



# **TEST REPORT**

Applicant	Grandex International Development Ltd
Address	Unit 2401, 24/F, Million Fortune Industrial Ctr., No.34-36 Chai Wan Kok Street, Tsuen Wan, Hong Kong

Manufacturer or Supplier	Grandex International Development Ltd
Address	Unit 2401, 24/F, Million Fortune Industrial Ctr., No.34-36 Chai Wan Kok Street, Tsuen Wan, Hong Kong
Product	R/C Vehicle
Brand Name	N/A
Model	61248
Additional Model & Model Difference	N/A
Date of tests	Apr. 11, 2020 ~ Jun. 22, 2020

the tests have been carried out according to the requirements of the following standard:

#### FCC Part 15, Subpart C, Section 15.235

#### CONCLUSION: The submitted sample was found to <u>COMPLY</u> with the test requirement

Tested by Andy Zhu Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
Andy	Au
	Date: Jun. 30, 2020
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# TABLE OF CONTENTS

R	ELEASE C	CONTROL RECORD	3
1	SUMMA	ARY OF TEST RESULTS	4
2		IREMENT UNCERTAINTY	
3	GENER	AL INFORMATION	5
	3.1 GEN	IERAL DESCRIPTION OF EUT	5
	3.2 DES	CRIPTION OF TEST MODES	6
	3.3 GEN	VERAL DESCRIPTION OF APPLIED STANDARDS	6
	3.4 DES	SCRIPTION OF SUPPORT UNITS	6
4	. TEST T	YPES AND RESULTS	7
	4.1 RAD	DIATED EMISSION MEASUREMENT	7
	4.1.1	LIMITS OF RADIATED EMISSION MEASUREMENT	7
	4.1.2	TEST INSTRUMENTS	8
	4.1.3	TEST PROCEDURES	9
	4.1.4	DEVIATION FROM TEST STANDARD	9
	4.1.5	TEST SETUP 1	0
	4.1.6	EUT OPERATING CONDITIONS1	1
	4.1.7	TEST RESULTS1	1
	4.2 BAN	IDWIDTH MEASUREMENT 1	5
	4.2.1	LIMITS OF BANDWIDTH MEASUREMENT 1	5
	4.2.2	TEST INSTRUMENTS 1	5
	4.2.3	TEST PROCEDURE 1	6
	4.2.4	DEVIATION FROM TEST STANDARD 1	6
	4.2.5	TEST SETUP 1	6
	4.2.6	EUT OPERATING CONDITIONS 1	6
	4.2.7	TEST RESULTS 1	7
5	РНОТО	GRAPHS OF THE TEST CONFIGURATION1	8
6	APPENI	DIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT	
	BY THE	LAB1	9



# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF200611N013	Original release	Jun. 30, 2020



## **1 SUMMARY OF TEST RESULTS**

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.235)				
STANDARD TEST TYPE AND LIMIT		RESULT	REMARK	
§15.207 (a)	Conducted Emission	N/A	EUT is powered by battery	
§15.209 §15.235(a)	Radiated Emission	PASS	Compliant	
§15.235(b) §15.215(c)	Measured Bandwidth	PASS	Compliant	
§15.203	Antenna Requirement	PASS	No antenna connector is used	

## 2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY	
Radiated emissions	9KHz ~ 30MHz	2.16dB	
	30MHz ~ 1GHz	3.99dB	

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.



## **3 GENERAL INFORMATION**

## 3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	R/C Vehicle	
MODEL NO.	61248	
ADDITIONAL MODEL	N/A	
FCC ID	VC961248149	
NOMINAL VOLTAGE	DC 3V (1.5V*AA*2) from Battery	
MODULATION TYPE	FSK	
OPERATING FREQUENCY	49.86MHz	
NUMBER OF CHANNEL	1	
ANTENNA TYPE	Wire Antenna, with 0dBi gain	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	

#### NOTES:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. For the test results, the EUT had been tested with all conditions, but only the worst case was shown in test report.
- 3. Please refer to the EUT photo document (Reference No.:200611N013) for detailed product photo.



### 3.2 DESCRIPTION OF TEST MODES

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and packet type. The worst case was found when the EUT was positioned on Y axis for radiated emission. The EUT was tested under the following mode.

FREQUENCY	TEST MODE	
49.86MHz	Transmitting	

## 3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

#### FCC Part 15, Subpart C, 15.235

ANSI C63.10-2013

#### 3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit without any other necessary accessories or support units.



## 4 TEST TYPES AND RESULTS

## 4.1 RADIATED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

FREQUENCIES (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

According to §15.235(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [Peak] [µV/m]	Field Strength of Fundamental Emission [Average] [µV/m]
49.82 - 49.90	100,000 (100 dBµV/m)	10,000 (80 dBµV/m)

NOTES:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



### 4.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 18,20	Mar. 17,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 22,20	May 21,21
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 28,20	May 27,21
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 15,20	Mar. 14,21
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	Jun. 23,19	Jun. 22,20
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Jun. 23,19	Jun. 22,20
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	Jun. 23,19	Jun. 22,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Apr. 21,20	Apr. 20,21
Test Software	ADT	ADT_Radiated _V7.6.15.9.2	N/A	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 21,20	Apr. 20,21
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Mar. 04,20	Mar. 03,21
Test Software	ADT	ADT_Radiated _V7.6.15.9.2	N/A	N/A	N/A
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	May 20,20	May 19,21

NOTES:

1. The test was performed in 966 Chamber.

2. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3. The horn antenna is used only for the measurement of emission frequency above1GHz if tested.

4. The FCC Site Registration No. is 749762.



## 4.1.3 TEST PROCEDURES

The basic test procedure was in accordance with ANSI C63.10 (section 6).

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using new battery. The turntable was rotated to maximize the emission level.

#### .NOTES:

- 1. The resolution bandwidth of test receiver/spectrum analyzer is 100kHz for peak detection (PK) at fundamental frequency below 1GHz; The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at radiated spurious emission frequency below 1GHz.
- 2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- 4. Margin value = Emission level Limit value.
- 5. Fundamental AV value =PK Emission +AV factor.

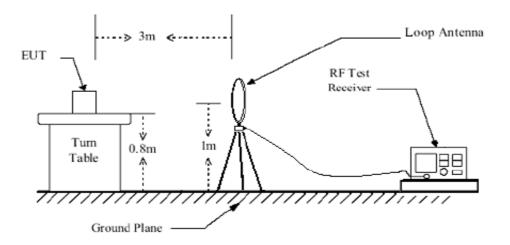
#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

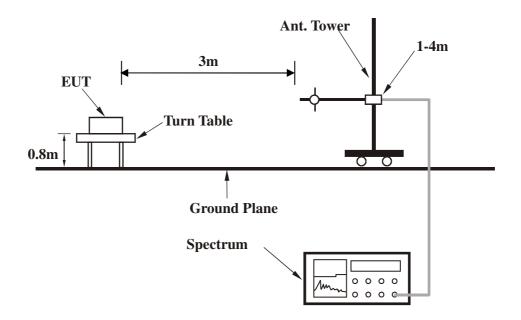


### 4.1.5 TEST SETUP

#### **Below 30MHz**



#### 30MHz~1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

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## 4.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power of equipment.
- b. Hold down the TX of button, and then the EUT was operating.
- c. EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

## 4.1.7 TEST RESULTS

#### FIELD STRENGTH OF FUNDAMENTAL

No.	Freq. (MHz)	Antenna Polarization	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
*	49.86(PK)	V	-20.98	88.54	67.56	100	-32.44
*	49.86(AV)	V	-4.4	-	63.16	80	-16.84
*	49.86(PK)	Н	-20.97	71.45	50.48	100	-49.52
*	49.86(AV)	Н	-4.4	-	46.08	80	-33.92

**REMARKS:** 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were greater than 20dB margin.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The average value of fundamental frequency is: Average value = Peak value +AV factor, where the AV factor is calculated from following formula: AV factor=20 log (Duty cycle) = 20 log (60.24%) = -4.4dB.



Tp = 18.0435ms

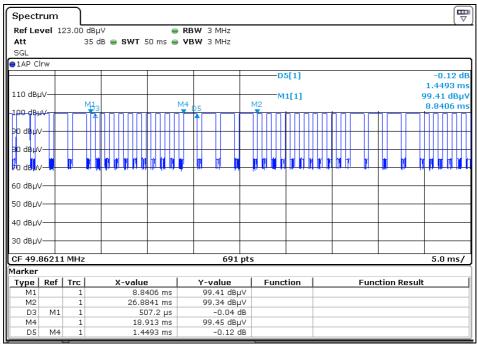
Ton = Ton1 \* Number+ Ton2 \* Number =0.5072\*10 +1.4493 \*4 = 10.8692ms

Duty Cycle = Ton / Tp \* 100% = 10.8692/ 18.0435= 60.24%

**Tp**=26.8841-8.8406=18.0435ms

Ton1=0.5072ms

Ton2= 1.4493ms



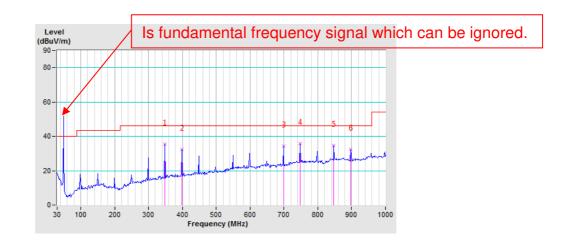


FREQUENCY RANGE	9KHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
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	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	348.67	35.54 QP	46.00	-10.46	1.00 H	0	48.40	-12.86		
2	398.41	32.33 QP	46.00	-13.67	1.00 H	0	43.96	-11.63		
3	698.43	34.27 QP	46.00	-11.73	1.00 H	32	39.84	-5.57		
4	748.17	35.72 QP	46.00	-10.28	1.00 H	20	39.32	-3.60		
5	847.66	34.55 QP	46.00	-11.45	1.00 H	6	36.88	-2.33		
6	897.40	32.51 QP	46.00	-13.49	1.00 H	48	35.21	-2.70		

#### **REMARKS:**

- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The emission levels of other frequencies were greater than 20dB margin.
- 4. 9KHz~30MHz have been test and test data more than 20dB margin.
- 5. Margin value = Emission level Limit value.





FREQUENCY RANGE	9KHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
-----------------	-------------	----------------------	-----------------

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	92.18	36.92 QP	43.50	-6.58	1.00 V	270	57.66	-20.74		
2	149.70	30.09 QP	43.50	-13.41	1.00 V	255	47.86	-17.77		
3	348.67	30.75 QP	46.00	-15.25	1.00 V	198	43.61	-12.86		
4	398.41	33.26 QP	46.00	-12.74	1.00 V	208	44.89	-11.63		
5	698.43	29.76 QP	46.00	-16.24	1.00 V	219	35.33	-5.57		
6	748.17	30.75 QP	46.00	-15.25	1.00 V	240	34.35	-3.60		

#### **REMARKS:**

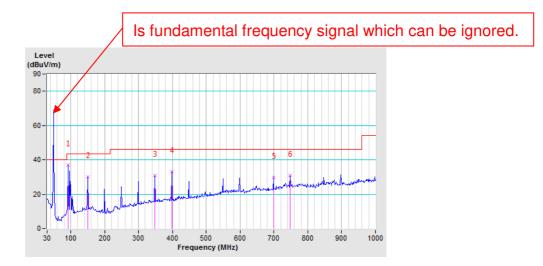
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

3. The emission levels of other frequencies were greater than 20dB margin.

4. 9KHz~30MHz have been test and test data more than 20dB margin.

5. Margin value = Emission level – Limit value.



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## 4.2 BANDWIDTH MEASUREMENT

#### 4.2.1 LIMITS OF BANDWIDTH MEASUREMENT

The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits in Section 15.209.

FREQUENCY	Limits
(MHz)	[MHz]
49.86	within 49.81~49.91

#### 4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	May 22,20	May 21,21
Power Sensor	Keysight	U2021XA	MY55060018	May 22,20	May 21,21
Power Meter	Anritsu	ML2495A	1139001	Mar. 18,20	Mar. 17,21
Power Sensor	Anritsu	MA2411B	1531155	Mar. 18,20	Mar. 17,21
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 19	Oct.16, 20
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct.31,19	Oct. 30,20
Oscilloscope	Agilent	DSO9254A	MY51260160	Sep. 18,19	Sep. 17,20
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Mar. 18,20	Mar. 17,21
Signal Generator	Agilent	N5183A	MY50140980	Sep. 19,19	Sep. 18,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 12,19	Sep. 11,20
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A	N/A
DC Source	Keysight	E3642A	MY56146098	N/A	N/A

#### NOTES:

- 1. The test was performed in RF Oven room.
- 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



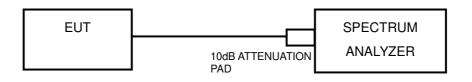
#### 4.2.3 TEST PROCEDURE

- a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- c. Measure the frequency difference of two frequencies that were attenuated 26dB from the reference level. Record the frequency difference as the emission bandwidth.
- d. Repeat above procedures until all frequencies measured were complete.

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.2.5 TEST SETUP



#### 4.2.6 EUT OPERATING CONDITIONS

Same as item 4.1.6



## 4.2.7 TEST RESULTS

Lower & Upper Test Frequency Point (MHz)	Test Frequency (MHz)	P/F
Lower	49.83403	PASS
Upper	49.88961	PASS

90 dBµV 90 dBµV 1 71 1 72 49.862110 Mi 1 72 49.862110 Mi 1 72 49.862110 Mi 1 72 49.862110 Mi 1 72 40.48µV 50 dBµV 50 dBµV 40 dBµV 30 dBµV 20 dBµV 1 49.86211 MHz 691 pts 1 49.86211 MHz 1 49.8801 MHz 1 20.23 dBµV 1 49.8801 MHz 1 49.8801 MH	Spectrum									
● 1Pk View     M3[1]     71.20 dB       110 dBµV     M1     ndB     26.00       100 dBµV     M1     ndB     26.00       100 dBµV     Q factor     897       90 dBµV     T1     102.23 dB       80 dBµV     T1     T2     49.862110 MI       70 dBµV     T1     T2     49.862110 MI       70 dBµV     T1     T2     M3       60 dBµV     T4     T4     T4       50 dBµV     T4     T4     T4       50 dBµV     T4     T4     T4       50 dBµV     T4     T4     T4       10 dBµV     T4     T4 </th <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th>_</th> <th></th> <th></th>				-				_		
110 dBµV     M3[1]     71.20 dBµ       100 dBµV     M1     ndB     26.00       100 dBµV     Bw     55.57000000 kl       90 dBµV     Q factor     897       90 dBµV     D1 76.230 dBµM2     M3       70 dBµV     T1     T2     49.862110 MI       70 dBµV     V     M3     V       60 dBµV     V     M3     V       50 dBµV     V     M3     V       20 dBµV     V     V     V       30 dBµV     V     G91 pts     Span 200.0 kH       M1     1     49.86211 MHz     691 pts     Span 200.0 kH       M1     1     49.86211 MHz     102.23 dBµV     ndB down       T1     1     49.86211 MHz     102.23 dBµV     ndB down       T1     1     49.86211 MHz     102.23 dBµV     ndB down       T1     1     49.8861 MHz     76.18 dBµV     ndB down     55.57 kH       T1     1     49.88961 MHz     76.20 dBµV     Q factor     897.3		30	ав <b>SWT</b> 6	30.9 µs 🖷	VBW 10 KHZ	Mode A	uto FF			
110 dBµV 49.910000 Mi   100 dBµV 0   90 dBµV 1   90 dBµV 0   90 dBµV 1   90 dBµV 1   91 76.230 dBµM2 7   90 dBµV 7   91 d9 d86211 MH2 102.23 dBµV	●1Pk View		1							
M1     ndB     26.00 r       100 dBµV     Bw     55.57000000 kl       90 dBµV     Q factor     897       80 dBµV     T1     T2     49.862110 Ml       70 dBµV     T1     T2     49.862110 Ml       70 dBµV     T1     T2     M3       60 dBµV     T1     T2     M3       60 dBµV     T3     T4     T4       50 dBµV     T4     T5     T4       50 dBµV     T4     T4     T4       70 dBµV     T4     T4     T4       50 dBµV     T4     T4     T4       50 dBµV     T4     T4     T4       70 dBµV     T4     T4     T5       70 dBµV     T4     T4     T	110 10.11					M	3[1]			
100 dBµV Bw 55.57000000 kl   90 dBµV T1 Q factor 897   80 dBµV T1 102.23 dB 72   90 dBµV T1 T2 49.862110 MI   70 dBµV T1 T2 49.862110 MI   70 dBµV T1 T2 49.862110 MI   60 dBµV T1 T2 M3   50 dBµV T1 T2 49.862110 MI   50 dBµV T1 T2 T3   60 dBµV T1 T2 T3   50 dBµV T1 T4 T4   10 dBµV T2 T4 T4   11 149.86211 MHz 102.23 dBµV T4   11 149.88403 MHz 76.18 dBµV T6   11 149.88403 MHz 76.20 dBµV T6   11 149.88401 MHz 70.83 dBµV MB   11 149.88401 MHz 76.20 dBµV MB   11 149.88401 MHz 76.20 dBµV MB   12 1 49.81 MHz 70.83 dBµV MB	110 UBHV-				M1				49.9	
90 dBµV     0 </td <td>100 dB-07</td> <td></td> <td></td> <td></td> <td>1 🕺</td> <td></td> <td></td> <td></td> <td></td> <td></td>	100 dB-07				1 🕺					
90 dBµV 01 76.230 dBµM2 70 dBµV 10 76.230 dBµM2 70 dBµV 50 dBµV 50 dBµV 40 dBµV 30 dBµV 10 40	100 UBHV					×			55.570	
B0     B0<	90 dBuV									897.3
B0 dBuV     D1 76.230 dBµM2     M3       70 dBµV     40     4	50 GDP1					— 🔨 M:	1[1]			
D1     76.230 dBµM2     M3       70     dBµV </td <td>80 dBuV</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>49.8</td> <td>362110 MHz</td>	80 dBuV		_						49.8	362110 MHz
70 dBµV     60 dBµV     60 dBµV     60 dBµV       50 dBµV     60 dBµV     60 dBµV     60 dBµV       40 dBµV     60 dBµV     60 dBµV     60 dBµV       30 dBµV     60 dBµV     60 dBµV     60 dBµV       20 dBµV     691 pts     Span 200.0 kH       Marker     72 dBµV     691 pts     Span 200.0 kH       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.88961 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.81 MHz     70.83 dBµV     gfactor     897.3		01 76.230	dBµM2							
S0 dBµV     Image: Signal Constraints     Image: Signal Constr	70 dBµV—			-						
S0 dBµV     Image: Signal Constraints     Image: Signal Constr	60 dBuV									
40 dBµV     30 dBµV     691 pts     Span 200.0 kH       20 dBµV     691 pts     Span 200.0 kH       CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     740 dBµV     102.23 dBµV     nd8 down       M1     1     49.86211 MHz     102.23 dBµV     nd8 down       T1     1     49.83403 MHz     76.18 dBµV     nd8     26.00 dByr       T2     1     49.8961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     N2     1     897.3	00 000									
30 dBµV     20 dBµV     691 pts     Span 200.0 kH       20 dBµV     691 pts     Span 200.0 kH       CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       M1     1     49.88403 MHz     76.18 dBµV     ndB     26.00 d       T1     1     49.88961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     1     1	50 dBµV									
30 dBµV     20 dBµV     691 pts     Span 200.0 kH       20 dBµV     691 pts     Span 200.0 kH       CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       M1     1     49.88403 MHz     76.18 dBµV     ndB     26.00 d       T1     1     49.88961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     1     1										
Z0 dBµV     691 pts     Span 200.0 kH       GF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     Type     Ref     Trc     X-value     Y-value     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.8961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     V     1	40 dBµV									
CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.88061 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     N     1										
CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     Your State     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.8961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     1     1	30 dBµV			-					-	
CF 49.86211 MHz     691 pts     Span 200.0 kH       Marker     Your State     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.8961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     1     1										
Marker     Yunge     Ref     Trc     X-value     Y-value     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.88961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV     V     1										
Type     Ref     Trc     X-value     Y-value     Function     Function Result       M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.8961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV      1		1 MHz			691 p	ts			Span	200.0 kHz
M1     1     49.86211 MHz     102.23 dBµV     ndB down     55.57 kH       T1     1     49.83403 MHz     76.18 dBµV     ndB     26.00 d       T2     1     49.88961 MHz     76.20 dBµV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBµV										
T1     1     49.83403 MHz     76.18 dbμV     ndB     26.00 d       T2     1     49.88961 MHz     76.20 dbμV     Q factor     897.3       M2     1     49.81 MHz     70.83 dbμV      1		Trc						Fu	nction Resul	
T2     1     49.88961 MHz     76.20 dBμV     Q factor     897.3       M2     1     49.81 MHz     70.83 dBμV										55.57 kHz
M2 1 49.81 MHz 70.83 dBμV										26.00 dB
							factor			897.3
M3 1 49.91 MHz 71.20 dBμV	<u>M3</u>	1	49.	91 MHz	71.20 dBµ\	<u>'  </u>				



## **5** PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



## 6 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

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