

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5457.940	61.8	-31.4	34.5	58.74	74.0	12.2	Н	155	22
5459.595	61.8	-31.4	34.5	58.69	74.0	12.2	Н	155	44
10997.950	58.7	-31.0	37.9	51.82	74.0	15.3	V	155	0
16500.150	52.8	-25.8	41.5	37.10	74.0	21.2	Н	155	0
17941.150	55.7	-25.3	41.4	39.58	74.0	18.3	V	155	22
17993.950	56.5	-25.0	41.4	40.05	74.0	17.5	Н	155	176

Channel 120

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5492.800	45.7	-31.6	34.5	42.80	74.0	28.3	Н	155	88
5693.200	46.5	-32.3	34.8	44.06	74.0	27.5	Н	155	22
11197.600	60.3	-30.4	38.0	52.74	74.0	13.7	V	155	220
16799.900	53.8	-25.9	41.7	38.08	74.0	20.2	V	155	242
16984.700	55.7	-25.9	41.8	39.79	74.0	18.3	V	155	44
17999.450	55.8	-24.9	41.4	39.33	74.0	18.2	٧	155	66

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5725.640	61.0	-32.8	34.8	58.91	74.0	13.0	Н	155	0
5727.400	60.7	-32.8	34.8	58.69	74.0	13.3	Н	155	22
11398.900	60.0	-30.7	38.1	52.51	74.0	14.0	Н	155	110
17100.200	52.2	-26.2	41.7	36.64	74.0	21.8	V	155	132
16501.250	55.4	-25.8	41.5	39.71	74.0	18.6	V	155	66
17495.650	55.6	-25.8	41.5	39.88	74.0	18.4	V	155	88



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Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5147.040	62.1	-32.2	34.2	60.19	74.0	11.9	Н	155	0
5148.030	62.5	-32.2	34.2	60.52	74.0	11.5	Н	155	44
10389.100	48.6	-31.0	37.6	41.94	74.0	25.4	V	155	88
15570.100	52.5	-25.8	40.4	37.99	74.0	21.5	V	155	44
17806.950	55.6	-26.0	41.4	40.20	74.0	18.4	V	155	66
17972.500	56.2	-25.1	41.4	39.90	74.0	17.8	Н	155	88

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5162.340	58.0	-32.1	34.2	55.92	74.0	16.0	Н	155	88
5306.040	59.5	-31.9	34.3	57.07	74.0	14.5	Н	155	22
10456.200	49.1	-30.9	37.7	42.36	74.0	24.9	V	155	220
15690.000	51.6	-25.9	40.5	36.96	74.0	22.4	V	155	242
17498.400	55.7	-25.7	41.5	39.93	74.0	18.3	V	155	44
17582.000	55.5	-25.4	41.5	39.43	74.0	18.5	V	155	66

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5219.200	55.9	-31.9	34.2	53.57	74.0	18.1	Н	155	22
5352.200	56.1	-31.6	34.4	53.40	74.0	17.9	Н	155	66
10551.900	50.9	-30.6	37.7	43.76	74.0	23.1	V	155	132
15809.900	52.1	-25.5	40.7	36.87	74.0	21.9	Н	155	0
16825.200	55.4	-25.9	41.7	39.65	74.0	18.6	V	155	88
17451.100	55.6	-25.9	41.5	39.95	74.0	18.4	V	155	242



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5351.365	66.3	-31.6	34.4	63.52	74.0	7.7	Н	155	264
5351.964	65.5	-31.6	34.4	62.72	74.0	8.5	Н	155	286
10619.000	51.2	-30.1	37.7	43.58	74.0	22.8	V	155	22
15929.800	51.6	-25.9	40.8	36.77	74.0	22.4	V	155	176
16646.450	55.4	-25.9	41.6	39.67	74.0	18.6	Н	155	198
17628.750	56.2	-25.2	41.5	39.90	74.0	17.8	Н	155	0

Channel 102

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5451.260	62.7	-31.3	34.5	59.60	74.0	11.3	Н	155	22
5459.255	63.9	-31.4	34.5	60.83	74.0	10.1	Н	155	44
11016.650	54.0	-31.0	37.9	47.06	74.0	20.0	Н	155	88
16529.850	52.1	-25.8	41.5	36.37	74.0	21.9	V	155	110
16940.700	55.6	-25.8	41.8	39.64	74.0	18.4	V	155	110
17573.750	55.4	-25.4	41.5	39.33	74.0	18.6	٧	155	88

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5403.400	45.0	-31.3	34.4	41.89	74.0	29.0	Н	155	88
5735.200	44.9	-32.8	34.8	42.84	74.0	29.1	Н	155	132
11194.850	54.6	-30.4	38.0	47.02	74.0	19.4	Н	155	0
16770.200	52.0	-26.0	41.7	36.31	74.0	22.0	V	155	66
17575.400	56.0	-25.4	41.5	39.89	74.0	18.0	V	155	44
17992.850	55.4	-25.0	41.4	38.97	74.0	18.6	Н	155	242



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5728.760	59.9	-32.8	34.8	57.93	74.0	14.1	Н	155	88
5743.160	59.0	-32.7	34.8	56.91	74.0	15.0	Н	155	66
11336.750	55.6	-30.6	38.1	48.10	74.0	18.4	Н	155	110
17010.000	53.9	-25.9	41.8	38.03	74.0	20.1	V	155	0
17463.200	55.4	-25.9	41.5	39.73	74.0	18.6	Н	155	22
17530.850	56.1	-25.6	41.5	40.22	74.0	17.9	Н	155	44

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Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5146.630	60.3	-32.2	34.2	58.35	74.0	13.7	Н	155	132
5148.905	60.8	-32.2	34.2	58.84	74.0	13.2	Н	155	154
10357.750	52.5	-30.9	37.6	45.84	74.0	21.5	V	155	88
15539.850	52.2	-25.7	40.3	37.61	74.0	21.8	Н	155	110
16963.800	55.6	-25.8	41.8	39.61	74.0	18.4	V	155	110
17639.750	55.4	-25.2	41.5	39.09	74.0	18.6	V	155	88

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5150.000	57.7	-32.2	34.2	55.70	74.0	16.3	Н	155	0
5253.460	59.4	-31.9	34.3	57.11	74.0	14.6	Н	155	22
10391.300	51.8	-31.0	37.6	45.12	74.0	22.2	Н	155	352
15599.800	51.3	-25.9	40.4	36.85	74.0	22.7	V	155	352
16943.450	55.9	-25.8	41.8	39.96	74.0	18.1	V	155	176
17408.750	55.7	-26.0	41.6	40.15	74.0	18.3	V	155	176



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5178.590	54.8	-31.9	34.2	52.52	74.0	19.2	V	155	88
5299.060	58.6	-31.9	34.3	56.20	74.0	15.4	Н	155	110
10489.750	51.1	-30.9	37.7	44.25	74.0	22.9	V	155	132
15720.250	51.4	-25.8	40.6	36.59	74.0	22.6	Н	155	154
17068.850	55.6	-26.1	41.8	39.94	74.0	18.4	V	155	176
17641.400	55.5	-25.2	41.5	39.21	74.0	18.5	V	155	198

Channel 52

	mammor oz								
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dΒμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5207.850	57.0	-31.9	34.2	54.70	74.0	17.0	V	155	88
5318.650	58.0	-31.8	34.3	55.43	74.0	16.0	Н	155	110
10517.250	51.7	-30.8	37.7	44.80	74.0	22.3	٧	155	132
15780.200	51.4	-25.6	40.6	36.31	74.0	22.6	Н	155	154
16580.450	55.5	-25.8	41.5	39.79	74.0	18.5	V	155	176
17960.400	56.0	-25.1	41.4	39.76	74.0	18.0	V	155	198

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5228.640	55.4	-31.9	34.2	53.09	74.0	18.6	V	155	176
5342.480	57.7	-31.7	34.3	55.09	74.0	16.3	Н	155	198
10553.550	54.1	-30.6	37.7	46.93	74.0	19.9	V	155	220
15840.150	52.7	-25.6	40.7	37.54	74.0	21.3	Н	155	198
16966.550	55.3	-25.8	41.8	39.38	74.0	18.7	Н	155	242
17246.500	55.9	-26.2	41.7	40.39	74.0	18.1	V	155	264



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5350.760	64.7	-31.6	34.4	61.99	74.0	9.3	V	155	44
5351.635	64.4	-31.6	34.4	61.62	74.0	9.6	Н	155	66
10650.350	52.5	-30.3	37.8	45.06	74.0	21.5	Н	155	88
15960.050	51.5	-26.1	40.9	36.71	74.0	22.5	V	155	110
17234.950	55.4	-26.2	41.7	39.91	74.0	18.6	V	155	132
17486.300	55.5	-25.8	41.5	39.75	74.0	18.5	Н	155	154

Channel 100

	mariner 100								
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dΒμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5457.335	60.8	-31.4	34.5	57.70	74.0	13.2	Н	155	0
5459.010	60.9	-31.4	34.5	57.86	74.0	13.1	Н	155	22
11005.100	59.5	-31.0	37.9	52.60	74.0	14.5	V	155	308
16500.150	54.0	-25.8	41.5	38.34	74.0	20.0	Н	155	44
17980.750	55.4	-25.0	41.4	39.06	74.0	18.6	V	155	66
17690.350	55.4	-25.5	41.5	39.43	74.0	18.6	Н	155	88

	711011101 120								
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5466.800	45.3	-31.4	34.5	42.26	74.0	28.7	Н	155	264
5723.200	44.1	-32.7	34.8	42.03	74.0	29.9	Н	155	132
11199.250	59.4	-30.4	38.0	51.81	74.0	14.6	Н	155	110
16799.900	52.5	-25.9	41.7	36.74	74.0	21.5	Н	155	44
17497.850	55.4	-25.7	41.5	39.59	74.0	18.6	Н	155	22
17567.700	55.7	-25.4	41.5	39.69	74.0	18.3	V	155	0



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5725.360	60.6	-32.8	34.8	58.58	74.0	13.4	Н	155	0
5729.800	60.4	-32.8	34.8	58.34	74.0	13.6	Н	155	22
11397.800	61.2	-30.7	38.1	53.78	74.0	12.8	V	155	352
17100.200	53.2	-26.2	41.7	37.65	74.0	20.8	V	155	352
17588.600	55.8	-25.4	41.5	39.65	74.0	18.2	V	155	176
17616.650	56.0	-25.2	41.5	39.80	74.0	18.0	V	155	176

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Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5137.740	61.6	-32.3	34.1	59.72	74.0	12.4	Н	155	0
5145.965	62.1	-32.2	34.2	60.19	74.0	11.9	Н	155	22
10384.150	48.9	-31.0	37.6	42.26	74.0	25.1	Н	155	110
15570.100	51.6	-25.8	40.4	37.04	74.0	22.4	V	155	132
17016.600	55.4	-26.0	41.8	39.54	74.0	18.6	V	155	66
17555.600	55.0	-25.5	41.5	38.98	74.0	19.0	V	155	88

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5178.200	60.7	-31.9	34.2	58.45	74.0	13.3	Н	155	44
5281.830	62.5	-31.9	34.3	60.09	74.0	11.5	Н	155	0
10451.250	49.0	-30.9	37.7	42.31	74.0	25.0	٧	155	308
15690.000	52.6	-25.9	40.5	38.03	74.0	21.4	Н	155	44
17475.300	55.0	-25.8	41.5	39.37	74.0	19.0	V	155	66
17944.450	55.9	-25.2	41.4	39.74	74.0	18.1	Н	155	88



Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5203.200	56.3	-31.9	34.2	53.98	74.0	17.7	Н	155	22
5358.240	58.3	-31.6	34.4	55.50	74.0	15.7	V	155	44
10536.500	49.6	-30.7	37.7	42.59	74.0	24.4	Н	155	0
15809.900	51.6	-25.5	40.7	36.36	74.0	22.4	Н	155	0
17927.950	55.4	-25.3	41.4	39.34	74.0	18.6	Н	155	22
17990.100	55.7	-25.0	41.4	39.30	74.0	18.3	Н	155	176

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5350.640	68.3	-31.6	34.4	65.60	74.0	5.7	V	155	176
5351.036	67.8	-31.6	34.4	65.07	74.0	6.2	Н	155	198
10616.250	50.8	-30.1	37.7	43.15	74.0	23.2	٧	155	220
15929.800	51.3	-25.9	40.8	36.39	74.0	22.7	Н	155	198
16942.900	55.9	-25.8	41.8	39.89	74.0	18.1	Н	155	242
17973.600	56.2	-25.1	41.4	39.86	74.0	17.8	٧	155	264

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5451.960	62.2	-31.3	34.5	59.03	74.0	11.8	Н	155	132
5458.890	63.4	-31.4	34.5	60.35	74.0	10.6	Н	155	154
11016.650	53.8	-31.0	37.9	46.93	74.0	20.2	Н	155	88
15994.700	55.3	-26.0	40.9	40.41	74.0	18.7	V	155	110
16529.850	52.7	-25.8	41.5	37.01	74.0	21.3	V	155	44
17013.300	55.2	-25.9	41.8	39.31	74.0	18.8	Н	155	0



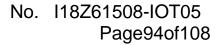
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5428.800	45.0	-31.3	34.4	41.90	74.0	29.0	Н	155	0
5737.000	45.1	-32.8	34.8	43.04	74.0	28.9	Н	155	44
11180.000	55.4	-30.4	38.0	47.81	74.0	18.6	V	155	22
16770.200	52.0	-26.0	41.7	36.32	74.0	22.0	Н	155	110
16900.550	55.4	-25.8	41.7	39.49	74.0	18.6	Н	155	88
17677.150	55.2	-25.4	41.5	39.14	74.0	18.8	Н	155	44

Channel 134

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5728.800	59.7	-32.8	34.8	57.69	74.0	14.3	Н	155	0
5736.120	58.6	-32.8	34.8	56.49	74.0	15.4	Н	155	22
11339.500	54.9	-30.6	38.1	47.48	74.0	19.1	Н	155	0
17010.000	53.9	-25.9	41.8	38.08	74.0	20.1	V	155	264
17392.250	55.3	-26.0	41.6	39.70	74.0	18.7	Н	155	264
17552.300	55.4	-25.5	41.5	39.41	74.0	18.6	Н	155	242

802.11ac-HT80

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5130.580	62.0	-32.4	34.1	57.41	74.0	12.1	Н	155	18
5146.975	61.7	-32.2	34.2	57.64	74.0	12.3	Н	155	56
10419.900	47.0	-31.0	37.6	54.60	74.0	27.0	Н	155	139
15630.050	51.5	-26.0	40.5	37.02	74.0	22.5	Н	155	108
16527.100	55.8	-25.8	41.5	39.66	74.0	18.2	Н	155	78
17601.800	55.9	-25.3	41.5	39.41	74.0	18.1	Н	155	36





Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dΒμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5351.770	66.0	-31.6	34.4	63.22	74.0	8.0	Н	155	268
5353.955	66.0	-31.6	34.4	63.26	74.0	8.0	Н	155	138
10579.950	47.8	-30.4	37.7	40.39	74.0	26.2	Н	155	104
15869.850	51.6	-25.7	40.7	36.59	74.0	22.4	Н	155	40
17034.200	55.5	-26.0	41.8	39.67	74.0	18.6	Н	155	28
17583.650	55.9	-25.4	41.5	39.79	74.0	18.1	Н	155	8

					1		1	1	
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5452.385	67.8	-31.3	34.5	64.65	74.0	6.2	Н	155	16
5459.295	67.4	-31.4	34.5	64.37	74.0	6.6	Н	155	48
11060.100	53.2	-30.9	37.9	46.10	74.0	20.8	Н	155	80
16286.200	55.4	-25.6	41.2	39.78	74.0	18.6	Н	155	8
16589.800	52.7	-25.8	41.6	36.95	74.0	21.3	Н	155	102
17949.950	56.0	-25.2	41.4	39.81	74.0	18.0	Н	155	118



A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage (V)	Frequency (Hz)
110	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is U =3.2dB, k=2.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (Conclusion	
(IVITIZ)	Ειιιιιι (ασμν)	11a mode	ldle	
0.15 to 0.5	66 to 56			
0.5 to 5	56	Fig. 69	Fig. 70	Р
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range	Average Limit	Result (With ch	Conclusion	
(MHz)	(dBμV)	11a mode	ldle	
0.15 to 0.5	56 to 46			
0.5 to 5	46	Fig. 69	Fig. 70	Р
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: PASS
Test graphs as below:



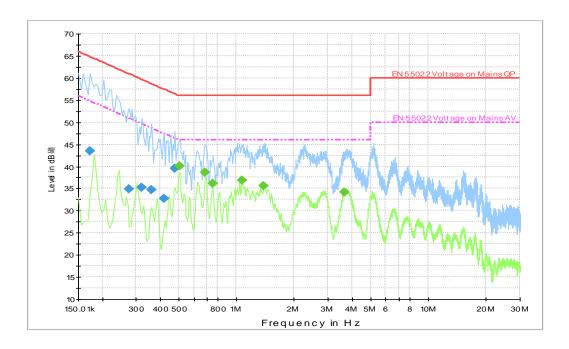


Fig. 69 Conducted Emission(802.11a, Ch40, TX)

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.172500	43.5	2000.	9.000	GND	N	10.4	21.4	64.8
0.276000	34.9	2000.	9.000	GND	N	10.4	26.0	60.9
0.321000	35.3	2000.	9.000	GND	N	10.4	24.4	59.7
0.361500	34.6	2000.	9.000	GND	N	10.4	24.0	58.7
0.420000	32.8	2000.	9.000	GND	L1	10.4	24.6	57.4
0.478500	39.5	2000.	9.000	GND	N	10.4	16.8	56.4

Final Result 2

Frequency	Average	Meas.	Bandwidth	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.505500	40.0	2000.	9.000	GND	N	10.4	6.0	46.0
0.690000	38.6	2000.	9.000	GND	N	10.5	7.4	46.0
0.753000	36.1	2000.	9.000	GND	N	10.5	9.9	46.0
1.072500	36.9	2000.	9.000	GND	N	10.4	9.1	46.0
1.392000	35.6	2000.	9.000	GND	N	10.5	10.4	46.0
3.642000	34.2	2000.	9.000	GND	N	10.6	11.8	46.0



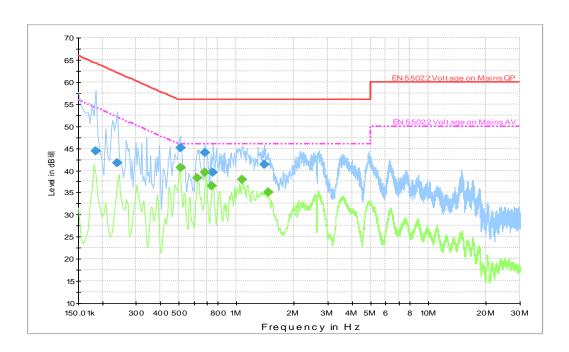


Fig. 70 Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.186000	44.4	2000.	9.000	GND	N	10.4	19.9	64.2
0.240000	41.7	2000.	9.000	GND	N	10.4	20.4	62.1
0.510000	45.0	2000.	9.000	GND	N	10.4	11.0	56.0
0.685500	44.1	2000.	9.000	GND	N	10.5	11.9	56.0
0.757500	39.6	2000.	9.000	GND	N	10.5	16.4	56.0
1.396500	41.4	2000.	9.000	GND	N	10.5	14.6	56.0

Final Result 2

<u> </u>	<u> </u>							
Frequency	Average	Meas.	Bandwidth	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time	(kHz)			(dB)	(dB)	(dBµV)
		(ms)						
0.510000	40.6	2000.	9.000	GND	N	10.4	5.4	46.0
0.627000	38.3	2000.	9.000	GND	N	10.4	7.7	46.0
0.690000	39.5	2000.	9.000	GND	N	10.5	6.5	46.0
0.748500	36.5	2000.	9.000	GND	N	10.5	9.5	46.0
1.072500	37.9	2000.	9.000	GND	N	10.4	8.1	46.0
1.464000	35.1	2000.	9.000	GND	N	10.5	10.9	46.0



A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Channel	99% Occupie (N	conclusion		
	5180 MHz	Fig. 71	16.92	Р	
802.11a	5200 MHz	Fig. 72	16.96	Р	
	5240 MHz	Fig. 73	16.96	Р	
802.11n HT20	5180 MHz	Fig. 74	18.16	Р	
	5200 MHz	Fig. 75	18.16	Р	
	5240 MHz	Fig. 76	18.20	Р	
802.11ac HT20	5180 MHz	Fig. 77	18.12	Р	
	5200 MHz	Fig. 78	18.16	Р	
	5240 MHz	Fig. 79	18.20	Р	
802.11n	5190 MHz	Fig. 80	36.32	Р	
HT40	5230 MHz	230 MHz Fig. 81 36.40		Р	
802.11ac	5190 MHz	Fig. 82	36.32	Р	



HT40	5230 MHz	Fig. 83	36.48	Р
802.11ac	5210 MHz	Fig. 94	76.00	D
HT80	52 TO WITZ	Fig. 84	76.00	۲

Conclusion: PASS
Test graphs as below:

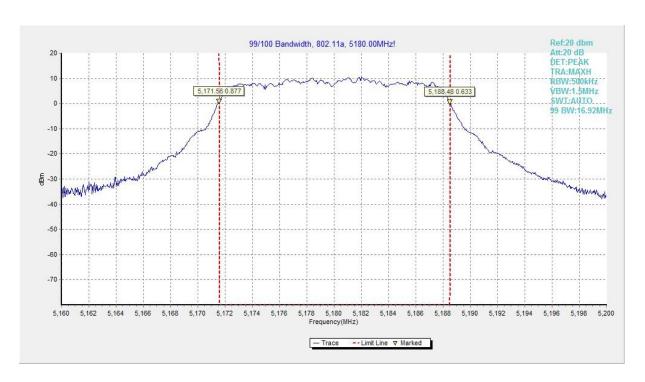


Fig. 71 99% Occupied bandwidth (802.11a, 5180MHz)



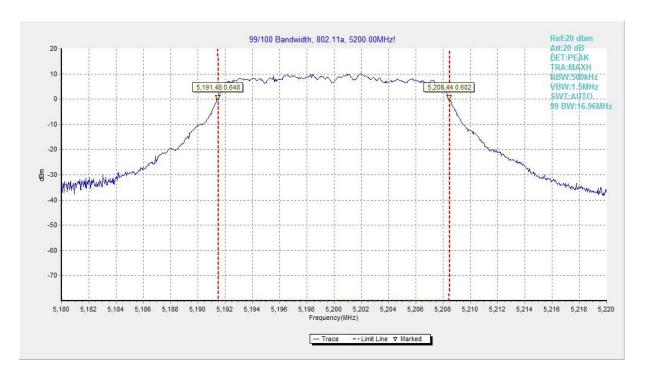


Fig. 72 99% Occupied bandwidth (802.11a, 5200MHz)

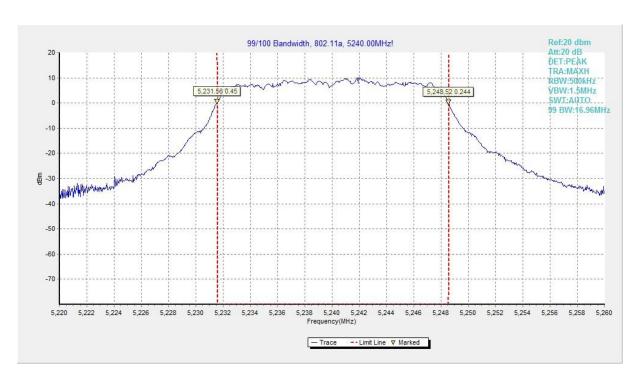


Fig. 73 99% Occupied bandwidth (802.11a, 5240MHz)



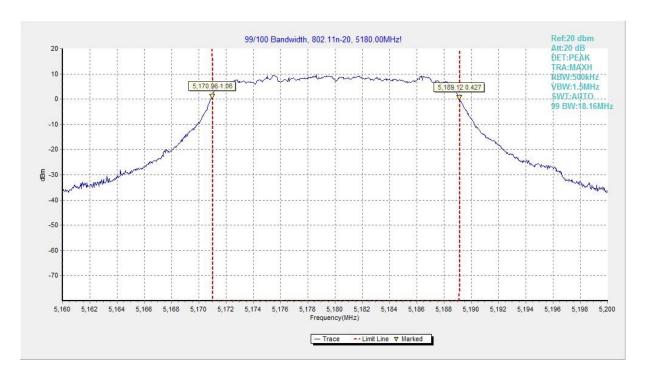


Fig. 74 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

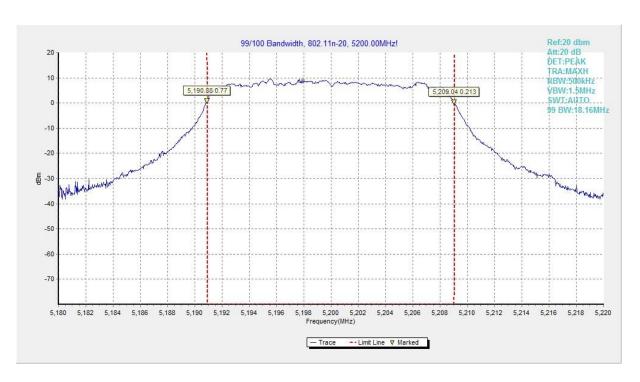


Fig. 75 99% Occupied bandwidth (802.11n-HT20, 5200MHz)



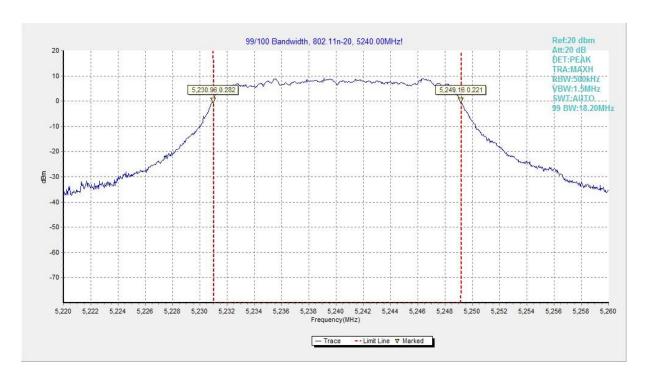


Fig. 76 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

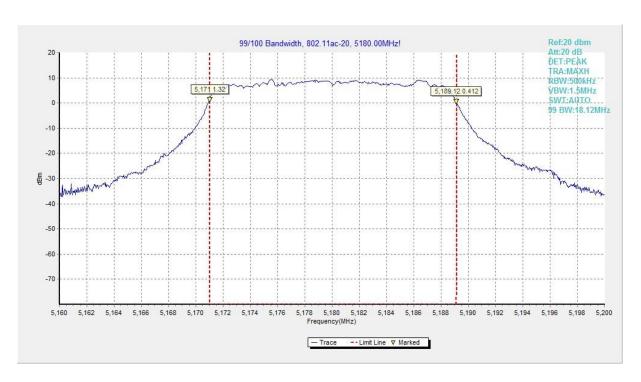


Fig. 77 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)



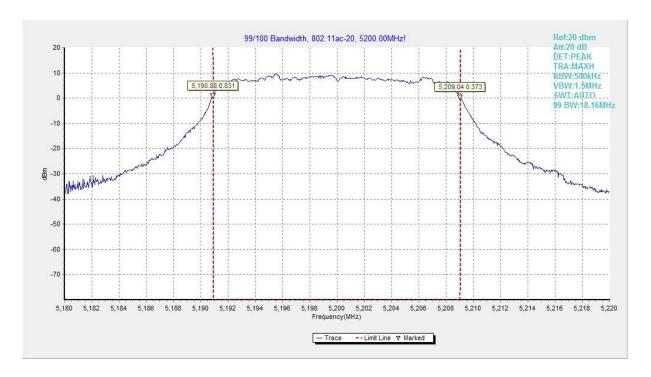


Fig. 78 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)

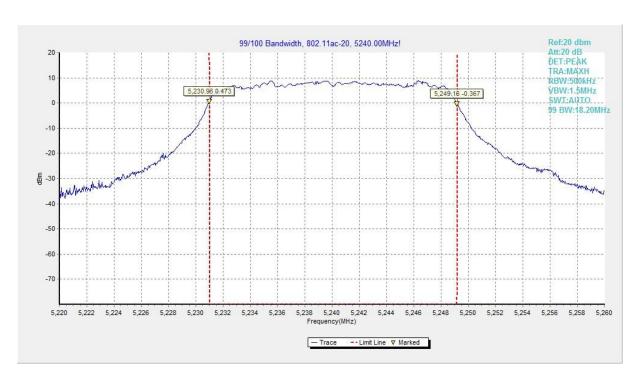


Fig. 79 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)



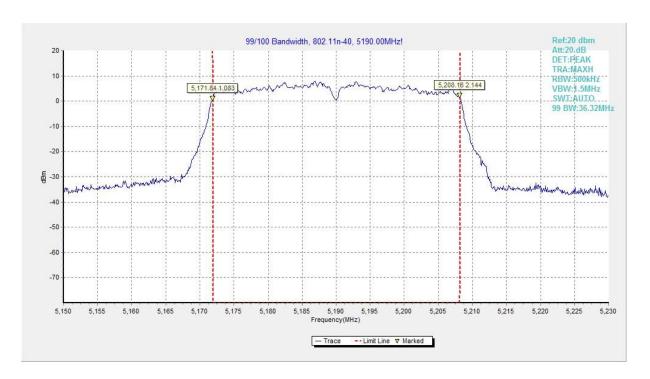


Fig. 80 99% Occupied bandwidth (802.11n-HT40, 5190MHz)

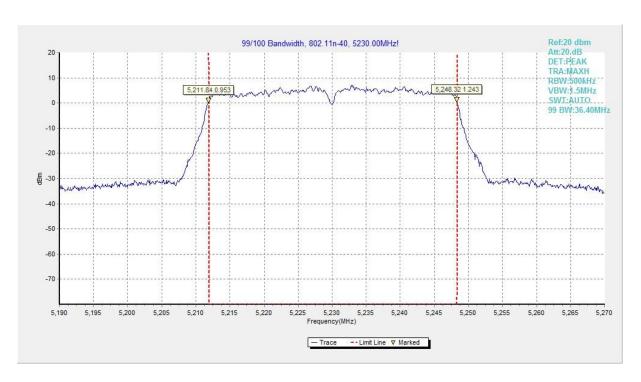


Fig. 81 99% Occupied bandwidth (802.11n-HT40, 5230MHz)



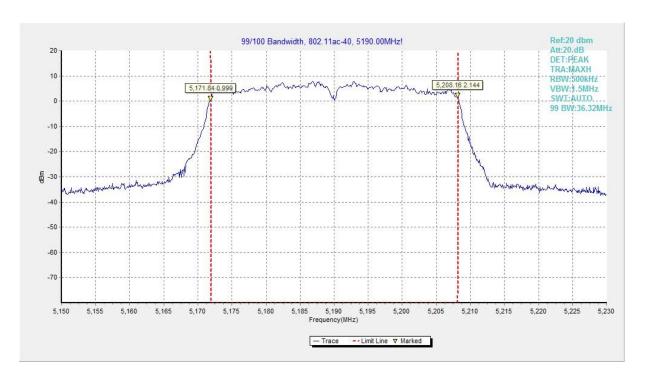


Fig. 82 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)

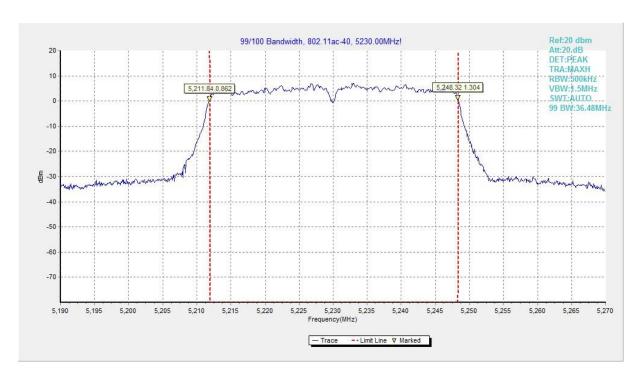


Fig. 83 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)



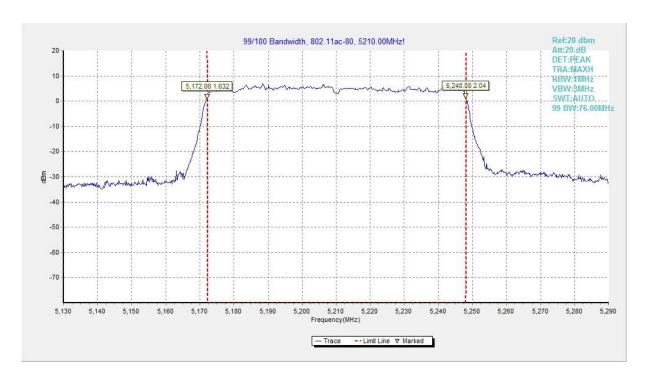


Fig. 84 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)



A.9. Frequency Stability

Manufacturers ensured the EUT meet the requirement of frequency stability, such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

Measurement Result:

Mode	Channel	Test Condition		Result(MHz)
802.11n-HT20	5200MHz	Tnom	Vnom	0.03
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11ac-HT80	5290MHz	Tnom	Vnom	0.04
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11ac-HT80	5530MHz	Tnom	Vnom	1.88
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	

A.10. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).



ANNEX B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT

Beijing China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-09-28 through 2019-09-30

Effective Date

For the National Voluntary Laboratory Accreditation Program

*** END OF REPORT BODY ***