



RADIO TEST REPORT FCC ID: 2AQ5R-DB-AY-AP6275P IC: 24301-DBAY

Product: WIFI 6 BOX Trade Mark: N/A Model No.: DB-AY Family Model: N/A Report No.: S23022702617002 Issue Date: Mar 23. 2023

Prepared for

Shenzhen KTC Commercial Display Technology CO., LTD.

No.4023,Northern Wuhe Road,Bantian Street,Line two: Longgang District,Shenzhen City,Guangdong Province,P.R.China

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd. 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen 518126 P.R. China Tel. 400-800-6106, 0755-2320 0050, 0755-2320 0090 Website: http://www.ntek.org.cn





TABLE OF CONTENTS

2 SUMMARY OF TEST RESULTS	1 TEST RESULT CERTIFICATION	4
3.1 FACILITIES. 6 3.2 LABORATORY ACCREDITATIONS AND LISTINGS 6 3.3 MEASUREMENT UNCERTAINTY 6 4 GENERAL DESCRIPTION OF EUT 7 5 DESCRIPTION OF TEST MODES 9 6 SETUP OF EQUIPMENT UNDER TEST 10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM 10 6.2 SUPPORT EQUIPMENT 11 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS 12 7 TEST REQUIREMENTS 14 7.1 CONDUCTED EMISSIONS TEST. 14 7.1.1 CONDUCTED EMISSIONS TEST. 14 7.1.2 Conformance Limit 14 7.1.3 MEASUREMENT 14 7.1.4 Results 15 7.2 RADIATED SPURIOUS EMISSION 15 7.3 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 RADIATED SPURIOUS EMISSION 17 7.3.4 Applicable Standard 17 7.2.3 RADIATED SPURIOUS EMISSION 17 7.3.4	2 SUMMARY OF TEST RESULTS	5
3.2 LABORATORY ACCREDITATIONS AND LISTINGS 6 3.3 MEASUREMENT UNCERTAINTY 6 4 GENERAL DESCRIPTION OF EUT 7 5 DESCRIPTION OF TEST MODES 9 6 SETUP OF EQUIPMENT UNDER TEST 10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM. 10 6.2 SUPPORT EQUIPMENT 11 6.3 EQUIPMENT LIST FOR ALL TEST ITEMS 12 7 TEST REQUIREMENTS 14 7.1 CONDUCTED EMISSIONS TEST. 14 7.1.1 Conformance Limit 14 7.1.2 Conformance Limit 14 7.1.4 Applicable Standard 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Applicable Standard 17 7.2.5 Test Results 10 7.4 Applicable Standard 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.3.4 Ge	3 FACILITIES AND ACCREDITATIONS	6
3.3 MEASUREMENT UNCERTAINTY .6 4 GENERAL DESCRIPTION OF FUT .7 5 DESCRIPTION OF TEST MODES .9 6 SETUP OF EQUIPMENT UNDER TEST .10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM. .10 6.2 SUPPORT EQUIPMENT .11 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS. .12 7 TEST REQUIREMENTS .14 7.1 CONDUCTED EMISSIONS TEST. .14 7.1.1 Advasuring Instruments .14 7.1.2 Conformance Limit .14 7.1.4 Test Procedure .14 7.1.5 Test Procedure .14 7.1.6 Test Results .14 7.1.7 Applicable Standard .17 7.2.1 Applicable Standard .17 7.2.2 Conformance Limit .14 7.1.4 Test Configuration .17 7.2.2 Conformance Limit .17 7.2.3 Measuring Instruments .16 7.4.4 Test Configuration .18 7.2.5		
4 GENERAL DESCRIPTION OF EUT 7 5 DESCRIPTION OF TEST MODES 9 6 SETUP OF EQUIPMENT UNDER TEST 10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM. 10 6.2 SUPPORT EQUIPMENT 11 6.3 EQUIPMENT SUST FOR ALL TEST ITEMS 12 7 TEST REQUIREMENTS 14 7.1 CONDUCTED EMISSIONS TEST 14 7.1.1 Applicable Standard 14 7.1.2 Conformance Limit 14 7.1.3 Measuring Instruments 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Stonfiguration 14 7.1.7 Test Configuration 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Procedure 19 7.3 6DB BANDWIDTH		
5 DESCRIPTION OF TEST MODES 9 6 SETUP OF EQUIPMENT UNDER TEST 10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM 10 6.2 SUPPORT EQUIPMENT 11 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS 12 7 TEST REQUIREMENTS 14 7.1 CONDUCTED EMISSIONS TEST 14 7.1.1 Applicable Standard 14 7.1.2 Conformance Limit 14 7.1.3 Measuring Instruments 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Procedure 19 7.2.5 Test Procedure 20 7.3 GB BANDWIDTH 26 7.3.4 Test Stup 26 7.3.5 Test Procedure 26 7.3.4 Test Stup 26		
6 SETUP OF EQUIPMENT UNDER TEST 10 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM 10 6.2 SUPPORT EQUIPMENT 11 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS 12 7 TEST REQUIREMENTS 14 7.1 CONDUCTED EMISSIONS TEST 14 7.1.1 Applicable Standard 14 7.1.2 Configuration 14 7.1.4 Test Procedure 14 7.1.5 Test Results 14 7.1.6 Test Results 14 7.1.7 Applicable Standard 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 15 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 20 7.3 Gold BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 27 <td></td> <td></td>		
6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM		
6.2 SUPPORT EQUIPMENT. 11 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS. 12 7 TEST REQUIREMENTS. 14 7.1 CONDUCTED EMISSIONS TEST. 14 7.1.1 Applicable Standard 14 7.1.2 Conformance Limit. 14 7.1.3 Measuring Instruments. 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results. 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit. 17 7.2.3 Measuring Instruments. 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results. 20 7.3 GDB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit. 26 7.3.3 Measuring Instruments. 26 7.3.4 Test Setup 26	6 SETUP OF EQUIPMENT UNDER TEST	
6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS. 12 7 TEST REQUIREMENTS. 14 7.1 CONDUCTED EMISSIONS TEST. 14 7.1.1 Applicable Standard 14 7.1.2 Conformance Limit 14 7.1.3 Measuring Instruments 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Orocedure 19 7.2.5 Test Procedure 19 7.3 GDB BANDWIDTH 26 7.3.4 Test Sendard 26 7.3.5 Test Procedure 26 7.4.4 Test Setup 26 7.4.5 Test Results 26 7.4.6 Test Setup 27 7.4.1 Applicable Standard 27 7.4.2 <t< td=""><td>6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM</td><td></td></t<>	6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM	
7 TEST REQUIREMENTS. 14 7.1 CONDUCTED EMISSIONS TEST 14 7.1.1 Applicable Standard. 14 7.1.2 Conformance Limit. 14 7.1.3 Measuring Instruments. 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Procedure 14 7.1.7 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Procedure 19 7.2.5 Test Procedure 20 7.3 Applicable Standard 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Trocedure 26 7.3.4 Test Setup 26 7.4.1	6.2 SUPPORT EQUIPMENT.	
7.1 CONDUCTED EMISSIONS TEST 14 7.1.1 Applicable Standard 14 7.1.2 Conformance Limit 14 7.1.3 Measuring Instruments 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Results 20 7.3 GDB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Nesults 20 7.4 DUTY CYCLE 27 7.4.4 Test Setup 27 7.4.5 Test Proce	-	
7.1.1 Applicable Standard 14 7.1.2 Conformance Limit 14 7.1.3 Measuring Instruments 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 GDB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Setup 26 7.3.7 Test Setup 26 7.3.6 Test Results 26 7.4 DUTY CYCLE	7 TEST REQUIREMENTS	
7.1.2 Conformance Limit. 14 7.1.3 Measuring Instruments. 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.1.1 Applicable Standard 17 7.2.2 Conformance Limit. 17 7.2.3 Measuring Instruments. 18 7.2.4 Test Orcedure 19 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 Measuring Instruments. 20 7.3 DB BANDWIDTH. 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit. 26 7.3.3 Measuring Instruments. 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Setup 26 7.3.7 Measuring Instruments. 26 7.3.6 Test Neutro 7.7 7.4 Test Setup <td></td> <td></td>		
7.1.3 Measuring Instruments. 14 7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.4 Test Serup 26 7.3.5 Test Noreclure 26 7.3.4 Test Serup 26 7.3.5 Test Neults 26 7.3.6 Test Serup 26 7.3.7 Test Serup 26 7.3.6 Test Neults 26 7.4.7 DuTY CYCLE 26 7.4.8 Test Results 26 </td <td></td> <td></td>		
7.1.4 Test Configuration 14 7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.3 Measuring Instruments 26 7.3.4 Test Results 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.3.7 Applicable Standard 26 7.3.6 Test Results 26 7.3.7 Test Results 26 7.4 Applicable Standard 26 7.4.4 Test Results	v	
7.1.5 Test Procedure 14 7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test New 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.5 Test Setup 26 7.3.6 Test Setup 26 7.3.7 Test Setup 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 <td></td> <td></td>		
7.1.6 Test Results 15 7.2 RADIATED SPURIOUS EMISSION 17 7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.3 Measuring Instruments 26 7.3.4 Aesuring Instruments 26 7.3.5 Test Forcedure 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Mesults 26 7.3.7 Test Setup 26 7.3.8 Test Procedure 26 7.3.4 Test Setup 26 7.4.4 Test Mesults 26 7.4.5 Test Mesults 26 7.4.6 Test Mesults 26 7.4.7 Test Setup 27		
7.2.1 Applicable Standard 17 7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Procedure 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.4 Test Setup 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Procedure 26 7.3.6 Test Procedure 26 7.3.6 Test Procedure 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 29		
7.2.2 Conformance Limit 17 7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Configuration 18 7.2.6 Test Configuration 18 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Newslits 26 7.3.6 Test Procedure 26 7.3.6 Test Procedure 26 7.3.5 Test Setup 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.7 Test Setup 26 7.3.6 Test Results 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27		
7.2.3 Measuring Instruments 18 7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Setup 26 7.3.4 Test Setup 26 7.3.5 Test News 26 7.3.6 Test Results 26 7.3.4 Test Setup 26 7.3.5 Test News 26 7.3.6 Test Results 26 7.3.6 Test Nets 26 7.3.7 Test Setup 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3		
7.2.4 Test Configuration 18 7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Setup 26 7.3.6 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.6 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 29		
7.2.5 Test Procedure 19 7.2.6 Test Results 20 7.3 6DB BANDWIDTH 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Nesults 26 7.3.6 Test Nesults 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.3.7 Test Setup 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Results 28 7.5 PEAK OUTPUT POWER 29	8	
7.2.6 Test Results 20 7.3 6DB BANDWIDTH. 26 7.3.1 Applicable Standard 26 7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Verup 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 26 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29		
7.3 6DB BANDWIDTH		
7.3.2 Conformance Limit 26 7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.4 Test Setup 27 7.4.5 Test Negults 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Negults 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.5.6 Test Results 29 <		
7.3.3 Measuring Instruments 26 7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Nerocedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Nerocedure 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30	7.3.1 Applicable Standard	
7.3.4 Test Setup 26 7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.3.5 Test Procedure 26 7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.3.6 Test Results 26 7.4 DUTY CYCLE 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.4 DUTY CYCLE. 27 7.4.1 Applicable Standard 27 7.4.2 Conformance Limit 27 7.4.3 Measuring Instruments 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.4.1Applicable Standard277.4.2Conformance Limit277.4.3Measuring Instruments277.4.4Test Setup277.4.5Test Procedure277.4.6Test Results287.5PEAK OUTPUT POWER297.5.1Applicable Standard297.5.2Conformance Limit297.5.3Measuring Instruments297.5.4Test Setup297.5.5Test Procedure297.5.6Test Results297.5.6Test Results297.5.6Test Results297.5.6Test Results297.5.6Test Results297.6EQUIVALENT ISOTROPICALLY RADIATED POWER30		
7.4.3 Measuring Instruments. 27 7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results. 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments. 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results. 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.4.4 Test Setup 27 7.4.5 Test Procedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30	7.4.2 Conformance Limit	
7.4.5 Test Procedure 27 7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30		
7.4.6 Test Results 28 7.5 PEAK OUTPUT POWER 29 7.5.1 Applicable Standard 29 7.5.2 Conformance Limit 29 7.5.3 Measuring Instruments 29 7.5.4 Test Setup 29 7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30	1	
7.5 PEAK OUTPUT POWER		
7.5.1 Applicable Standard297.5.2 Conformance Limit297.5.3 Measuring Instruments297.5.4 Test Setup297.5.5 Test Procedure297.5.6 Test Results297.6 EQUIVALENT ISOTROPICALLY RADIATED POWER30		
7.5.2 Conformance Limit		
7.5.3 Measuring Instruments. 29 7.5.4 Test Setup 29 7.5.5 Test Procedure. 29 7.5.6 Test Results. 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER. 30		
7.5.5 Test Procedure 29 7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30	8	
7.5.6 Test Results 29 7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER 30	1	
7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER		
Version.1.3 Page 2 of 68	Version.1.3	Page 2 of 68





7.6.1	Applicable Standard	30
7.6.2	Conformance Limit	
7.6.3	Measuring Instruments	
7.6.4	Test Setup	
7.6.5	Test Procedure	
7.6.6	Test Results	
	OWER SPECTRAL DENSITY	
7.7.1	Applicable Standard	
7.7.2	Conformance Limit	
7.7.3	Measuring Instruments	
7.7.4	Test Setup	
7.7.5	Test Procedure	
7.7.6	Test Results	
	ONDUCTED BAND EDGE MEASUREMENT	
7.8.1	Applicable Standard	
7.8.2	Conformance Limit	
7.8.3	Measuring Instruments	
7.8.4	Test Setup	
7.8.5	Test Procedure	
7.8.6	Test Results	
7.9 S	PURIOUS RF CONDUCTED EMISSIONS	
7.9.1	Conformance Limit	
7.9.2	Measuring Instruments	
<i>7.9.3</i>	Test Setup	
7.9.4	Test Procedure	
7.9.5	Test Results	
7.10 A	NTENNA APPLICATION	
7.10.1	Antenna Requirement	
7.10.2	Result	
8 TEST	RESULTS	
1M:		
8.1.1	Maximum Conducted Output Power	
8.1.2	Equivalent Isotropically Radiated Power	
8.1.3	-6dB Bandwidth	
8.1.4	Occupied Channel Bandwidth	
8.1.5	Maximum Power Spectral Density Level	
8.1.6	Band Edge	
8.1.7	Conducted RF Spurious Emission	
	Conducted Kr Sparious Emission	
8.1.8	Maximum Conducted Output Power	
0.1.0 8.1.9	Equivalent Isotropically Radiated Power	
8.1.9 8.1.10	-6dB Bandwidth	
8.1.11	Occupied Channel Bandwidth	
8.1.12	Maximum Power Spectral Density Level	
8.1.13	Band Edge	
8.1.14	Conducted RF Spurious Emission	

TEST RESULT

Complied





1 TEST RESULT CERTIFICATION

Applicant's name:	Shenzhen KTC Commercial Display Technology CO.,LTD.
Address:	No.4023,Northern Wuhe Road,Bantian Street,Line two: Longgang District,Shenzhen City,Guangdong Province,P.R.China
Manufacturer's Name:	Shenzhen KTC Commercial Display Technology CO.,LTD.
Address:	No.4023,Northern Wuhe Road,Bantian Street,Line two: Longgang District,Shenzhen City,Guangdong Province,P.R.China
Product description	
Product name:	WIFI 6 BOX
Model and/or type reference:	DB-AY
Family Model:	N/A
Sample number	S230227026011

Measurement Procedure Used:

APPLICABLE STANDARDS

APPLICABLE STANDARD/ TEST PROCEDURE FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart C

RSS-247: Issue 2 Feb 2017 RSS GEN: Issue 5 February 2021

ANSI C63.10-2013

KDB 558074 D01 15.247 Meas Guidance v05r02

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of Shenzhen NTEK Testing Technology Co., Ltd., this document may be altered or revised by Shenzhen NTEK Testing Technology Co., Ltd., personnel only, and shall be noted in the revision of the document.

The test results of this report relate only to the tested sample identified in this report.

Date of Test	:	Feb 28. 2023 ~ Mar 23. 2023	
Testing Engineer	:	Johan Lin	
		(Allen Liu)	
Authorized Signatory	:	Aless	
		(Alex Li)	

Version.1.3



2 SUMMARY OF TEST RESULTS

2 SOMMART OF TEST RESULTS				
FCC Part15 (15.247), Subpart C& RSS 247				
Standard Section	Test Item	Verdict	Remark	
15.207 RSS-Gen 8.8	Conducted Emission	PASS		
15.247 (a)(2) RSS-247.5.2(a)	6dB Bandwidth	PASS		
RSS-Gen 6.7	99% Occupied Bandwidth	PASS		
15.247 (b) RSS-247.5.4(d)	Peak Output Power	PASS		
RSS-247.5.4(d)	Equivalent Isotropically Radiated Power	PASS		
15.209 (a) 15.205 (a) RSS-Gen 8.9 RSS-Gen 8.10	Radiated Spurious Emission	PASS		
15.247 (e) RSS-247.5.2(b)	Power Spectral Density	PASS		
15.247 (d) RSS-247.5.5	Band Edge Emission	PASS		
15.247 (d) RSS-247.5.5	Spurious RF Conducted Emission	PASS		
15.203 RSS-Gen 6.8	Antenna Requirement	PASS		
Pemark				

Remark:

1. "N/A" denotes test is not applicable in this Test Report.

 All test items were verified and recorded according to the standards and without any deviation during the test.





3 FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description	
CNAS-Lab.	: The Certificate Registration Number is L5516.
IC-Registration	The Certificate Registration Number is 9270A.
	CAB identifier:CN0074
FCC- Accredited	Test Firm Registration Number: 463705.
	Designation Number: CN1184
A2LA-Lab.	The Certificate Registration Number is 4298.01
	This laboratory is accredited in accordance with the recognized
	International Standard ISO/IEC 17025:2005 General requirements for
	the competence of testing and calibration laboratories.
	This accreditation demonstrates technical competence for a defined
	scope and the operation of a laboratory quality management system
	(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).
Name of Firm	: Shenzhen NTEK Testing Technology Co., Ltd.
Site Location	: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang
	Street, Bao'an District, Shenzhen 518126 P.R. China.

3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y\pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	±2.80dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(30MHz~1GHz)	±2.64dB
5	All emissions, radiated(1GHz~6GHz)	±2.40dB
6	All emissions, radiated(>6GHz)	±2.52dB
7	Temperature	±0.5°C
8	Humidity	±2%
9	All emissions, radiated(9KHz~30MHz)	±6dB





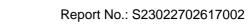
4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	WIFI 6 BOX	
Trade Mark	N/A	
FCC ID	2AQ5R-DB-AY-AP6275P	
IC	24301-DBAY	
Model No.	DB-AY	
Family Model	N/A	
Model Difference	N/A	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK	
Number of Channels	40 Channels	
Antenna Type	External Antenna	
Antenna Gain	2.06dBi	
Power supply	AC 120V/60Hz	
Adapter	N/A	
HW Version	N/A	
SW Version	N/A	

Note 1: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.

Note 2: The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.





Revision History

ACCREDITED Certificate #4298.01

ilac-

Revision History				
Report No.	Version	Description	Issued Date	
S23022702617002	Rev.01	Initial issue of report	Mar 23. 2023	
			1	



5 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (1Mbps/2Mbps for GFSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

Channel	Frequency(MHz)
0	2402
1	2404
19	2440
20	2442
38	2478
39	2480

Note: fc=2402MHz+k×2MHz k=0 to 39

The following summary table is showing all test modes to demonstrate in compliance with the standard.

Test Cases		
Test Item	Data Rate/ Modulation	
AC Conducted Emission	Mode 1: normal link mode	
	Mode 1: normal link mode	
Radiated Test Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/2Mbps Cases Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/2Mbps		
Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/2Mbps		
Conducted Test Cases Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/2Mbps Mode 4: GFSK Tx Ch39_2480MHz_1Mbps/2Mbps		

Note:

1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode(duty cycle =100% during the test)

2. AC power line Conducted Emission was tested under maximum output power.

3. For radiated test cases, the worst mode data rate 1Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

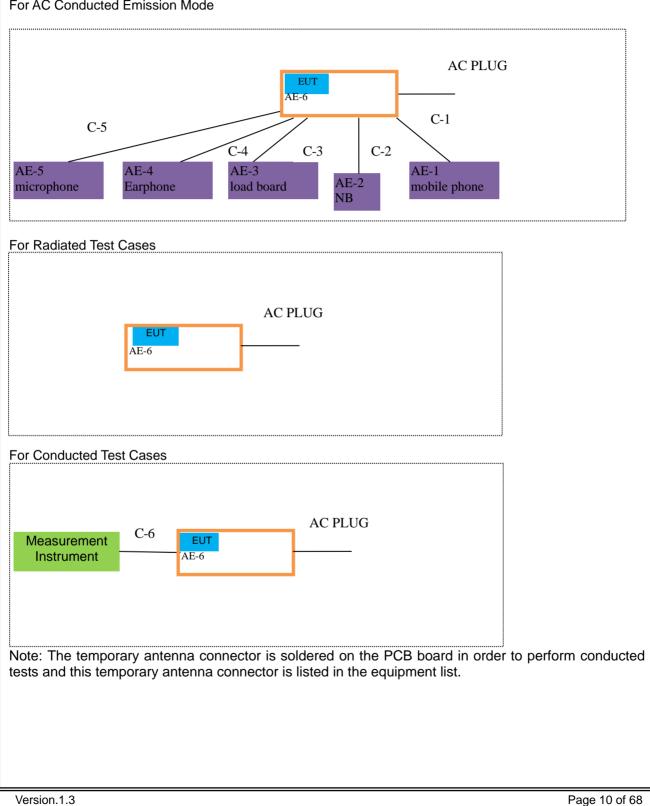




SETUP OF EQUIPMENT UNDER TEST 6

6.1 **BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM**

For AC Conducted Emission Mode







6.2 SUPPORT EQUIPMENT

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Model/Type No.	Series No.	Note
AE-1	mobile phone	N/A	N/A	Peripherals
AE-2	Notebook	N/A	N/A	Peripherals
AE-3	load board	N/A	N/A	Peripherals
AE-4	Earphone	N/A	N/A	Peripherals
AE-5	microphone	N/A	N/A	Peripherals
AE-6	INTERACTIVE FLAT PANEL	75W71B-B	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	Type-c Cable	NO	NO	1.0m
C-2	Type-c Cable	NO	NO	1.0m
C-3	HDMI Cable/ optical cable	NO	NO	1.2m
C-4	Earphone Cable	NO	NO	1.2m
C-5	USB Cable	NO	NO	1.2m
C-6	RF Cable	YES	NO	0.1m

Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in [Length] column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".





6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

	Kind of	Corequipment			Last	Calibrated	Calibrati
Item	Equipment	Manufacturer	Type No.	Serial No.	calibration	until	on period
1	Spectrum Analyzer	Aglient	E4407B	MY45108040	2022.04.06	2023.04.05	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2022.04.06	2023.04.05	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2022.04.06	2023.04.05	1 year
4	Test Receiver	R&S	ESPI7	101318	2022.04.06	2023.04.05	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2022.03.30	2023.03.29	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2020.05.11	2023.05.10	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2022.03.31	2023.03.30	1 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2022.11.08	2023.11.07	1 year
9	Amplifier	EMC	EMC051835 SE	980246	2022.06.17	2023.06.16	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2022.11.08	2023.11.07	1 year
11	Power Meter	DARE	RPR3006W	15I00041SN 084	2022.11.08	2023.11.07	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2020.05.11	2023.05.10	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2020.05.11	2023.05.10	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
15	Filter	TRILTHIC	2400MHz	29	2022.11.08	2023.11.07	1 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test And this temporary antenna connector is listed within the instrument list



ACCREDITED Certificate #4298.01

AC Conduction Test equipment							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2022.04.06	2023.04.05	1 year
2	LISN	R&S	ENV216	101313	2022.04.06	2023.04.05	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2022.04.06	2023.04.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2020.05.11	2023.05.10	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2020.05.11	2023.05.10	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2020.05.11	2023.05.10	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2020.05.11	2023.05.10	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Aux Equipment & Test Cable which is scheduled for calibration every 2 or 3 years.





7 TEST REQUIREMENTS

7.1 CONDUCTED EMISSIONS TEST

7.1.1 Applicable Standard

According to FCC Part 15.207(a)& RSS-Gen 8.8

7.1.2 Conformance Limit

	Conducted Emission Limit		
Frequency(MHz)	Quasi-peak	Average	
0.15-0.5	66-56*	56-46*	
0.5-5.0	56	46	
5.0-30.0	60	50	

Note: 1. *Decreases with the logarithm of the frequency

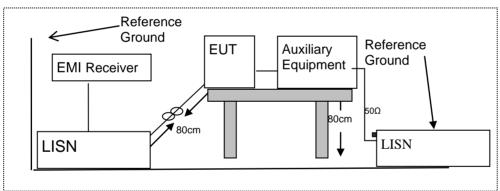
2. The lower limit shall apply at the transition frequencies

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

7.1.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.1.4 Test Configuration



7.1.5 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- 3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- 5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item -EUT Test Photos.





7.1.6 Test Results

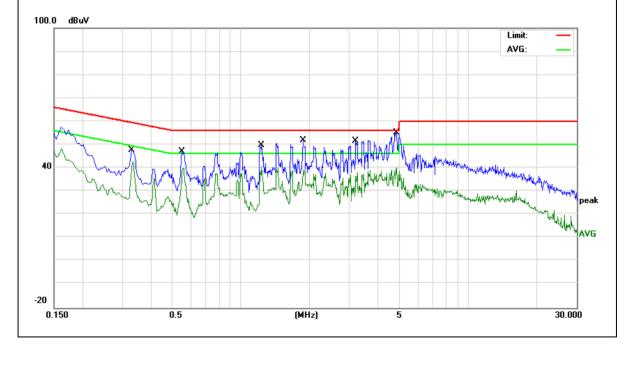
EUT:	WIFI 6 BOX	Model Name :	DB-AY
Temperature:	22 ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Demerik
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.3300	37.97	9.64	47.61	59.45	-11.84	QP
0.3300	30.99	9.64	40.63	49.45	-8.82	AVG
0.5500	37.41	9.66	47.07	56.00	-8.93	QP
0.5500	28.39	9.66	38.05	46.00	-7.95	AVG
1.2340	40.01	9.68	49.69	56.00	-6.31	QP
1.2340	30.87	9.68	40.55	46.00	-5.45	AVG
1.8740	42.16	9.68	51.84	56.00	-4.16	QP
1.8740	28.52	9.68	38.20	46.00	-7.80	AVG
3.1940	41.78	9.73	51.51	56.00	-4.49	QP
3.1940	26.81	9.73	36.54	46.00	-9.46	AVG
4.8260	43.13	9.77	52.90	56.00	-3.10	AVG
4.8260	30.39	9.77	40.16	46.00	-5.84	QP

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.



Version.1.3





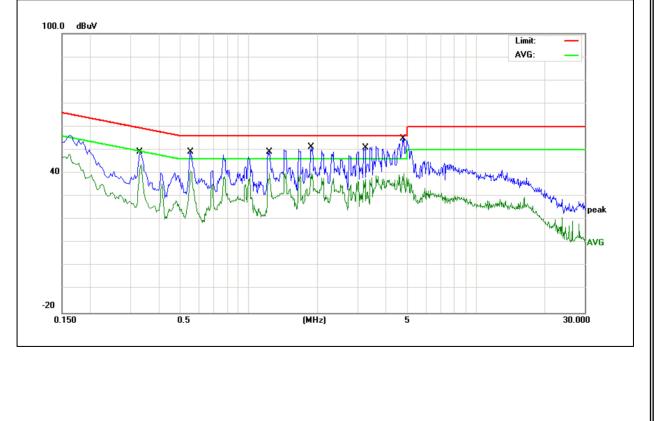
EUT:	WIFI 6 BOX	Model Name :	DB-AY
Temperature:	22 ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	Ν
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Dement
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	- Remark
0.3300	39.42	9.65	49.07	59.45	-10.38	QP
0.3300	32.06	9.65	41.71	49.45	-7.74	AVG
0.5540	39.34	9.67	49.01	56.00	-6.99	AVG
0.5540	31.46	9.67	41.13	46.00	-4.87	QP
1.2300	39.62	9.67	49.29	56.00	-6.71	AVG
1.2300	30.05	9.67	39.72	46.00	-6.28	QP
1.8700	41.70	9.67	51.37	56.00	-4.63	AVG
1.8700	28.06	9.67	37.73	46.00	-8.27	QP
3.2500	41.38	9.70	51.08	56.00	-4.92	QP
3.2500	18.49	9.70	28.19	46.00	-17.81	AVG
4.7780	41.96	9.74	51.70	56.00	-4.30	QP
4.7780	25.85	9.74	35.59	46.00	-10.41	AVG

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.



Version.1.3





7.2 RADIATED SPURIOUS EMISSION

7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209& RSS-Gen 8.9& 9.10. and ANSI C63.10-2013

7.2.2 Conformance Limit

According to FCC Part 15.247(d): 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)). According to FCC Part15.205, Restricted bands

MHz	MHz	GHz		
16.42-16.423	399.9-410	4.5-5.15		
16.69475-16.69525	608-614	5.35-5.46		
16.80425-16.80475	960-1240	7.25-7.75		
25.5-25.67	1300-1427	8.025-8.5		
37.5-38.25	1435-1626.5	9.0-9.2		
73-74.6	1645.5-1646.5	9.3-9.5		
74.8-75.2	1660-1710	10.6-12.7		
123-138	2200-2300	14.47-14.5		
149.9-150.05	2310-2390	15.35-16.2		
156.52475-156.52525	2483.5-2500	17.7-21.4		
156.7-156.9	2690-2900	22.01-23.12		
162.0125-167.17	3260-3267	23.6-24.0		
167.72-173.2	3332-3339	31.2-31.8		
240-285	3345.8-3358	36.43-36.5		
322-335.4	3600-4400	(2)		
	MHz 16.42-16.423 16.69475-16.69525 16.80425-16.80475 25.5-25.67 37.5-38.25 73-74.6 74.8-75.2 123-138 149.9-150.05 156.52475-156.52525 156.7-156.9 162.0125-167.17 167.72-173.2 240-285	MHzMHz16.42-16.423399.9-41016.69475-16.69525608-61416.80425-16.80475960-124025.5-25.671300-142737.5-38.251435-1626.573-74.61645.5-1646.574.8-75.21660-1710123-1382200-2300149.9-150.052310-2390156.52475-156.525252483.5-2500156.7-156.92690-2900162.0125-167.173260-3267167.72-173.23332-3339240-2853345.8-3358		

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Restricted Frequency(MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	24000/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency/MHz)	Class B (dBuV/m) (at 3M)		
Frequency(MHz)	PEAK	AVERAGE	
Above 1000	74	54	

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz: Distance extrapolation factor =40log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz: Distance extrapolation factor =20log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.



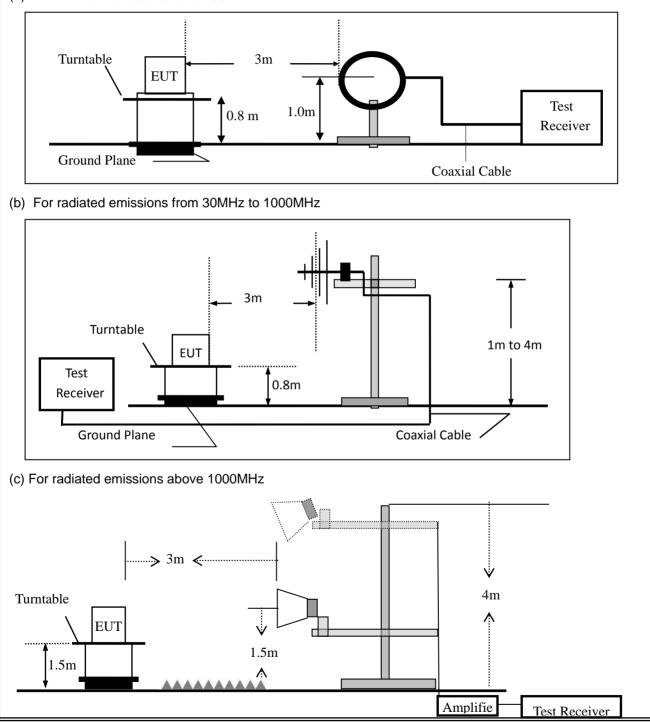


7.2.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.2.4 Test Configuration

(a) For radiated emissions below 30MHz







7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 1MHz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.

- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- e. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- g. For the actual test configuration, please refer to the related Item -EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported





During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Ab 200	Peak	1 MHz	1 MHz
Above 1000	Average	1 MHz	1 MHz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10*lg(100 [kHz]/narrower RBW [kHz]). , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

7.2.6 Test Results

■ Spurious Emission below 30MHz (9KHz to 30MHz)

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Lest Mode:	Mode1/Mode2/Mode3/ Mode4	Test By:	Allen Liu

Freq.	Ant.Pol.	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
(MHz)	H/V	PK	AV	PK	AV	PK	AV

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.



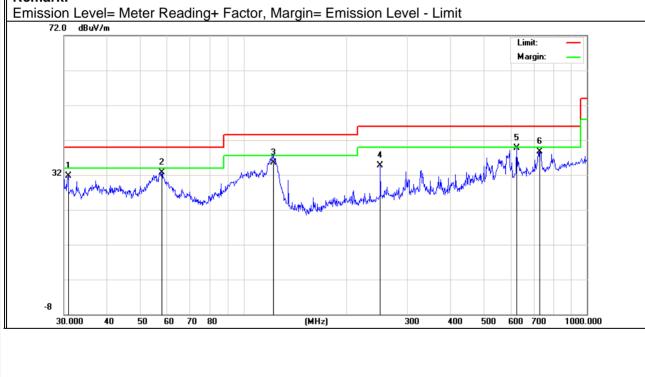


Spurious Emission below 1GHz (30MHz to 1GHz)
 All the modulation modes have been tested, and the worst result was report as below:

EUT:	WIFI 6 BOX	Model Name :	DB-AY
Temperature:	25 ℃	Relative Humidity:	55%
Pressure:	1010hPa	Test Mode:	Mode 1
Test Voltage :	AC 120V/60Hz		

Polar	Frequency	Meter Reading	Factor	Factor Emission Limits		Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	30.8535	13.73	17.89	31.62	40.00	-8.38	QP
V	57.7962	12.73	20.02	32.75	40.00	-7.25	QP
V	121.9755	19.15	16.45	35.60	43.50	-7.90	QP
V	250.3012	15.51	19.16	34.67	46.00	-11.33	QP
V	625.0780	14.23	25.54	39.77	46.00	-6.23	QP
V	729.3583	11.63	27.16	38.79	46.00	-7.21	QP

Remark:







Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	, remain
Н	57.9992	7.51	20.00	27.51	40.00	-12.49	QP
Н	121.5486	14.41	16.53	30.94	43.50	-12.56	QP
Н	208.5803	12.28	18.08	30.36	43.50	-13.14	QP
Н	297.2241	14.64	19.94	34.58	46.00	-11.42	QP
H	501.1790	12.87	23.57	36.44	46.00	-9.56	QP
H	625.0780	14.72	25.54	40.26	46.00	-5.74	QP
<u>Emissio</u> 72.0	n Level= Meter F dBuV/m	Reading+ Fac	tor, Margin	= Emission Lev	vel - Limit	Limit:	
32	ner franker stranger and stranger		2	3 ×	Yundurtunallumuh	6 X Inthe march of the horizon	nn
-8		60 70 80	(MI		300 400 500	600 700 1	1000.000





EUT: WIFI 6 BOX				ſ	Nodel No.:		DB-AY		
Temperature: 20 °C				F	Relative Hum	nidity:	48%		
est Mode:	Mo	de2/Mod	e3/Mode4	4 7	Fest By:		Allen Liu		
					,				
Frequency	Read Level	Cable loss	Antenna Factor	Pream Facto	•	Limits	Margin	Remark	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m)	(dB)		
			Low C	hannel (2402 MHz)(GF	SK)Above	1G		
4804.338	62.14	5.21	35.59	44.30	58.64	74.00	-15.36	Pk	Vertical
4804.338	42.30	5.21	35.59	44.30	38.80	54.00	-15.20	AV	Vertical
7206.107	61.26	6.48	36.27	44.60	59.41	74.00	-14.59	Pk	Vertical
7206.107	41.81	6.48	36.27	44.60	39.96	54.00	-14.04	AV	Vertical
4804.169	63.91	5.21	35.55	44.30	60.37	74.00	-13.63	Pk	Horizontal
4804.169	42.61	5.21	35.55	44.30	39.07	54.00	-14.93	AV	Horizontal
7206.214	62.64	6.48	36.27	44.52	60.87	74.00	-13.13	Pk	Horizontal
7206.214	41.90	6.48	36.27	44.52	40.13	54.00	-13.87	AV	Horizontal
			Mid C	hannel (2440 MHz)(GFS	SK)Above	1G		
4880.473	63.45	5.21	35.66	44.20	60.12	74.00	-13.88	Pk	Vertical
4880.473	44.18	5.21	35.66	44.20	40.85	54.00	-13.15	AV	Vertical
7320.265	65.90	7.10	36.50	44.43	65.07	74.00	-8.93	Pk	Vertical
7320.265	41.49	7.10	36.50	44.43	40.66	54.00	-13.34	AV	Vertical
4880.366	63.43	5.21	35.66	44.20	60.10	74.00	-13.90	Pk	Horizontal
4880.366	41.94	5.21	35.66	44.20	38.61	54.00	-15.39	AV	Horizontal
7320.234	59.96	7.10	36.50	44.43	59.13	74.00	-14.87	Pk	Horizontal
7320.234	44.64	7.10	36.50	44.43	43.81	54.00	-10.19	AV	Horizontal
			High C	hannel (2480 MHz)(GF	SK) Above	e 1G		-
4960.482	63.64	5.21	35.52	44.21	60.16	74.00	-13.84	Pk	Vertical
4960.482	42.43	5.21	35.52	44.21	38.95	54.00	-15.05	AV	Vertical
7440.131	63.88	7.10	36.53	44.60	62.91	74.00	-11.09	Pk	Vertical
7440.131	49.73	7.10	36.53	44.60	48.76	54.00	-5.24	AV	Vertical
4960.326	63.60	5.21	35.52	44.21	60.12	74.00	-13.88	Pk	Horizontal
4960.326	45.06	5.21	35.52	44.21	41.58	54.00	-12.42	AV	Horizontal
7440.199	63.70	7.10	36.53	44.60	62.73	74.00	-11.27	Pk	Horizontal
7440.199	44.56	7.10	36.53	44.60	43.59	54.00	-10.41	AV	Horizontal

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor

(2)All other emissions more than 20dB below the limit.

(3)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst





Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/ Mode4	Test By:	Allen Liu

Frequency	Meter Reading	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
				1Mbp	os(GFSK)				
2310.00	63.66	2.97	27.80	43.80	50.63	74	-23.37	Pk	Horizontal
2310.00	42.25	2.97	27.80	43.80	29.22	54	-24.78	AV	Horizontal
2310.00	62.66	2.97	27.80	43.80	49.63	74	-24.37	Pk	Vertical
2310.00	41.48	2.97	27.80	43.80	28.45	54	-25.55	AV	Vertical
2390.00	63.92	3.14	27.21	43.80	50.47	74	-23.53	Pk	Vertical
2390.00	43.23	3.14	27.21	43.80	29.78	54	-24.22	AV	Vertical
2390.00	63.73	3.14	27.21	43.80	50.28	74	-23.72	Pk	Horizontal
2390.00	43.04	3.14	27.21	43.80	29.59	54	-24.41	AV	Horizontal
2483.50	61.71	3.58	27.70	44.00	48.99	74	-25.01	Pk	Vertical
2483.50	43.81	3.58	27.70	44.00	31.09	54	-22.91	AV	Vertical
2483.50	65.49	3.58	27.70	44.00	52.77	74	-21.23	Pk	Horizontal
2483.50	45.00	3.58	27.70	44.00	32.28	54	-21.72	AV	Horizontal

Note: (1) All other emissions more than 20dB below the limit.

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst

-11.38

-17.72

-7.17

-17.76

-6.07

54

74

54

74

54

AV

Pk

AV

Pk

AV

Horizontal

Vertical

Vertical

Horizontal Horizontal





Spurious Emission in Restricted Band 3260MHz-18000MHz	

Spurious Emission in Restricted Band 3260MHz-18000MHz										
EUT:		WIFI 6 BOX		Model N	Model No.:		DB-AY			
Temperature: 2		20 ℃		Relative	Relative Humidity:		48%			
Test Mode:		Mode2/ Mode4		Test By	Test By:		Allen Liu			
						1				
Frequency		ading evel	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dE	BμV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
3260	63	3.73	4.04	29.57	44.70	52.64	74	-21.36	Pk	Vertical
3260	57	7.95	4.04	29.57	44.70	46.86	54	-7.14	AV	Vertical
3260	67	' .01	4.04	29.57	44.70	55.92	74	-18.08	Pk	Horizontal
3260	57	' .91	4.04	29.57	44.70	46.82	54	-7.18	AV	Horizontal
3332	65	5.56	4.26	29.87	44.40	55.29	74	-18.71	Pk	Vertical
3332	56	6.51	4.26	29.87	44.40	46.24	54	-7.76	AV	Vertical
3332	65	5.18	4.26	29.87	44.40	54.91	74	-19.09	Pk	Horizontal
								1		

44.40

43.50

43.50

44.60

44.60

42.62

56.28

46.83

56.24

47.93

Note: (1) All other emissions more than 20dB below the limit.

4.26

10.99

10.99

11.81

11.81

29.87

43.95

43.95

43.69

43.69

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst

3332

17797

17797

17788

17788

52.89

44.84

35.39

45.34

37.03





7.3 6DB BANDWIDTH

7.3.1 Applicable Standard

According to FCC Part 15.247(a)(2) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.2. RSS-247 5.2(a)

7.3.2 Conformance Limit

The minimum permissible 6dB bandwidth is 500 kHz.

7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

7.3.5 Test Procedure

The testing follows Subclause 11.8 of ANSI C63.10

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) \ge 3*RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu





7.4 DUTY CYCLE

7.4.1 Applicable Standard

According to KDB 558074 D01 15.247 Meas Guidance v05r02s Section 6.

7.4.2 Conformance Limit

No limit requirement.

7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

7.4.5 Test Procedure

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value. Set VBW \geq RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T \leq 16.7 microseconds.)

The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, 6.0)b) in KDB 558074

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if $T \le 6.25$ microseconds. (50/6.25 = 8)

The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/T.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Span = Zero Span RBW = 8MHz(the largest available value) VBW = 8MHz (\geq RBW) Number of points in Sweep >100 Detector function = peak Trace = Clear write Measure T_{total} and T_{on} Calculate Duty Cycle = T_{on} / T_{total}





7.4.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	N/A	Test By:	N/A

Note: Not Applicable





7.5 **PEAK OUTPUT POWER**

7.5.1 Applicable Standard

According to FCC Part 15.247(b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.3.1. RSS-247 5.4(d)

7.5.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm). If transmitting antenna of directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

7.5.5 Test Procedure

The testing follows Subclause 11.9.1.1 of ANSI C63.10 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Set the RBW \geq DTS bandwidth. Set VBW =3*RBW. Set the span \geq 3*RBW Set Sweep time = auto couple. Set Detector = peak. Set Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.

7.5.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu





7.6 EQUIVALENT ISOTROPICALLY RADIATED POWER

7.6.1 Applicable Standard

According to RSS-247 5.4(d)

7.6.2 Conformance Limit

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the e.i.r.p. shall not exceed 4 W.

7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

7.6.5 Test Procedure

The testing follows RSS-247 5.4(d) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Set the RBW \geq DTS bandwidth(about 1MHz). Set VBW =3*RBW(about 3MHz) Set the span \geq 3*RBW Set Sweep time = auto couple. Set Detector = peak. Set Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.





7.6.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu

Test data reference attachment.

Note: EIRP= Peak Output Power+ ANT Gain





7.7 POWER SPECTRAL DENSITY

7.7.1 Applicable Standard

According to FCC Part 15.247(e) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.4. RSS-247 5.2(b)

7.7.2 Conformance Limit

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

7.7.5 Test Procedure

The testing follows Measurement Procedure Subclause 11.10.2 of ANSI C63.10 This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5*DTS bandwidth.
- c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW \geq 3 RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.





7.7.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu





7.8 CONDUCTED BAND EDGE MEASUREMENT

7.8.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7. RSS-247 5.5

7.8.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.8.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.8.4 Test Setup

Please refer to Section 6.1 of this test report.

7.8.5 Test Procedure

The testing follows FCC KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.

Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.

7.8.6 Test Results

EUT:	WIFI 6 BOX	Model No.:	DB-AY
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode4	Test By:	Allen Liu





7.9 SPURIOUS RF CONDUCTED EMISSIONS

7.9.1 Conformance Limit

1. Below -20dB of the highest emission level in operating band.

2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

7.9.2 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.9.3 Test Setup

Please refer to Section 6.1 of this test report.

7.9.4 Test Procedure

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequency range from 30MHz to 25GHz.

7.9.5 Test Results

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.



7.10 ANTENNA APPLICATION

7.10.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

As per RSS-Gen, section 6.8 each applicant for equipment certification must provide a list of all antenna types that may be used with the transmitter, indicating the maximum permissible antenna gain (in dBi). When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements, including the antenna type used.

In addition, applicants shall perform RF power and spurious emission measurements with each antenna type supplied or specified by the manufacturer for use with the transmitter.

7.10.2 Result

The EUT antenna is permanent attached External Antenna (Gain: 2.06dBi). It comply with the standard requirement.



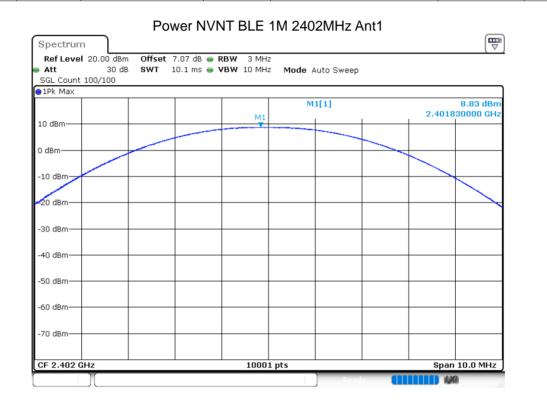


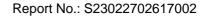
8 TEST RESULTS

1M:

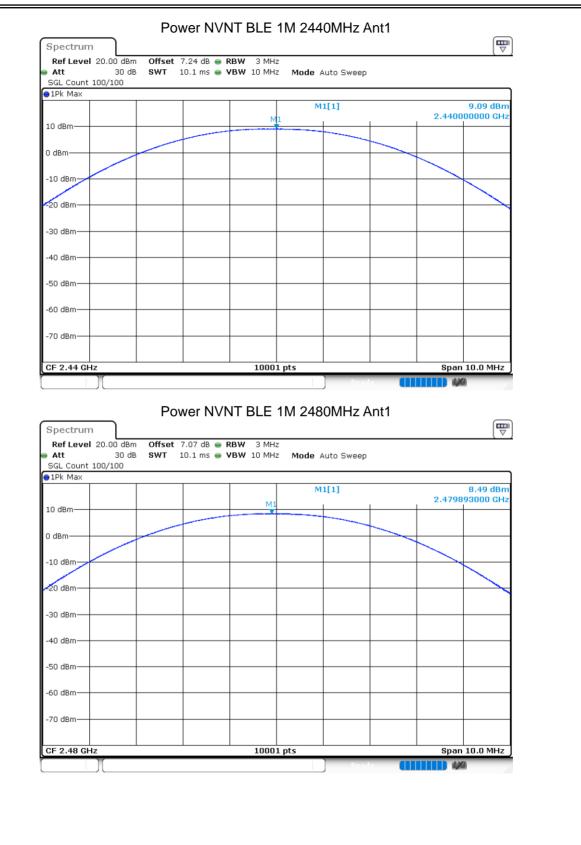
8.1.1 Maximum Conducted Output Power

Condition NVNT NVNT NVNT	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	8.83	30	Pass
NVNT	BLE 1M	2440	Ant1	9.09	30	Pass
NVNT	BLE 1M	2480	Ant1	8.49	30	Pass













8.1.2 Equivalent Isotropically Radiated Power

Condition NVNT NVNT NVNT	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	8.83	2.06	10.89	36	Pass
NVNT	BLE 1M	2440	Ant1	9.09	2.06	11.15	36	Pass
NVNT	BLE 1M	2480	Ant1	8.49	2.06	10.55	36	Pass



ilac-

ACCREDITED Certificate #4298.01

8.1.3 -6dB Bandwidth

NVNT BLE 1M 2402 Ant1 0.667 0.5 NVNT BLE 1M 2440 Ant1 0.682 0.5 NVNT BLE 1M 2480 Ant1 0.702 0.5 NVNT BLE 1M 2480 Ant1 0.702 0.5 -6dB Bandwidth NVNT BLE 1M 2402MHz Ant1 Spectrum Ref Level 20.00 dbm Offset 7.07 dB • RBW 100 kHz Att 30 dB SWT 18.9 μS • VBW 300 kHz Mode Auto FFT SGL Count 100/100 •1Pk Max	Pas Pas Pas
NVNT BLE 1M 2480 Ant1 0.702 0.5 -6dB Bandwidth NVNT BLE 1M 2402MHz Ant1 Spectrum Image: Colspan="2">Image: Colspan="2" Image: Colspa="2" Image: Colspa="2" Image: Colspan="2" Image: Col	
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1	Pas
-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1	
M1 7.90 dBm 10 dBm M1 2.401950400 GHz 0 dBm 1.90 dBm 1.90 dBm -10 dBm -20 dBm -30 dBm	
10 dBm M1 2.401950400 GHz 1.90 dBm 1.90 dBm -10 dBm 2.401622000 GHz -20 dBm -30 dBm	
0 dBm	
-10 dBm -20 dBm -30 dBm	
-20 dBm	
-30 dBm	
-30 dBm	
-40 dBm	
-50 dBm	
-60 dBm	
-70 dBm	
CF 2.402 GHz 10001 pts Span 2.0 MHz	
Gr 2.402 Gr2 10001 pts span 2.0 Mr2	
Type Ref Trc X-value Y-value Function Function Result	
M1 1 2.4019504 GHz 7.90 dBm	
M2 1 2.401622 GHz 1.90 dBm M3 1 2.402289 GHz 1.94 dBm	



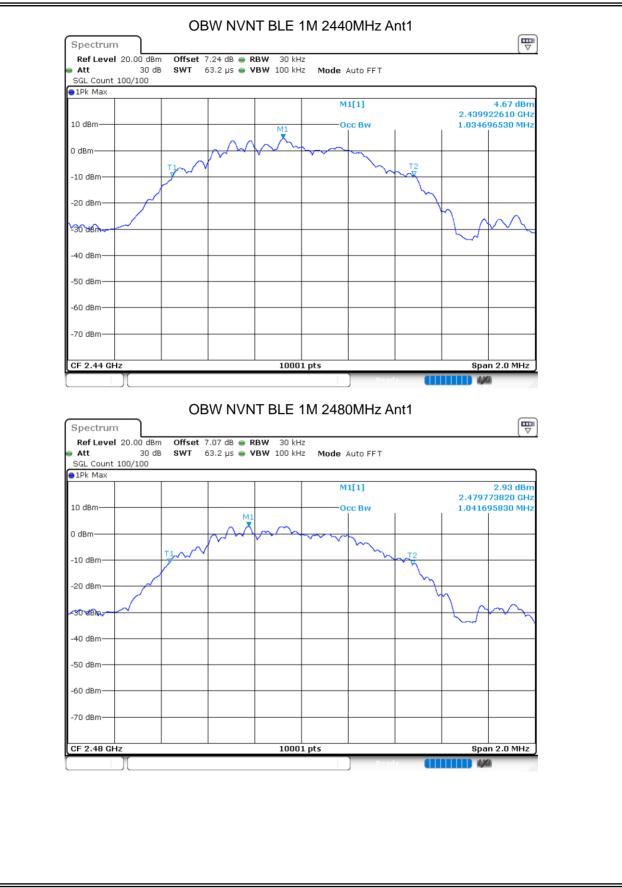






ACCREDITED



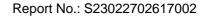




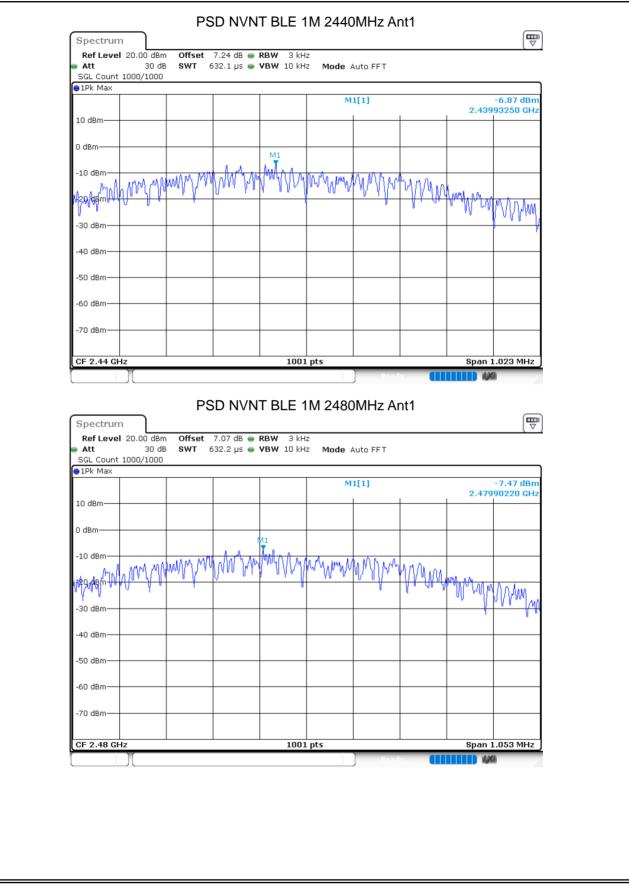


8.1.5 Maximum Power Spectral Density Level

ondition	Mada	- Eroquopov (Antonno	Condu	tod DC		Limit	(dDm)	Verdict
ondition NVNT	Mode BLE 1M	Frequency (2402	vinz)	Antenna Ant1	Conduc	-7.2	D (dBm)	Limit (· /	Pass
NVNT	BLE 1M	2440		Ant1		-6.87		6		Pass
NVNT	BLE 1M	2480		Ant1		-7.47		8		Pass
	Spectrur Ref Leve e Att	F	t 7.07 dB	VNT BLE 1 RBW 3 kHz VBW 10 kHz		/Hz An □ FFT 1]	t1		(₩) 20 dBm	
	-40 dBm									
	-70 dBm									
	CF 2.402 (GHz		1001	pts			Span 1.000	5 MHz	
][]				Ready		4,64	///	











8.1.6 Band Edge

	NVNT BLE 1M 2480 Ant1 -51.35 -20 Pass Band Edge NVNT BLE 1M 2402MHz Ant1 Ref Ref Level 30.00 dbm Offset 9.13 db RBW 100 kHz Mit Image: Colspan="2">Spectrum Ref Level 30.00 dbm Offset 9.13 db RBW 100 kHz Mode Auto FFT SGL Count 100/100 9.58 dBm 0 dbm Image: Colspan="2">Mit[1] 9.58 dBm 20 dbm Image: Colspan="2">Mit[1] 9.58 dBm 10 dbm Image: Colspan="2">Mit[1] 9.58 dBm -20 dbm Image: Colspan="2">Mit[1] 9.58 dBm -20 dbm Image: Colspan="2">Mit[1] 9.58 dBm -20 dbm Image: Colspan="2">Mit[1] 9.58 dBm -30 dBm Image: Colspan="2">Mit[1] 9.58 dBm -30 dBm Image: Colspan="2">Mit[1] 9.58 dBm -60 dBm Image: Colspan="2">Mit[1] 9.58 dBm -60 dBm Image: Colspan="2">Mit[1] 9.58 dBm -20 dBm Image: Colspan="2">Mit[1] 9.58 dBm -20 dBm Image: Colspan="2">Mit[1] 9.58 dBm -20 dBm	NVNT	Mode	Frequer	ncy (MHz)			Value (dBo	c) Lir	mit (dBc)	Verdict
Band Edge NVNT BLE 1M 2402MHz Ant1 Ref Spectrum Ref Level 30.00 dBm Add db SWT 10.9 µS * VBW 300 kHz Mode Auto FFT SG Count 100/100 ***********************************	Band Edge NVNT BLE 1M 2402MHz Ant1 Ref Spectrum Ref Level 30.00 dbm Offset 9.13 db @ RBW 100 kHz SGL Count 100/100 WT 18.9 µs @ VBW 300 kHz M1[1] 9.58 dbm 20 dbm M1[1] 9.58 dbm 10 dbm M1 1 0 dbm M1 0 -20 dbm M1 0 -30 dbm 0 0 -60 dbm 0 0										
Spectrum Image: Construction of the state of the s	Spectrum Image: Discrete in the state	NVNT	BLE 1M	2	480	Ant1		-51.35		-20	Pass
Att 40 dB SWT 18.9 µs • VBW 300 kHz Mode Auto FFT SGL Count 100/100 • 01[1] 9.58 dBm 20 dBm • 01[1] 9.58 dBm 10 dBm • 01 • 0172030 GHz 0 dBm • 01 • 01 -10 dBm • 01 • 01 -20 dBm • 01 • 01 -10 dBm • 01 • 01 -20 dBm • 01 • 01 -20 dBm • 01 • 01 -20 dBm • 01 • 01 -30 dBm • 01 • 01 -50 dBm • 01 • 01 -60 dBm • 01 • 01	Att 40 dB SWT 18.9 µs VBW 300 kHz Mode Auto FFT SGL Count 100/100 </th <th></th> <th></th> <th>n</th> <th></th> <th></th> <th></th> <th>02MHz Ar</th> <th>nt1 Re</th> <th>f</th> <th></th>			n				02MHz Ar	nt1 Re	f	
20 dBm M1[1] 9.58 dBm 20 dBm M1 10 dBm 10 dBm M1 10 dBm -10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -10 dBm -30 dBm -10 dBm -10 dBm -20 dBm	20 dBm 9.58 dBm 20 dBm 2.40172030 GHz 10 dBm M1 0 dBm 10 dBm -10 dBm 10 dBm -20 dBm 10 dBm -30 dBm 10 dBm -60 dBm 1001 pts		Att SGL Count	40 dB		● VBW 300 k	Hz Mode	Auto FFT			
20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -40 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -10 dBm -10 dBm -20 dBm	20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -10 dBm -10 dBm -20 dBm		IPK Max				9	11[1]			
10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -70 dB	10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -40 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -70 dB		20 dBm			M1					
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -40 dBm -50 dBm -60 dBm -70	-10 dBm -20 dBm -30 dBm -40 dBm -60 dBm -70						m				
-20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70	-20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -75 1001 pts -75 2 402 GHz -75 2 402						\uparrow				
-30 dBm -40 dBm -50 dBm -60 dBm -70	-30 dBm -40 dBm -50 dBm -60 dBm -70										
-40 dBm -50 dBm -60 dBm (CF 2.402 GHz) 1001 pts Span 8.0 MHz	-40 dBm -50 dBm -60 dB							1			
-50 dBm -60 dBm (CF 2.402 GHz) 1001 pts Span 8.0 MHz	-50 dBm -60 dB										
-60 dBm (CF 2.402 GHz 1001 pts Span 8.0 MHz)	-60 dBm		m	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				~~~~	~~~~~	\sim
CF 2.402 GHz 1001 pts Span 8.0 MHz	CF 2.402 GHz 1001 pts Span 8.0 MHz										
Peady			CF 2.402	GHz		10	01 pts			Span 8	.0 MHz





ilac-ME

Bit Max 9.02 dBm 20 dBm 1 2.401300000 cHz 10 dBm 1 2.40010000 cHz 10 dBm 1 2.40010000 cHz 10 dBm 1 1 1 1 20 dBm 1 1 1 1 1 20 dBm 1 1 1 1 1 1 20 dBm 1	SGL Count 100/1		227.5 μs 😑	VBW 300 kHz	z Mode A	Auto FFT			
L0 dBm	●1Pk Max				M	1[1]		2 401	
10 dBm 01 -10.423 dBm -20 dBm 0 -20 dBm 0 -30 dBm 0 -40 dBm 0 -50 dBm 0					M	2[1]		-	44.50 dBm
-10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -30 dbm -10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -30 dbm -10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -40 dbm -40 dbm -40 dbm -40 dbm -10.423 dbm -10.423 dbm -50 dbm -10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -10.423 dbm -50 dbm -10.423			+					2.400	UUUUUGHZ
-20 dBm -30 dBm -40 dBm -41 dAm									
-30 dBm -40 dBm -50 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -70		0.423 dBm	+						
-40 dBm M4									
-50 dBm -60 dBm -100 d			1	M4					
-60 dBm Stort 2.306 GHz Type Ref Trc X-value Y-value Function Function Result MATKer Type Ref Trc X-value Y-value Function Function Result MATKer Type Ref Trc X-value Y-value Function Function Result MATKer Type Ref Trc X-value Y-value Function Function Result MATKer 1 2.40195 GHz -445.00 dBm MATKer Solution Control (1990) Spectrum Ref Level 30.00 dBm Offset 9.13 dB € RBW 100 kHz Att 40 dB SWT 18.9 µ5 € VBW 300 kHz Mode Auto FFT Solution Control (1990) 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -40 dBm -40 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm		ntern with the	noneutrenter	hopepromination	Mandultha	minimum	Myelowence	him which have been been been been been been been be	trucht hus
Start 2.306 GHz Stop 2.406 GHz Type Ref Trc X-value Function Function Function Result M1 1 2.40195 GHz 9.92 dBm Function Function Result Function M2 1 2.40195 GHz -44.50 dBm Function Function Result Functi									
Marker Trp Ref Trc X-value Y-value Function Function Result M1 1 2.4 GHz 9.92 dBm — — — — …									
Type Ref Trc X-value Y-value Function Function Function Result M1 1 2.40195 GHz 9.92 dBm 1 1.4.4 GHz -44.50 dBm 1 1.2.4 GHz -44.50 dBm 1 1.2.4 GHz -44.50 dBm 1 2.39 GHz -40.18 dBm 1 2.39 GHz -40.18 dBm 1 2.3509 GHz -40.18 dBm 1 2.3509 GHz -40.18 dBm 1 2.3509 GHz -40.18 dBm 1 <	<u> </u>			1001	pts			Stop :	2.406 GHz
M2 1 2.4 GHz -44.50 dBm M3 1 2.39 GHz -45.09 dBm M4 1 2.39 GHz -40.18 dBm M4 1 2.39 GHz -40.18 dBm Band Edge NVNT BLE 1M 2480MHz Ant1 Ref Spectrum Ref Level 30.00 dBm Offset 9.13 dB • RBW 100 kHz Main 100/100 • Phk Max 0 dB 9.34 dBm 20 dBm M1 2.47970430 GHz 10 dBm M1 0 0 -20 dBm M1 0 0 -30 dBm 0 M1 0 0 -40 dB 0 0 0 0 -20 dBm 0 0 0 0 0 -20 dBm 0 0 0 0 0 0 -20 dBm 0 0 0 0 0 0 0 0 -20 dBm 0 0 0 0 0 0 0 0 0 0 0 0 0 0 <	Type Ref Tro					tion	Fund	tion Result	
M4 1 2.3509 GHz -40.18 dBm Profile Band Edge NVNT BLE 1M 2480MHz Ant1 Ref Spectrum Ref Level 30.00 dBm Offset 9.13 dB • RBW 100 kHz Mode Auto FFT SGL Count 100/100 • IPk Max 0 M1[1] 9.34 dBm 20 dBm M1[1] 9.34 dBm 2.47970430 GHz 10 dBm M1 M1 M1 M1 -10 dBm M1 M1 M1 M1 -20 dBm M1 M1 M1 M1 -30 dBm M1 M1 M1 M1 CF 2.48 GHz Spen 8.0 MHz	M2	1	2.4 GHz	-44.50 dBr	m				
Spectrum Image: Spectrum Ref Level 30.00 dBm Offset 9.13 dB • RBW 100 kHz Att 40 dB SWT 18.9 µs VBW 300 kHz Mode Auto FFT SGL Count 100/100 ● 1Pk Max 20 dBm M1[1] 10 dBm M1 10 dBm M1 -10 dBm									
20 dBm	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1	Band E	dge NV	NT BLE	1M 248		Ant1 Re	f	
10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -20 dB	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1	Band E	dge NV	NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -1001 pts Span 8.0 MHz	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 PIPk Max	Band E	dge NV	NT BLE	1M 248 Mode Au	uto FFT	<pre></pre>		9.34 dBm
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -1001 pts Span 8.0 MHz	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 PIPk Max 20 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-20 dBm -30 dBm -40 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -100 pts Span 8.0 MHz	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 IPk Max 20 dBm 10 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-30 dBm -40 dBm -40 dBm -50 dBm -60 dBm -70	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 IPk Max 20 dBm 10 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-40 dBm	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • 1Pk Max 20 dBm 10 dBm 0 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-40 dBm	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • 1Pk Max 20 dBm 10 dBm -10 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-50 dBm60 dBm	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
-60 dBm	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 ● 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
CF 2.48 GHz 1001 pts Span 8.0 MHz	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 ● 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	4 Ant1 Re		9.34 dBm
	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • IPk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	4 Ant1 Re		9.34 dBm
	Spectrum Ref Level 30.00 Att SGL Count 100/1 • IPk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm	Band E	dge NV	/NT BLE	1M 248 Mode Au	uto FFT	Ant1 Re		9.34 dBm
	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • IPk Max 20 dBm 10 dBm • 0 dBm • -10 dBm • -30 dBm • -40 dBm • -50 dBm	Band E	dge NV		1M 248	uto FFT	Ant1 Re		9.34 dBm
	Spectrum Ref Level 30.00 Att 4 SGL Count 100/1 • IPk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -60 dBm	Band E	dge NV		1M 248	uto FFT	Ant1 Re	2.479	9.34 dBm 70430 GHz





Ref Le Att SGL C	evel 3	o oo d					
		0.00 u 40		 RBW 100 kHz VBW 300 kHz 	Mode Auto F	FT	
		00/100					
∋1Pk M	lax				M1[1]		9.28 dB
00 JB-					wiftl		2.48015000 Gł
20 dBm					M2[1]		-44.18 dB
M1 10 🛱 m							2.48350000 GI
0 dBm-							
-10 dBr	n-d	1 -10.	656 dBm				
·20 dBr	n						
-30 dBr	n——						
-40 dBr	MA		MO				
Ho all	1 ALAN PA	ununu	er hiller war hall have been and	hall the Augurt weeks	the marting	how have been how how have how have how	the work of the second when the second of th
-50 dBr	n						
-60 dBr	_						
OU UBI	n						
Start 2	2.476	GHz		1001 pt	5		Stop 2.576 GH
/larker					-		
Туре	Ref	Trc	X-value	Y-value	Function	Fu	unction Result
M1		1	2.48015 GHz	9.28 dBm			
M2 M3		1	2.4835 GHz 2.5 GHz	-44.18 dBm -44.57 dBm			
1413		1	2.5 GHz 2.4837 GHz	-44.57 dBm			

Span 1.5 MHz



10 dBm 0 dBm

-10 dBm -20 dBm -30 dBm -40 dBm -50 dBm·

-60 dBm· -70 dBm-

CF 2.402 GHz

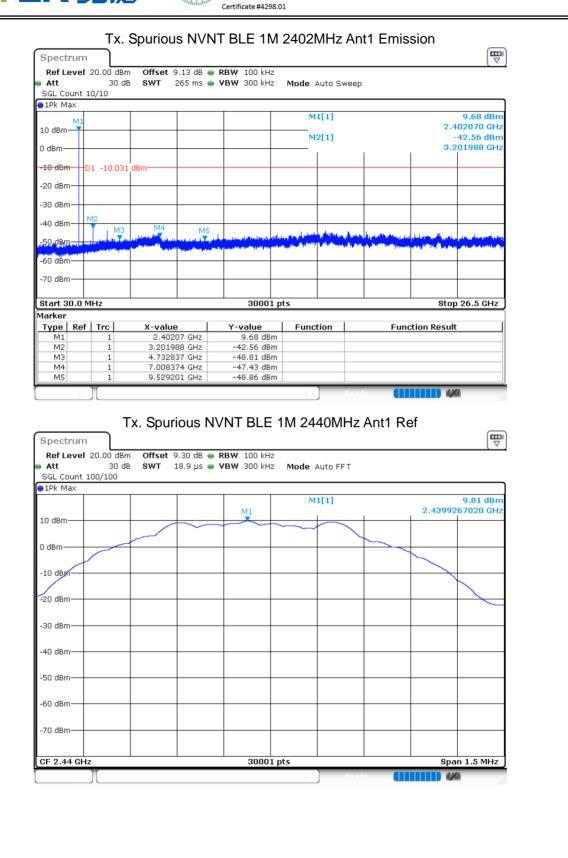


8.1.7 Conducted RF Spurious Emission

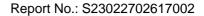
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdic
NVNT	BLE 1M	2402	Ant1	-52.52	-20	Pass
Condition NVNT NVNT NVNT	BLE 1M	2440	Ant1	-54.21	-20	Pass
NVNT	BLE 1M	2480	Ant1	-54.01	-20	Pass
	Spectrur		- PRW 100 kH	7		
	Ref Leve Att		 RBW 100 kH VBW 300 kH 			
	SGL Count		- • B • 300 KH	z Mode Auto FFT		
	●1Pk Max					
			5.4.1	M1[1]	9 2.4019500	.97 dBm
	10 10-1		M1	1 1	2.4019300	020 GHZ

30001 pts

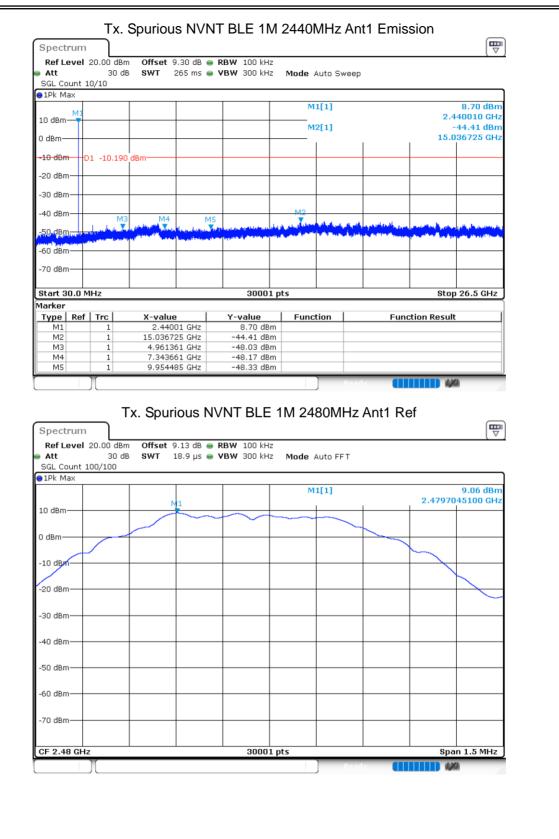


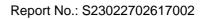


ACCREDITED











		T:	x. S	Spuriou	s NVI	NT BLE	1M :	2480	MH:	z An	t1 Em	nissio	n	_
Spect	rum	ı)												[₩
Ref Lo Att SGL Co			dBm D dB			RBW 100 VBW 300		Mode 4	uto (Sweep				
)1Pk M														
10 dBm	M1								1[1]					9.24 dBm 179720 GHz
0 dBm—			_				_	M:	2[1]		I	I		-44.96 dBm 325531 GHz
-10 dBm		D1 -10.	936	dBm 			-					_		
-20 dBm -30 dBm														
-40 dBm			МЗ	M4		45		M	2					
-50 dBr	Junio	li se di se	NIS VIS		ر مانتان المرجعة وتحويم المرجعة				and a bound		la de main de las Apropriations			
-60 dBm	ראין ר													
-70 dBm	-י													
Start 3	0.0	MHz				30	00'1 pt	s					Stop	26.5 GHz
Marker														
Type	Ref	f Trc		X-value		Y-value		Funct	ion	_	F	unction	Resul	t
M1 M2		1		15.82553	72 GHz	9.24								
M3		1		5.04518		-47.96								
M4		1			56 GHz	-48.09								
M5		1		10.01183		-47.95								

ilac-M

ACC

TED Certificate #4298.01

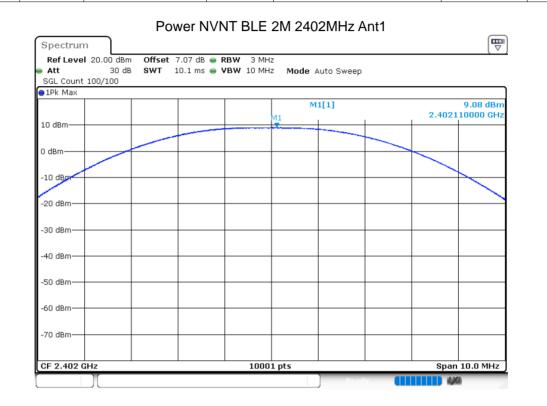


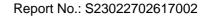


2M:

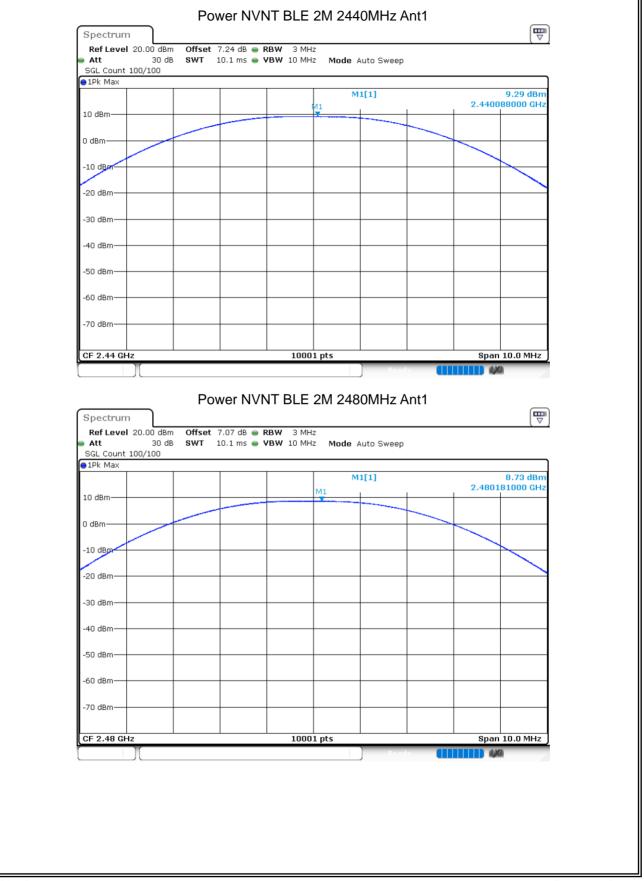
8.1.8 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	9.08	30	Pass
Condition NVNT NVNT NVNT	BLE 2M	2440	Ant1	9.29	30	Pass
NVNT	BLE 2M	2480	Ant1	8.73	30	Pass











Certificate #4298.01

8.1.9 Equivalent Isotropically Radiated Power

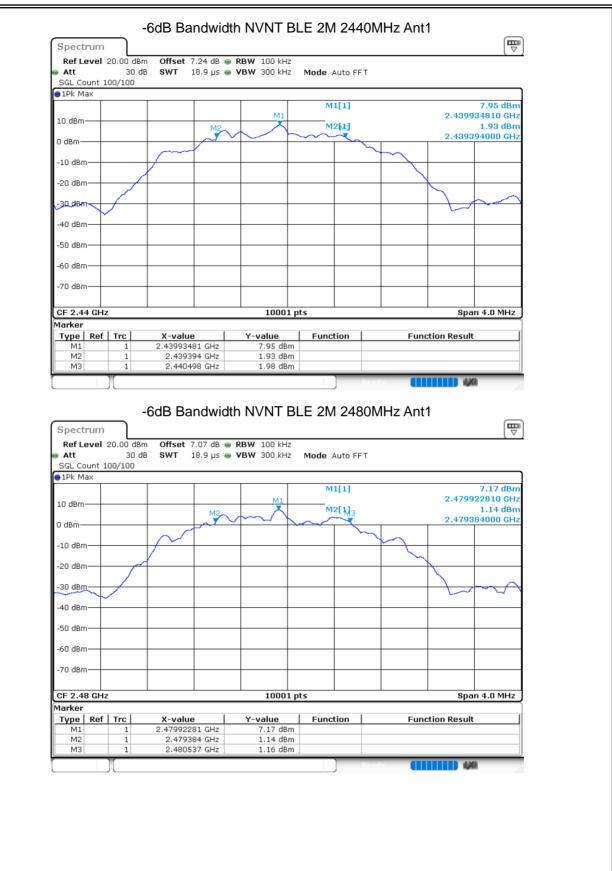
Condition NVNT NVNT NVNT	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	9.08	2.06	11.14	36	Pass
NVNT	BLE 2M	2440	Ant1	9.29	2.06	11.35	36	Pass
NVNT	BLE 2M	2480	Ant1	8.73	2.06	10.79	36	Pass



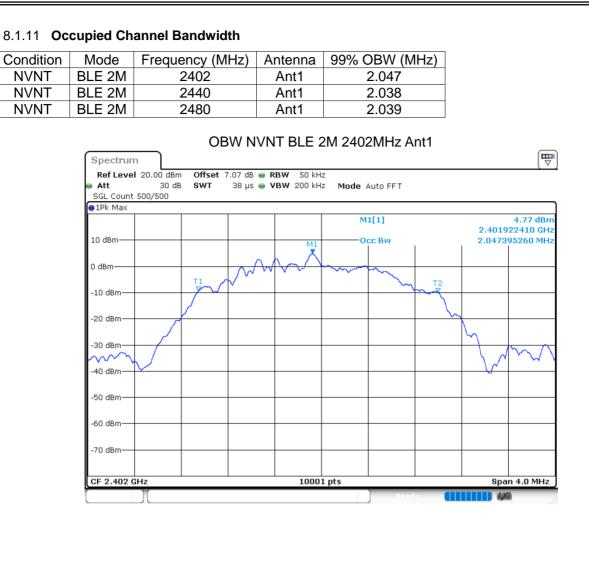
8.1.10 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	h Limit -6 dB Bandwidth (MHz)	Verdic
NVNT	BLE 2M	2402	Ant1	1.386	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.104	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.152	0.5	Pass
		-6dB Ba	andwidth NV	NT BLE 2M 2402N	/IHz Ant1	
	Spectrum					
	Ref Level	20.00 dBm Offset	7.07 dB 👄 RBW 1	00 kHz	(*)	
	Att		18.9 µs 👄 VBW 3	00 kHz Mode Auto FFT		
	SGL Count 1 91Pk Max	00/100]	
				M1[1]	5.19 dBm	
	10 dBm		M1	M2[1]	2.401464850 GHz -0.74 dBm	
	0 dBm		M2	M3	2.401274000 GHz	
			1			
	-10 dBm					
	-20 dBm					
	-30 dBm					
	-40 dBm					
	-50 dBm					
	-60 dBm					
	-70 dBm					
	CF 2.402 GF	z		10001 pts	Span 4.0 MHz	
	Marker Type Ref	Trc X-valu	e Y-va	lue Function	Function Result	
	M1	1 2.40146	485 GHz 5.	.19 dBm	T unction Result	
	M2 M3			.74 dBm .81 dBm		













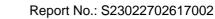
Version.1.3



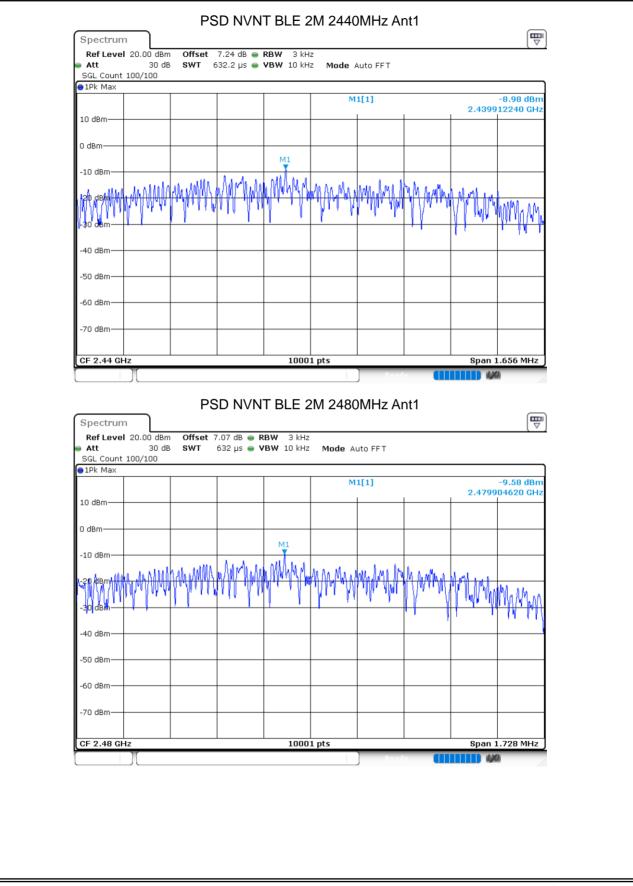


8.1.12 Maximum Power Spectral Density Level

		•	•				
Condition	Mode	Frequency (MHz)	Antenna	Conducted	PSD (dBm)	Limit (dBm)	Verdic
NVNT	BLE 2M	2402	Ant1	-9.4	42	8	Pass
NVNT	BLE 2M	2440	Ant1	-8.9	98	8	Pass
NVNT	BLE 2M	2480	Ant1	-9.	58	8	Pass
	Spectrum Ref Leve Att SGL Count 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm -50 dBm -50 dBm -70 dBm -70 dBm	n 1 20.00 dBm Offset 7.07 d 30 dB SWT 632.1 µ 100/100	B • RBW 3 kH: s • VBW 10 kH:	Z Mode Auto FFT		-9.42 dBm 2.401919550 GHz	





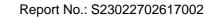




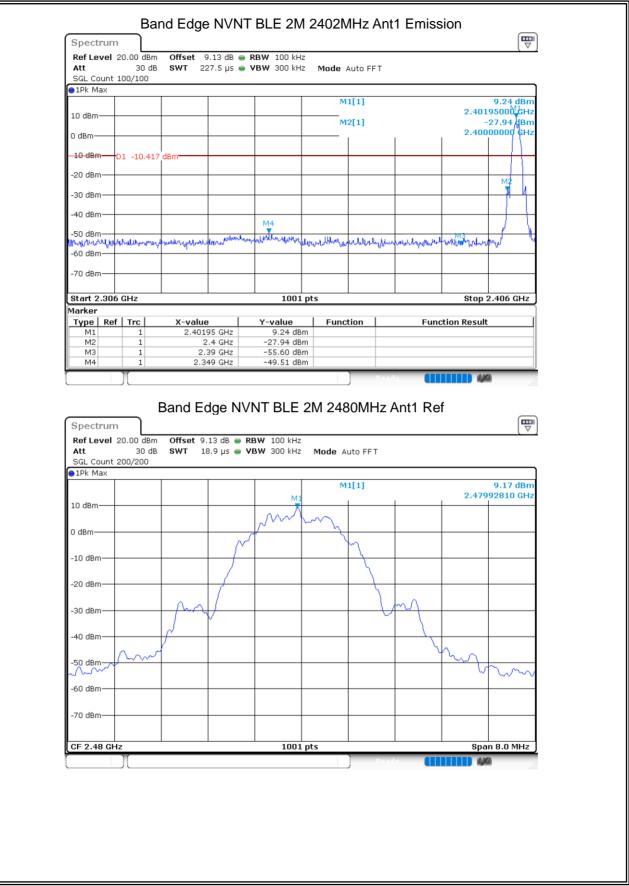


8.1.13 Band Edge

ondition	Mode	Frequency (MHz)		Max Value (dBc)	Limit (dBc)	Verdict
VNT	BLE 2M	2402	Ant1	-59.09	-20	Pass
NT	BLE 2M	2480	Ant1	-60.1	-20	Pass
		Dond Edge			Def	
	Spectrun		NVINI DLE	2M 2402MHz Ant1	Rei	
		20.00 dBm Offset 9.13 dB	● RBW 100 kHz			
	Att SGL Count	30 dB SWT 18.9 µs	● VBW 300 kHz	Mode Auto FFT		
	• 1Pk Max					
			ма	M1[1]	9. 2.40193	.58 dBm 610 GHz
	10 dBm		m			
	0 dBm		-	~~		
	-10 dBm			\sim		
	-10 UBIII		,			
	-20 dBm					
	-30 dBm					
	-40 dBm				What I	
	-50 dBm				- Mart	
	~~~	Y IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII				~~~
	-60 dBm					
	-70 dBm					
	CF 2.402 (	GHz	1001	pts	Span 8	.0 MHz
	CF 2.402 (	GHz	1001	pts Ready	Span 8	.0 MHz
	CF 2.402 (	GHz	1001	pts Ready		.0 MHz
	CF 2.402 (	GHz	1001	pts Peady		.0 MHz
	CF 2.402 0	GHZ	1001	pts Peady		.0 MHz
	CF 2.402 0	GHz	1001	pts Beady		.0 MHz
	CF 2.402 0	GHz	1001	pts Peadv		1.0 MHz
	CF 2.402 0	GHz	1001	pts Peady		3.0 MHz
	CF 2.402 0	GHz	1001	pts Peady		.0 MHz
	CF 2.402 0	GHz	1001	pts Beadv		.0 MHz
	CF 2.402 0	SHz	1001	pts Readv		3.0 MHz
	CF 2.402 0	GHz	1001	pts Peady		.0 MHz
	CF 2.402 (	GHz	1001	pts Peadv		.0 MHz
	CF 2.402 0	SHz	1001	pts Peadv		.0 MHz
	CF 2.402 0	GHz	1001	pts Peadv		.0 MHz
	CF 2.402 0	SHz	1001	pts Peadv		.0 MHz
	CF 2.402 (	GHz	1001	pts Peadv		.0 MHz
	CF 2.402 (	SHz	1001	pts Peadv		.0 MHz
	CF 2.402 (	SHz	1001	pts Peadv		.0 MHz
	CF 2.402 (	3Hz	1001	pts Peadv		.0 MHz
	CF 2.402 0	SHz	1001	pts PeadV		.0 MHz
	CF 2.402 0	SHz	1001	pts PeadV		.0 MHz
	CF 2.402 0	SHz	1001	pts Peady		.0 MHz
	CF 2.402 (	SHZ	1001	pts Peadv		.0 MHz







Version.1.3





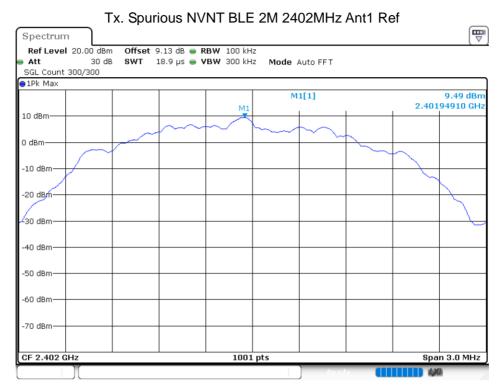
	Ba	and Edge NVI	NT BLE 2M 2	2480MF	Iz Ant	1 Emise	sion	
pectrum		-						
ef Level 2	0.00 dBr	m Offset 9.13 dB	🔵 RBW 100 kHz					( )
tt	30 d	B <b>SWT</b> 227.5 μs	🔵 <b>VBW</b> 300 kHz	Mode Au	to FFT			
GL Count 1	.00/100							
1Pk Max				M1[	11			9.34 dBm
M1				mit	11		2.47	995000 GHz
0 mem				M2[	1]			-53.97 dBm
iBm —							2.48	350000 GHz
	1 -10.82	28 dBm						
) dBm —								
) dBm								
) dBm —								
		M4						
) dBm ¹²	n Jashin de	under the the second we	wether allorations	Louis March and March	described and a	more the later of	Lun maker	AND Have been allowed
dBm-	-D.m ()		10.00100 million	Anden Ald. er.			-u-v -	P.10.0 (0.4
) dBm								
art 2.476	GHz		1001 pt	s			Stop	2.576 GHz
arker	1 7			F	. 1	<b>F</b>		
ype Ref M1	1	2.47995 GHz	Y-value 9.34 dBm	Functio		Fun	ction Resul	<u> </u>
M2	1	2.4835 GHz	-53.97 dBm					
MЗ	1	2.5 GHz	-55.35 dBm					
M4	1	2.4967 GHz	-50.94 dBm					

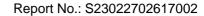




# 8.1.14 Conducted RF Spurious Emission

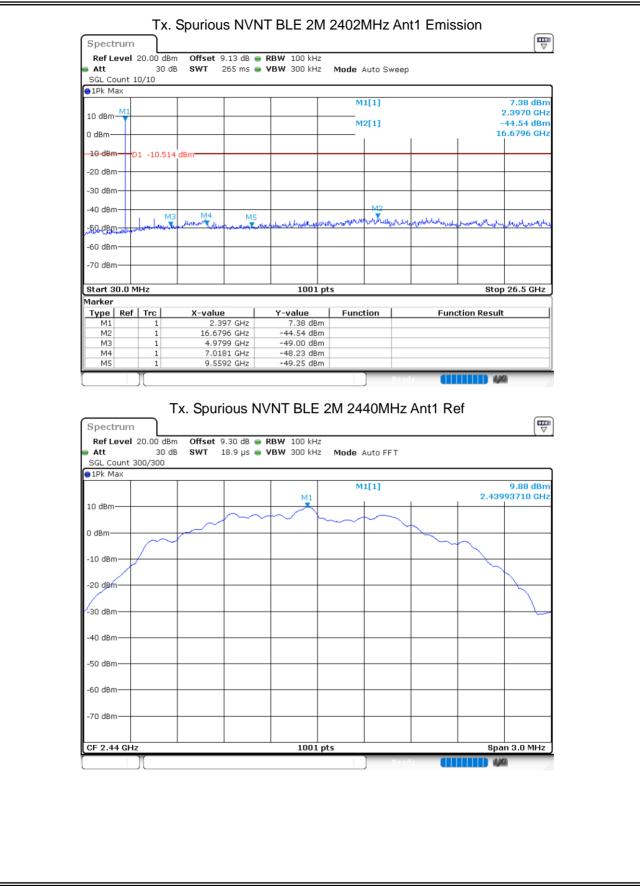
Condition NVNT NVNT	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2402	Ant1	-54.02	-20	Pass
NVNT	BLE 2M	2440	Ant1	-54.5	-20	Pass
NVNT	BLE 2M	2480	Ant1	-53.53	-20	Pass

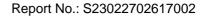




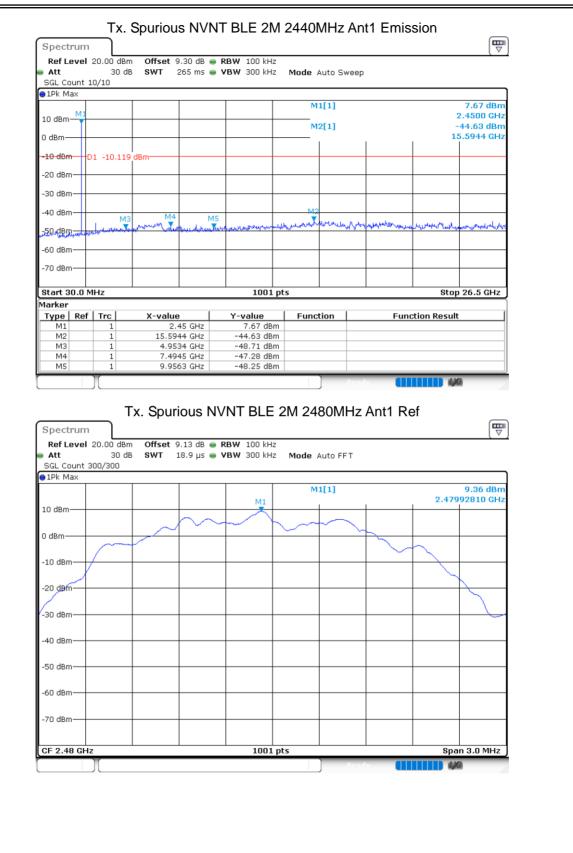


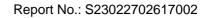
















		Tx.	Spuriou	s NV	NT BLE 2	2M	2480 <b> </b>	ИНz	Ant	1 Emis	ssion	_
Spectr	um											
Ref Le	vel :	20.00 dBn	n Offset 9	0.13 dB	RBW 100	kHz						
Att 🛛		30 di	B SWT :	265 ms	<b>• VBW</b> 300	kHz	Mode A	luto Si	veep			
SGL Cou		0/10										
⊜1Pk Ma:	<											
							M	1[1]				4.09 dBm
10 dBm—	MI											2.4760 GHz
	T						IMD:	2[1]				-44.18 dBm 16.3620 GHz
0 dBm—									1		1	10.3020 GH2
-10 dBm-		1 -10.641	dBm									
20 3011		1 -10.041										
-20 dBm-						_						
-30 dBm-						-						
-40 dBm-								M2				
io abiii		MB	M4		M5			July 1	h La	a na atar wasan		Rubarburgerburgerberberberb
-50.dBm	and a starter	سالعيد شاده فالمصادرول	and a superior and a superior	فتريقه المعين وسأ	well and a start of the read	a free wheel	Man Man	A	n Almad	Man and an analy	al number wa	March on the of the second second
-60 dBm-												
-70 dBm-												
70 abiii												
Start 30	.0 M	Hz			10	01 pt	<b>c</b>				St	op 26.5 GHz
Marker	.0 1.1				10	orpe	<u> </u>					5p 2010 G112
	Ref	Trc	X-value		Y-value	- 1	Func	tion	1	Eur	ction Res	ult l
M1		1		, 76 GHz	4.09							
M2		1		52 GHz	-44.18							
MЗ		1	4.97	99 GHz	-48.28	dBm						
M4		1		37 GHz	-47.77							
M5		1	10.08	B6 GHz	-47.44	dBm						
									Read	-		LXA
								)				

END OF REPORT