









	13.2.1.	Test Res	ult			
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
		5180	16.501	5171.717	5188.218	PASS
		5200	16.563	5191.687	5208.250	PASS
		5240	16.630	5231.620	5248.250	PASS
		5260	16.578	5251.714	5268.292	PASS
		5280	16.531	5271.684	5288.215	PASS
		5320	16.580	5311.680	5328.260	PASS
		5500	16.575	5491.724	5508.299	PASS
11A	Ant1	5580	16.536	5571.693	5588.229	PASS
		5700	16.434	5691.706	5708.140	PASS
		5720	16.582	5711.616	5728.198	PASS
		5720_UNII-2C	13.384	5711.616	5725	PASS
		5720_UNII-3	3.198	5725	5728.198	PASS
		5745	16.569	5736.582	5753.151	PASS
		5785	16.525	5776.669	5793.194	PASS
		5825	16.565	5816.647	5833.212	PASS
		5180	17.642	5171.102	5188.744	PASS
		5200	17.626	5191.085	5208.711	PASS
		5240	17.647	5231.129	5248.776	PASS
	Ant1	5260	17.649	5251.123	5268.772	PASS
		5280	17.641	5271.126	5288.767	PASS
		5320	17.635	5311.152	5328.787	PASS
		5500	17.691	5491.117	5508.808	PASS
11AC20SISO		5580	17.650	5571.108	5588.758	PASS
		5700	17.582	5691.138	5708.720	PASS
		5720	17.712	5711.083	5728.795	PASS
		5720_UNII-2C	13.917	5711.083	5725	PASS
		5720_UNII-3	3.795	5725	5728.795	PASS
		5745	17.628	5736.084	5753.712	PASS
		5785	17.606	5776.120	5793.726	PASS
		5825	17.688	5816.101	5833.789	PASS
	Ant1	5190	35.942	5171.960	5207.902	PASS
		5230	35.951	5211.967	5247.918	PASS
		5270	35.957	5251.930	5287.887	PASS
		5310	35.976	5291.976	5327.952	PASS
		5510	36.021	5491.932	5527.953	PASS
11AC40SISO		5590	36.039	5571.985	5608.024	PASS
11AC403130		5670	35.940	5651.971	5687.911	PASS
		5710	35.963	5691.933	5727.896	PASS
		5710_UNII-2C	33.067	5691.933	5725	PASS
11AC80SISO		5710_UNII-3	2.896	5725	5727.896	PASS
		5755	36.003	5736.884	5772.887	PASS
		5795	35.895	5776.991	5812.886	PASS
		5210	75.249	5172.392	5247.641	PASS
		5290	75.389	5252.485	5327.874	PASS
		5530	75.541	5492.292	5567.833	PASS
		5610	75.450	5572.248	5647.698	PASS
111.0000.00		5690	75.383	5652.158	5727.541	PASS
		5690_UNII-2C	72.842	5652.158	5725	PASS
		5690_UNII-3	2.541	5725	5727.541	PASS
		5775	75.190	5737.381	5812.571	PASS

## 13.2. Appendix A2: Occupied channel bandwidth 13.2.1. Test Result

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

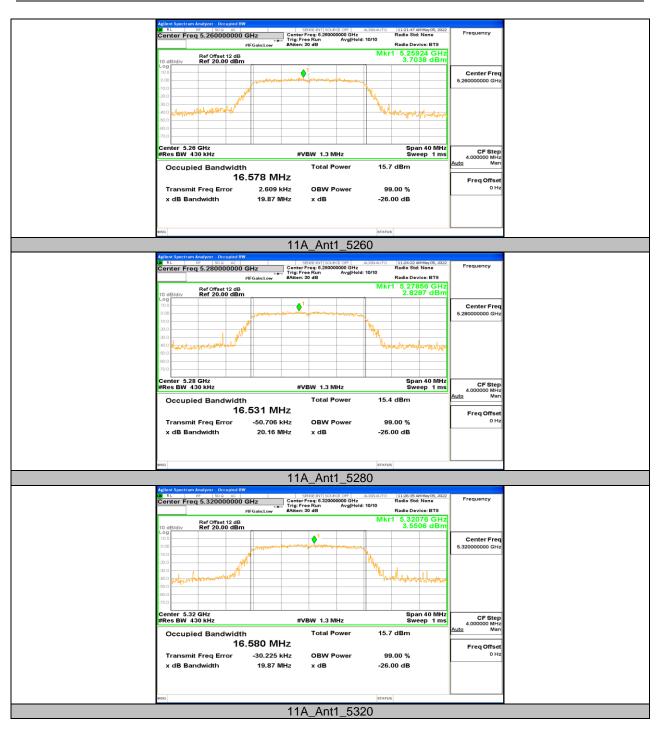


#### Center Freq 5.180000000 GHz 11:14:10 AM May 05, 20 Radio Std: None Center Freq: 5.180 Trig: Free Run #Atten: 30 dB 000 GHz Avg|Hold: 10/10 e Radio Device: BTS Mkr1 5.17904 GHz 3.5569 dBm #IEGain: Ref Offset 12 dB Ref 20.00 dBm Center Fred 5.18000000 GHz ٥ hu enter 5.18 GHz Res BW 430 kHz Span 40 MHz Sweep 1 ms CF Ste 4.000000 MH #VBW 1.3 MHz 16.0 dBm Occupied Bandwidth Total Power 16.501 MHz Freq Offse 0 H -32.880 kHz 99.00 % Transmit Freg Error **OBW Power** 19.77 MHz -26.00 dB x dB Bandwidth x dB 11A\_Ant1\_5180 enter Freq 5.200000000 GHz Center Freq: 5.2 Trig: Free Run #Atten: 30 dB 000 GHz Avg|Hold: 10/10 11:16:20 AM May 05 Radio Std; None Radio Device: BTS Mkr1 5.2008 GHz 3.8919 dBm Ref Offset 12 dB Ref 20.00 dBm ¢ Center Free 5 20 1 de Span 40 MH Sweep 1 m enter 5.2 GHz Res BW 430 kHz CF Step 4.000000 MH #VBW 1.3 MHz 15.9 dBm Total Power Occupied Bandwidth 16.563 MHz Freq Offse Transmit Freg Error -31.761 kHz OBW Power 99.00 % 20.05 MHz x dB -26.00 dB x dB Bandwidth 11A\_Ant1\_5200 enter Freq 5.240000000 GHz Center Freq: 5.2 Trig: Free Run #Atten: 30 dB OFF ALIGNAU 100 GHz Avg[Hold: 10/10 11:18:50 AM May 05 Radio Std: None Frequency Radio Device: BTS Mkr1 5.23944 GHz 3.5765 dBm Ref Offset 12 dB Ref 20.00 dBm Center Free 5.240000000 GH • Allyn Span 40 MHz Sweep 1 ms CF Step 4.000000 MHz Mar Center 5.24 GHz #Res BW 430 kHz #VBW 1.3 MHz Occupied Bandwidth Total Power 15.8 dBm 16.630 MHz Freq Offs OBW Power Transmit Freq Error -64.646 kHz 99.00 % 0 Н x dB Bandwidth 19.58 MHz x dB -26.00 dB 11A\_Ant1\_5240

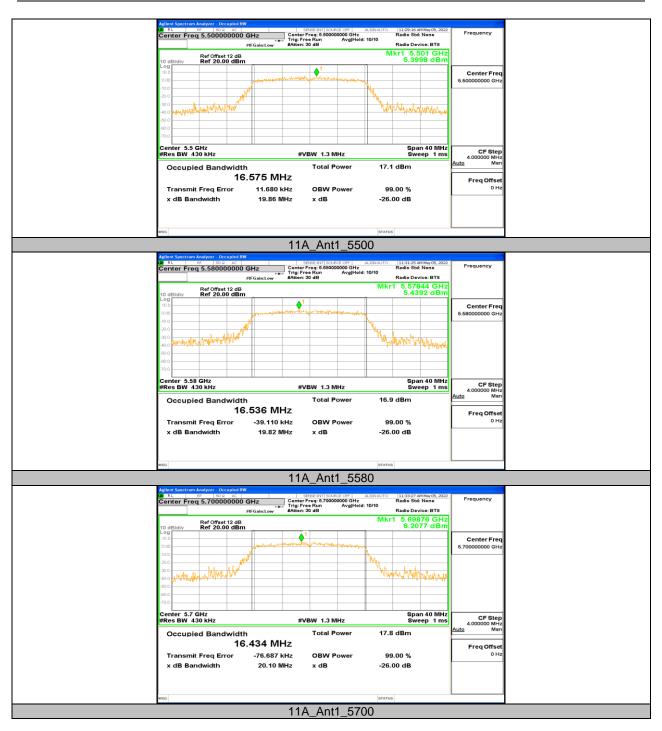
## 13.2.2. Test Graphs

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.





























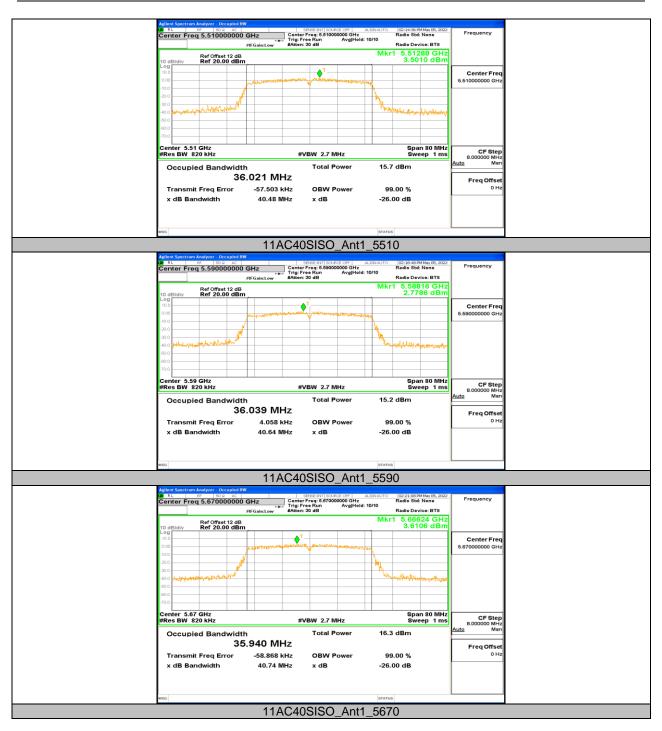


























Test Mode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5720_UNII- 3	2.32	5725	5727.320	0.5	PASS
		5745	15.040	5737.400	5752.440	0.5	PASS
		5785	15.400	5777.400	5792.800	0.5	PASS
		5825	15.400	5817.040	5832.440	0.5	PASS
11AC20SISO	Ant1	5720_UNII- 3	1.2	5725	5726.200	0.5	PASS
		5745	15.000	5737.400	5752.400	0.5	PASS
		5785	15.040	5777.440	5792.480	0.5	PASS
		5825	15.040	5817.400	5832.440	0.5	PASS
11AC40SISO	Ant1	5710_UNII- 3	2.44	5725	5727.440	0.5	PASS
		5755	35.040	5737.400	5772.440	0.5	PASS
		5795	33.760	5778.680	5812.440	0.5	PASS
11AC80SISO	Ant1	5690_UNII- 3	2.44	5725	5727.440	0.5	PASS
		5775	75.040	5737.400	5812.440	0.5	PASS

# 13.3. Appendix A3: Min emission bandwidth 13.3.1. Test Result

Freq Offse

Frequency

Auto Tur

Center Fre

Start Fre 5.765

Stop Free 5.8

CF Step 00000 MH Mai

Freq Offse

TYPE MUMMMM DET P P P P P

ΔMkr3 15.40 MHz -0.61 dB

Span 40.00 MH Sweep 3.867 ms (1001 pts





#VBW 300 kHz

-3.38 dBm 2.13 dBm 3.17 dB

⊘**2** 

#VBW 300 kHz

-2.95 dBm 1.94 dBm -0.61 dB

5.777 40 GHz 5.782 40 GHz 15.40 MHz (Δ)

11A\_Ant1\_5745

#Avg Type: RMS

5.737 40 GHz 5.746 16 GHz 15.04 MHz (Δ)

RL BP 1000 AC RL BP 1000 AC Enter Freq 5.785000000 GHz FN0: Fast IFGainslow IFGainslow

Ref Offset 12 dB Ref 20.00 dBr

nter 5.78500 GHz es BW 100 kHz

N A1 1 f 1 f 1 f (Δ)

9 10 11

1 N 1 f 2 N 1 f 3 Δ1 1 f (Δ)

#### **Test Graphs** 13.3.2.

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch FORM No.: 10-SL-F0089 This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11A\_Ant1\_5785





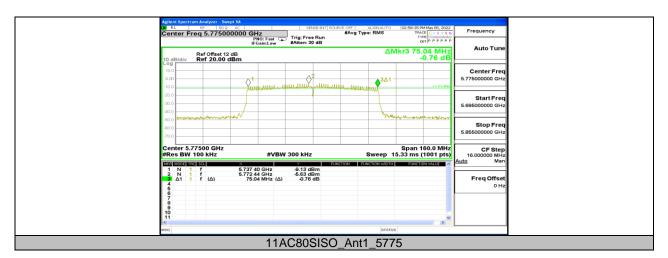














	13.4.1.	lest Res	ult					
Test Mode	Antenna	Channel	Power [dBm]	FCC Limit [dBm]	ISED Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
		5180	11.62	≤23.98		14.18	≤22.18	PASS
		5200	11.32	≤23.98		13.88	≤22.19	PASS
		5240	11.36	≤23.98		13.92	≤22.21	PASS
		5260	11.19	≤23.98	≤23.20	13.75	≤29.20	PASS
		5280	10.80	≤23.92	≤23.18	13.36	≤29.18	PASS
		5320	11.29	≤23.98	≤23.20	13.85	≤29.20	PASS
44.6	A == 14	5500	12.62	≤23.98	≤23.19	15.18	≤29.19	PASS
11A	Ant1	5580	12.56	≤23.93	≤23.18	15.12	≤29.18	PASS
		5700	13.27	≤23.92	≤23.16	15.83	≤29.16	PASS
		5720_UNII-2C	12.64	≤22.74	≤22.26	15.2	≤28.26	PASS
		5720_UNII-3	4.58	≤30.00	≤30.00	7.14		PASS
		5745	13.16	≤30.00	≤30.00	15.72		PASS
		5785	13.72	≤30.00	≤30.00	16.28		PASS
		5825	13.55	≤30.00	≤30.00	16.11		PASS
		5180	7.21	≤23.98		9.77	≤22.47	PASS
		5200	7.04	≤23.98		9.6	≤22.46	PASS
		5240	7.11	≤23.98		9.67	≤22.47	PASS
		5260	6.85	≤23.98	≤23.47	9.41	≤29.47	PASS
		5280	6.68	≤23.98	≤23.47	9.24	≤29.47	PASS
		5320	6.75	≤23.98	≤23.46	9.31	≤29.46	PASS
110000	Ant1	5500	8.22	≤23.98	≤23.48	10.78	≤29.48	PASS
11AC20		5580	7.97	≤23.98	≤23.47	10.53	≤29.47	PASS
		5700	8.82	≤23.98	≤23.45	11.38	≤29.45	PASS
		5720_UNII-2C	8.11	≤22.78	≤22.44	10.67	≤28.44	PASS
		5720_UNII-3	0.55	≤30.00	≤30.00	3.11		PASS
		5745	8.79	≤30.00	≤30.00	11.35		PASS
		5785	9.14	≤30.00	≤30.00	11.7		PASS
		5825	9.26	≤30.00	≤30.00	11.82		PASS
11AC40		5190	11.77	≤23.98		14.33	≤23.01	PASS
		5230	11.45	≤23.98		14.01	≤23.01	PASS
		5270	11.06	≤23.98	≤23.98	13.62	≤30.00	PASS
		5310	10.98	≤23.98	≤23.98	13.54	≤30.00	PASS
		5510	10.38	≤23.98	≤23.98	12.94	≤30.00	PASS
	Ant1	5590	10.34	≤23.98	≤23.98	12.9	≤30.00	PASS
		5670	11.04	≤23.98	≤23.98	13.6	≤30.00	PASS
		5710_UNII-2C	12.75	≤23.98	≤23.98	15.31	≤30.00	PASS
		5710_UNII-3	-0.47	≤30.00	≤30.00	2.09		PASS
		5755	13.21	≤30.00	≤30.00	15.77		PASS
		5795	13.48	≤30.00	≤30.00	16.04		PASS
11AC80	Ant1	5210	8.63	≤23.98		11.19	≤23.01	PASS
		5290	8.43	≤23.98	≤23.98	10.99	≤30.00	PASS
		5530	8.71	≤23.98	≤23.98	11.27	≤30.00	PASS
		5610	9.25	≤23.98	≤23.98	11.81	≤30.00	PASS
		5690_UNII-2C	9.70	≤23.98	≤23.98	12.26	≤30.00	PASS
		5690_UNII-3	-7.45	≤30.00	≤30.00	-4.89		PASS
		5775	10.52	≤30.00	≤30.00	13.08		PASS

### 13.4. Appendix B: Maximum conducted AVG output power 13.4.1. Test Result

Note : The Duty Cycle Factor is compensated in the graph.

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



13.3. Appe	13.5.1.	Test Res	-	·			
Test Mode	Antenna	Channel	Power [dBm/MHz]	Limit [dBm/MHz]	EIRP [dBm/MHz]	Limit [dBm/MHz]	Verdict
		5180	1.22	≤11.00	5.02	≤10.00	PASS
		5200	1.06	≤11.00	4.86	≤10.00	PASS
		5240	1.17	≤11.00	4.97	≤10.00	PASS
		5260	1.05	≤11.00	4.85		PASS
		5280	0.56	≤11.00	4.36		PASS
		5320	0.98	≤11.00	4.78		PASS
		5500	2.29	≤11.00	6.09		PASS
11A	Ant1	5580	2.3	≤11.00	6.1		PASS
		5700	3.04	≤11.00	6.84		PASS
		5720_UNII- 2C	2.95	≤11.00	6.75		PASS
		5720_UNII-3	-1.84	≤30.00	1.96		PASS
		5745	0.23	≤30.00	4.03		PASS
		5785	0.65	≤30.00	4.45		PASS
		5825	0.75	≤30.00	4.55		PASS
		5180	-3.11	≤11.00	0.69	≤10.00	PASS
		5200	-3.2	≤11.00	0.6	≤10.00	PASS
		5240	-3.33	≤11.00	0.47	≤10.00	PASS
	Ant1	5260	-3.61	≤11.00	0.19		PASS
		5280	-3.59	≤11.00	0.21		PASS
		5320	-3.77	≤11.00	0.03		PASS
		5500	-2.25	≤11.00	1.55		PASS
11AC20SISO		5580	-2.47	≤11.00	1.33		PASS
		5700	-1.67	≤11.00	2.13		PASS
		5720_UNII- 2C	-1.7	≤11.00	2.1		PASS
		5720_UNII-3	-6.53	≤11.00	-2.73		PASS
		5745	-4.31	≤30.00	-0.51		PASS
		5785	-4.08	≤30.00	-0.28		PASS
		5825	-3.94	≤30.00	-0.14		PASS
		5190	-1.76	≤11.00	2.04	≤10.00	PASS
		5230	-1.78	≤11.00	2.02	≤10.00	PASS
		5270	-2.49	≤11.00	1.31		PASS
		5310	-2.19	≤11.00	1.61		PASS
		5510	-2.87	≤11.00	0.93		PASS
		5590	-3.18	≤11.00	0.62		PASS
11AC40SISO		5670	-2.1	≤11.00	1.7		PASS
		5710_UNII- 2C	-0.05	≤11.00	3.75		PASS
		5710_UNII-3	-7.01	≤11.00	-3.21		PASS
		5755	-2.98	≤30.00	0.82		PASS
		5795	-2.63	≤30.00	1.17		PASS
11AC80SISO	Ant1	5210	-7.8	≤11.00	-4	≤10.00	PASS
		5290	-8.17	≤11.00	-4.37		PASS
		5530	-7.61	≤11.00	-3.81		PASS
		5610	-7.29	≤11.00	-3.49		PASS
		5690_UNII- 2C	-6.47	≤11.00	-2.67		PASS
		5690_UNII-3	-14.12	≤11.00	-10.32		PASS
		5775	-8.7	≤30.00	-4.9		PASS

## 13.5. Appendix C: Maximum power spectral density

Note : 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz. 2. The Duty Cycle Factor and RBW Factor is compensated in the graph.



#### By Brite Burgers BP 500 AC R L BF 500 AC Center Freq 5.180000000 GHz Trig: Free Run IF SainLow Trig: Free Run #Atten: 30 dB E OFF ALIGNAU #Avg Type: RMS Frequency DET A A A A A Auto Tur Mkr1 5.181 16 GHz 1.22 dBm Ref Offset 12.12 dB Ref 20.00 dBm Center Fred 5.18000000 GHz $\blacklozenge^1$ Start Free 5.16000000 GHz Stop Fre CF Ste 4.000000 MH Freq Offse er 5.18000 GHz BW 1.0 MHz Span 40.00 MHz Sweep 1.000 ms (1001 pts) #VBW 3.0 MHz 11A\_Ant1\_5180 Ilent Styles (Kunstein) RL RF 500 AC Enter Freq 5.200000000 GHz FN0: Fast Figs: Free Run Franking Low Katten: 30 dB OFF ALIGNA Frequency TYPE A WAANAA DET A A A A A Auto Tun Mkr1 5.198 88 GHz 1.06 dBm Ref Offset 12.15 dB Ref 20.00 dBm Center Free 52 ٢ Start Free 5.180 000000 GH Stop Fre CF Step 4.000000 MH Freq Offset 0 Ha enter 5.20000 GHz Res BW 1.0 MHz Span 40.00 MHz Sweep 1.000 ms (1001 pts) #VBW 3.0 MHz 11A\_Ant1\_5200 #Avg Type: RM Frequency TYPE A WARNAW DET A A A A A 5.239 08 GHz 1.16 dBm Auto Tun Ref Offset 12.15 dB Ref 20.00 dBm Center Free 5.240000000 GH ¢ Start Fre 5.22 Stop Fred 5.26 CF Step 4.000000 MHz Mar Freq Offse Span 40.00 MHz Sweep 1.000 ms (1001 pts) nter 5.24000 GHz es BW 1.0 MHz #VBW 3.0 MHz

## 13.5.2. Test Graphs

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

11A\_Ant1\_5240