

Test result and instruments about Type certificate

WiFi 2.4G 11g/n

1. General

Model name	LMDS2850	Date	21 February 2018
Serial number	300006	Place	SGS Fimko Ltd, Karakaarenkuja 4, FI-02610 ESP00
Class of emissions, Assigned frequency and Antenna power	G1D D1D, 2412 - 2472 MHz, 0.003 W	Remarks	WLAN 802.11b/g. This report is for 802.11g.

2. Measuring Instruments

Equipment type	Model number	Serial number	Manufacturer	Calibrated Date	Calibration Authority	Remarks
Spectrum analyzer	FSV40	101068	Rohde & Schwarz	7 July 2017	Rohde & Schwarz (c)	
Frequency standard	GPS-88	SM 968615	Pendulum	-	-	GPS Referenced
Attenuator	PE7090-10	-	Pasternack	16 November 2017	SGS (c)	
Cable	EM40-3131-59	11,153,209,001	-	1 April 2016	SGS (c)	

3. Test Result

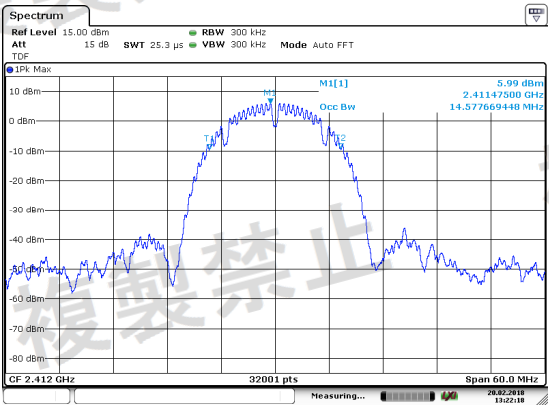
Condition	Test Items *3		Unit	Normal Voltage + 10% (7.92 V)			Normal Voltage (7.20 V)			Normal Voltage - 10% (6.48 V)			Judgment	Limit	Remarks	
				*2	*2	*2	2412	2442	2472	*2	*2	*2				
Normal (21 °C, 30 %)	Frequency		MHz	2411.976	2441.976	2471.975	2411.976	2441.976	2471.975	2411.976	2441.976	2471.975	PASS			
			ppm	9.84	9.98	10.14	9.88	9.84	10.14	9.87	9.98	10.15		20ppm		
	Occupied Bandwidth			MHz	16.453	17.289	16.394	16.394	17.488	16.447	16.374	17.255	16.417	PASS	38MHz	
	Spurious	30MHz-2387MHz	dBm	-34.24	-44.98	-51.62	-37.06	-46.04	-51.33	-34.07	-43.90	-50.48	PASS	-26dBm		
			MHz	2385.564	2385.416	2372.674	2385.048	2385.858	2369.802	2382.397	2385.416	2368.108				
		2387MHz-2400MHz	dBm	-18.73	-40.02	-51.76	-18.26	-38.94	-51.02	-20.10	-38.94	-51.53	PASS	-16dBm		
			MHz	2399.477	2395.949	2387.358	2399.477	2400.000	2399.314	2399.473	2398.334	2400.000				
		2483.5MHz-2496.5MHz	dBm	-50.37	-39.39	-20.28	-50.75	-39.10	-21.22	-50.85	-38.66	-20.82	PASS	-16dBm		
			MHz	2483.565	2483.500	2483.549	2488.786	2483.500	2483.862	2490.143	2483.500	2483.830				
		2496.5MHz-12.5GHz	dBm	-46.89	-46.80	-39.33	-46.79	-46.91	-36.60	-45.46	-46.37	-37.66	PASS	-26dBm		
			MHz	6960.890	6962.450	2498.530	6984.020	6981.210	2498.840	6969.960	6989.340	2501.660				
	Antenna Power			W/MHz	0.001459	0.002213	0.001343	0.001455	0.002188	0.001330	0.001435	0.002193	0.001334	PASS	0.01W/MHz	
				%	-51.37	-26.23	-55.24	-51.485	-27.07	-55.65	-52.15	-26.91	-55.55		+20 ~ -80%	
	Secondary Radiated Emissions	30MHz-1GHz		dBm	-88.43	-88.33	-80.4	-87.990	-88.800	-80.100	-89.36	-88.23	-88.6	PASS	-54dBm	
				MHz	974.948	994.62	814.418	943.454	994.408	893.470	994.468	994.529	994.65			
		1GHz-12.5GHz		dBm	-74.03	-74.77	-73.71	-74.940	-75.070	-74.550	-74.57	-74.28	-74.7	PASS	-47dBm	
				MHz	6979.27	6997.24	6977.48	6945.130	6967.060	6940.820	6975.68	6967.77	6990.05			
	Interference prevention function				OK			OK			OK			PASS		

*1 Please describe the relevant clause in the remarks column. (Either of (a) ~ (d) of 2 paragraph 4 of Article 24 of the Radio Law)

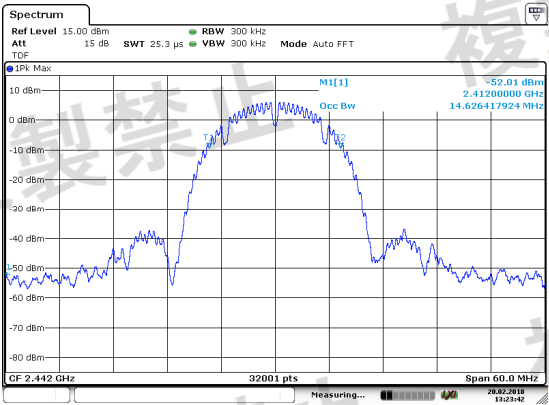
*2 Please describe test frequencies (Low, Middle, High).

Screen Shot at normal voltage (1 Mbps)

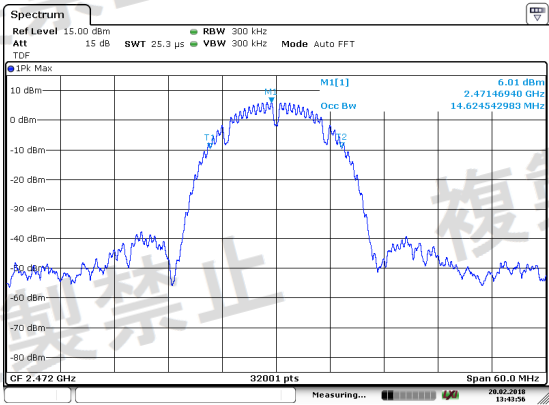
Occupied Bandwidth
Low channel



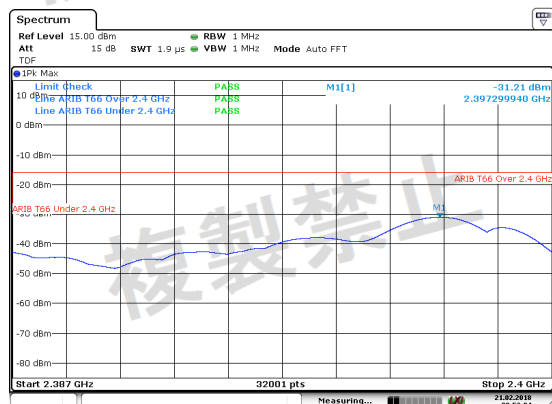
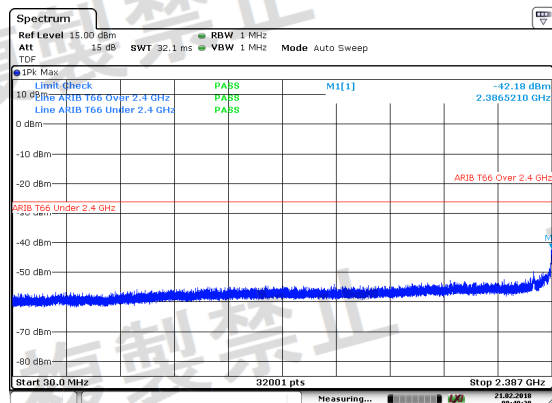
Middle channel



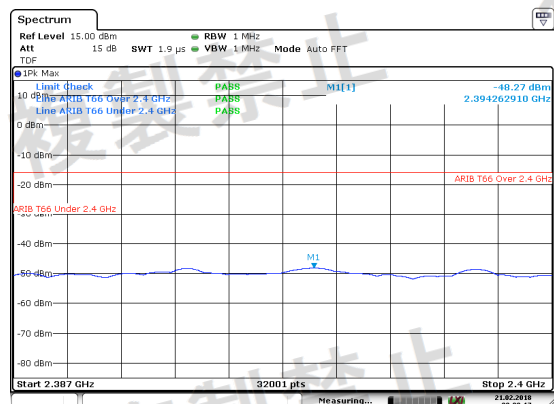
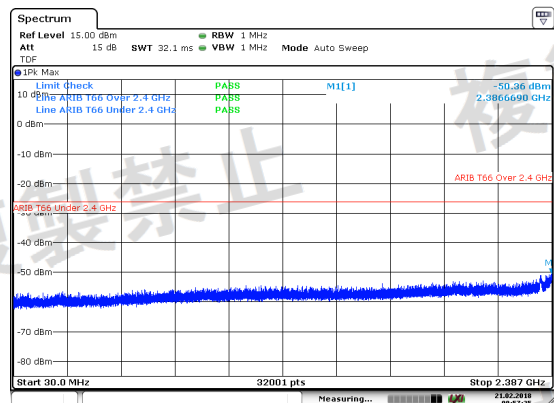
High channel



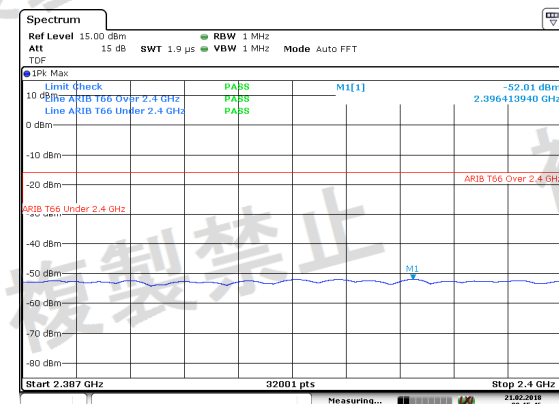
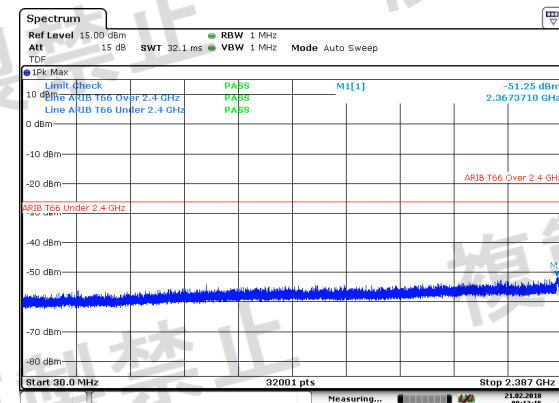
Spurious Emissions Low channel

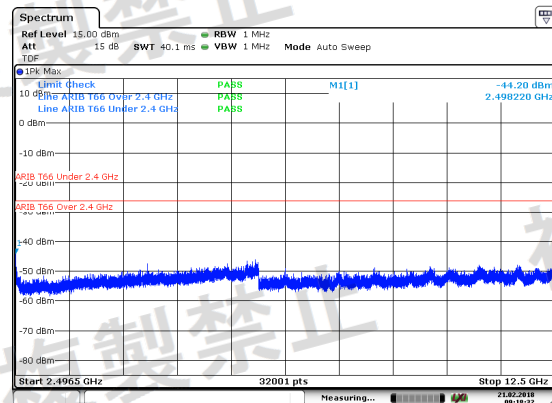
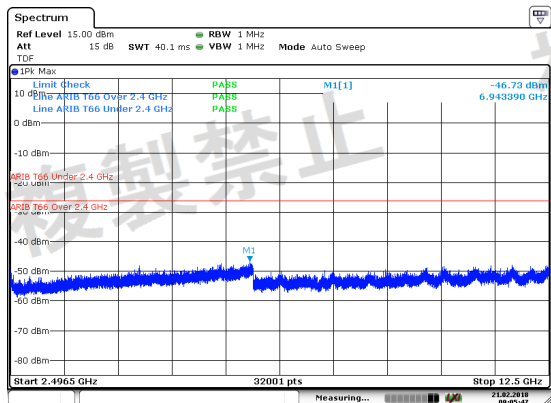
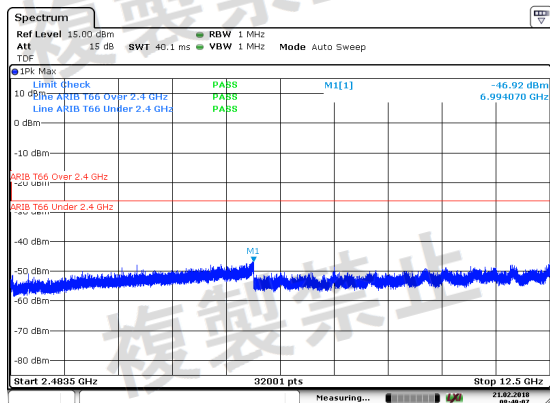
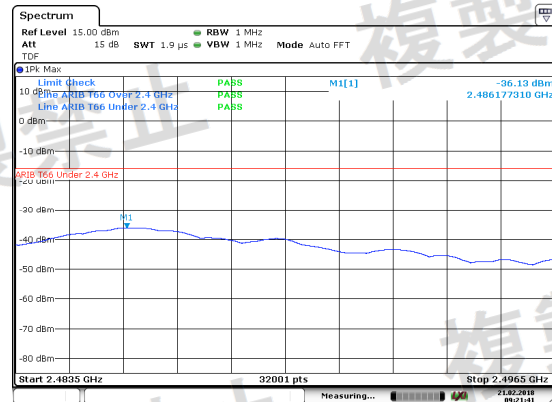
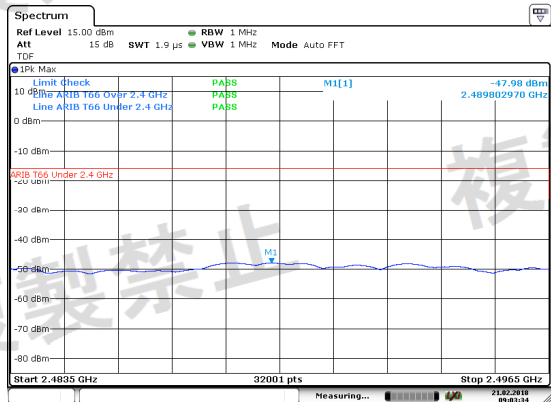
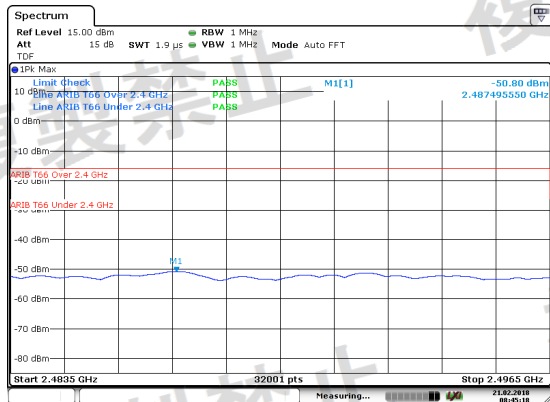


Middle channel



High channel





Test result and instruments about Type certificate

WiFi 2.4G 11b

1. General

Model name	LMDS2850	Date	21 February 2018
Serial number	300006	Place	SGS Fimko Ltd, Karakaarenkuja 4, FI-02610 ESPOO
Class of emissions, Assigned frequency and Antenna power	G1D, 2412 - 2472 MHz, 0.006 W	Remarks	WLAN 802.11b/g. This report is for 802.11b.

2. Measuring Instruments

Equipment type	Model number	Serial number	Manufacturer	Calibrated Date	Calibration Authority	Remarks
Spectrum analyzer	FSV40	101068	Rohde & Schwarz	7 July 2017	Rohde & Schwarz	(c)
Frequency standard	GPS-88	SM 968615	Pendulum	-	-	GPS Referenced
Attenuator	PE7090-10	-	Pasternack	16 November 2017	SGS	(c)
Cable	EM40-3131-59	11,153,209,001	-	1 April 2016	SGS	(c)

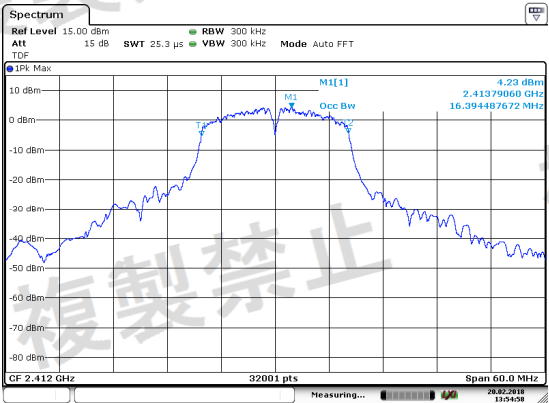
3. Test Result

1. Test Result															
Condition	Test Items *3		Unit	Normal Voltage + 10% (7,92 V)			Normal Voltage (7,20 V)			Normal Voltage - 10% (6,48 V)			Judgment	Limit	Remarks
				*2	*2	*2	2412	2442	2472	*2	*2	*2			
Normal (21 °C, 30 %)	Frequency		MHz	2411.977	2441.977	2471.976	2411.977	2441.977	2471.976	2411.977	2441.977	2471.976	PASS		
			ppm	9.48	9.52	9.83	9.37	9.54	9.80	9.44	9.58	9.77		20ppm	
	Occupied Bandwidth		MHz	14.578	14.621	14.621	14.578	14.626	14.625	14.581	14.621	14.619	PASS	26MHz	
	Spread Bandwidth		MHz	9.630	9.647	9.647	9.628	9.645	9.650	9.633	9.647	9.648	PASS	500kHz	
	Spurious	30MHz-2387MHz	dBm	-42.06	-49.64	-51.31	-48.18	-50.36	-51.25	-41.98	-49.64	-50.94	PASS	-26dBm	
			MHz	2386.374	2386.595	2370.833	2386.521	2386.669	2367.371	2386.521	2386.153	2368.771			
		2387MHz-2400MHz	dBm	-29.48	-48.51	-51.5	-31.21	-48.27	-52.01	-30.89	-48.27	-51.03	PASS	-16dBm	
			MHz	2397.291	2394.486	2396.409	2397.300	2394.263	2396.414	2397.300	2394.609	2390.571			
		2483.5MHz-2496.5MHz	dBm	-50.57	-48.04	-34.52	-50.8	-47.98	-36.13	-50.07	-47.71	-33.89	PASS	-16dBm	
			MHz	2489.407	2490.318	2486.247	2487.496	2489.803	2486.177	2487.999	2489.500	2486.526			
		2496.5MHz-12.5GHz	dBm	-46.79	-46.63	-45.14	-46.92	-46.73	-44.20	-45.52	-45.22	-44.10	PASS	-26dBm	
			MHz	6956.82	6944.01	2498.53	6994.07	6943.39	2498.22	6961.21	6952.45	2501.35			
	Antenna Power		W/MHz	0.003793	0.003707	0.002972	0.003784	0.003690	0.003034	0.003784	0.003690	0.003524	PASS	0.01W/MHz	
			%	-36.781	-38.220	-50.472	-36.926	-38.504	-49.435	-36.926	-38.504	-41.272		+20 ~ -80%	
	Secondary Radiated Emissions	30MHz-1GHz	dBm	-88.43	-88.33	-80.40	-87.990	-88.800	-80.100	-89.36	-88.23	-88.60	PASS	-54dBm	
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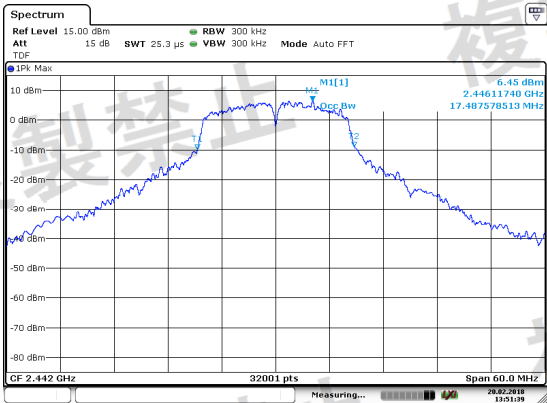
*1 Please describe the relevant clause in the remarks column. (Either of (a) ~ (d) of 2 paragraph 4 of Article 24 of the Radio Law)

Screen Shot at normal voltage (6 Mbps)

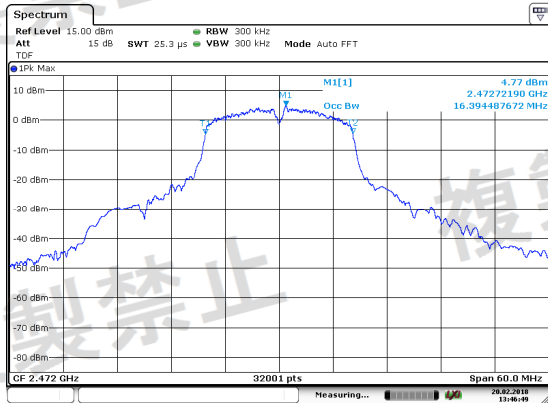
Occupied Bandwidth
Low channel



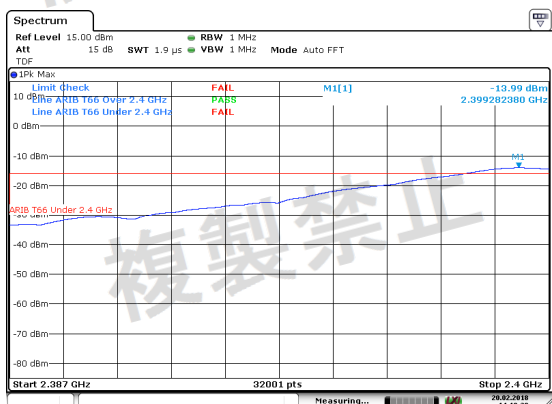
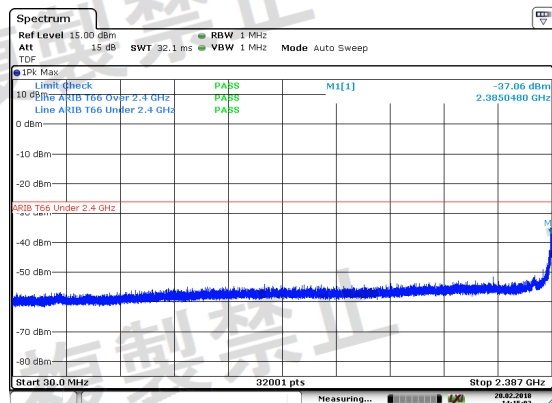
Middle channel



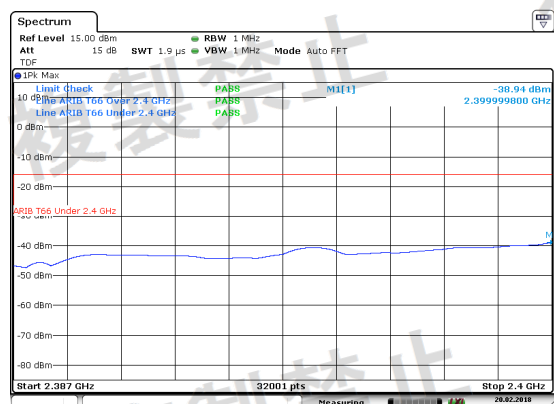
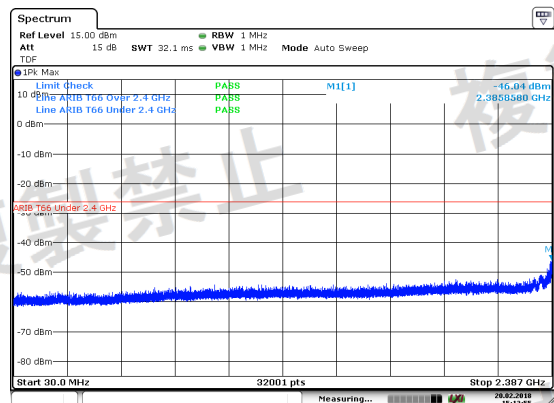
High channel



Spurious Emissions Low channel



Middle channel



High channel

