

Temperature :	26 ℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.3V
Test Mode :	TX ANT1	42	2.2

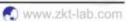
Test CH	-6dB Channel Bandwidth (MHz)				Limit(KHz)	Result
Test CH	802.11a	802.11n(HT20)	802.11n(HT40)	802.11ac(HT80)		Result
Lowest	16.33	17.14	35.07	SD		
Middle	16.35	17.33		75.14	>500	Pass
Highest	16.35	17.12	35.47			

Toot CH		-6dB Channel Bandwidth (MHz)		Limit(KLIz)	Deput	
Test CH		802.11ac(HT20)	802.11ac(HT40)		Limit(KHz)	Result
Lowest		17.57	36.02		2	12
Middle		17.59			>500	Pass
Highest		17.57	35.90		-	

Temperature :	26 ℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.3V
Test Mode :	TX ANT2		

Test CH	2	-6dB Channe	el Bandwidth (MH	z)		Result
	802.11a	802.11n(HT20)	802.11n(HT40)	802.11ac(HT80)	Limit(KHz)	Result
Lowest	16.315	17.283	34.02			2
Middle	16.334	17.554		75.053	>500	Pass
Highest	16.311	17.395	35.354			

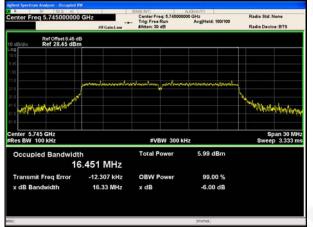
Test CH		-6dB Channe	l Bandwidth (MHz)		Limit(KUz)	Docult
Iest CH	8	802.11ac(HT20)	802.11ac(HT40)		Limit(KHz)	Result
Lowest		17.568	33.892	ý		
Middle		17.187			>500	Pass
Highest		17.541	35.136		-	



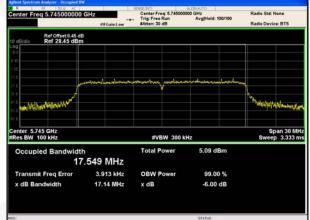


Test plot ANT1

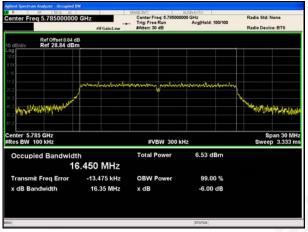
(802.11a) 99%Bandwidth plot on channel 149



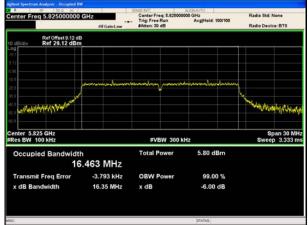
(802.11 n20) 99%Bandwidth plot on channel 149



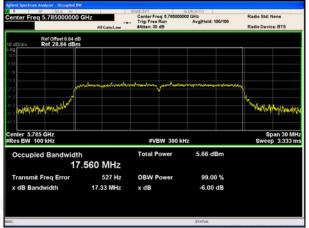
(802.11a) 99% Bandwidth plot on channel 157

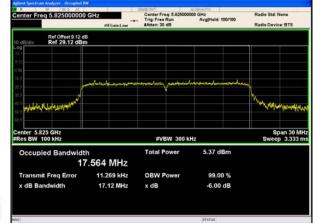


(802.11a) 99% Bandwidth plot on channel 165



(802.11 n20) 99%Bandwidth plot on channel 157





(802.11 n20) 99%Bandwidth plot on channel 165

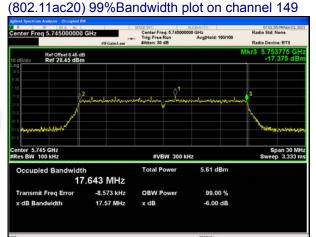








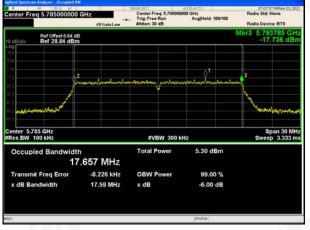
Test plot



(802.11 ac40) 99%Bandwidth plot on channel 151





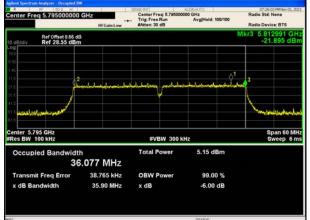


(802.11ac20) 99%Bandwidth plot on channel 165



Ð

(802.11 ac40) 99%Bandwidth plot on channel 159



S.

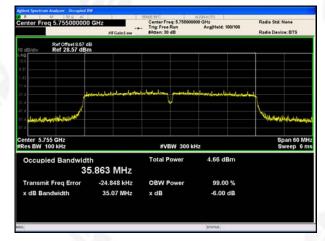




Test plot

(802.11 n40) 99%Bandwidth plot on channel 151

(802.11 ac80) 99% Bandwidth plot on channel 155



(802.11 n40) 99%Bandwidth plot on channel 159

enter Freq 5.795000000 GH		Center Freq: 5.7950000	AUGHAITO OO GHz Avg[Held: 100/100	Radio Std: None Radio Device: BTS
dB/div Ref 28.55 dB				
5				
6				
	ad land was	والمتعادية والمحاص		
Sound the alternative Very Los				manuna
nter 5.795 GHz es BW 100 kHz		#VBW 300 ki	łz	Span 60 MH Sweep 6 m
Occupied Bandwidth		Total Power	4.59 dBm	
	63 MHz			
35.9				
Transmit Freq Error -	71.866 kHz	OBW Power	99.00 %	
Transmit Freq Error -		OBW Power x dB	99.00 % -6.00 dB	

Center Freq 5.77	5000000	HEGain:Low	Center Freq: 5.7 Trig: Free Run #Atten: 30 dB		Radio Std: None Radio Device: BTS
	mset 8.85 dB 28.85 dBm				
16.9					
0.05					
11.7					
21.2	MUG	للمفسحة أملك	A Station of the	والمهدا والمحمد الجارا المحمد الم	
31.7			and the second state	and the set of the second states in the	
61.2 61.2 61.2	anis at				Variantering
Center 5.775 GHz #Res BW 100 kHz			#VBW 3	100 kHz	Span 120 MH Sweep 12 m
Occupied Ba		312 MHz	Total Power	r 2.72 dBm	
Transmit Freq	Error	-96.605 kHz	OBW Powe	r 99.00 %	
	th	75.14 MHz	x dB	-6.00 dB	



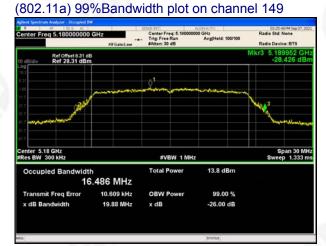








Test plot ANT2



(802.11 n20) 99%Bandwidth plot on channel 149



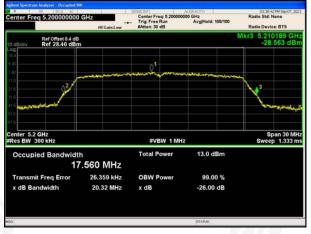
(802.11a) 99%Bandwidth plot on channel 157



(802.11a) 99%Bandwidth plot on channel 165



(802.11 n20) 99%Bandwidth plot on channel 157





(802.11 n20) 99%Bandwidth plot on channel 165







Test plot



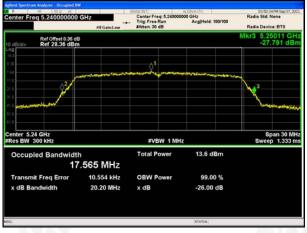
(802.11 ac40) 99%Bandwidth plot on channel 151







(802.11ac20) 99%Bandwidth plot on channel 165







(802.11 ac40) 99%Bandwidth plot on channel 159













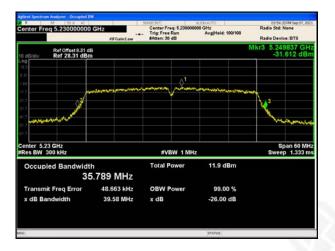
Test plot

(802.11 n40) 99%Bandwidth plot on channel 151

(802.11 ac80) 99%Bandwidth plot on channel 155



(802.11 n40) 99%Bandwidth plot on channel 159



~~~~	Q ¹	. h	Mkr3 5.249955 GH -35.423 dBn
	2 ¹		
	A stranger		
			3
			Warmon
	VBW 1 MHz	z	Span 120 MH Sweep 1.333 m
Total MHz	Power	11.6 dBm	
1 kHz OBW	Power	99.00 %	
7 MHz x dB		-26.00 dB	
1	Total VIHZ 11 kHz OBW	Total Power MHZ 11 kHz OBW Power	MHz 11 kHz OBW Power 99.00 %















# 7.MAXIMUM CONDUCTED OUTPUT POWER

# 7.1 PPLIED PROCEDURES / LIMIT

# According to FCC §15.407

# The maximum conduced output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	250mW
5725~5850	1W

# 7.2 TEST PROCEDURE

The EUT was directly connected to the Power meter

# 1. Device Configuration

If possible, configure or modify the operation of the EUT so that it transmits continuously at its maximum power control level (see section II.B.).

a) The intent is to test at 100 percent duty cycle; however a small reduction in duty cycle (to no lower than 98 percent) is permitted if required by the EUT for amplitude control purposes. Manufacturers are expected to provide software to the test lab to permit such continuous operation.

b) If continuous transmission (or at least 98 percent duty cycle) cannot be achieved due to hardware limitations (e.g., overheating), the EUT shall be operated at its maximum power control level with the transmit duration as long as possible and the duty cycle as high as possible.

# 2. Measurement using a Spectrum Analyzer or EMI Receiver (SA)

Measurement of maximum conducted output power using a spectrum analyzer requires integrating the spectrum across a frequency span that encompasses, at a minimum, either the EBW or the 99-percent occupied bandwidth of the signal.1 However, the EBW must be used to determine bandwidth dependent limits on maximum conducted output power in accordance with § 15.407(a).

a) The test method shall be selected as follows: (i) Method SA-1 or SA-1 Alternative (averaging with the EUT transmitting at full power throughout each sweep) shall be applied if either of the following conditions can be satisfied:

• The EUT transmits continuously (or with a duty cycle ≥ 98 percent).

• Sweep triggering or gating can be implemented in a way that the device transmits at the maximum power control level throughout the duration of each of the instrument sweeps to be averaged. This condition can generally be achieved by triggering the instrument's sweep if the duration of the sweep (with the analyzer configured as in Method SA-1, below) is equal to or shorter than the duration T of each transmission from the EUT and if those transmissions exhibit full power throughout their durations.

(ii) Method SA-2 or SA-2 Alternative (averaging across on and off times of the EUT transmissions, followed by duty cycle correction) shall be applied if the conditions of (i) cannot be achieved and the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than ± 2 percent.

(iii) Method SA-3 (RMS detection with max hold) or SA-3 Alternative (reduced VBW with max hold) shall be applied if the conditions of (i) and (ii) cannot be achieved.

b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep): (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(ii) Set RBW = 1 MHz.

(iii) Set VBW ≥ 3 MHz.

(iv) Number of points in sweep  $\geq$  2 Span / RBW. (This ensures that bin-to-bin spacing is  $\leq$  RBW/2, so that narrowband signals are not lost between frequency bins.)

(v) Sweep time = auto.

(vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode. (vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq$  98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".

# (viii) Trace average at least 100 traces in power averaging (i.e., RMS) 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





# Project No.: ZKT-2109024660E-2 Page 59 of 93

(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum

# 7.3 DEVIATION FROM STANDARD

No deviation.

# 7.4 TEST SETUP

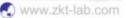


# 7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.











# 7.6 TEST RESULTS

Temperature :	<b>26</b> ℃	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	DC 3.3V
Test Mode :	ТХ	9	

Test	Frequency	Maximum output power Ant1	Maximum output power Ant2	Total output power Ant2	LIMIT	Result
Channel	(MHz)	(dBm)	(dBm)	(dBm)	dBm	
			TX 802.11a Mode			•
CH36	5180	8.857	8.765		23.98	Pass
CH40	5200	8.841	8.645		23.98	Pass
CH48	5240	8.759	8.733		23.98	Pass
		٦	X 802.11 n20M Mo	de		722
CH36	5180	7.065	6.922	10.00	23.98	Pass
CH40	5200	7.014	6.958	10.00	23.98	Pass
CH48	5240	7.050	6.852	9.96	23.98	Pass
		1	TX 802.11 n40M Mo	de		
CH38	5190	6.951	6.875	9.92	23.98	Pass
CH46	5230	6.782	6.753	9.78	23.98	Pass
			X 802.11 ac20M Mc	ode		•
CH36	5180	7.222	6.992	10.12	23.98	Pass
CH40	5200	7.110	6.974	10.05	23.98	Pass
CH48	5240	7.120	6.973	10.06	23.98	Pass
		Т	X 802.11 ac40M Mc	ode		
CH38	5190	6.855	6.745	9.81	23.98	Pass
CH46	5230	6.868	6.734	9.81	23.98	Pass
	1.4	Т	X 802.11 ac80M Mc	ode	1.1	
CH42	5210	5.422	5.325	8.38	23.98	Pass

Test	Frequency	Maximum output power Ant1	Maximum output power Ant2	Total output power Ant2	LIMIT	Result
Channel	(MHz)	(dBm)	(dBm)	(dBm)	dBm	
	•		TX 802.11a Mode			•
CH149	5745	8.581	8.336		30	Pass
CH157	5785	8.556	8.425		30	Pass
CH165	5825	8.458	8.325		30	Pass
		٦	TX 802.11 n20M Mo	de		
CH149	5745	7.441	7.221	10.34	30	Pass
CH157	5785	7.432	7.215	10.34	30	Pass
CH165	5825	7.422	7.201	10.32	30	Pass
	•	1	X 802.11 n40M Mo	de	1464	
CH151	5755	6.631	6.522	9.59	30	Pass
CH159	5795	6.645	6.532	9.60	30	Pass
	·	Т	X 802.11 ac20M Mc	de		
CH149	5745	7.222	7.201	10.22	30	Pass
CH157	5785	7.110	7.025	10.08	30	Pass
CH165	5825	7.120	7.033	10.09	30	Pass
nzhen ZKT	Technology (	Co., Ltd.		1000		

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

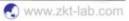




# Project No.: ZKT-2109024660E-2 Page 61 of 93

	T)	X 802.11 ac40M Mod	de		
5755	6.855	6.762	9.82	30	Pass
5795	6.868	6.785	9.84	30	Pass
20	T	X 802.11 ac80M Mod	de	100	5
5775	5.512	5.445	8.49	30	Pass
	5795	5755         6.855           5795         6.868           TX	5755         6.855         6.762           5795         6.868         6.785           TX 802.11 ac80M Mod	5755         6.855         6.762         9.82           5795         6.868         6.785         9.84           TX 802.11 ac80M Mode	5755         6.855         6.762         9.82         30           5795         6.868         6.785         9.84         30           TX 802.11 ac80M Mode





www.zkt-lab.com



# 8.1 APPLICABLE STANDARD

According to FCC §15.407(b)

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

# 8.2 TEST PROCEDURE

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
- 4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

<b>o</b> , <b>o</b>	lures until all measured frequencie	·
5. Repeat above procee		es were complete.
8.3 DEVIATION FROM	STANDARD	
No deviation.		
8.4 TEST SETUP		
EUT _		POWER METER
nzhen ZKT Technology C	o. 11d	
		Avenue, Fuhai Street, Bao'an District, Sh
+86-400-000-9970	+86-755-2233 6688	🖂 zkt@zkt-lab.com 🛛 👩 ww



# 8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

# 8.6 TEST RESULTS

Temperature :	<b>26</b> ℃	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	DC 3.3V

5.180~5.240 GHz

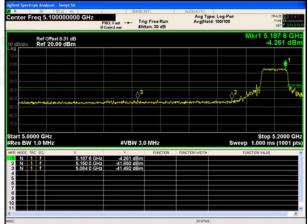
ANT1



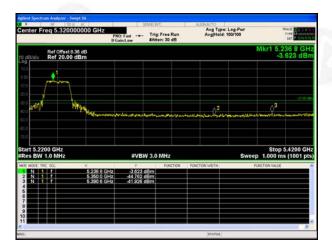
(802.11a) Band Edge, Left Side

# (802.11a) Band Edge, Right Side

# (802.11n20) Band Edge, Left Side



(802.11n20) Band Edge, Right Side



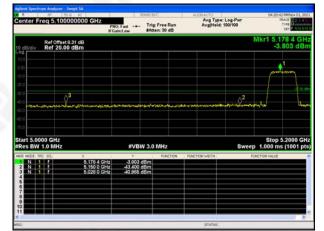
nter Freq 5.320	PN		Frig: Free Run Matten: 30 dB	Avg Type: L Avg[Hold: 10	.og-Pwr 10/100	TYPE NO.
Ref Offset IB/div Ref 20.0	8.36 dB 0 dBm				N	lkr1 5.246 2 Gi -3.995 dB
	1					
	<b>b</b> .					-37.00
Mara.	and the second sec	-	mempirado	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	144.17	and and an advertised of
rt 5.2200 GHz s BW 1.0 MHz		#VBW	3.0 MHz		Sweep	Stop 5.4200 G 1.000 ms (1001 p
NODE THE SEL	× 5,246 2 GHz 5,350 0 GHz 5,398 9 GHz	-3.995 dB -45.727 dB -41.910 dB	m	FUNCTION WIDTH	PUN	CTION VALUE
	0,000 0,012	41,910 00	n			
			10.00			



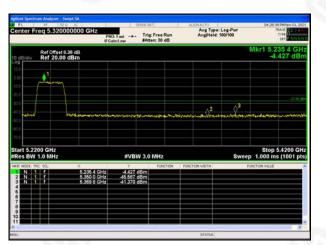




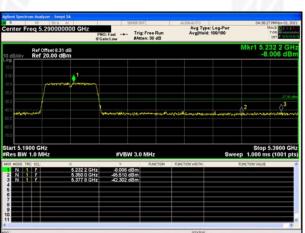
(802.11ac20) Band Edge, Left Side



(802.11ac20) Band Edge, Right Side

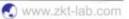






(802.11ac40) Band Edge, Right Side

(802.11ac40) Band Edge, Left Side

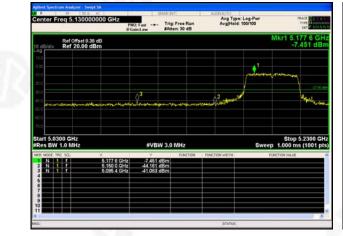




# 5.180~5.240 GHz

(802.11n40) Band Edge, Left Side





(802.11n40) Band Edge, Right Side

PNO: East	Frig: Free Run Mitten: 30 dB	Avg Type: AvgPlaid: 1	Log-Pwr 00/100	TRU T	
				Vikr1 5.23 -7.2	5 6 GH 13 dBn
*					
					-27.00 eB
In when lot a good	(Manaharana	rengen and an all of	1 mounter of	2	3
#VBW :	3.0 MHz		Sweep		3900 GH (1001 pts
Ý	PUNCTION	FUNCTION WOTH	FU.	NCTION VALUE	
Hz 45,645 dB	m				
	PRO: Fail +++ #Caint.aw  #VBW  #VBW  Htt -554568	PROF Fail Trig Free Run Brant av Profest Trig Free Run Batter: 30 d5	PROF Feel Trig: Free Run Arg Type: Brank two	PROF Hat	PROFILE BEAMLT AND THE Free Run Adden: 30 dB Mkr1 5,23 7,2 7,2 7,2 7,2 7,2 7,2 7,2 7,2 7,2 7,2





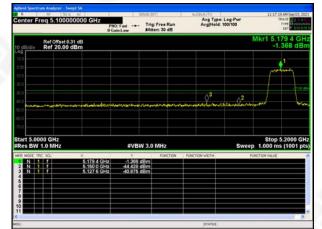






# 5.180~5.240 GHz

ANT2



(802.11a) Band Edge, Left Side

(802.11a) Band Edge, Right Side

NF 50.9 AC	5010	E:747]	ALEINAUTO		-11:25:46 AM S	400 003, 2002
nter Freg 5.320000000 GHz	PNO: Fast T	rig: Free Run Atten: 30 dB	Avg Type: L Avg[Hold: 10	og-Pwr 0/100	TRACE TYPE DET	12141 NNNN
Ref Offset 8.35 dB Ref 20.00 dBm				M	kr1 5.243 -0.784	
moren						
when have and and			2	and an and a street of the		an tak
rt 5.2200 GHz s BW 1.0 MHz	#VBW 3	.0 MHz		Sweep	Stop 5.42 1.000 ms (10	00 GH
MODE TRC SOL X	-0.784 dBr	RUNCTION	FUNCTION WOTH	FUN	CTION VALUE	
N 1 F 5,350 0 GH N 1 F 5,350 0 GH N 1 F 5,394 4 GH	z -44.945 dBr	1				

anter Pri	eq 5.10000	PNC	2: Fast Tris in:Low #At	g: Free Run ten: 30 dB	Avg Typ Avg Typ AvgPlaid	e: Log-Pwr E 100/100	TRA Tr	M Sep (0), 20 cz (1) 20 ret cz (1) 20 20 ret cz (1) 20 20 ret cz (1) 20 ret c (1) 20 ret (1) 20 ret c (1) 20 ret c (1) 20 ret (1) 20 ret (1
dBldiv	Ref Offset 8.3 Ref 20.00 d	1 dB IBm					Mkr1 5.17 -2.9	8 0 GH 06 dBi
0.0								
10							hand	ليد
10								7.00 #
0.0						0 ³ 0 ²		
-	- manufactures	mensenary	internetan	answer-any simple	Non-Marriada anda	Hansenboter	and the	14
10								
10								
			#VBW 3.0	MHz		Swee	Stop 5. p 1.000 ms	2000 GH (1001 pt
Res BW 1	1.0 MHz	×	¥.	RUNCTION	FUNCTION WOTH		Stop 5. p 1.000 ms	2000 GH (1001 pt
Res BW 1	1.0 MHz	× 5.178 0 GHz 5.150 0 GHz 5.140 6 GHz	#VBW 3.0 -2.906 dBm -43.023 dBm -40.866 dBm		RUNCTION WOTH		p 1.000 ms	2000 GH (1001 pt
Res BW 1	1.0 MHz	5.150 0 GHz	v -2.906 dBm -43.023 dBm		FUNCTION WIDTH		p 1.000 ms	2000 GH (1001 pt
	1.0 MHz	5.150 0 GHz	v -2.906 dBm -43.023 dBm		FUNCTION WOTH		p 1.000 ms	2000 GH (1001 pt
Res BW 1 R MODE TRO N 1 N 1 N 1 S N 1 S N 1 S N 1 S S S S S S S S S S S S S S S S S S S	1.0 MHz	5.150 0 GHz	v -2.906 dBm -43.023 dBm		PUNCTION WOTH		p 1.000 ms	2000 GH (1001 pt
Res BW 1 R MODE TRO N 1 N 1	1.0 MHz	5.150 0 GHz	v -2.906 dBm -43.023 dBm		FUNCTION WOTH		p 1.000 ms	2000 GH (1001 pt

(802.11n20) Band Edge, Left Side

(802.11n20) Band Edge, Right Side

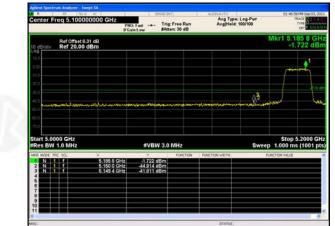
	K Presson in Law	SEMI	(PAT)	ALENAUTO		- 11:35:23 AM Sep 03, 202
enter Freq 5.320000	PNC	): Fast To in:Low #/	ig: Free Run itten: 30 dB	Avg Type AvgPloid:	Log-Pwr 100/100	TRACE D 2 4
Ref Offset 8.36 dB/div Ref 20.00 dB	dB Im					Mkr1 5.238 0 GH: -2.612 dBn
3.0						
00 million						
				۸2	_ <u>^</u> 3	-27.00 ±0
a state of the sta	have man	+lestern-lasts	montering	Vinternation	mahromen	a manufacture and a second second
10						
art 5.2200 GHz Res BW 1.0 MHz		#VBW 3.	0 MHz		Sweep	Stop 5.4200 GH 1.000 ms (1001 pts
R MODE TRC SOL	× 5.238 0 GHz	.2.612 dBm	FUNCTION	FUNCTION WOTH	P.	UNCTION VALUE
	5,350 0 GHz 5,357 0 GHz	-44,665 dBm -41,419 dBm				





# Project No.: ZKT-2109024660E-2

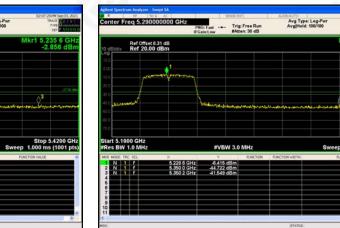
# (802.11ac20) Band Edge, Left Side



# (802.11ac20) Band Edge, Right Side



(802.11ac40) Band Edge, Right Side









Page 67 of 93



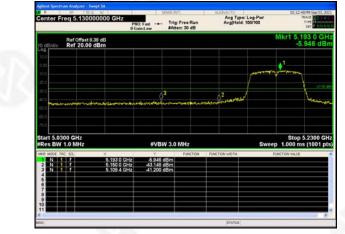




# 5.180~5.240 GHz

(802.11n40) Band Edge, Left Side





(802.11n40) Band Edge, Right Side

niter Fried 5	29000000	PI		g: Free Run Iten: 30 dB	Avg Typ AvgPlate		1	
dBidiv Ref	ffset 8.31 dB 20.00 dBm						4kr1 5.23 -6.2	5 8 GHz 10 dBm
	-	1						
0								
			Warran Brannin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	an na sa	and the second		
art 5.1900 GH es BW 1.0 M			#VBW 3.	0 MHz		Sweep	Stop 5. 1.000 ms	3900 GHz (1001 pts)
N 1 F N 1 F N 1 F		5,235 8 GHz 5,350 0 GHz 5,384 8 GHz	-6.210 dBm -44,457 dBm -42,125 dBm	PUNCTION	FUNCTION WIDTH	ſIJ	NCTION WALVE	





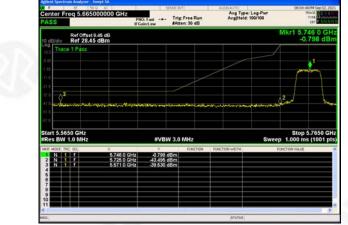


# 5.745~5.825 GHz

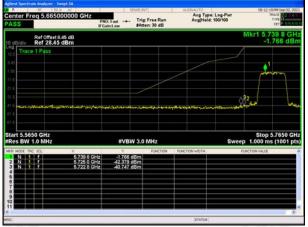
# ANT2

(802.11a) Band Edge, Left Side





(802.11a) Band Edge, Right Side



(802.11n20) Band Edge, Right Side

nter Freq 5.905 SS		PNO: Fast	Trig: Free Run #Atten: 30 dB	Avg Tys Avg[Hab	e: Log-Pwr £ 100/100	n	IPM Sep 02, 202 RACE A CONTRACT TYPE DET CONTRACT
Ref Offset	9.12 dB 2 dBm					Mkr1 5.8 -0.	30 4 GH 775 dBr
Trace 1 Pass							
page							
melt	hand Presser	3		مادر بر مرد والاطور الدو مراجع المراجع ا		ar Salardares	Liter Maria
9							
rt 5.8050 GHz rs BW 1.0 MHz		#VBW	3.0 MHz		Swee	Stop 6 p 1.000 ms	5.0050 GH s (1001 pt
MODE THE SEL	× 5.830 4 GH		PUNCTION	FUNCTION W/DTH	1	UNCTION VALUE	
	5,850 0 GH 5,885 8 GH	z -41.397 dB	m				
							- 3
				BTATUS.			

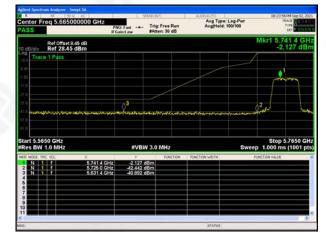
nter Freq 5.90	5000000 GHz	PNO: Fast	Trig: Free Run #Atten: 30 dB	Aug Type Avg Type Avg Plaid	: Log-Pwr 100/100	08:21:20 PM Sep 02, 20 TRACE IN Sep 02, 20 TYPE DET
Ref Offs dB/div Ref 29.	et 9.12 dB 12 dBm				1	4 Mkr1 5.832 0 GH -2.273 dBr
Trace 1 Pass						
punne	<b>1</b>					
9						
9 9	landen	للمرجع والمرجع	3		and the second second	والمربي والمراولة والمروم والمراوم المراومة
9						
art 5.8050 GHz es BW 1.0 MHz		#VB	V 3.0 MHz		Sweep	Stop 6.0050 GH 1.000 ms (1001 pt
NODE THE SEL	×	¥.	FUNCTION	FUNCTION WIDTH	PU	NCTION VALUE
	5,832 0 G 5,850 0 G 5,886 6 G	Hz -2.273 Hz -40.999 Hz -40.063	sBm			







(802.11ac20) Band Edge, Left Side

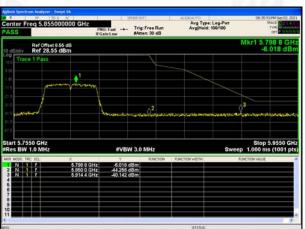


(802.11ac20) Band Edge, Right Side



# (802.11ac40) Band Edge, Left Side





(802.11ac40) Band Edge, Right Side





# 5.745~5.825 GHz

# (802.11n40) Band Edge, Left Side





(802.11n40) Band Edge, Right Side

enter Freq	5.855000000 G	PNO: Fast -+	- Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg[Held: 100/100	08:31:26 PM 5ep 02, 200 THACE 1 2 1 4 THE 2 DET 1 10 10
dBldiv Re	Offset 8.55 dB f 28.55 dBm				Mkr1 5.792 6 GH -6.959 dBr
Trace 1 F	ass				
45	Merrian was	maria			
5					
5		1	0 ²	03	
a deserved		persone	and the state of the second states of the second st	a contraction of the contraction	behe demonstration
s					
art 5.7550 G		#\/	SW 3.0 MHz	Swaa	Stop 5.9550 GH
		Ŷ			UNCTION VALUE
R MODE THE SEL		6 GHz -6.95	9 dBm 9 dBm		
N 1 F	5.792	0 GHz -43.50 0 GHz -40.19	9 dBm		
N 1 F N 1 F N 1 F	5.792	10 GHz -43.50 10 GHz -40.19	9 dBm		
N 1 F N 1 F N 1 F	5.792	10 GHz 43.50 10 GHz 40.19	9 dBm		
N 1 F	5.792	10 GHz 43,50 10 GHz 40,19	9 dBm		







# 9.SPURIOUS RF CONDUCTED EMISSIONS

# 9.1 CONFORMANCE LIMIT

- 1. Below -20dB of the highest emission level in operating band.
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

# 9.2 MEASURING INSTRUMENTS

The Measuring equipment is listed in the section 6.3 of this test report.

# 9.3 TEST SETUP



# 9.4 TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength, and measure frequency range from 30MHz to 26.5GHz.

# 9.5 TEST RESULTS

Remark: The measurement frequency range is from 30MHz to the 5th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data.

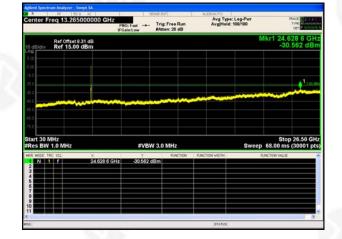




# 5.2G

# Test Plot

# 802.11a on channel 36



802.11a on channel 48

10.205	D00000 GHz	0:Fast Tri ain:Low #At	g: Free Run ten: 26 dB	Avg Type Avg[Hold:	: Log-Pwr 100/100	TYPE DET
Ref Offset 8 dB/div Ref 15.00	36 dB dBm				Mkr	24,638 3 GH -30,283 dBr
9 W						
00	-					
50						.1
a la						
50	and the second	-		-		
(q						
art 30 MHz tes BW 1.0 MHz		#VBW 3.0	) MHz		Sweep 68.	Stop 26.50 GH 00 ms (30001 pt
	×	v -30,283 dBm	FUNCTION	FUNCTION WIDTH	Function	W VALUE
	24 620 2 644			+		
N 1 F	24,638 3 GHz			+		
N 1 F	24,638 3 GHz					
	24,638 3 GHz					
	24.638 3 GHz					
	24,638 3 GHz					

# Ref Offset 8.4 dB Ref 15.00 dBm Mkr1 24 Ref 15.00 dBm Mkr1 24 Statustical Statusticae Statusticae Statusticae Statusticae Statusticae Statusticae Statusticae Statusticae Statusticae

N I	#VBW 3.0	AHZ FUNCTION	FUNCTION WIDTH	Stop 68.00 ms	26.50 G (30001 p
24,6197 GHz	-30,382 dBm	PUNCTUN	FORCION WOOK	 CHICKING WELDE	



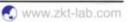




Shenzhen ZKT Technology Co., Ltd. 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

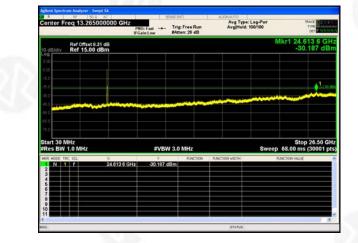
+86-755-2233 6688

8





# 802.11n20 on channel 36



# 802.11n20 on channel 48

enter Freq 13.265		PNO: Fast Tri Gain:Low #At	g: Free Run ten: 26 dB	Avg Type Avg[Hold:	Log-Pwr 100/100	TYPE DET
Ref Offset 8 dB/div Ref 15.00					Mkr1	24.650 6 GH: -30.489 dBn
0 00						
0						.1
a						-
and and a start of a						
a						
art 30 MHz						Stop 26.50 GH
es BW 1.0 MHz		#VBW 3.0				0 ms (30001 pts
N 1 F	× 24,650 6 GHz	√ -30,489 dBm	FUNCTION	RUNCTION WOTH	FUNCTION	VALUE
58 346 C.446			0.00	STATUS		

# Addres System Adoption: Served SA Center Freq 13.265000000 GHz PROLING Grain Lew From Mater: 28 dB Miker: 28

802.11n20 on channel 40



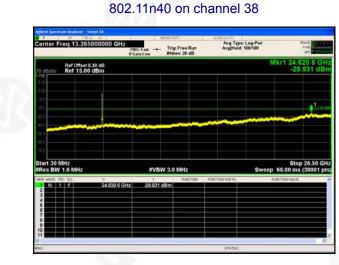












# 802.11n40 on channel 46

nter Freq 13.265	000000 GHz	to:Fast Tri Jain:Low #At	g: Free Run ten: 26 dB	Avg Type AvgPield	Log-Pwr 100/100	TRACE DE LET
Ref Offset 8					Mkr	1 25.964 4 GI -30.658 dB
1						
						-27.00
					-	
1						
rt 30 MHz es BW 1.0 MHz		#VBW 3.0	) MHz		Sweep 68	Stop 26.50 G
MODE THE SEL	×	Ŷ	FUNCTION	FUNCTION WIDTH	FUNCT	ION VALUE
N 1 F	25.964 4 GHz	-30.658 dBm				
<u></u>						

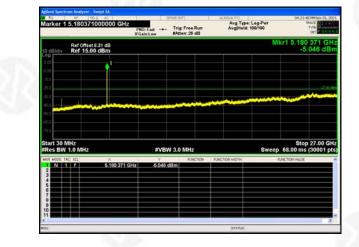








# 802.11ac20 on channel 36



802.11ac20 on channel 48

splay Line -27.		PNO: Fast To FGain:Low #	ig: Free Run itten: 26 dB	Avg Type Avg Pield	: Log-Pwr 100/100	H-29-32 PM Nov 01, 202 THACE D 2 PA TYPE DET D 2010100
dBldiv Ref 15	et 8,36 dB .00 dBm				Mkr1 5.	240 604 GH -5.653 dBn
30	1					
0						
0						-27.0040
á 🚽 🛛						and the second
-						
a						
0						
es BW 1.0 MHz		#VBW 3.	0 MHz		Sweep 68.00	Stop 27.00 GH ms (30001 pts
MODE THE SEL	×	Ý	FUNCTION	FUNCTION WOTH	FUNCTION	ALUE
NIT	5.240 604 GHz	-5,653 dBm				
				STATUS		

# Addext Sectional Auditive: Served SA Strate(1) ALSALATIO OLSALATIO OLSALATION OLSALATION

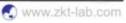
802.11ac20 on channel 40







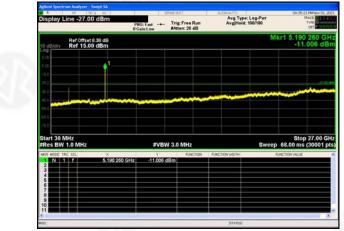












# 802.11ac40 on channel 46

ker 1 5.230715	P	NO: Fast Gain:Low	Trig: Free Run #Atten: 26 dB	Avg Type: Log-Pw Avg/Hold: 100/100	04/39/41 PMNov 01, 3 TRACE 112/04 TVPE DET
Ref Offset	8.31 dB 0 dBm				Mkr1 5.230 715 G -9.768 dB
					and the second states
and the second					
t 30 MHz s BW 1.0 MHz		#VBW	/ 3.0 MHz	SI	Stop 27.00 G weep 68.00 ms (30001 p
N 1 F	× 5.230 715 GHz	.9.768 d		FUNCTION WOTH	FUNCTION VALUE

el 38 Atter Sectra Anter - S





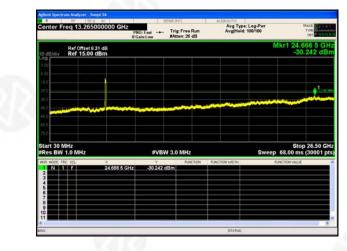








802.11ac80 on channel 42















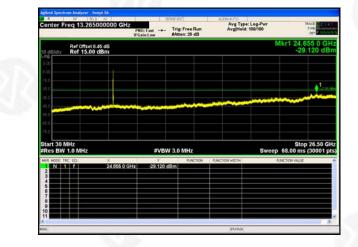




# 5.8G

# Test Plot

# 802.11a on channel 149



802.11a on channel 157

		0: Fast Tri sin:Low #At	g: Free Run ten: 26 dB	Avg Type Avg[Hold:	: Log-Pwr 100/100	TVPE EET
Ref Offset 8 dB/div Ref 15.00	84 dB dBm				Mkr	1 24.648 9 GH -29.356 dB
<b>u</b>						
0						Al. ma
ù.						and the second designed
······································	water and the second	فيستعنينهم	and and a second			
0						
0						
art 30 MHz es BW 1.0 MHz		#VBW 3.0	MH7		Sween 69	Stop 26.50 GH
	×	* 4 DIM 0.0	FUNCTION	FUNCTION WOTH		ww.ur
		-29.356 dBm				
R MODE TRC SCL	24,648 9 GHz					
N 1 F	24,648 9 GHz					
N MODE TRC SCL	24,648 9 GHz					
R MOOK THE SEL	24,648 9 GHz					
R MODE THE SEL	24.648 9 GHz					

 Ref offsets with Marker Seys 53.
 ALXANDO

 Center Freq 13.2655000000 GHz
 PR0 f all
 Mark 12 d all

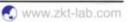
802.11a on channel 165







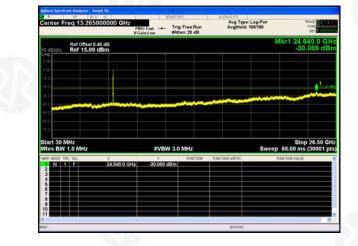












802.11n20 on channel 157

nter Freg 13.265	000000 GHz	9	DELET	ALEXAUTO Avg Type	Log-Pwr	-	RACE DESCRIPTION
		PNO: Fast	Trig: Free Run #Atten: 26 dB	AvgPlaid	100/100		DET POINTER
Ref Offset 8 Bidly Ref 15.00	84 dB dBm				N	1kr1 24.6 -29.	42 7 GH: 835 dBn
							1
	-	-		and a state of the		Man of the	
		#VBV	V 3.0 MHz		Sweep	Stop 68.00 ms	26.50 GH
IS BW 1.0 MHz	x	Ý	FUNCTION	FUNCTION WOTH		Stop 68.00 ms	26.50 GH (30001 pts
s BW 1.0 MHz	× 24,642.7 GH	Ý	FUNCTION	FUNCTION WOTH		68.00 ms	26.50 GH (30001 pts
IS BW 1.0 MHz		Ý	FUNCTION	FUNCTION WOTH		68.00 ms	26.50 GH (30001 pts
rt 30 MHz rs BW 1.0 MHz MODE THC 10.		Ý	FUNCTION	RINCTION WOTH		68.00 ms	26.50 GH; (30001 pts
IS BW 1.0 MHz		Ý	FUNCTION	RIACTION WOTH		68.00 ms	26.50 GH: (30001 pts
S BW 1.0 MHz		Ý	FUNCTION	PUNCTION WOTH		68.00 ms	26.50 GH: (30001 pts

 Althor bywer und belyzer. Surg 64.1
 Ave Type: Log Aver
 Max Type: Log Aver

802.11n20 on channel 165







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

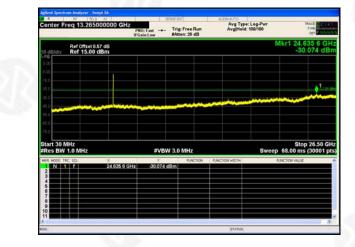
8











# 802.11n40 on channel 159

ter Freq 13.26	5000000 GHz	IO: Fast Trig iain:Low SAtt	Free Run en: 26 dB	Avg Type: Avg[Hold:	Log-Pwr 100/100	TYPE DET
Ref Offset					Mkr1	24.640 9 GI -30.000 dB
						1.00
-			-			
t 30 MHz s BW 1.0 MHz		#VBW 3.0	MHz		Sweep 68.0	Stop 26.50 G 0 ms (30001 p
NODE THE SEL	24,640 9 GHz	γ -30.000 dBm	FUNCTION	FUNCTION WOTH	function	VALUE

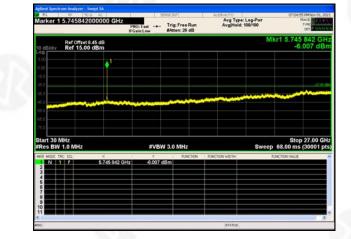








# 802.11ac20 on channel 149



802.11ac20 on channel 157

# led Spectrum Andryner - Swyd SA 8 ter 1909 - Action - 27.00 dBm PRO: France - 27.00 dBm PRO:

art 30 MHz Stop 27.00 /	500 50 50 50 60				
N MORE TRC EGL X Y FRACTON VIETH FRACTON VIETH FRACTON VIETH FRACTON VIETH FRACTON VIETH FRACTON VIETH	50 50 50 50				
	art 30 MHz Res BW 1.0 MHz	#VBW 3.0	MHz	Sto Sweep 68.00 m	p 27.00 C

802.11ac20 on channel 165

	3000000 GHz PN #G	0: Fast Tris ain:Low #At	g: Free Run ten: 26 dB	Avg Type AvgPield	100/100	DET TUNE
Ref Offse 3/div Ref 15.0	et 9.12 dB 00 dBm				Mk	r1 5.825 853 G -4.455 dE
	• ¹					
	warmen and					
t 30 MHz s BW 1.0 MHz		#VBW 3.0	MHz		Sweep	Stop 27.00 G 68.00 ms (30001 p
S BW 1.0 MHz	× 5.825.853 GHz	#VBW 3.0 V 4.455 dBm	MHz Runction	FUNCTION WIDTH		Stop 27.00 G 68.00 ms (30001 p Inchion Wallie
S BW 1.0 MHz		¥		FUNCTION WOTH		Stop 27.00 G 68.00 ms (30001 p https://www.
		¥		FUNCTION WOTH		68.00 ms (30001 p
S BW 1.0 MHz		¥		PARTICIN WOTH		68.00 ms (30001 p





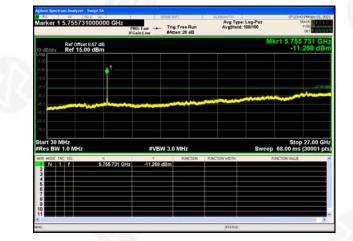










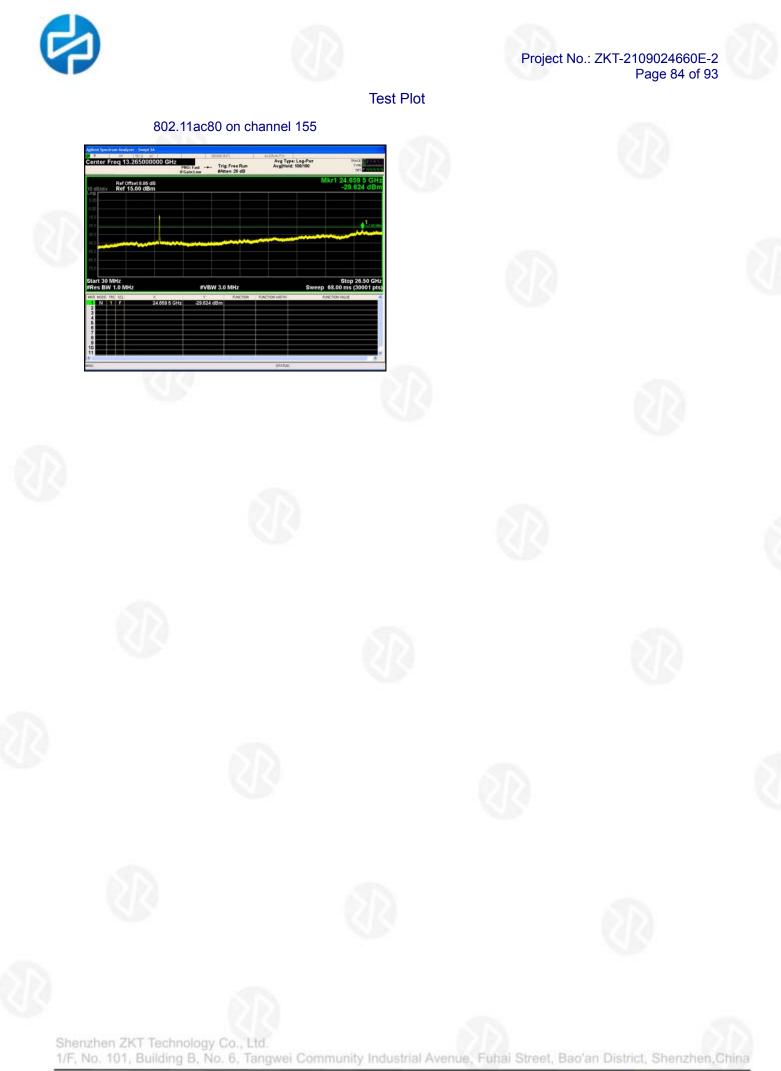


# 802.11ac40 on channel 159

RL N# 50.9 AC		SEMIE: INT	ALEINAUTO	07:31:13 PMNov 01, 20
arker 1 5.795287000000 G	HZ PNO: Fast -+ IFGainLow	. Trig: Free Run #Atten: 26 dB	Avg Type: Log-Pwr Avg(Pield: 100/100	THACE DEPARTMENT
Ref Offset 8.55 dB dB/div Ref 15.00 dBm			M	kr1 5.795 287 GH -11.746 dBr
0				
o				
				-01.004
			and the second sec	
state and the second		Statistics in the local division in the loca		
1				
rt 30 MHz				Stop 27.00 G
rt 30 MHz es BW 1.0 MHz	#VE	W 3.0 MHz	Contract of the second s	68.00 ms (30001 p
IT 30 MHz es BW 1.0 MHz MODE THC 90. X N 1 1 7 5795 21	Y	FUNCTION	Contract of the second s	Stop 27.00 Gł 68.00 ms (30001 pi Inction value
rt 30 MHz es BW 1.0 MHz MODE TRC 10. X	Y	FUNCTION	Contract of the second s	68.00 ms (30001 p
rt 30 MHz es BW 1.0 MHz MODE TRC 10. X	Y	FUNCTION	Contract of the second s	68.00 ms (30001 p
rt 30 MHz es BW 1.0 MHz MODE TRC 10. X	Y	FUNCTION	Contract of the second s	Stop 27.00 Gł 68.00 ms (30001 pl awchow webe
rt 30 MHz es BW 1.0 MHz MODE TRC 10. X	Y	FUNCTION	Contract of the second s	68.00 ms (30001 pt
rt 30 MHz es BW 1.0 MHz MODE TRC 10. X	Y	FUNCTION	Contract of the second s	68.00 ms (30001 pt











# **10.Frequency Stability Measurement**

# 10.1 LIMIT

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be  $\pm$  20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

# **10.2 TEST PROCEDURES**

1. The transmitter output (antenna port) was connected to the spectrum analyzer.

2. EUT have transmitted absence of modulation signal and fixed channelize.

- 3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
- 4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
- 5. fc is declaring of channel frequency. Then the frequency error formula is  $(fc-f)/fc \times 106$  ppm and the limit is less than ±20ppm (IEEE 802.11nspecification).
- 6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value

7. Extreme temperature is -20°C~70°C.

# 10.3 TEST SETUP LAYOUT

EUT	SPECTRUM
	ANALYZER

# **10.4 EUT OPERATION DURING TEST**

The EUT was programmed to be in continuously un-modulation transmitting mode.

# **10.5 TEST RESULTS**

Temperature :	<b>26</b> ℃	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	DC 3.3V
Test Mode :	ТХ		







# 80<u>2.11a</u>

Reference Frequency(Middle Channel): 5200 MHz				
Environment	Power Supplied	Frequency Measure with Time Elapsed		
Temperature (°C)	(VDC)	MCF	Error (ppm)	
50	3.3	63	0.01089	
40	3.3	51	0.00882	
30	3.3	43	0.00743	
20	3.3	32	0.00553	
10	3.3	23	0.00398	
0	3.3	26	0.00449	
-10	3.3	22	0.00380	
-20	3.3	36	0.00622	
-30	3.3	43	0.00743	

# 802.11n_HT20/ac_HT20

Reference Frequency(Middle Channel): 5200MHz				
Environment	Power Supplied	Frequency Measure with Time Elapsed		
Temperature (°C)	(VDC)	MCF	Error (ppm)	
50	3.3	55	0.00951	
40	3.3	42	0.00726	
30	3.3	32	0.00553	
20	3.3	24	0.00415	
10	3.3	22	0.00380	
0	3.3	12	0.00207	
-10	3.3	13	0.00225	
-20	3.3	21	0.00363	
-30	3.3	32	0.00553	





# 802.11n_HT40/ac_HT40

Reference Frequency(Middle Channel): 5190MHz				
Environment	Power Supplied	Supplied Frequency Measure with Time		
Temperature (°C)	(VDC)	MCF	Error (ppm)	
50	3.3	61	0.01053	
40	3.3	54	0.00932	
30	3.3	42	0.00725	
20	3.3	44	0.00759	
10	3.3	34	0.00587	
0	3.3	32	0.00552	
-10	3.3	34	0.00587	
-20	3.3	42	0.00725	
-30	3.3	51	0.00880	

# 80<u>2.11ac80</u>

Reference Frequency(Middle Channel): 5210MHz				
Environment	Power Supplied	Frequency Measure with Time Elapsed		
Temperature (°C)	(VDC)	MCF	Error (ppm)	
50	3.3	63	0.01091	
40	3.3	52	0.00900	
30	3.3	43	0.00745	
20	3.3	41	0.00710	
10	3.3	36	0.00623	
0	3.3	32	0.00554	
-10	3.3	34	0.00589	
-20	3.3	43	0.00745	
-30	3.3	52	0.00900	





# So, Frequency Stability Versus Input Voltage is:



	Reference Frequency(Middle Channel): 5200 MHz				
	Environment Temperature (°C) (VDC)	Frequency Measure with Time Elapsed			
			Frequency	Error (ppm)	
	20	3.3	34	0.00588	
		3.0	32	0.00553	
		3.7	33	0.00570	

# 802.11n_HT20/ac_HT20

Reference Frequency(Middle Channel): 5200 MHz					
Environment	Power Supplied	Frequency Measure with Time Elapsed			
Temperature (°C)	(VDC)	Frequency	Error (ppm)		
	3.3	55	0.00951		
20	3.0	21	0.00363		
-	3.7	43	0.00743		

# 802.11n_HT40/ac_HT40

Reference Frequency(Middle Channel): 5190 MHz					
Environment	Power Supplied	Frequency Measure with Time Elapsed			
Temperature (°C)	(VDC)	Frequency	Error (ppm)		
	3.3	42	0.00725		
20	3.0	44	0.00759		
	3.7	42	0.00725		

# 80<u>2.11ac80</u>

Reference Frequency(Middle Channel): 5210 MHz					
Environment	Power Supplied	Frequency Measure with Time Elapsed			
Temperature (°C)	(VDC)	Frequency	Error (ppm)		
	3.3	42	0.00727		
20	3.0	44	0.00762		
	3.7	42	0.00727		



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







# 5.8G

# 802.11a

	Reference Frequency(Middle Channel): 5785 MHz				
	Environment	Power Supplied		with Time Elapsed	
	Temperature (°C)	(VDC)	MCF	Error (ppm)	
1	50	3.3	43	0.00743	
1	40	3.3	51	0.00882	
	30	3.3	23	0.00398	
	20	3.3	26	0.00449	
	10	3.3	23	0.00398	
	0	3.3	26	0.00449	
	-10	3.3	22	0.00380	
	-20	3.3	36	0.00622	
	-30	3.3	26	0.00449	

# 802.11n_HT20/ac_HT20

Reference Frequency(Middle Channel): 5785MHz				
Environment	Environment Temperature (°C) Power Supplied (VDC)	Frequency Measure with Time Elapsed		
		MCF	Error (ppm)	
50	3.3	42	0.00726	
40	3.3	24	0.00415	
30	3.3	32	0.00553	
20	3.3	24	0.00415	
10	3.3	13	0.00225	
0	3.3	12	0.00207	
-10	3.3	13	0.00225	
-20	3.3	21	0.00363	
-30	3.3	32	0.00553	





# 802.11n_HT40/ac_HT40

		Reference Frequency	(Middle Channel): 5795MHz	
Environn		Power Supplied	Frequency Measure with Time Elapsed	
lempera (°C)	(VDC)	MCF	Error (ppm)	
50		3.3	61	0.01053
40		3.3	54	0.00932
30		3.3	42	0.00725
20		3.3	44	0.00759
10		3.3	34	0.00587
0		3.3	32	0.00552
-10		3.3	34	0.00587
-20	2	3.3	42	0.00725
-30	× .	3.3	51	0.00880

# 80<u>2.11ac80</u>

Reference Frequency(Middle Channel): 5775MHz				
Environment	Power Supplied (VDC)	Frequency Measure with Time Elapsed		
Temperature (°C)		MCF	Error (ppm)	
50	3.3	52	0.00900	
40	3.3	41	0.00710	
30	3.3	43	0.00745	
20	3.3	41	0.00710	
10	3.3	36	0.00623	
0	3.3	32	0.00554	
-10	3.3	34	0.00589	
-20	3.3	32	0.00554	
-30	3.3	52	0.00900	





# So, Frequency Stability Versus Input Voltage is:



	Reference Frequency(Middle Channel): 5785 MHz				
	Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed		
			Frequency	Error (ppm)	
	20	3.3	55	0.00951	
		3.0	32	0.00553	
		3.7	33	0.00570	

# 802.11n_HT20/ac_HT20

Reference Frequency(Middle Channel): 5785 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency	Error (ppm)
20	3.3	33	0.00570
	3.0	21	0.00363
	3.7	43	0.00743

# 802.11n_HT40/ac_HT40

Reference Frequency(Middle Channel): 5795 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency	Error (ppm)
20	3.3	42	0.00725
	3.0	44	0.00759
	3.7	43	0.00743

# 80<u>2.11ac80</u>

Reference Frequency(Middle Channel): 5775 MHz			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency	Error (ppm)
20	3.3	43	0.00743
	3.0	44	0.00762
	3.7	42	0.00727







# **11.ANTENNA REQUIREMENT**



# Standard requirement:

FCC Part15 C Section 15.203

# 15.203 requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

# EUT Antenna:

The antenna is External Antenna, the best case gain of the antenna is 2dBi, reference to the appendix II for details





Project No.: ZKT-2109024660E-2 Page 93 of 93

# **12. TEST SETUP PHOTO**

Reference to the appendix I for details.

# **13. EUT CONSTRUCTIONAL DETAILS**

Reference to the appendix II for details.

******** END OF REPORT ******* 



