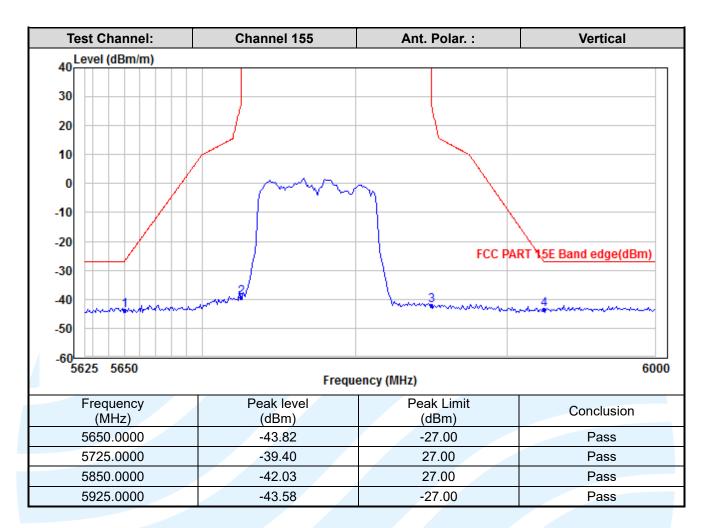
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5.8 DYNAMIC FREQUENCY SELECTION

Test Requirement:FCC 47 CFR Part 15 Subpart E Section 15.407 (h)Test Method:KDB 905462 D03 Client Without DFS New Rules v01r02

EUT Operating Mode:

DFS Operational mode	Operating Frequency Range				
DFS Operational mode	5250 MHz to 5350 MHz 5470 MHz to 572				
Slave without radar Interference detection function	\checkmark	\checkmark			

Applicability:

The following table from KDB905462 and the lists of the applicable requirements for the DFS testing. Applicability of DFS Requirements Prior to Use of a Channel:

		Operational Mode				
Requirement	Master		Client W Radar De		Client With Radar Detection	
Non-Occupancy Period	\checkmark		Not rec	luired	Yes	
DFS Detection Threshold	\checkmark		Not rec	luired	Yes	
Channel Availability Check Time	~		Not rec	luired	Not required	
U-NII Detection Bandwidth	~		Not rec	luired	Yes	
Applicability of DFS requiremen	ts during norma	l opera	tion:			
		0	peration	al Mode		
Requirement	Master Device o Radar Det		t with		Without Radar Detection	
DFS Detection Threshold	Yes			Ν	ot required	
Channel Closing Transmission Time	Yes		Yes			
Channel Move Time	Yes			Yes		
U-NII Detection Bandwidth	Yes		Not required			
Additional requirements for devices with multiple bandwidth modes	Master Device or C Radar Detect		t with	th Client Without Rada Detection		
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes m	ust be t	ested	Ν	lot required	
Channel Move Time and Channel Closing Transmission Time	Test using wide availal		node		ng the widest BW vailable for the link	
All other tests	Any single B	SW mode	е	N	ot required	
Note: Frequencies selected for st several frequencies within the radar detection bandwi each of the bonded 20 MH.	the radar detectio dth. For 802.11 de	on bandv evices it	vidth and is sugge	d frequencie ested to sel	es near the edge of ect frequencies in	
DFS Detection Thresholds for M	laster Devices a	nd Clier	nt Devic	es with Ra	dar Detection:	
Maximum Transmit Po	ower	Value (See Notes 1, 2, and 3)				
EIRP ≥ 200 milliwat	t	-64 dBm			า	
EIRP < 200 milliwatt a		-62 dBm			ı	
power spectral density < 10 c EIRP < 200 milliwatt that do not m spectral density requirer	neet the power			-64dBm	1	

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

DFS Radar Signal Parameter Values:

Parameter	Value				
Non-occupancy period	Minimum 30 minutes				
Channel Availability Check Time	60 seconds				
Channel Move Time	10 seconds (See Note 1.)				
	200 milliseconds + an aggregate of 60				
Channel Closing Transmission Time	milliseconds over remaining 10 second period.				
	(See Notes 1 and 2.)				
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission				
	power bandwidth. (See Note 3.)				

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

DFS Radar Signal Parameter:

Radar Type 0 was used in the evaluation of the Client device for the purpose of measuring the Channel Move Time and the Channel Closing Transmission Time

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	er of Pulses Minimum Percentage of Successful Detection			
0	1	1428	18	See Note 1.	See Note 1.		
1	1	Test A Test B	$\operatorname{Roundup} \left\{ \begin{array}{c} \left(\frac{1}{360}\right) \\ \left(\frac{19 \cdot 10^{6}}{\operatorname{PRI}_{\mu sec}}\right) \end{array} \right\}$	60%	30		
2	1-5	150-230	23-29	60%	30		
3	6-10	200-500	16-18	60%	30		
4	11-20	200-500	12-16	60%	30		
Aggregate (Radar Types 1-4) 80%					120		
	Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.						

Table 1-Short Pulse Radar Test Waveforms

Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 µsec, with a minimum increment of 1 µsec, excluding PRI values selected in Test A

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

The aggregate is the average of the percentage of successful detections of short pulse radar types

1-4

Table 2-Long Pulse Radar Test Waveform

Table 2-Long Pulse Radar Test waveform							
Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30
		Tab	le 3-Frequenc	y Hopping R	adar Test Wa	veform	
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	0.333	300	70%	30

In-Service Monitoring: Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

Limit of In-Service Monitoring:

Reference to DFS Radar Signal Parameter Values.

Test Procedures:

- a) One frequency will be chosen from the Operating Channels of the EUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals are detected, another frequency must be selected within the emission bandwidth where control signals are detected.
- b) In case the EUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will associate with the EUT (Master). For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be directed toward the radar emitter. Vertical polarization is used for testing.
- c) The TCP protocol unicast data stream was generated by the iperf software command line with at least 17% activity ratio over any 100ms period.
- d) Timing plots are reported with calculations demonstrating a minimum channel loading of approximately 17% or greater. For example, channel loading can be estimated by setting the spectrum analyzer for zero span and approximate the Time On/ (Time On + Off Time).
- e) At time T0 the Radar Waveform generator sends a Burst of pulses for one of the Short Pulse Radar Types 1-4 at DFS Detection Threshold levels on the Operating Channel. An additional 1 dB is added to the radar test signal to ensure it is at or above the DFS Detection Threshold, accounting for equipment variations/errors.
- f) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Measure and record the Channel Move Time and Channel Closing Transmission Time if radar detection occurs.
- g) When operating as a Master Device, monitor the EUT for more than 30 minutes following instant T2 to verify that the EUT does not resume any transmissions on this Channel. Perform this test once and record the measurement result.

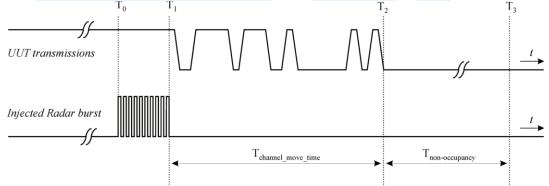
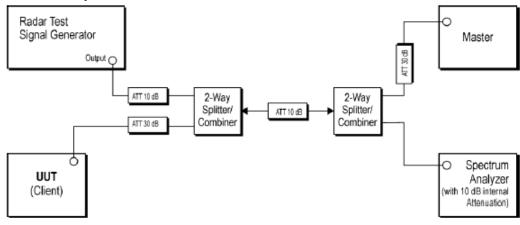


Figure 17: Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China Tel: +86-755-28230888 Fax: +86-755-28230886 E-mail: info@uttlab.com <u>http://www.uttlab.com</u> UTTR-RF-FCCPART15.407-V1.1

Conducted test setup



Setup for Client with injection at the Master

Equipment Used: Refer to section 3 for details.

 Test Result:
 Result of Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Tes

The measurement data as follows:

BW / Channel	BW / Channel Test Item		Limit	Pass/Fail
	Channel Move Time	0.7658 s	< 10s	Pass
20 MHz / 5300 MHz	Channel Closing Transmission Time	3.6 ms	< 200+60ms	Pass
	Non-Occupancy Period	No transmission	30 minutes	Pass
	Channel Move Time	0.8106 s	< 10s	Pass
20 MHz / 5500 MHz	Channel Closing Transmission Time	5.2 ms	< 200+60ms	Pass
	Non-Occupancy Period	No transmission	30 minutes	Pass
	Channel Move Time	0.8162 s	< 10s	Pass
80 MHz / 5290 MHz	Channel Closing Transmission Time	4.8 ms	< 200+60ms	Pass
	Non-Occupancy Period	No transmission	30 minutes	Pass
80 MHz / 5530 MHz	Channel Move Time	0.717 s	< 10s	Pass
	Channel Closing Transmission Time	3.6 ms	< 200+60ms	Pass
	Non-Occupancy Period	No transmission	30 minutes	Pass

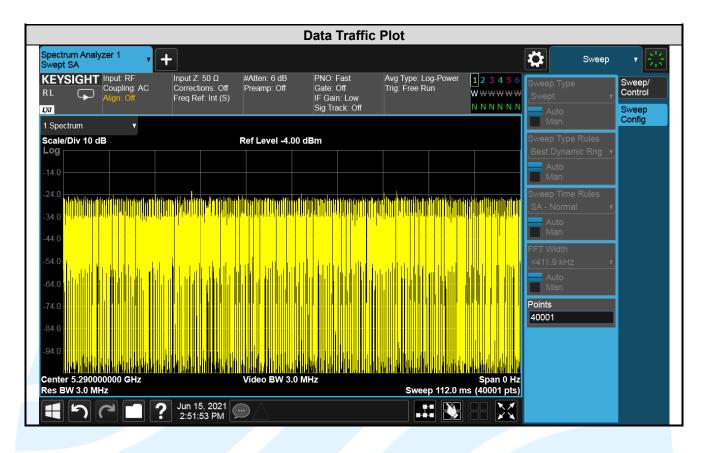
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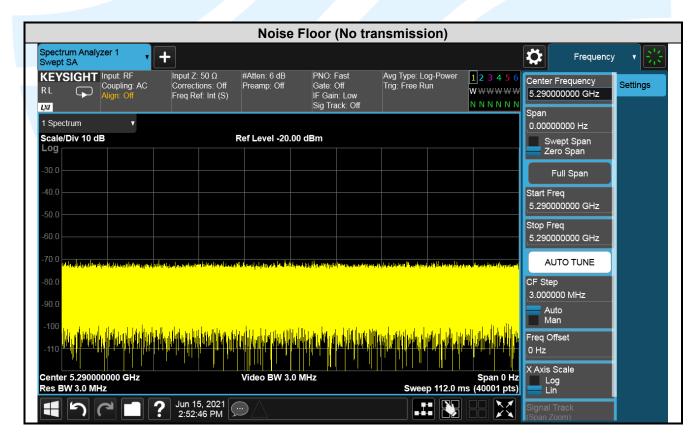
Radar Waveform calibration Plot

Reference DFS test signal							
5300 MHz	5500 MHz						
Construit of Andrew 1 Image: Construit of Andrew 1 Image: Construit of Andrew 1 Image: Construit of Andrew 1 RE Construit of Andrew 1 Image: Const	Security A Mark Start 1 + Frequency						
5290 MHz	5530 MHz						
Spectrum Analyser 1 Image: 2.00 LD Repair 2.00 LD	Spectrum Analyzer 1 Image 2.00 m Medan 6.00 mm Place Feet Mark 100 mm Image 2.00 mm						

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Shenzhen UnionTrust Quality and Technology Co., Ltd.

 Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

 Tel: +86-755-28230888
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
 http://www.uttlab.com

 UTTR-RF-FCCPART15.407-V1.1
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Report No.: 210520024RFC-4

C	hannel Move Time & (802	Channel Closing T 2.11a_5300 MHz	ransmission Tii	me	
Spectrum Analyzer 1				Frequency	、 宗
KEYSIGHT Input: RF	Corrections: Off Preamp: Off Freq Ref: Int (S)	PNO: Fast Avg Type: Lo Gate: Off Trig: Free Ru IF Gain: Low Sig Track: Off		Center Frequency 5.30000000 GHz Span	Settings
1 Spectrum v Scale/Div 10 dB Log	Ref Level 0.00 dB	m	Mkr5 1.199 s -23.59 dBm	0.000000000 Hz Swept Span Zero Span	
-10.0 -20.0 -30.0 -50.0 -50.0 -60.0 -70.0 -80.0 -90.0			<u></u> 1Δ2	Full Span Start Freq 5.30000000 GHz Stop Freq 5.30000000 GHz	
Center 5.300000000 GHz Res BW 3.0 MHz	Video BW 3.0 MH		Span 0 Hz ep 12.00 s (40001 pts)	CF Step	
5 Marker Table				3.000000 MHz	
$ \begin{array}{ c c c c c c c c } \hline Mode & Trace & Scale \\ \hline 1 & \Delta 2 & 1 & t & (\Delta) \\ \hline 2 & F & 1 & t \\ \hline 3 & \Delta 4 & 1 & t & (\Delta) \\ \hline 4 & F & 1 & t & t \\ \hline 5 & N & 1 & t & t \\ \hline \end{array} $	X Y 10.00 s (Δ) -46.97 dB 433.2 ms -20.98 dBm 200.3 ms (Δ) -47.50 dB 433.2 ms -20.98 dBm 1.199 s -23.59 dBm	Function Function Width	Function Value	Man Freq Offset 0 Hz X Axis Scale	
6				Log Lin	
	Jun 15, 2021 5:41:54 PM			Signal Track (Span Zoom)	
Note: 1) Mark1 Time: 433.2 r	ns, Mark2 Time: 10433.	2 ms.Ontime Points	:: 9		
)ms/30000 = 0.4 ms, C				
5) CIVIT - 1.1995 - 0.4	Non-Occupancy P	eriod 802.11a CH	60 5300 MHz		
Spectrum Analyzer 1			_	Frequency	、 宗
KEYSIGHT Input: RF BL	Corrections: Off Preamp: Off Freq Ref: Int (S)	PNO: Fast Avg Type: Lo Gate: Off Trig: Free Ri IF Gain: Low Sig Track: Off		Center Frequency 5.30000000 GHz	Settings
1 Spectrum	Bof Loval 0.00 dB		ΔMkr1 1.800 ks -43.19 dB	Span 0.00000000 Hz	
Scale/Div 10 dB	Ret Level 0.00 dB		-40.10 0D	Swept Span Zero Span	
-20.0 <mark>×2</mark>				Full Span	
-40.0 -50.0 -60.0 -70.0 -80.0			1∆2	Start Freq 5.300000000 GHz Stop Freq 5.300000000 GHz	
-90.0 Center 5.300000000 GHz	Video BW 3.0 MH		Span 0 Hz	AUTO TUNE	
Res BW 3.0 MHz 5 Marker Table		Swee	p 2.000 ks (40001 pts)	CF Step 3.000000 MHz	
Mode Trace Scale		Function Function Width	Function Value	Auto Man	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.800 ks (Δ) -43.19 dB 25.20 s -21.79 dBm			Freq Offset 0 Hz X Axis Scale Log	
1 ? ?	Jun 15, 2021 5:22:15 PM			Signal Track (Span Zoom)	

Shenzhen UnionTrust Quality and Technology Co., Ltd.

 Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

 Tel: +86-755-28230888
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
 http://www.uttlab.com

 UTTR-RF-FCCPART15.407-V1.1
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
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Report No.: 210520024RFC-4

Channe	el Move Time & Channel 802.11a_55	Closing Transmission Ti 00 MHz	me
Spectrum Analyzer 1			Frequency 🔻 🔆
KEYSIGHT Input: RF Input: Z: 50 RL ↔ Coupling: AC Corrections Align: Off Freq Ref: Input Freq Ref: Input	: Off Preamp: Off Gate: Off	Avg Type: Log-Power Trig: Free Run N N N N N N	Center Frequency 5.50000000 GHz
1 Spectrum		Mkr5 1.614 s	Span 0.00000000 Hz
Scale/Div 10 dB	Ref Level 0.00 dBm	-20.37 dBm	Swept Span Zero Span
-10.0 -20.0 -30.0			Full Span
-40.0			Start Freq 5.50000000 GHz
-60.0 -70.0			Stop Freq
-80.0 -90.0			5.50000000 GHz
Center 5.500000000 GHz Res BW 3.0 MHz	Video BW 3.0 MHz	Span 0 Hz Sweep 12.00 s (40001 pts)	AUTO TUNE CF Step
5 Marker Table 🔹 🔻			3.000000 MHz
	Y Function 0.00 s (Δ) -47.63 dB	Function Width Function Value	Man Freq Offset
3 Δ4 1 t (Δ) 200	3.4 ms -19.97 dBm 0.3 ms (Δ) -48.03 dB 3.4 ms -19.97 dBm		0 Hz
	.614 s -20.37 dBm		X Axis Scale
Jun 15, 2 5:46:52			Lin Signal Track
Note:			(Span Zoom)
 4) Mark1 Time: 803.4 ms, Ma 5) Dwell = S/B = 12000ms/30 			
6) CMT = $1.614 \text{ s} - 0.8034 \text{ s}$			
	n-Occupancy Period_802	2.11a_CH100_5500 MHz	
Spectrum Analyzer 1 Swept SA	Ω Atten: 10 dB PNO: Fast		Frequency V
KEYSIGHT Input: RF Input Z: 50 R L Coupling: AC Corrections Align: Off Freq Ref: Input S: 50	: Off Preamp: Off Gate: Off	Avg Type: Log-Power Trig: Free Run WWWWW	Center Frequency Settings 5.500000000 GHz
LVI 1 Spectrum V	Sig Track: Off	ΔMkr1 1.800 ks	Span 0.00000000 Hz
Scale/Div 10 dB Log	Ref Level 0.00 dBm	-44.43 dB	Swept Span Zero Span
-10.0			Full Span
-40.0			Start Freq
-50.0	al a fear of the second state the second state of	<u></u> 1∆2	5.500000000 GHz Stop Freq
-70.0 -80.0 -90.0			5.500000000 GHz
Center 5.500000000 GHz	Video BW 3.0 MHz	Span 0 Hz	AUTO TUNE
Res BW 3.0 MHz 5 Marker Table v		Sweep 2.000 ks (40001 pts)	CF Step 3.000000 MHz
Mode Trace Scale X 1 Δ2 1 t (Δ) 1.4	Y Function 300 ks (Δ) -44.43 dB	Function Width Function Value	Auto Man
2 F 1 t 2 3	4.40 s -20.20 dBm		Freq Offset 0 Hz
4 5 6			X Axis Scale
	021		Lin
	021 PM		Signal Track (Span Zoom)

Shenzhen UnionTrust Quality and Technology Co., Ltd.

 Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

 Tel: +86-755-28230888
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
 http://www.uttlab.com

 UTTR-RF-FCCPART15.407-V1.1
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
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	Channel Mov		Channel C 2.11ac 52		smission Ti	me	
Spectrum Analyzer 1	+					Frequency	
KEYSIGHT Input: RF RL ↔ Coupling: AC Align: Off		Atten: 10 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Pov Trig: Free Run	ver 123456 WWWWWW NNNNNN	Center Frequency 5.290000000 GHz	Settings
1 Spectrum v Scale/Div 10 dB Log	F	Ref Level 0.00 dl	Bm		/kr5 1.025 s -28.26 dBm	Span 0.00000000 Hz Swept Span Zero Span	
-10.0 -20.0 -30.0 -40.0						Full Span Start Freq	
-50.0 -60.0 -70.0 -80.0 -90.0					<u></u> √1∆2	5.29000000 GHz Stop Freq 5.290000000 GHz	
Center 5.290000000 GHz Res BW 3.0 MHz 5 Marker Table		Video BW 3.0 M	Hz	Sweep 12	Span 0 Hz 2.00 s (40001 pts)	AUTO TUNE CF Step 3.000000 MHz	
Mode Trace Scale	X (Δ) 10.00 s (Δ 208.8 ms	Y ∆) -40.81 dB -26.32 dBm	Function F	Function Width	Function ∀alue	Auto Man Freq Offset	
		-26.32 dBm -26.32 dBm -28.26 dBm				0 Hz X Axis Scale Log	
	? Jun 15, 2021 3:19:15 PM					Lin Signal Track (Span Zoom)	
Note: 7) Mark1 Time: 208. 8) Dwell = S/B = 120 9) CMT = 1.025 s -	000ms/30000 =	= 0.4 ms, C					
		-	eriod_802	.11ac_CH58_	_5290 MHz		
Swept SA	+					Marker	· *
KEYSIGHT RL ↔ Coupling: AC Align: Off		Atten: 10 dB Preamp: Off	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Pov Trig: Free Run	ver 123456 WWWWWW NNNNNN	Select Marker Marker 1	
1 Spectrum ▼ Scale/Div 10 dB		Ref Level 0.00 di	Bm	ΔΜ	kr1 1.800 ks -37.31 dB	Marker ∆ Time 1.80000 ks	Settings Peak
Log -10.0 -20.0						Marker Mode	Search Pk Search Config
-30.0 X 2 -40.0 -50.0 -60.0					1Δ2	● Delta (∆) Fixed	Properties Marker
-70.0 -80.0 -90.0						Off Delta Marker	Function Marker→
Center 5.290000000 GHz Res BW 3.0 MHz 5 Marker Table		/ideo BW 3.0 MI	Hz	Sweep 2.0	Span 0 Hz 000 ks (40001 pts)	(Reset Delta) Marker Table On Off	Counter
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	X (Δ) 1.800 ks (Δ 11.80 s	Y -37.31 dB -28.78 dBm	Function F	Function Width	Function Value	Marker Settings Diagram	
5 5 6						All Markers Off Couple Markers On Off	
	? Jun 15, 2021 4:04:29 PM						

Shenzhen UnionTrust Quality and Technology Co., Ltd.

 Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

 Tel: +86-755-28230888
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
 http://www.uttlab.com

 UTTR-RF-FCCPART15.407-V1.1
 Fax: +86-755-28230886
 Fax: +86-755-28230886
 Fax: +86-755-28230886
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Report No.: 210520024RFC-4

Channel Move Time & Channel Closing Transmission Time 802.11ac 5530 MHz							
Spectrum Analyzer 1			Frequency V				
KEYSIGHT Input: RF Input: Z: 50 0 R L ↔ Coupling: AC Corrections: Align: Off Freq Ref: In	Off Preamp: Off Gate: Off	Avg Type: Log-Power Trig: Free Run N N N N N N	Center Frequency 5.53000000 GHz Span				
1 Spectrum v Scale/Div 10 dB		Mkr5 1.266 s -27.88 dBm	0.00000000 Hz				
Log -10.0 -20.0 -30.0	Ref Level 0.00 dBm		Swept Span Zero Span Full Span				
-40.0 -50.0 -60.0 -70.0 -80.0 -90.0		<u></u> 1∆2	Start Freq 5.53000000 GHz Stop Freq 5.530000000 GHz				
Center 5.530000000 GHz Res BW 3.0 MHz	Video BW 3.0 MHz	Span 0 Hz Sweep 12.00 s (40001 pts)	AUTO TUNE CF Step				
5 Marker Table v			3.000000 MHz				
	Y Function 0.00 s (Δ) -40.69 dB .0 ms -26.17 dBm	Function Width Function √alue	Man Freq Offset				
3 Δ4 1 t (Δ) 200 4 F 1 t 549	.3 ms (Δ) -40.44 dB .0 ms -26.17 dBm		0 Hz				
5 N 1 t 1. 6	266 s -27.88 dBm		X Axis Scale Log Lin				
Jun 15, 20 4:28:01 F	221 💬 🛆		Signal Track (Span Zoom)				
Note:							
10) Mark1 Time: 549.0 ms, Ma 11) Dwell = S/B = 12000ms/30							
12) CMT = 1.266 s - 0.549 s =							
Spectrum Analyzer 1	-Occupancy Period_802	.11ac_CH106_5530 MHz					
Swept SA		Avg Type: Log-Power 1 2 3 4 5 6	Center Frequency				
RL ↔ Coupling: AC Corrections: Align: Off Freq Ref: In		Trig: Free Run wwwww NNNNN	5.53000000 GHz				
1 Spectrum		ΔMkr1 1.800 ks	Span 0.00000000 Hz				
Scale/Div 10 dB Log -10.0	Ref Level 0.00 dBm	-40.75 dB	Swept Span Zero Span				
-20.0 -30.0 2			Full Span				
-40.0			Start Freq 5.530000000 GHz				
-60.0 -70.0 -80.0 -90.0			Stop Freq 5.530000000 GHz				
Center 5.530000000 GHz Res BW 3.0 MHz	Video BW 3.0 MHz	Span 0 Hz Sweep 2.000 ks (40001 pts)	AUTO TUNE CF Step				
5 Marker Table v		Sweep 2.000 ks (4000 1 pts)	3.000000 MHz				
ModeTraceScaleX1 $\Delta 2$ 1t(Δ)1.8	Y Function 00 ks (Δ) -40.75 dB	Function Width Function ∀alue	Auto Man				
	3.40 s -24.23 dBm		Freq Offset 0 Hz X Axis Scale Log				
Jun 15, 20 5:05:37 F	221 💬 🛆		Lin Signal Track (Span Zoom)				

Shenzhen UnionTrust Quality and Technology Co., Ltd.

 Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

 Tel: +86-755-28230888
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
 http://www.uttlab.com

 UTTR-RF-FCCPART15.407-V1.1
 Fax: +86-755-28230886
 E-mail: info@uttlab.com
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5.9 AC POWER LINE CONDUCTED EMISSION

Test Requirement: FCC 47 CFR Part 15 Subpart C Section 15.207 ANSI C63.10-2013 Section 6.2 **Test Method:**

Limits:

Frequency range (MHz)	Limits (dB(µV)	
	Quasi-peak	Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50

Remark:

- The lower limit shall apply at the transition frequencies. 1
- The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz. 2.
- Refer to section 4.4.2 for details. **Test Setup:**

Test Procedures:

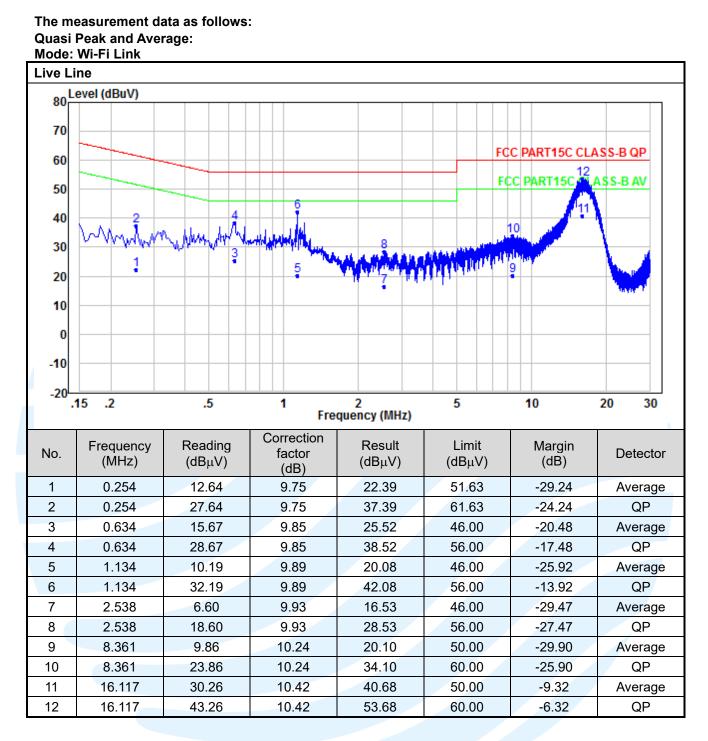
Test frequency range :150KHz-30MHz

- The mains terminal disturbance voltage test was conducted in a shielded room. 1)
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu$ H + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for 3) floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from 4) the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Equipment Used: Refer to section 3 for details. Pass

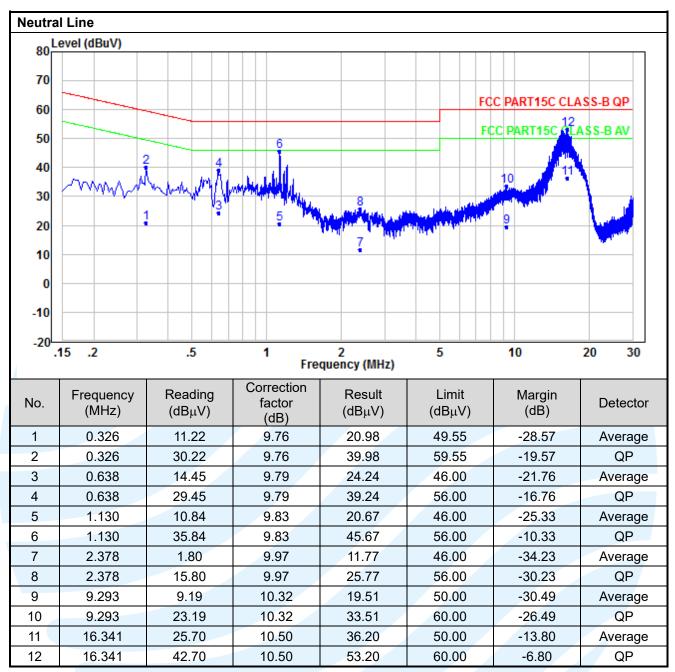
Test Result:

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Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China Tel: +86-755-28230888 Fax: +86-755-28230886 E-mail: info@uttlab.com <u>http://www.uttlab.com</u> UTTR-RF-FCCPART15.407-V1.1



Remark:

- 1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
- 2. Result = Reading + Correct Factor.
- 3. Margin = Result Limit
- 4. An initial pre-scan was performed on the Phase and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.
- 5. All possible modes of operation were investigated, and testing at two nominal voltages of 240V~50Hz and 120V~60Hz, only the worst case emissions reported.



APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

*** End of Report ***

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