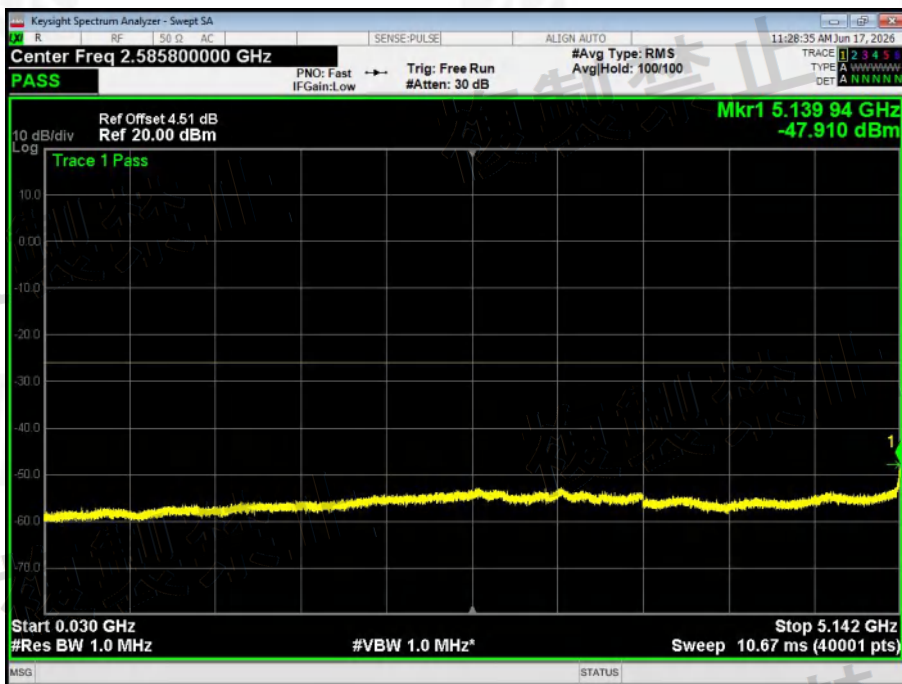


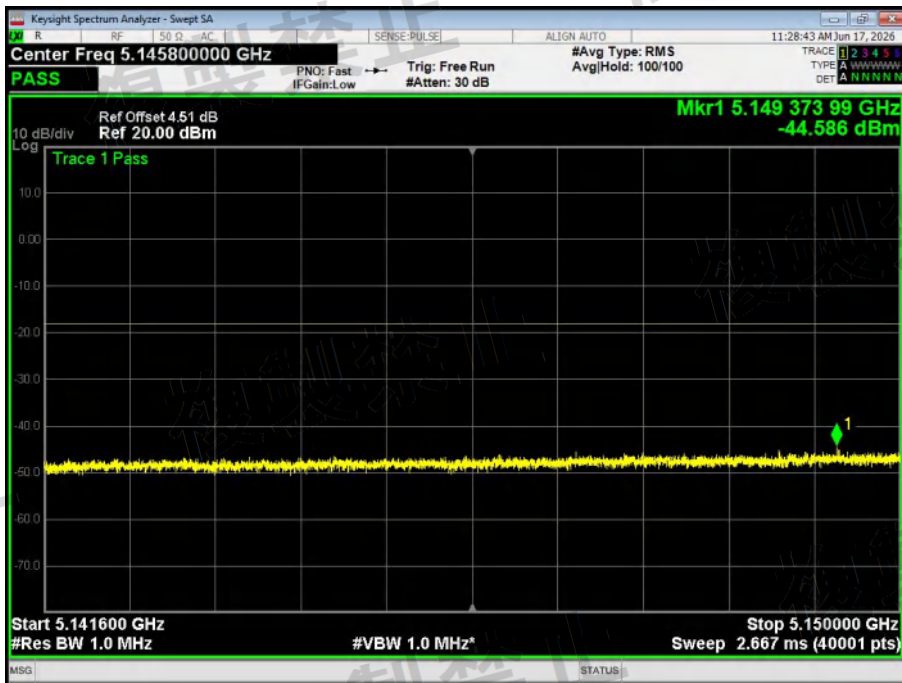


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ac40 CH38 - (30MHz - 5141.6MHz)

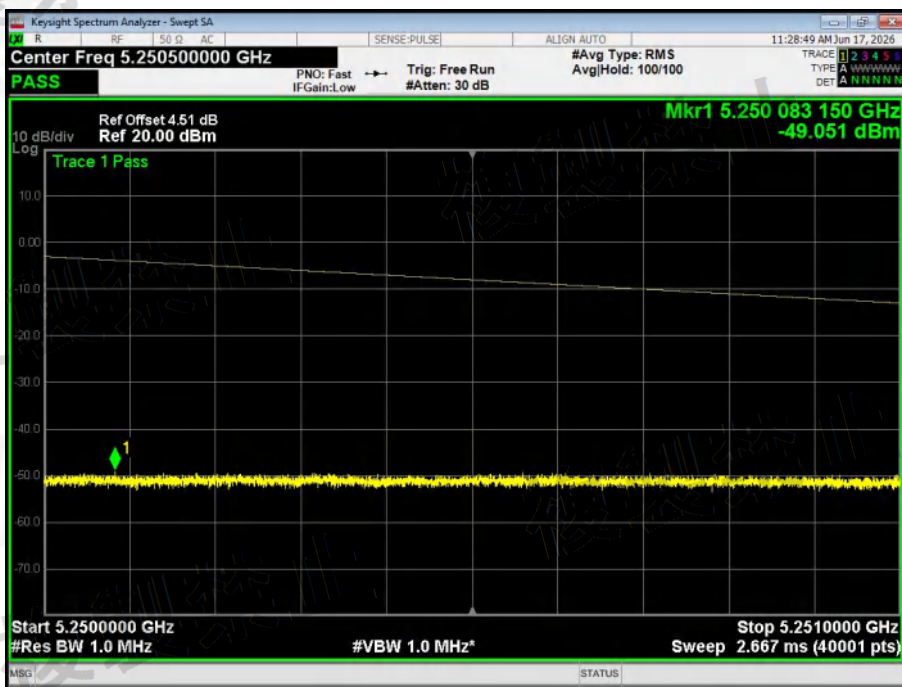


IEEE 802.11ac40 CH38 - (5141.6MHz-5150MHz)

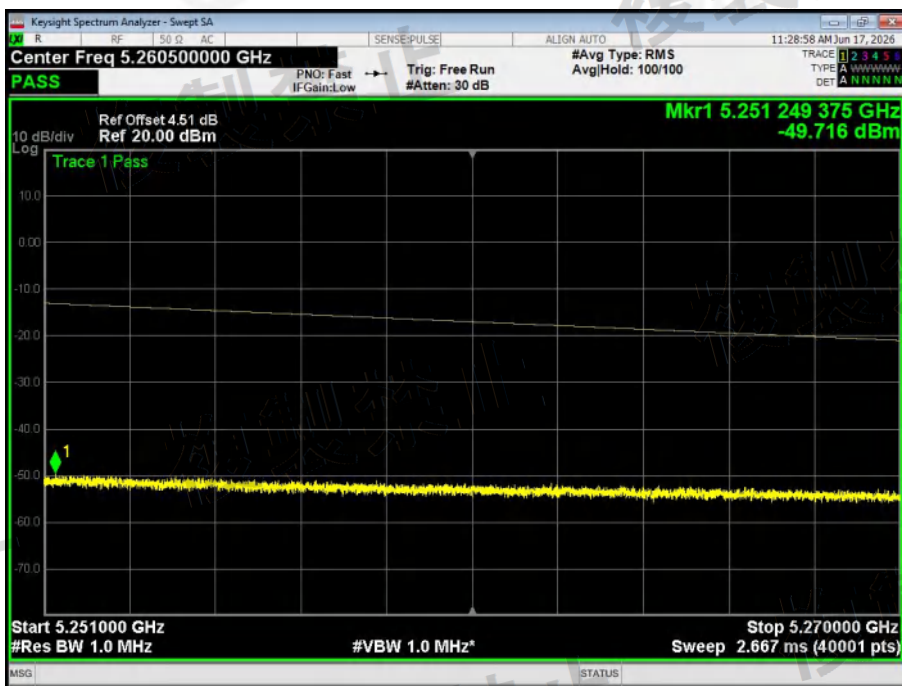




IEEE 802.11ac40 CH38 - (5250MHz-5251MHz)

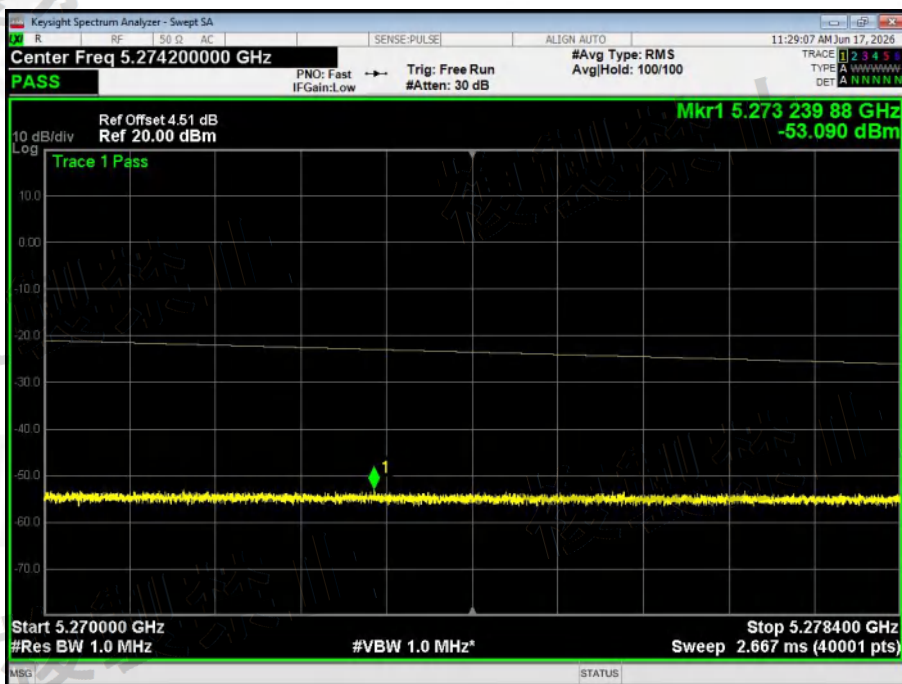


IEEE 802.11ac40 CH38 - (5251MHz-5270MHz)





IEEE 802.11ac40 CH38 - (5270MHz-5278.4MHz)



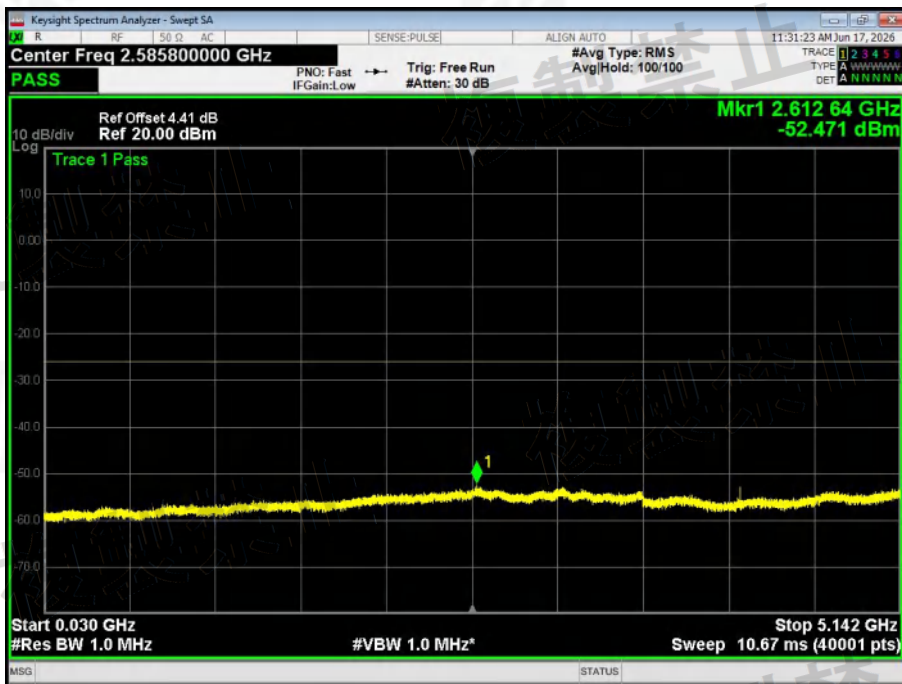
IEEE 802.11ac40 CH38 - (5278.4MHz-26000MHz)



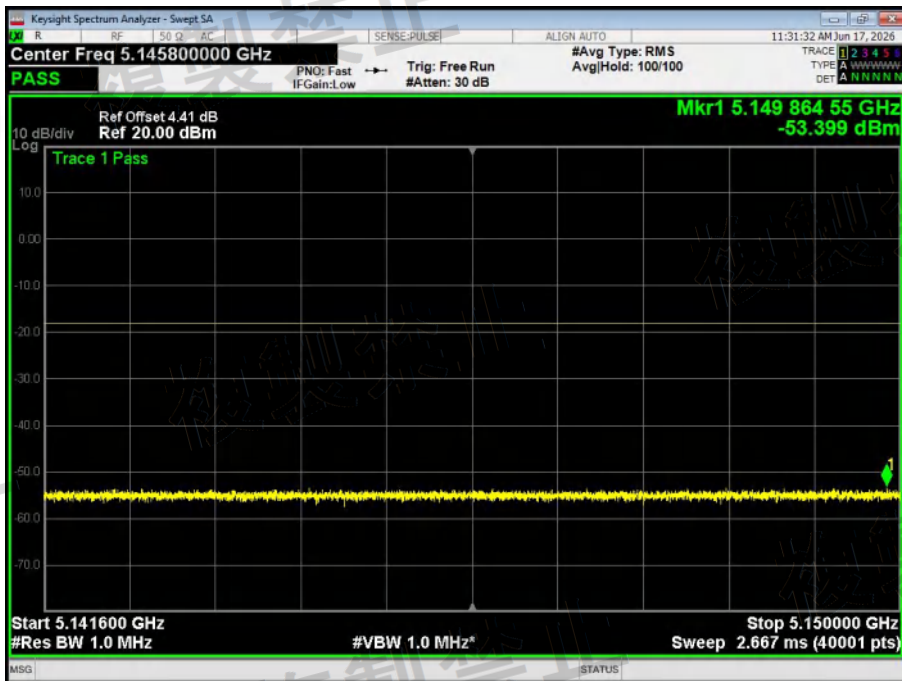


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ac40 CH46 - (30MHz - 5141.6MHz)

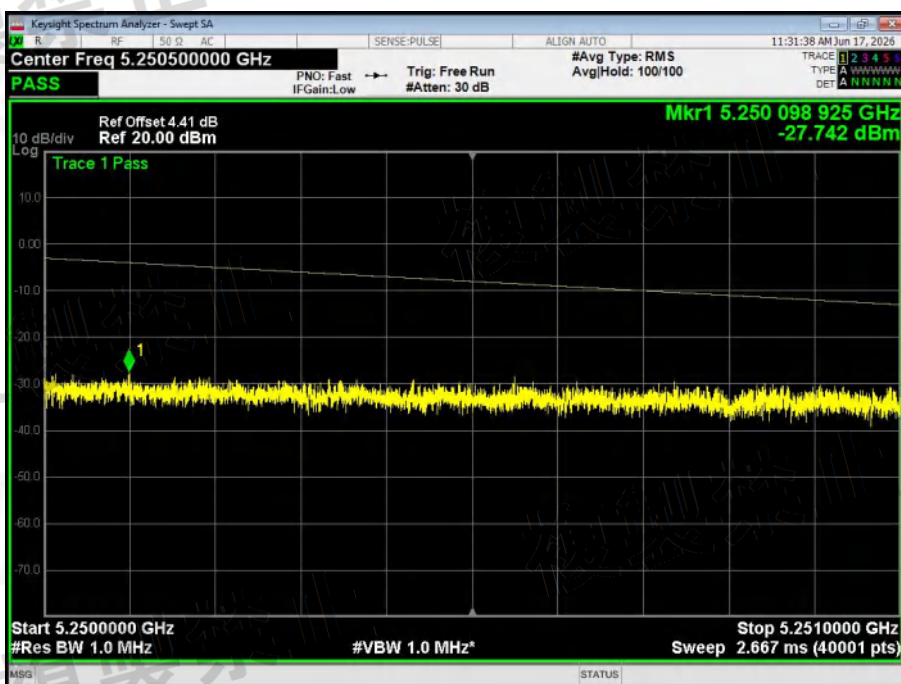


IEEE 802.11ac40 CH46 - (5141.6MHz-5150MHz)

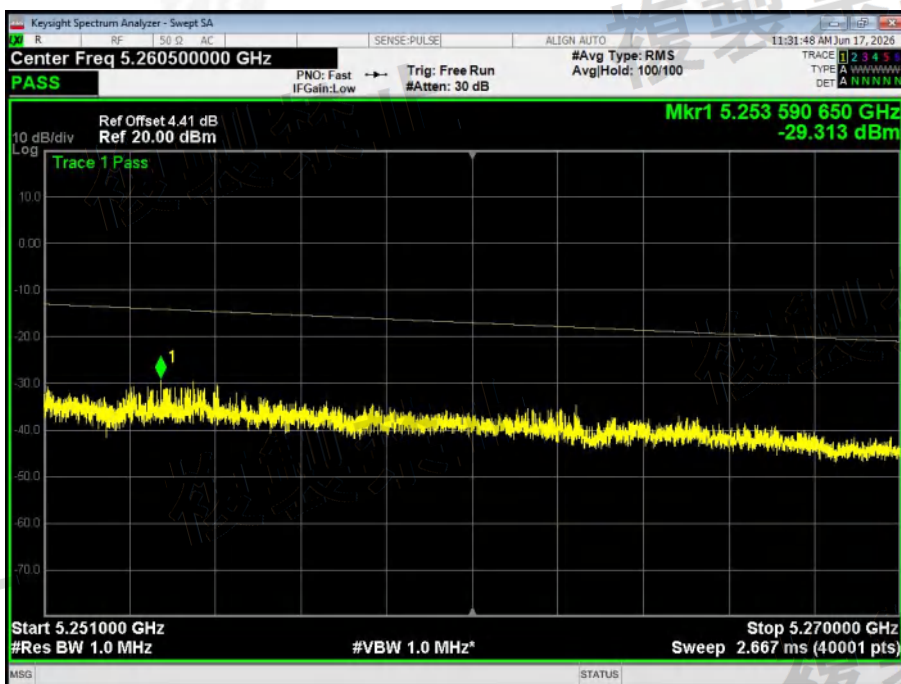




IEEE 802.11ac40 CH46 - (5250MHz-5251MHz)

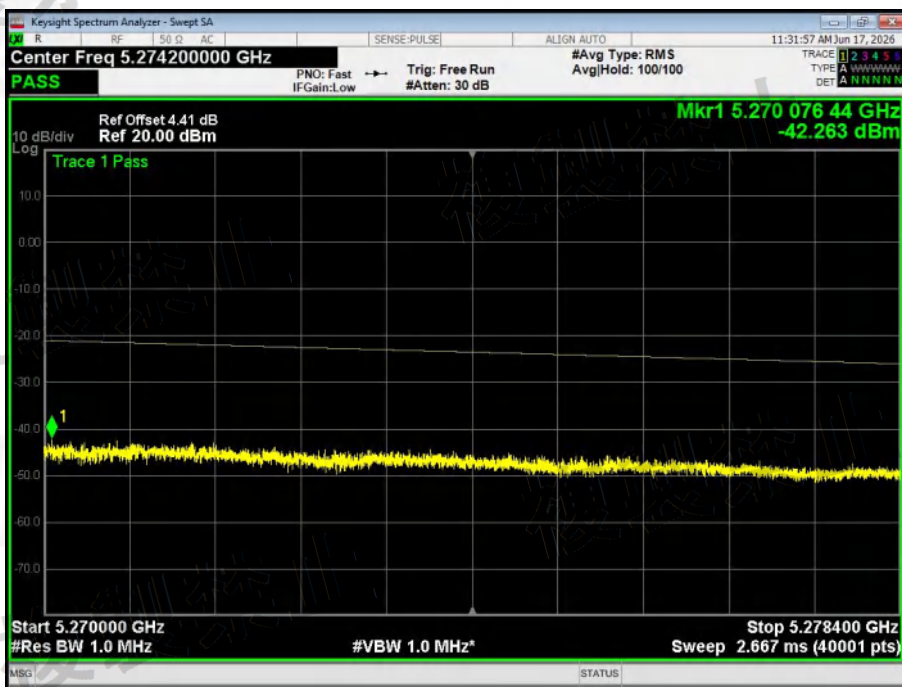


IEEE 802.11ac40 CH46 - (5251MHz-5270MHz)





IEEE 802.11ac40 CH46 - (5270MHz-5278.4MHz)



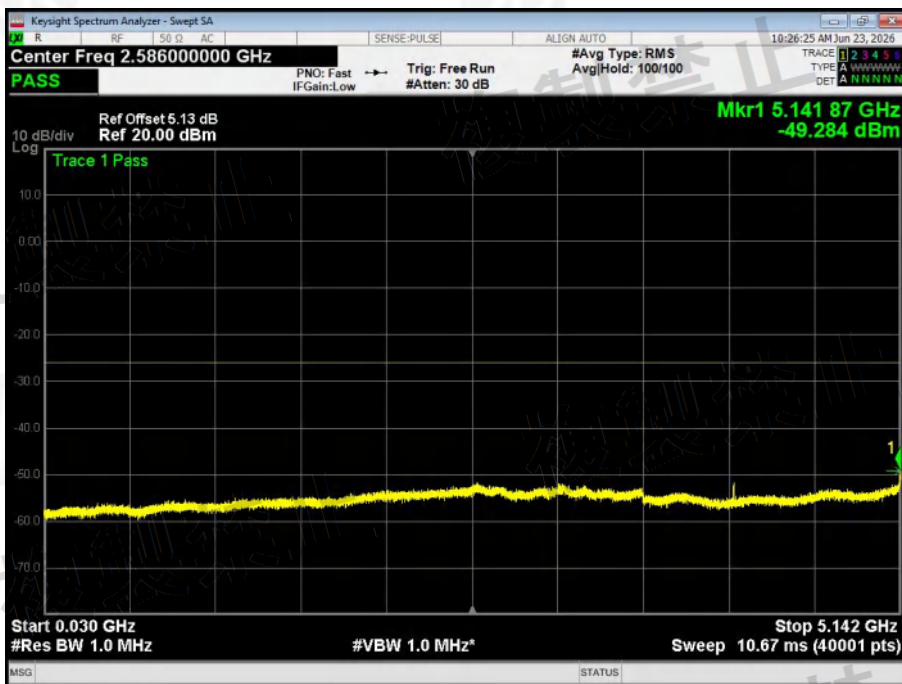
IEEE 802.11ac40 CH46 - (5278.4MHz-26000MHz)



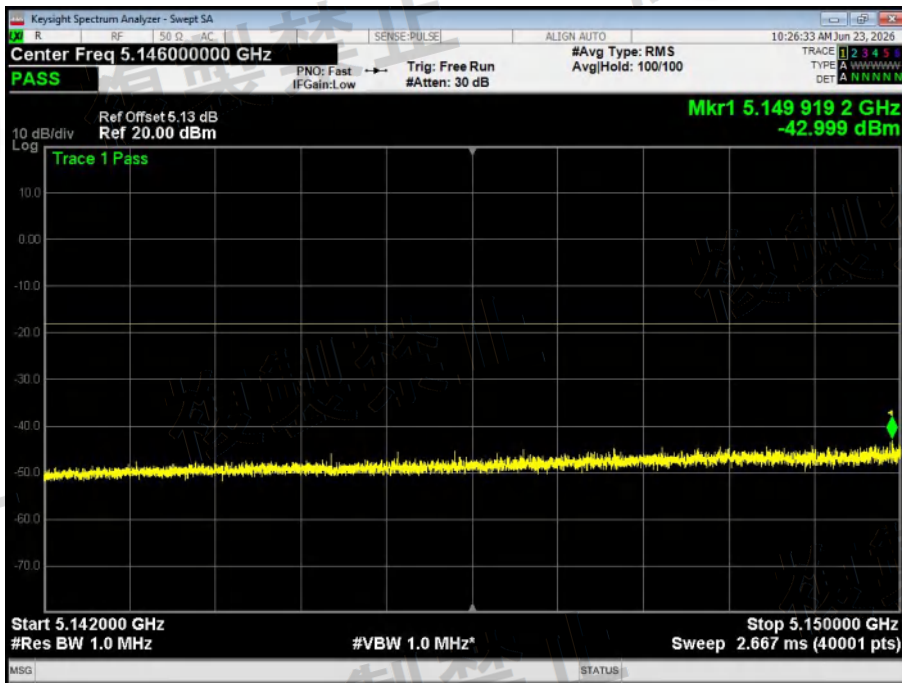


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ax20 CH36 - (30MHz - 5142MHz)

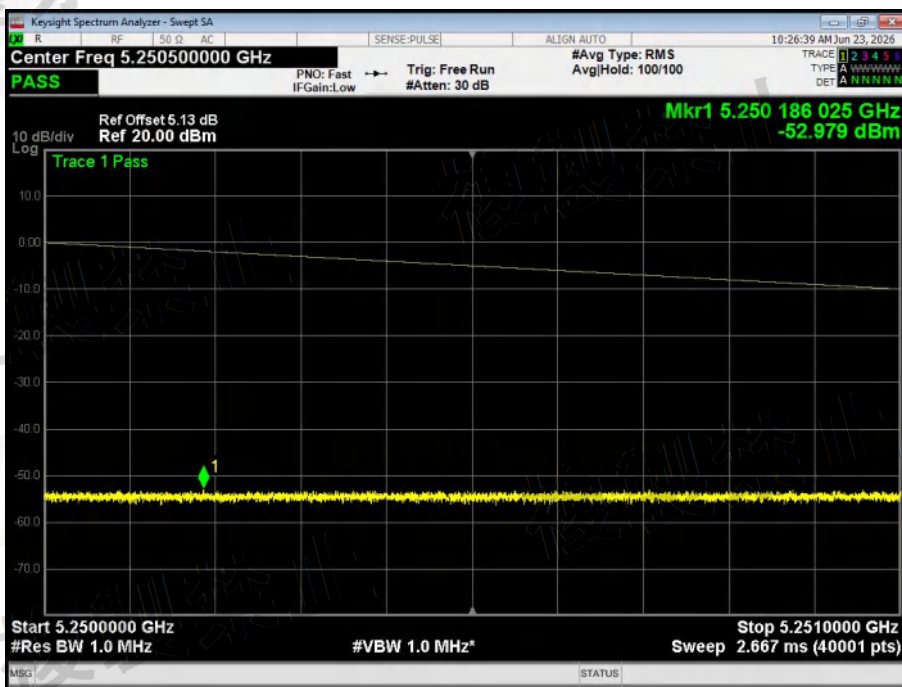


IEEE 802.11ax20 CH36 - (5142MHz-5150MHz)

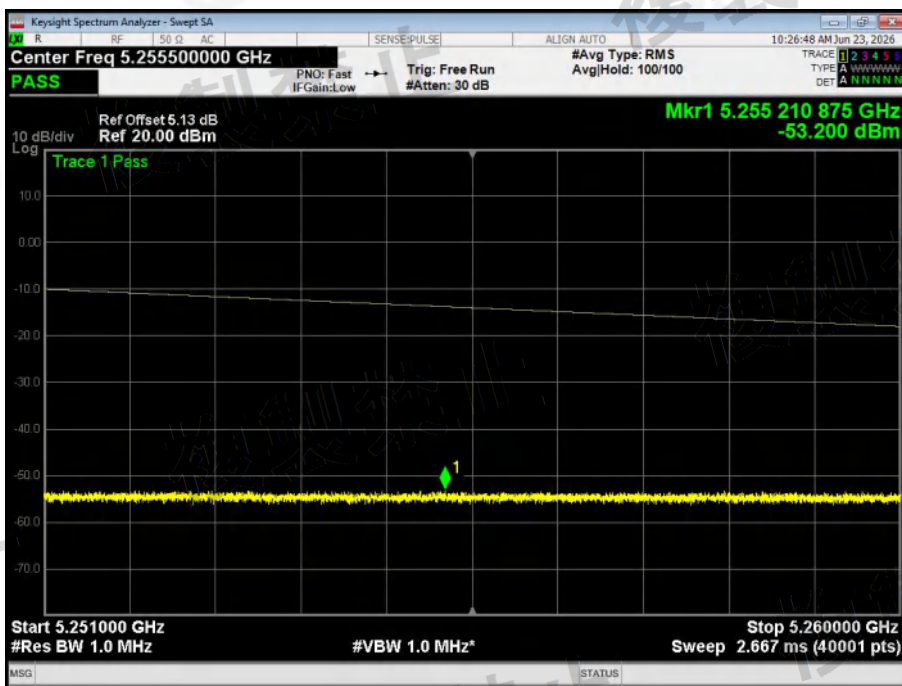




IEEE 802.11ax20 CH36 - (5250MHz-5251MHz)

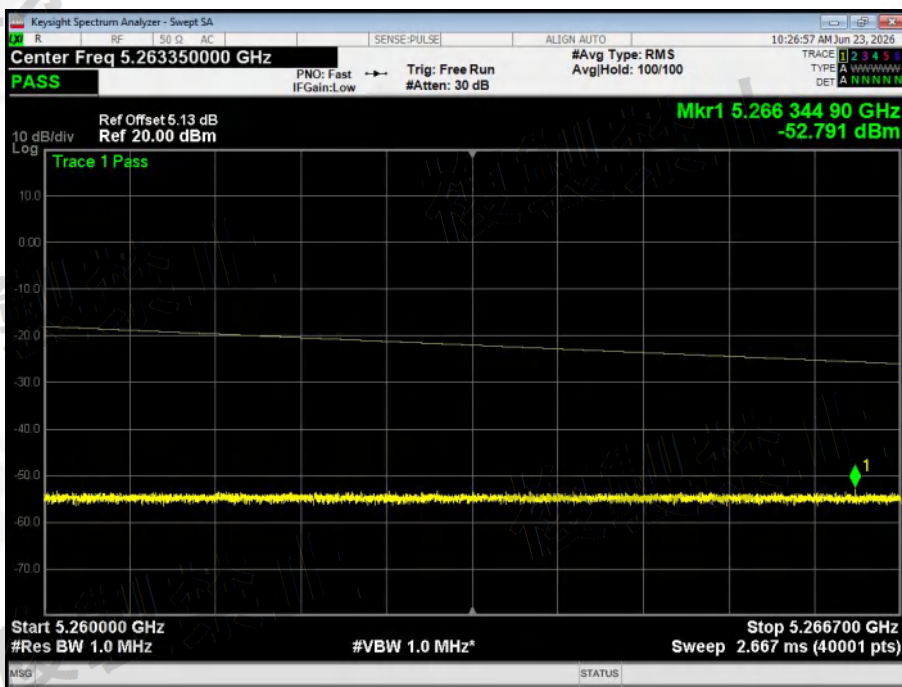


IEEE 802.11ax20 CH36 - (5251MHz-5260MHz)

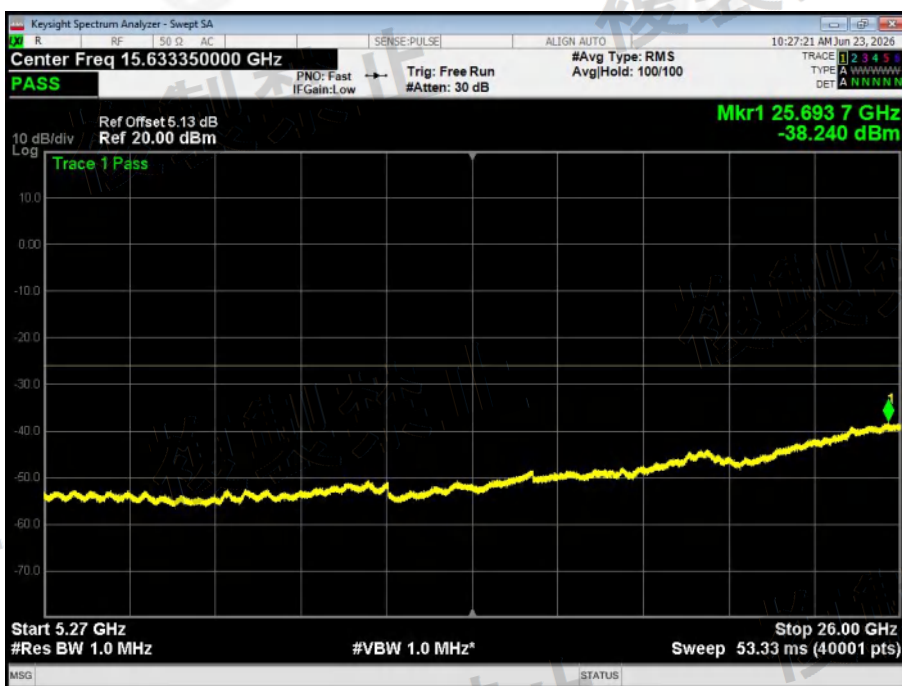




IEEE 802.11ax20 CH36 - (5260MHz-5266.7MHz)



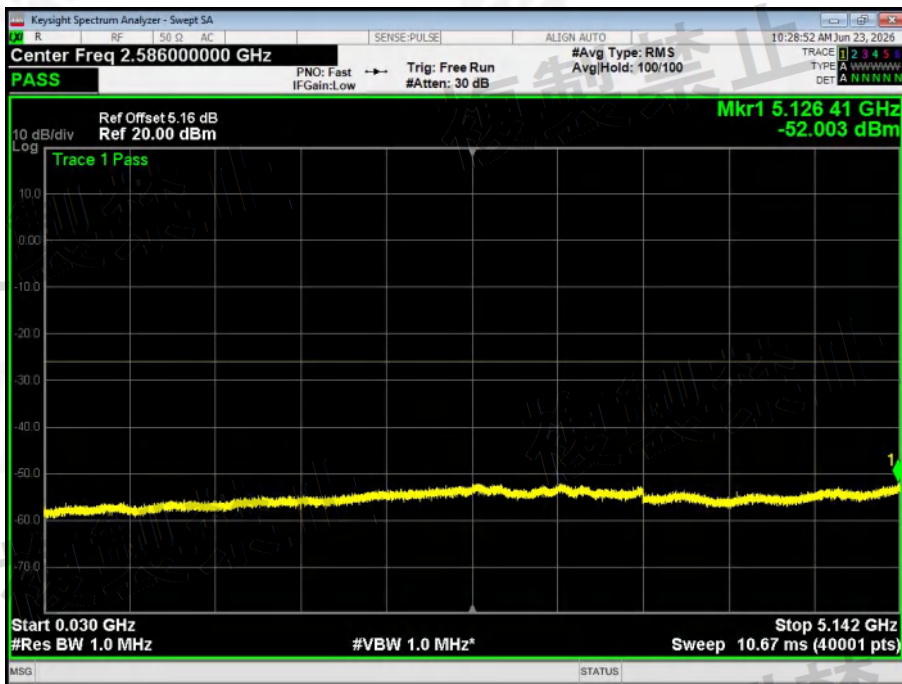
IEEE 802.11ax20 CH36 - (5266.7MHz-26000MHz)



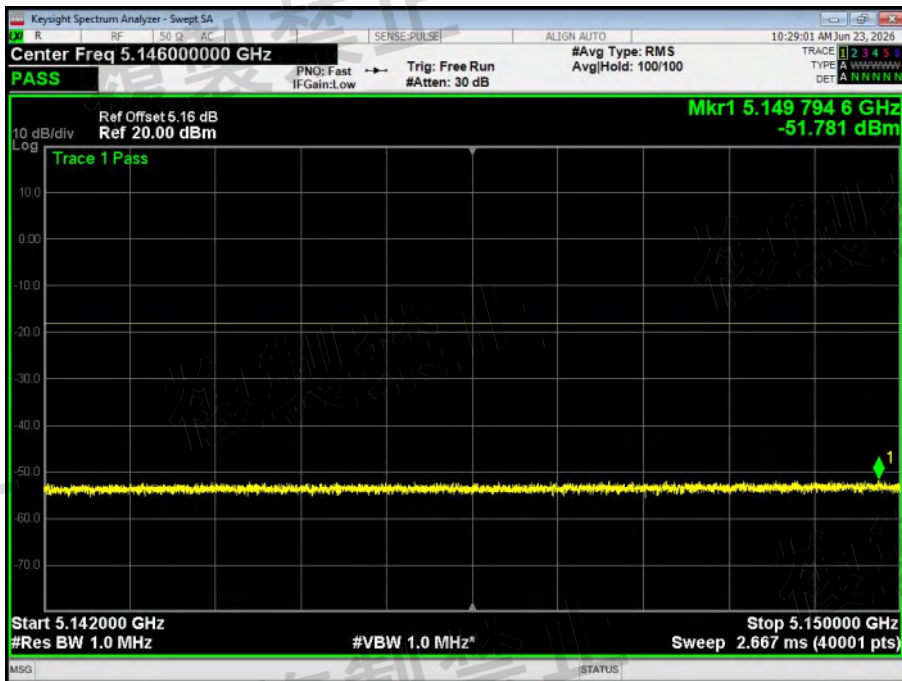


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ax20 CH40 - (30MHz - 5142MHz)



IEEE 802.11ax20 CH40 - (5142MHz-5150MHz)

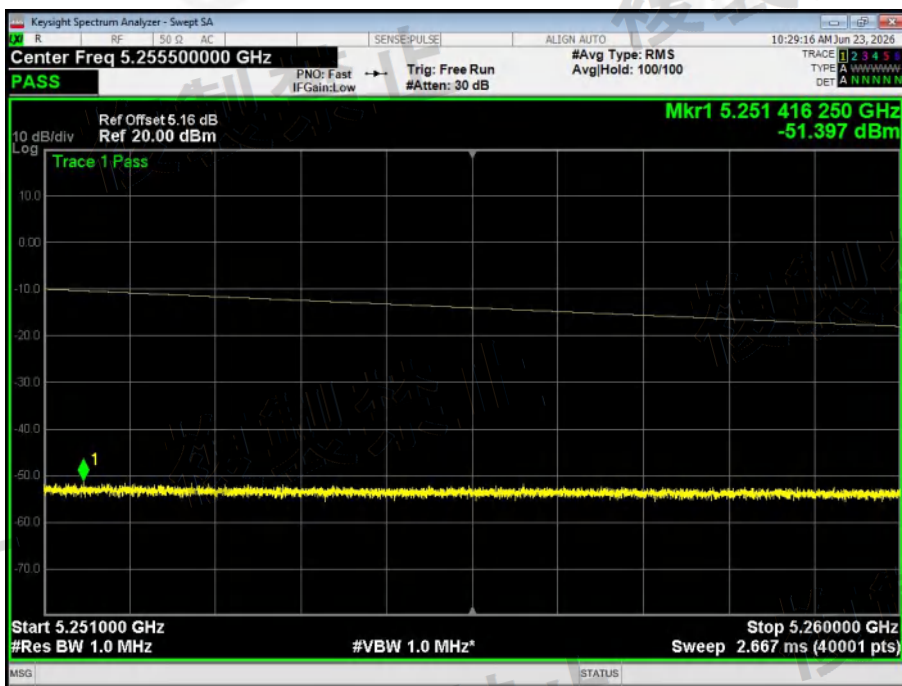




IEEE 802.11ax20 CH40 - (5250MHz-5251MHz)

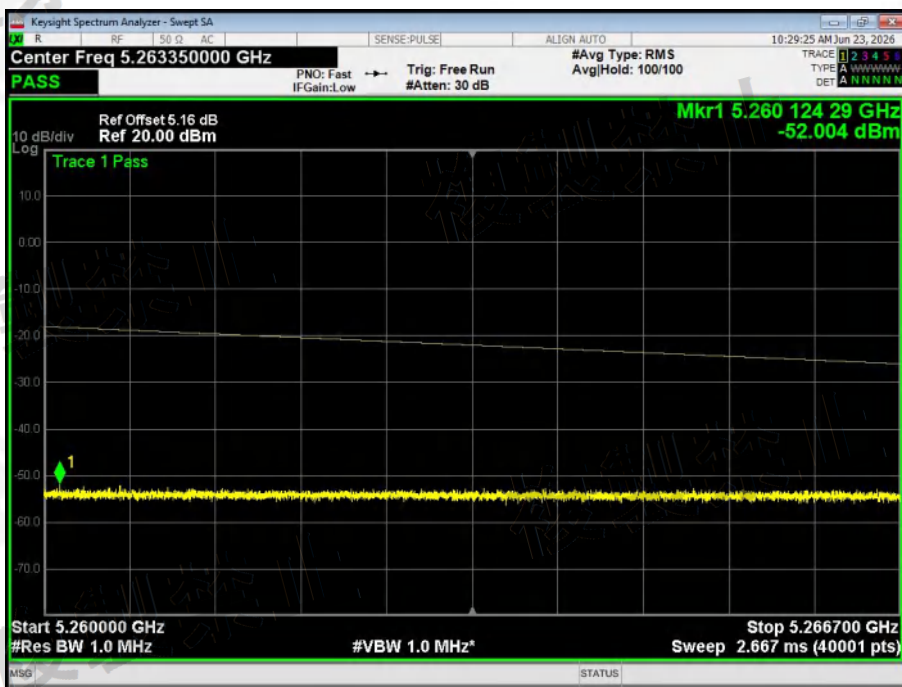


IEEE 802.11ax20 CH40 - (5251MHz-5260MHz)





IEEE 802.11ax20 CH40 - (5260MHz-5266.7MHz)



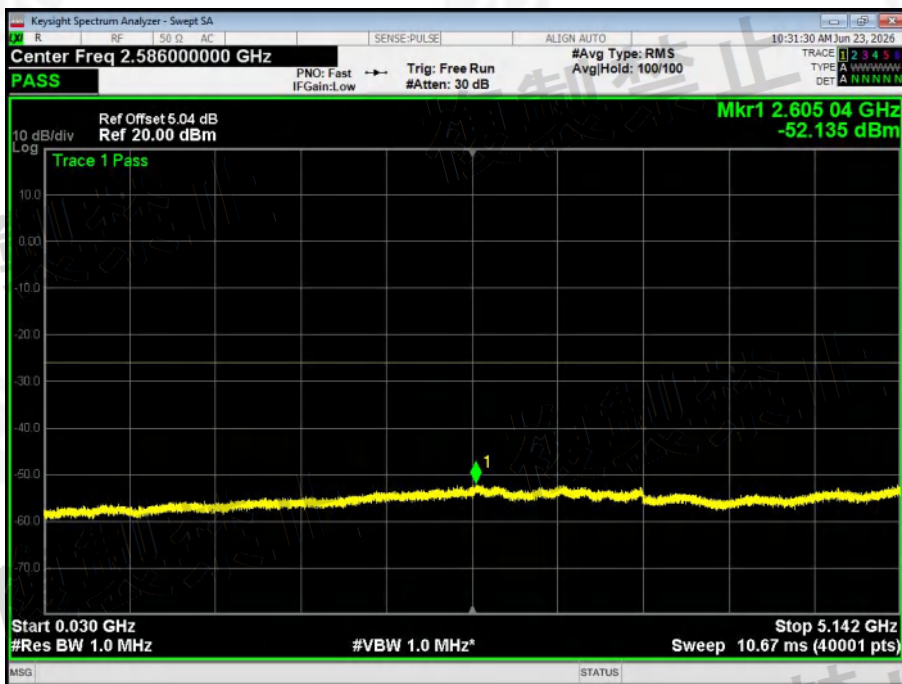
IEEE 802.11ax20 CH40 - (5266.7MHz-26000MHz)



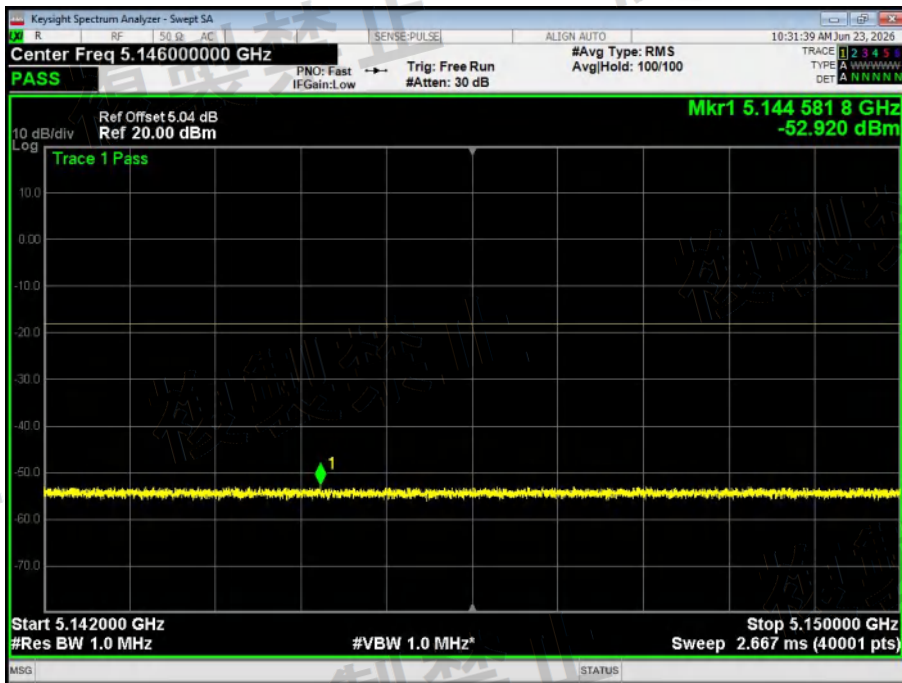


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ax20 CH48 - (30MHz - 5142MHz)

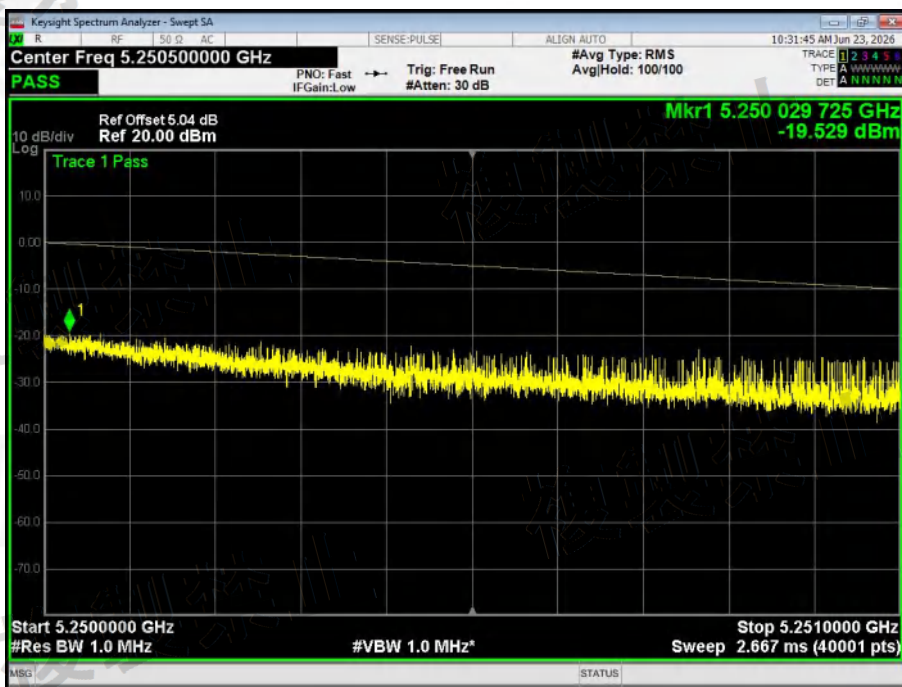


IEEE 802.11ax20 CH48 - (5142MHz-5150MHz)

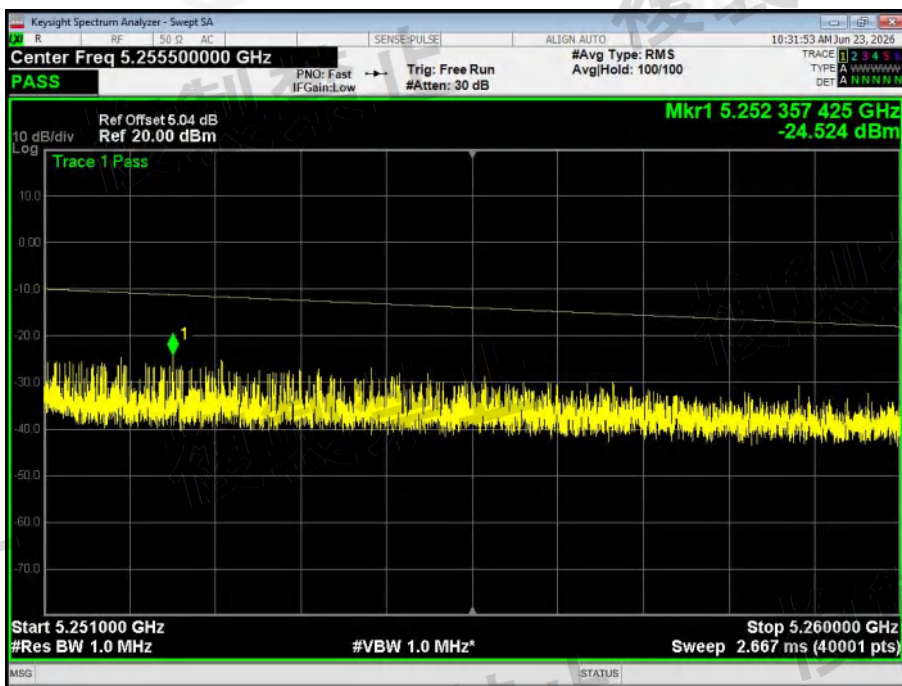




IEEE 802.11ax20 CH48 - (5250MHz-5251MHz)

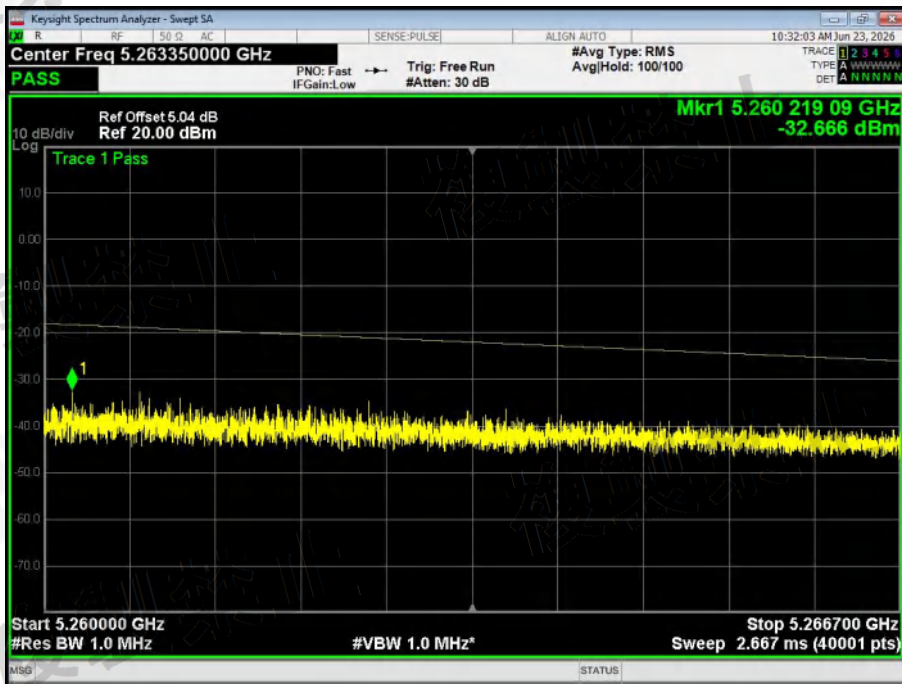


IEEE 802.11ax20 CH48 - (5251MHz-5260MHz)





IEEE 802.11ax20 CH48 - (5260MHz-5266.7MHz)



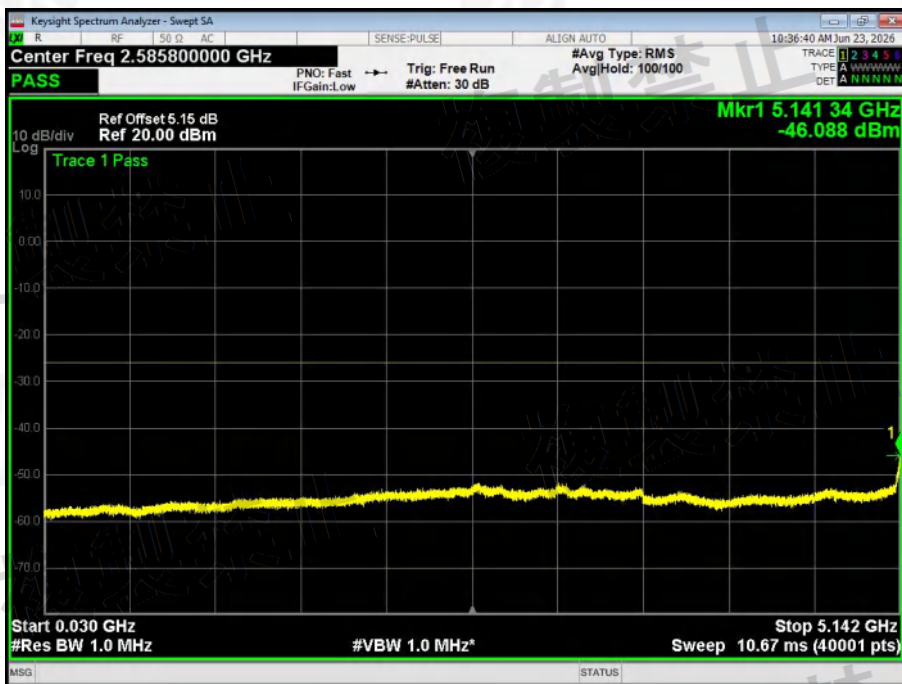
IEEE 802.11ax20 CH48 - (5266.7MHz-26000MHz)



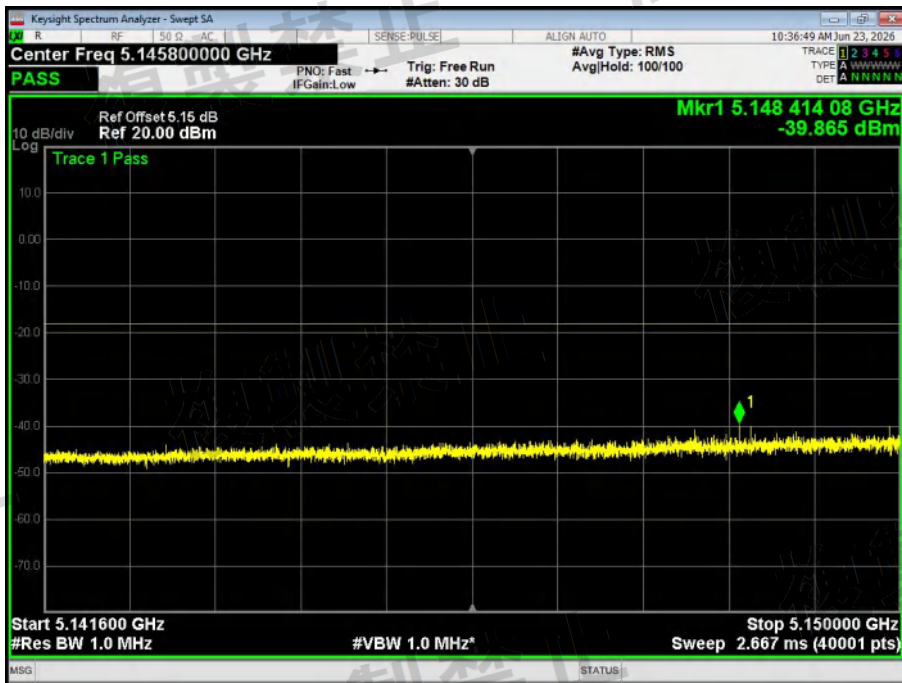


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ax40 CH38 - (30MHz - 5141.6MHz)

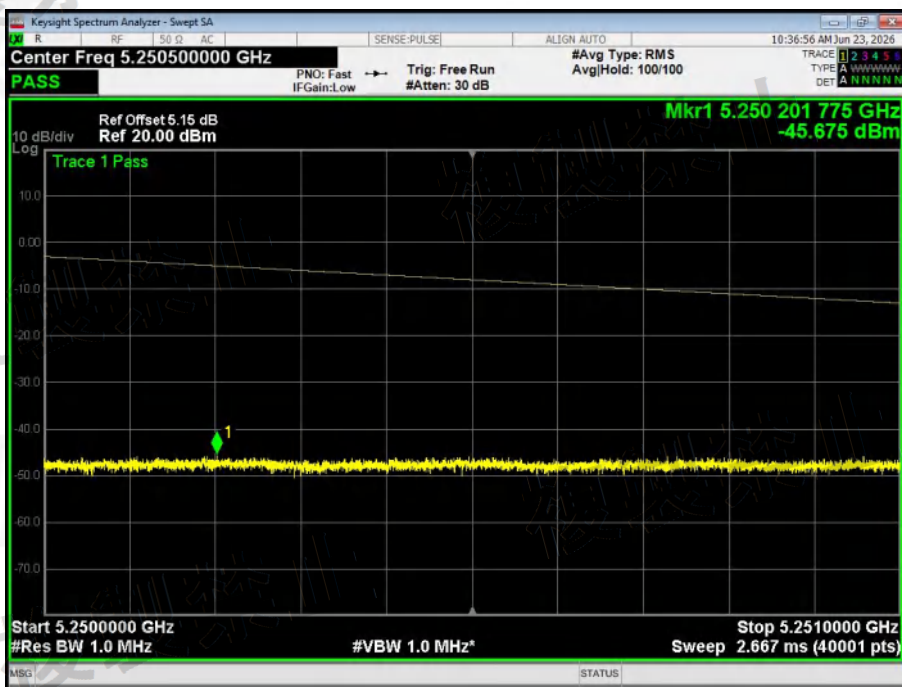


IEEE 802.11ax40 CH38 - (5141.6MHz-5150MHz)

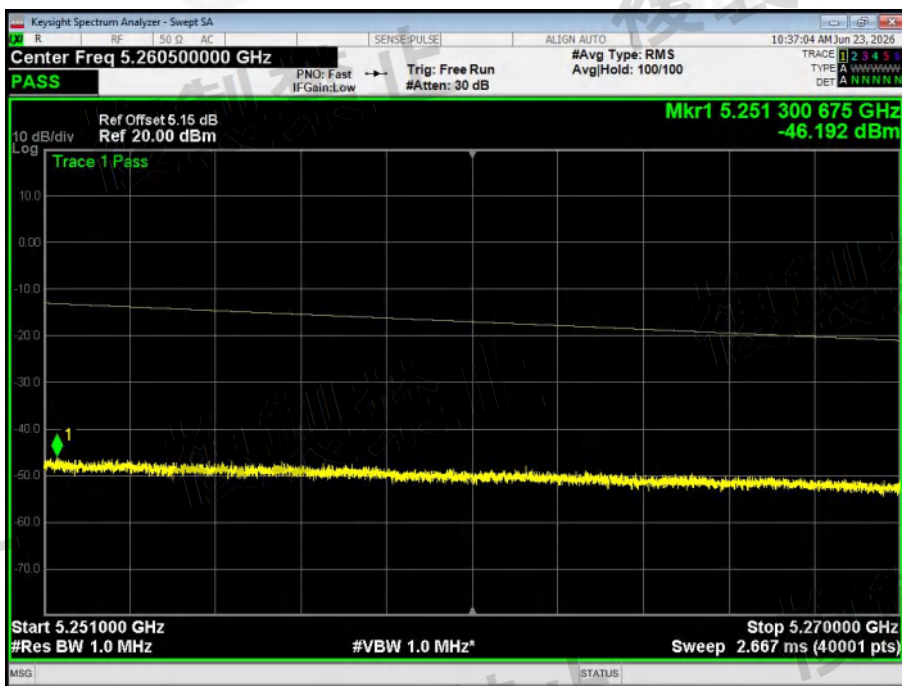




IEEE 802.11ax40 CH38 - (5250MHz-5251MHz)

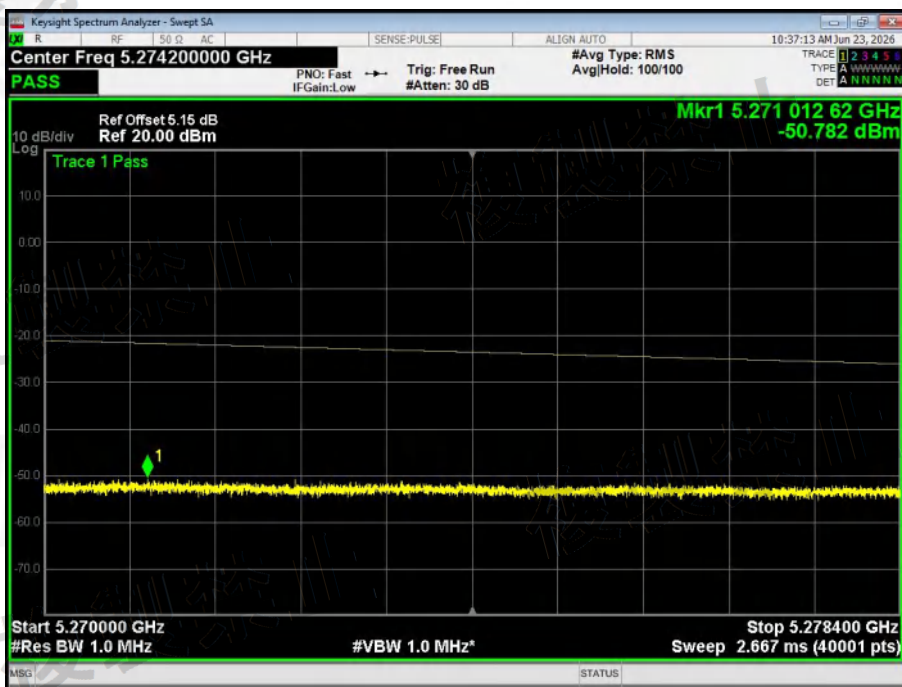


IEEE 802.11ax40 CH38 - (5251MHz-5270MHz)





IEEE 802.11ax40 CH38 - (5270MHz-5278.4MHz)



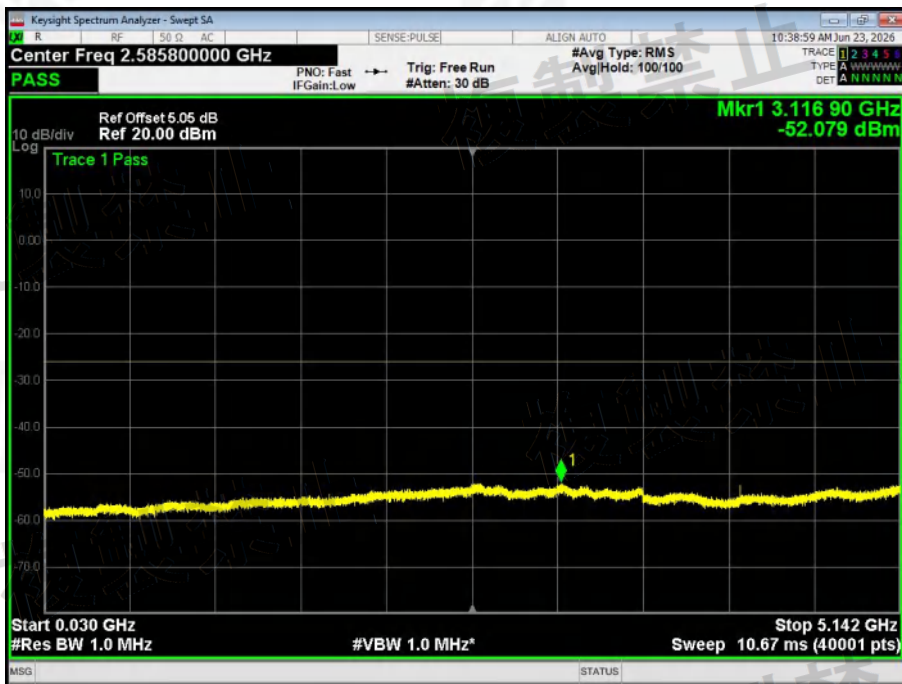
IEEE 802.11ax40 CH38 - (5278.4MHz-26000MHz)



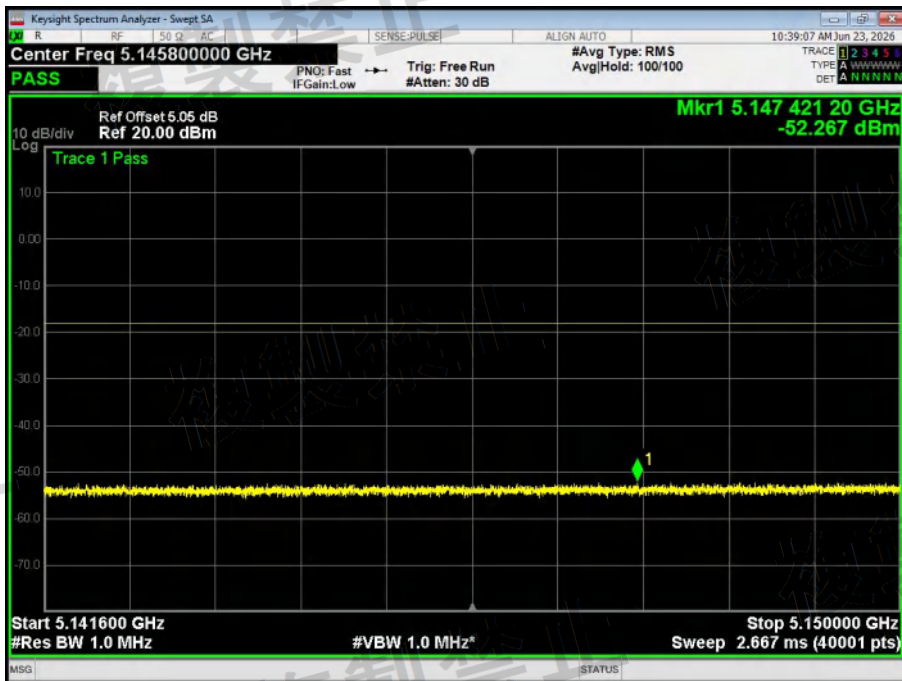


Test voltage	Normal	RESULT	PASS
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IEEE 802.11ax40 CH46 - (30MHz - 5141.6MHz)

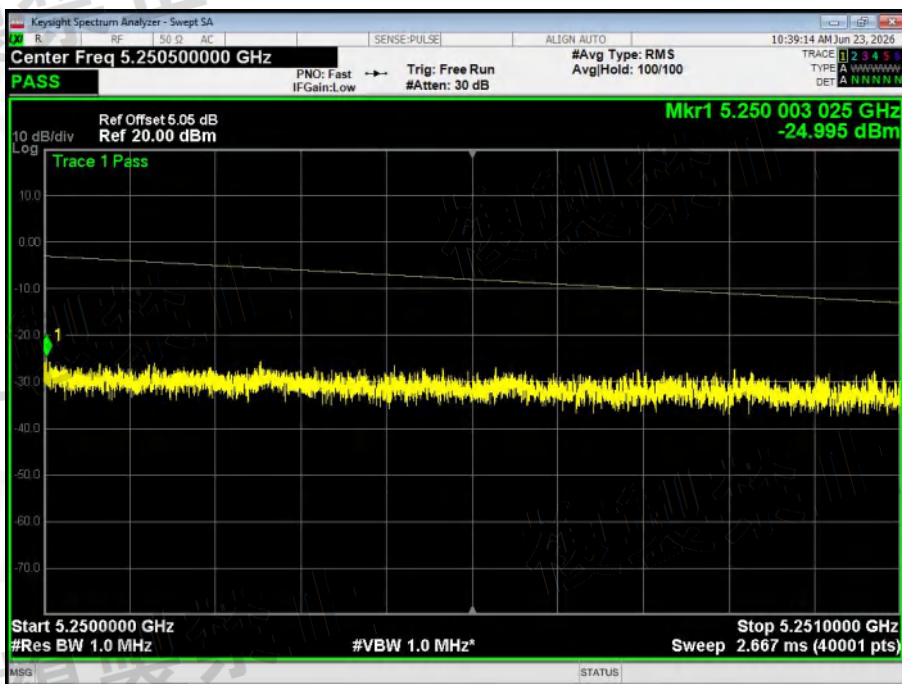


IEEE 802.11ax40 CH46 - (5141.6MHz-5150MHz)

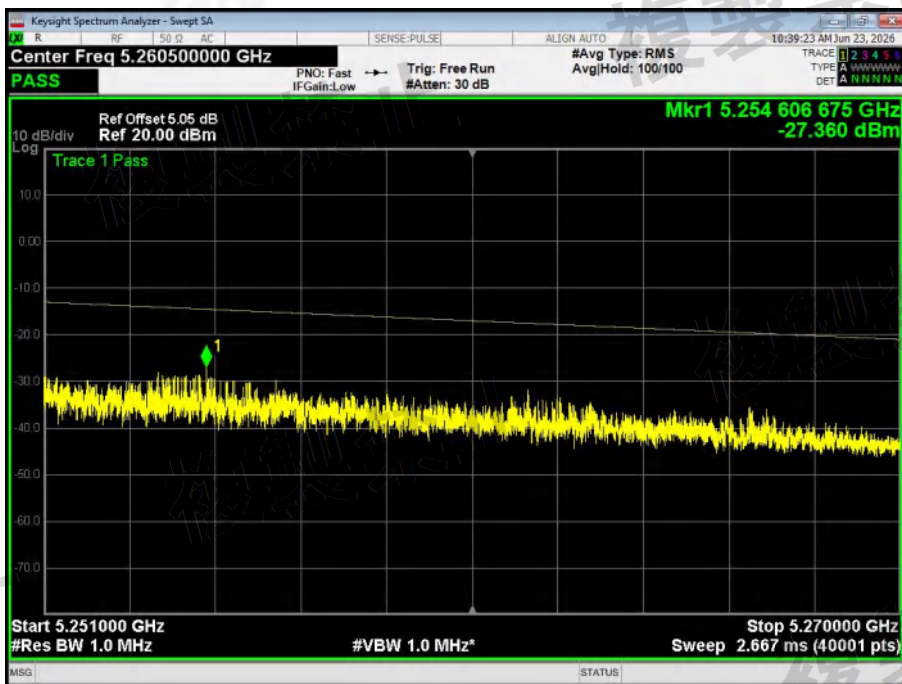




IEEE 802.11ax40 CH46 - (5250MHz-5251MHz)

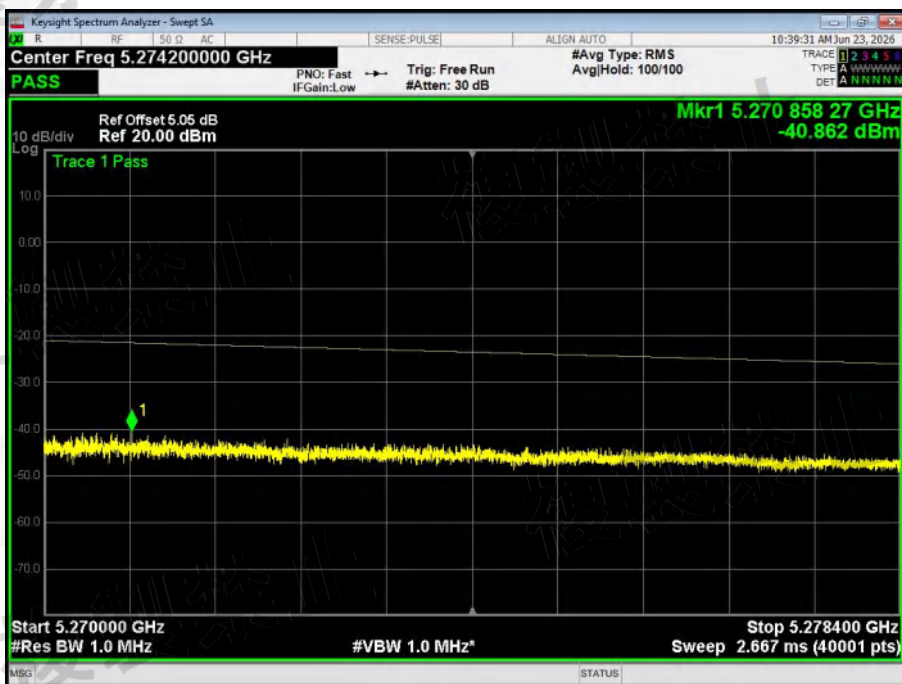


IEEE 802.11ax40 CH46 - (5251MHz-5270MHz)





IEEE 802.11ax40 CH46 - (5270MHz-5278.4MHz)



IEEE 802.11ax40 CH46 - (5278.4MHz-26000MHz)





5.4 ANTENNA POWER AND TOLERANCE MEASUREMENT

5.4.1 LIMIT

Item	Limits
Antenna Power	20MHz system (OFDM): $\leq 10\text{mW/MHz}$ 40MHz system (OFDM): $\leq 5\text{mW/MHz}$
ERIP	20MHz system (OFDM): $\leq 10\text{mW/MHz}$ 40MHz system (OFDM): $\leq 5\text{mW/MHz}$
Antenna Power tolerance	+20%, -80% (Base on manufacturer declare antenna power)

5.4.2 MEASURING INSTRUMENTS AND SETTING

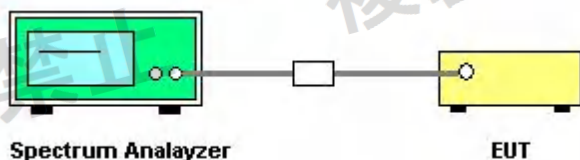
Please refer to section 5 in this report. The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.4.3 TEST PROCEDURES

1. A power meter is connected on the IF output port of the spectrum analyzer.
2. Adjust the spectrum analyzer to have the center frequency the same with the measured carrier. RBW=VBW=1MHz, detector mode is positive peak. Turnoff the averaging function and use zero span.
3. The calibrating signal power shall be reduced to 0 dBm and it shall be verified that the power meter reading also reduces by 10 dB.
4. Connect the equipment to be measured. Using the following settings of the spectrum analyzer in combination with "max hold" function, find the frequency of highest power output in the power envelope: center frequency equal to operating frequency; RBW & VBW: 1 MHz; detector mode: positive peak; averaging: off; span: 3 times the spectrum width; amplitude: adjust for middle of the instrument' range. The frequency found shall be recorded.
5. Set the center frequency of the spectrum analyzer to the found frequency and switch to zero span. The power meter indicates the measured power "E".
6. Calculate antenna power density by the formula below $PD = Pt + 10 \cdot \log(1/x)$. x: The duty cycle of the EUT in continuously transmitting mode Pt: Output power of the SSG
7. Antenna Power Error is definition that actual measure antenna power tolerance between + 20% to - 80% power range that base on manufacturer declare the conducted power.

5.4.4 TEST SETUP LAYOUT



5.4.5 EST DEVIATION

There is no deviation with the original standard.

5.4.6 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.



5.4.7 TEST RESULT

Test Frequency (MHz)	Antenna Power (dBm/MHz)	Antenna Power (mW/MHz)	Rated power (mW/MHz)	Antenna Power Limits (mW/MHz)	Tolerance (%)	Tolerance Limit (%)	RESULT
Operation Mode:	Normal Voltage-IEEE 802.11a						
5180	4.064	2.549	4.00	≤10	-36.28	-80 ~ 20	PASS
5200	4.768	2.998	4.00	≤10	-25.05	-80 ~ 20	PASS
5240	3.423	2.199	4.00	≤10	-45.03	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11n20						
5180	3.586	2.283	3.00	≤10	-23.90	-80 ~ 20	PASS
5200	2.924	1.961	3.00	≤10	-34.63	-80 ~ 20	PASS
5240	2.460	1.762	3.00	≤10	-41.27	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11n40						
5190	0.766	1.193	2.00	≤5	-40.35	-80 ~ 20	PASS
5230	-0.192	0.957	2.00	≤5	-52.15	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ac20						
5180	2.828	1.918	3.00	≤10	-36.07%	-80 ~ 20	PASS
5200	1.053	1.274	3.00	≤10	-57.53%	-80 ~ 20	PASS
5240	1.003	1.260	3.00	≤10	-58.00%	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ac40						
5190	0.688	1.172	2.00	≤5	-41.40%	-80 ~ 20	PASS
5230	0.534	1.131	2.00	≤5	-43.45%	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ax20						
5180	2.586	1.814	3.00	≤10	-39.53%	-80 ~ 20	PASS
5200	1.924	1.557	3.00	≤10	-48.10%	-80 ~ 20	PASS
5240	1.460	1.400	3.00	≤10	-53.33%	-80 ~ 20	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ax40						
5190	0.666	1.166	2.00	≤5	-41.70%	-80 ~ 20	PASS
5230	0.797	1.201	2.00	≤5	-39.95%	-80 ~ 20	PASS
Limit : +20%, -80% (Base on manufacturer declare antenna power)							



Test Frequency (MHz)	Antenna Power (dBm/MHz)	Antenna gain (dBi)	EIRP (dBm/MHz)	EIRP (mW/MHz)	Limits (mW/MHz)	RESULT
Operation Mode:	Normal Voltage-IEEE 802.11a					
5180	4.064	2	6.064	4.040	≤10	PASS
5200	4.768	2	6.768	4.751	≤10	PASS
5240	3.423	2	5.423	3.486	≤10	PASS
Operation Mode:	Normal Voltage-IEEE 802.11n20					
5180	3.586	2	5.586	3.619	≤10	PASS
5200	2.924	2	4.924	3.107	≤10	PASS
5240	2.460	2	4.46	2.793	≤10	PASS
Operation Mode:	Normal Voltage-IEEE 802.11n40					
5190	0.766	2	2.766	1.891	≤5	PASS
5230	-0.192	2	1.808	1.516	≤5	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ac20					
5180	2.828	2	4.828	3.039	≤10	PASS
5200	1.053	2	3.053	2.020	≤10	PASS
5240	1.003	2	3.003	1.997	≤10	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ac40					
5190	0.688	2	2.688	1.857	≤5	PASS
5230	0.534	2	2.534	1.792	≤5	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ax20					
5180	2.586	2	4.586	2.875	≤10	PASS
5200	1.924	2	3.924	2.468	≤10	PASS
5240	1.460	2	3.46	2.218	≤10	PASS
Operation Mode:	Normal Voltage-IEEE 802.11ax40					
5190	0.666	2	2.666	1.848	≤5	PASS
5230	0.797	2	2.797	1.904	≤5	PASS
Note: EIRP = Antenna Power + Antenna Gain.						



5.5 SECONDARY RADIATED EMISSIONS MEASUREMENT

5.5.1 LIMIT

Item	Limits
RX Spurious Emission:	$\leq 4\text{nW}$ for below 1GHz
	$\leq 20\text{nW}$ for above 1GHz

5.5.2 MEASURING INSTRUMENTS AND SETTING

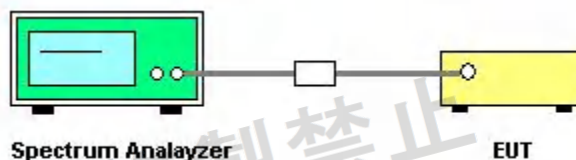
Please refer to section 5 in this report. The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RB	100 kHz (below 1GHz emissions) 1 MHz (above 1GHz emissions)
VB	100 kHz (below 1GHz emissions) 1 MHz (above 1GHz emissions)
Detector	Average
Trace	Max Hold
Sweep Time	Auto

5.5.3 TEST PROCEDURES

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as RB / VB: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) / AT: 0dB / Ref: -17dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Average / Trace mode: Max hold
3. SA set RB: 100kHz and VB: 100kHz. Then adjust to start frequency 30MHz and stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW
4. SA set RB: 1MHz and VB: 1MHz. Then adjust to start frequency 1000MHz and stop frequency 12500MHz. Search to mark peak reading value + cable loss shall be less than 20nW
5. If power level of lower emissions are more than 1/10 of limit (.0.4nW for $f < 1\text{GHz}$, 2nW for $f \geq 1\text{GHz}$), all those are to be indicated in the 2nd and 3rd lines. If others are 1/10 or less more of the limit, no necessary to be indicated.

5.5.4 TEST SETUP LAYOUT



5.5.5 TEST DEVIATION

There is no deviation with the original standard.

5.5.6 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously reception mode.

Shenzhen ZKT Technology Co., Ltd.

1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China



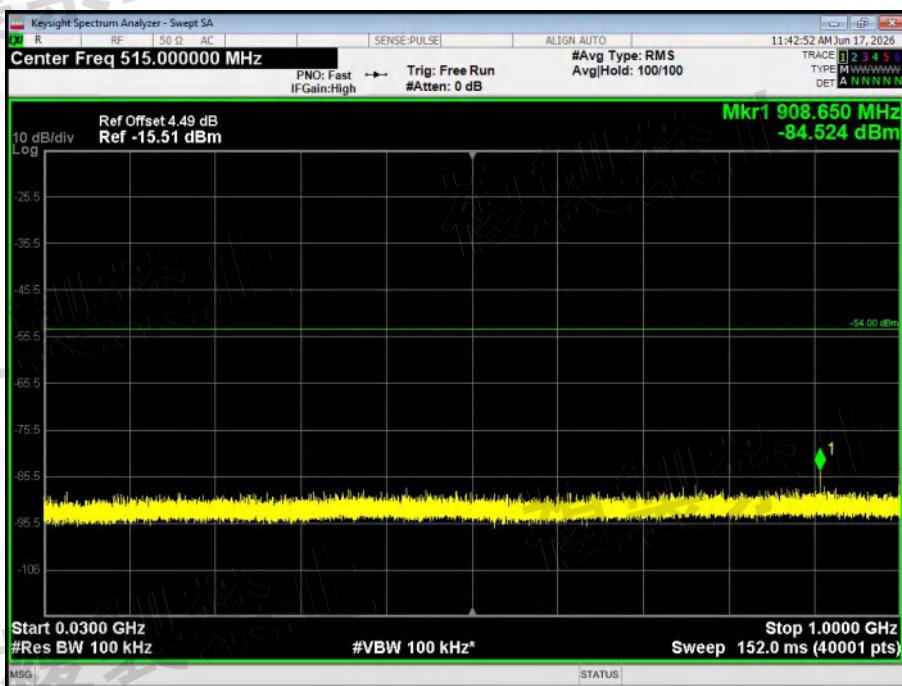
5.5.7 TEST RESULT

Test Voltage	Test Mode	Frequency (MHz)	Range (MHz)	Emission Frequency (MHz)	Max Value (dBm)	Max Value (nW)	Limit (nW)	Result
Normal	802.11a	5180	30-1000	908.65	-84.524	0.00353	4	Pass
Normal	802.11a	5180	1000-26000	1741.25	-55.983	2.52174	20	Pass
Normal	802.11n20	5180	30-1000	912.797	-82.28	0.00592	4	Pass
Normal	802.11n20	5180	1000-26000	1756.875	-59.699	1.07177	20	Pass
Normal	802.11n40	5190	30-1000	833.621	-74.462	0.03579	4	Pass
Normal	802.11n40	5190	1000-26000	24840	-61.956	0.63738	20	Pass
Normal	802.11ac20	5180	30-1000	913.379	-79.404	0.01147	4	Pass
Normal	802.11ac20	5180	1000-26000	1743.125	-52.319	5.86273	20	Pass
Normal	802.11ac40	5190	30-1000	925.674	-87.344	0.00184	4	Pass
Normal	802.11ac40	5190	1000-26000	25925	-62.208	0.60145	20	Pass
Normal	802.11ax20	5180	30-1000	31.964	-84.972	0.00318	4	Pass
Normal	802.11ax20	5180	1000-26000	25825	-61.036	0.78777	20	Pass
Normal	802.11ax40	5190	30-1000	50.006	-84.071	0.00392	4	Pass
Normal	802.11ax40	5190	1000-26000	25283.125	-61.778	0.66405	20	Pass

Note: All channels are tested , only the worst test data recorded was is Low channel.



IEEE802.11a - RX (30MHz - 1000MHz) - 5180MHz

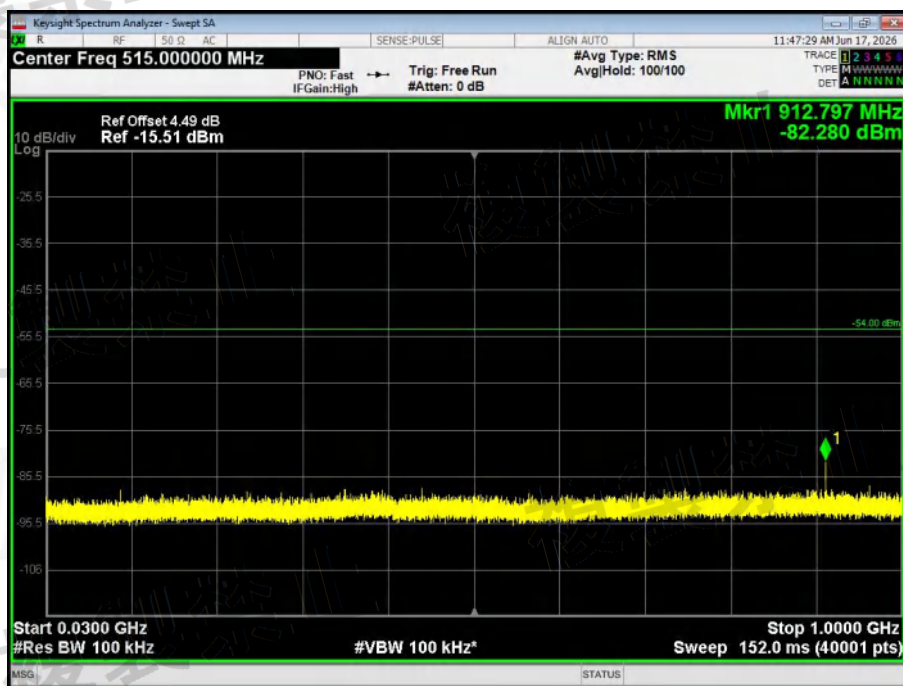


IEEE802.11a - RX (1000MHz - 26000MHz) - 5180MHz





IEEE802.11n20 - RX (30MHz - 1000MHz) - 5180MHz

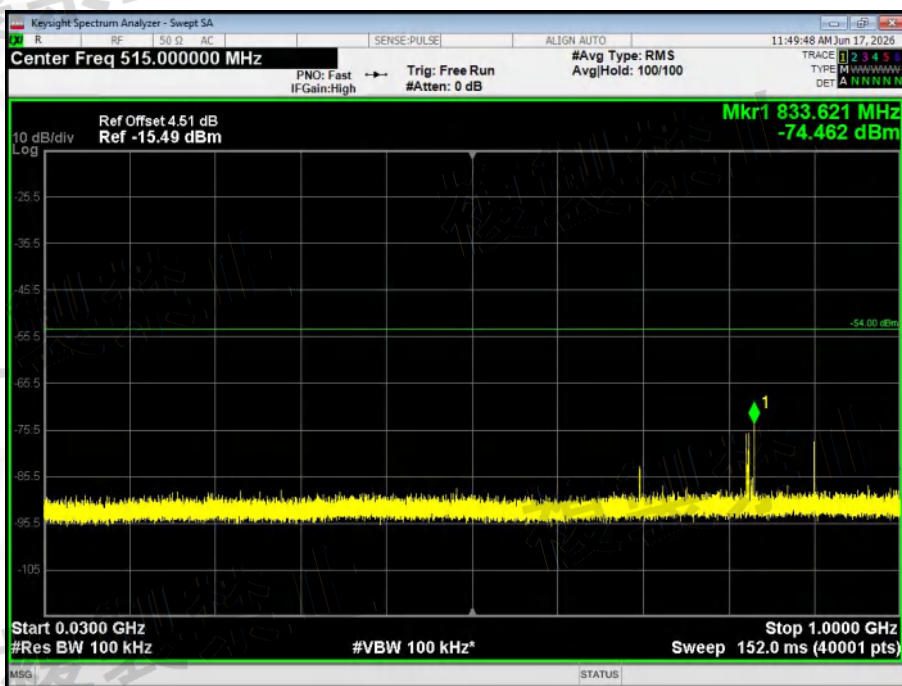


IEEE802.11n20 - RX (1000MHz - 26000MHz) - 5180MHz





IEEE802.11n40 - RX (30MHz - 1000MHz) - 5190MHz

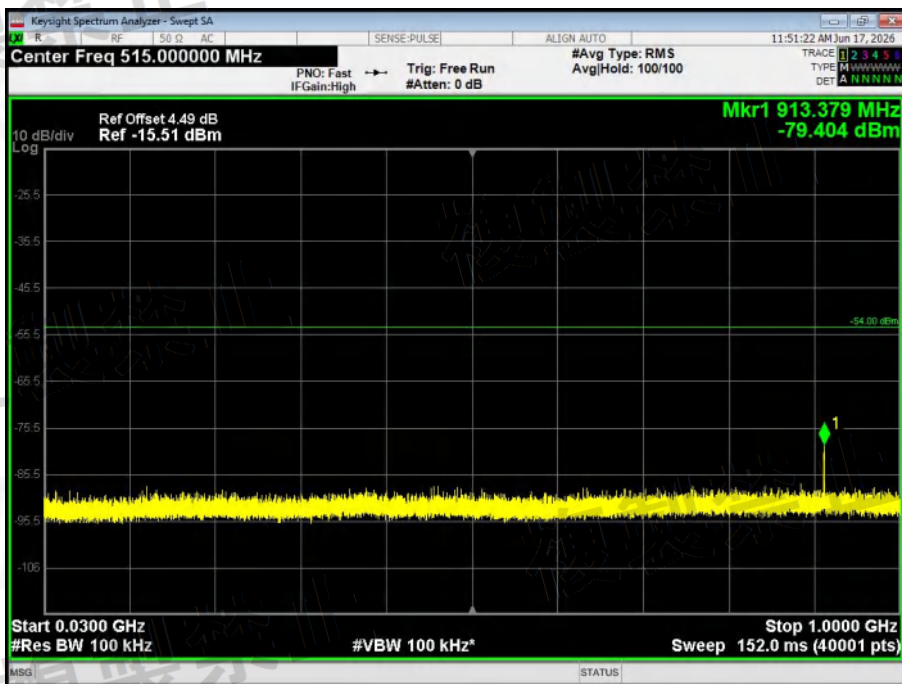


IEEE802.11n40 - RX (1000MHz - 26000MHz) - 5190MHz

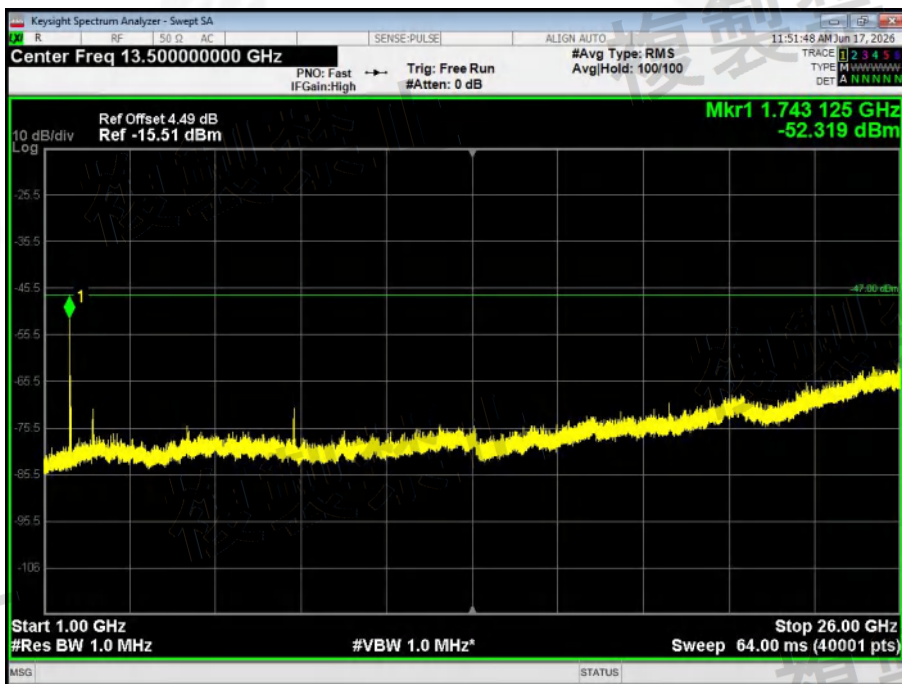




IEEE802.11ac20 - RX (30MHz - 1000MHz) - 5180MHz

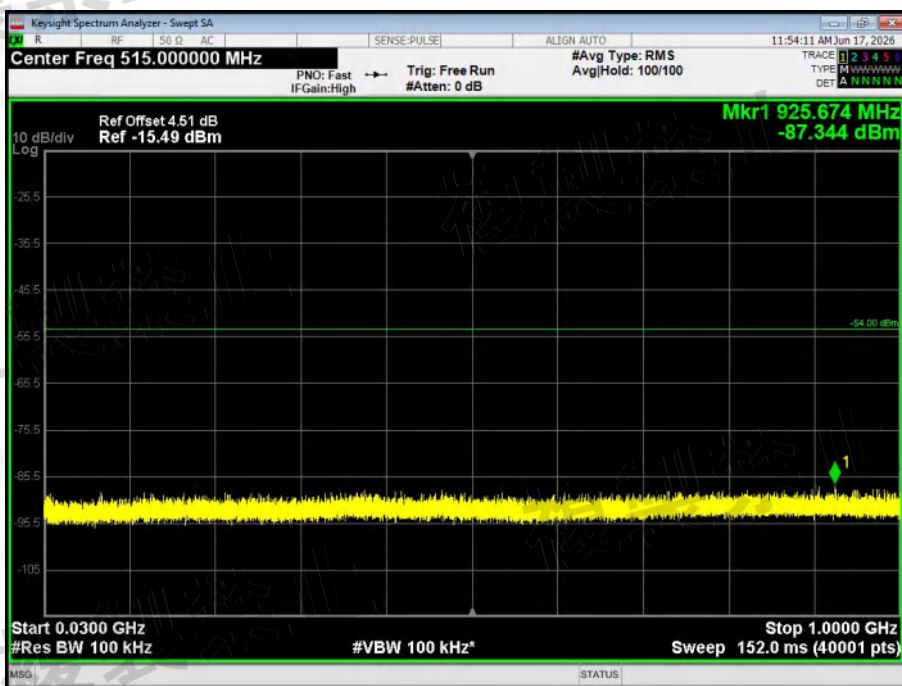


IEEE802.11ac20 - RX (1000MHz - 26000MHz) - 5180MHz

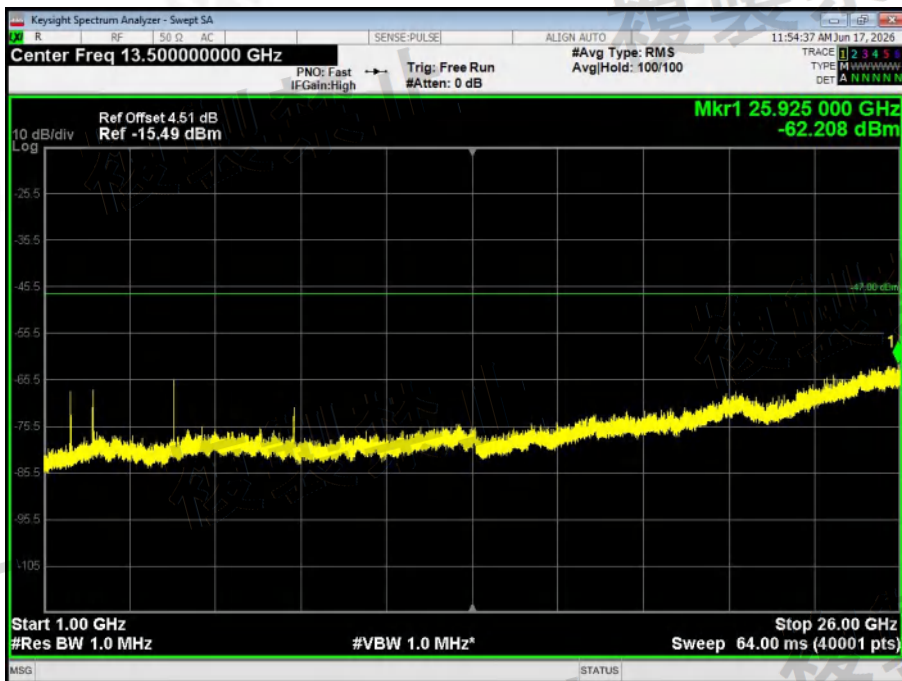




IEEE802.11ac40 - RX (30MHz - 1000MHz) - 5190MHz

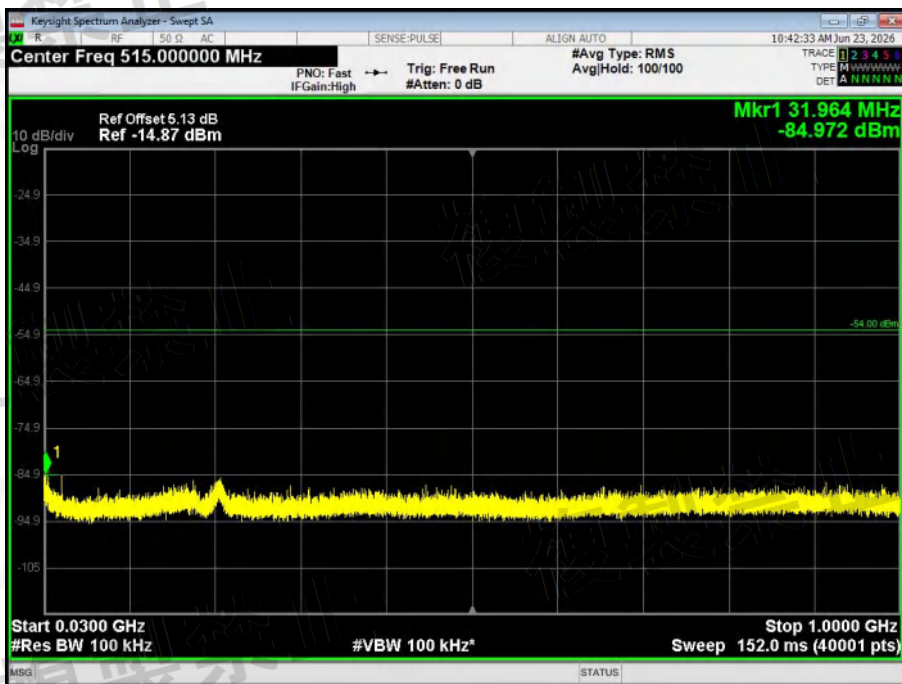


IEEE802.11ac40 - RX (1000MHz - 26000MHz) - 5190MHz

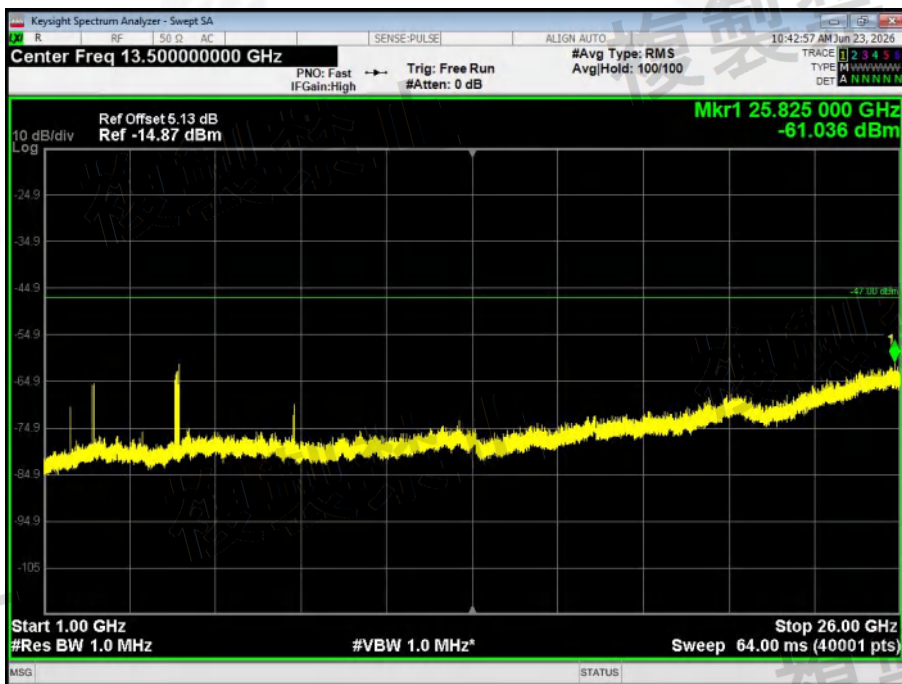




IEEE802.11ax20 - RX (30MHz - 1000MHz) - 5180MHz

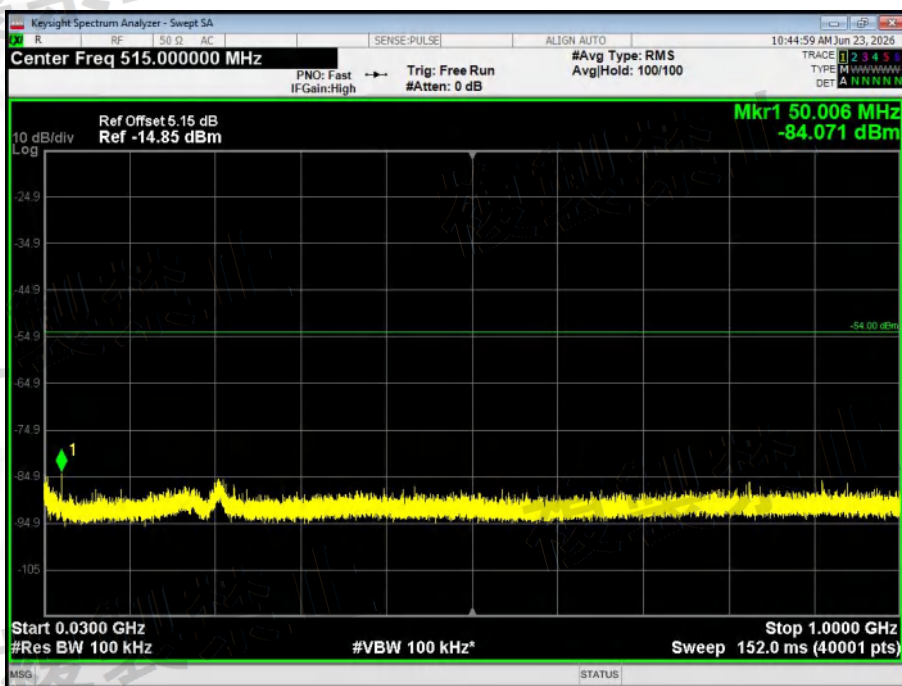


IEEE802.11ax20 - RX (1000MHz - 26000MHz) - 5180MHz

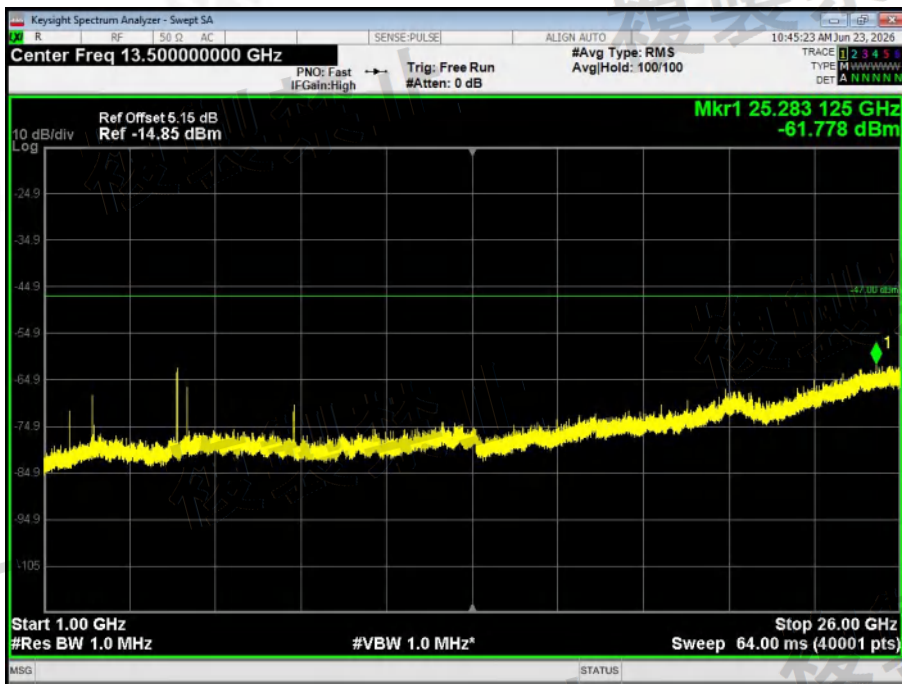




IEEE802.11ax40 - RX (30MHz - 1000MHz) - 5190MHz



IEEE802.11ax40 - RX (1000MHz - 26000MHz) - 5190MHz





5.6 TRANSMITTER BURST LENGTH MEASUREMENT

5.6.1 LIMIT

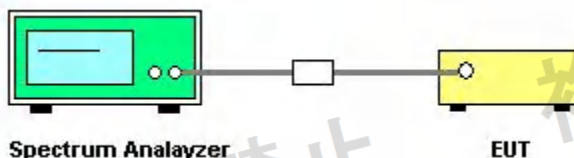
Item	Limits
Transmitter Burst Length	≤8ms

5.6.2 MEASURING INSTRUMENTS AND SETTING

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Center frequency	Test frequency
Sweep bandwidth	0Hz
Resoluble bandwidth	1MHz
Video bandwidth	3MHz
Sweep Time	Minimum time to assure measuring accuracy
Y-axis scale	20dB/Div.
Detection mode	Positive peak
Trigger condition	Rising up of level

5.6.3 TEST SETUP LAYOUT



5.6.4 TEST DEVIATION

There is no deviation with the original standard.

5.6.5 EUT OPERATION DURING TEST

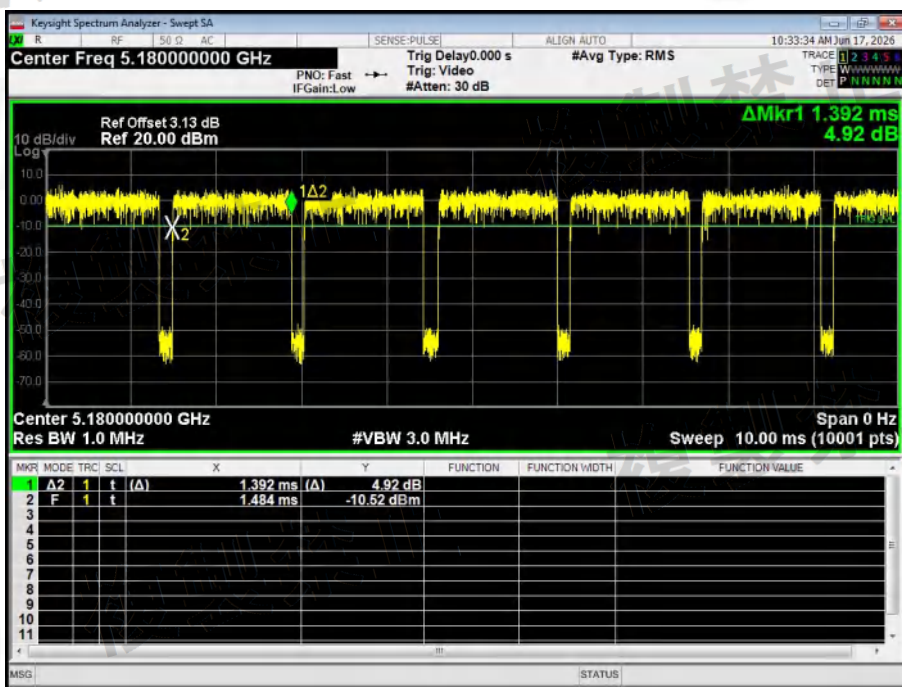
The EUT was programmed to be in continuously transmitting mode.



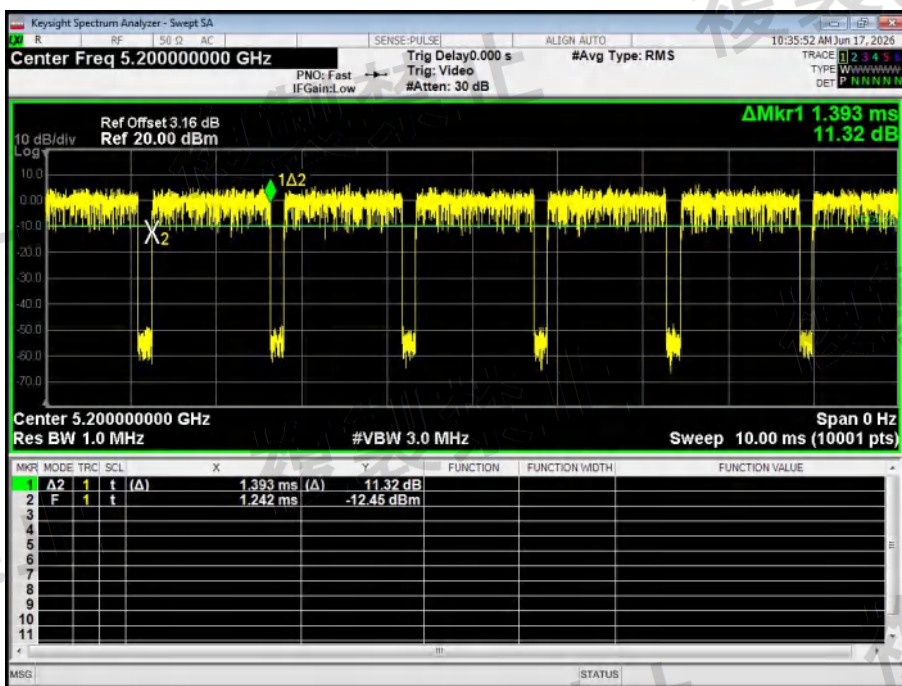
5.6.6 RESULTS

Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11a	5180	1.392	≤8ms	Pass
802.11a	5200	1.393	≤8ms	Pass
802.11a	5240	1.393	≤8ms	Pass

IEEE 802.11a - 5180MHz

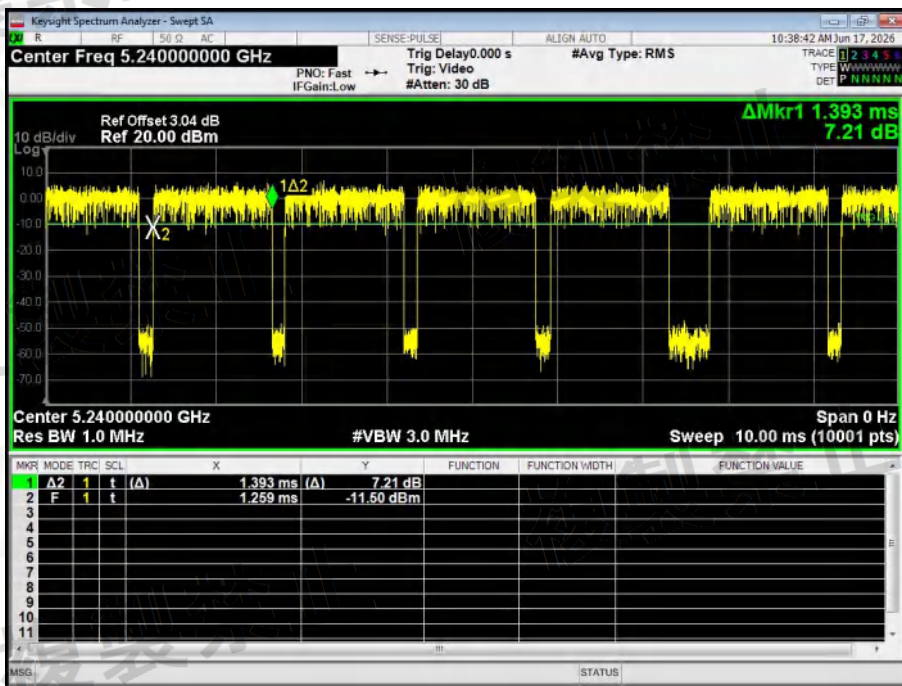


IEEE 802.11a - 5200MHz





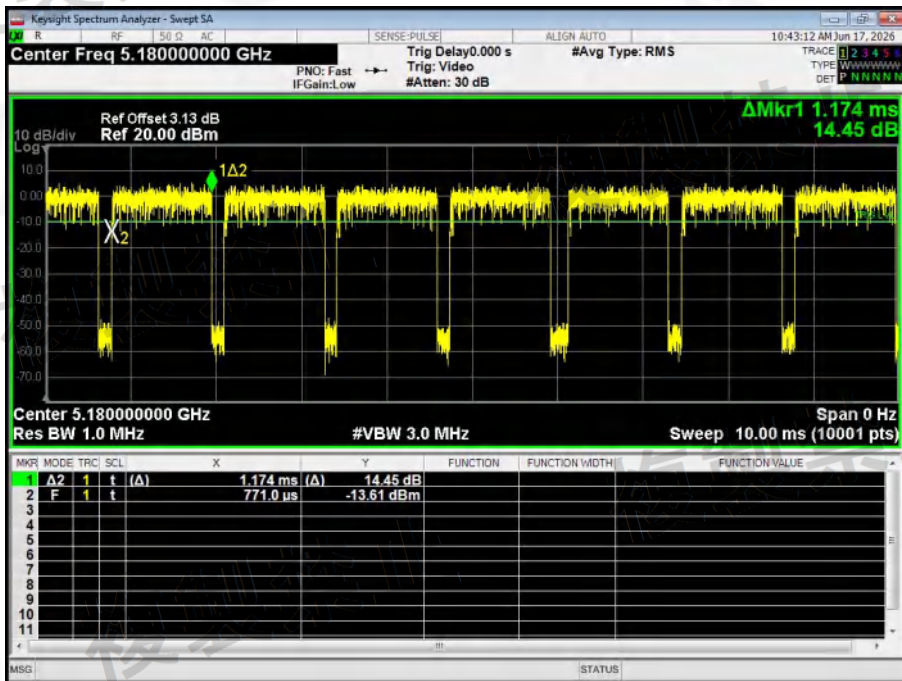
IEEE 802.11a - 5240MHz





Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11n20	5180	1.174	≤8ms	Pass
802.11n20	5200	1.174	≤8ms	Pass
802.11n20	5240	1.174	≤8ms	Pass

IEEE 802.11n20 - 5180MHz

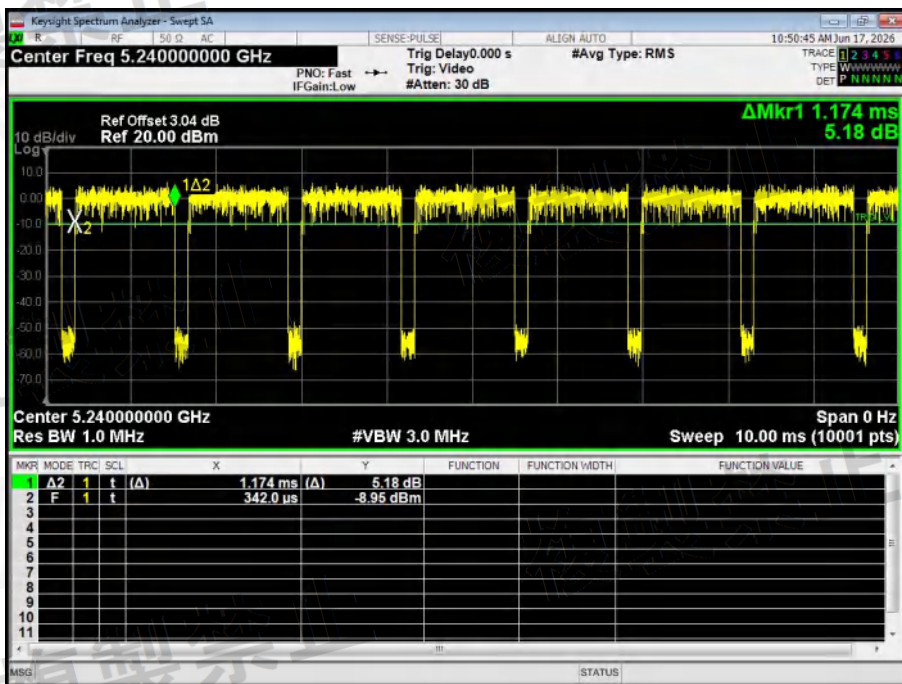


IEEE 802.11n20 - 5200MHz





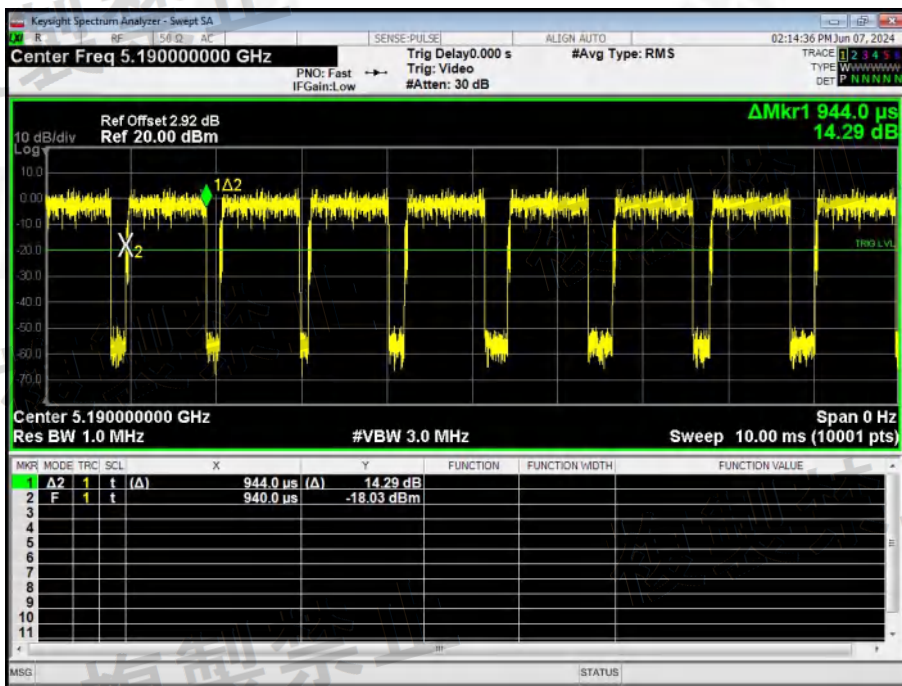
IEEE 802.11n20 - 5240MHz



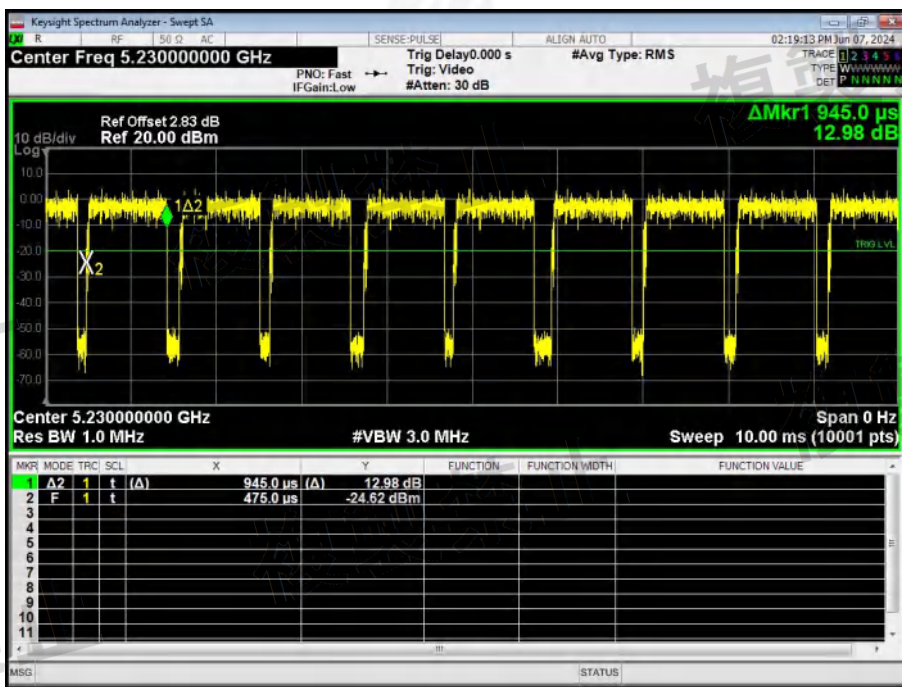


Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11n40	5190	0.587	≤8ms	Pass
802.11n40	5230	0.588	≤8ms	Pass

IEEE 802.11n40 - 5190MHz



IEEE 802.11n40 - 5230MHz



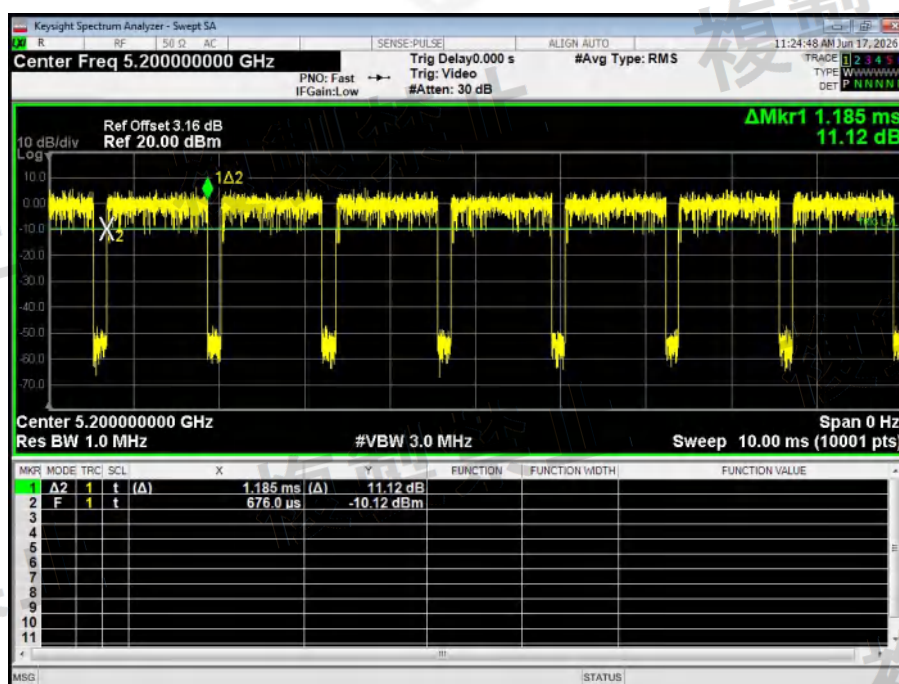


Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11ac20	5180	1.185	≤8ms	Pass
802.11ac20	5200	1.185	≤8ms	Pass
802.11ac20	5240	1.185	≤8ms	Pass

IEEE 802.11ac20 - 5180MHz

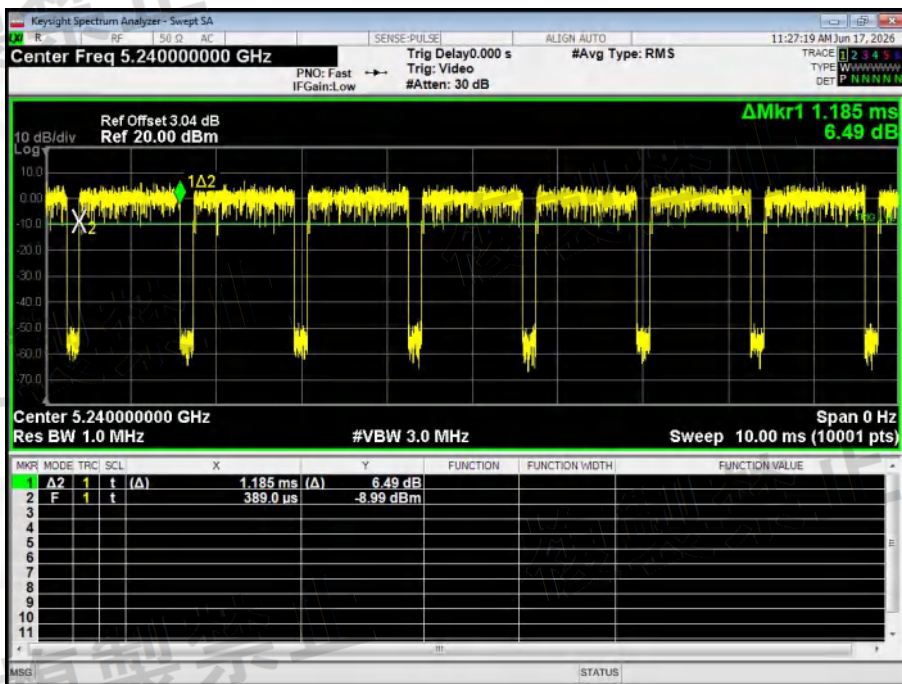


IEEE 802.11ac20 - 5200MHz





IEEE 802.11ac20 - 5240MHz





Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11ac40	5190	0.591	≤8ms	Pass
802.11ac40	5230	0.592	≤8ms	Pass

IEEE 802.11ac40 - 5190MHz



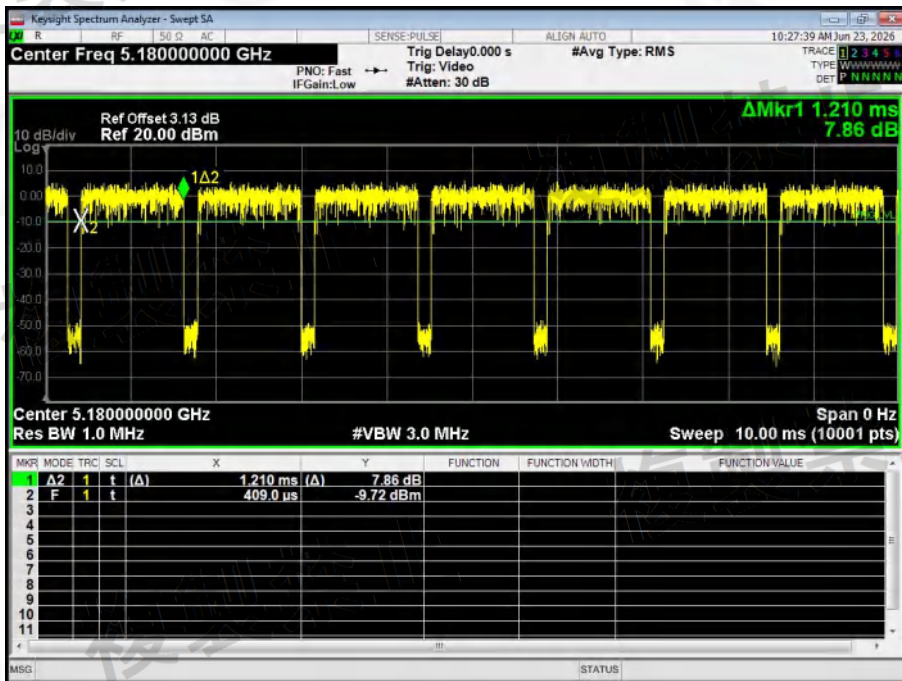
IEEE 802.11ac40 - 5230MHz



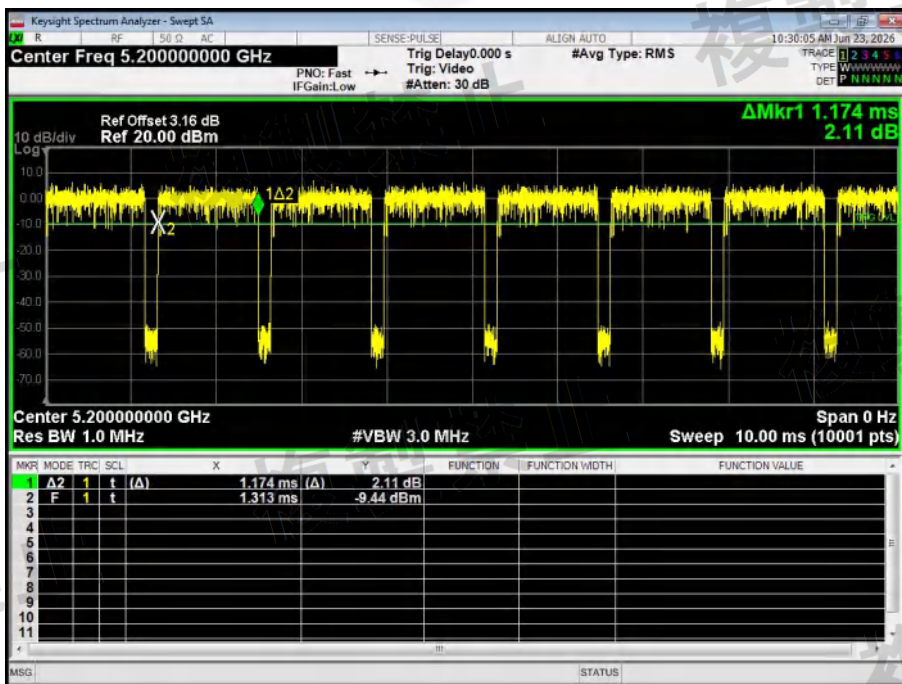


Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11ax20	5180	1.21	≤8ms	Pass
802.11ax20	5200	1.174	≤8ms	Pass
802.11ax20	5240	1.174	≤8ms	Pass

IEEE 802.11ax20 - 5180MHz

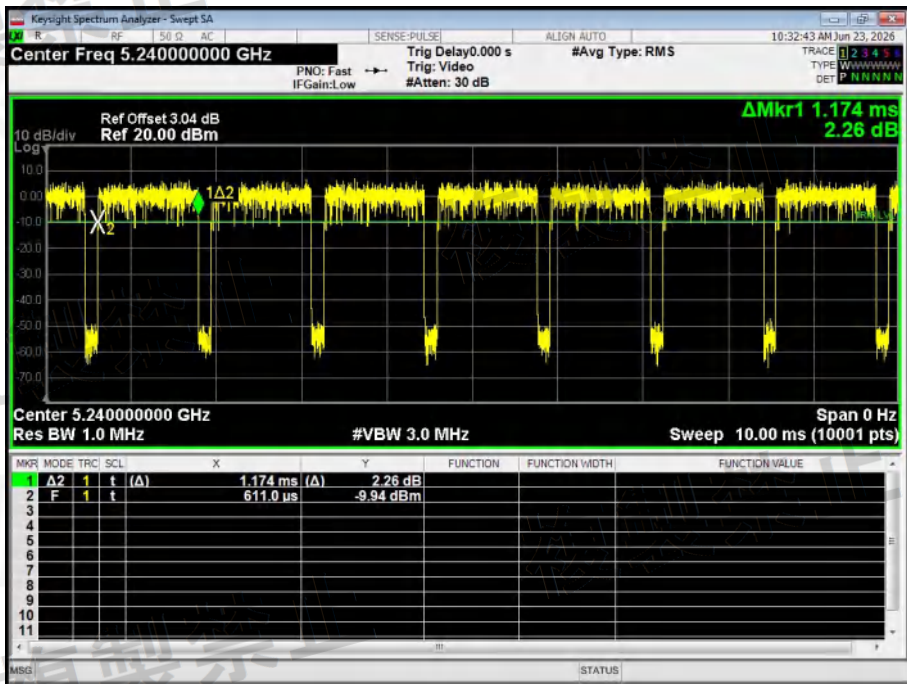


IEEE 802.11ax20 - 5200MHz





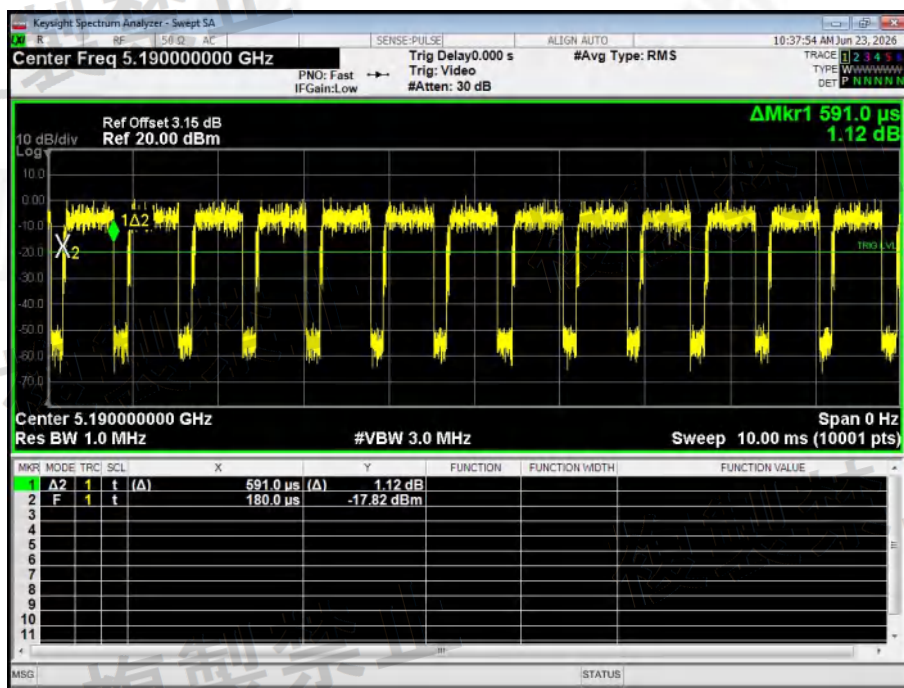
IEEE 802.11ax20 - 5240MHz



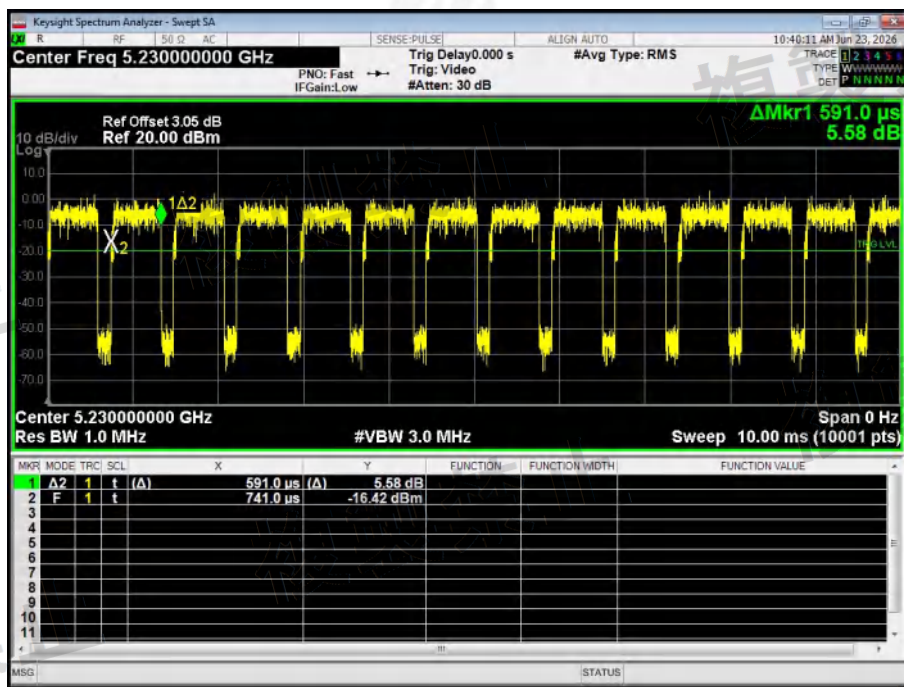


Test Mode	Frequency (MHz)	Burst Length (msecond)	Limit	Result
802.11ax40	5190	0.591	≤8ms	Pass
802.11ax40	5230	0.591	≤8ms	Pass

IEEE 802.11ax40 - 5190MHz

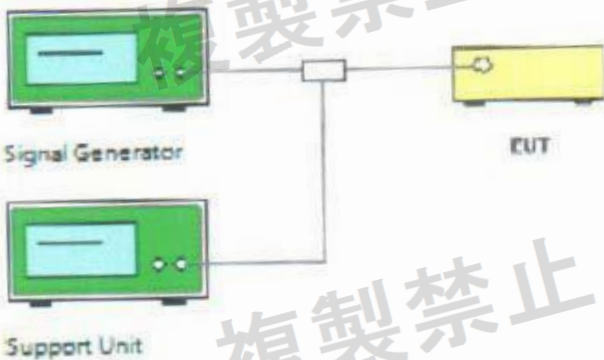


IEEE 802.11ax40 - 5230MHz





5.7 INTERFERENCE PREVENTION FUNCTION MEASUREMENT

Test condition:	Test diffusion code and modulate with standard coding test signal
Test setup:	 The diagram illustrates the test setup. A Signal Generator (green box) and a Support Unit (green box) are connected to an EUT (yellow box). The Signal Generator is connected to the EUT via a cable. The Support Unit is connected to the Signal Generator via a cable.
Test Procedures:	1. The EUT continuous connected with support unit. 2. Signal generator transmitted interference signal to the EUT. 3. Check the EUT must be automatic cessation of transmitting
Test Instruments:	Refer to section 3.2 for details
Test results:	Pass Transmitter: The transmitting mode (the identification code is more than 48 bits) of EUT is on normal operating, the interference prevention function is good. Receiver: CA:5A:3E:ED:AB:FC The transmitting mode of EUT is on normal operating, the interference prevention function is good.



5.8. CARRIER SENSE CAPABILITY MEASUREMENT

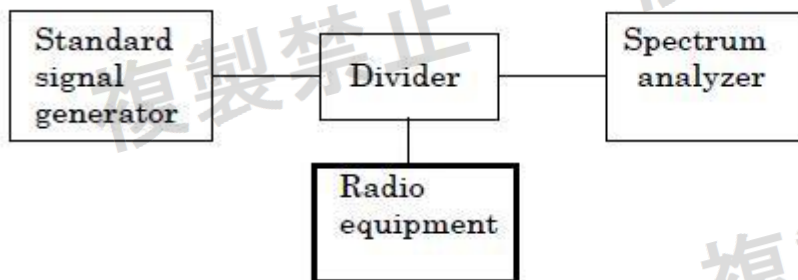
5.8.1 LIMIT

EUT stop RF transmission signal after carrier inject to EUT

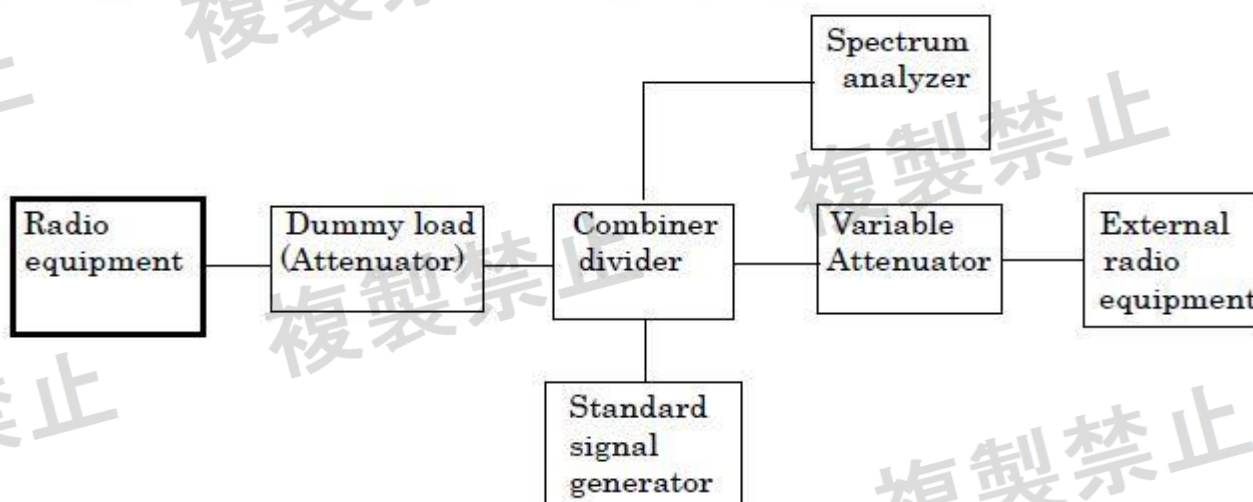
5.8.2 TEST PROCEDURE

System Diagram

(1) Test performed with the radio equipment to be tested only



(2) Test performed using the external radio equipment



Test procedure

(1) Test performed with the radio equipment to be tested only

- Set the standard signal generator in non-transmission condition and the radio equipment to be tested in transmission condition, and confirm transmission of radiowave by means of the spectrum analyzer.
- Set the radio equipment to be tested in receiving condition.
- Set the standard signal generator in transmission condition and the radio equipment to be tested in transmission condition, and confirm non-transmission of radiowave by means of the spectrum analyzer.

(2) Test performed using the external radio equipment

- Set the standard signal generator in non-transmission condition.
- Connect the radio equipment to be tested with the external equipment by means of the line and confirm transmission of radiowave of test frequency by means of the spectrum analyzer.
- Set the radio equipment to be tested in receiving condition.
- Set the standard signal generator in transmission condition and the radio equipment to be tested in transmission condition, and confirm non-transmission of radio wave by means of the spectrum analyzer.

Note: SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG and power level is (on $22.79 + G - 20 \cdot \log(f) [\text{dBm}]$ (G is the antenna gain, f is the test frequency MHz).



5.8.3 TEST RESULT

Temperature:	26°C	Relative Humidity:	50%
Pressure:	101kPa		

Mode	Channel	Result		
		Normal Voltage	High Voltage	Low Voltage
802.11a	CH36	Pass	Pass	Pass
	CH40	Pass	Pass	Pass
	CH48	Pass	Pass	Pass
802.11n20	CH36	Pass	Pass	Pass
	CH40	Pass	Pass	Pass
	CH48	Pass	Pass	Pass
802.11n40	CH38	Pass	Pass	Pass
	CH46	Pass	Pass	Pass
802.11ac20	CH36	Pass	Pass	Pass
	CH40	Pass	Pass	Pass
	CH48	Pass	Pass	Pass
802.11ac40	CH38	Pass	Pass	Pass
	CH46	Pass	Pass	Pass
802.11ax20	CH36	Pass	Pass	Pass
	CH40	Pass	Pass	Pass
	CH48	Pass	Pass	Pass
802.11ax40	CH38	Pass	Pass	Pass
	CH46	Pass	Pass	Pass
Note: $P_{in}=22.79+G-20*\log(freq_MHz)[dBm]$ <u>Limit:100mV/m</u>				



5.9 ADJACENT CHANNEL EMITTED POWER MEASUREMENT

5.9.1 LIMIT

Occupied bandwidth≤ 20MHz

Frequency Error	FREQUENCIES (MHz)	LIMIT
$F_c \pm 10\text{MHz}$	MEAN POWER 20MHz DISTANCE OF CARRIER	-25dBc
$F_c \pm 10\text{MHz}$	MEAN POWER 40MHz DISTANCE OF CARRIER	-40dBc

Occupied bandwidth≤ 40MHz

Frequency Error	FREQUENCIES (MHz)	LIMIT
$F_c \pm 20\text{MHz}$	MEAN POWER 40MHz DISTANCE OF CARRIER	-25dBc
$F_c \pm 20\text{MHz}$	MEAN POWER 80MHz DISTANCE OF CARRIER	-40dBc

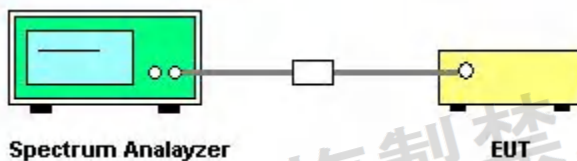
5.9.2 MEASURING INSTRUMENTS AND SETTINGW

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Center frequency	Frequency indicated in the test procedure
Sweep frequency width	20MHz
Resoluble bandwidth	300kHz
Video bandwidth	300kHz
Y-axis scale	30dB/Div.
Input level	Value to be maximum dynamic range
Data points	More than 400 points
Sweep mode	Continuous sweep
Detection mode	Sample (Positive peak in case of burst wave)



5.9.3 TEST SETUP LAYOUT



5.9.4 TEST DEVIATION

There is no deviation with the original standard.

5.9.5 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously transmitting mode.

5.9.6 TEST RESULTS

Normal Voltage						
Mode	detuning (MHz)		E.I.R.P (dBc)			Limit (dBc)
			LCH	MCH	HCH	
802.11a	20MHz	Lower	-28.9	-29.12	-29.11	-25
		Upper	-28.24	-27.74	-28.64	
	40MHz	Lower	-47.49	-48.35	-49.71	-40
		Upper	-46.87	-47.71	-49.57	
Result	Pass					

Normal Voltage						
Mode	detuning (MHz)		E.I.R.P (dBc)			Limit (dBc)
			LCH	MCH	HCH	
802.11n20	20MHz	Lower	-25.8	-26.57	-26.3	-25
		Upper	-26.58	-26.43	-26.9	
	40MHz	Lower	-47.26	-47.86	-49.33	-40
		Upper	-45.86	-46.86	-48.95	
Result	Pass					

Normal Voltage					
Mode	detuning (MHz)		E.I.R.P (dBc)		Limit (dBc)
			LCH	HCH	
802.11n40	40MHz	Lower	-30.15	-30.6	-25
		Upper	-28.07	-28.61	
	80MHz	Lower	-47.88	-49.05	-40
		Upper	-47.24	-49.52	
Result	Pass				

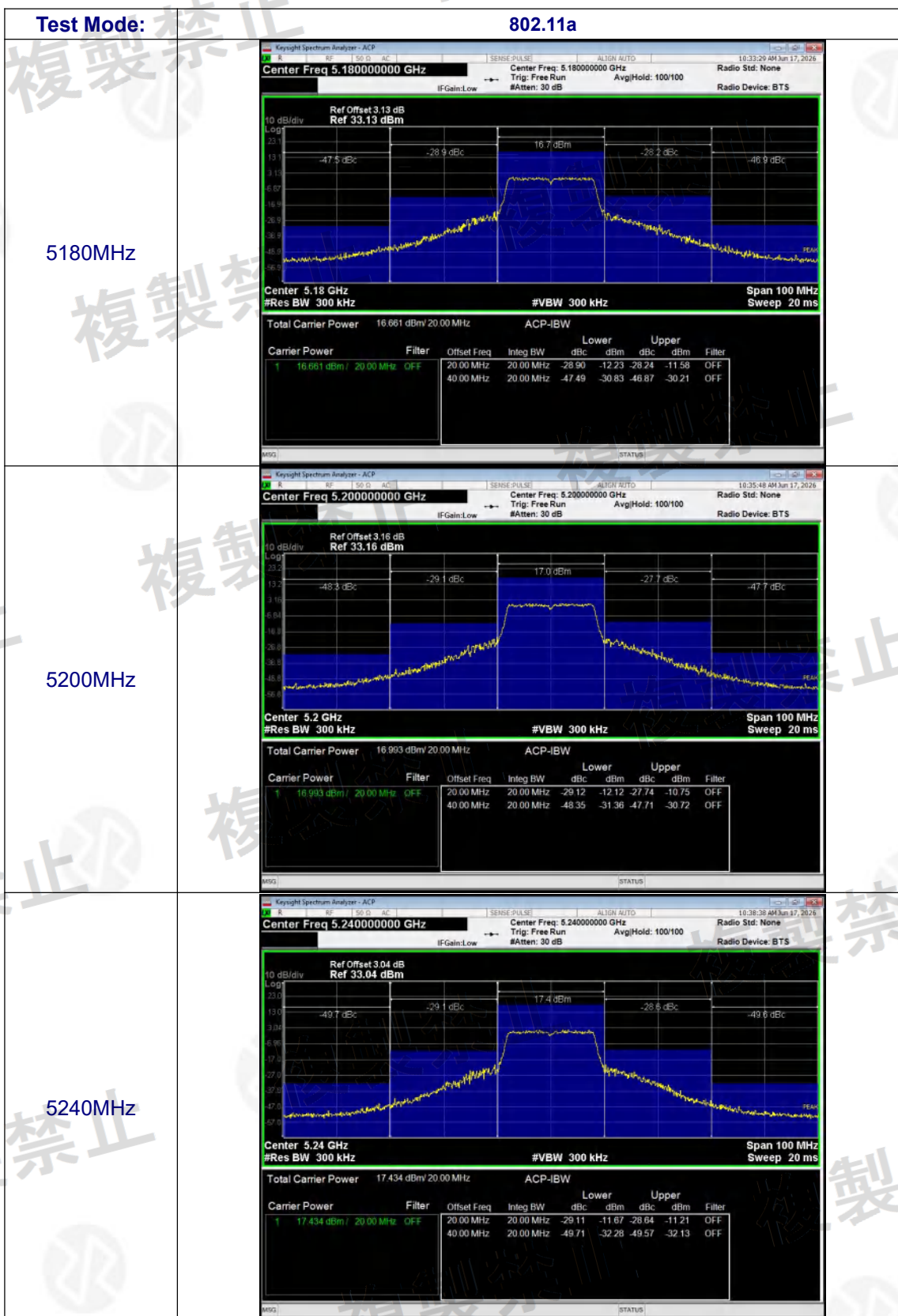


Normal Voltage						
Mode	detuning (MHz)		E.I.R.P (dBc)			Limit (dBc)
			LCH	MCH	HCH	
802.11ac20	20MHz	Lower	-28.95	-28.94	-28.69	-25
		Upper	-27.39	-27.12	-28	
	40MHz	Lower	-47.42	-47.97	-49.66	-40
		Upper	-46.24	-46.79	-49.08	
Result	Pass					

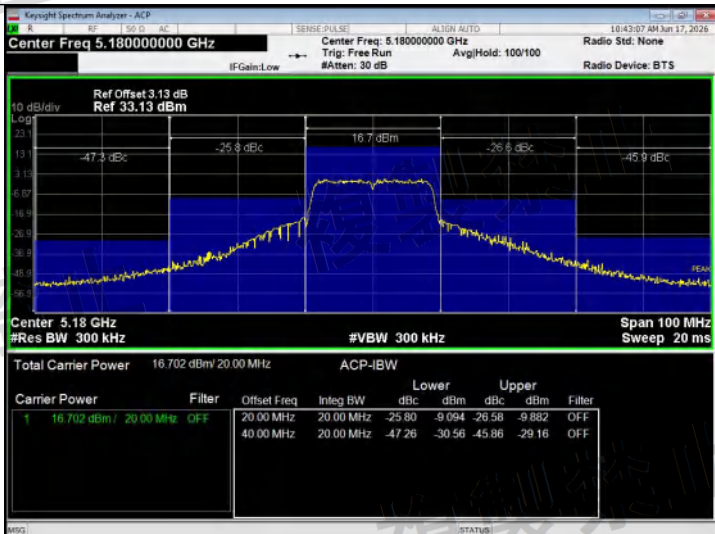
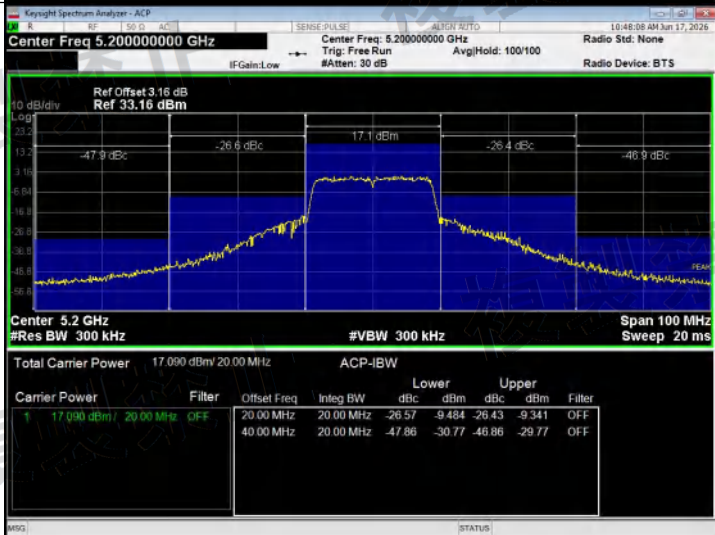
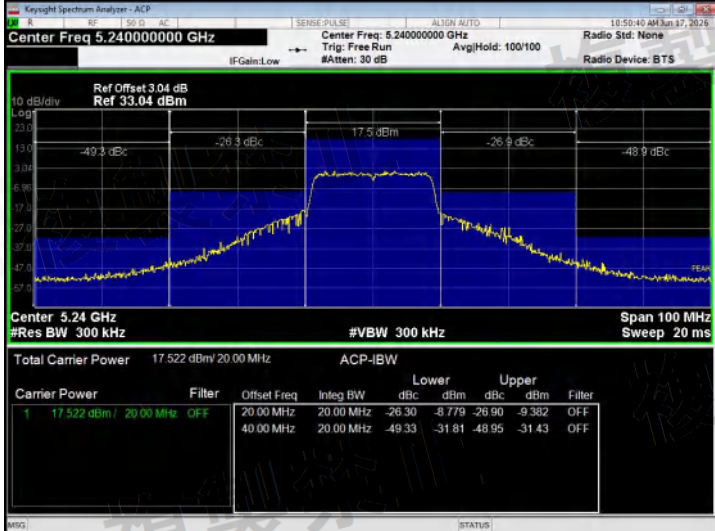
Normal Voltage					
Mode	detuning (MHz)		E.I.R.P (dBc)		Limit (dBc)
			LCH	HCH	
802.11ac40	40MHz	Lower	-31.5	-31.76	-25
		Upper	-28.79	-29.24	
	80MHz	Lower	-47.86	-49.18	-40
		Upper	-47.21	-49.51	
Result	Pass				

Normal Voltage						
Mode	detuning (MHz)		E.I.R.P (dBc)			Limit (dBc)
			LCH	MCH	HCH	
802.11ax20	20MHz	Lower	-27.17	-27.38	-25.17	-25
		Upper	-27.82	-26.8	-25.87	
	40MHz	Lower	-46.1	-45.92	-47.37	-40
		Upper	-44.48	-44.56	-45.99	
Result	Pass					

Normal Voltage					
Mode	detuning (MHz)		E.I.R.P (dBc)		Limit (dBc)
			LCH	HCH	
802.11ax40	40MHz	Lower	-27.82	-28.79	-25
		Upper	-28.42	-27.8	
	80MHz	Lower	-46.59	-48.49	-40
		Upper	-45.67	-48.71	
Result	Pass				

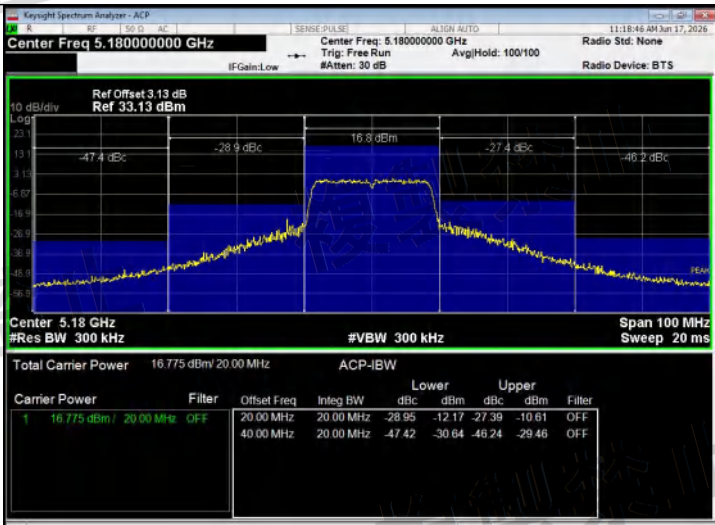
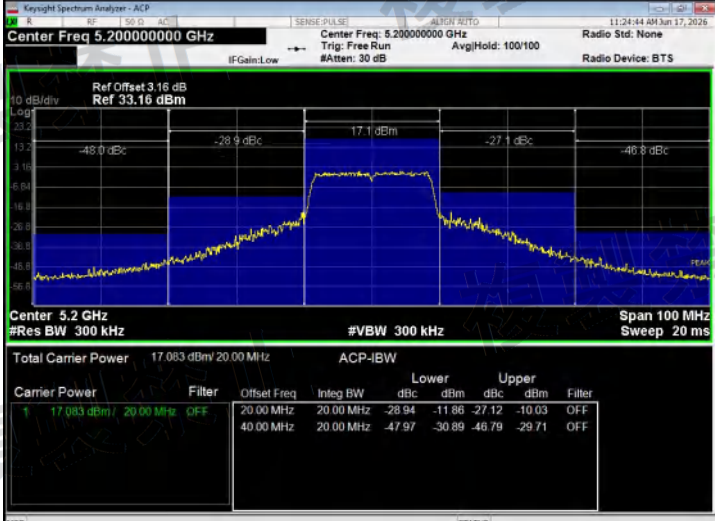
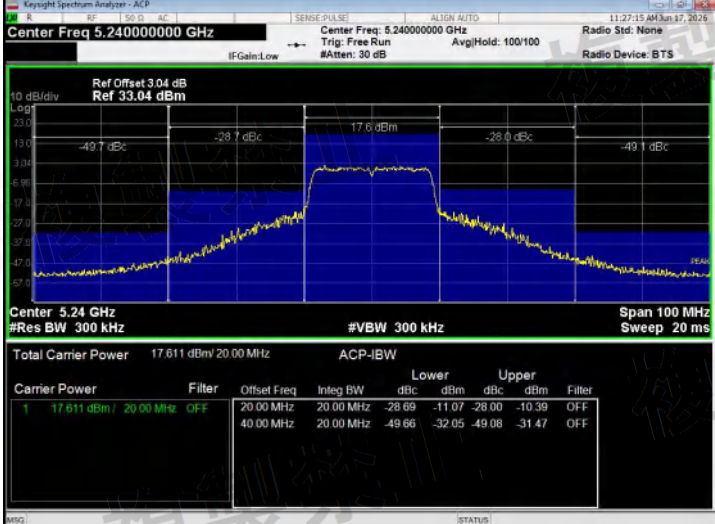




Test Mode: 802.11n20																												
5180MHz	 Center Freq 5.180000000 GHz Center Freq: 5.180000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 3.13 dB Ref 33.13 dBm 10 dB/div Log Center 5.18 GHz #Res BW 300 kHz #VBW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 16.702 dBm/ 20.00 MHz ACP-BW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBc</th><th>Lower dBm</th><th>Upper dBc</th><th>Upper dBm</th><th>Filter</th></tr><tr><td>1 16.702 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-25.80</td><td>-9.094</td><td>-26.58</td><td>-9.882</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-47.26</td><td>-30.56</td><td>-45.86</td><td>-29.16</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter	1 16.702 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-25.80	-9.094	-26.58	-9.882	OFF			40.00 MHz	20.00 MHz	-47.26	-30.56	-45.86	-29.16	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter																				
1 16.702 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-25.80	-9.094	-26.58	-9.882	OFF																				
		40.00 MHz	20.00 MHz	-47.26	-30.56	-45.86	-29.16	OFF																				
5200MHz	 Center Freq 5.200000000 GHz Center Freq: 5.200000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 3.16 dB Ref 33.16 dBm 10 dB/div Log Center 5.2 GHz #Res BW 300 kHz #VBW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 17.090 dBm/ 20.00 MHz ACP-BW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBc</th><th>Lower dBm</th><th>Upper dBc</th><th>Upper dBm</th><th>Filter</th></tr><tr><td>1 17.090 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-26.57</td><td>-9.484</td><td>-26.43</td><td>-9.341</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-47.86</td><td>-30.77</td><td>-46.86</td><td>-29.77</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter	1 17.090 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-26.57	-9.484	-26.43	-9.341	OFF			40.00 MHz	20.00 MHz	-47.86	-30.77	-46.86	-29.77	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter																				
1 17.090 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-26.57	-9.484	-26.43	-9.341	OFF																				
		40.00 MHz	20.00 MHz	-47.86	-30.77	-46.86	-29.77	OFF																				
5240MHz	 Center Freq 5.240000000 GHz Center Freq: 5.240000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 3.04 dB Ref 33.04 dBm 10 dB/div Log Center 5.24 GHz #Res BW 300 kHz #VBW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 17.522 dBm/ 20.00 MHz ACP-BW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBc</th><th>Lower dBm</th><th>Upper dBc</th><th>Upper dBm</th><th>Filter</th></tr><tr><td>1 17.522 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-26.30</td><td>-8.779</td><td>-26.90</td><td>-9.382</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-49.33</td><td>-31.81</td><td>-48.95</td><td>-31.43</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter	1 17.522 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-26.30	-8.779	-26.90	-9.382	OFF			40.00 MHz	20.00 MHz	-49.33	-31.81	-48.95	-31.43	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBc	Lower dBm	Upper dBc	Upper dBm	Filter																				
1 17.522 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-26.30	-8.779	-26.90	-9.382	OFF																				
		40.00 MHz	20.00 MHz	-49.33	-31.81	-48.95	-31.43	OFF																				





Test Mode: 802.11ac20																												
5180MHz	 Center Freq 5.180000000 GHz Ref Offset 3.13 dB Ref 33.13 dBm Center 5.18 GHz #Res BW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 16.775 dBm/ 20.00 MHz ACP-IBW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBC</th><th>dBm</th><th>Upper dBC</th><th>dBm</th><th>Filter</th></tr><tr><td>1 16.775 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-28.95</td><td>-12.17</td><td>-27.39</td><td>-10.61</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-47.42</td><td>-30.64</td><td>-46.24</td><td>-29.46</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter	1 16.775 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.95	-12.17	-27.39	-10.61	OFF			40.00 MHz	20.00 MHz	-47.42	-30.64	-46.24	-29.46	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter																				
1 16.775 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.95	-12.17	-27.39	-10.61	OFF																				
		40.00 MHz	20.00 MHz	-47.42	-30.64	-46.24	-29.46	OFF																				
5200MHz	 Center Freq 5.200000000 GHz Ref Offset 3.16 dB Ref 33.16 dBm Center 5.2 GHz #Res BW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 17.083 dBm/ 20.00 MHz ACP-IBW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBC</th><th>dBm</th><th>Upper dBC</th><th>dBm</th><th>Filter</th></tr><tr><td>1 17.083 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-28.94</td><td>-11.86</td><td>-27.12</td><td>-10.03</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-47.97</td><td>-30.89</td><td>-46.79</td><td>-29.71</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter	1 17.083 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.94	-11.86	-27.12	-10.03	OFF			40.00 MHz	20.00 MHz	-47.97	-30.89	-46.79	-29.71	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter																				
1 17.083 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.94	-11.86	-27.12	-10.03	OFF																				
		40.00 MHz	20.00 MHz	-47.97	-30.89	-46.79	-29.71	OFF																				
5240MHz	 Center Freq 5.240000000 GHz Ref Offset 3.04 dB Ref 33.04 dBm Center 5.24 GHz #Res BW 300 kHz Span 100 MHz Sweep 20 ms Total Carrier Power 17.611 dBm/ 20.00 MHz ACP-IBW <table><tr><th>Carrier Power</th><th>Filter</th><th>Offset Freq</th><th>Integ BW</th><th>Lower dBC</th><th>dBm</th><th>Upper dBC</th><th>dBm</th><th>Filter</th></tr><tr><td>1 17.611 dBm / 20.00 MHz</td><td>OFF</td><td>20.00 MHz</td><td>20.00 MHz</td><td>-28.69</td><td>-11.07</td><td>-28.00</td><td>-10.39</td><td>OFF</td></tr><tr><td></td><td></td><td>40.00 MHz</td><td>20.00 MHz</td><td>-49.66</td><td>-32.05</td><td>-49.08</td><td>-31.47</td><td>OFF</td></tr></table>	Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter	1 17.611 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.69	-11.07	-28.00	-10.39	OFF			40.00 MHz	20.00 MHz	-49.66	-32.05	-49.08	-31.47	OFF
Carrier Power	Filter	Offset Freq	Integ BW	Lower dBC	dBm	Upper dBC	dBm	Filter																				
1 17.611 dBm / 20.00 MHz	OFF	20.00 MHz	20.00 MHz	-28.69	-11.07	-28.00	-10.39	OFF																				
		40.00 MHz	20.00 MHz	-49.66	-32.05	-49.08	-31.47	OFF																				

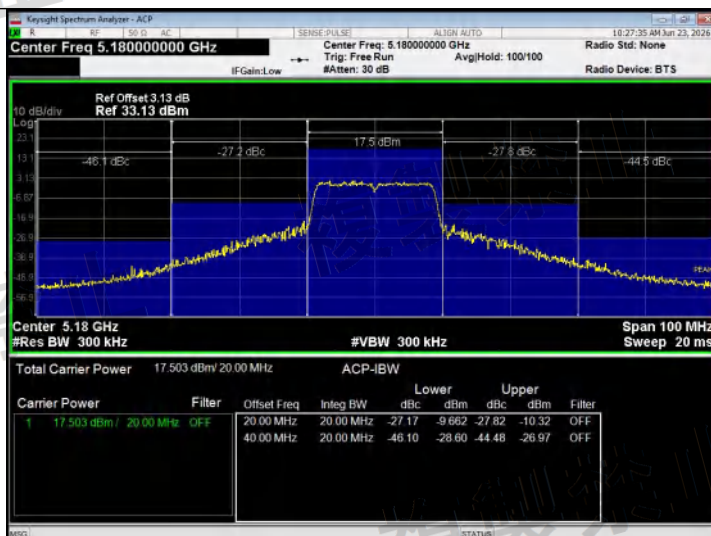




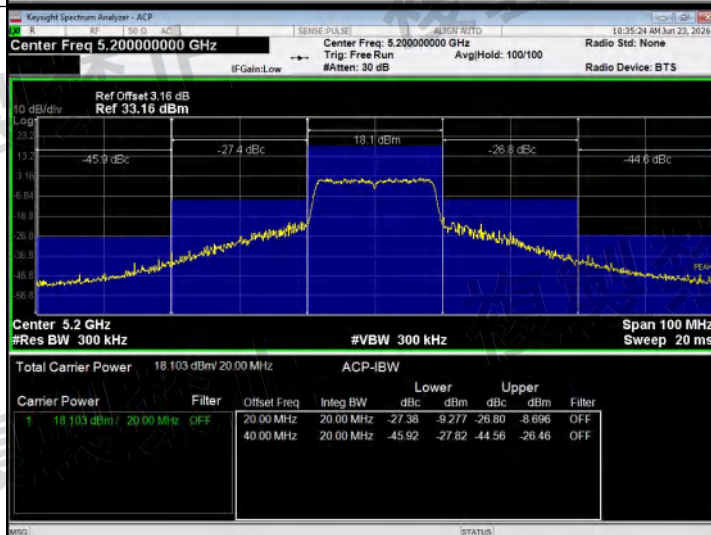
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802.11ax20

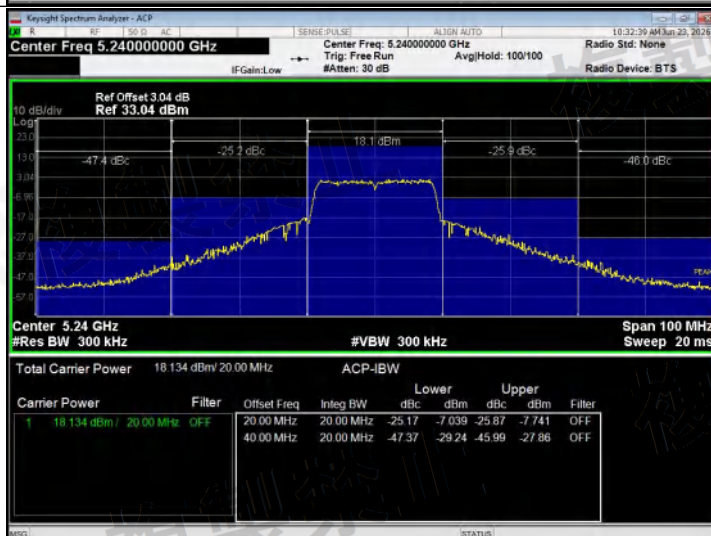
5180MHz



5200MHz



5240MHz







6. EUT TEST PHOTO

Reference to the appendix I for details.

7. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

※※※※※ END OF REPORT ※※※※※