### <CDD Modes>

### 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	( dBµV/m )		( dBµV/m )		( dB/m )	(dB)	( dB )	(cm)	( deg )	(P/A)	, ,
		2388.75	61.52	-12.48	74	58.51	27.05	7.45	31.49	181	284	Р	Н
		2390	50.73	-3.27	54	47.72	27.05	7.45	31.49	181	284	Α	Н
	*	2412	108.06	-	-	105.01	27.09	7.45	31.49	181	284	Р	Н
	*	2412	103.46	-	-	100.41	27.09	7.45	31.49	181	284	Α	Н
802.11b													Н
CH 01													Н
2412MHz		2353.16	60.75	-13.25	74	57.91	26.97	7.37	31.5	400	156	Р	V
2412111112		2390	49.53	-4.47	54	46.52	27.05	7.45	31.49	400	156	Α	V
	*	2412	105.22	-	-	102.17	27.09	7.45	31.49	400	156	Р	V
	*	2412	100.67	-	-	97.62	27.09	7.45	31.49	400	156	Α	V
													V
													V
		2389.94	57.52	-16.48	74	54.51	27.05	7.45	31.49	100	119	Р	Н
		2389.94	48.92	-5.08	54	45.91	27.05	7.45	31.49	100	119	Α	Н
	*	2419	109.68	-	-	106.62	27.09	7.45	31.48	100	119	Р	Н
	*	2419	105.06	-	-	102	27.09	7.45	31.48	100	119	Α	Н
000 445													Н
802.11b													Н
CH 02 2417MHz		2386.16	56.54	-17.46	74	53.53	27.05	7.45	31.49	346	154	Р	V
24 I / WIFIZ		2389.94	46.36	-7.64	54	43.35	27.05	7.45	31.49	346	154	Α	V
	*	2419	106.62	-	-	103.56	27.09	7.45	31.48	346	154	Р	٧
	*	2419	101.98	-	-	98.92	27.09	7.45	31.48	346	154	Α	V
													V
													V

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ı			1			T			Т		1	1	1
		2362.08	55.98	-18.02	74	53.14	26.97	7.37	31.5	151	298	Р	Н
		2389.94	44.32	-9.68	54	41.31	27.05	7.45	31.49	151	298	Α	Н
	*	2437	109.06		-	105.87	27.18	7.49	31.48	151	298	Р	Н
	*	2437	104.66	-	-	101.47	27.18	7.49	31.48	151	298	Α	Н
		2483.97	56.7	-17.3	74	53.38	27.26	7.53	31.47	151	298	Р	Н
802.11b		2483.9	44.34	-9.66	54	41.02	27.26	7.53	31.47	151	298	Α	Н
CH 06 2437MHz		2381.82	56.29	-17.71	74	53.32	27.01	7.45	31.49	338	155	Р	V
2437 WITIZ		2389.94	43.92	-10.08	54	40.91	27.05	7.45	31.49	338	155	Α	V
	*	2437	107.05	-	-	103.86	27.18	7.49	31.48	338	155	Р	V
	*	2437	102.64	-	-	99.45	27.18	7.49	31.48	338	155	Α	V
		2499.44	56.06	-17.94	74	52.69	27.3	7.53	31.46	338	155	Р	V
		2483.69	44.14	-9.86	54	40.82	27.26	7.53	31.47	338	155	Α	V
	*	2457	108.66		-	105.42	27.22	7.49	31.47	131	110	Р	Н
	*	2457	104.37	-	-	101.13	27.22	7.49	31.47	131	110	Α	Н
		2484.22	56.43	-17.57	74	53.11	27.26	7.53	31.47	131	110	Р	Н
		2483.5	45.84	-8.16	54	42.52	27.26	7.53	31.47	131	110	Α	Н
													Н
802.11b													Н
CH 10	*	2457	104.01	-	-	100.77	27.22	7.49	31.47	400	357	Р	V
2457MHz	*	2457	99.76	-	-	96.52	27.22	7.49	31.47	400	357	Α	V
		2490.64	56.22	-17.78	74	52.86	27.3	7.53	31.47	400	357	Р	V
		2483.5	44.77	-9.23	54	41.45	27.26	7.53	31.47	400	357	Α	V
													V
													V

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	*	2462	108.58	-	-	105.3	27.22	7.53	31.47	141	302	Р	Н
	*	2462	103.99	-	-	100.71	27.22	7.53	31.47	141	302	Α	Н
		2495.36	60.8	-13.2	74	57.43	27.3	7.53	31.46	141	302	Р	Н
		2483.52	49.46	-4.54	54	46.14	27.26	7.53	31.47	141	302	Α	Н
000 441													Н
802.11b CH 11													Н
	*	2462	103.27		-	99.99	27.22	7.53	31.47	399	354	Р	V
2462MHz	*	2462	98.57	-	-	95.29	27.22	7.53	31.47	399	354	Α	V
		2484.8	60.83	-13.17	74	57.51	27.26	7.53	31.47	399	354	Р	V
		2483.8	48.85	-5.15	54	45.53	27.26	7.53	31.47	399	354	Α	V
													V
													V
Remark		o other spurious		Peak and	Average lim	nit line.							

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## WIFI 802.11b (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V
		4824	40.3	-33.7	74	56.44	31.26	10.74	58.14	100	0	Р	Н
													Н
000 441													Н
802.11b													Н
CH 01		4824	40.81	-33.19	74	56.95	31.26	10.74	58.14	100	0	Р	V
2412MHz													V
													٧
													V
		4872	43.75	-30.25	74	59.63	31.33	10.89	58.1	100	0	Р	Н
		7314	46.84	-27.16	74	55.68	36.07	14.18	59.09	100	0	Р	Н
802.11b													Н
													Н
		4872	42.89	-31.11	74	58.77	31.33	10.89	58.1	100	0	Р	V
2437MHz		7314	45.43	-28.57	74	54.27	36.07	14.18	59.09	100	0	Р	V
													V
													V
		4926	47.61	-26.39	74	63.23	31.4	11.04	58.06	100	0	Р	Н
		7386	45.79	-28.21	74	54.35	36.31	14.27	59.14	100	0	Р	Н
													Н
802.11b													Н
CH 11		4926	43.23	-30.77	74	58.85	31.4	11.04	58.06	100	0	Р	٧
2462MHz		7386	48.31	-25.69	74	56.87	36.31	14.27	59.14	100	0	Р	٧
													٧
													V

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## WIFI 802.11g (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	( dBµV/m )	, ,	( dBµV/m )	(dBµV)	( dB/m )	( dB )	( dB )	(cm)	( deg )		
		2390	64.19	-9.81	74	61.18	27.05	7.45	31.49	180	292	Р	Н
		2390	52.59	-1.41	54	49.58	27.05	7.45	31.49	180	292	Α	Н
	*	2410	108.51	-	-	105.46	27.09	7.45	31.49	180	292	Р	Н
	*	2410	98.61	-	-	95.56	27.09	7.45	31.49	180	292	Α	Н
802.11g													Н
CH 01													Н
2412MHz		2390	59.89	-14.11	74	56.88	27.05	7.45	31.49	399	154	Р	V
24 (2WII 12		2390	48.9	-5.1	54	45.89	27.05	7.45	31.49	399	154	Α	V
	*	2410	104.99	-	-	101.94	27.09	7.45	31.49	399	154	Р	V
	*	2410	95.29	-	-	92.24	27.09	7.45	31.49	399	154	Α	V
													V
													V
		2389.66	61.34	-12.66	74	58.33	27.05	7.45	31.49	113	292	Р	Н
		2389.94	48.41	-5.59	54	45.4	27.05	7.45	31.49	113	292	Α	Н
	*	2417	111	-	-	107.94	27.09	7.45	31.48	113	292	Р	Н
	*	2417	101	-	-	97.94	27.09	7.45	31.48	113	292	Α	Н
000 44													Н
802.11g CH 02													Н
2417MHz		2389.52	59.35	-14.65	74	56.34	27.05	7.45	31.49	345	155	Р	V
2417101112		2389.8	46.12	-7.88	54	43.11	27.05	7.45	31.49	345	155	Α	V
	*	2417	107.79	-	-	104.73	27.09	7.45	31.48	345	155	Р	V
	*	2417	97.98	-	-	94.92	27.09	7.45	31.48	345	155	Α	V
													V
													V

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			1	1		П		ı	1		ı	1	
		2389.8	56.97	-17.03	74	53.96	27.05	7.45	31.49	175	27	Р	Н
		2389.94	46.2	-7.8	54	43.19	27.05	7.45	31.49	175	27	Α	Н
	*	2437	111.19	-	-	108	27.18	7.49	31.48	175	27	Р	Н
	*	2437	101.37	-	-	98.18	27.18	7.49	31.48	175	27	Α	Н
		2485.02	56.81	-17.19	74	53.49	27.26	7.53	31.47	175	27	Р	Н
802.11g		2484.39	45.71	-8.29	54	42.39	27.26	7.53	31.47	175	27	Α	Н
CH 06 2437MHz		2385.32	55.37	-18.63	74	52.4	27.01	7.45	31.49	100	356	Р	٧
2437 WITIZ		2389.8	45.1	-8.9	54	42.09	27.05	7.45	31.49	100	356	Α	V
	*	2437	105.64	-	-	102.45	27.18	7.49	31.48	100	356	Р	V
	*	2437	96.68	-	-	93.49	27.18	7.49	31.48	100	356	Α	V
		2492.93	56.46	-17.54	74	53.09	27.3	7.53	31.46	100	356	Р	V
		2484.11	45.08	-8.92	54	41.76	27.26	7.53	31.47	100	356	Α	V
	*	2457	109.33	-	-	106.09	27.22	7.49	31.47	172	293	Р	Н
	*	2457	99.73	-	-	96.49	27.22	7.49	31.47	172	293	Α	Н
		2483.98	61.92	-12.08	74	58.6	27.26	7.53	31.47	172	293	Р	Н
		2483.56	50.36	-3.64	54	47.04	27.26	7.53	31.47	172	293	Α	Н
000 44													Н
802.11g CH 10													Н
2457MHz	*	2456	106.87	-	-	103.63	27.22	7.49	31.47	332	150	Р	٧
2437 WII 12	*	2456	96.78	-	-	93.54	27.22	7.49	31.47	332	150	Α	V
		2483.98	61.78	-12.22	74	58.46	27.26	7.53	31.47	332	150	Р	V
		2483.56	49.5	-4.5	54	46.18	27.26	7.53	31.47	332	150	Α	V
													٧
													V

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			_		,				,	1			
	*	2462	107.83	-	-	104.55	27.22	7.53	31.47	129	58	Р	Н
	*	2462	98.12	-	-	94.84	27.22	7.53	31.47	129	58	Α	Н
		2483.96	64.61	-9.39	74	61.29	27.26	7.53	31.47	129	58	Р	Н
		2483.56	51.5	-2.5	54	48.18	27.26	7.53	31.47	129	58	Α	Н
													Н
802.11g													Н
CH 11 2462MHz	*	2460	105.38	-	-	102.14	27.22	7.49	31.47	103	43	Р	V
	*	2460	95.87	-	-	92.63	27.22	7.49	31.47	103	43	Α	V
		2483.6	61.2	-12.8	74	57.88	27.26	7.53	31.47	103	43	Р	V
		2483.64	48.43	-5.57	54	45.11	27.26	7.53	31.47	103	43	Α	V
													V
													V
1	1. No	o other spurious	s found	•			•	•				•	
Remark		·		Daalea: -	A.,	.:4 li a							
	2. Al	I results are PA	.১১ against I	eak and	Average lin	nit iine.							

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## WIFI 802.11g (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	( dBµV/m )		( dBµV/m )	(dB <sub>µ</sub> V)	( dB/m )	( dB )	(dB)	( cm )		(P/A)	
		4824	37.58	-36.42	74	53.72	31.26	10.74	58.14	100	0	Р	Н
													Н
802.11g													Н
CH 01													Н
2412MHz		4824	37.73	-36.27	74	53.87	31.26	10.74	58.14	100	0	Р	V
24 I ZIVI MZ													V
													V
													V
		4872	38.54	-35.46	74	54.42	31.33	10.89	58.1	100	0	Р	Н
		7308	42.46	-31.54	74	51.3	36.07	14.18	59.09	100	0	Р	Н
802 11a													Н
802.11g													Н
CH 06		4872	39.47	-34.53	74	55.35	31.33	10.89	58.1	100	0	Р	V
2437MHz		7308	41.61	-32.39	74	50.45	36.07	14.18	59.09	100	0	Р	V
													V
													V
		4926	41.97	-32.03	74	57.59	31.4	11.04	58.06	100	0	Р	Н
		7386	50.44	-23.56	74	59	36.31	14.27	59.14	100	0	Р	Н
													Н
802.11g													Н
CH 11		4926	40.37	-33.63	74	55.99	31.4	11.04	58.06	100	0	Р	V
2462MHz		7386	50.72	-23.28	74	59.28	36.31	14.27	59.14	100	0	Р	V
													V
													V
			_	<u> </u>	<u> </u>		1			<u> </u>	<u> </u>		
Remark		other spurious											
	2. All	results are PA	SS against F	Peak and	Average lim	it line.							

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### **Emission below 1GHz**

## 2.4GHz WIFI 802.11g (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.		( <b>54</b> 11 )	( ID )(( )	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	(110)
2		( MHz ) 30.54	( dBµV/m ) 23.41	( <b>dB</b> )	( dBμV/m ) 40	(dBµV) 29.83	( dB/m ) 25.26	( <b>dB</b> ) 0.78	(dB) 32.46	( cm )	( deg )	( <b>P/A)</b>	( <b>H/V</b>
												Р	Н
		229.26	25.49	-20.51	46	39.39	16.63	1.83	32.36	-	-		
		285.96	24.98	-21.02	46	35.77	19.22	2.25	32.26	-	-	P	Н
		628.3	27.23	-18.77	46	30.28	25.74	3.61	32.4	-	-	Р	Н
		895	31.32	-14.68	46	29.6	28.87	4.45	31.6	-	-	Р	Н
		957.3	32.78	-13.22	46	28.89	30.21	4.75	31.07	100	48	Р	Н
													Н
													Н
													Н
													Н
.4GHz													Н
02.11g													Н
LF		32.97	29.66	-10.34	40	37.16	24.18	0.78	32.46	100	116	Р	V
		59.43	22.94	-17.06	40	42.5	12.11	0.78	32.45	-	-	Р	V
		229.8	22.33	-23.67	46	36.16	16.7	1.83	32.36	-	-	Р	V
		819.4	29.95	-16.05	46	29.78	28.11	4.14	32.08	-	-	Р	V
		876.8	31.12	-14.88	46	29.62	28.76	4.45	31.71	-	-	Р	V
		946.1	33.44	-12.56	46	29.67	30.19	4.75	31.17	-	-	Р	V
													V
													V
													V
													V
													V
													V

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## Note symbol

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*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not
	exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	Peak or Average
H/V	Horizontal or Vertical

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### A calculation example for radiated spurious emission is shown as below:

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WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	( dBµV/m )	(dB)	( dBµV/m )	(dBµV)	( dB/m )	(dB)	(dB)	( cm )	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	Р	Н
CH 01												-	
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	Α	Н

1. Level( $dB\mu V/m$ ) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBµV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

#### For Peak Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBµV) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 54.51(dB\mu V) 35.86 (dB)$
- $= 55.45 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level( $dB\mu V/m$ ) Limit Line( $dB\mu V/m$ )
- $= 55.45(dB\mu V/m) 74(dB\mu V/m)$
- = -18.55(dB)

### For Average Limit @ 2390MHz:

- 1. Level(dBµV/m)
- = Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dB $\mu$ V) Preamp Factor(dB)
- $= 32.22(dB/m) + 4.58(dB) + 42.6(dB\mu V) 35.86 (dB)$
- $= 43.54 (dB\mu V/m)$
- 2. Over Limit(dB)
- = Level( $dB\mu V/m$ ) Limit Line( $dB\mu V/m$ )
- $=43.54(dB\mu V/m) 54(dB\mu V/m)$
- = -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".

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