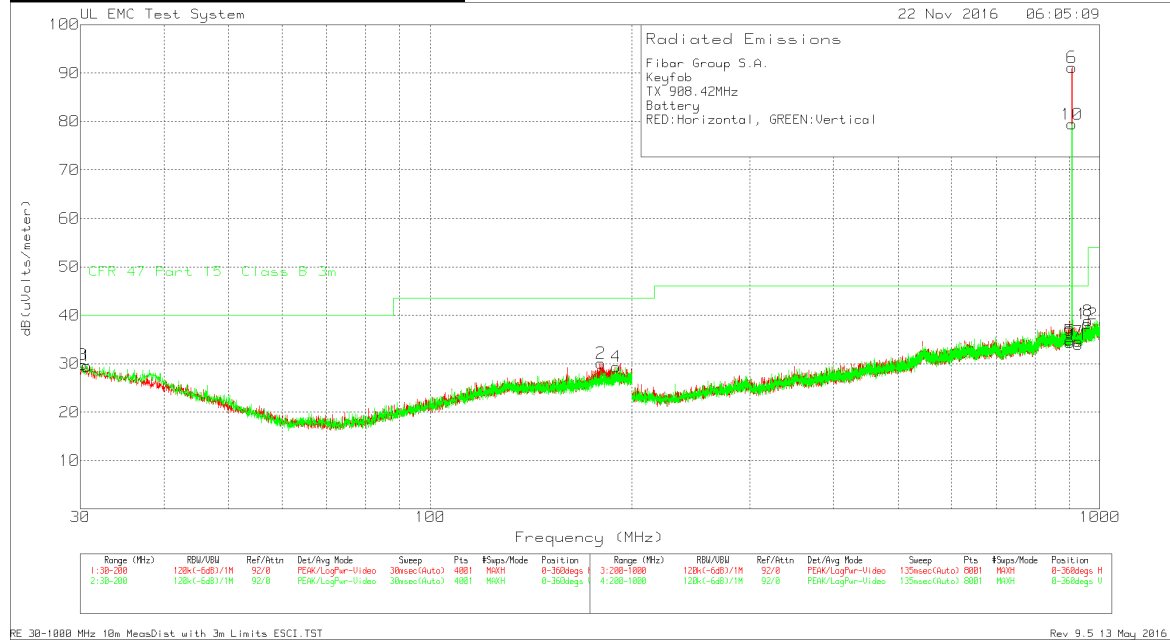
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor dBm	Path dB	10M to 3M Factor dB	Corrected Reading dB(uVolts/m eter)	QP Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	30.8925	31.49 Pk	17.8	-30	10.5	29.79	40	-10.21	0-360	398	H
2	182.7025	33.12 Pk	15.6	-29.2	10.5	30.02	43.52	-13.5	0-360	251	H
3	31.4875	31.64 Pk	17.6	-30	10.5	29.74	40	-10.26	0-360	398	V
4	186.8675	31.73 Pk	15.9	-29.1	10.5	29.03	43.52	-14.49	0-360	398	V
5*	902	28.99 Pk	22.7	-28	10.5	34.19	46.02	-11.83	0-360	299	H
6	908.4	86.6 Pk	23.1	-27.6	10.5	92.6 -	-	-	0-360	99	H
7*	928	30.59 Pk	22.7	-27.6	10.5	36.19	46.02	-9.83	0-360	99	H
8	944.3	33.08 Pk	23.3	-27.6	10.5	39.28	46.02	-6.74	0-360	299	H
9*	902	30.1 Pk	22.7	-28	10.5	35.3	46.02	-10.72	0-360	199	V
10	908.5	74.93 Pk	23.1	-27.6	10.5	80.93 -	-	-	0-360	299	V
11*	928	30.46 Pk	22.7	-27.6	10.5	36.06	46.02	-9.96	0-360	100	V
12	950.1	30.77 Pk	23.5	-27.4	10.5	37.37	46.02	-8.65	0-360	299	V

Pk - Peak detector

* - Bandedge Marker

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter Mid Channel – PLOT



All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter Mid Channel – DATA

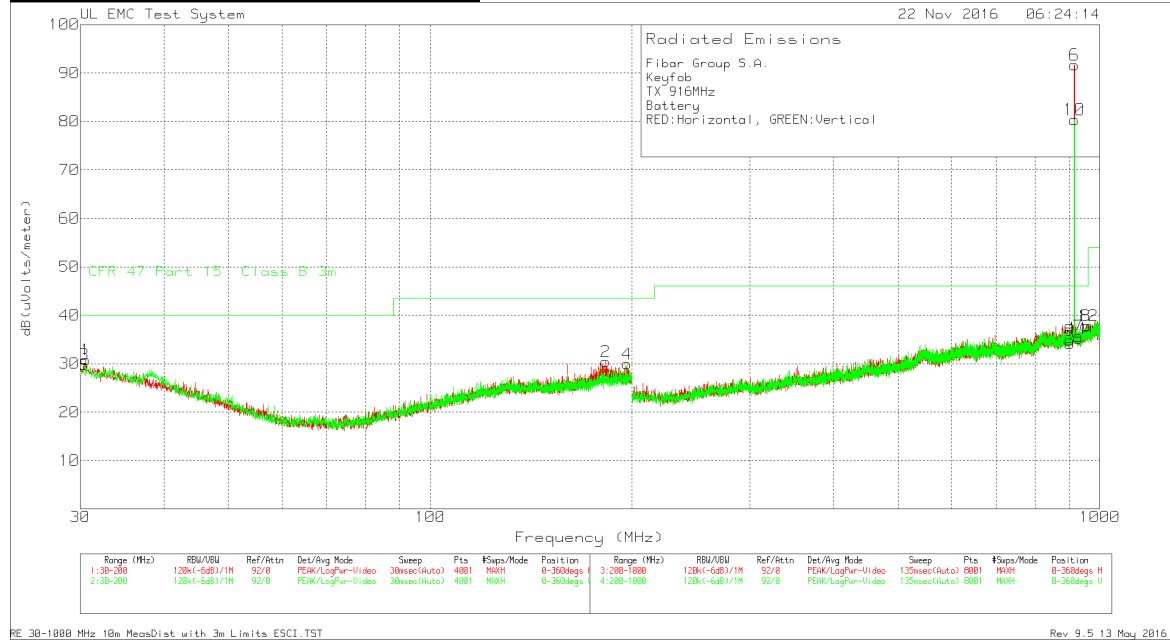
Fibar Group S.A.
Keyfob
TX 908.42MHz
Battery

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor dBm	Path dB	10M to 3M Factor dB	Corrected Reading dB(uVolts/m eter)	QP Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	30.68	31.13 Pk	17.9	-30	10.5	29.53	40	-10.47	0-360	252	H
2	179.7275	33.42 Pk	15.4	-29.2	10.5	30.12	43.52	-13.4	0-360	252	H
3	30.255	31.22 Pk	18.1	-30	10.5	29.82	40	-10.18	0-360	102	V
4	189.2475	31.89 Pk	16	-29	10.5	29.39	43.52	-14.13	0-360	399	V
5*	902	29.65 Pk	22.7	-28	10.5	34.85	46.02	-11.17	0-360	302	H
6	908.5	85.19 Pk	23.1	-27.6	10.5	91.19 -	-	-	0-360	99	H
7*	928	28.99 Pk	22.7	-27.6	10.5	34.59	46.02	-11.43	0-360	99	H
8	959.6	32.15 Pk	23.6	-27.4	10.5	38.85	46.02	-7.17	0-360	302	H
9*	902	29.18 Pk	22.7	-28	10.5	34.38	46.02	-11.64	0-360	100	V
10	908.5	73.45 Pk	23.1	-27.6	10.5	79.45 -	-	-	0-360	299	V
11*	928	28.34 Pk	22.7	-27.6	10.5	33.94	46.02	-12.08	0-360	299	V
12	958.3	31.43 Pk	23.6	-27.3	10.5	38.23	46.02	-7.79	0-360	199	V

Pk - Peak detector
* - Bandedge Marker

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter High Channel – PLOT



All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

Transmitter High Channel – DATA

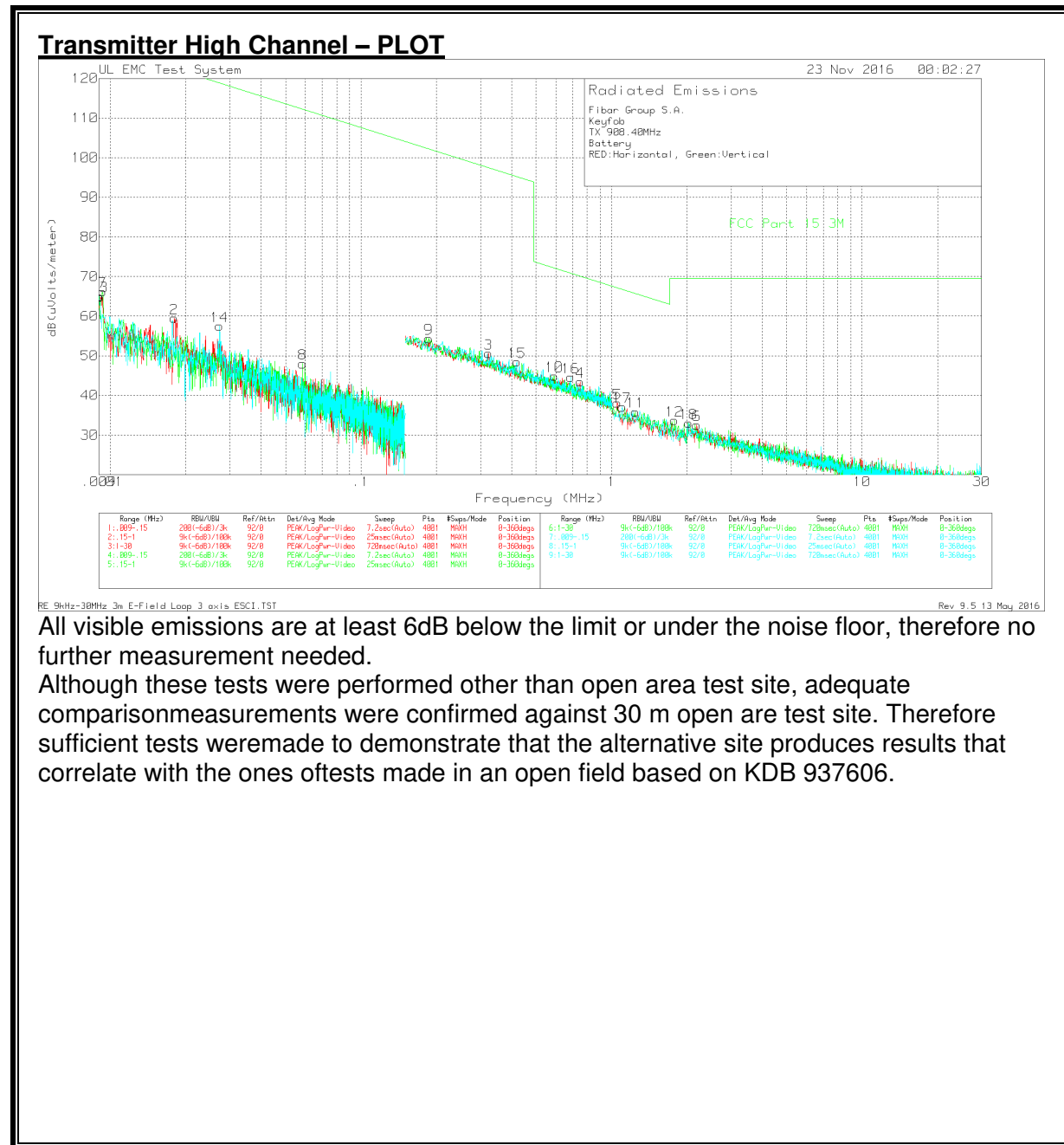
Fibar Group S.A.
Keyfob
TX 916MHz
Battery

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor dBm	Path dB	10M to 3M Factor dB	Corrected Reading dB(uVolts/m eter)	QP Limit dBuV/m	QP Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	30.5525	32.33 Pk	18	-30	10.5	30.83	40	-9.17	0-360	398	H
2	182.7875	33.56 Pk	15.6	-29.2	10.5	30.46	43.52	-13.06	0-360	398	H
3	30.425	31.32 Pk	18	-30	10.5	29.82	40	-10.18	0-360	248	V
4	196.685	32.28 Pk	16	-28.8	10.5	29.98	43.52	-13.54	0-360	248	V
5*	902	28.92 Pk	22.7	-28	10.5	34.12	46.02	-11.9	0-360	199	H
6	916.1	85.69 Pk	23.3	-27.8	10.5	91.69 -	-	-	0-360	299	H
7*	928	30.08 Pk	22.7	-27.6	10.5	35.68	46.02	-10.34	0-360	98	H
8	953.3	31.02 Pk	23.5	-27.2	10.5	37.82	46.02	-8.2	0-360	399	H
9*	902	29.62 Pk	22.7	-28	10.5	34.82	46.02	-11.2	0-360	398	V
10	916.1	74.4 Pk	23.3	-27.8	10.5	80.4 -	-	-	0-360	299	V
11*	928	29.67 Pk	22.7	-27.6	10.5	35.27	46.02	-10.75	0-360	199	V
12	959.6	31.14 Pk	23.6	-27.4	10.5	37.84	46.02	-8.18	0-360	199	V

Pk - Peak detector
* - Bandedge Marker

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.

SPURIOUS EMISSIONS 9 kHz TO 30 MHz



Transmitter High Channel – DATA

Fibar Group S.A.
Keyfob
TX 908.40MHz
Battery

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dBm	Path dB	Corrected Reading dB(uVolts/ meter)	AV Limit dBuV/m	AV Margin (dB)	Azimuth [Degs]	Polarity
1	0.00907	42.57 Pk		22.3	0	64.87	128.43	-63.56	0-360	X
2	0.01796	42.1 Pk		17.4	0	59.5	122.5	-63	0-360	X
3	0.32232	39.29 Pk		11.3	0	50.59	97.44	-46.85	0-360	X
4	0.7481	32.06 Pk		11.4	0	43.46	70.12	-26.66	0-360	X
5	1.05438	26.58 Pk		11.4	0.1	38.08	67.14	-29.06	0-360	X
6	2.189	20.96 Pk		11.5	0.1	32.56	69.54	-36.98	0-360	X
7	0.009315	44.13 Pk		22.1	0	66.23	128.2	-61.97	0-360	Y
8	0.05849	35.72 Pk		12.3	0	48.02	112.25	-64.23	0-360	Y
9	0.18642	43.06 Pk		11.3	0	54.36	102.19	-47.83	0-360	Y
10	0.59134	33.61 Pk		11.3	0	44.91	72.17	-27.26	0-360	Y
11	1.2465	24.39 Pk		11.4	0.1	35.89	65.69	-29.8	0-360	Y
12	1.783	22.11 Pk		11.5	0.1	33.71	69.54	-35.83	0-360	Y
13	0.009035	42.66 Pk		22.4	0	65.06	128.47	-63.41	0-360	Z
14	0.027235	42.04 Pk		15.5	0	57.54	118.89	-61.35	0-360	Z
15	0.41881	37.15 Pk		11.3	0	48.45	95.16	-46.71	0-360	Z
16	0.68633	33.23 Pk		11.4	0	44.63	70.87	-26.24	0-360	Z
17	1.1015	25.61 Pk		11.4	0.1	37.11	66.76	-29.65	0-360	Z
18	2.0295	21.39 Pk		11.5	0.1	32.99	69.54	-36.55	0-360	Z

Pk - Peak detector

All visible emissions are at least 6dB below the limit or under the noise floor, therefore no further measurement needed.