

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2023

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 14/12/30/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

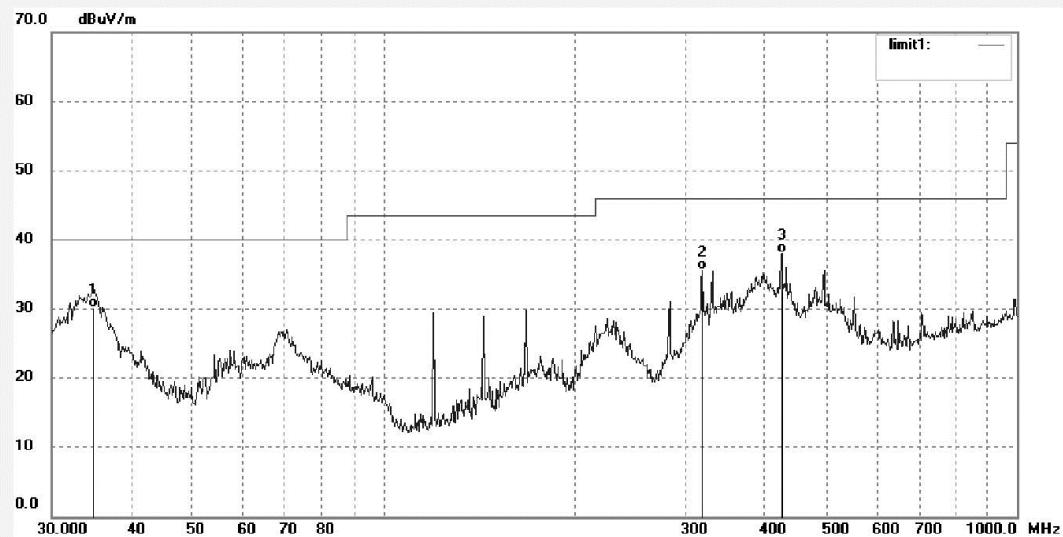
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.8823	40.65	-10.41	30.24	40.00	-9.76	QP			
2	318.8170	44.39	-8.78	35.61	46.00	-10.39	QP			
3	425.0280	44.20	-6.16	38.04	46.00	-7.96	QP			



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2024

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 14/12/30/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

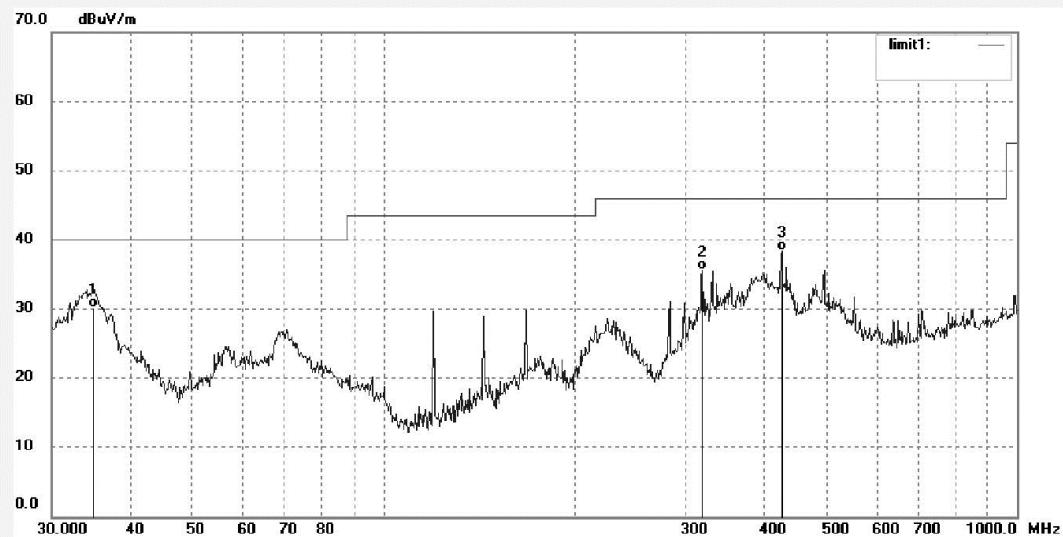
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.8823	40.65	-10.41	30.24	40.00	-9.76	QP			
2	318.8170	44.39	-8.78	35.61	46.00	-10.39	QP			
3	425.0280	44.54	-6.16	38.38	46.00	-7.62	QP			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2025

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 14/12/30/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

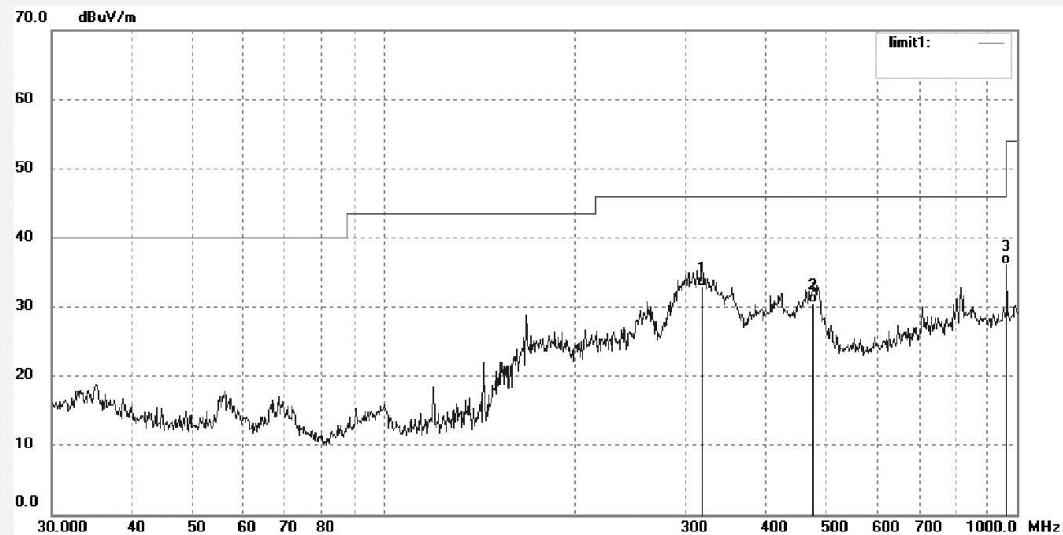
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	318.8170	41.73	-8.78	32.95	46.00	-13.05	QP			
2	477.1693	35.95	-5.38	30.57	46.00	-15.43	QP			
3	962.1622	33.78	2.37	36.15	54.00	-17.85	QP			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2026

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 14/12/30/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

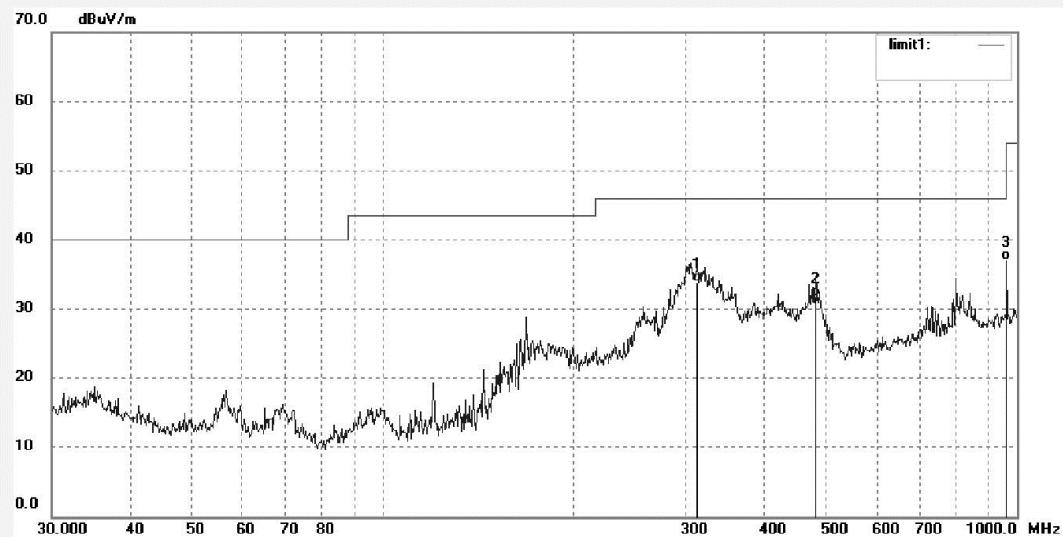
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	313.2760	42.79	-8.93	33.86	46.00	-12.14	QP			
2	480.5276	37.07	-5.34	31.73	46.00	-14.27	QP			
3	962.1622	34.61	2.37	36.98	54.00	-17.02	QP			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2027

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 14/12/30/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

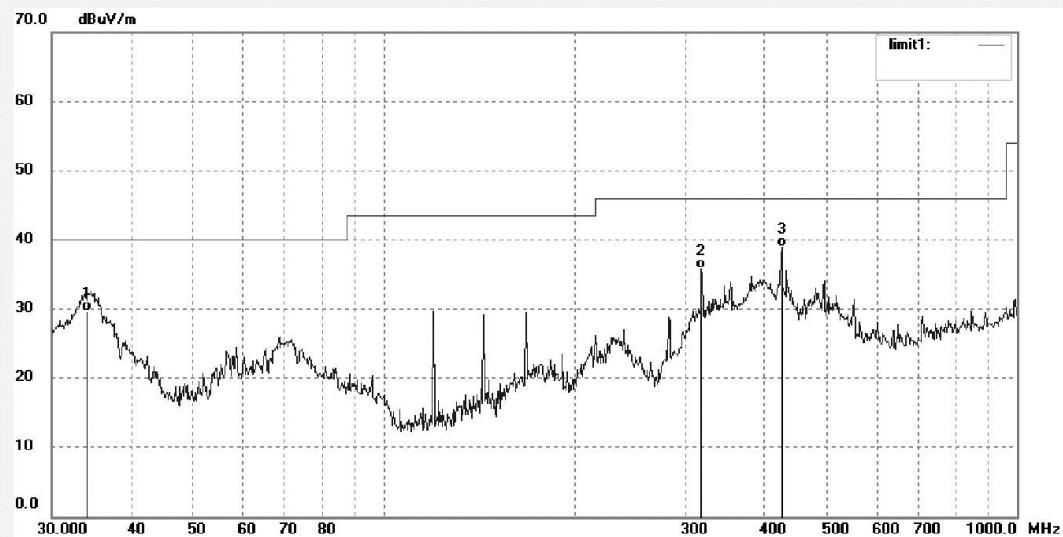
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.1561	39.92	-10.33	29.59	40.00	-10.41	QP			
2	317.7010	44.59	-8.81	35.78	46.00	-10.22	QP			
3	425.0280	45.08	-6.16	38.92	46.00	-7.08	QP			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2223

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

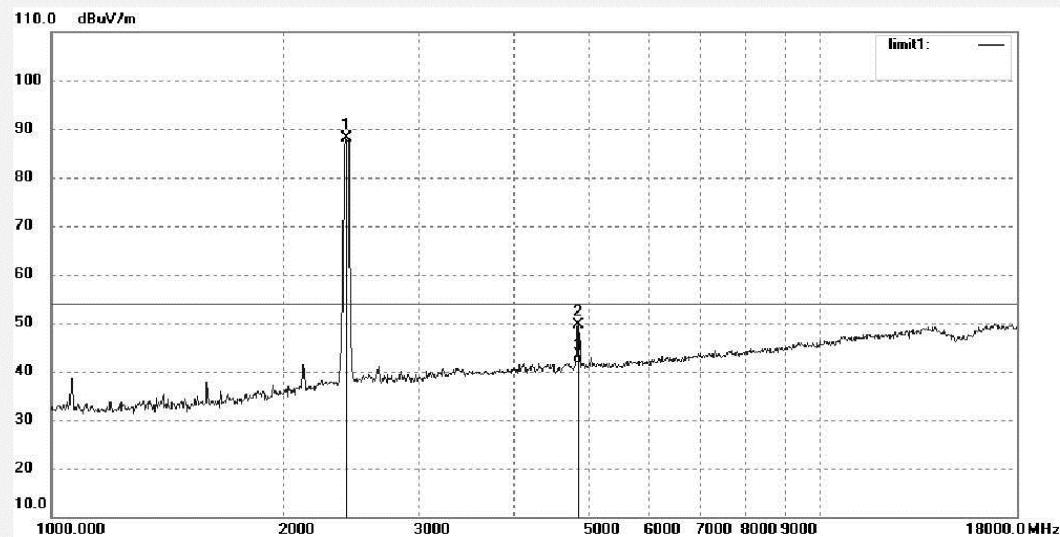
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2422.000	95.53	-7.40	88.13	/	/	peak			
2	4844.325	49.61	-0.07	49.54	74.00	-24.46	peak			
3	4844.325	41.59	-0.07	41.52	54.00	-12.48	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2224

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

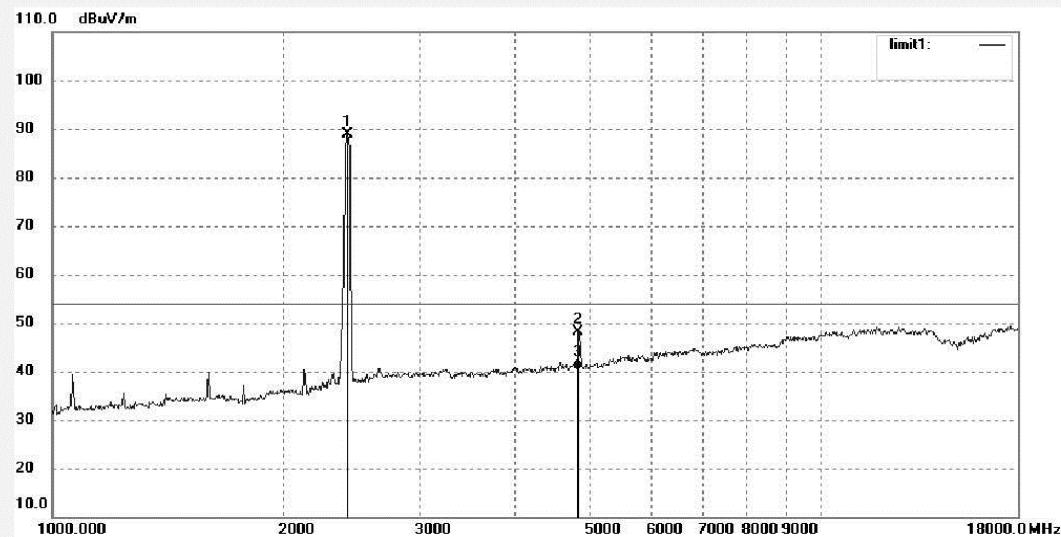
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2422.000	96.31	-7.40	88.91	/	/	peak			
2	4844.345	48.22	-0.07	48.15	74.00	-25.85	peak			
3	4844.345	40.50	-0.07	40.43	54.00	-13.57	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2225

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

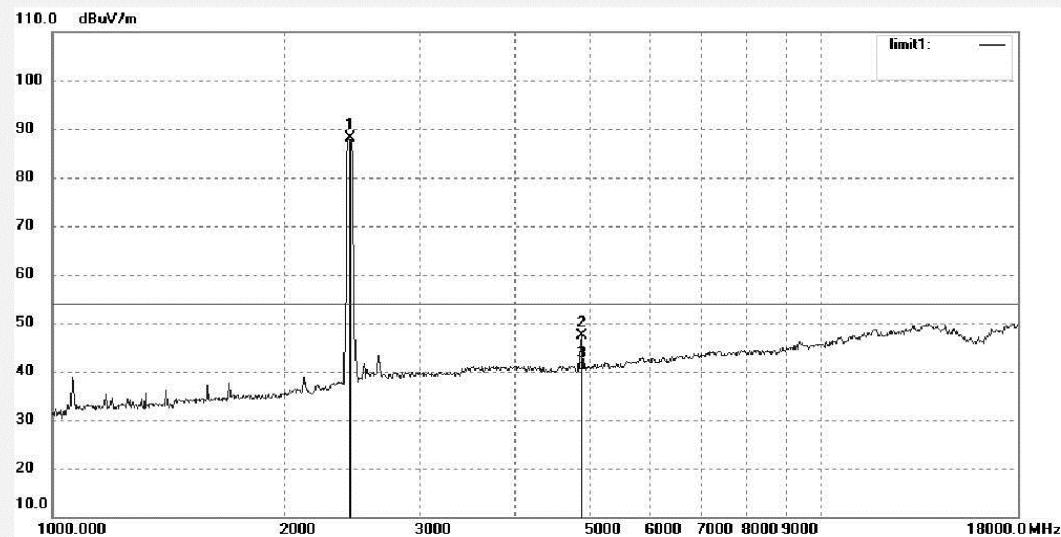
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.000	95.44	-7.36	88.08	/	/	peak			
2	4874.328	47.30	0.09	47.39	74.00	-26.61	peak			
3	4874.328	40.03	0.09	40.12	54.00	-13.88	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2226

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

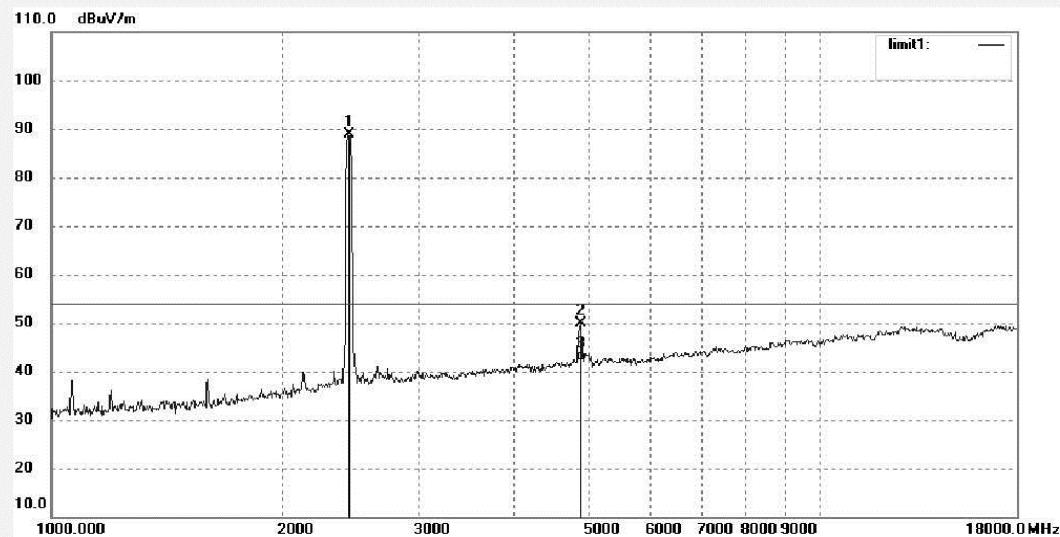
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.000	96.33	-7.36	88.97	/	/	peak			
2	4874.347	49.89	0.09	49.98	74.00	-24.02	peak			
3	4874.347	41.99	0.09	42.08	54.00	-11.92	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2227

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

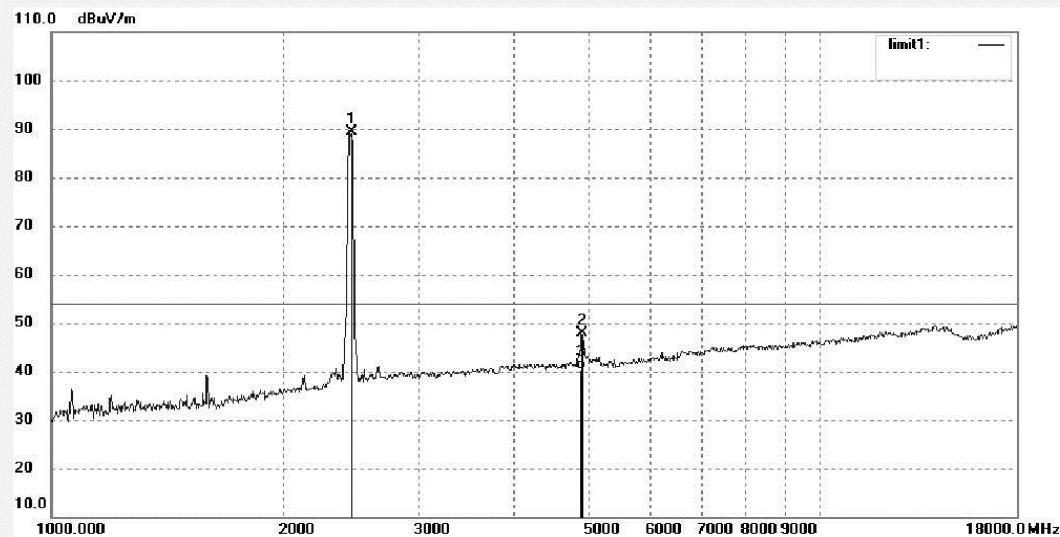
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2452.000	96.75	-7.33	89.42	/	/	peak			
2	4904.369	47.53	0.25	47.78	54.00	-6.22	peak			
3	4904.369	40.15	0.25	40.40	54.00	-13.60	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2228

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

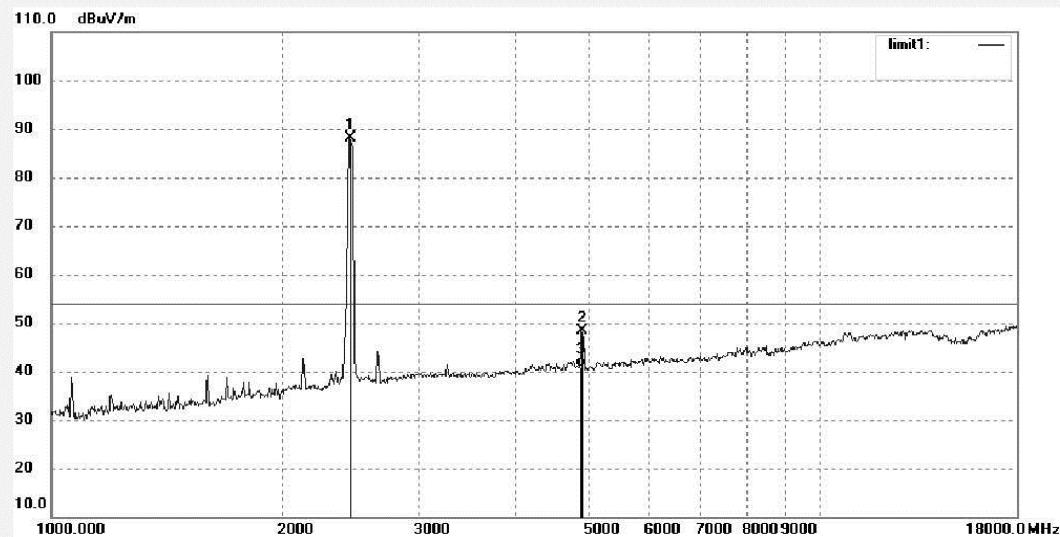
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2452.000	95.46	-7.33	88.13	/	/	peak			
2	4904.370	48.09	0.25	48.34	74.00	-25.66	peak			
3	4904.370	40.55	0.25	40.80	54.00	-13.20	AVG			

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2278

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

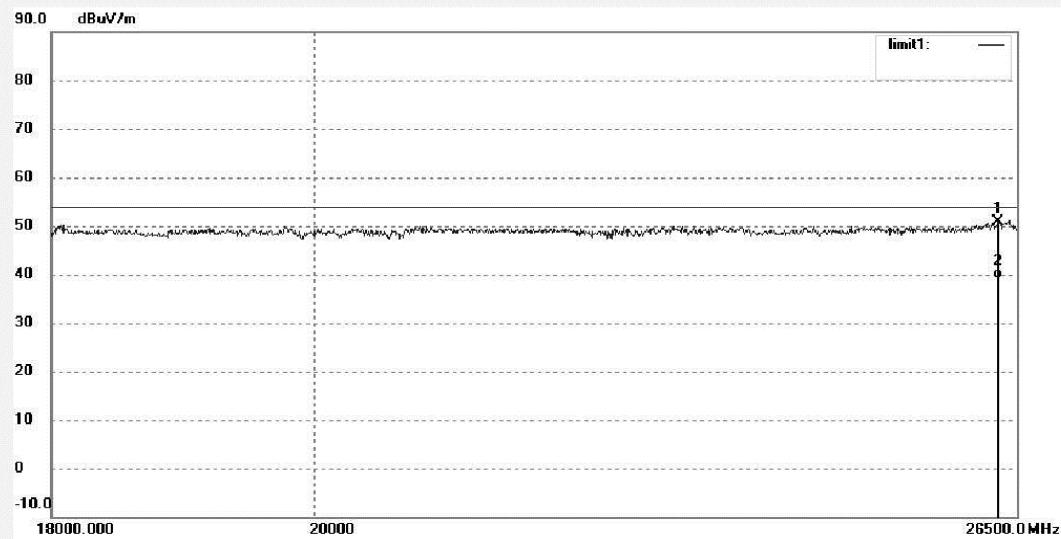
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26305.974	34.46	16.50	50.96	74.00	-23.04	peak			
2	26305.974	22.52	16.50	39.02	54.00	-14.98	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2279

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

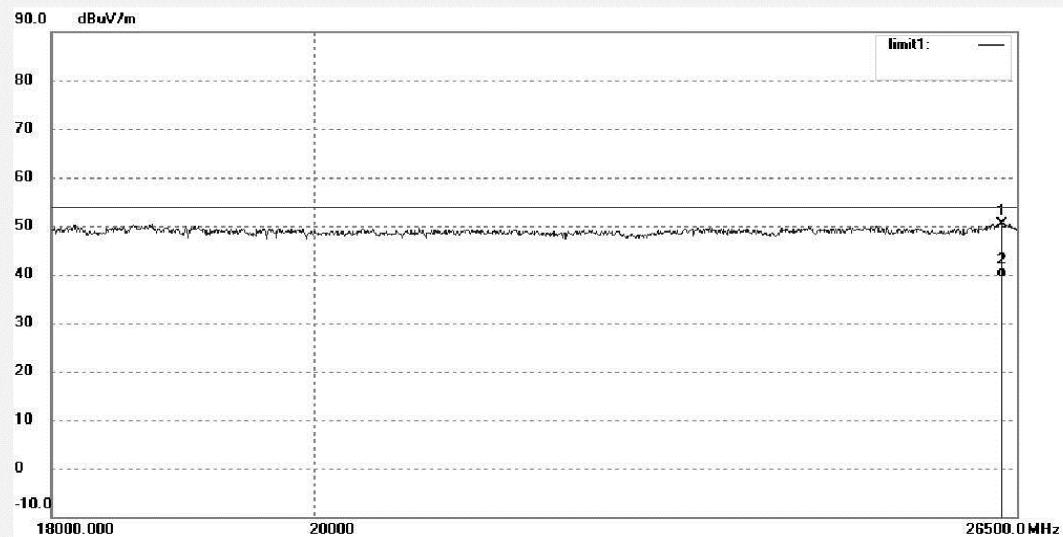
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26346.703	33.86	16.50	50.36	74.00	-23.64	peak			
2	26346.703	22.90	16.50	39.40	54.00	-14.60	AVG			

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F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2280

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

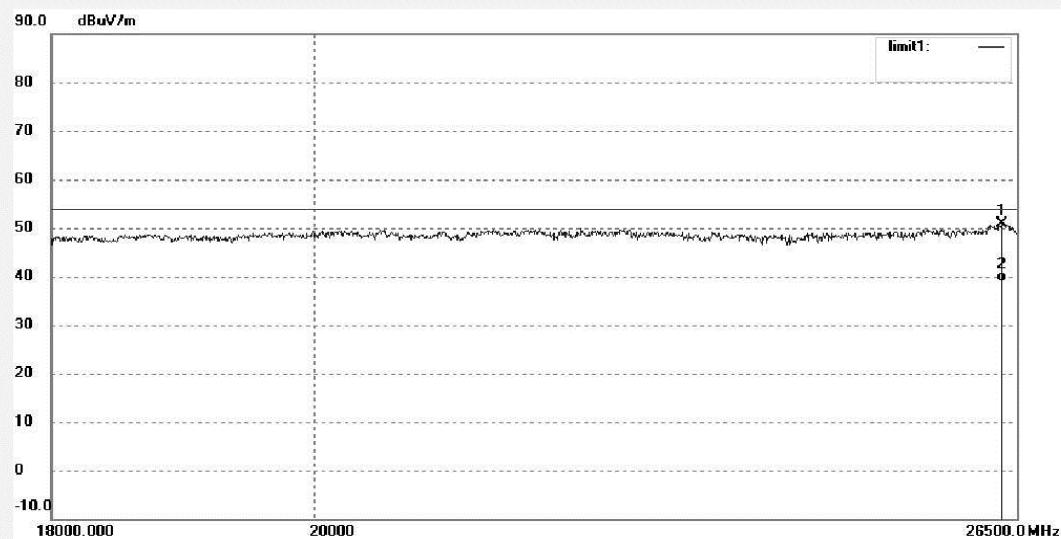
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26336.515	34.33	16.50	50.83	74.00	-23.17	peak			
2	26336.515	22.47	16.50	38.97	54.00	-15.03	AVG			

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F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2281

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

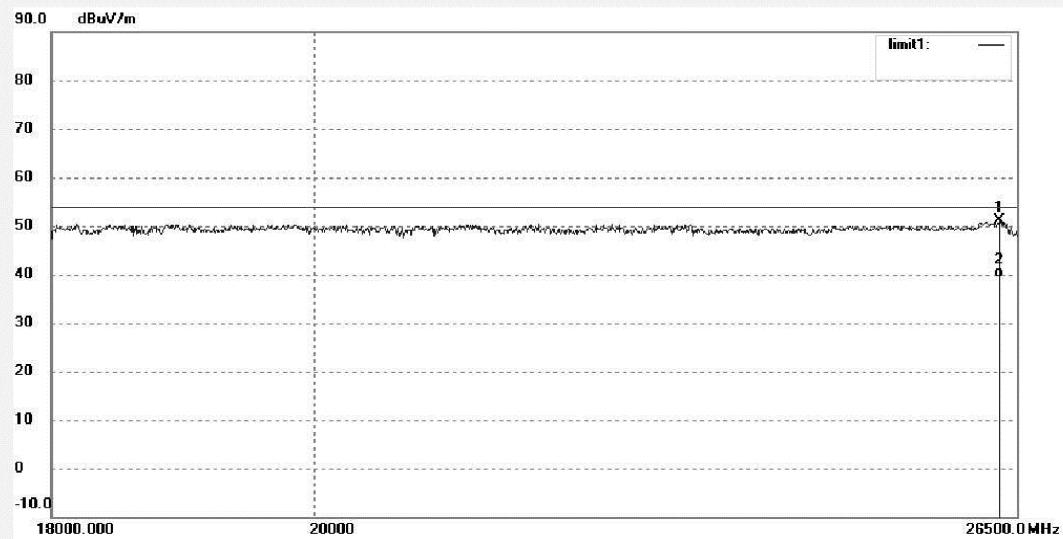
Mode: TX 2437MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26316.150	34.65	16.50	51.15	74.00	-22.85	peak			
2	26316.150	22.87	16.50	39.37	54.00	-14.63	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2298

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

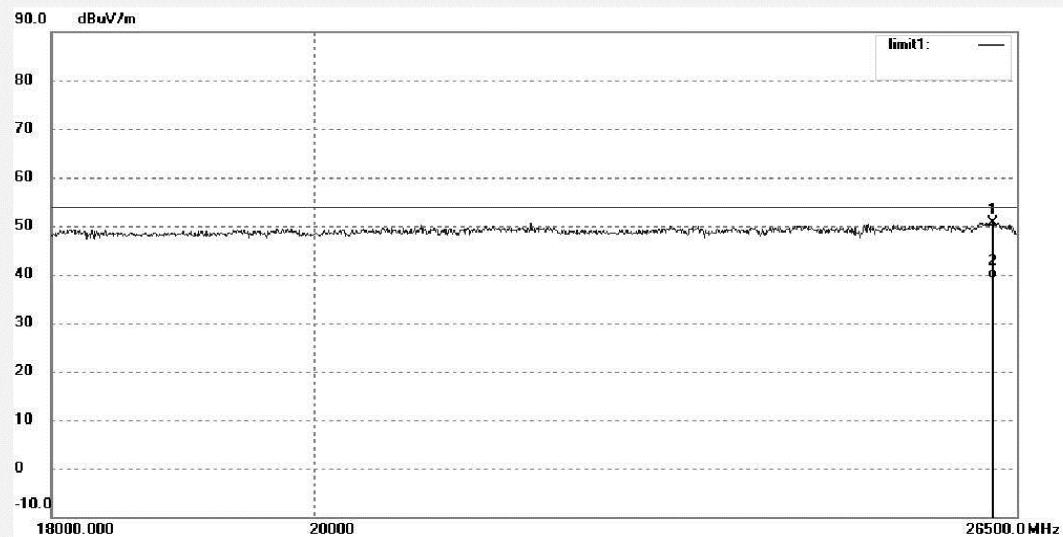
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26244.998	34.18	16.50	50.68	74.00	-23.32	peak			
2	26244.998	22.70	16.50	39.20	54.00	-14.80	AVG			

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2299

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

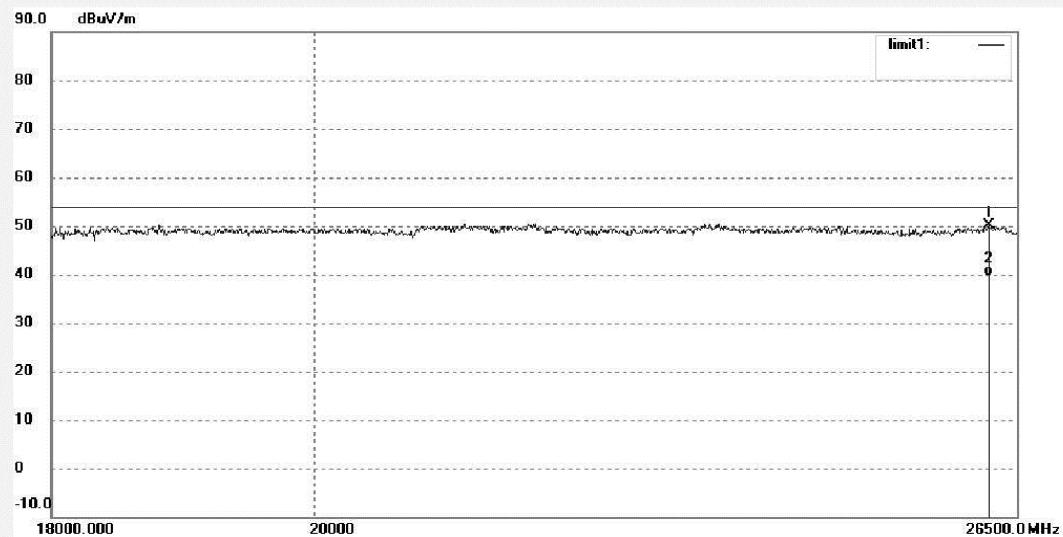
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	26204.426	33.64	16.50	50.14	74.00	-23.86	peak			
2	26204.426	23.20	16.50	39.70	54.00	-14.30	AVG			

**Appendix C.5: Radiated emission in restricted band, 802.11b\_1TX****ACCURATE TECHNOLOGY CO., LTD.**F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2282

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

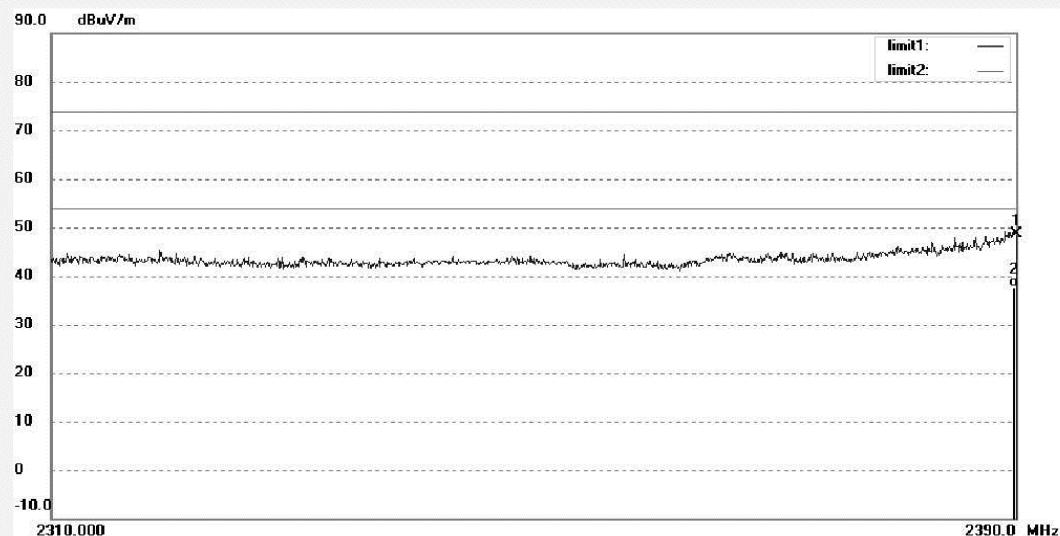
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11b



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	56.09	-7.53	48.56	74.00	-25.44	peak			
2	2390.000	45.25	-7.53	37.72	54.00	-16.28	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2283

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

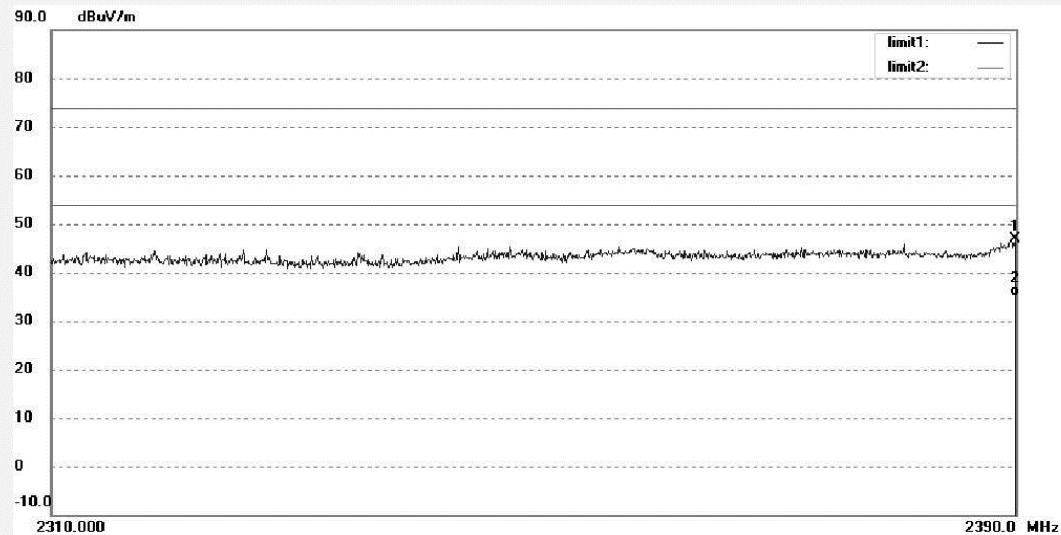
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11b



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2389.920	54.39	-7.53	46.86	74.00	-27.14	peak			
2	2389.920	42.69	-7.53	35.16	54.00	-18.84	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2284

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

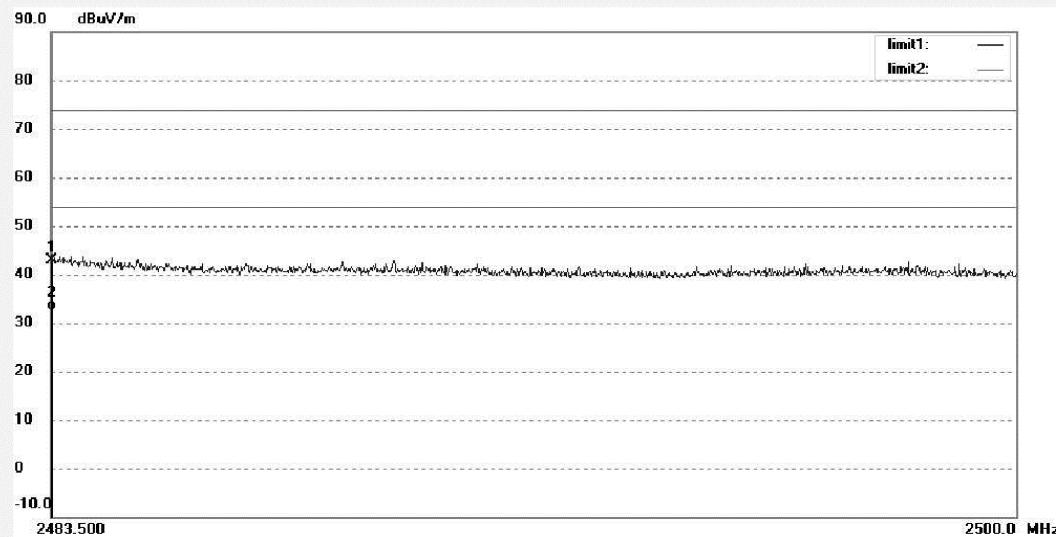
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11b



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	50.17	-7.37	42.80	74.00	-31.20	peak			
2	2483.500	39.99	-7.37	32.62	54.00	-21.38	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2285

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

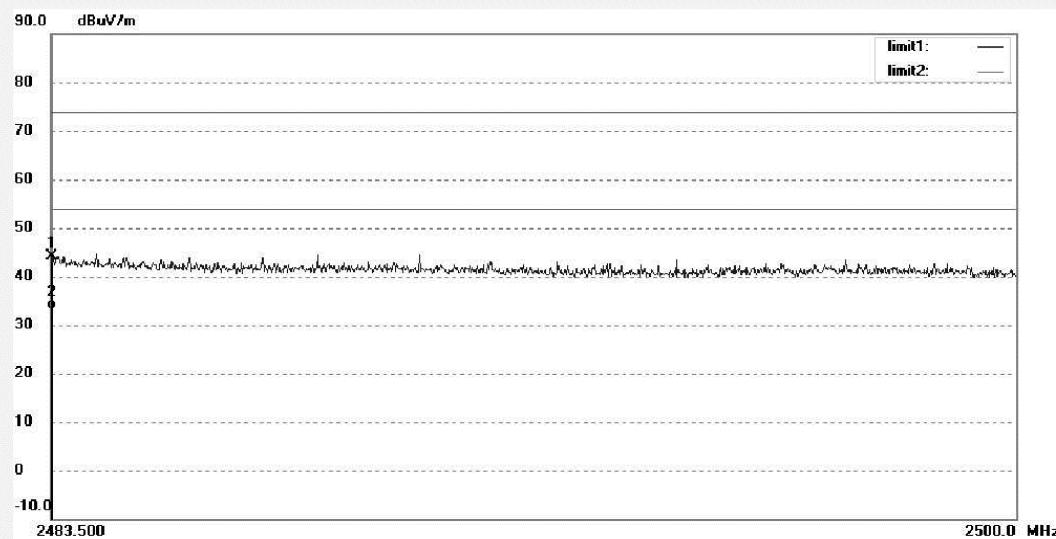
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11b



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	51.54	-7.37	44.17	74.00	-29.83	peak			
2	2483.500	40.53	-7.37	33.16	54.00	-20.84	AVG			

**Appendix C.6: Radiated emission in restricted band, 802.11g\_1TX****ACCURATE TECHNOLOGY CO., LTD.**F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2286

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

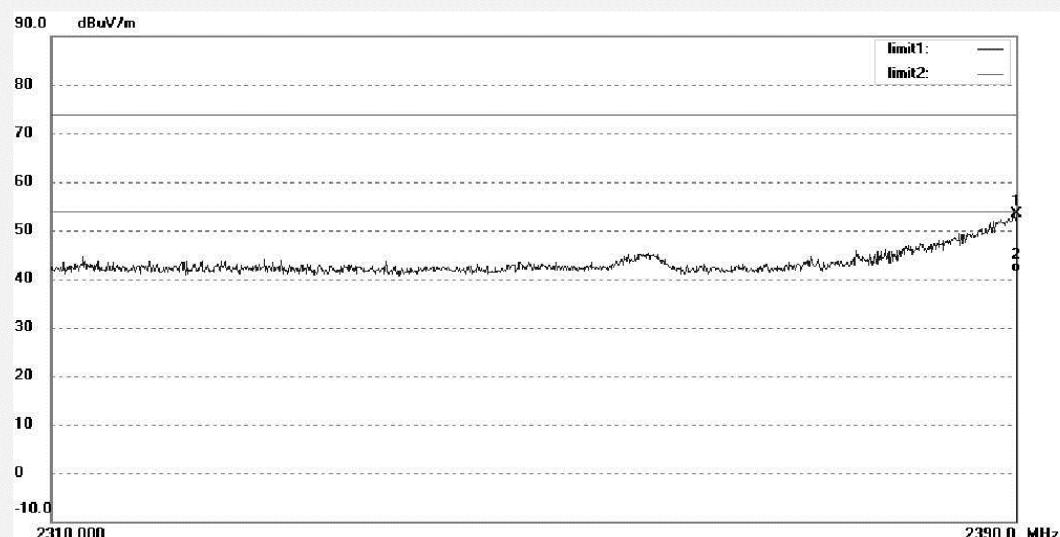
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11g



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	60.95	-7.53	53.42	74.00	-20.58	peak			
2	2390.000	48.86	-7.53	41.33	54.00	-12.67	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2287

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

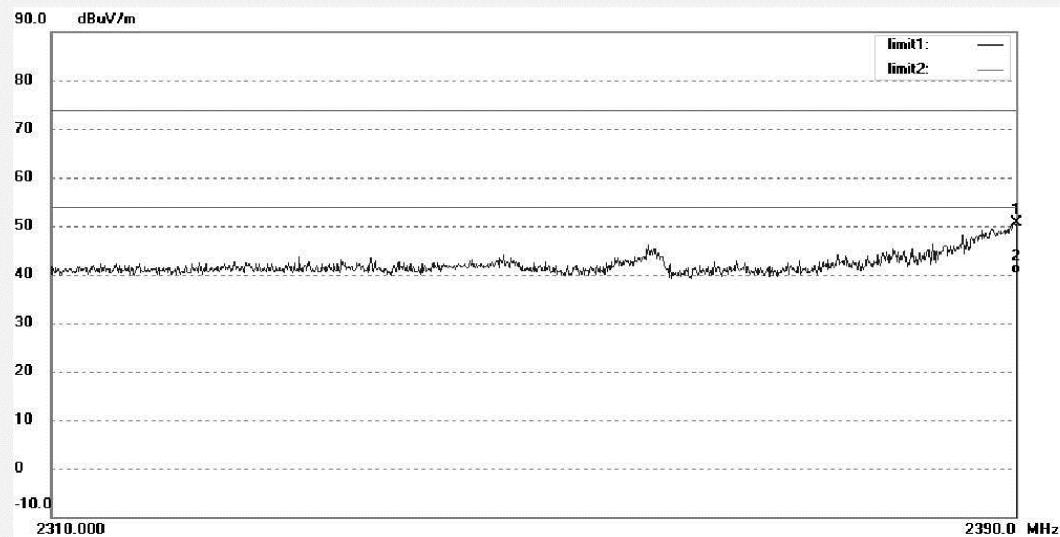
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11g



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	58.16	-7.53	50.63	74.00	-23.37	peak			
2	2390.000	47.55	-7.53	40.02	54.00	-13.98	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2288

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

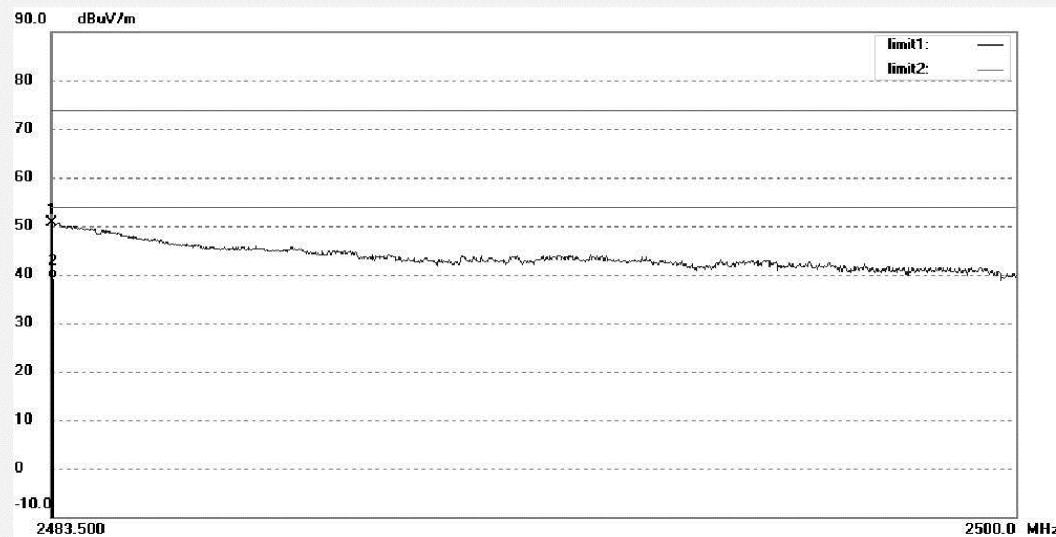
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11g



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	57.98	-7.37	50.61	74.00	-23.39	peak			
2	2483.500	46.42	-7.37	39.05	54.00	-14.95	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2289

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

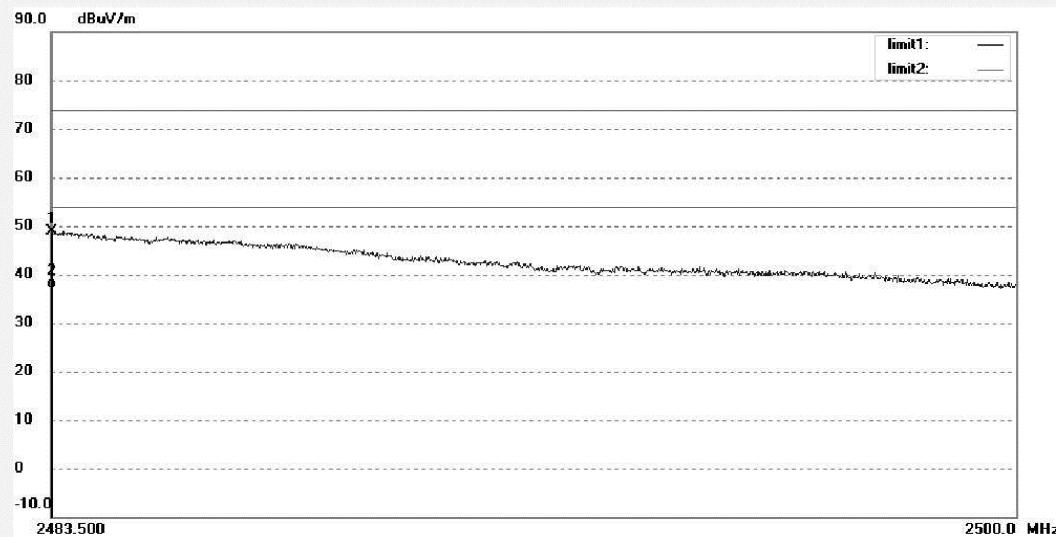
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11g



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	56.23	-7.37	48.86	74.00	-25.14	peak			
2	2483.500	44.62	-7.37	37.25	54.00	-16.75	AVG			

**Appendix C.7: Radiated emission in restricted band, 802.11n HT20\_1TX****ACCURATE TECHNOLOGY CO., LTD.**F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2290

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

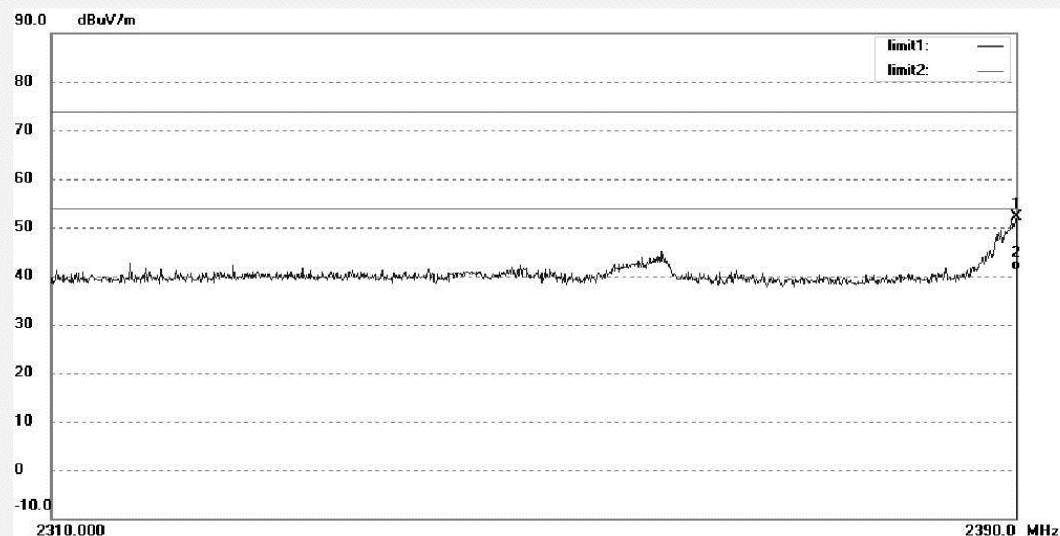
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n20



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	59.61	-7.53	52.08	74.00	-21.92	peak			
2	2390.000	48.56	-7.53	41.03	54.00	-12.97	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2291

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

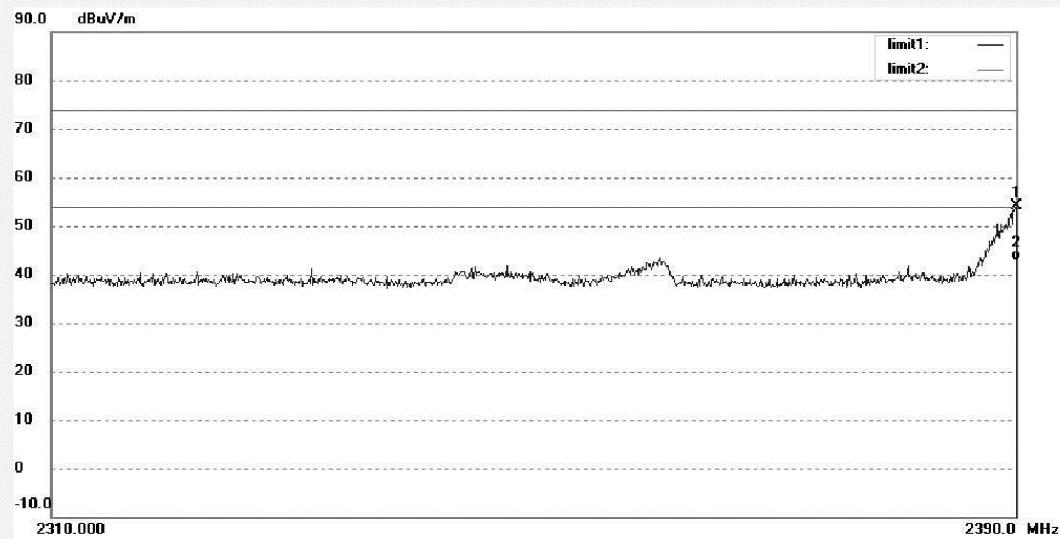
Mode: TX 2412MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n20



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	61.69	-7.53	54.16	74.00	-19.84	peak			
2	2390.000	50.44	-7.53	42.91	54.00	-11.09	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2292

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

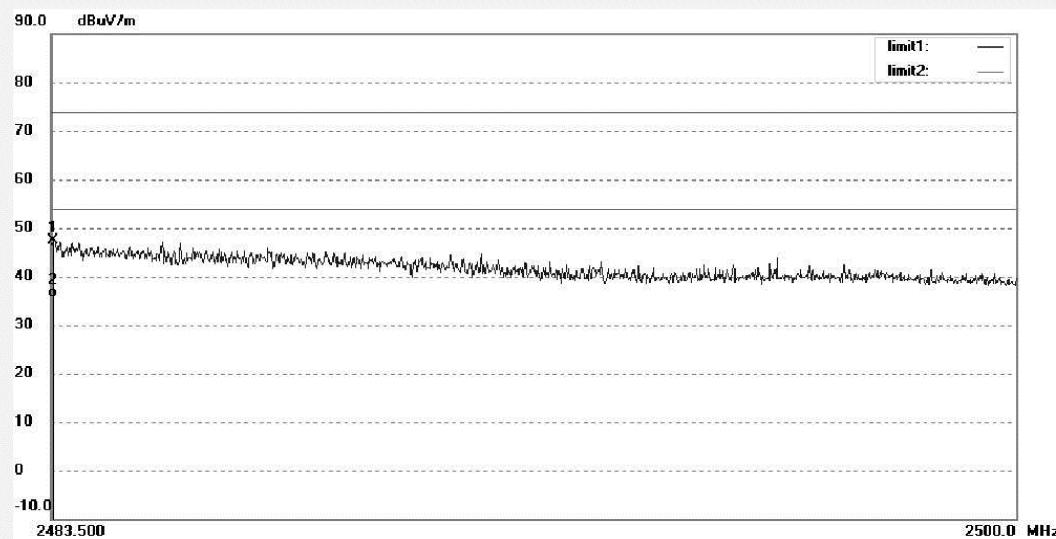
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n20



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.533	54.73	-7.37	47.36	74.00	-26.64	peak			
2	2483.533	43.07	-7.37	35.70	54.00	-18.30	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2293

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

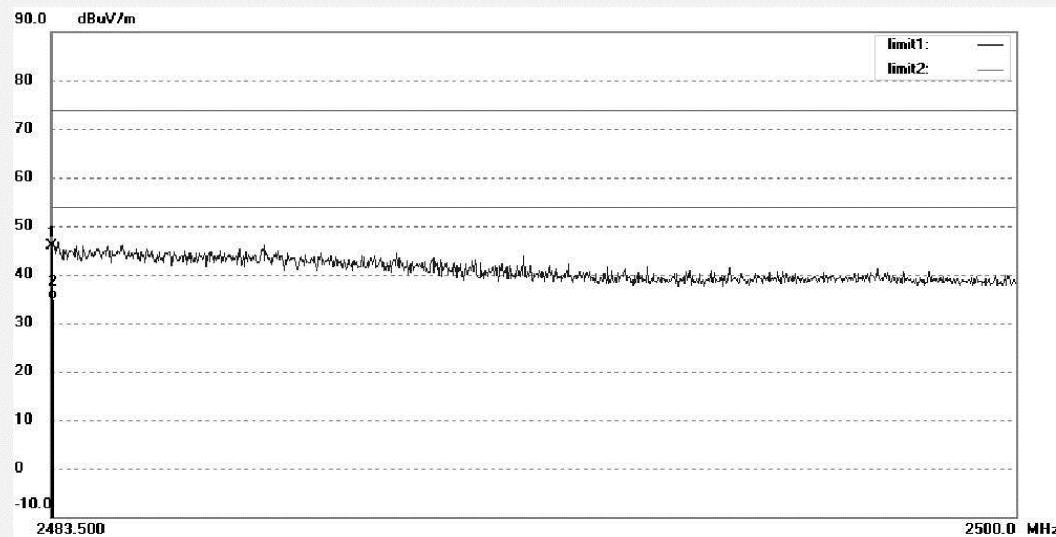
Mode: TX 2462MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n20



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	53.37	-7.37	46.00	74.00	-28.00	peak			
2	2483.500	42.35	-7.37	34.98	54.00	-19.02	AVG			

**Appendix C.8: Radiated emission in restricted band, 802.11n HT40\_1TX****ACCURATE TECHNOLOGY CO., LTD.**F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2294

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

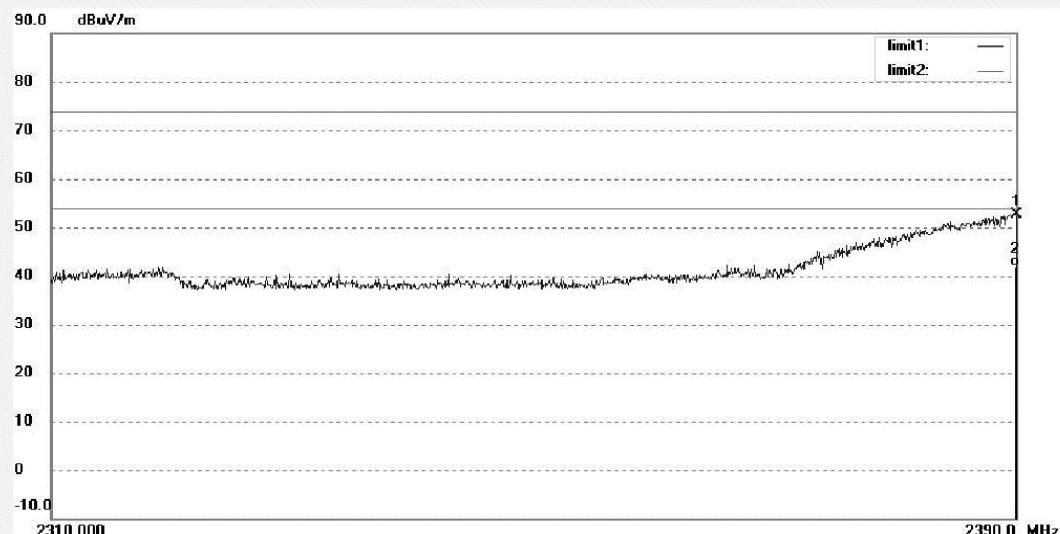
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	60.06	-7.53	52.53	74.00	-21.47	peak			
2	2390.000	49.35	-7.53	41.82	54.00	-12.18	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2295

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

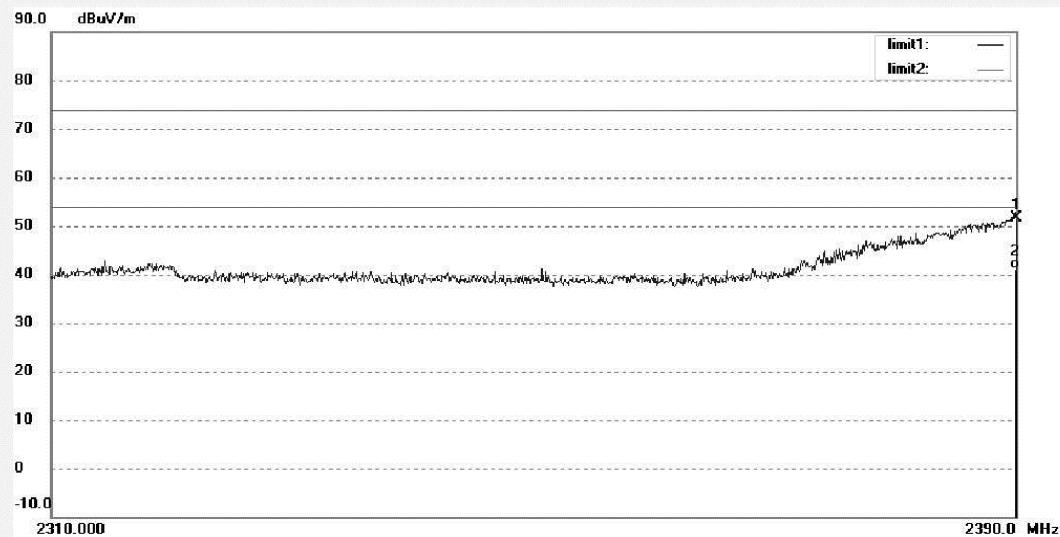
Mode: TX 2422MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	59.18	-7.53	51.65	74.00	-22.35	peak			
2	2390.000	48.55	-7.53	41.02	54.00	-12.98	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2296

Polarization: Horizontal

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

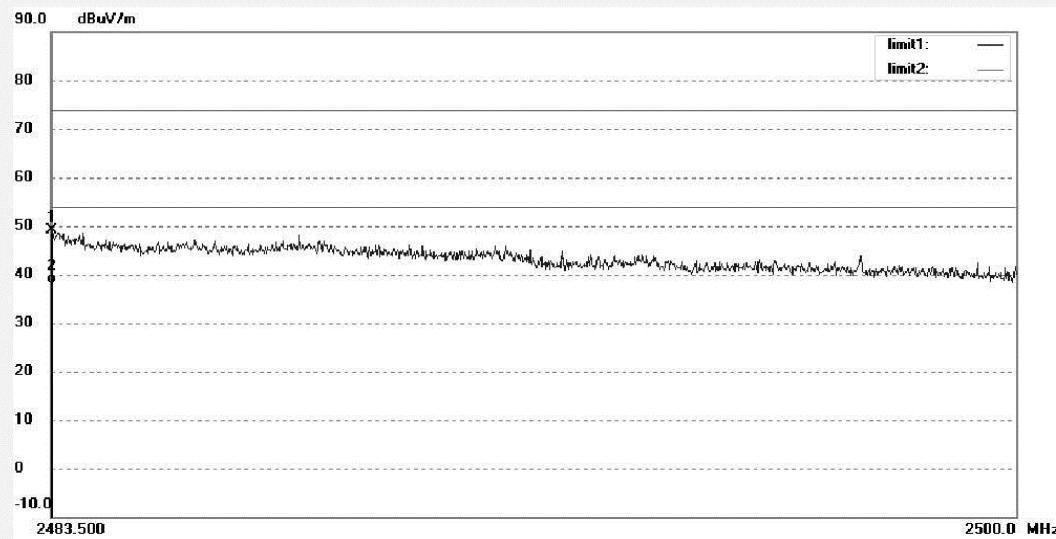
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	56.62	-7.37	49.25	74.00	-24.75	peak			
2	2483.500	45.60	-7.37	38.23	54.00	-15.77	AVG			

**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: LAN2014 #2297

Polarization: Vertical

Standard: FCC (Band Edge)

Power Source: DC 5V

Test item: Radiation Test

Date: 15/05/09/

Temp.( C)/Hum.(%) 23 C / 48 %

Time:

EUT: Wi-Fi Dongle

Engineer Signature:

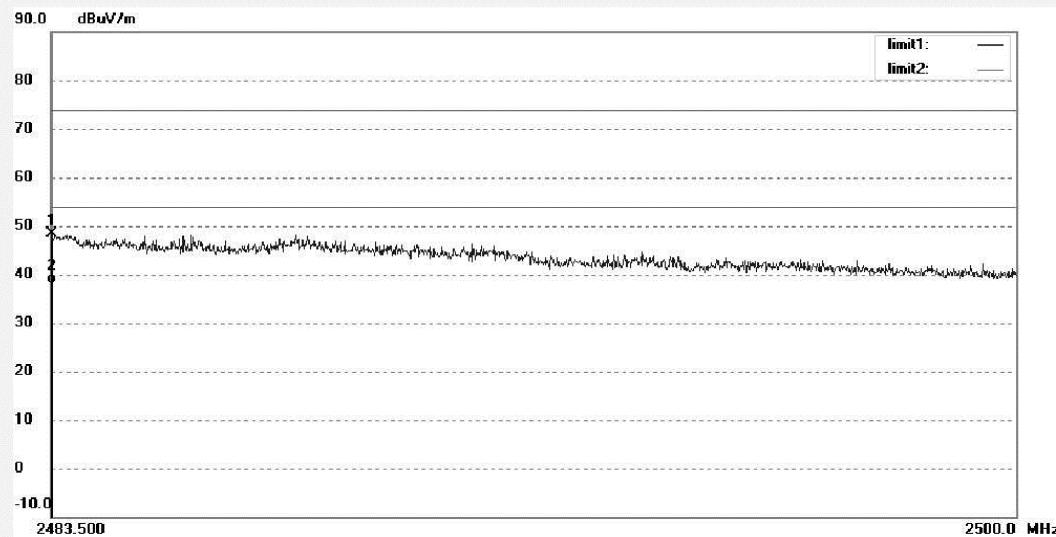
Mode: TX 2452MHz

Distance: 3m

Model: TD-2021N-USB

Manufacturer: HUAWEI

Note: 802.11n40



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	55.74	-7.37	48.37	74.00	-25.63	peak			
2	2483.500	45.47	-7.37	38.10	54.00	-15.90	AVG			

## Appendix G

# Test Results of Conducted Emissions

APPENDIX D.1: TEST RESULTS OF CONDUCTED EMISSIONS..... 2

### Appendix D.1: Test Results of Conducted Emissions

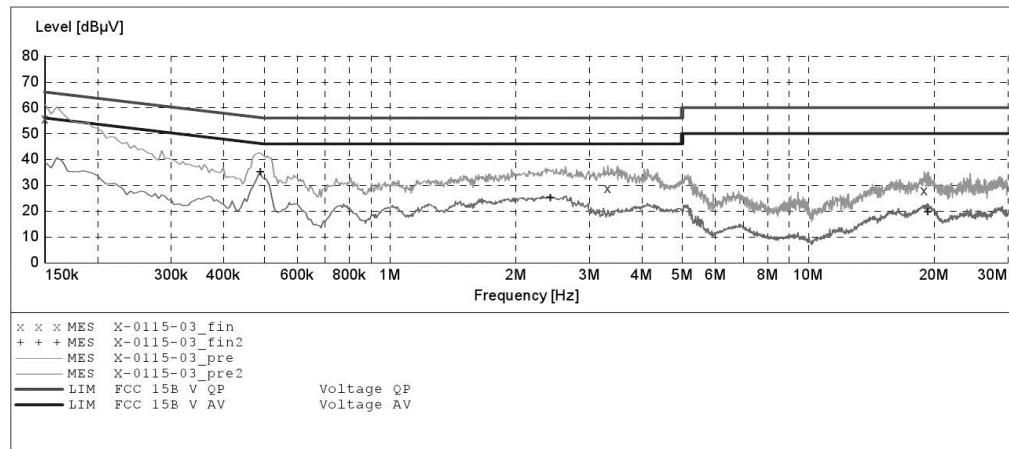
**ACCURATE TECHNOLOGY CO., LTD**

**CONDUCTED EMISSION STANDARD FCC PART 15 B**

EUT: Wi-Fi Dongle M/N:TD-2021N-USB  
 Manufacturer: HUAWEI  
 Operating Condition: On  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: N 120V/60Hz  
 Comment:  
 Start of Test: 1/15/2015 /

**SCAN TABLE: "V 150K-30MHz fin"**

Short Description: -SUB\_STD\_VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSL8126 2008  
 Average



**MEASUREMENT RESULT: "X-0115-03\_fin"**

1/15/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB $\mu$ V	dB	dB $\mu$ V	dB			
	0.150000	55.60	10.5	66	10.4	QP	N	GND
	3.320000	28.80	11.1	56	27.2	QP	N	GND
	18.950000	27.80	11.4	60	32.2	QP	N	GND

**MEASUREMENT RESULT: "X-0115-03\_fin2"**

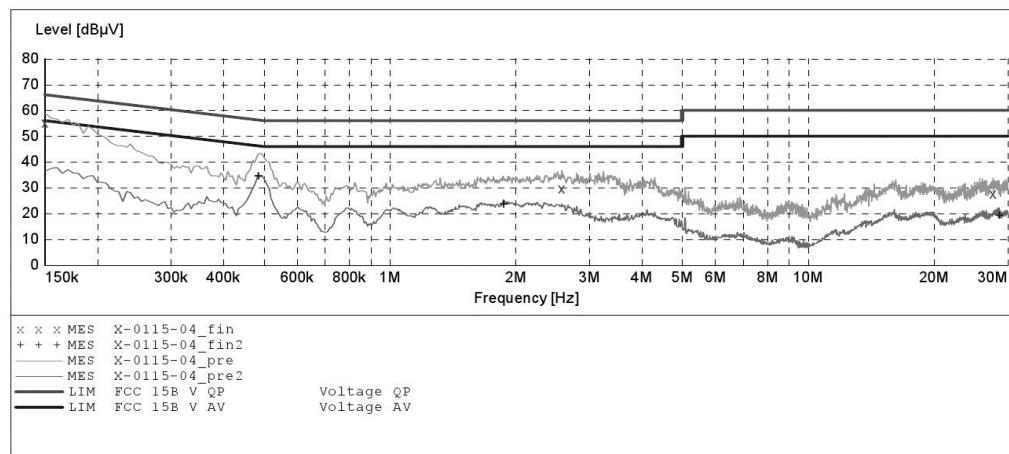
1/15/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB $\mu$ V	dB	dB $\mu$ V	dB			
	0.490000	35.00	10.7	46	11.2	AV	N	GND
	2.420000	25.00	11.0	46	21.0	AV	N	GND
	19.325000	19.70	11.4	50	30.3	AV	N	GND

**ACCURATE TECHNOLOGY CO., LTD****CONDUCTED EMISSION STANDARD FCC PART 15 B**

EUT: Wi-Fi Dongle M/N:TD-2021N-USB  
 Manufacturer: HUAWEI  
 Operating Condition: On  
 Test Site: 1#Shielding Room  
 Operator: LAN  
 Test Specification: L 120V/60Hz  
 Comment:  
 Start of Test: 1/15/2015 /

**SCAN TABLE: "V 150K-30MHz fin"**

Short Description: -SUB\_STD\_VTERM2 1.70  
 Start Stop Step -Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average

**MEASUREMENT RESULT: "X-0115-04\_fin"**

1/15/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dBμV	dB	dBμV	dB			
	0.150000	55.00	10.5	66	11.0	QP	L1	GND
	2.580000	29.60	11.0	56	26.4	QP	L1	GND
	27.700000	27.50	11.5	60	32.5	QP	L1	GND

**MEASUREMENT RESULT: "X-0115-04\_fin2"**

1/15/2015	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dBμV	dB	dBμV	dB			
	0.485000	34.30	10.7	46	12.0	AV	L1	GND
	1.870000	23.50	11.0	46	22.5	AV	L1	GND
	28.625000	19.30	11.5	50	30.7	AV	L1	GND

## Appendix E

# Test Results of RF Exposure

APPENDIX E.1: RF EXPOSURE COMPLIANCE..... 2

## Appendix E.1: RF Exposure Compliance

### Radio Frequency Exposure Compliance

#### RESULT:

Passed

Test standard : FCC 1.1310  
RSS-102 Issue 5  
FCC KDB publication 447498 D01 v05

This device is mobile device, and the applicant declares that the minimum separation distance is greater than 20cm. Therefore MPE measurement or computational modeling should be used to determine compliance.

#### MPE Calculation

According to the formula

$$Pd = \frac{Pout * G}{4R^2\pi}$$

Where

Pd = power density in mW/cm<sup>2</sup> or W/m<sup>2</sup>

Pout = output power to antenna in mW or W

G = Antenna gain in numeric

π = 3.14159

R = Distance between observation point and the center of radiator in cm or m

In here

Pout = 16.30dBm = 42.66mW

G = 1.5dBi = 1.41 (numeric)

R = 20cm

For Wi-Fi operation:

$$Pd = \frac{Pout * G}{4R^2\pi} = \frac{42.66 * 1.41}{4 * 20^2 * 3.14159} = 0.0120mW / cm^2 < 1mW/cm^2 \text{ for FCC limit}$$

$$Pd = \frac{Pout * G}{4R^2\pi} = \frac{0.04266 * 1.41}{4 * 0.2^2 * 3.14159} = 0.120W / m^2 < 5.4W/m^2 \text{ for IC limit}$$

The summed maximum permissible exposure (MPE) level is 0.0120mW/cm<sup>2</sup> and 0.120W/m<sup>2</sup>. It is less than MPE limit 1mW/cm<sup>2</sup> for FCC and 5.4W/m<sup>2</sup> for IC, therefore the device compliance with MPE limit.