12. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

12.1 Block Diagram Of Test Setup

12.2 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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.

12.3 Test procedure

Using the following spectrum analyzer setting:

a) Set the RBW = 100KHz.

b) Set the VBW = 300KHz.

c) Sweep time = auto couple.

d) Detector function = peak.

e) Trace mode = max hold.

f) Allow trace to fully stabilize..

12.4 EUT operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Note: Power Spectral Density(dBm)=Reading+Cable Loss

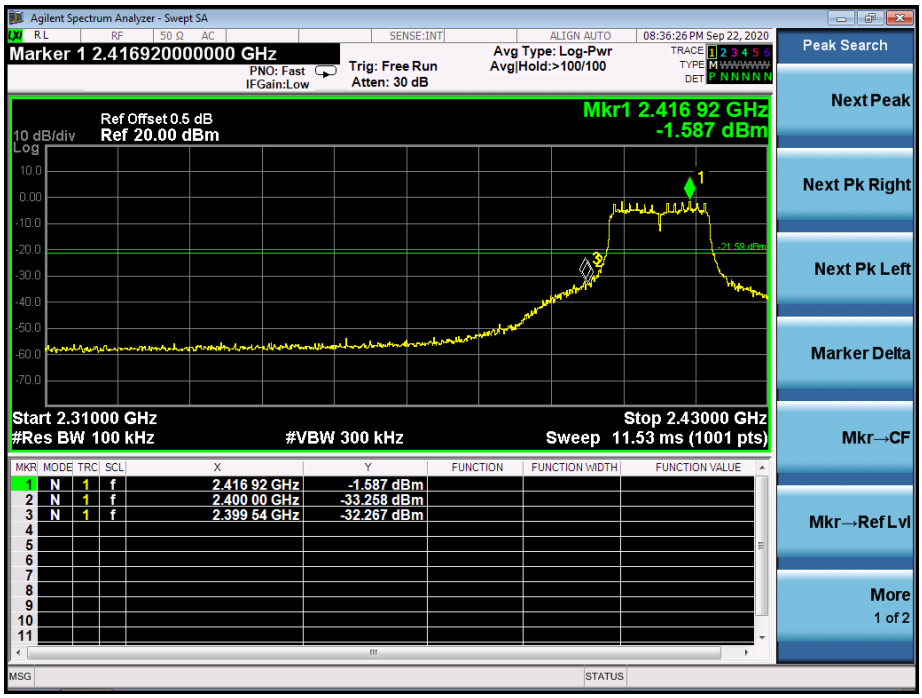
12.5 Test Result

Temperature：	26℃	Relative Humidity：	54%
Pressure：	101kPa	Test Voltage ：	DC 3.7V

802.11b: Band Edge, Left Side

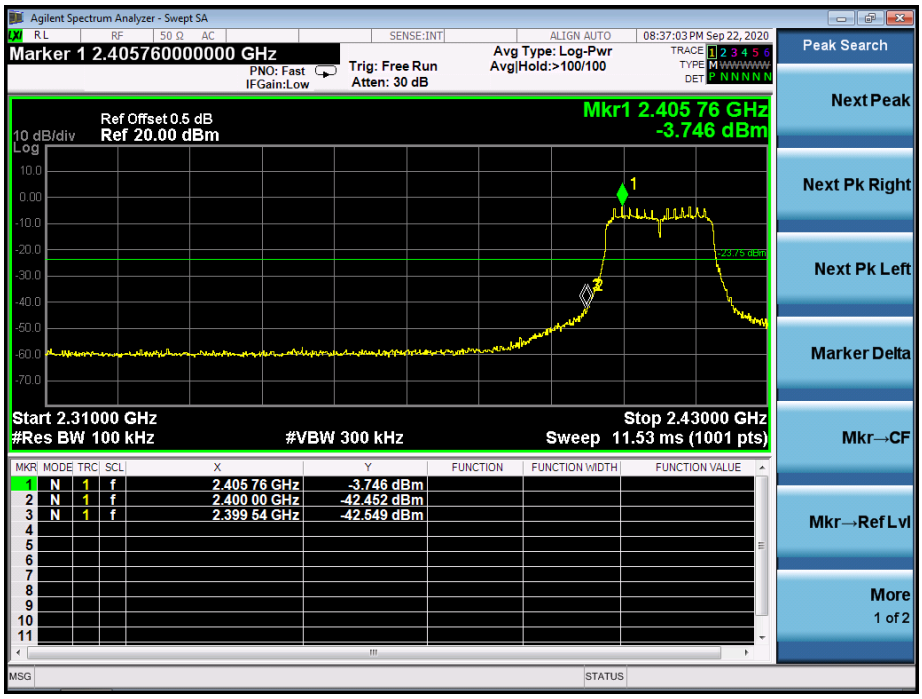
802.11b: Band Edge, Right Side

802.11g: Band Edge, Left Side

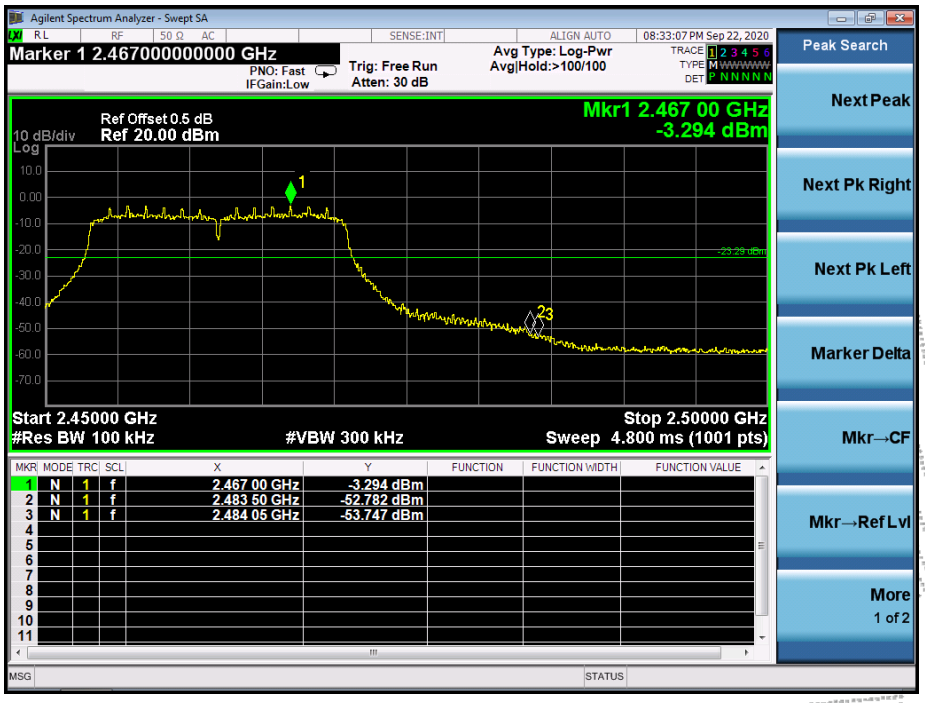


802.11g: Band Edge, Right Side

802.11n-HT20: Band Edge, Left Side



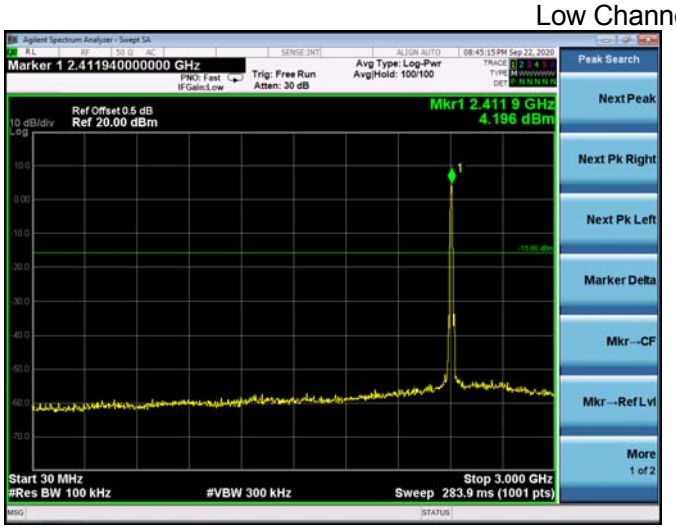
802.11n-HT20: Band Edge, Right Side



CONDUCTED EMISSION MEASUREMENT

802.11b

Low Channel 2412MHz

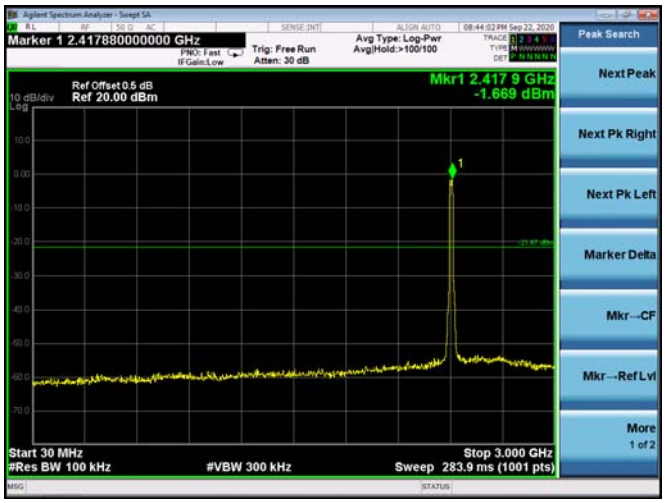


Middle Channel 2437MHz

High Channel 2462MHz

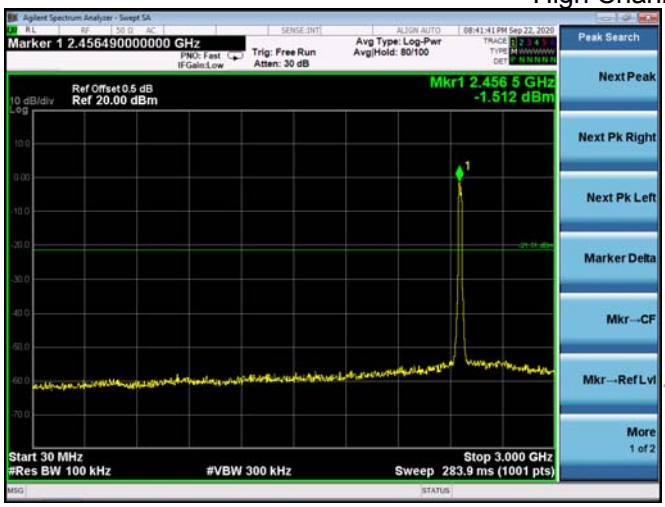
802.11g

Low Channel 2412MHz



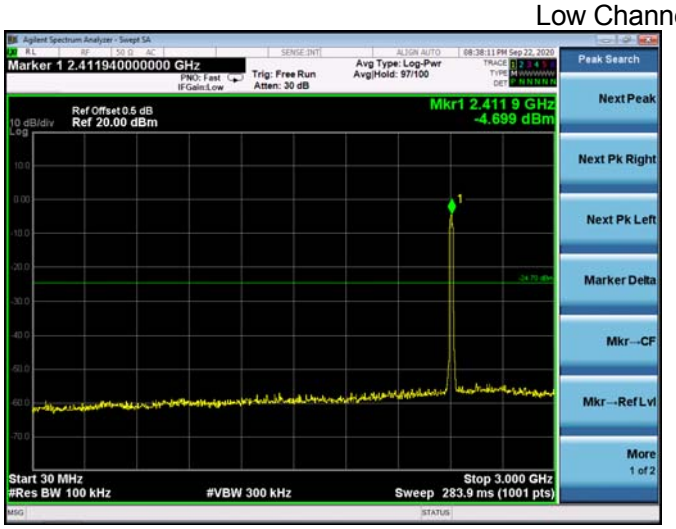
Middle Channel 2437MHz

High Channel 2462MHz

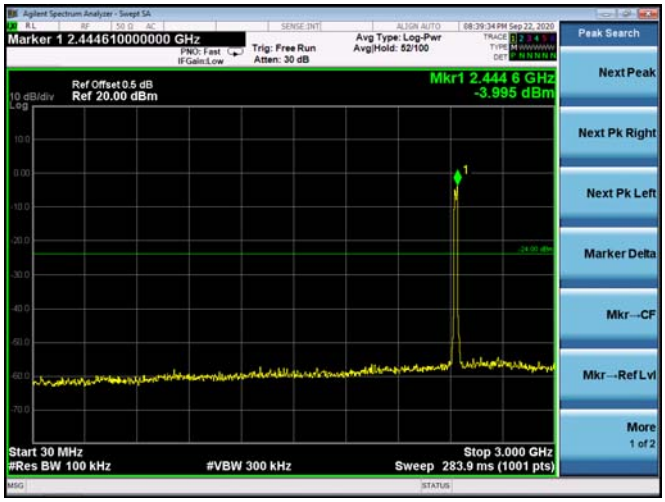


802.11n20

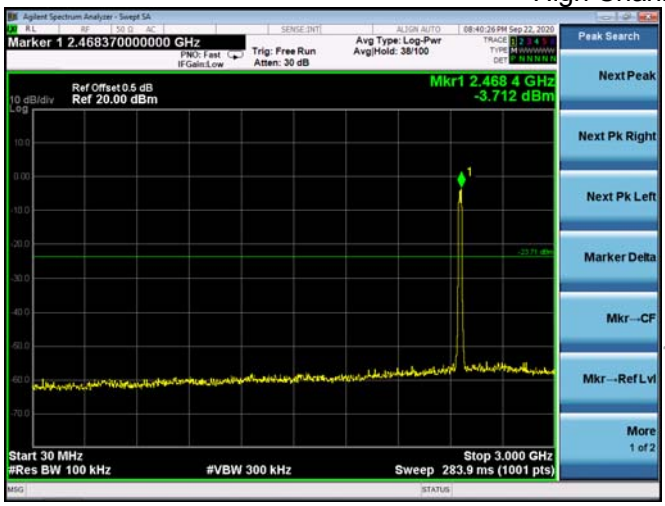
Low Channel 2412MHz



Middle Channel 2437MHz



High Channel 2462MHz



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)

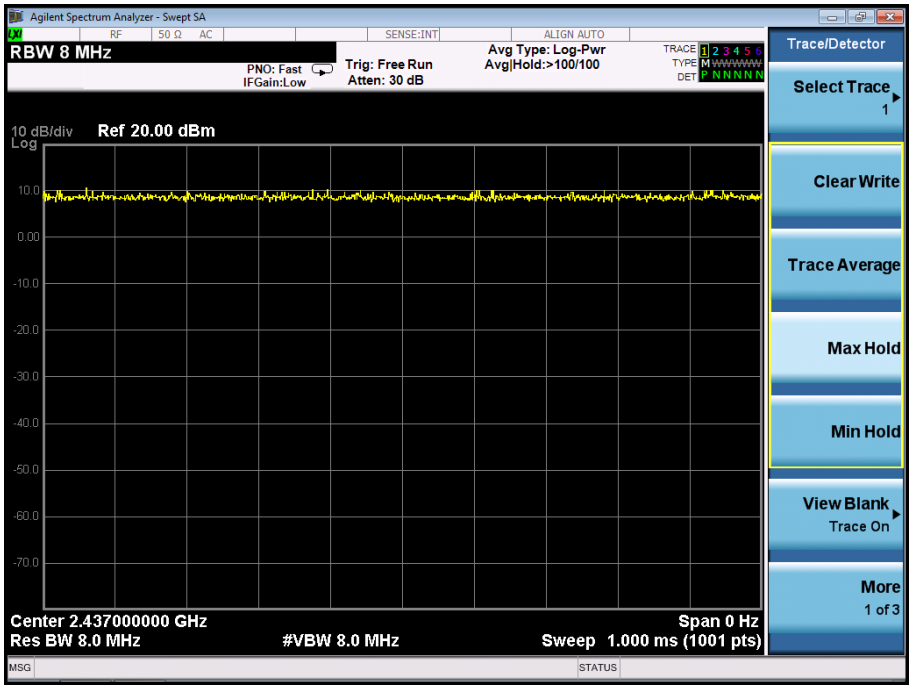
13.3 Test procedure

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

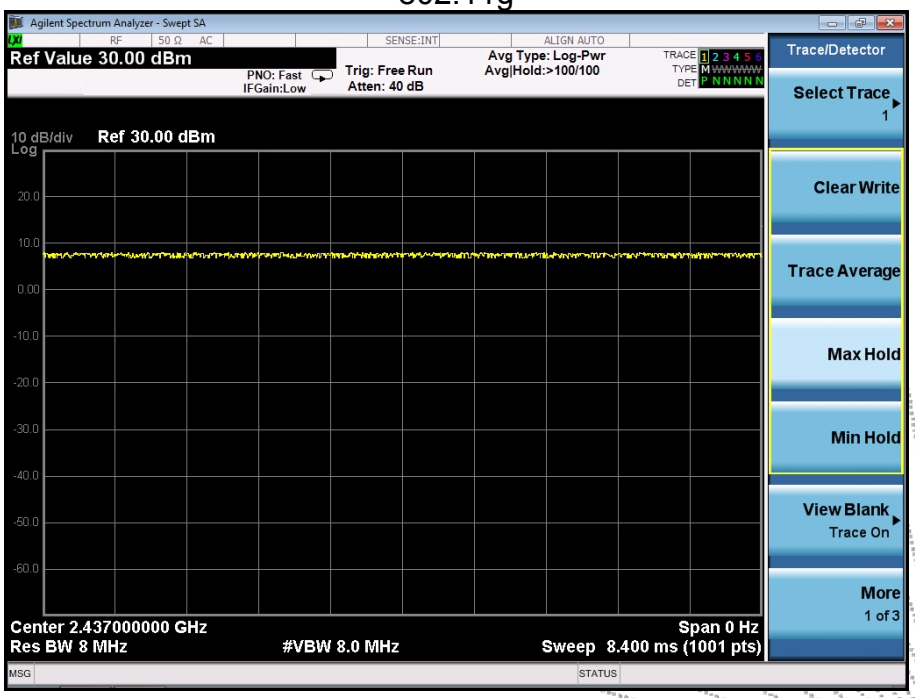
13.4 Test Result

	Duty Cycle	Duty Fator (dB)
802.11b	1	0
802.11g	1	0
802.11n(HT20)	1	0

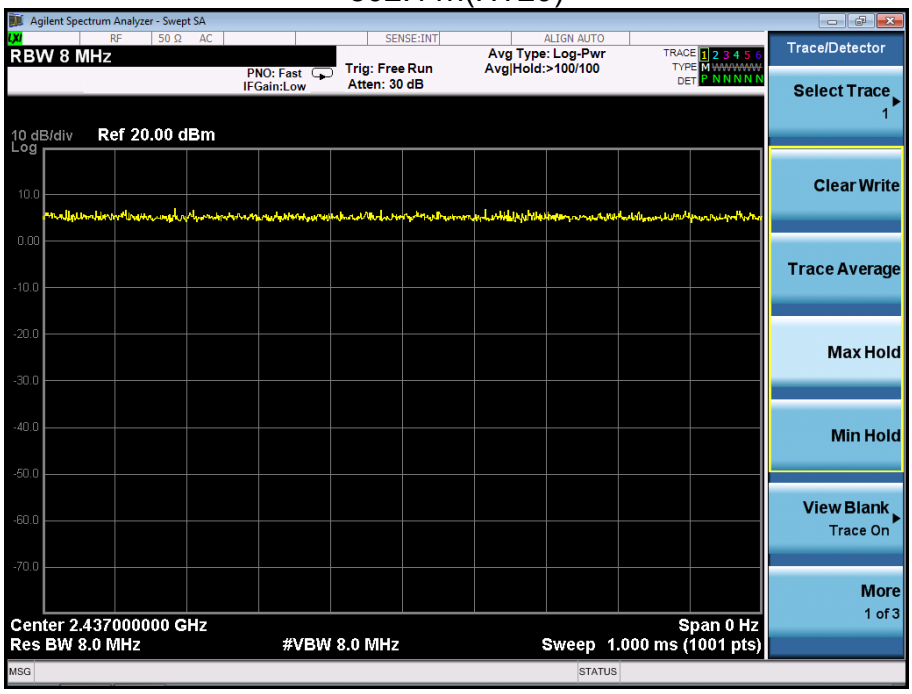
802.11b



802.11g



802.11n(HT20)


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
RBW 8 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.437000000 GHz
Res BW 8.0 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 1.000 ms (1001 pts)
MSG
STATUS
Trace/Detector
Select Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View Blank Trace On
More 1 of 3

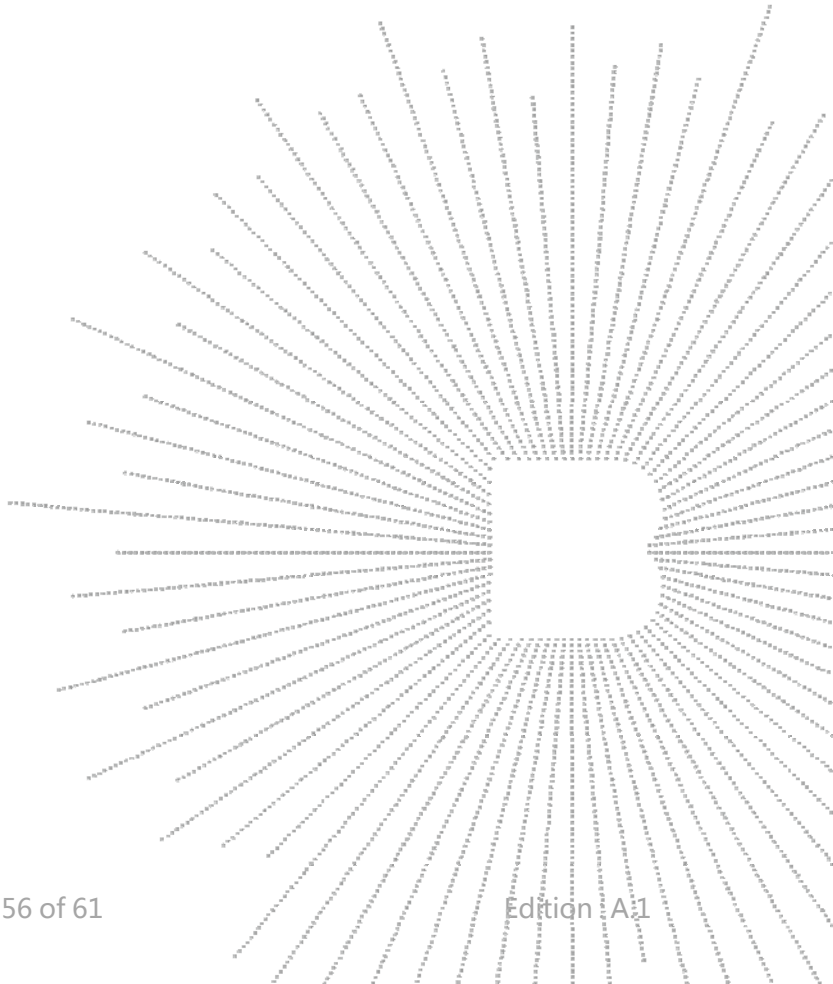
14. ANTENNA REQUIREMENT

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 Internal antenna, fulfill the requirement of this section.



15. EUT PHOTOGRAPHS

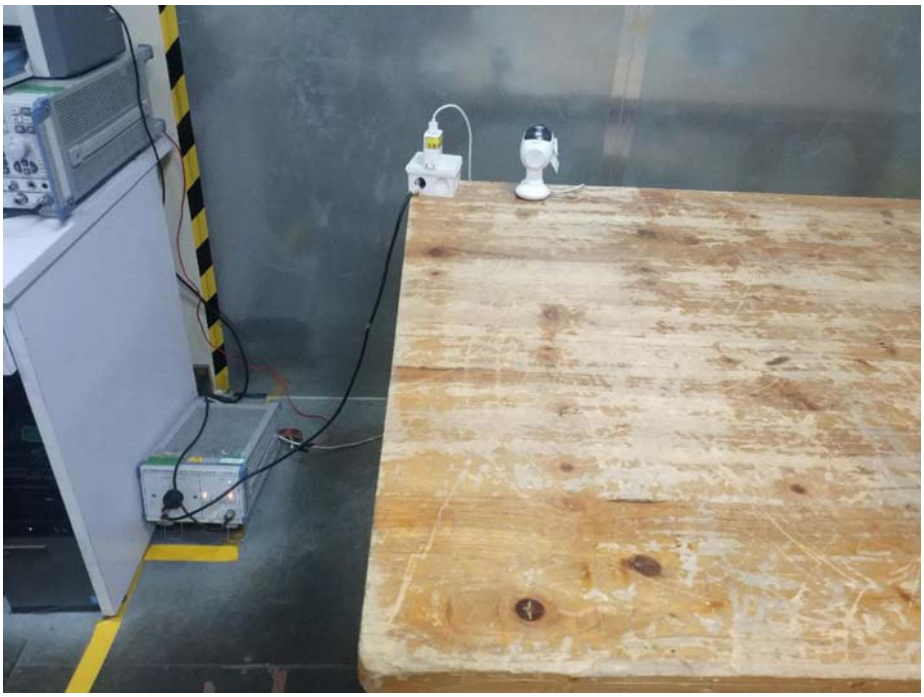
EUT Photo 1

EUT Photo 2

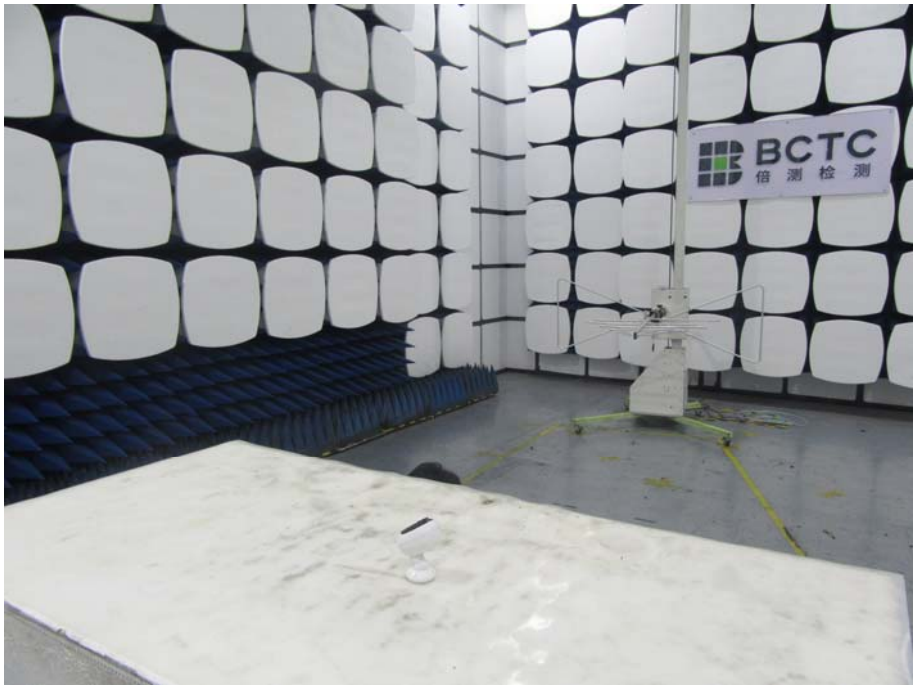
EUT Photo 3

16. EUT TEST SETUP PHOTOGRAPHS

Conducted emissions



Radiated Measurement Photos



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:
1-2F, East of B Building, Pengzhou Industrial Park, Fuyuan 1st Road, Qiaotou, Fuyong Street, Bao'an District,Shenzhen,Guangdong,China

TEL：400-788-9558

P.C.: 518103

FAX：0755-33229357

Website：http://www.bctc-lab.com

E-Mail：bctc@bctc-lab.com.cn

※※※※※ **END** ※※※※※