TX CH 00

TX CH 19

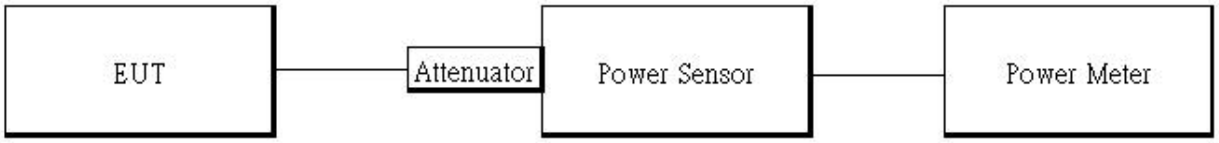
TX CH 39


Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Ref Offset 1 dB
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 3 MHz
Sweep 1.067 ms
Occupied Bandwidth
1.0321 MHz
Total Power
8.07 dBm
Transmit Freq Error
7.164 kHz
OBW Power
99.00 %
x dB Bandwidth
648.4 kHz
x dB
-6.00 dB
MSG
STATUS

9 Maximum Peak Output Power

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247 (b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

9.1 Test Setup



9.2 Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
3. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to th power meter.
4. Record the max. Reading as observed from Power Meter.
5. Repeat above procedures until all test default channel measured was complete.

9.3 Test Result

BLE Mode:

Frequency (MHz)	Peak Power Output (dBm)	Limit(dBm)
2402	-0.116	30
2440	1.148	30
2480	2.122	30

10 Power Spectral density

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	Regulation 15.247(f) The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

10.1 Test Procedure

1. 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.

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

3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW0 = 3KHz, Video Bandwidth (VBW) = 10KHz, in order to make an accurate measurement, set the span to 1.5 times DTS channel bandwidth.

4. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.

5. Measure and record the result in the test report.

10.2 Test Result

Channel frequency (MHz)	Measurement level (dBm)	Required Limit (dBm/3kHz)	Pass/Fail
	PSD/3kHz		
2402	-15.842	8	PASS
2440	-14.608	8	PASS
2480	-13.616	8	PASS

TX CH00

TX CH19


Center Freq 2.440000000 GHz
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: Pwr(RMS)
Avg|Hold: 50/100
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 2.440 006 71 GHz
-14.608 dBm
Center 2.4400000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 1.032 MHz
Sweep 109 ms (8001 pts)

TX CH39


Center Freq 2.480000000 GHz
PNO: Far
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: Pwr(RMS)
Avg|Hold: 49/100
Ref Offset 1 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr1 2.480 007 39 GHz
-13.616 dBm
Center 2.4800000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 1.037 MHz
Sweep 110 ms (8001 pts)

11 Antenna Application

11.1 Antenna Requirement

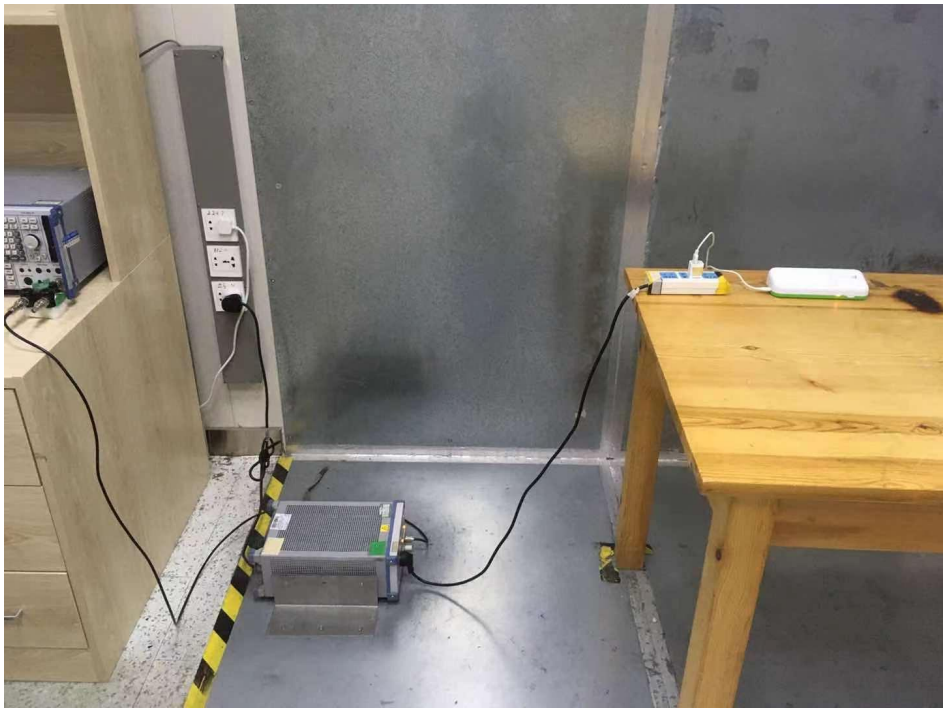
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2 Result

The EUT'S antenna, permanent attached antenna, is internal antenna. The antenna's gain is 0dBi and meets the requirement.

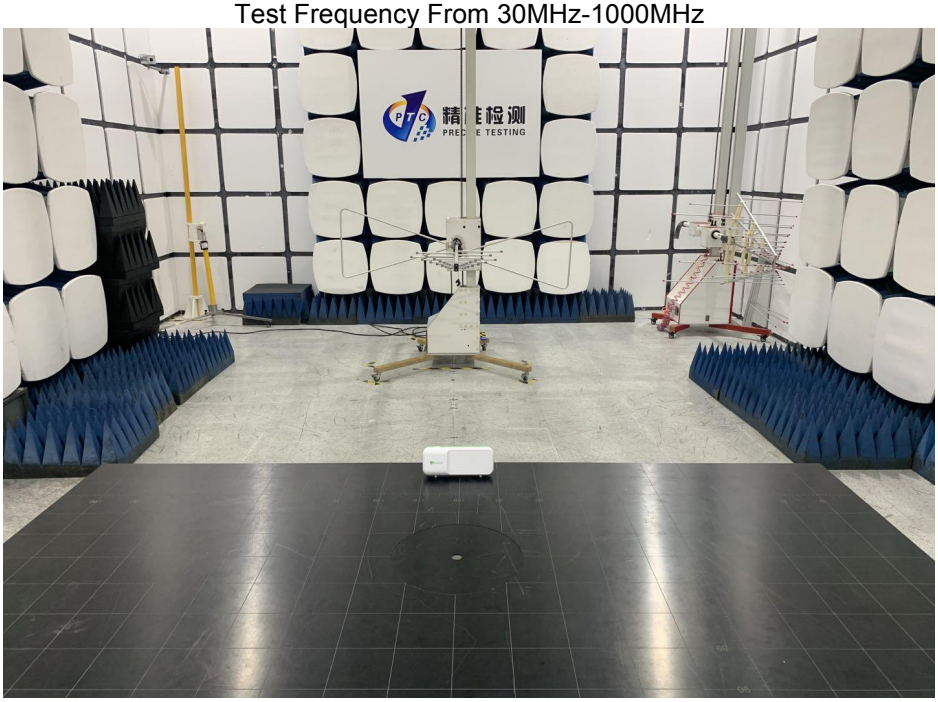
12 Test Setup

Conducted Emission

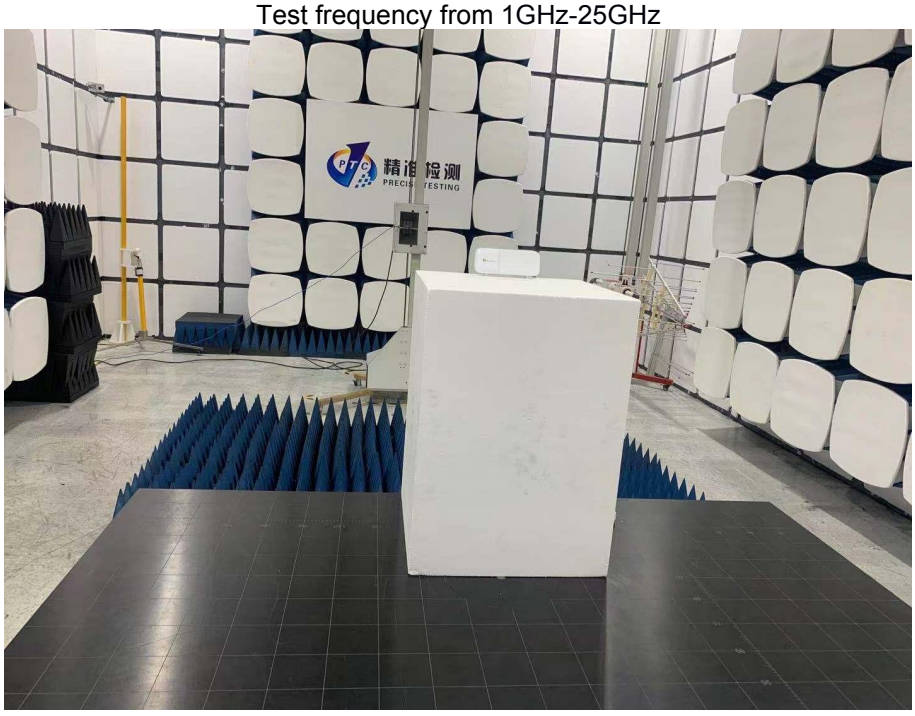


Radiated Spurious Emissions

Test Frequency From 30MHz-1000MHz



Test frequency from 1GHz-25GHz



13 EUT Photos