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Appendix for 5GHz WIFI

Applicant: Launch Tech Co., Ltd.

**Address: Launch Industrial Park, North of Wuhe Rd, Banxuegang,
Longgang, Shenzhen, Guangdong, P.R. China**

Product Name: Remote Diagnosis Interface

Model: S4001A

FCC ID: XUJS4001A

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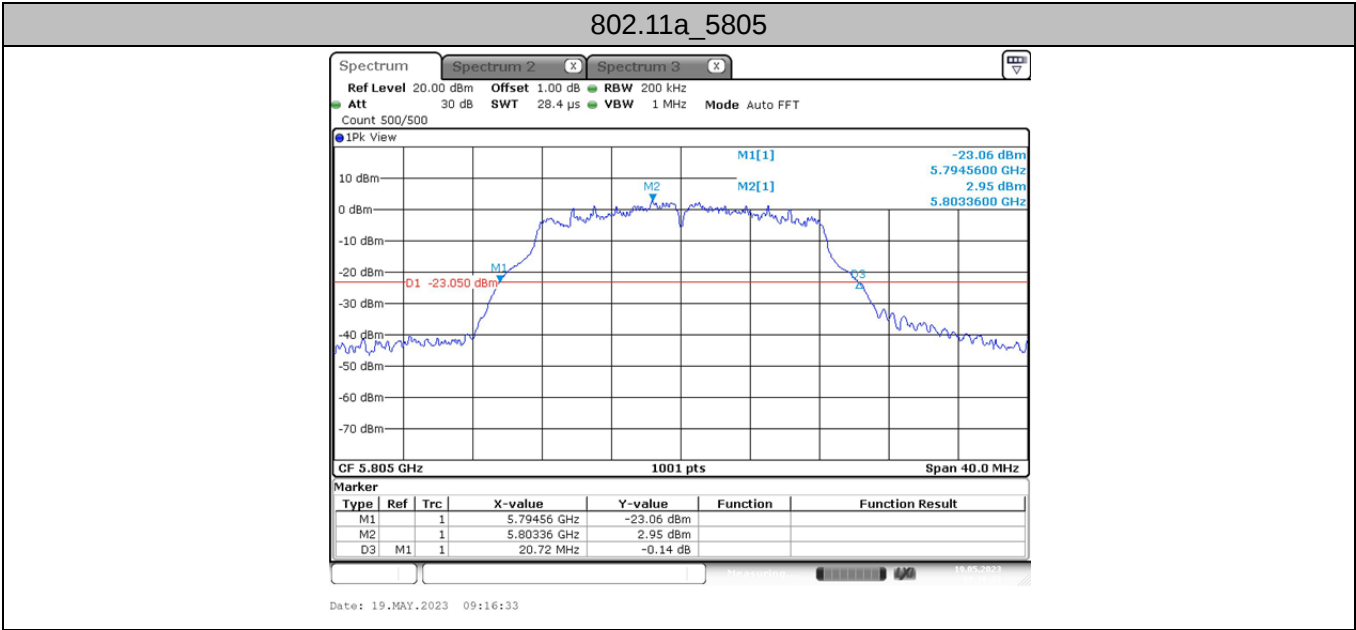
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Appendix A1: Emission Bandwidth

Test Result

Test Mode	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	5805	20.72	5794.56	5815.28	PASS

Test Graphs

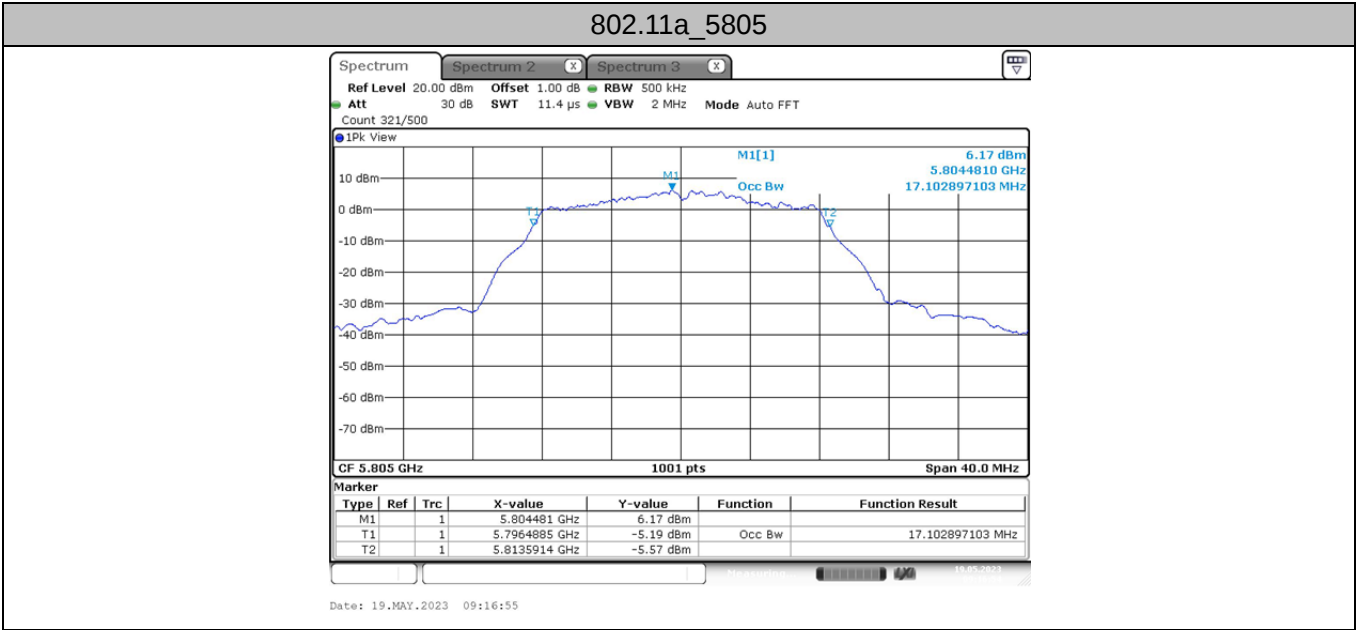


Appendix A2: Occupied channel bandwidth

Test Result

Test Mode	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
802.11a	5805	17.103	5796.489	5813.591	PASS

Test Graphs

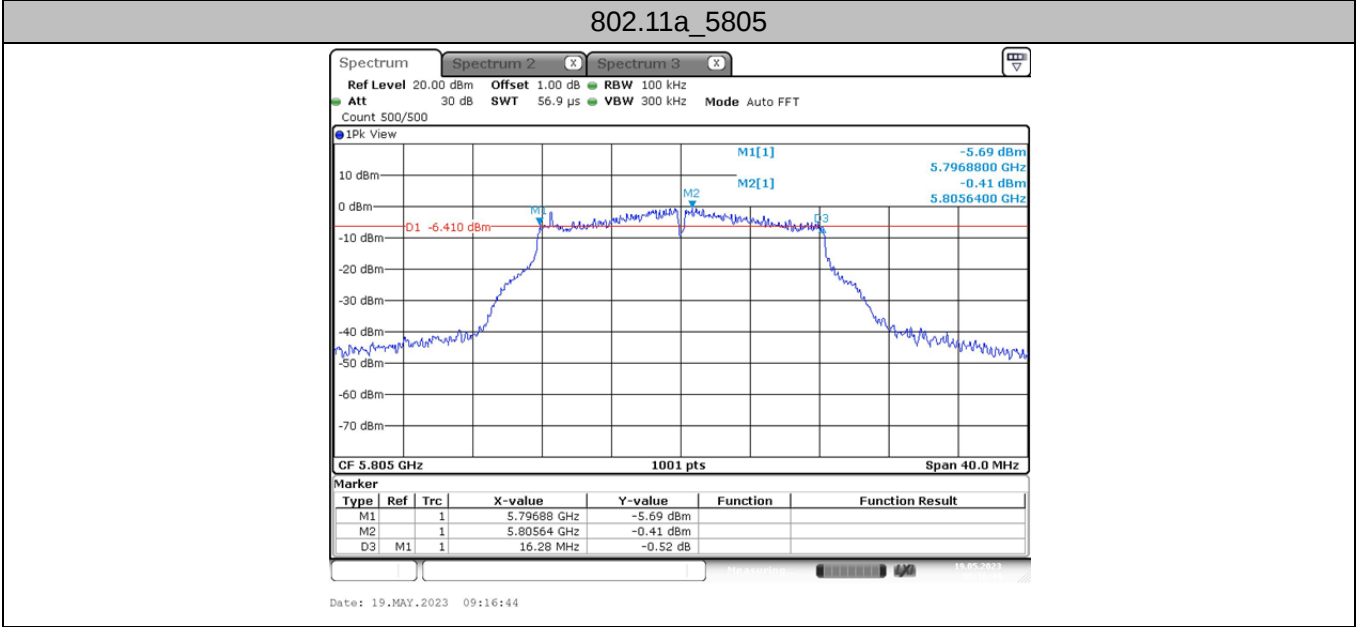


Appendix A3: Min emission bandwidth

Test Result

Test Mode	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
802.11a	5805	16.28	5796.88	5813.16	>0.5	PASS

Test Graphs



Appendix B: Maximum conducted output power

Test Result

Test Mode	Channel	Result Avg[dBm]	Limit[dBm]	Verdict
802.11a	5805	11.46	<=24	PASS

Note: 1. Test results increased RF cable loss by 1dB.

2. Test results increased Duty Cycle Factor.

Appendix C: Maximum power spectral density

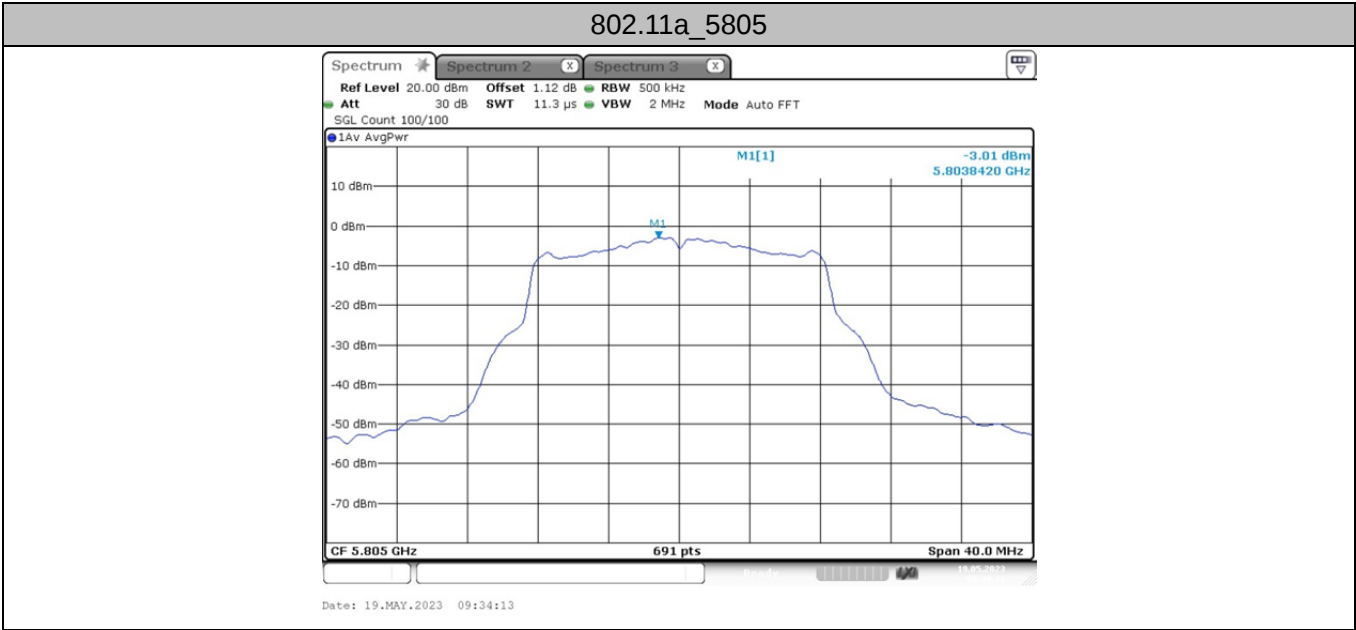
Test Result

Test Mode	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
802.11a	5805	-3.01	≤ 11	PASS

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.

Test Graphs



Appendix D: Frequency Stability

Test Result

Voltage							
Test Mode	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	5805	NV	NT	24000	4.134367	±20	PASS
		LV	NT	24000	4.134367	±20	PASS
		HV	NT	24000	4.134367	±20	PASS

Temperature							
TestMode	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	5805	NV	0	23000	3.962102	±20	PASS
		NV	10	23000	3.962102	±20	PASS
		NV	20	24000	4.134367	±20	PASS
		NV	30	23000	3.962102	±20	PASS
		NV	40	24000	4.134367	±20	PASS
		NV	50	23000	3.962102	±20	PASS

Appendix E: Duty Cycle

Test Result

Test Mode	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
802.11a	5805	1.39	1.43	97.20	0.12	0.719	1

Note: Duty Cycle Factor = $10 \cdot \log_{10}(1 / \text{Duty Cycle})$

802.11a_5805

Spectrum Spectrum 2 Spectrum 3

Ref Level 30.00 dBm Offset 1.00 dB RBW 10 MHz

Att 40 dB SWT 10 ms VBW 10 MHz

SGL Count 1/1 TRG:VID

1Pk Clrw

M1[1] -27.64 dBm 7.07000 ms

TRG 14.000 dBm 1.39000 ms

D1 -2.18 dB 1.43000 ms

D2 -2.18 dB 1.43000 ms

CF 5.805 GHz 8000 pts 1.0 ms/

Marker						
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	7.07 ms	-27.64 dBm		
D1	M1	1	1.39 ms	9.37 dB		
D2	M1	1	1.43 ms	-2.18 dB		

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