

RADIO TEST REPORT FCC ID: 2A4ND-E7TV

Certificate #4298.01

Product:	Wireless TV Headphones		
Trade Mark:	N/A		
Model No.:	E7TV-C		
Family Model:	E7TV-A, E7TV-B, E7TV-KY, E7TV-MD, E7TV-MD PRO, E7TV-MAX, E7TV-PRO,SE7TV, SE7D TV, E9TV,E9TV-MAX,E11TV		
Report No.:	S23110600402001		
Issue Date:	Nov 28, 2023		

Prepared for

JiangXi MeiDong Technology Co., Ltd.

No.1, Food Avenue, Jingshan Comprehensive District Shanggao Prefecture Industri Yichun, China

Prepared by

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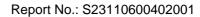


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ACCREDITED Certificate #4298.01

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1 TEST RESULT CERTIFICATION

A 11 /1			
Applicant's name	JiangXi MeiDong Technology Co., Ltd		
Address	No.1, Food Avenue, Jingshan Comprehensive District Shanggao Prefecture Industri Yichun, China		
	JiangXi MeiDong Technology Co., Ltd		
Address	No.1, Food Avenue, Jingshan Comprehensive District Shanggao Prefecture Industri Yichun, China		
Product description			
Product name:	Wireless TV Headphones		
Model and/or type reference:	E7TV-C		
Family Model	E7TV-A, E7TV-B, E7TV-KY, E7TV-MD, E7TV-MD PRO, E7TV-MAX, E7TV-PRO, SE7TV, SE7D TV, E9TV, E9TV-MAX, E11TV		
TestSample Number	S231106004003		
Date (s) of performance of tests	Nov 06, 2023~ Nov 28, 2023		

Measurement Procedure Used:

APPLICABLE STANDARDS		
STANDARD/ TEST PROCEDURE TEST RESULT		
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C ANSI C63.10-2013	Complied	

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.

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

Mary Hu Reviewed By Aaron Cheng By :______ Approved :______ By :_____ Prepared By Alex Li (Supervisor) (Project Engineer) (Manager)





2 SUMMARY OF TEST RESULTS

FCC Part15 (15.247), Subpart C			
Standard Section	Test Item	Verdict	Remark
15.207	Conducted Emission	PASS	
15.209 (a) 15.205 (a)	Radiated Spurious Emission	PASS	
15.247(a)(1)	Hopping Channel Separation	PASS	
15.247(b)(1)	Peak Output Power	PASS	
15.247(a)(iii)	Number of Hopping Frequency	PASS	
15.247(a)(iii)	Dwell Time	PASS	
15.247(a)(1)	Bandwidth	PASS	
15.247 (d)	Band Edge Emission	PASS	
15.247 (d)	Spurious RF Conducted Emission	PASS	
15.203	Antenna Requirement	PASS	

Remark:

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

2. 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&5/F, Building C, 1&2/F, Building E, Fenda Science Park, Sanwei Community, Hangcheng Street, Baoan District, Shenzhen ,Guangdong, 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
Name of Firm	: Shenzhen NTEK Testing Technology Co., Ltd.
Site Location	: 1&5/F, Building C, 1&2/F, Building E, Fenda Science Park, Sanwei
	Community, Hangcheng Street, Baoan District, Shenzhen, Guangdong,
	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, PSD	±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
10	Occupied bandwidth	±4.7%





4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	Wireless TV Headphones	
Trade Mark	N/A	
FCC ID	2A4ND-E7TV	
Model No.	E7TV-C	
Family Model	E7TV-A, E7TV-B, E7TV-KY, E7TV-MD, E7TV-MD PRO, E7TV-MAX, E7TV-PRO, SE7TV, SE7D TV, E9TV, E9TV-MAX, E11TV	
Model Difference	All models are the same circuit and RF module, except for model names.	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK, π/4-DQPSK, 8-DPSK	
Number of Channels	79 Channels	
Antenna Type	PCB Antenna	
Antenna Gain	0 dBi	
Adapter	N/A	
Battery	DC 3.7V, 600mAh,2.22Wh	
Power supply	DC 3.7V from battery or DC 5V from Charging Port	
Hardware version:	E7 TV WS300 V1.2	
Firmware version:	N/A	
Software version:	E7TV_C_WS300(ENC)_TX_V2(6F1C5F66)	

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.





Revision History

Report No.	Version	Description	Issued Date
S23110600402001	Rev.01	Initial issue of report	Nov 28, 2023





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 for GFSK modulation; 2Mbps for π /4-DQPSK modulation; 3Mbps for 8-DPSK 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	2403
39	2441
40	2442
77	2479
78	2480

Note: fc=2402MHz+k×1MHz k=0 to 78

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

For AC Conducted Emission	
Final Test Mode	Description
Mode 1	normal link mode

Note: AC power line Conducted Emission was tested under maximum output power.

For Radiated Test Cases		
Final Test Mode	Description	
Mode 1	normal link mode	
Mode 2	CH00(2402MHz)	
Mode 3	CH39(2441MHz)	
Mode 4	CH78(2480MHz)	

Note: For radiated test cases, the worst mode data rate 3Mbps 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.

For Conducted Test Cases				
Final Test Mode Description				
Mode 2	CH00(2402MHz)			
Mode 3	CH39(2441MHz)			
Mode 4	CH78(2480MHz)			
Mode 5	Hopping mode			
Note: The engineering test program was provided and the EUT was programmed to be in continuous				

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





6	SETUP OF EC	QUIPMENT	UNDER TES	ST		
	BLOCK DIAGRA			ST SYSTEM		
	E-1-1 EUT E-1-2 EUT	C-1	AE-1 Adapter	AC PLUC	3	
For	Radiated Test Cas	Ses				
		EUT				
For	Conducted Test C	ases				7
N	leasurement Instrument	^{C-2} El	JT			
and	e: 1. The temporar this temporary an 2. EUT built-in b	tenna connec	ctor is listed in th	e equipment lis		o perform conducted tests





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
E-1-1	Wireless TV Headphones	E7TV-C	N/A	EUT
E-1-2	Wireless Transmitter Charging Dock	BA01	N/A	Peripherals
AE-1	Adapter	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	Power Cable	NO	NO	1.0m
C-2	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".

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6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibrati on period
1	Spectrum Analyzer	Agilent	E4440A	MY41000130	2023.03.27	2024.03.26	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2023.05.29	2024.05.28	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2023.03.27	2024.03.26	1 year
4	Test Receiver	R&S	ESPI7	101318	2023.03.27	2024.03.26	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2023.03.27	2024.03.26	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2023.05.06	2026.05.05	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2023.03.27	2024.03.26	1 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2022.11.07	2025.11.06	3 year
9	Amplifier	EMC	EMC051835 SE	980246	2023.05.29	2024.05.28	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2023.11.03	2024.11.02	1 year
11	Power Meter	DARE	RPR3006W	15I00041SN 084	2023.05.29	2024.05.28	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2023.05.06	2026.05.05	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2023.05.06	2026.05.05	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	2023.03.27	2026.03.26	3 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





AC Co	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	2023.03.27	2024.03.26	1 year		
2	LISN	R&S	ENV216	101313	2023.03.27	2024.03.26	1 year		
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2023.03.27	2024.03.26	1 year		
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2023.05.06	2026.05.05	3 year		
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year		
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year		
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2023.05.06	2026.05.05	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)

7.1.2 Conformance Limit

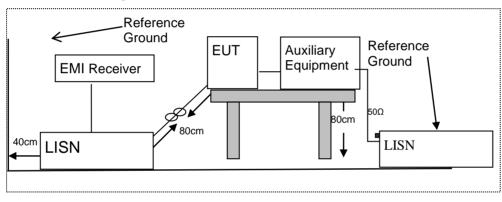
Fraguanov(MHz)	Conducted Emission Limit			
Frequency(MHz)	Quasi-peak	Average		
0.15-0.5	66-56*	56-46*		
0.5-5.0	56	46		
5.0-30.0	60	50		

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 Test Configuration



7.1.4 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.





7.1.5 Test Results

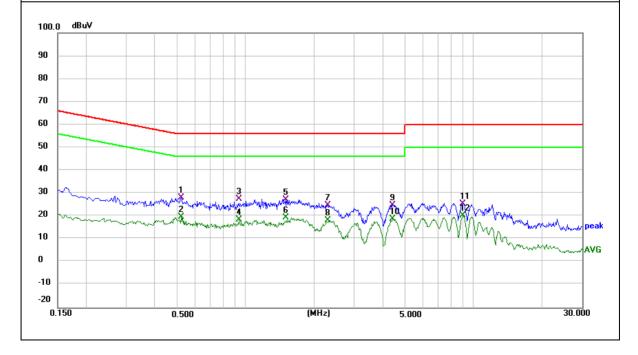
EUT:	Wireless TV Headphones	Model Name :	E7TV-C
Temperature:	22.1 ℃	Relative Humidity:	53%
Pressure:	1010hPa	Phase :	L
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.5220	17.09	11.11	28.20	56.00	-27.80	QP
0.5220	8.53	11.11	19.64	46.00	-26.36	AVG
0.9380	15.72	11.89	27.61	56.00	-28.39	QP
0.9380	6.52	11.89	18.41	46.00	-27.59	AVG
1.5020	14.27	12.98	27.25	56.00	-28.75	QP
1.5020	6.38	12.98	19.36	46.00	-26.64	AVG
2.2940	10.44	14.54	24.98	56.00	-31.02	QP
2.2940	3.74	14.54	18.28	46.00	-27.72	AVG
4.4220	15.19	9.80	24.99	56.00	-31.01	QP
4.4220	9.05	9.80	18.85	46.00	-27.15	AVG
8.9620	15.40	10.13	25.53	60.00	-34.47	QP
8.9620	10.10	10.13	20.23	50.00	-29.77	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.

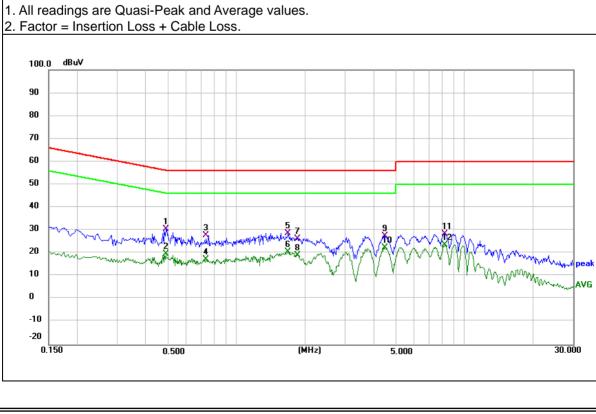






EUT:	Wireless TV Headphones			Model Name :		E7TV-C		
Temperature:	22.1 ℃			Relative Humidity: 539		53%	53%	
Pressure:	1010hPa			Phase :		Ν		
Test Voltage :	DC 5V fro	om Adapter AC	120V/60Hz	Test Mode:		Mode	1	
Frequency	Reading Level	Correct Factor	Measure-ment	t Limits	Ma	rgin	- Remark	
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(d	IB)	Remark	
0.4900	19.59	11.06	30.65	56.17	-25	5.52	QP	
0.4900	8.79	11.06	19.85	46.17	-26	6.32	AVG	
0.7380	16.34	11.45	27.79	56.00	-28	3.21	QP	
0.7380	5.98	11.45	17.43	46.00	-28	8.57	AVG	
1.6860	15.42	13.35	28.77	56.00	-27	7.23	QP	
1.6860	7.41	13.35	20.76	46.00	-25	5.24	AVG	
1.8580	12.80	13.67	26.47	56.00	-29	9.53	QP	
1.8580	5.61	13.67	19.28	46.00	-26	6.72	AVG	
4.4940	17.67	9.79	27.46	56.00	-28	3.54	QP	
4.4940	12.73	9.79	22.52	46.00	-23	8.48	AVG	
8.1860	18.27	10.08	28.35	60.00	-31	.65	QP	
8.1860	13.70	10.08	23.78	50.00	-26	6.22	AVG	

Remark:







7.2 RADIATED SPURIOUS EMISSION

7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 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

According to 1 CC Fait 13.20	According to FCC Fail 15.205, Restlicted ballus								
MHz	MHz	MHz	GHz						
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15						
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46						
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75						
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5						
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2						
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5						
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7						
6.26775-6.26825	123-138	2200-2300	14.47-14.5						
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2						
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4						
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12						
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0						
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8						
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5						
12.57675-12.57725	322-335.4	3600-4400	(2)						
13.36-13.41									

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)

Eroquonov(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)

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



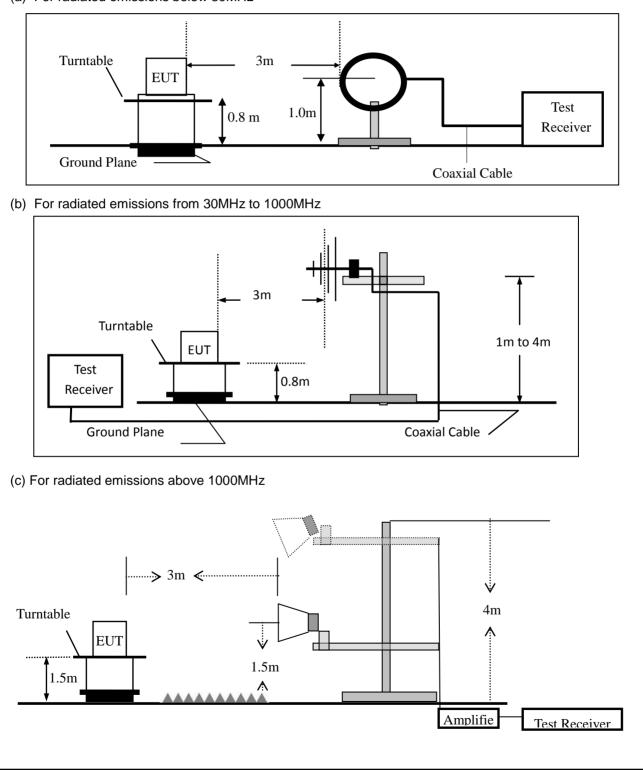


7.2.3 Measuring Instruments

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:

eee ale rene ming op een ann analyzer eetanige	
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 / 1 MHz 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
Above 1000	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)										
UT: Wireless TV Headphones Model No.: E7TV-C										
Temperature:	20 ℃	Relative Humidity:	48%							
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu							

Freq.	Ant.Pol.	Emission L	evel(dBuV/m)	Limit 3	m(dBuV/m)	Ove	r(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.

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Spurious Emission below 1GHz (30MHz to 1GHz) All the modulation modes have been tested, and the worst result was report as below: EUT: Wireless TV Headphones Model Name : E7TV-C **25.4** ℃ **Relative Humidity:** 54% Temperature: 1010hPa Mode 3 Test Mode: Pressure: DC 3.7V Test Voltage : Meter Emission Factor Limits Margin Frequency Polar Reading Level Remark (H/V) (dBuV/m) (dBuV/m) (MHz) (dBuV) (dB) (dB) V 63.9828 8.84 18.61 27.45 40.00 -12.55 QP V 17.47 33.09 43.50 QP 116.5400 15.62 -10.41 V 122.8340 21.52 16.57 38.09 43.50 -5.41 QP QP V 129.0146 22.64 15.71 38.35 43.50 -5.15 V 191.7450 13.38 17.51 30.89 43.50 -12.61 QP 202.8104 17.87 QP V 13.51 31.38 43.50 -12.12 Remark: Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit dBuV/m 72.0 62 52 42 33 5 32 with the first of the state of 22 11 Marthante 12 2 -8 (MHz) 30.000 1000.000 60.00 300.00





Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV) (dB)		(dBuV/m)	(dBuV/m)	(dB)	
Н	116.5401	13.61	17.47	31.08	43.50	-12.42	QP
Н	122.8340	18.42	16.57	34.99	43.50	-8.51	QP
Н	129.0146	22.21	15.71	37.92	43.50	-5.58	QP
Н	191.7450	11.20	17.51	28.71	43.50	-14.79	QP
Н	215.2678	10.62	18.20	28.82	43.50	-14.68	QP
Н	256.5211	11.09	19.24	30.33	46.00	-15.67	QP
Н	374.6225	12.47	21.51	33.98	46.00	-12.02	QP
62 52 42							
32 22 vydw^^	uthrow denter Medder Martiel when	man all and a lot				MMM	twomanta
12 2							
-8							
30.000	60.0	-		MHz)	300.00		1000.000





UT:							TV-C				
emperature:	20 °C			Relative Humidity: 48%							
Test Mode:	Mode	2/Mode3	/Mode4	Test E	By:	Ma	ary Hu				
Il the modulation modes have been tested, and the worst result was report as belo											
Frequency	Read Level	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Remark	Comment		
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m) (dB)				
	Low Channel (2402 MHz) 3Mbps(8-DPSK)Above 1G										
4804.78	65.69	5.21	35.59	44.30	62.19	74.00	-11.81	Pk	Vertical		
4804.78	43.75	5.21	35.59	44.30	40.25	54.00	-13.75	AV	Vertical		
7206.31	63.79	6.48	36.27	44.60	61.94	74.00	-12.06	Pk	Vertical		
7206.31	43.01	6.48	36.27	44.60	41.16	54.00	-12.84	AV	Vertical		
4804.27	62.38	5.21	35.55	44.30	58.84	74.00	-15.16	Pk	Horizontal		
4804.27	40.27	5.21	35.55	44.30	36.73	54.00	-17.27	AV	Horizontal		
7206.54	59.53	6.48	36.27	44.52	57.76	74.00	-16.24	Pk	Horizontal		
7206.54	43.82	6.48	36.27	44.52	42.05	54.00	-11.95	AV	Horizontal		
		Mi	d Channel (2	441 MHz)	3Mbps(8-DP	SK)Above	e 1G				
4882.96	65.55	5.21	35.66	44.20	62.22	74.00	-11.78	Pk	Vertical		
4882.96	43.13	5.21	35.66	44.20	39.80	54.00	-14.20	AV	Vertical		
7323.81	64.19	7.10	36.50	44.43	63.36	74.00	-10.64	Pk	Vertical		
7323.81	42.35	7.10	36.50	44.43	41.52	54.00	-12.48	AV	Vertical		
4882.61	61.60	5.21	35.66	44.20	58.27	74.00	-15.73	Pk	Horizontal		
4882.61	42.32	5.21	35.66	44.20	38.99	54.00	-15.01	AV	Horizontal		
7324.05	59.03	7.10	36.50	44.43	58.20	74.00	-15.80	Pk	Horizontal		
7324.05	43.44	7.10	36.50	44.43	42.61	54.00	-11.39	AV	Horizontal		
		Hię	gh Channel (2	2480 MHz)	3Mbps(8-DP	SK)- Abov	e 1G				
4960.09	67.23	5.21	35.52	44.21	63.75	74.00	-10.25	Pk	Vertical		
4960.09	43.32	5.21	35.52	44.21	39.84	54.00	-14.16	AV	Vertical		
7439.71	60.55	7.10	36.53	44.60	59.58	74.00	-14.42	Pk	Vertical		
7439.71	42.15	7.10	36.53	44.60	41.18	54.00	-12.82	AV	Vertical		
4960.42	60.05	5.21	35.52	44.21	56.57	74.00	-17.43	Pk	Horizontal		
4960.42	42.02	5.21	35.52	44.21	38.54	54.00	-15.46	AV	Horizontal		
7440.50	60.94	7.10	36.53	44.60	59.97	74.00	-14.03	Pk	Horizontal		
7440.50	41.28	7.10	36.53	44.60	40.31	54.00	-13.69	AV	Horizontal		

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor (2)All other emissions more than 20dB below the limit.





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EUT:	Wireless T	EUT: Wireless TV Headphones			No.:	E	TTV-C	E7TV-C		
Temperature	: 20 ℃			Relativ	Relative Humidity: 48%					
Fest Mode: Mode2/ Mode4				Test By: Mary Hu						
All the modu			een testeo				,	low:		
Frequency	Matan	Cable Loss	Antenna Factor	Preamp Factor	Preamp Emission		•	Detector	Comment	
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/	'm) (dB)	Туре		
			31	lbps(8-DPS	K)-Non-hopp	ing				
2310.00	60.14	2.97	27.80	43.80	47.11	74	-26.89	Pk	Horizontal	
2310.00	45.97	2.97	27.80	43.80	32.94	54	-21.06	AV	Horizontal	
2310.00	56.48	2.97	27.80	43.80	43.45	74	-30.55	Pk	Vertical	
2310.00	43.15	2.97	27.80	43.80	30.12	54	-23.88	AV	Vertical	
2390.00	60.33	3.14	27.21	43.80	46.88	74	-27.12	Pk	Vertical	
2390.00	47.23	3.14	27.21	43.80	33.78	54	-20.22	AV	Vertical	
2390.00	62.21	3.14	27.21	43.80	48.76	74	-25.24	Pk	Horizontal	
2390.00	46.32	3.14	27.21	43.80	32.87	54	-21.13	AV	Horizontal	
2483.50	51.14	3.58	27.70	44.00	38.42	74	-35.58	Pk	Vertical	
2483.50	35.77	3.58	27.70	44.00	23.05	54	-30.95	AV	Vertical	
2483.50	56.98	3.58	27.70	44.00	44.26	74	-29.74	Pk	Horizontal	
2483.50	36.87	3.58	27.70	44.00	24.15	54	-29.85	AV	Horizontal	
			:	3Mbps(8-DF	PSK)-hopping	3				
2310.00	61.70	2.97	27.80	43.80	48.67	74	-25.33	Pk	Horizontal	
2310.00	45.10	2.97	27.80	43.80	32.07	54	-21.93	AV	Horizontal	
2310.00	55.01	2.97	27.80	43.80	41.98	74	-32.02	Pk	Vertical	
2310.00	44.83	2.97	27.80	43.80	31.80	54	-22.20	AV	Vertical	
2390.00	62.57	3.14	27.21	43.80	49.12	74	-24.88	Pk	Vertical	
2390.00	44.61	3.14	27.21	43.80	31.16	54	-22.84	AV	Vertical	
2390.00	60.17	3.14	27.21	43.80	46.72	74	-27.28	Pk	Horizontal	
2390.00	47.60	3.14	27.21	43.80	34.15	54	-19.85	AV	Horizontal	
2483.50	47.18	3.58	27.70	44.00	34.46	74	-39.54	Pk	Vertical	
2483.50	35.08	3.58	27.70	44.00	22.36	54	-31.64	AV	Vertical	
2483.50	56.28	3.58	27.70	44.00	43.56	74	-30.44	Pk	Horizontal	
2483.50	38.86	3.58	27.70	44.00	26.14	54	-27.86	AV	Horizontal	

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





EUT:	1	Wirele	ess TV H	eadphone	s	Model	Model No.: E7TV-C					
Temperature: 20 °C						Relativ	e Humidit	y:	48%			
Test Mode: Mode2 / Mode3 / Mode4			Test B	y:		Mary	/ Hu					
All the modul	ation	mode	s have b	een testec	l, a	ind the	worst resu	ult wa	s rep	ort as be	low:	
Frequency		ading evel	Cable Loss	Antenna Factor		reamp Factor	Emission Level	Lin	nits	Margin	Detector	Comment
(MHz)	(dE	βµV)	(dB)	dB/m		(dB)	(dBµV/m)	(dBµ	V/m)	(dB)	Туре	
3260	59	.03	4.04	29.57	2	14.70	70 47.94		4	-26.06	Pk	Vertical
3260	46	5.01	4.04	29.57	2	14.70	34.92		4	-19.08	AV	Vertical
3260	55	.91	4.04	29.57	2	14.70	44.82	7	4	-29.18	Pk	Horizontal
3260	46	5.59	4.04	29.57	2	14.70	35.50	5	4	-18.50	AV	Horizontal
3332	62	.49	4.26	29.87	2	14.40	52.22	7	4	-21.78	Pk	Vertical
3332	44	.78	4.26	29.87	2	14.40	34.51	5	4	-19.49	AV	Vertical
3332	61	.87	4.26	29.87	2	14.40	51.60	7	4	-22.40	Pk	Horizontal
3332	44	.53	4.26	29.87	2	14.40	34.26	5	4	-19.74	AV	Horizontal
17797	48	.86	10.99	43.95	2	13.50	60.30	7	4	-13.70	Pk	Vertical
17797	35	5.97	10.99	43.95	Z	13.50	47.41	5	4	-6.59	AV	Vertical
17788	56	5.38	11.81	43.69	2	14.60	67.28	7	4	-6.72	Pk	Horizontal
17788	38	.99	11.81	43.69	2	14.60	49.89	5	4	-4.11	AV	Horizontal

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





7.3 NUMBER OF HOPPING CHANNEL

7.3.1 Applicable Standard

According to FCC Part 15.247(a)(1) (iii)and ANSI C63.10-2013

7.3.2 Conformance Limit

Frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

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 ANSI C63.10-2013 clause 7.8.3 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 must have its hopping function enabled. Use the following spectrum analyzer settings: Span = the frequency band of operation RBW : To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller. VBW \geq RBW Sweep = auto Detector function = peak Trace = max hold

7.3.6 Test Results

	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





7.4 HOPPING CHANNEL SEPARATION MEASUREMENT

7.4.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

7.4.2 Conformance Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5MHz band shall have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

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 testing follows ANSI C63.10-2013 clause 7.8.2

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 = Measurement Bandwidth or Channel Separation

RBW: Start with the RBW set to approximately 3% of the channel spacing; adjust as necessary to best identify the center of each individual channel.

VBW ≥ RBW

Sweep = auto

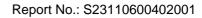
Detector function = peak

Trace = max hold

7.4.6 Test Results

EUT:	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





7.5 AVERAGE TIME OF OCCUPANCY (DWELL TIME)

7.5.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii) and ANSI C63.10-2013

7.5.2 Conformance Limit

The average time of occupancy on any channel shall not be greater than 0.4s within a period of 0.4s multiplied by the number of hopping channels employed.

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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 ANSI C63.10-2013 clause 7.8.4 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 must have its hopping function enabled. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel RBW \geq 1MHz VBW \geq RBW Sweep = as necessary to capture the entire dwell time per hopping channel Detector function = peak Trace = max hold Measure the maximum time duration of one single pulse. Set the EUT for DH5, DH3 and DH1 packet transmitting. Measure the maximum time duration of one single pulse.





7.5.6 **Test Results**

EUT:	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu

Test data reference attachment.

Note:

A Period Time = (channel number)*0.4

DH1 Dwell time: Reading * (1600/2)*31.6/(channel number) DH3 Dwell time: Reading * (1600/4)*31.6/(channel number) DH5 Dwell time: Reading * (1600/6)*31.6/(channel number)

For Example:

- 1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4×79) (s). Hops Over Occupancy Time comes to $(1600 / 6 / 79) \times (0.4 \times 79) = 106.67$ hops.
- 2. In AFH mode, hopping rate is 800 hops/s with 6 slots in 20 hopping channels. With channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 x 20) (s), Hops Over Occupancy Time comes to $(800 / 6 / 20) \times (0.4 \times 20) = 53.33$ hops.
- 3. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time





7.6 20DB BANDWIDTH TEST

7.6.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

7.6.2 Conformance Limit

No limit requirement.

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 ANSI C63.10-2013 clause 6.9.2 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 = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW \geq 1% of the 20 dB bandwidth VBW \geq RBW Sweep = auto Detector function = peak Trace = max hold

7.6.6 Test Results

EUT:	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





7.7 PEAK OUTPUT POWER

7.7.1 Applicable Standard

According to FCC Part 15.247(b)(1) and ANSI C63.10-2013

7.7.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

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 ANSI C63.10-2013 clause 7.8.5.

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 = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW \geq the 20 dB bandwidth of the emission being measured

 $\mathsf{VBW} \geq \mathsf{RBW}$

Sweep = auto

Detector function = peak Trace = max hold

7.7.6 Test Results

EUT:	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





7.8 CONDUCTED BAND EDGE MEASUREMENT

7.8.1 Applicable Standard

According to FCC Part 15.247(d) and ANSI C63.10-2013

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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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 ANSI C63.10-2013 clause 7.8.6.

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 must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW = 100KHz

VBW = 300KHz

Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.

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:	Wireless TV Headphones	Model No.:	E7TV-C
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2 /Mode4/ Mode 5	Test By:	Mary Hu





7.9 SPURIOUS RF CONDUCTED EMISSION

7.9.1 Applicable Standard

According to FCC Part 15.247(d) and ANSI C63.10-2013.

7.9.2 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

7.9.3 Measuring Instruments

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

7.9.4 Test Setup

Please refer to Section 6.1 of this test report.

7.9.5 Test Procedure

Establish an emission level by using the following procedure:

a) Set the center frequency and span to encompass frequency range to be measured.

- b) Set the RBW = 100 kHz.
- c) Set the VBW \geq [3 × RBW].
- d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level. Then the limit shall be attenuated by at least 20 dB relative to the maximum amplitude level in 100 kHz.

7.9.6 Test Results

Remark: The measurement frequency range is from 30MHzHz 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.

7.10.2 Result

The EUT antenna is permanent attached PCB antenna (Gain: 0 dBi). It comply with the standard requirement.

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7.11 FREQUENCY HOPPING SYSTEM (FHSS) EQUIPMENT REQUIREMENTS 7.11.1 Standard Applicable

According to FCC Part 15.247(a)(1), The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals. (g) Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section. (h) The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

7.11.2 Frequency Hopping System

This transmitter device is frequency hopping device, and complies with FCC part 15.247 rule. This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each; centred from 2402 to 2480 MHz) in the range 2,400-2,483.5 MHz. The transmitter switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock. Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless devices are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away from the areas of interference, thus having no impact on the bandwidth used.

This device was tested with an bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements for FCC Part 15.247 rule.

7.11.3 EUT Pseudorandom Frequency Hopping Sequence

Pseudorandom Frequency Hopping Sequence Table as below: Channel: 08, 24, 40, 56, 40, 56, 72, 09, 01, 09, 33, 41, 33, 41, 65, 73, 53, 69, 06, 22, 04, 20, 36, 52, 38, 46, 70, 78, 68, 76, 21, 29, 10, 26, 42, 58, 44, 60, 76, 13, 03, 11, 35, 43, 37, 45, 69, 77, 55, 71, 08, 24, 08, 24, 40, 56, 40, 48, 72, 01, 72, 01, 25, 33, 12, 28, 44, 60, 42, 58, 74, 11, 05, 13, 37, 45 etc.

The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.





8 TEST RESULTS

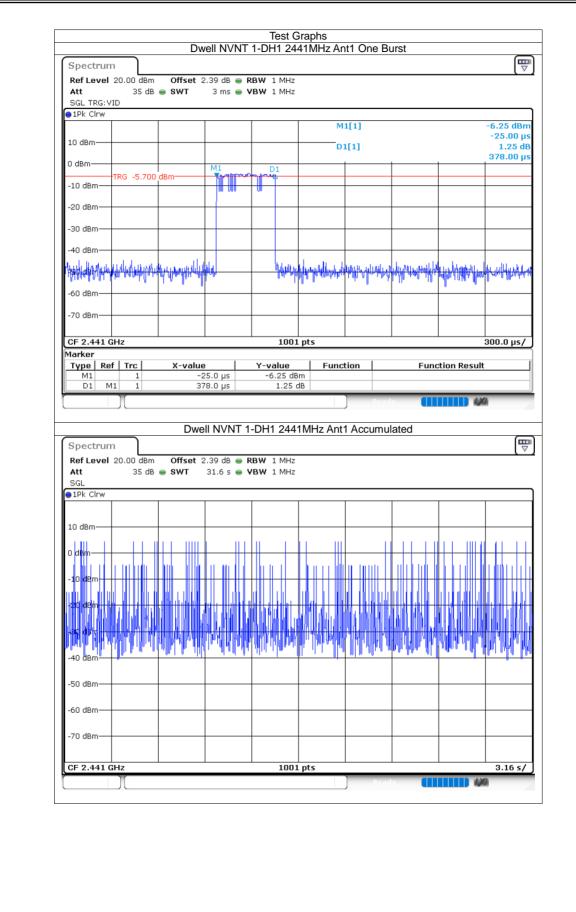
8.1 Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.378	17.766	47	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.635	76.845	47	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	112.32	39	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.39	19.11	49	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.645	80.605	49	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.88	115.2	40	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.393	15.72	40	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.64	80.36	49	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.896	95.568	33	31600	400	Pass

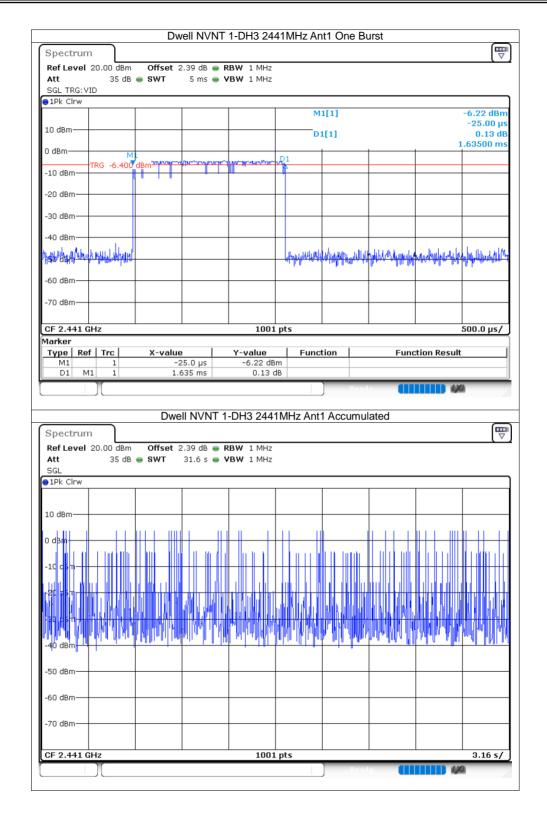


ACCREDITED Certificate #4298.01

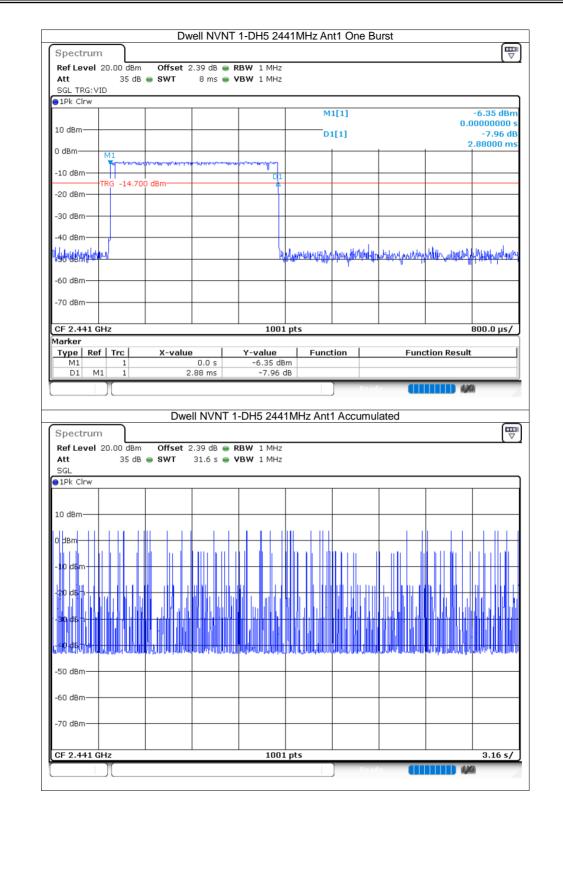
Report No.: S23110600402001



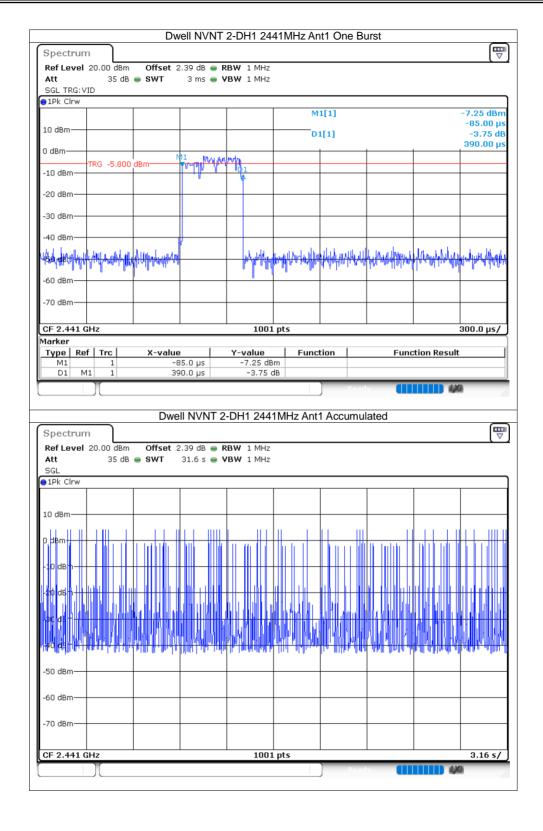




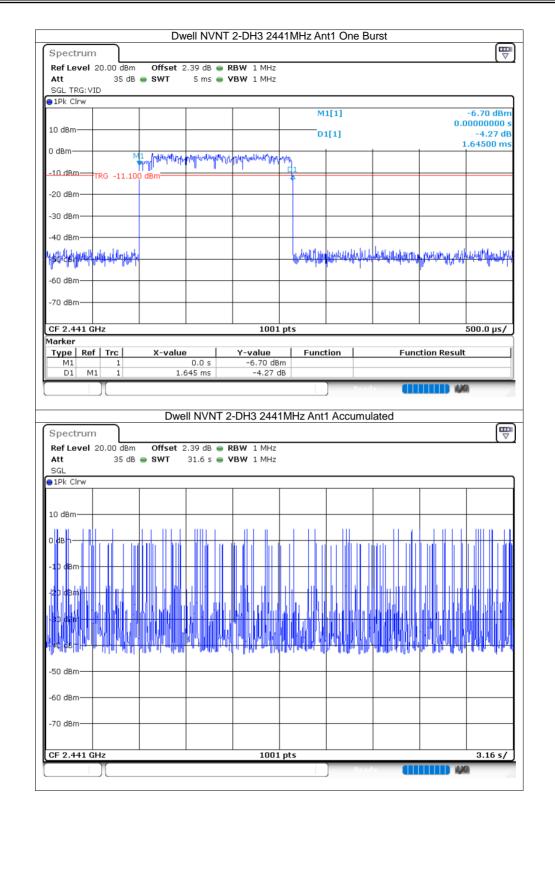




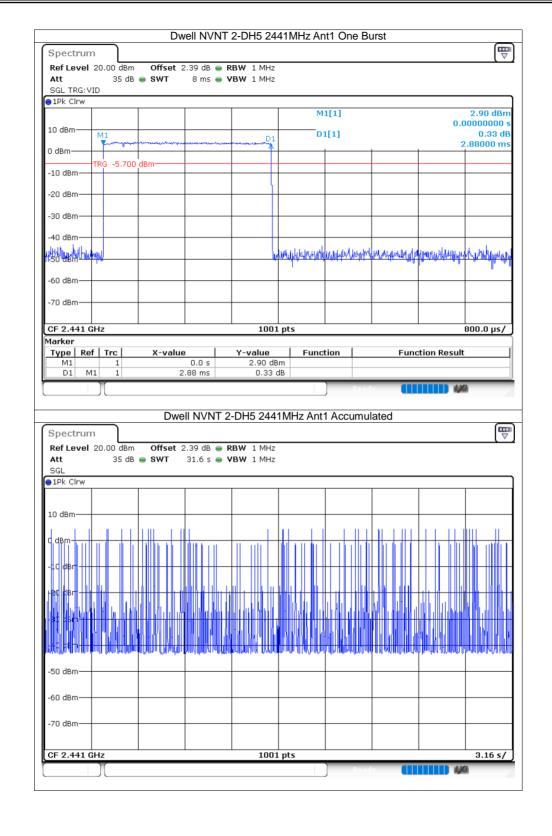




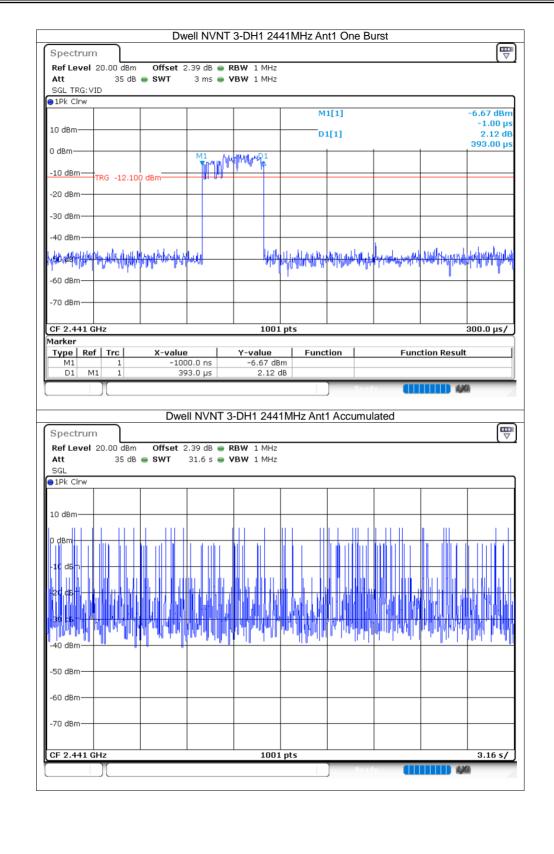




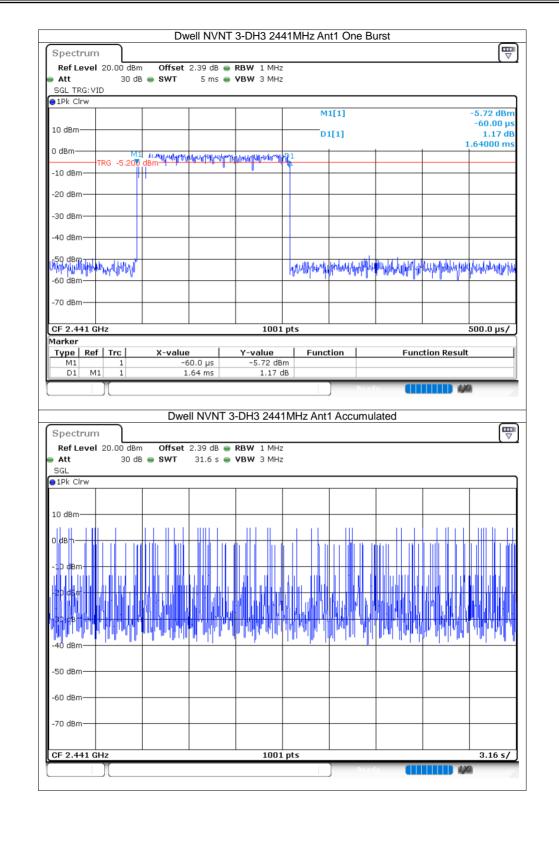




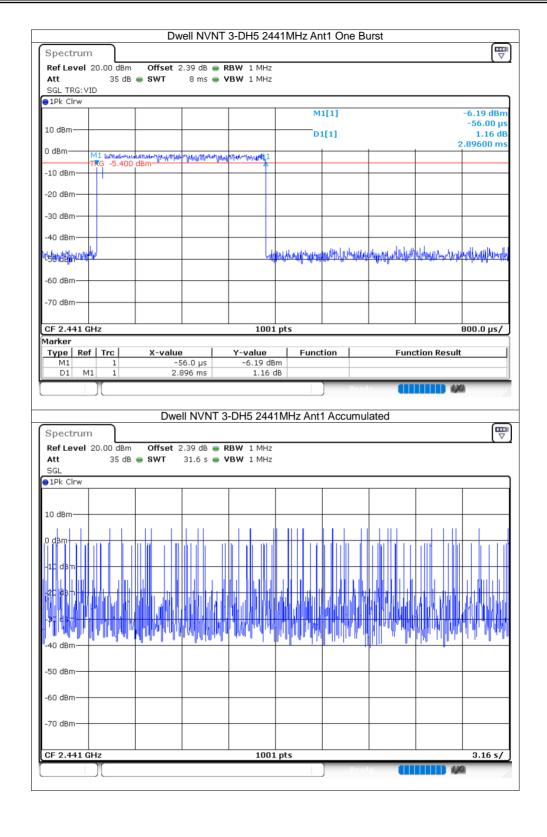










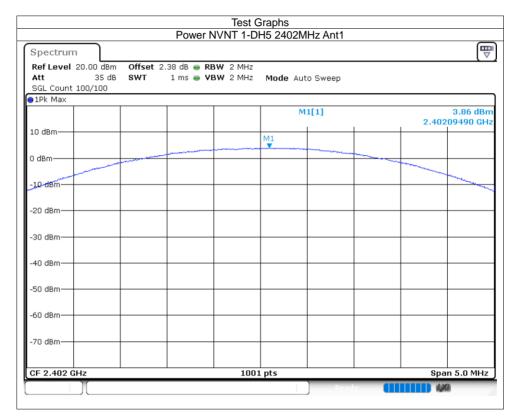






8.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	3.86	21	Pass
NVNT	1-DH5	2441	Ant1	3.85	21	Pass
NVNT	1-DH5	2480	Ant1	3.41	21	Pass
NVNT	2-DH5	2402	Ant1	4.96	21	Pass
NVNT	2-DH5	2441	Ant1	4.81	21	Pass
NVNT	2-DH5	2480	Ant1	4.49	21	Pass
NVNT	3-DH5	2402	Ant1	5.03	21	Pass
NVNT	3-DH5	2441	Ant1	5.05	21	Pass
NVNT	3-DH5	2480	Ant1	4.66	21	Pass







Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100	Offset 2.39 dB ● SWT 1 ms ●		Mode Auto Sweep		
91Pk Max					
			M1[1]	0.444	3.85 dBn
10 dBm				 2.441	14490 GH
			M1		
0 dBm				 	
-10 dBm					- we want
-20 dBm					
-30 dBm					
-40 dBm				 +	
-50 dBm					
-60 dBm					
-70 dBm					
, 5 dbm					
CF 2.441 GHz		1001	nts	Spa	n 5.0 MHz
Spectrum Ref Level 20.00 dBm Att 35 dB	Offset 2.42 dB 👄		H5 2480MHz Ant		
Spectrum Ref Level 20.00 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep		
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep	2,480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn 21980 GH:
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2,480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10.dBm -20 dBm -30 dBm -40 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]	2.480	3.41 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm	Offset 2.42 dB 👄	RBW 2 MHz VBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]		3.41 dBn 21980 GH:
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm -70 dBm	Offset 2.42 dB 👄	RBW 2 MHz	H5 2480MHz Ant Mode Auto Sweep M1[1]		3.41 dBn 21980 GH:





Ref Level 20.0 Att SGL Count 100/	35 dB SW 1		RBW 2 MHz VBW 2 MHz	Mode A	uto Sweep			[
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Spectrum Ref Level 20.0 Att	35 dB SW 1	et 2.39 dB 👄	r NVNT 2-D					Kh
Ref Level 20.0	35 dB SW 1	et 2.39 dB 👄	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep		ара () () () () () () () () () () () () ()	10 1
Spectrum Ref Level 20.0 Att SGL Count 100/ •1Pk Max	35 dB SW 1	et 2.39 dB 👄	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A				4.81 dE
Spectrum Ref Level 20.0 Att SGL Count 100/	35 dB SW 1	et 2.39 dB 👄	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE
Spectrum Ref Level 20.0 Att SGL Count 100/ •1Pk Max	35 dB SWT /100	r 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			۵ (۵ 4.81 dE
Spectrum Ref Level 20.0 Att SGL Count 100/ •1Pk Max 10 dBm 0 dBm	35 dB SW T /100	r 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE
Spectrum Ref Level 20.0 Att SGL Count 100/ 1Pk Max 10 dBm 0 dBm	35 dB SWT /100	r 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100/ •1Pk Max 10 dBm 0 dBm	35 dB SWT /100	r 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			۵ (۵ 4.81 dE
Spectrum Ref Level 20.0 Att SGL Count 100/ 1Pk Max 10 dBm 0 dBm	35 dB SWT /100	r 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100/ 1Pk Max 10 dBm 0 dBm -10 dBm -10 dBm -30 dBm -30 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm -10 dBm -10 dBm -10 dBm -10 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100/ 1Pk Max 10 dBm 0 dBm -10 dBm -10 dBm -30 dBm -30 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm -10 dBm -10 dBm -30 dBm -30 dBm -40 dBm -50 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm -10 dBm -10 dBm -30 dBm -40 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm -10 dBm -10 dBm -30 dBm -30 dBm -40 dBm -50 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm 0 dBm -10 dBm -30 dBm -30 dBm -50 dBm -60 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D RBW 2 MHz	H5 2441 Mode A	uto Sweep			4.81 dE 105840 G
Spectrum Ref Level 20.0 Att SGL Count 100, 1Pk Max 10 dBm 0 dBm -10 dBm -30 dBm -30 dBm -50 dBm -60 dBm	35 dB SWT /100	eet 2.39 dB ● Γ 1 ms ●	r NVNT 2-D	H5 2441 Mode A	uto Sweep		2.44	4.81 dE 105840 G





Ref Level 20.0 Att SGL Count 100/ 1Pk Max	35 dB SWT	et 2.42 dB 👄 R 1 ms 👄 V		Mode Auto	Sweep			
				M1	[1]		0.40	4.49 dB
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-70 dBm								
CF 2.48 GHz			1001	L pts				an 6.5 MH
Spectrum Ref Level 20.0 Att SGL Count 100/	35 dB SWT	Power I et 2.38 dB • R 1 ms • V	BW 2 MHz	H5 2402MH				["
Ref Level 20.0 Att	35 dB SWT	et 2.38 dB 👄 R	BW 2 MHz	Mode Auto	Sweep			
Ref Level 20.0 Att SGL Count 100, PIPk Max	35 dB SWT	et 2.38 dB 👄 R	BW 2 MHz		Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/	35 dB SWT	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB 2201300 G
Ref Level 20.0 Att SGL Count 100/ > 1Pk Max 10 dBm 0 dBm 0 0	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ > 1Pk Max 10 dBm 0 dBm 0 0	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ 9 1Pk Max 10 dBm 0 10 dBm - 0 -10 dBm - -	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dE
Ref Level 20.0 Att SGL Count 100/ > 1Pk Max 10 10 0 dBm 0 0	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ 9 1Pk Max 10 dBm 0 10 dBm - 0 -10 dBm - -	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ ● 1Pk Max 10 dBm 10 dBm 0 dBm -10 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ ● 1Pk Max 10 dBm 0 dBm 0 dBm -10 dBm -0 dBm -30 dBm -30 dBm -40 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dE
Ref Level 20.0 Att SGL Count 100/ ● 1Pk Max 10 dBm 0 dBm 0 dBm -10 dBm -0 dBm -30 dBm -30 dBm -40 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ ● 1Pk Max 10 dBm 0 -10 dBm -20 dBm -30 dBm -40 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dB
Ref Level 20.0 Att SGL Count 100/ >IO dBm 0 0 0 dBm 0 0 -10 dBm 0 0 -30 dBm 0 0 -30 dBm -0 0 -60 dBm -60 dBm -60	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep			5.03 dE
Ref Level 20.0 Att SGL Count 100/ SGL Count 100/ 100 dBm 0 dBm 0 -10 dBm	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep		2.40	5.03 dE
Ref Level 20.0 Att SGL Count 100/ >IO dBm 0 0 0 dBm 0 0 -10 dBm 0 0 -30 dBm 0 0 -30 dBm -0 0 -60 dBm -60 dBm -60	35 dB SWT /100	et 2.38 dB 👄 R	BW 2 MHz BW 2 MHz	Mode Auto	Sweep		2.40	5.03 dB





10 dBm -10 dBm -1	5.05 di .44095450 d
10 dBm M3 0 dBm	.44095450 C
-10 dBm	
	- and the man
20 dBm	
-30 dBm	
-40 dBm	
-50 dBm	
-60 dBm	
-70 dBm	
CF 2.441 GHz 1001 pts S	
Power NVNT 3-DH5 2480MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100	Span 6.5 MH
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 0 0 1Pk Max 0 <t< th=""><th></th></t<>	
Spectrum Ref Level 20.00 dBm Offset 2.42 dB • RBW 2 MHz Att 35 dB SWT 1 ms • VBW 2 MHz SGL Count 100/100 • IPk Max M1[1] 2.4	444
Spectrum Ref Level 20.00 dBm Offset 2.42 dB • RBW 2 MHz Att 35 dB SWT 1 ms • VBW 2 MHz SGL Count 100/100 • • • • 1Pk Max • • •	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 0 100 / 100 100 / 100 2.42 10 dBm M1[1] 2.44	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB • RBW 2 MHz Att 35 dB SWT 1 ms • VBW 2 MHz Mode Auto Sweep SGL Count 100/100 • 1Pk Max • 11[1] 2.4 10 dBm • 10 dBm • 10 dBm • 10 dBm	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 0 0 M1[1] 2.4 10 dBm M1 M1 0 0 M1 -10 dBm M1 M1 0 0 0 M1	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 O dBm M1[1] 2.4 0 dBm M1 M1 0 M1 -10 dBm M1 M1 M1 0 web dBm M1 M1 M1 0	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 MI MI 2.4 MI 2.4 0 dBm MI MI MI 2.4 MI 2.4	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 MI MI 2.4 MI 2.4 0 dBm MI MI MI 2.4 MI 0 MI 2.4 10 dBm MI MI MI MI 0 0 MI 0 0 0 0 0 0 0 0 0 0 0 0	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Att 35 dB SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 M1 0 dBm M1 2.4 10 dBm M1 M1 0 dBm	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Mode Auto Sweep SGL Count 100/100 SWT 1 ms VBW 2 MHz Mode Auto Sweep O dBm	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Mode Auto Sweep SGL Count 100/100 SWT 1 ms VBW 2 MHz Mode Auto Sweep •1Pk Max	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz Mode Auto Sweep SGL Count 100/100 SWT 1 ms VBW 2 MHz Mode Auto Sweep O dBm	4.66 dl
Spectrum Ref Level 20.00 dBm Offset 2.42 dB RBW 2 MHz SGL Count 100/100 SWT 1 ms VBW 2 MHz Mode Auto Sweep SGL Count 100/100 MI MI 2.4 I 0 dBm MI MI 2.4 10 dBm MI MI 2.4 O dBm MI MI 0 MI -10 dBm MI MI MI 0 MI -10 dBm MI MI MI 0 MI -20 dBm MI MI MI 0 MI -10 dBm MI MI MI 0 MI -30 dBm MI MI MI 0 MI -30 dBm MI MI MI MI MI MI -30 dBm MI MI MI MI MI MI MI -30 dBm MI MI MI MI MI MI MI MI MI <	4.66 dl





8.3 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.93	Pass
NVNT	1-DH5	2441	Ant1	0.894	Pass
NVNT	1-DH5	2480	Ant1	0.892	Pass
NVNT	2-DH5	2402	Ant1	1.338	Pass
NVNT	2-DH5	2441	Ant1	1.316	Pass
NVNT	2-DH5	2480	Ant1	1.252	Pass
NVNT	3-DH5	2402	Ant1	1.336	Pass
NVNT	3-DH5	2441	Ant1	1.302	Pass
NVNT	3-DH5	2480	Ant1	1.322	Pass

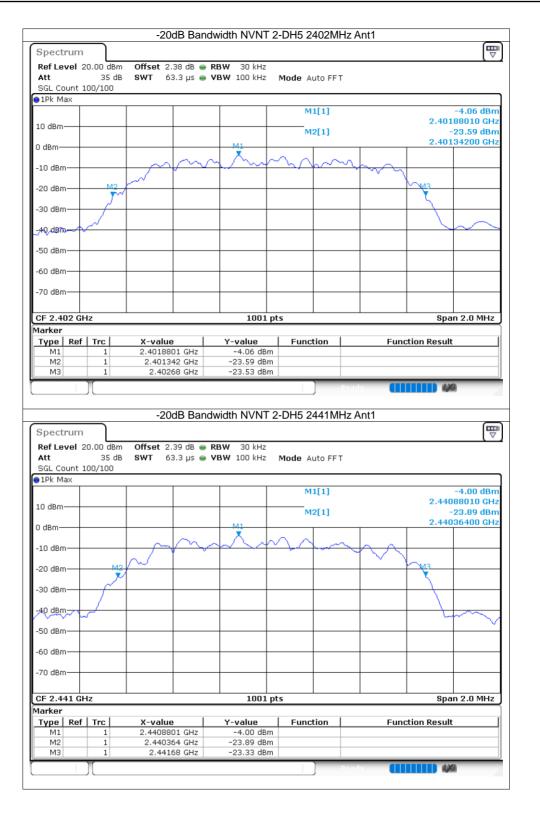
			-20dB Ban	Test Gra dwidth NVNT 1	-DH5 2402MH	Hz Ant1	
Spect	um						P
Ref Le	/el 20	.00 dBm	Offset 2.38 dB 👄	RBW 30 kHz			
Att		35 dB	SWT 63.3 µs 👄	VBW 100 kHz	Mode Auto FFT	r	
SGL Co	unt 10	0/100					
∋1Pk Ma	ах						
					M1[1]		0.01 dB
10 dBm-							2.40202200 G
				М1	M2[1]		-19.60 dB
0 dBm—							2.40156200 G
					mah		
-10 dBm	_				<u> </u>	~	
			M2 /~~			M3	
-20 dBm	_						
aa in							\sim
-30 dBm		\sim					
40 dBm	\sim						~~~~
Gio abin	~						
-50 dBm							
-60 dBm	_						
-70 dBm	_						
CF 2.40	2 GHz	:	1	1001 pt	s	- I I	Span 2.0 MH
Marker							•
Type	Ref	Trc	X-value	Y-value	Function	Func	tion Result
M1		1	2.402022 GHz	0.01 dBm			
M2		1	2.401562 GHz	-19.60 dBm			
MЗ		1	2.402492 GHz	-19.99 dBm			
						Pondu	4.345



Certificate #4298.01

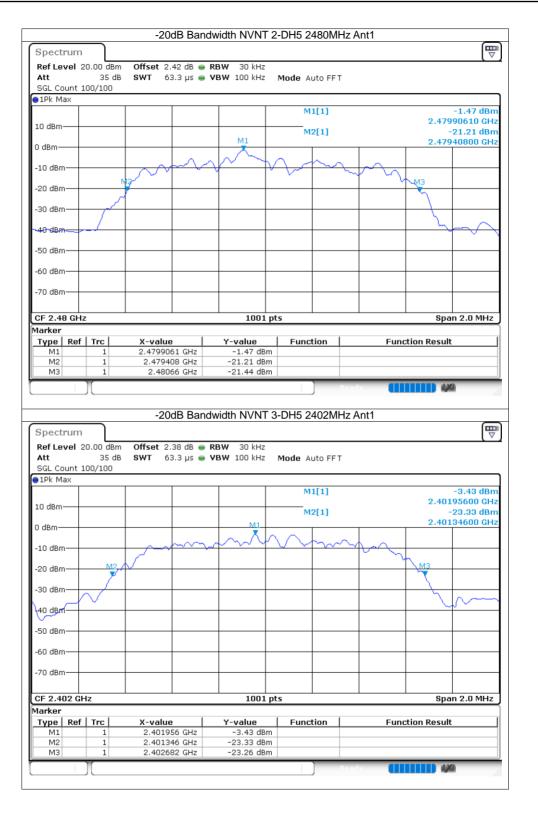




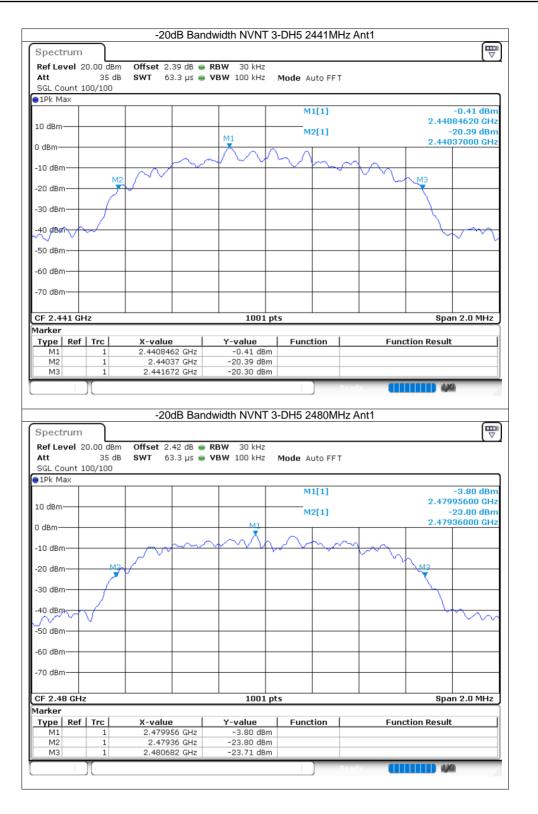




Certificate #4298.01







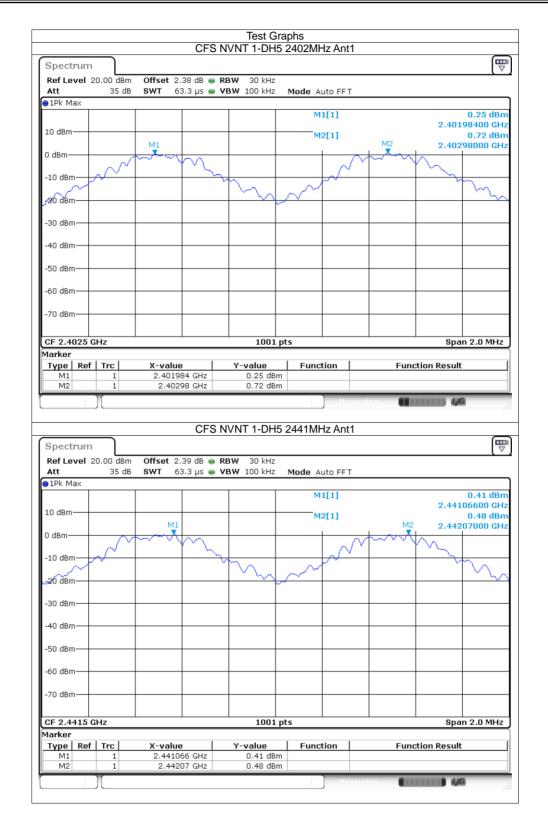




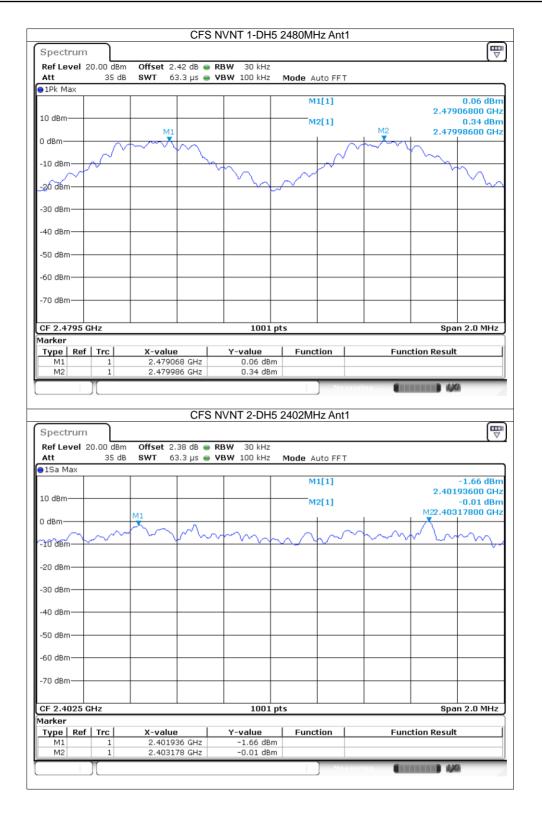
8.4 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.984	2402.98	0.996	0.62	Pass
NVNT	1-DH5	Ant1	2441.066	2442.07	1.004	0.596	Pass
NVNT	1-DH5	Ant1	2479.068	2479.986	0.918	0.595	Pass
NVNT	2-DH5	Ant1	2401.936	2403.178	1.242	0.892	Pass
NVNT	2-DH5	Ant1	2440.906	2442.032	1.126	0.877	Pass
NVNT	2-DH5	Ant1	2479.174	2480.032	0.858	0.835	Pass
NVNT	3-DH5	Ant1	2401.904	2403.118	1.214	0.891	Pass
NVNT	3-DH5	Ant1	2440.956	2442.032	1.076	0.868	Pass
NVNT	3-DH5	Ant1	2479.03	2480.034	1.004	0.881	Pass

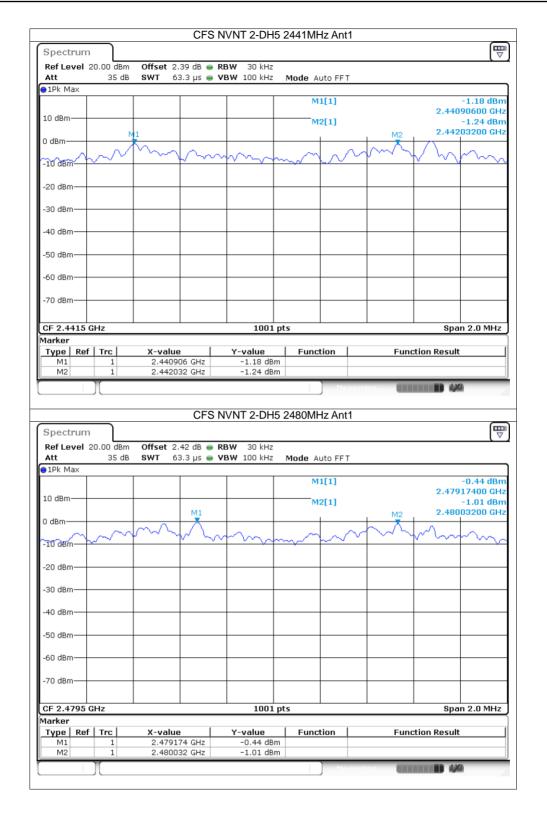




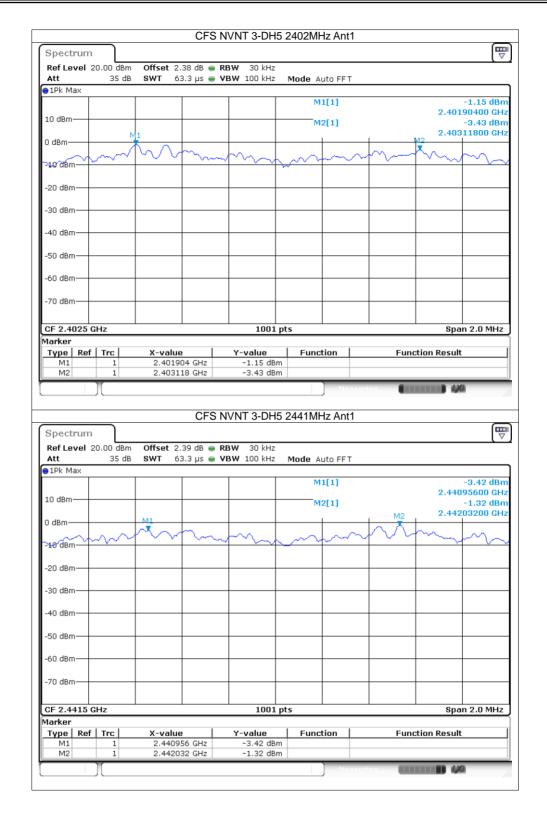




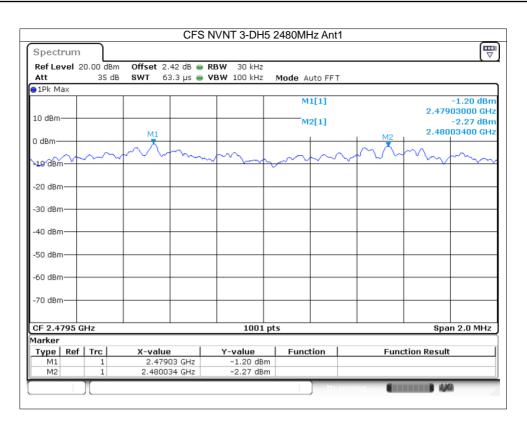










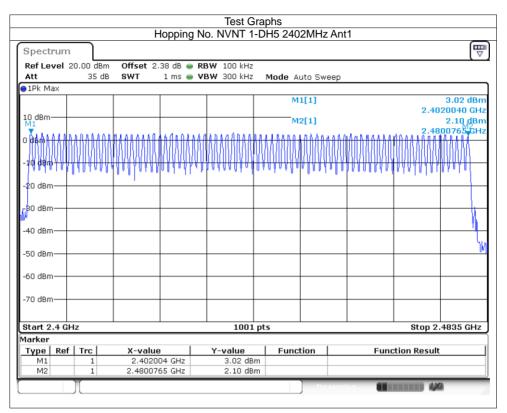






8.5 Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass







Spectrum		ping No. NVNT 2				Ē
Ref Level 20.00 df	Bm Offset 2.38 (dB 👄 RBW 100 kHz				⊽
Att 35		ns 👄 VBW 300 kHz	Mode Auto Sw	/еер		
1Pk Max						
			M1[1]		-2.00 c 2.4017535	
10 dBm			M2[1]		-1.31 c	lBm
		h the second states	╷┨┊┡┺╛╉╸╸╋╋╎╞╖		2.4804105	_
BRANNAN	www.provernerne	http://www.http/wywa	the	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	ANTAN MARINA	
-10 dBm						
-20 dBm						
-80 dBm						
• -40 dBm						h
						M
-50 dBm						
-60 dBm						
-70 dBm						-
Start 2.4 GHz		1001	pts		Stop 2.4835 G	Hz
1arker Type Ref Trc	X-value	Y-value	Function	Euno	tion Result	
M1 1	2.4017535 @	GHz -2.00 dB	m			
M2 1	2.4804105 G	GHz -1.31 dB	n			
			Me	asuring	4,40	
				-		
	Нор	ping No. NVNT 3	-DH5 2402MHz	z Ant1		
Spectrum						∀
Ref Level 20.00 di Att 35		dB 😑 RBW 100 kHz ns 😑 VBW 300 kHz	Mode Auto Sw			
ALL 33	ub ovvi	IIS 🖶 YDYY 300 KH2				_
1Pk Max				F		
1Pk Max			M1[1]		0.51 c	
			M1[1]		2.4016700	GHz
10 dBm						GHz IBm
10 dBm	well our warder the factor	hinter hiter	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	wither and the second states and the second se	hintennation	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	wither and the second	hinandiara	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	withing way of the	hin walanta	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm M1 MBM/Jor With Mar 10 dBm 20 dBm	ant Jury march of the	hintennite	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm 10 dBm 10 dBm 20 dBm 30 dBm 30 dBm	with north with the first state of the second	hin han han ha	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm M1 MBMyrrythlutiour 10 dBm 20 dBm	my Jon march of the	hin hun hun han han han han han han han han han ha	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	ml Jory ray of the	hywyddaethan yn drae 	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm		hywyddan ywyddau 	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	and law marked a flat	hywydanan hywydau 	M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	ปี (10+2) ให้หรือสัง (1) (1) (1) 		M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	ปี (10+2) ให้หรือสัง (1) (1) (1) 		M1[1]		2.4016700 -1.31 c	GHz IBm
10 dBm	with north and n		M1[1] M2[1]		2.4016700 -1.31 c 2.48041054	
10 dBm 10 dBm 10 dBm 20 dBm 20 dBm 30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm -70 dBm -70 dBm	with north and north		M1[1] M2[1] MANNUMPUN		2.4016700 -1.31 c	
10 dBm 10 dBm 10 dBm 20 dBm 20 dBm 30 dBm 40 dBm -50 dBm -70 dBm -	X-value	1001	M1[1] M2		2.4016700 -1.31 c 2.48041054	
-20 dBm		1001 Y-value Hz 0.51 dB	M1[1] M2		2.4016700 -1.31 c 2.4804105 	

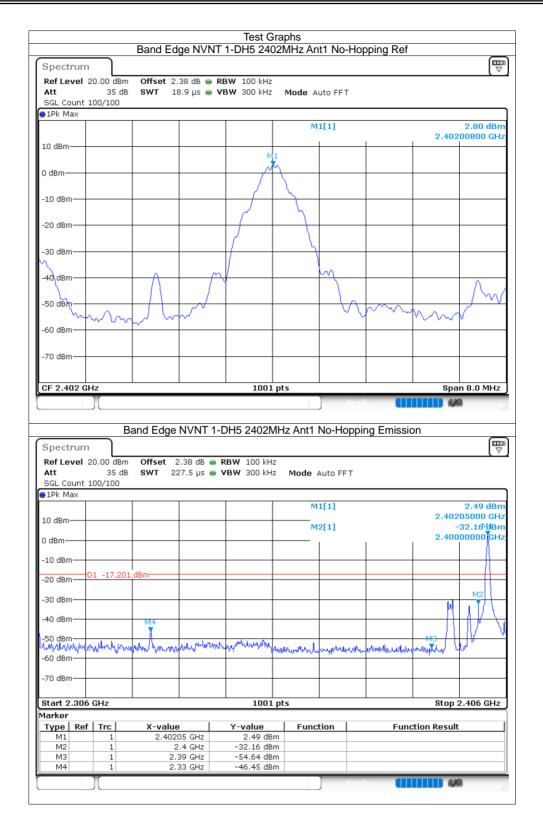




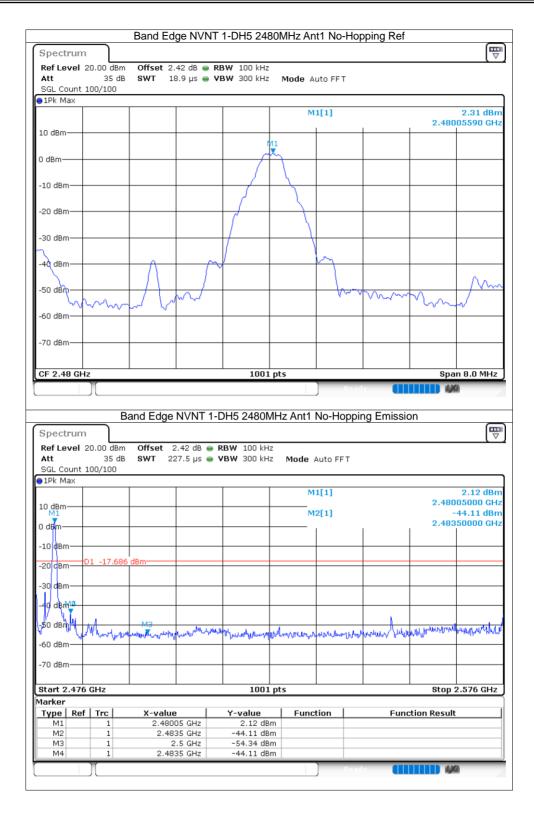
8.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-49.24	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-46.42	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-51.91	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-46.87	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-50.66	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-45.15	-20	Pass











Spectrum	·								
Ref Level 3 Att SGL Count 3	35 dB			BW 100 kHz BW 300 kHz	Mode Au	ito FFT			
●1Pk Max	100/100								
					M1	[1]			2.74 dBm
10 dBm								2.40	200800 GHz
				N N	1				
0 dBm					my				
-10 dBm					\rightarrow				
-20 dBm					\rightarrow				
-30 dBm									
-40 dBm		Λ	m	/		\sim			
-404aBm		\mathcal{A}					h.	n	M
-50 dBm	m						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
-60 dBm	-								
-70 dBm									
CF 2.402 G	Hz			1001	pts			Spa	an 8.0 MHz
	Л В	and Edge		NH5 2402M	Hz Ant1 N	Read		<u></u>	
-	·			DH5 2402M		Read	ng Emissio	on	
Ref Level 3 Att	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	DH5 2402M RBW 100 kHz VBW 300 kHz	!		ng Emissio	on	(IIII) T
Ref Level 3 Att SGL Count 3	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	RBW 100 kHz	!		ng Emissio	on	Ţ
Ref Level 3 Att SGL Count 3	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	RBW 100 kHz	: Mode A		ng Emissio		2.27 dBm
Att	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT	ng Emissio	2.40	
Ref Level 3 Att SGL Count 3 1Pk Max	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT	ng Emissic	2.40	2.27 dBm 195000 GHz -37.39/dBm
Ref Level 2 Att SGL Count 2 1Pk Max	20.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT	ng Emissic	2.40	2.27 dBm 195000 GHz -37.39/dBm
Ref Level : Att SGL Count : 1Pk Max 10 dBm 0 dBm -10 dBm	20.00 dBm 35 dB	Offset 2 SWT 22	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT		2.40	2.27 dBm 195000 GHz -37.39/dBm
Ref Level 3 Att SGL Count 3 1Pk Max 10 dBm 0 dBm -10 dBm	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT		2.40	2.27 dBm 195000 GHz -37.39/dBm
Ref Level 3 Att SGL Count 3 10 dBm 0 dBm -10 dBm -20 dBm	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F	RBW 100 kHz	: Mode A 	uto FFT		2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level Att SGL Count SGL Count IPk Max IO dBm 0 dBm IO dBm -10 dBm IO dBm -20 dBm IO dBm -30 dBm IO dBm -40 dBm IO dBm	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F 27.5 µs 👄 V	XBW 100 kHz YBW 300 kHz	Mode A M1 M2	L[1] 2[1]		2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level Att SGL Count SGL Count 1Pk Max In dBm 0 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm -50 dBm -60 dBm	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F 27.5 µs 👄 V	RBW 100 kHz /BW 300 kHz	Mode A M1 M2	L[1] 2[1]	ng Emissic	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level 3 Att SGL Count ID dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F 27.5 µs 👄 V	RBW 100 kHz /BW 300 kHz	Mode A M1 M2	L[1] 2[1]		2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level : Att SGL Count : SGL Count : ID dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm Start 2.306	20.00 dBm 35 dB 100/100	Offset 2 SWT 22	2.38 dB 👄 F 27.5 µs 👄 V	RBW 100 kHz /BW 300 kHz	Mode A М1 М2	L[1] 2[1]		2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level 3 Att SGL Count SGL Count ID dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Start 2.306	20.00 dBm 35 dB 100/100 D1 -17.256	Offset 2 SWT 22	2.38 dB • F 27.5 μs • V	RBW 100 kHz /BW 300 kHz	Mode ۸ M1 M2	uto FFT [[1] 2[1]	yulley "J-yhaytedo	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level 3 Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm To dBm -70 dBm	20.00 dBm 35 dB 100/100 01 -17.256	Offset 2 SWT 22 dBm- M4 wuth Junimuth X-value 2.4015	2.38 dB • F 27.5 μs • N	RBW 100 kHz VBW 300 kHz VBW 300 kHz Implementation Implementation Im	Mode A M1 M2 ملکمرینیکاندونده pts	uto FFT [[1] 2[1]	yulley "J-yhaytedo	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level Sale Att SGL Count SGL Count SGL Count SGL Count SGL Count 10 dBm 0 dBm 0 dBm -10 dBm -0 dBm 0 dBm -20 dBm -0 dBm 0 dBm -30 dBm -0 dBm -0 dBm -50 dBm -0 dBm -0 dBm -70 dBm -70 dBm -70 dBm Start 2.306 Marker Type M1 M2 -0 dBm	20.00 dBm 35 dB 100/100 01 -17.256	Offset 2 SWT 22 dBm M4 M4 sult juijm/r 2.4011 2	2.38 dB • F 27.5 μs • N	RBW 100 kHz //BW 300 kHz //BW //BW //BW //BW </td <td>: Mode ۸ M1 M2 M2 pts Funct</td> <td>uto FFT [[1] 2[1]</td> <td>yulley "J-yhaytedo</td> <td>2.40 2.40</td> <td>2.27 dBm 195000 GHz -37.39 dBm 000000 GHz</td>	: Mode ۸ M1 M2 M2 pts Funct	uto FFT [[1] 2[1]	yulley "J-yhaytedo	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level 3 Att SGL Count SGL Count 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Start 2.306 Marker Type M1 M2 M3	20.00 dBm 35 dB 100/100 D1 -17.256	Offset 2 SWT 22 dBm M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4	2.38 dB 7.5 μs X7.5 μs	RBW 100 kHz /BW 300 kHz /BW	: Mode ۸ M1 M2 M2 M2 M2 M3 M2 M3 M2 M3 M2 M3 M3 M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	uto FFT [[1] 2[1]	yulley "J-yhaytedo	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz
Ref Level S Att SGL Count S SGL Count S S 10 dBm 0 dBm -10 dBm - S -20 dBm 0 - -30 dBm - - -50 dBm - - -70 dBm - - Start 2.306 Marker - M1 M2 -	20.00 dBm 35 dB 100/100 01 -17.256	Offset 2 SWT 22 dBm M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4	2.38 dB • F 27.5 μs • N	RBW 100 kHz //BW 300 kHz //BW 100 //BW 1001 Y-value 2.27 dBn -37.39 dBn -37.39 dBn	: Mode ۸ M1 M2 M2 M2 M2 M3 M2 M3 M2 M3 M2 M3 M3 M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	uto FFT [[1] 2[1]	yulley "J-yhaytedo	2.40 2.40	2.27 dBm 195000 GHz -37.39 dBm 000000 GHz



Spectrum								R
	5 dB SWT	2.42 dB 👄 R 18.9 µs 👄 V	BW 100 kHz BW 300 kHz		uto FFT			
SGL Count 100/10 1Pk Max	JU							
				м	1[1]			2.55 dBr
10 dBm					1	1	2.480)16780 GH
10 000				М1				
0 dBm			1	<u>A. </u>				
				- m				
-10 dBm								
-20 dBm								
20 000				1				
-30 dBm								
Δο.	Λ	200	Į I					
-40 dem	+	1 VVV						
-50 dBm	M	[Lamo	\wedge	ham
When the	\checkmark					• •	~~~~	PV~
-60 dBm								
-70 dBm								
CF 2.48 GHz			1001	pts			Spa	n 8.0 MHz
-			DH5 2480M		No-Hoppi	ng Emissio	on	
	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	DH5 2480M RBW 100 kHz VBW 300 kHz	z		ng Emissio	on	
Ref Level 20.00	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z		ng Emissio	on	
Ref Level 20.00 Att 3 SGL Count 100/10	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z z Mode /		ng Emissio		-0.10 dBr
Ref Level 20.00 Att 3 SGL Count 100/11 1Pk Max 3 10 dBm 3	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT	ng Emissio	2.479	-0.10 dBr 985000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT	ng Emissio	2.479	-0.10 dBr
Ref Level 20.00 Att 3 SGL Count 100/11 1Pk Max 10 10 dBm 0 M1 0 dBm	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT	ng Emissio	2.479	-0.10 dBr 985000 GH -47.45 dBr
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 3 10 dBm 10 -10 dBm -10 dBm	dBm Offset 5 dB SWT : 00	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT	ng Emissio	2.479	-0.10 dBr 985000 GH -47.45 dBr
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 10 10 dBm 0 dam -10 dBm -10 cBm -20 dBm D1 -11	dBm Offset 5 dB SWT :	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT		2.479	-0.10 dBr 985000 GH -47.45 dBr
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 3 10 dBm 10 -10 dBm -10 dBm	dBm Offset 5 dB SWT : 00	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT		2.479	-0.10 dBr 985000 GH -47.45 dBr
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 10 10 dBm 0 dam -10 dBm -10 cBm -20 dBm D1 -11	dBm Offset 5 dB SWT : 00	2.42 dB 🖷 I	RBW 100 kHz	z Mode / Mode /	Auto FFT		2.479	-0.10 dBr 985000 GH -47.45 dBr
Ref Level 20.00 Att 3 SGL Count 10 dBm 10 -10 cBm -10 -20 aBm D1 -30 dBm -40	dBm Offset 5 dB SWT : 00	2.42 dB • 1	RBW 100 kHz VBW 300 kHz	z Mode / Mode /	Auto FFT		2.479	-0.10 dBr 985000 GH 47.45 dBr 850000 GH
Ref Level 20.00 Att 3 SGL Count 10 dBm 10 -10 dBm	dBm Offset 5 dB SWT : 00	2.42 dB 🖷 I	RBW 100 kHz VBW 300 kHz	z Mode / Mode /	Auto FFT 1[1] 2[1]		2.479	-0.10 dBr 985000 GH 47.45 dBr 850000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 IPk Max 3 10 dBm 0 -10 dBm -0 -20 dBm -1-1 -30 dBm -4 -40 dBm -44	dBm Offset 5 dB SWT : DO 7.453 dBm	2.42 dB • 1	RBW 100 kHz VBW 300 kHz	2 Mode / M M	Auto FFT 1[1] 2[1]		2.479	-0.10 dBr 985000 GH 47.45 dBr 850000 GH
Ref Level 20.00 Att 3 SGL Count 10 dBm 10 -10 dBm	dBm Offset 5 dB SWT : DO 7.453 dBm	2.42 dB • 1	RBW 100 kHz VBW 300 kHz	2 Mode / M M	Auto FFT 1[1] 2[1]		2.479	-0.10 dBr 985000 GH 47.45 dBr 850000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 3 10 dBm 0 -10 dBm 0 -20 dBm D1 -1: -30 dBm -10 -40 dBm -44 -50 dBm -44 -70 dBm -70	dBm Offset 5 dB SWT : DO 7.453 dBm	2.42 dB • 1	RBW 100 kHz VBW 300 kHz	2 Mode / M M	Auto FFT 1[1] 2[1]		2.479 2.483	-0.10 dBr 985000 GH -47.45 dBr 550000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 10 1D dBm	dBm Offset 5 dB SWT : DO 7.453 dBm	2.42 dB • 1	RBW 100 kHz VBW 300 kHz	2 Mode / M M	Auto FFT 1[1] 2[1]		2.479 2.483	-0.10 dBr 985000 GH 47.45 dBr 850000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 IPk Max 100 dBm 100 dBm -10 cBm 100 dBm -20 aBm 100 dBm -30 dBm 100 dBm -50 dBm 100 dBm -60 dBm 100 dBm -70 dBm 100 dBm	dBm Offset 5 dB SWT :: 00 7,453 dBm 7,453 dBm	2.42 dB • 1 227.5 µs • 1	RBW 100 kHz VBW 300 kHz VBW 3	2 Mode / M M M M	Auto FFT [1] [1] [1] [1] [1] [1] [1] [1		2.479 2.483	-0.10 dBr 85000 GH -47.45 dBr 550000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 3 10 dBm - -10 dBm - -20 dBm - -30 dBm - -30 dBm - -60 dBm - -70 dBm -	dBm Offset 5 dB SWT : D0 7.453 dBm 7.453 dBm 7.453 dBm 1 1 1 1 1 1 2.47	2.42 dB • 1 227.5 µs • 1	RBW 100 kHz VBW 300 kHz	2 2 Mode / M 	Auto FFT [1] [1] [1] [1] [1] [1] [1] [1		2.479 2.483 	-0.10 dBr 85000 GH -47.45 dBr 550000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 10 dBm 10 dBm	dBm Offset 5 dB SWT 00	2.42 dB • 1 227.5 µs • 1 985 GHz 835 GHz 2.5 GHz	RBW 100 kHz VBW 300 kHz Value 0 -0.10 dBr -54.46 dBr	2 Mode / M M M M M M M M M M M M M M M M M	Auto FFT [1] [1] [1] [1] [1] [1] [1] [1		2.479 2.483 	-0.10 dBr 85000 GH -47.45 dBr 550000 GH
Ref Level 20.00 Att 3 SGL Count 100/10 1Pk Max 10 dBm 10 dBm	dBm Offset 5 dB SWT 00	2.42 dB • I 227.5 µs • Y	RBW 100 kHz VBW 300 kHz Value -0.10 dBr -0.10 dBr -47.45 dBr	2 Mode / M M M M M M M M M M M M M M M M M	Auto FFT [1] [1] [1] [1] [1] [1] [1] [1		2.479 2.483 	-0.10 dBr 85000 GH -47.45 dBr 550000 GH



Spectrum			0	3-DH5 240			11 0		Ē
Ref Level 20	0.00 dBm	Offset 2.	.38 dB 👄 RI	3W 100 kHz					(v
Att	35 dB	SWT 1	8.9 µs 👄 VI	3W 300 kHz	Mode Au	uto FFT			
SGL Count 10 91Pk Max	00/100								
					M	1[1]			1.60 dBm
								2.40	207190 GHz
10 dBm									
0 dBm									
0 ubiii				~~~~	$\sim \sim$				
-10 dBm				L	\rightarrow				
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-20 dBm									
				/ /		_			
-30 dBm		0	$\sim \sim$			$\uparrow \searrow$			
-40 dBm-		$\Box \Lambda \land$	p v v			-	\mathbb{D}		
-40 0000	$\sim \wedge l$	∇ / V						\sim	h. d
-50 dBm		V						V \	$\gamma m'$
-60 dBm							+		
-70 dBm									
CF 2.402 GH	z			1001	pts		•	Sp	an 8.0 MHz
Spectrum						No-Hopp	ing Emissio	on	
Ref Level 20 Att	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	DH5 2402N BW 100 kHz YBW 300 kHz	2	NO-Hopp	ing Emissio	on	
Ref Level 20 Att SGL Count 10	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	BW 100 kHz	2		ing Emissio	on	
Ref Level 20 Att SGL Count 10	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	BW 100 kHz	: Mode 4		ing Emissio	on	
Ref Level 20 Att SGL Count 10	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT	ing Emissio	2.40	0.47 dBm 215000 GHz
Ref Level 20 Att SGL Count 10 1Pk Max	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT	ing Emissio	2.40	0.47 dBm 215000 GHz -37.33,dBm
Ref Level 20 Att SGL Count 10 1Pk Max 10 dBm 0 dBm	0.00 dBm 35 dB	Offset 2	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT	ing Emissio	2.40	0.47 dBm 215000 GHz -37.33,dBm
Ref Level 20 Att SGL Count 10 IPk Max 10 dBm 0 dBm -10 dBm	0.00 dBm 35 dB 00/100	Offset 2 SWT 22	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT	ing Emissio	2.40	0.47 dBm 215000 GHz -37.33,dBm
Ref Level 20 Att SGL Count 10 IPk Max 10 dBm 0 dBm -10 dBm	0.00 dBm 35 dB	Offset 2 SWT 22	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT	ing Emissio	2.40	0.47 dBm 215000 GHz -37.33,dBm
Ref Level 20 Att SGL Count 10 IPk Max 10 dBm 0 dBm -10 dBm	0.00 dBm 35 dB 00/100	Offset 2 SWT 22	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT		2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 >IPk Max 10 dBm 10 dBm -10 dBm -10 dBm -30 dBm	0.00 dBm 35 dB 00/100	Offset 2 SWT 22	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT		2.40	0.47 dBm 215000 GHz -37.33,dBm
Ref Level 20 Att SGL Count 10 9 IPk Max 10 dBm 10 dBm - -10 dBm - -20 dBm D -30 dBm -	0.00 dBm 35 dB 00/100	Offset 2 SWT 22	2.38 dB 👄 F	BW 100 kHz	: : Mode 4 	Auto FFT		2.40	0.47 dBm 215000 GHz -37.33,4Bm 000000 GHz
Ref Level 20 Att SGL Count 10 >IPk Max 10 dBm 10 dBm -0 dBm -10 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm	0.00 dBm 35 dB 00/100	Offset 2 SWT 22 dBm	2.38 dB • F 27.5 μs • V	BW 100 kHz BW 300 kHz	* Mode #	Auto FFT 1[1] 2[1]		2.40 2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 >IPk Max 10 dBm 10 dBm -0 dBm -10 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm	0.00 dBm 35 dB 00/100	Offset 2 SWT 22	2.38 dB • F 27.5 μs • V	BW 100 kHz	* Mode #	Auto FFT		2.40 2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 IPk Max 10 dBm 10 dBm - -10 dBm - -30 dBm - -40 dBm - -50 dBm - -60 dBm -	0.00 dBm 35 dB 00/100	Offset 2 SWT 22 dBm	2.38 dB • F 27.5 μs • V	BW 100 kHz BW 300 kHz	* Mode #	Auto FFT 1[1] 2[1]		2.40 2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 IPk Max 10 dBm 10 dBm - -10 dBm - -30 dBm - -40 dBm - -50 dBm -	0.00 dBm 35 dB 00/100	Offset 2 SWT 22 dBm	2.38 dB • F 27.5 μs • V	BW 100 kHz BW 300 kHz	* Mode #	Auto FFT 1[1] 2[1]		2.40 2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 9 IPk Max 10 dBm 10 dBm - -10 dBm - -30 dBm - -40 dBm - -50 dBm - -70 dBm -	0.00 dBm 35 dB 00/100	Offset 2 SWT 22 dBm	2.38 dB • F 27.5 μs • V	BW 100 kHz BW 300 kHz	: Mode / M: 	Auto FFT 1[1] 2[1]		2.40 2.40	0.47 dBm 215000 GHz -37.33,dBm 000000 GHz
Ref Level 20 Att SGL Count 10 SGL Count 10 IPk Max 10 10 dBm -0 -10 dBm -0 -20 dBm -0 -30 dBm -0 -40 dBm -0 -50 dBm -0 -70 dBm -0 -70 dBm -0 -70 dBm -0 -70 dBm -0	0.00 dBm 35 dB 00/100 1 -18.403	Offset 2 SWT 22 dBm	2.38 dB 27.5 μs	BW 100 kHz BW 300 kHz	: Mode 4 M: M: سنانهای بالارسیامی pts	\uto FF T 1[1] 2[1]		2.40 2.40 	0.47 dBm 215000 GHz -37.33 dBm 000000 GHz
Ref Level 20 Att SGL Count 10 1Pk Max 10 dBm 0 dBm - -10 dBm - -30 dBm - -40 dBm - -50 dBm - -60 dBm -	0.00 dBm 35 dB 00/100 1 -18.403	Offset 2 SWT 22 dBm M4 My Munut X-value	2.38 dB 27.5 μs	BW 100 kHz BW 300 kHz	: Mode / الم	\uto FF T 1[1] 2[1]		2.40 2.40	0.47 dBm 215000 GHz -37.33 dBm 000000 GHz
Ref Level 20 Att SGL Count 10 SGL Count 10 10 dBm 10 dBm - -10 dBm - -20 dBm - -30 dBm - -40 dBm - -50 dBm - -50 dBm - -70 dBm - -70 dBm - -	0.00 dBm 35 dB 00/100 1 -18,403 MrW.(m,-4 GHz GHz 1 1	Offset 2 SWT 22 dBm M4 M4 M4 M4 M4 M4 M4 M4 2.402 2.402 2.402	2.38 dB	BW 100 kHz BW 300 kHz 300 kHz 100 1001 Y-value 0.47 dBr -37.33 dBr	: Mode / الم	\uto FF T 1[1] 2[1]		2.40 2.40 	0.47 dBm 215000 GHz -37.33 dBm 000000 GHz
Ref Level 20 Att SGL Count 10 9 IPk Max 10 dBm 10 dBm - 0 dBm - -10 dBm - -20 dBm - -30 dBm - -50 dBm - -50 dBm - -70 dBm - -70 dBm - -70 dBm - Type Ref M1 -	0.00 dBm 35 dB 00/100 1 -18,403 Nu-th/(n,-4 GHz ITrc 1 1	Offset 2 SWT 22 dBm 	2.38 dB • Γ 27.5 μs • Υ	100 kHz 'BW 300 k	: Mode 4 (۱) (۱) (۱) (۱) (۱) (۱) (۱) (۱)	\uto FF T 1[1] 2[1]		2.40 2.40 	0.47 dBm 215000 GHz -37.33 dBm 000000 GHz M2 M2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Ref Level 20 Att SGL Count 10 SGL Count 10 10 ID dBm - 0 dBm - -10 dBm - -20 dBm - -30 dBm - -40 dBm - -50 dBm - -70 dBm - -70 dBm - Start 2.306 of Marker - Type Ref M1 - M2 -	0.00 dBm 35 dB 00/100 1 -18.403 Mr.403 GHz Trc 1 1 1 1	Offset 2 SWT 22 dBm 	2.38 dB 27.5 μs 27.5 μs 27.5 μs 27.5 μs 27.5 μs 27.5 μs 27.5 μs 27.5 μs	BW 100 kHz BW 300 kHz 300 kHz	: Mode 4 (۱) (۱) (۱) (۱) (۱) (۱) (۱) (۱)	\uto FF T 1[1] 2[1]		2.40 2.40 	0.47 dBm 215000 GHz -37.33 dBm 000000 GHz



Spectrum	Danu Lu	genvivi	3-DH5 248			Sping Kei		Ē
Ref Level 20.00 dBm	Offset 2	42 dB 👄 🛙	3W 100 kHz					(V
Att 35 dB			BW 300 kHz		uto FFT			
SGL Count 100/100								
●1Pk Max				м	1[1]			2.76 dBn
					1[1]		2.480	00800 GH
10 dBm			м	1				
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-50 dBm	Č.					V V	" ~ V ~~	mon
-50 dBill								
-60 dBm								
-70 dBm								
CF 2.48 GHz		I	1001	pts			Spa	n 8.0 MHz
Y					Read			8
Spectrum					No-Hoppi	ng Emissio	on	
Spectrum Ref Level 20.00 dBm Att 35 dB	Offset 2	2.42 dB 👄 F	DH5 2480N RBW 100 kH: YBW 300 kH:	z	No-Hoppi	ng Emissio	on	
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100	Offset 2	2.42 dB 👄 F	BW 100 kH:	z		ng Emissio	n	H ⊽
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100	Offset 2	2.42 dB 👄 F	BW 100 kH:	z z Mode /		ng Emissio		2.20 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max	Offset 2	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]	ng Emissio	2.480	2.20 dBn 05000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100) IPk Max 10 dBm	Offset 2	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT	ng Emissio	2.480	2.20 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm 0 dBm	Offset 2	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]	ng Emissio	2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 PIPk Max 10 dBm 0 dBm -10 dBm -10 dBm	Offset 2 SWT 22	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]		2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm 0 dBm	Offset 2 SWT 22	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]		2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm -10 cBm -20 dBm	Offset 2 SWT 22	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]		2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]		2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm 40 dBm	Offset 2 SWT 22	2.42 dB 👄 F	BW 100 kH:	z Mode A	Auto FFT 1[1]		2.480	2.20 dBn 05000 GH 50.13 dBn
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22	2.42 dB 👄 F	28W 100 kH 78W 300 kH	Z Mode /	Auto FFT 1[1] 2[1]		2.480	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 1Pk Max 10 dBm	Offset 2 SWT 22	2.42 dB ● F 27.5 μs ● V	BW 100 kH:	z Mode A	Auto FFT 1[1] 2[1]	Mulu My Hunty	2.480	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm 10 dBm	Offset 2 SWT 22	2.42 dB ● F 27.5 μs ● V	28W 100 kH 78W 300 kH	Z Mode /	Auto FFT 1[1] 2[1]		2.480	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm 10 dBm	Offset 2 SWT 22	2.42 dB ● F 27.5 μs ● V	28W 100 kH 78W 300 kH	Z Mode /	Auto FFT 1[1] 2[1]		2.480	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22	2.42 dB ● F 27.5 μs ● V	28W 100 kH 78W 300 kH	Z Mode /	Auto FFT 1[1] 2[1]		2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22	2.42 dB • F 27.5 μs • V	200 kH	2 Mode / M M M	Auto FFT 1[1] 2[1]	phismy hant	2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22 SWT 22	2.42 dB F (27.5 μs V V V V V V V V V V V V V	BW 100 kH; 'PBW 300 kH; 'PBW 100 kH; 'PBW 100 kH; 'PBW 100 kH;	2 2 Mode / M M M M M M M M M M M M M M M M M M M	Auto FFT 1[1] 2[1]	phismy hant	2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22 SWT 22	2.42 dB P.7.5 μs V V V V V V V V V V V V V	BW 100 kH; rBW 300 kH; Image: State of the state of t	2 2 Mode / M س س pts س m	Auto FFT 1[1] 2[1]	phismy hant	2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22 SWT 22	2.42 dB 27.5 μs	BW 100 kH; //BW 300 kH; //BW 300 kH; //A //A <	2 2 Mode / M M M M M M M M M M M M M M M M M M M	Auto FFT 1[1] 2[1]	phismy hant	2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH
Spectrum Ref Level 20.00 dBm Att 35 dB SGL Count 100/100 IPk Max 10 dBm	Offset 2 SWT 22 SWT 22	2.42 dB P.7.5 μs V V V V V V V V V V V V V	BW 100 kH; rBW 300 kH; Image: State of the state of t	2 2 Mode / M M M M M M M M M M M M M M M M M M M	Auto FFT 1[1] 2[1]	phismy hant	2.480 - 2.483 	2.20 dBn 05000 GH 50.13 dBn 50000 GH