Radio Test Report

Report No.: CTA231129002W08

Issued for

Chengdu Accsoon Technology Co., LTD.

Rm. 2502, Bld. A, Tianxiang Plaza, Tianfu 2nd St., High-tech Zone, Chengdu, Sichuan, China

Product Name: Wireless Video Transmission System

Brand Name: Accsoon

Model Name: WIT04-HE

Series Model(s): WIT04-QS, WIT04-SE

FCC ID: 2AOH404WIT2C

Test Standards: FCC Part15.247

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TEST REPORT

	1E31 KEFOKT
Applicant's Name:	Chengdu Accsoon Technology Co., LTD.
Address:	Rm. 2502, Bld. A, Tianxiang Plaza, Tianfu 2nd St., High-tech Zone, Chengdu, Sichuan, China
Manufacturer's Name:	Shenzhen Accsoon Technology Co., LTD.
Address:	Rm. 302-305, 3F, Bld. 10, Baozhi Industrial Rd., Guancheng Shequ, Guanhu St., Longhua District, Shenzhen, China
Product Description	
Product Name:	Wireless Video Transmission System
Brand Name	Accsoon

Series Model(s): WIT04-QS, WIT04-SE **Test Standards**: FCC Part 15.247

Model Name....: WIT04-HE

Test Procedure...... ANSI C63.10-2013

This device described above has been tested by CTA, 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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Date of Test	
Date of receipt of test item:	26 Sept. 2023
Date (s) of performance of tests:	26 Sept. 2023 ~ 18 Oct. 2023
Date of Issue:	18 Oct. 2023
Test Result:	Pass

-STING	Pass		
Testing Engineer :	Zoer	j Caro	CTATESTING
	(Zoey	y Cao)	CTATES
Technical Manager :	Am	y Wen	
STING	(Amy	/ Wen)	
Authorized Signatory:		Wang	
Authorized Signatory :	(Eric	Wang)	ESTING
		Wang)	· C

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Revision History

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Rev.	Issue Date	Report No.	Effect Page	Contents
00	18 Oct. 2023	CTA231129002W08	ALL	Initial Issue
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1. SUMMARY OF TEST RESULTS

	est procedures according to DB 558074 D01 15.247 Mea		ESTIN	
		FCC Part 15.247,Subpart C		
	Standard Section	Test Item	Judgment	Remark
-18	G 15.207	Conducted Emission	PASS	
CTATESTIN	15.247 (a)(2)	6dB Bandwidth	PASS	
CIL	15.247 (b)(3)	Output Power	PASS	
	15.209	Radiated Spurious Emission	PASS	
	15.247 (d)	Conducted Spurious & Band Edge Emission	PASS	
	15.247 (e)	Power Spectral Density	PASS	TATES
	15.205	Restricted Band Edge Emission	PASS	<u></u>
G	Part 15.247(d)/ part 15.209(a)	Band Edge Emission	PASS	
	15.203	Antenna Requirement	PASS	

NOTE:

- CTA TESTING (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2013.



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1.1 TEST FACTORY

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an CTATEST

District, Shenzhen, China

FCC test Firm Registration Number: 517856

IC test Firm Registration Number: 27890

IC CAB ID: CN0127 A2LA Certificate No.: 6534.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±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 %

oi appioxi	matery 95 %.		
	Test	Range	Measurement Uncertainty
	Radiated Emission	30~1000MHz	4.06 dB
	Radiated Emission	1~18GHz	5.14 dB
	Radiated Emission	18-40GHz	5.38 dB
	Conducted Disturbance	0.15~30MHz	2.14 dB
	Output Peak power	30MHz~18GHz	0.55 dB
CTATE!	Power spectral density	JANG /	0.57 dB
	Spectrum bandwidth		1.1%
	Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB
	Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB
	Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

		-711/2		
Pro	duct Name	Wireless Video Tran	nsmission System	
Bra	nd Name	Accsoon	CIA CIA	
Мо	del Name	WIT04-HE		
Series Model(s)		WIT04-QS, WIT04-	SE	
Мо	del Difference		O4-HE only have different model names, The es of WIT04-SE and WIT04-HE are different	
		The EUT is a Wirele	ess Video Transmission System	
		Operation Frequency:	802.11n 20: 2412~2462 MHz	
		Modulation Type:	802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM	
Pro	Product Description	Bit Rate of Transmitter:	802.11n(20MHz): 65/58.5/52/39/26/19.5/13/6.5Mbps	
		Number of Channel:	802.11n20: 11CH	
		Antenna Type:	External antenna	
		Antenna Gain (dBi)	: 2.5dBi	
Cha	annel List	Please refer to the I	Note 3.	
Rat	ing	Input:7.4V~16.8V 1	.5A	
Har	dware version number	V1.1		
Software version number V1.28		V1.28	(CIP)	
		V1.28 Please refer to the Note 1.		

Note:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
- 2. The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.

	802.11b/ç	uency of channel g/n(20MHz)	
Channel	Frequency	Channel	Frequency
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437		TES



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Note: In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, themiddle frequency, and the highest frequency of channel were selected to perform CTATESTING the test, and the selectedchannel see below:

Carrier Frequency Channel

2 4GHz Test Frequency:

	2.40112 103t 1 10quelloy.	
	For 802.	11n (HT20)
TESTIN	Channel	Freq.(MHz)
CTA	01	2412
	06	2437
	C(P 11	2462

- 3. KDB 662911 D01 Multiple Transmitter Output v02r01
 - Directional Gain Calculations for In-Band Measurements
 - a) Basic methodology with NANT transmit antennas, each with the same directional gain GANT dBi, being driven by NANT transmitter outputs of equal power. Directional gain is to be computed as follows:
 - (i) If any transmit signals are correlated with each other,
 - Directional gain = GANT + 10 log(NANT) dBi
 - (ii) If all transmit signals are completely uncorrelated with each other,

Directional gain = GANT

2.2 DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11n HT20 CH1	MCS 0
Mode 2	TX IEEE 802.11n HT20 CH6	MCS 0
Mode 3	TX IEEE 802.11n HT20 CH11	MCS 0
Mode 4	keeping MIMO TX mode	MCS 0

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
- (2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V /60Hz is shown in the report.
- (3) The battery is fully-charged during the radited and RF conducted test.

AC Conducted Emission

Test Case
Mode 5: Keeping TX + WLAN Link
ATES.

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2.3 TEST SOFTWARE AND POWER LEVEL

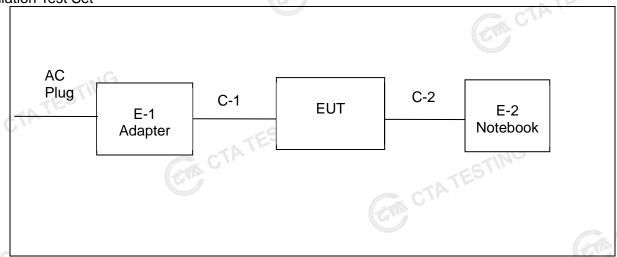
During testing channel & power controlling software provided by the customer was used to control the

operating channel as well as the output power level.

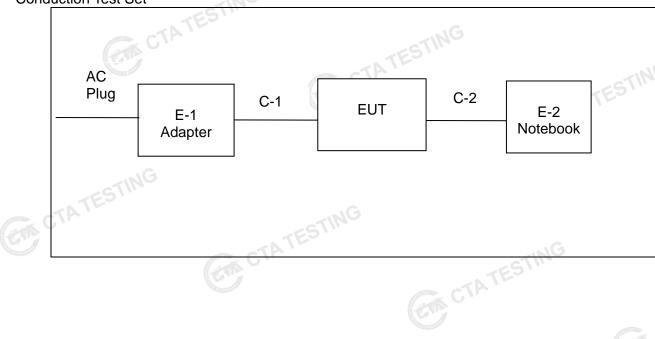
RF Function	Туре	Mode Or Modulation type	ANT Gain(dBi)	ANT_1 Power Class	ANT_2 Power Class
WIFI(2.4G)	2.4G WIFI	802.11n(HT20)	ANT 1: 2.5 ANT 2: 2.5	30	30

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiation Test Set



Conduction Test Set



TESTING

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2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

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.

Necessary accessories

			tooocai'y accoocined	AV.	
Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
				To a suite	

Support units

	NG						CAN.
CTATEST				Sup	port units		
C /,	Item	Equipment	Mfr/Brand		Model/Type No.	Length	Note
		Adapter	HUAWEI		HW-050450C00	N/A	N/A
		USB Cable	N/A		N/A	110cm	NO
		Notebook	DELL		VOSTRO.3800	N/A	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in <code>"Length_"</code> column.

(2) "YES" is means "with core"; "NO" is means "without core". CTA TESTING

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2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	CTA-308	2023/08/02	2024/08/0
LISN	R&S	ENV216	CTA-314	2023/08/02	2024/08/0
EMI Test Receiver	R&S	ESPI	CTA-307	2023/08/02	2024/08/0
EMI Test Receiver	R&S	ESCI	CTA-306	2023/08/02	2024/08/0
Spectrum Analyzer	Agilent	N9020A	CTA-301	2023/08/02	2024/08/0
Spectrum Analyzer	R&S	FSP	CTA-337	2023/08/02	2024/08/0
Vector Signal generator	Agilent	N5182A	CTA-305	2023/08/02	2024/08/0
Analog Signal Generator	R&S	SML03	CTA-304	2023/08/02	2024/08/0
WIDEBAND RADIO COMMUNICATIO N TESTER	CMW500	R&S	CTA-302	2023/08/02	2024/08/0
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2023/08/02	2024/08/0
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2024/10/1
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2024/10/1
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2024/10/1
Horn Antenna	Beijing Hangwei Dayang	OBH100400	CTA-336	2021/08/07	2024/08/0
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2023/08/02	2024/08/0
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2023/08/02	2024/08/0
Directional coupler	NARDA	4226-10	CTA-303	2023/08/02	2024/08/0
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2023/08/02	2024/08/0
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2023/08/02	2024/08/0
Automated filter bank	Tonscend	JS0806-F	CTA-404	2023/08/02	2024/08/0
Power Sensor	Agilent	U2021XA	CTA-405	2023/08/02	2024/08/0
Amplifier	Schwarzbeck	BBV9719	CTA-406	2023/08/02	2024/08/0

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Test Equipment	Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date	
EMI Test Software	Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A	
EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A	ATES
RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A	
RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A	



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3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

EDECHENCY (MH-)	Conducted Emiss	sionlimit (dBuV)
FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

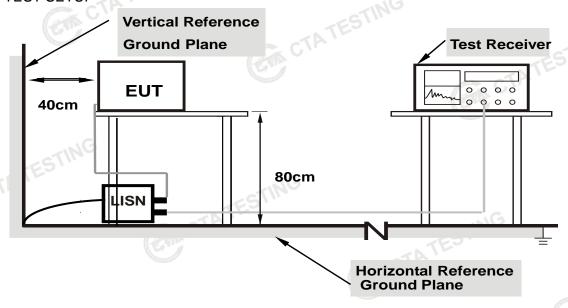
Attenuation 10 dB Start Frequency 0.15 MHz Stop Frequency 30 MHz	Start Frequency 0.15 MHz	Setting	
CIA'	Stop Frequency 30 MHz	G 10 dB	
Stop Frequency 30 MHz		0.15 MHz	
	IF Bandwidth 9 kHz	30 MHz	
IF Bandwidth 9 kHz	CIAI	9 kHz	
IF Bandwidth			10 dB 0.15 MHz 30 MHz

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3.1.2 TEST PROCEDURE

- a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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 40 cm long.
- c. 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.
- d. LISN is at least 80 cm from the nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.4EUT OPERATING CONDITIONS

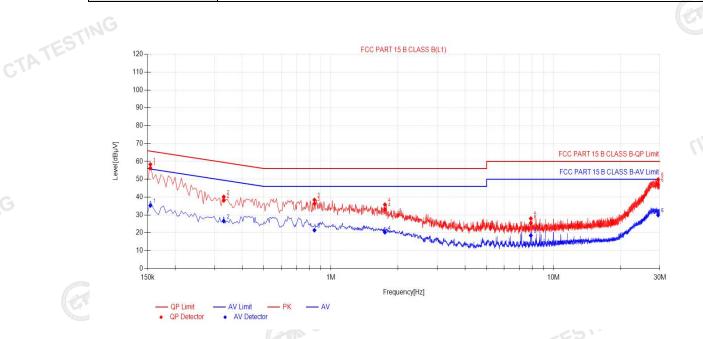
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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3.1.5 TEST RESULT

Temperature:	26.2(C)	Relative Humidity:	54%RH		
Test Voltage:	AC 120V/60Hz	Phase:	LGTING		
Test Mode:	Mode 5	C CT	ATE		
Describe:	WIT04-HE	Con		p. 110	TATES
ING				CITA	



			The second					- CTP	ATEC			CTATE
Final	l Data Lis	t										TATE
NO.	Freq. [MHz]	Factor (dB)	QP ReadingjdB پایا	QP Value IdBUVI	QP Limit IdBUVI	QP Margin [dB]	AV Reading IdButQ	AV Value IdBUVQ	AV Limit IdBuVQ	AV Margin (dB)	Verdict	GAL
1	0.1545	10.50	45.75	56.25	65.75	9.50	24.79	35.29	55.75	20.46	PASS]
2	0.33	10.50	27.59	38.09	59.45	21.36	16.08	26.58	49.45	22.87	PASS]
3	0.843	10.50	25.88	36.38	56.00	19.62	10.96	21.46	46.00	24.54	PASS]
4	1.7475	10.50	22.66	33.16	56.00	22.84	9.78	20.28	46.00	25.72	PASS	
5	7.899	10.50	14.96	25.46	60.00	34.54	8.00	18.50	50.00	31.50	PASS]
6	29.4765	10.50	36.51	47.01	60.00	12.99	19.41	29.91	50.00	20.09	PASS	
Facto QPM	QP Value or (dB)=ins largin(dB) argin(dB)	sertion le	loss of LI imit (dBµ	ISN (dB) uV) - QP	3) + Cable P Value (le loss (d (dBµV)	•				PASS ATEST	

- 2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
- 3). $QPMargin(dB) = QP Limit (dB\mu V) QP Value (dB\mu V)$
- 4). $AVMargin(dB) = AV Limit (dB\mu V) AV Value (dB\mu V)$ CTA TESTING

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CTA TESTI		TESTING		
Temperature:	26.2(C)	Relative H	lumidity: 54%RH	
Test Voltage:	AC 120V/60Hz	Phase:	N	
Test Mode:	Mode 5			To the
Describe:	WIT04-HE			A THE STREET OF THE STREET



inal	Data Lis	.+										I TA
Ina	Data Lis	i l	QP	QP	QP	QP	AV.	AV	AV	AV.	Т	1
NO.	Freq. [MHz]	Factor [dB]	Reading[dB]	Value IdByVJ	Limit IdBUM	Margin [dB]	Reading IdBUV	Value IdBUM	Limit IdBu\J	Margin [dB]	Verdict	
1	0.1635	10.50	43.83	54.33	65.28	10.95	21.42	31.92	55.28	23.36	PASS]
2	0.636	10.50	26.29	36.79	56.00	19.21	13.15	23.65	46.00	22.35	PASS	
3	0.906	10.50	24.06	34.56	56.00	21.44	12.02	22.52	46.00	23.48	PASS	
4	1.5405	10.50	23.36	33.86	56.00	22.14	10.40	20.90	46.00	25.10	PASS	
5	2.697	10.50	16.90	27.40	56.00	28.60	2.31	12.81	46.00	33.19	PASS)
6	29.094	10.50	35.93	46.43	60.00	13.57	20.26	30.76	50.00	19.24	PASS	1

- 2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
- 3). QPMargin(dB) = QP Limit (dB μ V) QP Value (dB μ V)
- 4). AVMargin(dB) = AV Limit (dBμV) AV Value (dBμV) CTA TESTING CTATE!

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3.2 RADIATED EMISSION MEASUREMENT

3.2.1RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Г						
	Frequencies	Field Strength	Measurement Distance			
	(MHz)	(micorvolts/meter)	(meters)			
	0.009~0.490	2400/F(KHz)	300			
	0.490~1.705	24000/F(KHz)	30			
	1.705~30.0	30	√G 30			
	30~88	100	3			
	88~216	150	3			
	216~960	200	3 (14			
	Above 960	500	3			

LIMITS OF RADIATED EMISSION MEASUREMENT (1000MHz-25GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
FREQUENCT (MITZ)	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (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	108-121.94	1718.8-1722.2	13.25-13.4	
6.31175-6.31225	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	Above 38.6	
13.36-13.41		CI		
NG			Com C	TATES

TESTING

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For Radiated Emission

July 100	Spectrum Parameter	Setting
	Attenuation	Auto
	Detector	Peak/QP/AV
	Start Frequency	9 KHz/150KHz(Peak/QP/AV)
	Stop Frequency	150KHz/30MHz(Peak/QP/AV)
	6.	200Hz (From 9kHz to 0.15MHz)/
-67	RB / VB (emission in restricted	9KHz (From 0.15MHz to 30MHz);
CTATEST	band)	200Hz (From 9kHz to 0.15MHz)/
	TESTIN	9KHz (From 0.15MHz to 30MHz)
	CTA	TING

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak/QP		
Start Frequency	30 MHz(Peak/QP)		
Stop Frequency	1000 MHz (Peak/QP)		
RB / VB (emission in restricted band)	120 KHz / 300 KHz		
	ZESTIL		

	Spectrum Parameter	Setting	
	Attenuation	Auto	
	Detector	Peak/AV	-55
	Start Frequency	1000 MHz(Peak/AV)	CTATE
	Stop Frequency	10th carrier hamonic(Peak/AV)	
TEST	RB / VB (emission in restricted	1 MHz / 3 MHz(Peak)	
CTATES	band)	1 MHz/1/T MHz(AVG)	
Fo	or Restricted band		

For Restricted band

or reconnected barra			
Spectrum Parameter	Setting		
Detector	Peak/AV		
Ctart/Stan Fraguency	Lower Band Edge: 2310 to 2430 MHz		
Start/Stop Frequency	Upper Band Edge: 2445 to 2500 MHz		
DD ///D	1 MHz / 3 MHz(Peak)		
RB / VB	1 MHz/1/T MHz(AVG)		
CTATESTING			

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Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. 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 QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

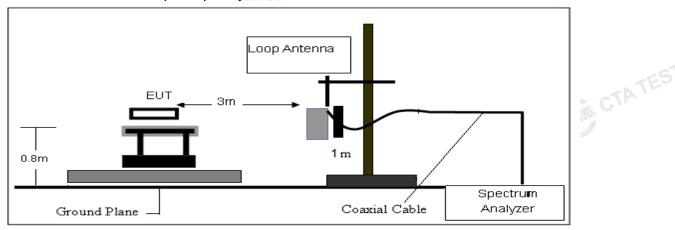
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

CTING

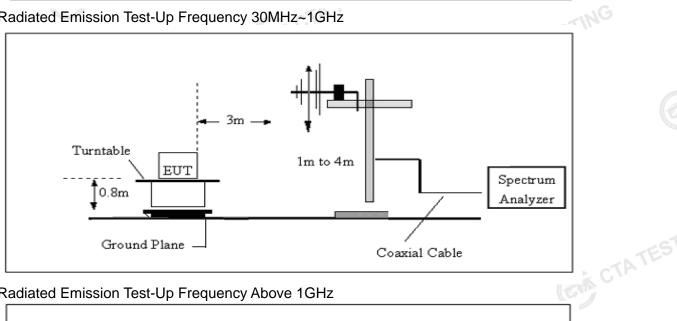
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3.2.3 TEST SETUP

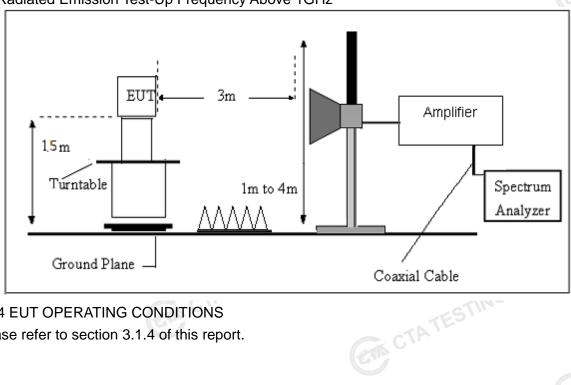
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

Please refer to section 3.1.4 of this report.

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3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic Ju reequation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain
AF = Antenna Factor
For example

For example						
Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1
Factor=AF+CL-AG		(C)			CM CT	ATES

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3.2.6 TEST RESULT

9KHz-30MHz

Temperature:	23.1(C)	Relative Humidtity:	60%RH
Test Voltage:	DC 12V	Polarization:	
Test Mode:	TX Mode	CIN	

	·C					EW.
TEST!	Freq.	Reading	Limit	Margin	State	Test
CTATL	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F	Result
		CATES		\G		PASS
	()			TESTING		PASS

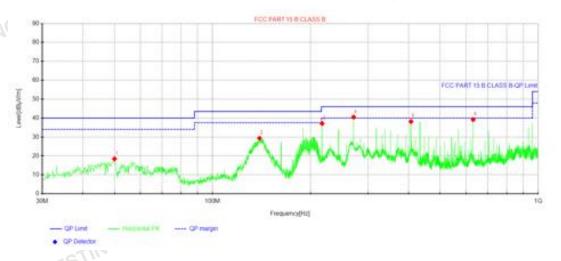
Note:

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

Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

Temperature:	23.1(C)	Relative Humidtity:	60%RH
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	Mode 1~4 (Mode 1 worst mode)	CTA	



	Suspe	ected Data	List								
q	NO.	Freq.	Reading	Level	Factor	Limit	Margin	Height	Angle	Polarity	
- [NO.	[MHz]	[dBµ∨]	[dBµ√/m]	[dB/m]	[dBµ√/m]	[dB]	[cm]	[°]	Polarity	
	1	50.0062	34.51	18.45	-16.06	40.00	21.55	100	261	Horizontal	
	2	139.367	51.08	29.32	-21.76	43.50	14.18	100	346	Horizontal	
	3	216.967	56.00	37.10	-18.90	46.00	8.90	100	294	Horizontal	-1
	4	271.166	58.17	40.48	-17.69	46.00	5.52	100	346	Horizontal	CTATEST
	5	406.845	53.62	38.14	-15.48	46.00	7.86	100	83	Horizontal	ATA
[6	631.157	51.36	39.21	-12.15	46.00	6.79	100	140	Horizontal	- N
											-Parameter and the second

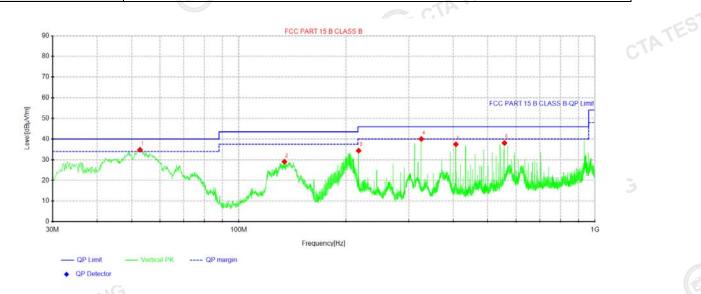
Note:1).Level ($dB\mu V/m$)= Reading ($dB\mu V$)+ Factor (dB/m)

- 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) Pre Amplifier gain (dB)
- 3). Margin(dB) = Limit (dB μ V/m) Level (dB μ V/m)
- 4). All modes have been tested, only show the worst case.

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TING	Page 25 of	63 Report	No.: CTA231129002W08
Temperature:	23.1(C)	Relative Humidity:	60%RH
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	Mode 1~4 (Mode 1 worst mod	de)	TESTING

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·	Suspe	ected Data	List								
Tours C	NO.	Freq.	Reading	Level	Factor	Limit	Margin	Height	Angle	Polarity	
CIN	140.	[MHz]	[dBµ∨]	[dBµ√/m]	[dB/m]	[dBµ√/m]	[dB]	[cm]	[°]	1 Oldrity	
To see the second	1	52.795	51.49	34.83	-16.66	40.00	5.17	100	261	Vertical	
	2	134.275	50.55	29.03	-21.52	43.50	14.47	100	357	Vertical	
	3	216.967	53.29	34.39	-18.90	46.00	11.61	100	0	Vertical	
	4	325.365	56.80	40.07	-16.73	46.00	5.93	100	254	Vertical	-55
	5	406.845	52.96	37.48	-15.48	46.00	8.52	100	309	Vertical	CTATES
	6	556.952	51.55	38.12	-13.43	46.00	7.88	100	261	Vertical	CAL
NG.										CALL	7
Note	e:1).Le	evel (dBµ)	V/m)= Read	ding (dBµ\	√)+ Fact	or (dB/m)					
CTATEST Note	2). Fa	ctor(dB/n	n)=Antenna	a Factor (c	IB/m) + (Cable loss (dB) - Pre A	Amplifier (gain (dB))	
0.	3). Ma	argin(dB)	= Limit (dB	BµV/m) - L	evel (dB	μV/m)					

- 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) Pre Amplifier gain (dB)
- 3). Margin(dB) = Limit (dB μ V/m) Level (dB μ V/m)
- CTATESTING 4). All modes have been tested, only show the worst case.

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rage 26 of 63 (1000MHz-25GHz) Spurious emission Requirements

802.11 n(HT20)

Frequency	Meter Reading	Amplifier	Loss	Antenna Factor	Corrected Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	Commont
, ,	•		, ,	Low Cha	nnel (802.11n2	0/2412 MHz)		, , ,	• • •	
3264.73	61.48	44.70	6.70	28.20	-9.80	51.68	74.00	-22.32	PK	Vertical
3264.73	50.45	44.70	6.70	28.20	-9.80	40.65	54.00	-13.35	AV	Vertical
3264.57	60.78	44.70	6.70	28.20	-9.80	50.98	74.00	-23.02	PK	Horizontal
3264.57	51.01	44.70	6.70	28.20	-9.80	41.21	54.00	-12.79	AV	Horizontal
4824.45	59.47	44.20	9.04	31.60	-3.56	55.91	74.00	-18.09	PK	Vertical
4824.45	50.36	44.20	9.04	31.60	-3.56	46.80	54.00	-7.20	AV	Vertical
4824.60	59.30	44.20	9.04	31.60	-3.56	55.74	74.00	-18.26	PK	Horizontal
4824.60	50.41	44.20	9.04	31.60	-3.56	46.85	54.00	-7.15	AV	Horizonta
5359.74	48.35	44.20	9.86	32.00	-2.34	46.01	74.00	-27.99	PK	Vertical
5359.74	39.98	44.20	9.86	32.00	-2.34	37.64	54.00	-16.36	AV	Vertical
5359.62	47.50	44.20	9.86	32.00	-2.34	45.16	74.00	-28.84	PK	Horizonta
5359.62	39.16	44.20	9.86	32.00	-2.34	36.82	54.00	-17.18	AV	Horizonta
7235.79	54.44	43.50	11.40	35.50	3.40	57.84	74.00	-16.16	PK	Vertical
7235.79	43.97	43.50	11.40	35.50	3.40	47.37	54.00	-6.63	AV	Vertical
7235.84	54.72	43.50	11.40	35.50	3.40	58.12	74.00	-15.88	PK	Horizonta
7235.84	43.59	43.50	11.40	35.50	3.40	46.99	54.00	-7.01	AV	Horizonta
	•	.iG	,	Middle Ch	annel (802.11n	20/2437 MHz)		•		•
3264.69	61.42	44.70	6.70	28.20	-9.80	51.62	74.00	-22.38	PK	Vertical
3264.69	50.00	44.70	6.70	28.20	-9.80	40.20	54.00	-13.80	AV	Vertical
3264.57	61.61	44.70	6.70	28.20	-9.80	51.81	74.00	-22.19	PK	Horizonta
3264.57	51.12	44.70	6.70	28.20	-9.80	41.32	54.00	-12.68	AV	Horizonta
4874.49	59.34	44.20	9.04	31.60	-3.56	55.78	74.00	-18.22	PK	Vertical
4874.49	50.07	44.20	9.04	31.60	-3.56	46.51	54.00	-7.49	AV	Vertical
4874.58	58.62	44.20	9.04	31.60	-3.56	55.06	74.00	-18.94	PK	Horizonta
4874.58	49.52	44.20	9.04	31.60	-3.56	45.96	54.00	-8.04	AV	Horizonta
5359.85	48.13	44.20	9.86	32.00	-2.34	45.79	74.00	-28.21	PK	Vertical
5359.85	39.16	44.20	9.86	32.00	-2.34	36.82	54.00	-17.18	AV	Vertical
5359.75	47.44	44.20	9.86	32.00	-2.34	45.10	74.00	-28.90	PK	Horizonta
5359.75	38.19	44.20	9.86	32.00	-2.34	35.85	54.00	-18.15	AV	Horizonta
7310.92	53.99	43.50	11.40	35.50	3.40	57.39	74.00	-16.61	PK	Vertical
7310.92	44.16	43.50	11.40	35.50	3.40	47.56	54.00	-6.44	AV	Vertical
7310.70	54.01	43.50	11.40	35.50	3.40	57.41	74.00	-16.59	PK	Horizonta
	43.94	43.50	11.40	35.50	3.40	47.34	54.00	-6.66	AV	Horizonta

CTATESTING

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					Page	27 of 63		Report	No.: CTA2	311290	02W08
		7E511			High Channe	el (802.11n2	0/2462 MHz)	1			
	3264.77	62.28	44.70	6.70	28.20	-9.80	52.48	74.00	-21.52	PK	Vertical
	3264.77	50.48	44.70	6.70	28.20	-9.80	40.68	54.00	-13.32	AV	Vertical
	3264.81	61.20	44.70	6.70	28.20	-9.80	51.40	74.00	-22.60	PK	Horizontal
	3264.81	50.46	44.70	6.70	28.20	-9.80	40.66	54.00	-13.34	AV	Horizontal
	4924.41	58.57	44.20	9.04	31.60	-3.56	55.01	74.00	-18.99	PK	Vertical
	4924.41	50.28	44.20	9.04	31.60	-3.56	46.72	54.00	-7.28	AV	Vertical
	4924.31	59.09	44.20	9.04	31.60	-3.56	55.53	74.00	-18.47	PK	Horizontal
	4924.31	49.21	44.20	9.04	31.60	-3.56	45.65	54.00	-8.35	AV	Horizontal
	5359.81	48.23	44.20	9.86	32.00	-2.34	45.89	74.00	-28.11	PK	Vertical
	5359.81	38.96	44.20	9.86	32.00	-2.34	36.62	54.00	-17.38	AV	Vertical
	5359.69	48.50	44.20	9.86	32.00	-2.34	46.16	74.00	-27.84	PK	Horizontal
	5359.69	38.62	44.20	9.86	32.00	-2.34	36.28	54.00	-17.72	AV	Horizontal
CTA !	7385.84	54.71	43.50	11.40	35.50	3.40	58.11	74.00	-15.89	PK	Vertical
C	7385.84	44.73	43.50	11.40	35.50	3.40	48.13	54.00	-5.87	AV	Vertical
	7385.84	54.88	43.50	11.40	35.50	3.40	58.28	74.00	-15.72	PK	Horizontal
	7385.84	43.58	43.50	11.40	35.50	3.40	46.98	54.00	-7.02	AV	Horizontal

Remark:

- 1. Factor = Antenna Factor + Cable Loss Pre-amplifier.
- 2. Scan with 802.11n (HT-20) all have been tested the antenna 1, antenna 2 and antenna 1+2, the worst case is 802.11n(HT20) of the antenna 1+2.

Emission Level = Reading + Factor

Margin = Emission Level-Limit

3. The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise. CTATESTIN

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3.2.6 TEST RESULTS(Band edge Requirements)

802.11 n(HT20)

	Meter			Antenna	Orrected	Emission				
Frequency	Reading	Amplifier	Loss	Factor	Factor	Level	Limits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
2390.00	66.34	43.80	4.91	25.90	-12.99	53.35	74.00	-20.65	PK	Vertical
2390.00	52.77	43.80	4.91	25.90	-12.99	39.78	54.00	-14.22	AV	Vertical
2390.00	65.82	43.80	4.91	25.90	-12.99	52.83	74.00	-21.17	PK	Horizontal
2390.00	53.77	43.80	4.91	25.90	-12.99	40.78	54.00	-13.22	AV	Horizontal
2483.50	65.76	43.80	5.12	25.90	-12.78	52.98	74.00	-21.02	PK	Vertical
2483.50	53.14	43.80	5.12	25.90	-12.78	40.36	54.00	-13.64	AV	Vertical
2483.50	66.17	43.80	5.12	25.90	-12.78	53.39	74.00	-20.61	PK	Horizontal
2483.50	53.05	43.80	5.12	25.90	-12.78	40.27	54.00	-13.73	AV	Horizontal

Note: 802.11n (HT-20) all have been tested the antenna 1, antenna 2 and antenna 1+2, the worst case is 802.11 n(HT20) of the antenna 1+2.

, or to

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4. CONDUCTED SPURIOUS & BAND EDGE EMISSION

4.1 LIMIT

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

4.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting				
Detector	Peak				
Ctart/Ctan Fraguency	Lower Band Edge: 2300 to 2432 MHz				
Start/Stop Frequency	Upper Band Edge: 2442 to 2500 MHz				
RB / VB (emission in restricted band)	100 KHz/300 KHz				
Trace-Mode:	Max hold				

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



The EUT is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 500hm; the path loss as the factor is calibrated to correct the reading. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In

order to make an accurate measurement, set the span greater than RBW.

4.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

4.6 TEST RESULTS

Note: Antenna 1 Power> Antenna 2 Power, Both antenna 1 and 2 have been test, Only show the worst CTATES data of Antenna 1

2. The test data please refer to APPENDIX 1.

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5. POWER SPECTRAL DENSITY TEST

5.1 LIMIT

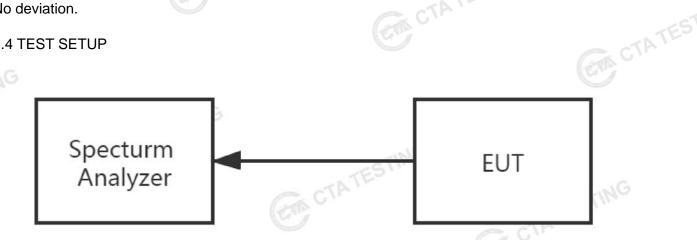
. POWER SPE 5.1 LIMIT	CIRAL DENSITY TEST				
	TAT		NG		_
	FCC Pa	rt15.247 , Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)	Result	TATES
15.247(e)	Power Spectral Density	≤8 dBm (RBW ≥3KHz)	2400-2483.5	PASS	CALL

5.2 TEST PROCEDURE

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS channel bandwidth.
- 3. Set the 100 kHz ≥ RBW ≥3 kHz.
- 4. Set the VBW ≥ 3 x RBW.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat. Jat.

5.3 DEVIATION FROM STANDARD No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

5.6 TEST RESULTS

Note: The test data please refer to APPENDIX 1.

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6. BANDWIDTH TEST

6.1 LIMIT

6.1 LIMIT		ATES		
	F	CC Part15.247,Subpa	art C	
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	≥500KHz (6dB bandwidth)	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW≥3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be≥6 dB.

6.3 DEVIATION FROM STANDARD No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS Please refer to section 3.1.4 of this report.

6.6 TEST RESULTS

Note: Antenna 1 Power> Antenna 2 Power, Both antenna 1 and 2 have been test, Only show the worst data of Antenna 1

2. The test data please refer to APPENDIX 1. CTATES!

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7. PEAK OUTPUT POWER TEST

7.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)	Result	
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS	TAT

7.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

RBW ≥ DTS bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- a) Set the RBW ≥ DTS bandwidth.
- b) Set VBW ≥ [3 × RBW].
- c) Set span ≥ [3 × RBW].
- d) Sweep time = auto couple.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

Integrated band power method:

The following procedure can be used when the maximum available RBW of the instrument is less than the

DTS bandwidth:

- a) Set the RBW = 1 MHz.
- b) Set the VBW ≥ [3 × RBW].
- c) Set the span ≥ [1.5 × DTS bandwidth].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

PKPM1 Peak power meter method:

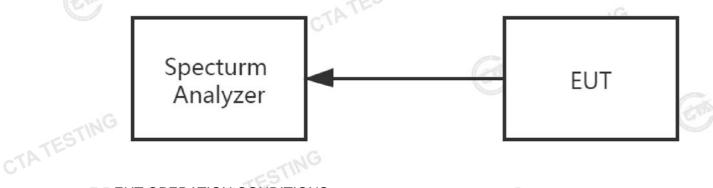
The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

7.3 DEVIATION FROM STANDARD

No deviation.

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7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS Please refer to section 3.1.4 of this report.

7.6 TEST RESULTS

Note: The test data please refer to APPENDIX 1.

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8. ANTENNA REQUIREMENT

8.1 STANDARD 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 partyshall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is External antenna Antenna. It comply with the standard requirement.

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APPENDIX 1-TEST DATA

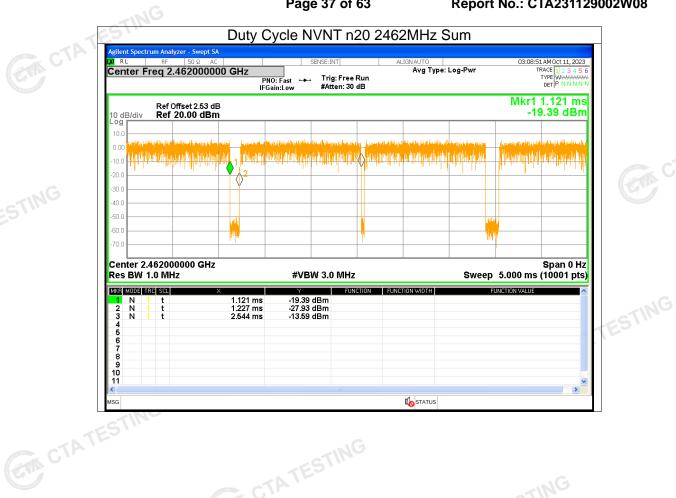
APPEI	NDIX 1-	IESIDAIA									
1. Duty Cycle											
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)					
NVNT	n20	2412	Sum	93.21	0.31	0.76					
NVNT	n20	2437	Sum	94.38	0.25	0.76					
NVNT	n20	2462	Sum	92.59	0.33	0.76					

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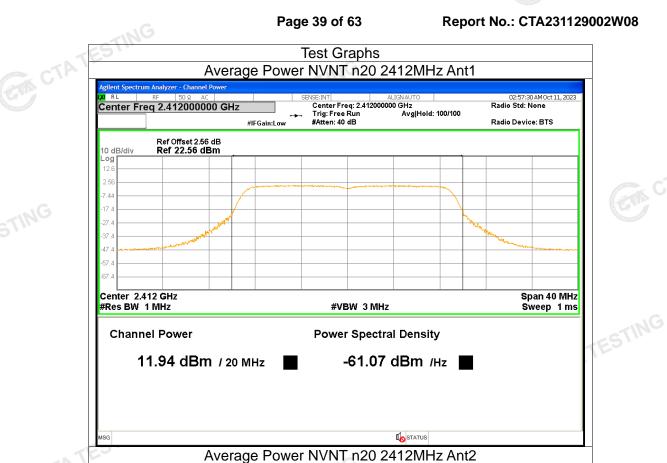
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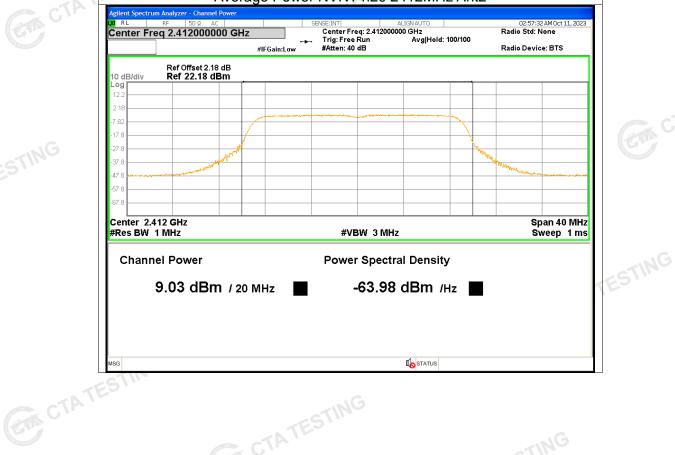
2. Maximum Average Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	n20	2412	Ant1	11.94	0.31	12.25	<=30	Pass
NVNT	n20	2412	Ant2	9.03	0.31	9.34	<=30	Pass
NVNT	n20	2412	Sum	13.73	0.31	14.04	<=30	Pass
NVNT	n20	2437	Ant1	9.73	0.25	9.98	<=30	Pass
NVNT	n20	2437	Ant2	9.14	0.25	9.39	<=30	Pass
NVNT	n20	2437	Sum	12.46	0.25	12.71	<=30	Pass
NVNT	n20	2462	Ant1	11.41	0.33	11.74	<=30	Pass
NVNT	n20	2462	Ant2	8.64	0.33	8.97	<=30	Pass
NVNT	n20	2462	Sum	13.25	0.33	13.58	<=30	Pass
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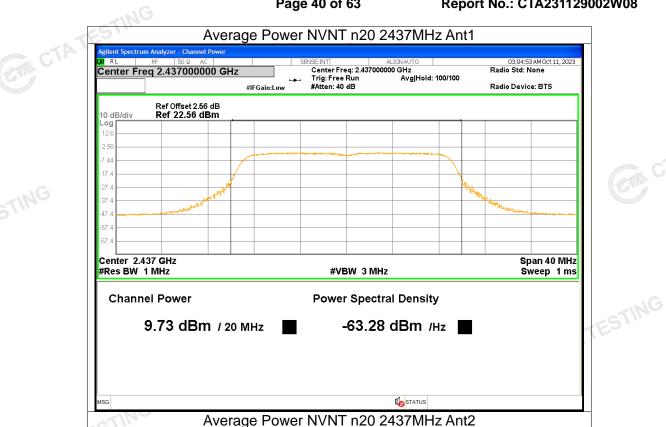
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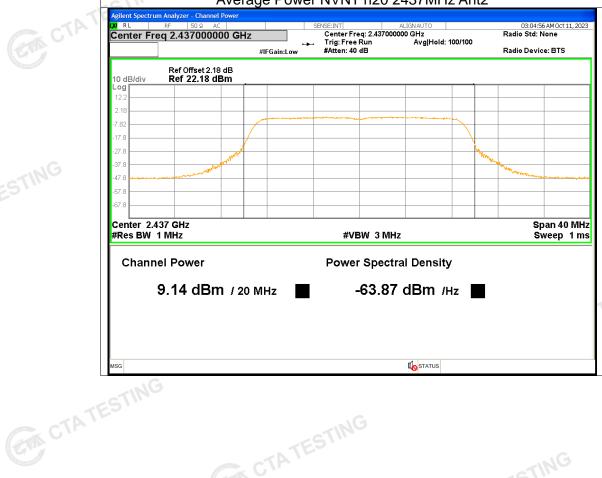
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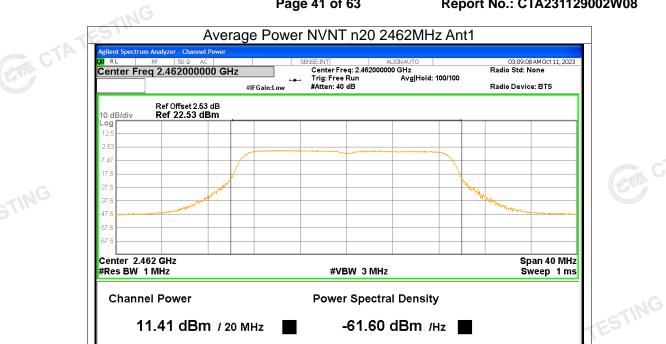


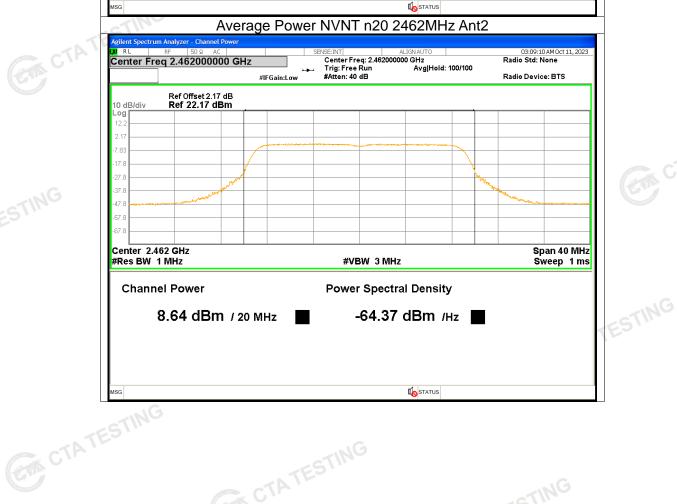


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3. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	n20	2412	Ant1	19.38	<=30	Pass
NVNT	n20	2412	Ant2	16.67	<=30	Pass
NVNT	n20	2412	Sum	21.24	<=30	Pass
NVNT	n20	2437	Ant1	19.57	<=30	Pass
NVNT	n20	2437	Ant2	16.92	<=30	Pass
NVNT	n20	2437	Sum	21.45	<=30	Pass
NVNT	n20	2462	Ant1	18.92	<=30	Pass
NVNT	n20	2462	Ant2	16.13	<=30	Pass
NVNT	n20	2462	Sum	20.76	<=30	Pass
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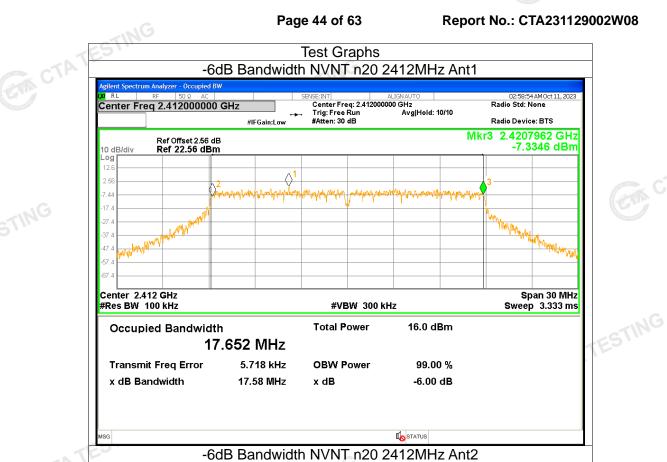
4. -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	n20	2412	Ant1	17.5809	>=0.5	Pass
NVNT	n20	2412	Ant2	17.689	>=0.5	Pass
NVNT	n20	2437	Ant1	17.5976	>=0.5	Pass
NVNT	n20	2437	Ant2	17.1444	>=0.5	Pass
NVNT	n20	2462	Ant1	17.2973	>=0.5	Pass
NVNT	n20	2462	Ant2	17.5445	>=0.5	Pass

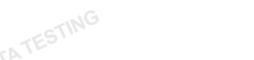
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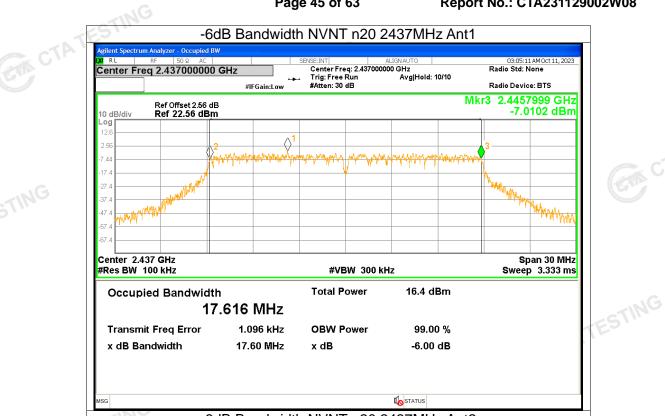
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02:58:56 AM Oct 11, 2023 Radio Std: None Center Freq: 2.412000000 GHz Trig: Free Run Avg #Atten: 30 dB Avg|Hold: 10/10 #IFGain:Low Radio Device: BTS Mkr3 2.42085 GHz Ref Offset 2.18 dB Ref 22.18 dBm -11.201 dBm Span 30 MHz Sweep 3.333 ms Center 2.412 GHz #Res BW 100 kHz **#VBW** 300 kHz Occupied Bandwidth **Total Power** 13.4 dBm 17.647 MHz Transmit Freq Error 5.534 kHz **OBW Power** 99.00 % x dB Bandwidth 17.69 MHz x dB -6.00 dB MSG CTATEST **€** STATUS CTA TESTING



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-6dB Bandwidth NVNT n20 2437MHz Ant2 Center Freq: 2.437000000 GHz Trig: Free Run Avg #Atten: 30 dB Center Freg 2.437000000 GHz Radio Std: None Avg|Hold: 10/10 Radio Device: BTS #IEGain:Low 2.4455492 GHz Mkr3 Ref Offset 2 18 dB -12.035 dBm I0 dB/div Ref 22.18 dBm Center 2.437 GHz Span 30 MHz Res BW 100 kHz **#VBW 300 kHz** Sweep 3.333 ms **Total Power** 13.4 dBm Occupied Bandwidth 17.611 MHz -22.991 kHz **OBW Power** 99.00 % **Transmit Freg Error** x dB Bandwidth 17.14 MHz x dB -6.00 dB CTA TESTING STATUS

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-6dB Bandwidth NVNT n20 2462MHz Ant2 Center Freq: 2.462000000 GHz Trig: Free Run Avg #Atten: 30 dB Center Freg 2.462000000 GHz Radio Std: None Avg|Hold: 100/100 Radio Device: BTS #IEGain:Low 2.4707697 GHz Mkr3 Ref Offset 2.17 dB Ref 22.17 dBm -8.1331 dBm I0 dB/div Center 2.462 GHz Span 30 MHz Res BW 100 kHz **#VBW 300 kHz** Sweep 3.333 ms **Total Power** 14.7 dBm Occupied Bandwidth 17.618 MHz -2.553 kHz **OBW Power** 99.00 % **Transmit Freg Error** x dB Bandwidth 17.54 MHz x dB -6.00 dB CTATESTING STATUS

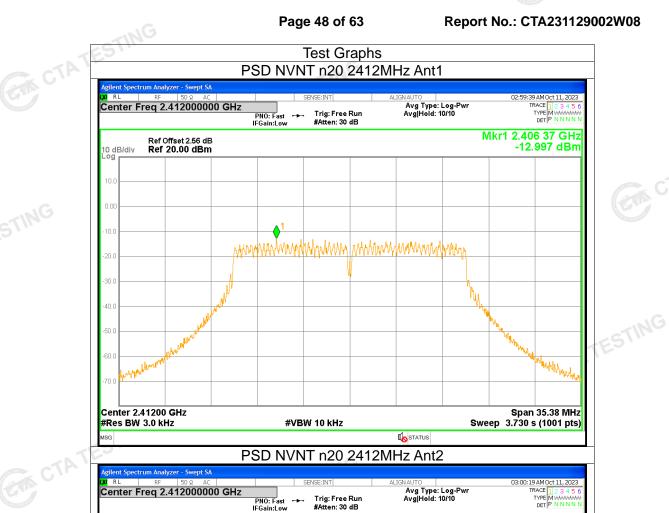
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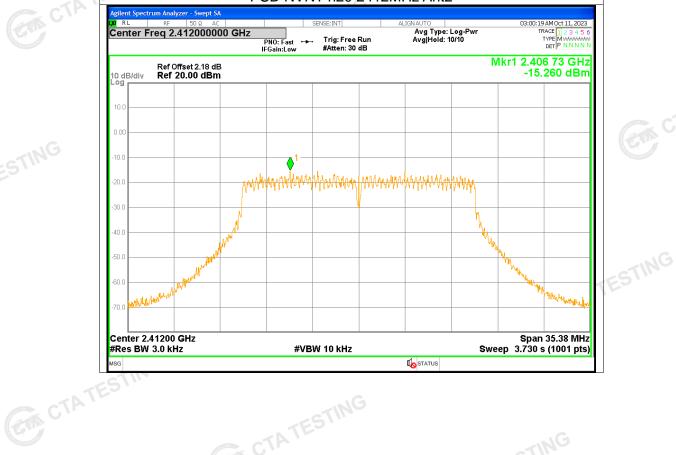
5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	n20	2412	Ant1	-13	<=8	Pass
NVNT	n20	2412	Ant2	-15.26	<=8	Pass
NVNT	n20	2412	Sum	-10.97	<=8	Pass
NVNT	n20	2437	Ant1	-11.68	<=8	Pass
NVNT	n20	2437	Ant2	-15.67	<=8	Pass
NVNT	n20	2437	Sum	-10.22	<=8	Pass
NVNT	n20	2462	Ant1	-13.3	<=8	Pass
NVNT	n20	2462	Ant2	-16.7	<=8	Pass
NVNT	n20	2462	Sum	-11.67	<=8	Pass



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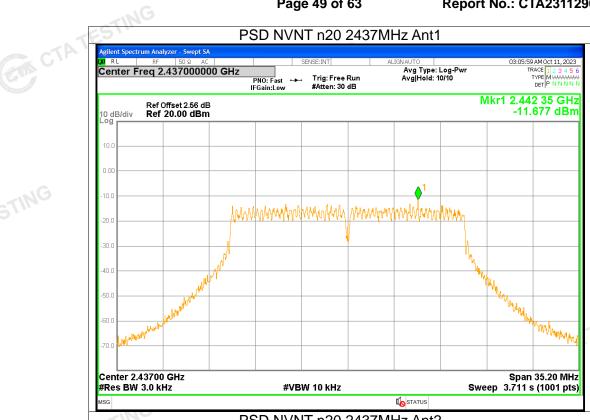


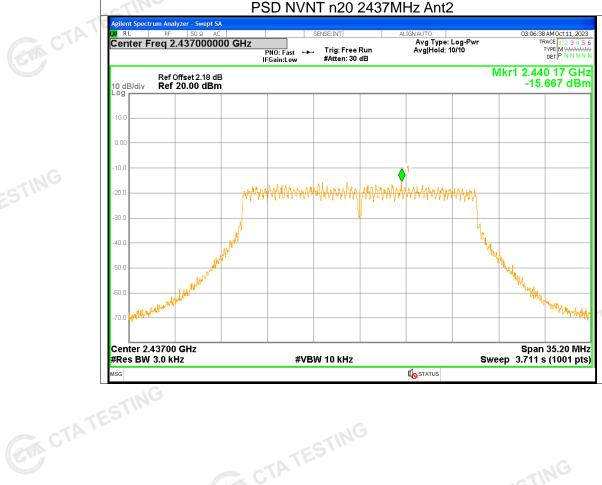


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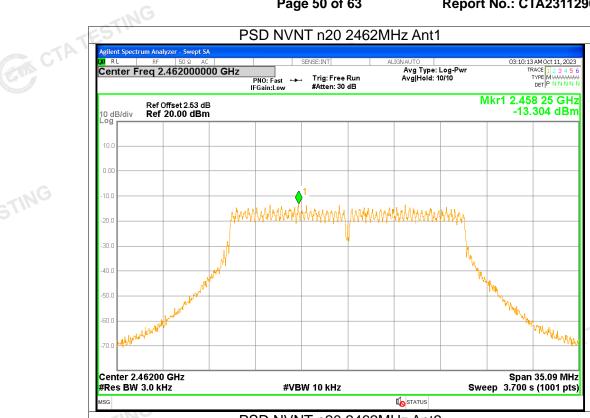
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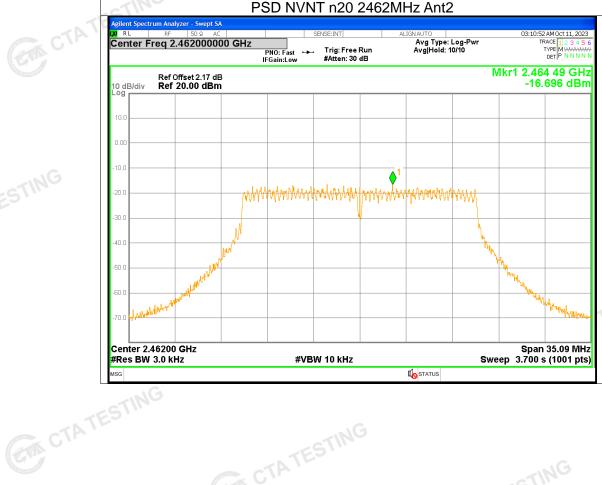




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6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	n20	2412	Ant1	-38.14	<=-20	Pass
NVNT	n20	2412	Ant2	-39.11	<=-20	Pass
NVNT	n20	2462	Ant1	-57.35	<=-20	Pass
NVNT	n20	2462	Ant2	-52.31	<=-20	Pass

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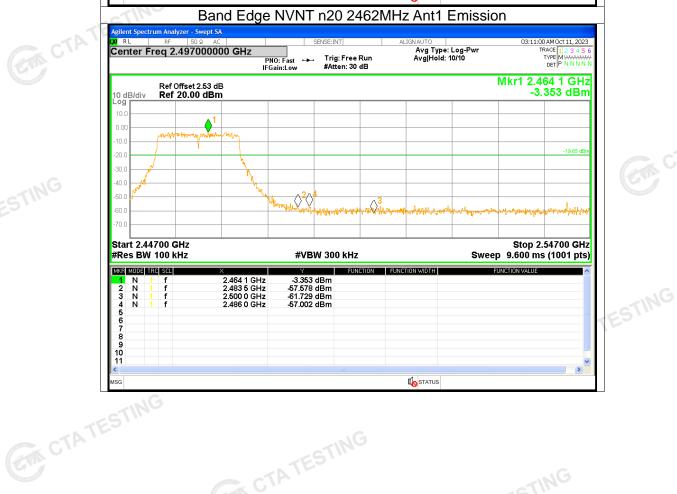


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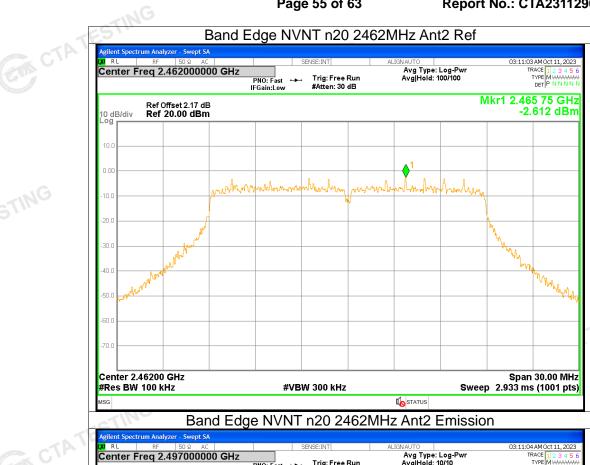








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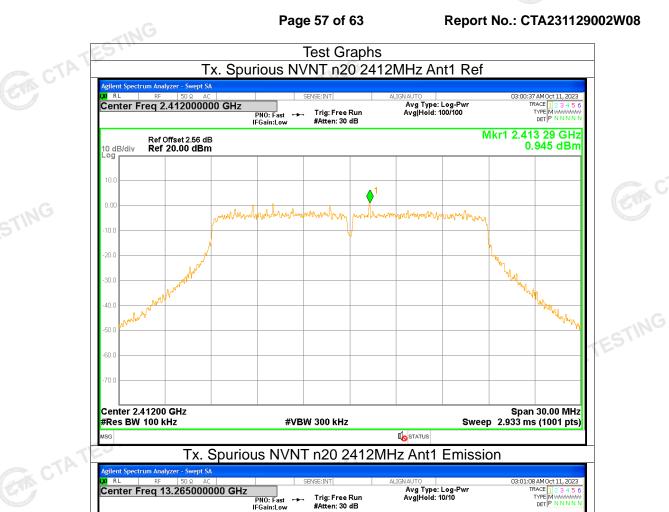
7. Conducted RF Spurious Emission

			114			
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	n20	2412	Ant1	-46.77	<=-20	Pass
NVNT	n20	2412	Ant2	-43.29	<=-20	Pass
NVNT	n20	2437	Ant1	-46.64	<=-20	Pass
NVNT	n20	2437	Ant2	-44.51	<=-20	Pass
NVNT	n20	2462	Ant1	-46.02	<=-20	Pass
NVNT	n20	2462	Ant2	-43.22	<=-20	Pass

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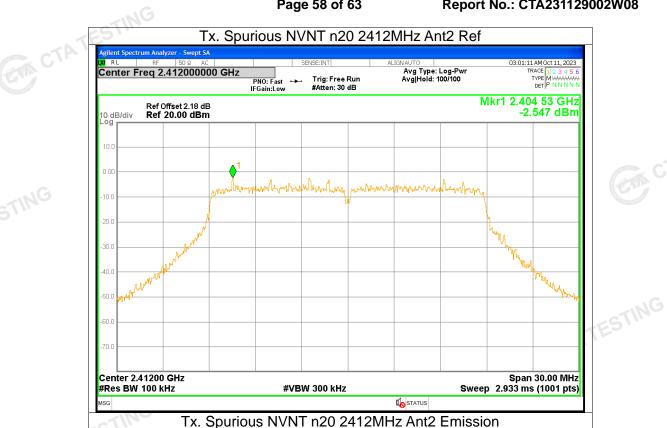
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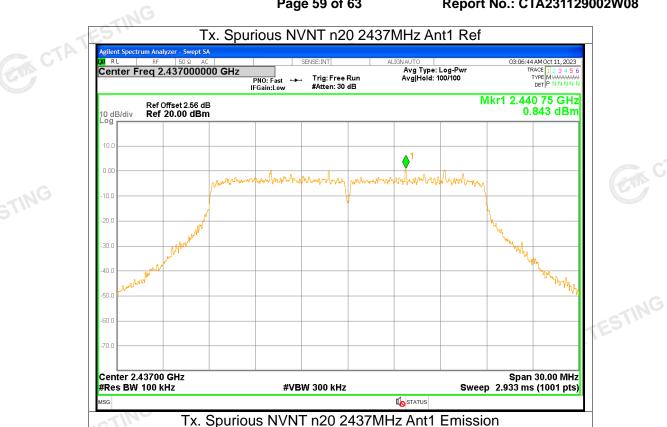


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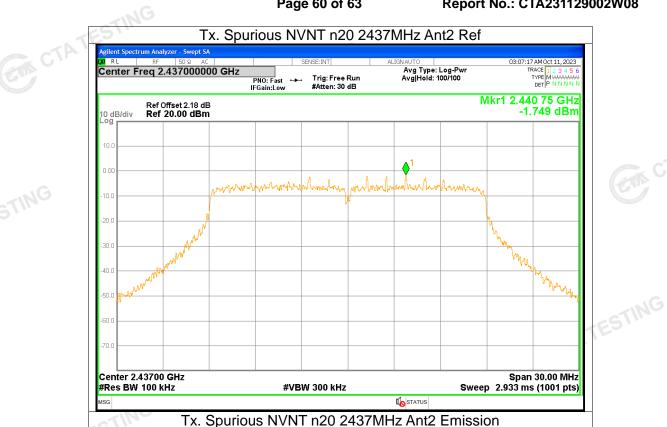


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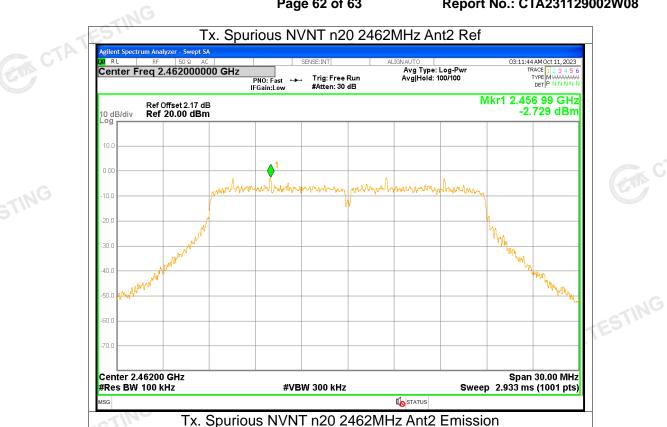




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Report No.: CTA231129002W08 Page 63 of 63 APPENDIX 2-PHOTOS OF TEST SETUP Note: See test photos in setup photo document for the actual connections between Product and support equipment. *****END OF THE REPORT***