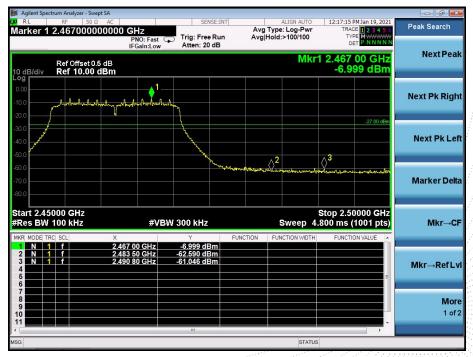


# 802.11n-HT20: Band Edge, Left Side

802.11n-HT20: Band Edge, Right Side





	trum Analyzer - Swep									
RL arkor 1	RF 50 Ω 2.43698000		Hz	SEN	SE:INT	Avg T	ALIGN AUTO		M Jan 19, 2021	Peak Search
GIRGI I	2.43030000	F	PNO: Fast G Gain:Low	Trig: Free Atten: 20			old:>100/100	TYP		
0 dB/div	Ref Offset 0.5 Ref 10.00 (					Mkr1 2.436 98 GHz -7.917 dBm				NextPea
•g 							, hit, i land and the second	بد المارانية المارية الم	1	Next Pk Rigl
0.0						(J)#			27.92 dBm	Next Pk Le
0.0 0.0 0.0	n'nyeraanananananalaihe	ahari jini periyahri	nga minaratanin	en of a contribution of the second	ىلەرىرىيە بىلەردىرىس					Marker Del
	000 GHz 100 kHz		#VB\	V 300 kHz			Sweep 1	Stop 2.45 3.40 ms (′	000 GHz 1001 pts)	Mkr→C
KR MODE TH	f f		98 GHz 00 GHz	Y -7.917 dB -43.475 dB	m	NCTION	FUNCTION WIDTH	FUNCTIO	N VALUE	
3 N 1 4 5	f		04 GHz	-43.475 dB -47.528 dB					111	Mkr→RefL
7 8 9										<b>Mo</b> 1 of
1				m					F F	
time and the second sec							STATUS			

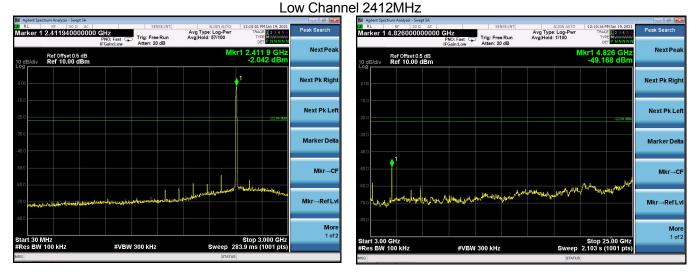
## 802.11n-HT40: Band Edge, Left Side

802.11n-HT40: Band Edge, Right Side





#### CONDUCTED EMISSION MEASUREMENT 802.11b



#### Middle Channel 2437MHz





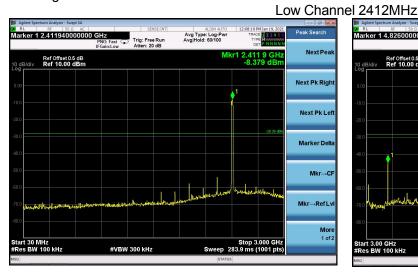


#### High Channel 2462MHz





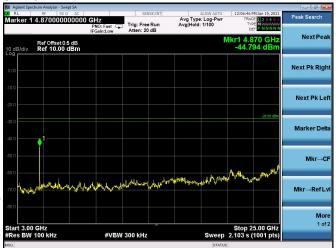
#### 802.11g



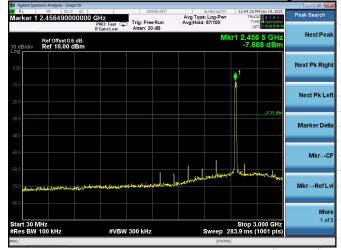
# Image: Spectra Respective Registry Served 2NT ALLON AUTO 12:08:33 PM an 19, 2021 Peak Search Marker 1 4.325000000000000 CPU CH2 IFC int Low PRO: Fast UP Trip: Free Run Atten: 20 dB ALLON AUTO 12:08:33 PM an 19, 2021 Peak Search 0 dB/dv Ref Offset 0.5 dB Image: Specific data to the specific



#### Middle Channel 2437MHz



#### High Channel 2462MHz

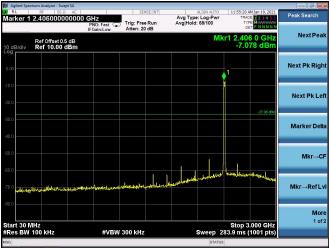




No. : BCTC/RF-EMC-005



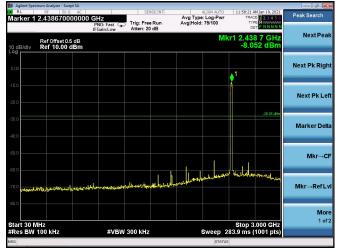
#### 802.11n20



#### Low Channel 2412MHz



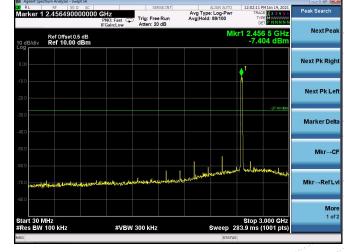
#### Middle Channel 2437MHz





#### High Channel 2462MHz



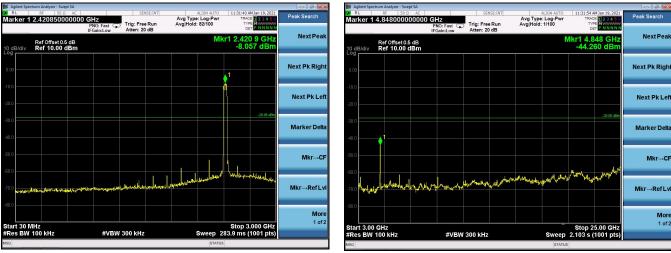




#### 802.11n40

Ref Offset 0.5 dB Ref 10.00 dBm

t 30 MHz s BW 100 kHz



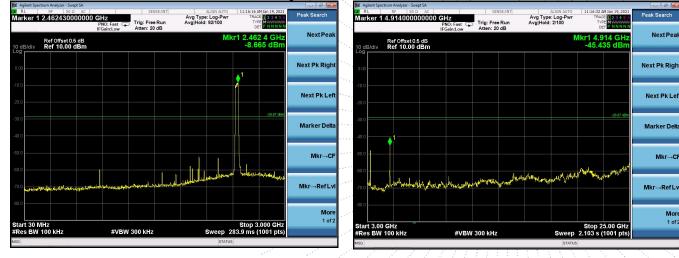
#### Low Channel 2422MHz

#### Marker 1 2.441640000000 GHz PNO: Fast ↓ Trig: Free Run Arten: 20 dB Marker 1 4.870000000000 GHz TRACE 1 2 3 4 5 Peak Search Avg Type: Log-Pwr Avg|Hold: 76/100 Trig: Free Run NextPe 2.441 6 G -8.791 di Ref Offset 0.5 dB Ref 10.00 dBm Next Pk Righ Next Pk Lef Marker De Mkr→Cl 1.11 Mkr→RefLv More 1 of 2 Stop 3.000 GH Sweep 283.9 ms (1001 pt art 3.00 GH2 es BW 100 kHz #VBW 300 kHz #VBW 300 kHz

# Middle Channel 2437MHz









# 13. DUTY CYCLE OF TEST SIGNAL

## 13.1 Standard requirement

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

### 13.2 Formula

Duty Cycle = Ton / (Ton+Toff)

13.3 Test procedure

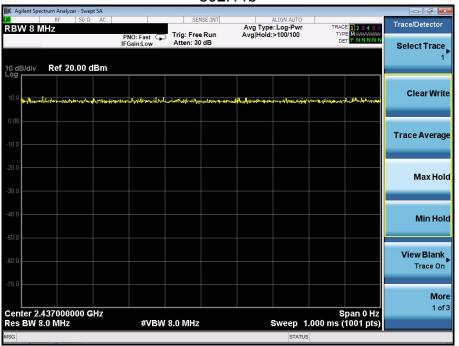
- 1.Set span = Zero
- 2. RBW = 8MHz
- 3. VBW = 8MHz,
- 4. Detector = Peak

## 13.4 Test Result

	Duty Cycle	Duty Fator (dB)
802.11b	1	Ô Ó
802.11g	1	0
802.11n(HT20)	1	0
802.11n(HT40)	<b>1</b>	0

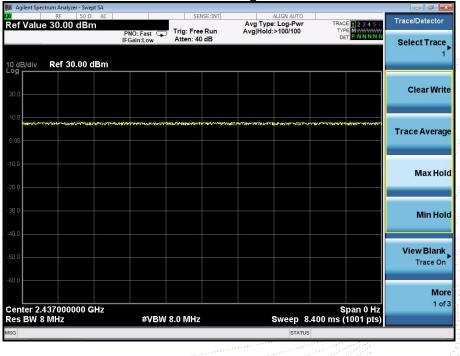
Page: 59 of 66





802.11b

802.11g

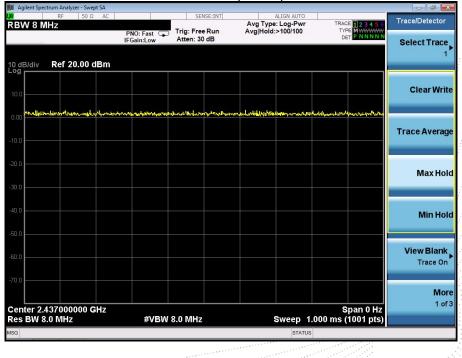




Agilent Spectrum Analyzer - Swept SA	002.111			
RF 50 Ω AC	SENSE:INT	ALIGN AUTO		
BW 8 MHz	PNO: Fast 🕞 Trig: Free Run IFGain:Low Atten: 30 dB	Avg Type: Log-Pwr Avg Hold:>100/100		race/Detector
dB/div Ref 20.00 dBm	I GAMEON			select Trace
g				Clear Writ
0.0 Mallounderweisennunghverhennen	han and the second s	manlashikiliyahikilimponnasikilikilimponnasikilikilimpon	lonorkin Apartic potto the	Clear Wri
			Т	race Avera
.0				Max Ho
.0				
.0				Min Ho
0				View Blank
.0				Trace Or
.0				Мо
enter 2.437000000 GHz es BW 8.0 MHz	#VBW 8.0 MHz	Sweep 1.00	Span 0 Hz 10 ms (1001 pts)	1 of
		STATUS		

## 802.11n(HT20)

## 802.11n(HT40)





# 14. ANTENNA REQUIREMENT

## 14.1 Limit

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.

## 14.1 Test Result

The EUT antenna is FPCB antenna, fulfill the requirement of this section.



Page: 62 of 66



# **15. EUT PHOTOGRAPHS**

## EUT Photo 1







No. : BCTC/RF-EMC-005

Page: 63 of 66



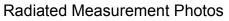
# 16. EUT TEST SETUP PHOTOGRAPHS

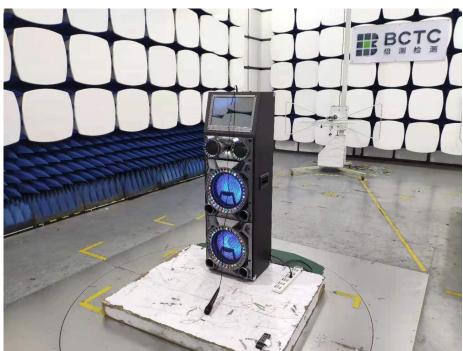
Conducted Emission



Page: 64 of 66









Page: 65 of 66



# STATEMENT

1. The equipment lists are traceable to the national reference standards.

2. The test report can not be partially copied unless prior written approval is issued from our lab.

3. The test report is invalid without stamp of laboratory.

4. The test report is invalid without signature of person(s) testing and authorizing.

5. The test process and test result is only related to the Unit Under Test.

6. The quality system of our laboratory is in accordance with ISO/IEC17025.

7.If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website : http://www.bctc-lab.com

E-Mail : <u>bctc@bctc-lab.com.cn</u>

\*\*\*\*\* END \*\*\*\*\*

No. : BCTC/RF-EMC-005

Page: 66 of 66