As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit

Applicable to	**Limit**	
	Field strength at 3m (dBμV/m)	
V	PK	AV
	74	54
	EIRP Limit (dBm)	**Equivalent Field Strength at 3m (dBμV/m)**
	PK	PK
	-27	68.2

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: E = 1000000(√30P)/3 (μV/m), where P is the eirp (Watt)

11.3 Measuring instrument setting

Below 1GHz measurement

Receiver settings	
Receiver function	**Setting**
Detector	QP
RBW	9-150 kHz ; 200-300 Hz 0.15-30 MHz; 9-10 kHz 30-1000 MHz; 100-120 kHz
VBW	≧3 x RBW
Sweep	Auto couple
Attenuation	Auto

Above 1GHz measurement

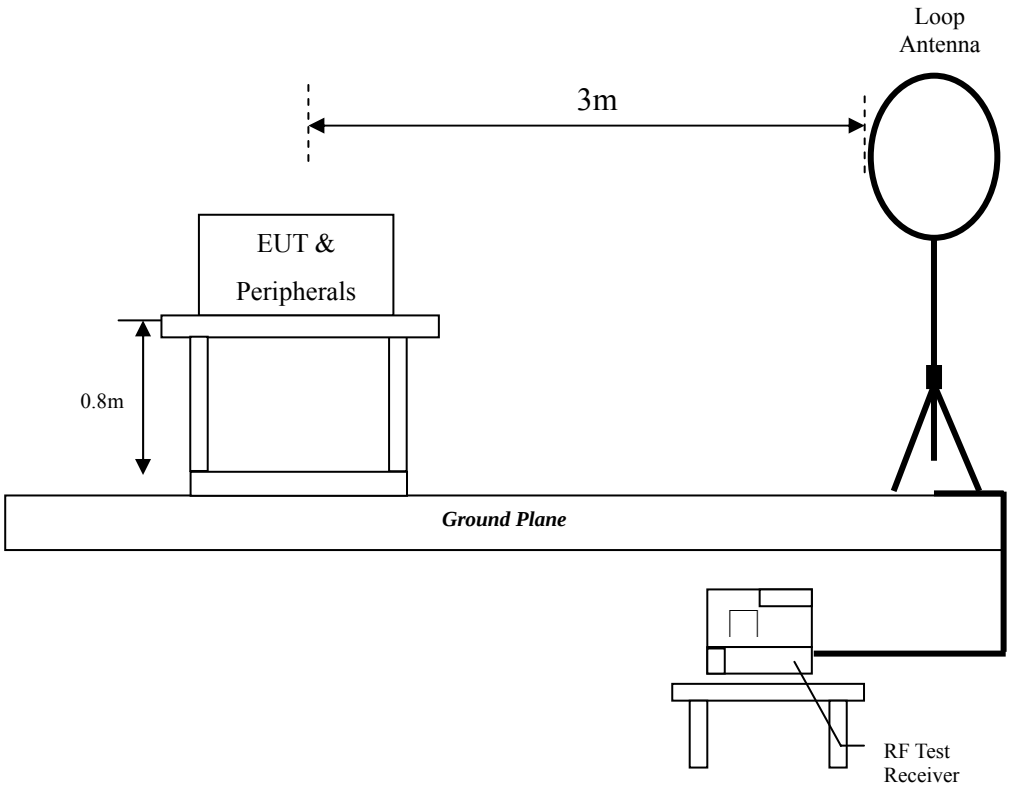
Spectrum analyzer settings	
Spectrum Analyzer function	**Setting**
Detector	Peak
RBW	1MHz
VBW	3MHz for Peak; 10Hz for Average
Sweep	Auto couple
Start Frequency	1GHz
Stop Frequency	Tenth harmonic
Attenuation	Auto

11.4 Test procedure

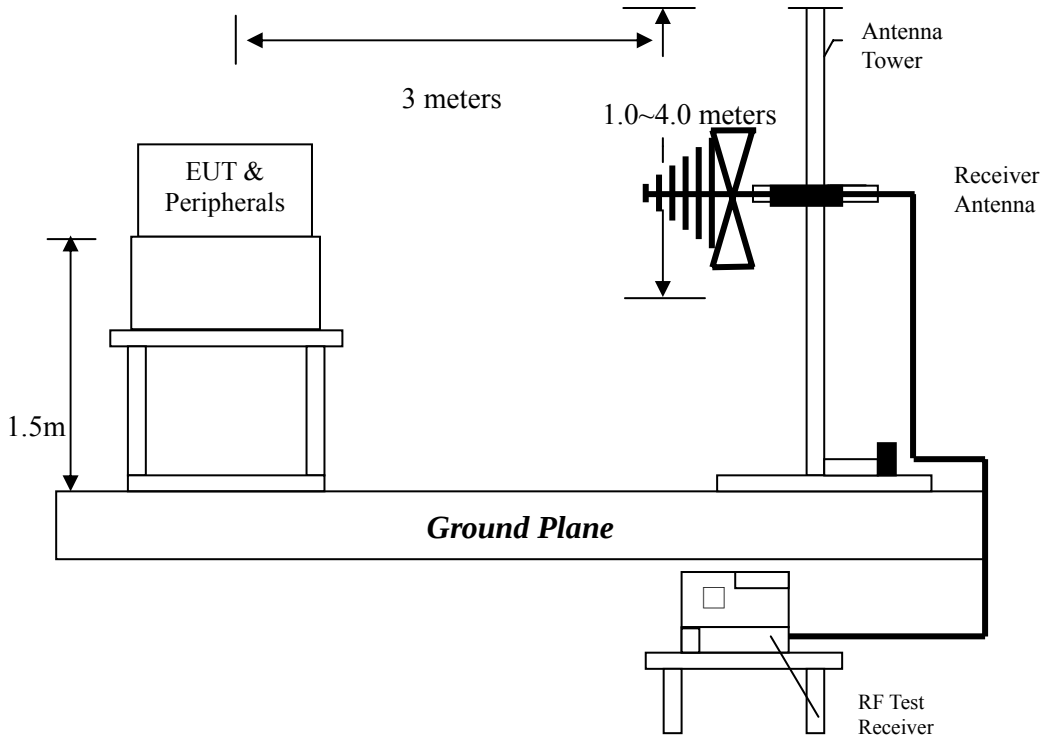
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground for above 1GHz and placed on the top of the turntable 0.8 meter above ground for below 1GHz. The center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the companion devices. The turntable was rotated by 360 degree to find the position of the maximum emission level.
3. The height of the receiving antenna was varied between one meter and four meters above ground to find the maximum emission field strength of the both horizontal and vertical polarization
4. If find the frequencies above the limit or below within 3dB, the antenna tower was scan (from 1m to 4m) and then the turntable was rotated to find the maximum reading.
5. Set the test-receiver system to peak or CISPR quasi-peak detector with specified bandwidth under maximum hold mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
   Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.
7. If the emissions level of the EUT in peak mode was 3dB lower than the average limit specified then testing will be stopped and peak values of the EUT will be reported. Otherwise, the emissions which do not have 3dB margin will be measured using the quasi-peak method for below 1GHz.
8. For testing above 1GHz, The emissions level of the EUT in peak mode was lower than average limit, then testing will be stopped and peak values of the EUT will be reported, otherwise, the emission will be measured in average mode again and reported.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be quasi-peak measured by receiver.

11.5 Test configuration

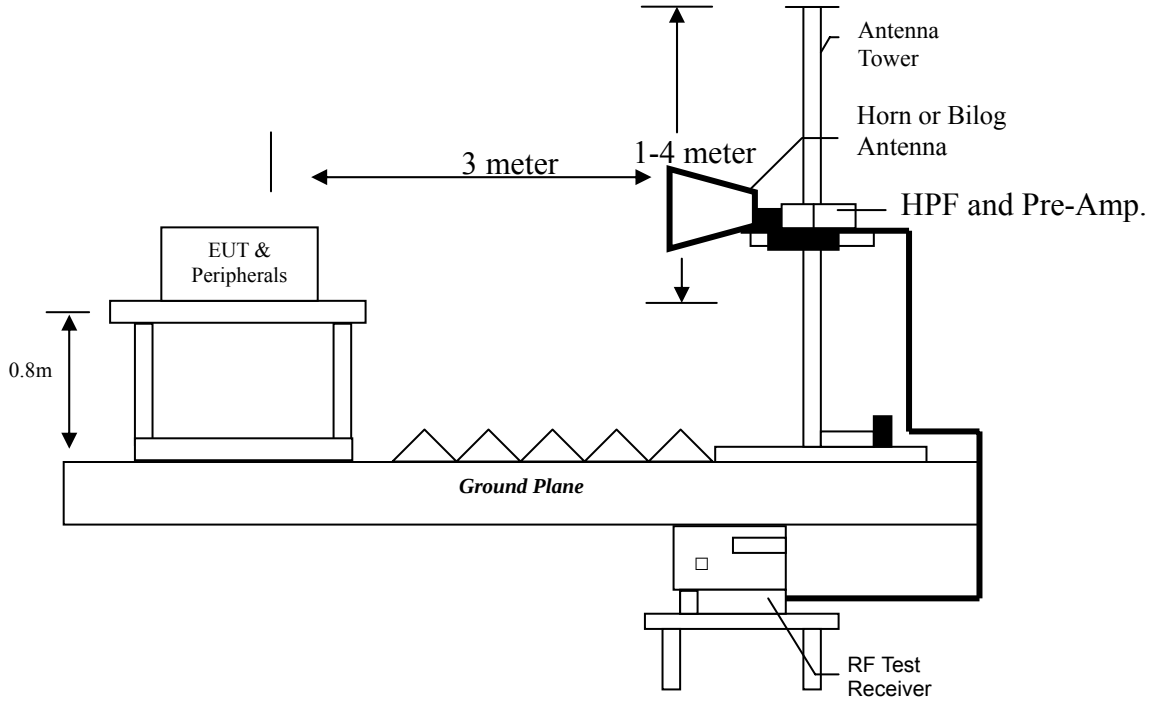
11.5.1 Radiated emission from 9 kHz to 30MHz using Loop Antenna



11.5.2 Radiated emission below 1GHz using Bilog Antenna



11.5.3 Radiated emission above 1GHz using Horn Antenna



11.6 Test results

11.6.1 Measurement results: frequencies from 9 kHz to 30MHz

EUT : G10
Test mode : 802.11n (HT20) Tx channel 40

Frequency (MHz)	Detection value	Factor (dB/m)	Reading (dBμV)	Value (dBμV/m)	Limit @ 3m (dBμV/m)	Tolerance (dB)
2.39	QP	21.41	36.55	57.96	69.54	-11.58
17.88	QP	22.22	25.22	47.44	69.54	-22.10
21.40	QP	22.19	19.11	41.30	69.54	-28.24
2.09	QP	21.39	33.43	54.82	69.54	-14.72
15.39	QP	22.25	23.95	46.20	69.54	-23.34
22.24	QP	22.19	16.90	39.09	69.54	-30.45

Remark: Corr. Factor = Antenna Factor + Cable Loss

11.6.2 Measurement results: frequencies from 30 MHz to 1GHz

The test was performed on EUT under 802.11a/n/ac continuously transmitting mode. The worst case occurred at 802.11a Tx channel 165.

EUT : G10
Worst Case : 802.11a Tx channel 165

Antenna Polariz. (V/H)	Freq. (MHz)	Receiver Detector	Corr. Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV/m)	Limit @ 3 m (dBuV/m)	Margin (dB)
Vertical	43.58	QP	16.71	19.40	36.11	40.00	-3.89
Vertical	61.04	QP	16.01	19.52	35.53	40.00	-4.47
Vertical	177.44	QP	15.19	20.32	35.51	43.50	-7.99
Vertical	316.15	QP	17.84	12.97	30.81	46.00	-15.19
Vertical	374.35	QP	19.31	16.41	35.72	46.00	-10.28
Vertical	624.61	QP	24.49	9.42	33.91	46.00	-12.09
Horizontal	177.44	QP	15.76	13.13	28.89	43.50	-14.61
Horizontal	249.22	QP	17.02	16.10	33.12	46.00	-12.88
Horizontal	351.07	QP	18.81	9.88	28.69	46.00	-17.31
Horizontal	374.35	QP	19.21	13.67	32.88	46.00	-13.12
Horizontal	624.61	QP	23.60	8.75	32.35	46.00	-13.65
Horizontal	835.10	QP	27.30	6.60	33.90	46.00	-12.10

Remark:

1. Corr. Factor = Antenna Factor + Cable Loss
2. Corrected Level = Reading + Corr. Factor

11.6.3 Measurement results: frequency above 1GHz to 40GHz

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a Channel_36 Chain0	10360	PK	V	38.95	12.23	49.79	62.02	74.00	-11.98
	10360	AV	V	38.95	12.23	40.69	52.92	54.00	-1.08
	15540	PK	V	38.21	15.50	55.11	70.61	74.00	-3.39
	15540	AV	V	38.21	15.50	37.07	52.57	54.00	-1.43
	10360	PK	H	38.95	12.23	43.16	55.39	74.00	-18.61
	10360	AV	H	38.95	12.23	35.42	47.65	54.00	-6.35
	15540	PK	H	38.21	15.50	48.17	63.67	74.00	-10.33
	15540	AV	H	38.21	15.50	35.19	50.69	54.00	-3.31
802.11a Channel_40 Chain0	10400	PK	V	38.97	12.36	51.62	63.98	74.00	-10.02
	10400	AV	V	38.97	12.36	39.78	52.14	54.00	-1.86
	15600	PK	V	38.17	15.34	51.06	66.40	74.00	-7.60
	15600	AV	V	38.17	15.34	36.03	51.37	54.00	-2.63
	10400	PK	H	38.97	12.36	46.83	59.19	74.00	-14.81
	10400	AV	H	38.97	12.36	37.01	49.37	54.00	-4.63
	15600	PK	H	38.17	15.34	46.38	61.72	74.00	-12.28
	15600	AV	H	38.17	15.34	35.03	50.37	54.00	-3.63
802.11a Channel_48 Chain0	10480	PK	V	39.03	12.62	52.14	64.76	74.00	-9.24
	10480	AV	V	39.03	12.62	40.62	53.24	54.00	-0.76
	15720	PK	V	38.08	15.03	47.85	62.88	74.00	-11.12
	15720	AV	V	38.08	15.03	34.98	50.01	54.00	-3.99
	10480	PK	H	39.03	12.62	46.96	59.58	74.00	-14.42
	10480	AV	H	39.03	12.62	36.60	49.22	54.00	-4.78
	15720	PK	H	38.08	15.03	46.50	61.53	74.00	-12.47
	15720	AV	H	38.08	15.03	34.55	49.58	54.00	-4.42
802.11a Channel_149 ; Chain0	11490	PK	V	39.01	14.46	48.65	63.11	74.00	-10.89
	11490	AV	V	39.01	14.46	37.37	51.83	54.00	-2.17
	7489	PK	H	37.88	8.82	41.01	49.83	74.00	-24.17
	11490	PK	H	39.01	14.46	45.66	60.12	74.00	-13.88
	11490	AV	H	39.01	14.46	34.39	48.85	54.00	-5.15

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a Channel_157 Chain0	11570	PK	V	38.98	14.33	51.77	66.10	74.00	-7.90
	11570	AV	V	38.98	14.33	38.26	52.59	54.00	-1.41
	7489	PK	H	37.88	8.82	41.52	50.34	74.00	-23.66
	11570	PK	H	38.98	14.33	44.76	59.09	74.00	-14.91
	11570	AV	H	38.98	14.33	37.60	51.93	54.00	-2.07
802.11a Channel_165 Chain0	11650	PK	V	38.94	14.16	50.84	65.00	74.00	-9.00
	11650	AV	V	38.94	14.16	39.21	53.37	54.00	-0.63
	11650	PK	H	38.94	14.16	43.73	57.89	74.00	-16.11
	11650	AV	H	38.94	14.16	32.97	47.13	54.00	-6.87
802.11a Channel_36 Chain1	10360	PK	V	38.95	12.23	51.53	63.76	74.00	-10.24
	10360	AV	V	38.95	12.23	38.46	50.69	54.00	-3.31
	10360	PK	H	38.95	12.23	44.58	56.81	74.00	-17.19
	10360	AV	H	38.95	12.23	35.66	47.89	54.00	-6.11
802.11a Channel_40 Chain1	10400	PK	V	38.97	12.36	49.38	61.74	74.00	-12.26
	10400	AV	V	38.97	12.36	38.66	51.02	54.00	-2.98
	10400	PK	H	38.97	12.36	47.28	59.64	74.00	-14.36
	10400	AV	H	38.97	12.36	37.01	49.37	54.00	-4.63
802.11a Channel_48 Chain1	10480	PK	V	39.03	12.62	51.72	64.34	74.00	-9.66
	10480	AV	V	39.03	12.62	40.49	53.11	54.00	-0.89
	10480	PK	H	39.03	12.62	46.18	58.80	74.00	-15.20
	10480	AV	H	39.03	12.62	35.93	48.55	54.00	-5.45
802.11a Channel_149 Chain1	11490	PK	V	39.01	14.46	45.90	60.36	74.00	-13.64
	11490	AV	V	39.01	14.46	35.12	49.58	54.00	-4.42
	11490	PK	H	39.01	14.46	42.12	56.58	74.00	-17.42
	11490	AV	H	39.01	14.46	32.68	47.14	54.00	-6.86

Remark: Correction Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a Channel_157 Chain1	11570	PK	V	38.98	14.33	48.52	62.85	74.00	-11.15
	11570	AV	V	38.98	14.33	36.29	50.62	54.00	-3.38
	11570	PK	H	38.98	14.33	43.46	57.79	74.00	-16.21
	11570	AV	H	38.98	14.33	32.93	47.26	54.00	-6.74
802.11a Channel_165 Chain1	11650	PK	V	38.94	14.16	52.95	67.11	74.00	-6.89
	11650	AV	V	38.94	14.16	38.67	52.83	54.00	-1.17
	11650	PK	H	38.94	14.16	44.62	58.78	74.00	-15.22
	11650	AV	H	38.94	14.16	33.17	47.33	54.00	-6.67
802.11a Channel_36 Chain2	10360	PK	V	38.95	12.23	50.62	62.85	74.00	-11.15
	10360	AV	V	38.95	12.23	39.11	51.34	54.00	-2.66
	10360	PK	H	38.95	12.23	44.68	56.91	74.00	-17.09
	10360	AV	H	38.95	12.23	35.10	47.33	54.00	-6.67
802.11a Channel_40 Chain2	10400	PK	V	38.97	12.36	50.32	62.68	74.00	-11.32
	10400	AV	V	38.97	12.36	39.81	52.17	54.00	-1.83
	10400	PK	H	38.97	12.36	44.95	57.31	74.00	-16.69
	10400	AV	H	38.97	12.36	34.90	47.26	54.00	-6.74
802.11a Channel_48 Chain2	10480	PK	V	39.03	12.62	48.47	61.09	74.00	-12.91
	10480	AV	V	39.03	12.62	38.82	51.44	54.00	-2.56
	10480	PK	H	39.03	12.62	44.45	57.07	74.00	-16.93
	10480	AV	H	39.03	12.62	34.39	47.01	54.00	-6.99
802.11a Channel_149 Chain2	11490	PK	V	39.01	14.46	49.04	63.50	74.00	-10.50
	11490	AV	V	39.01	14.46	33.91	48.37	54.00	-5.63
	11490	PK	H	39.01	14.46	45.07	59.53	74.00	-14.47
	11490	AV	H	39.01	14.46	32.65	47.11	54.00	-6.89

Remark1: Correction Factor =Antenna Factor+ Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a Channel_157 Chain2	11570	PK	V	38.98	14.33	49.97	64.30	74.00	-9.70
	11570	AV	V	38.98	14.33	35.24	49.57	54.00	-4.43
	11570	PK	H	38.98	14.33	46.44	60.77	74.00	-13.23
	11570	AV	H	38.98	14.33	33.19	47.52	54.00	-6.48
802.11a Channel_165 Chain2	11650	PK	V	38.94	14.16	52.62	66.78	74.00	-7.22
	11650	AV	V	38.94	14.16	38.99	53.15	54.00	-0.85
	11650	PK	H	38.94	14.16	45.45	59.61	74.00	-14.39
	11650	AV	H	38.94	14.16	34.36	48.52	54.00	-5.48
802.11a Channel_36 Chain3	10360	PK	V	38.95	12.23	45.83	58.06	74.00	-15.94
	10360	AV	V	38.95	12.23	35.90	48.13	54.00	-5.87
	10360	PK	H	38.95	12.23	43.80	56.03	74.00	-17.97
	10360	AV	H	38.95	12.23	35.03	47.26	54.00	-6.74
802.11a Channel_40 Chain3	10400	PK	V	38.97	12.36	47.59	59.95	74.00	-14.05
	10400	AV	V	38.97	12.36	37.51	49.87	54.00	-4.13
	10400	PK	H	38.97	12.36	45.11	57.47	74.00	-16.53
	10400	AV	H	38.97	12.36	34.90	47.26	54.00	-6.74
802.11a Channel_48 Chain3	10480	PK	V	39.03	12.62	47.70	60.32	74.00	-13.68
	10480	AV	V	39.03	12.62	37.85	50.47	54.00	-3.53
	10480	PK	H	39.03	12.62	43.99	56.61	74.00	-17.39
	10480	AV	H	39.03	12.62	34.46	47.08	54.00	-6.92
802.11a Channel_149 Chain3	11490	PK	V	39.01	14.46	48.31	62.77	74.00	-11.23
	11490	AV	V	39.01	14.46	35.12	49.58	54.00	-4.42
	11490	PK	H	39.01	14.46	46.82	61.28	74.00	-12.72
	11490	AV	H	39.01	14.46	33.33	47.79	54.00	-6.21

Remark1: Correction Factor =Antenna Factor+ Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11a Channel_157 Chain3	11570	PK	V	38.98	14.33	49.76	64.09	74.00	-9.91
	11570	AV	V	38.98	14.33	37.04	51.37	54.00	-2.63
	11570	PK	H	38.98	14.33	48.07	62.40	74.00	-11.60
	11570	AV	H	38.98	14.33	34.86	49.19	54.00	-4.81
802.11a Channel_165 Chain3	11650	PK	V	38.94	14.16	49.95	64.11	74.00	-9.89
	11650	AV	V	38.94	14.16	38.40	52.56	54.00	-1.44
	11650	PK	H	38.94	14.16	48.53	62.69	74.00	-11.31
	11650	AV	H	38.94	14.16	35.71	49.87	54.00	-4.13
802.11n(HT20) Channel_36	10360	PK	V	38.95	12.23	52.43	64.66	74.00	-9.34
	10360	AV	V	38.95	12.23	39.70	51.93	54.00	-2.07
	10360	PK	H	38.95	12.23	45.45	57.68	74.00	-16.32
	10360	AV	H	38.95	12.23	34.83	47.06	54.00	-6.94
802.11n(HT20) Channel_40	10400	PK	V	38.97	12.36	53.06	65.42	74.00	-8.58
	10400	AV	V	38.97	12.36	40.51	52.87	54.00	-1.13
	10400	PK	H	38.97	12.36	46.52	58.88	74.00	-15.12
	10400	AV	H	38.97	12.36	35.26	47.62	54.00	-6.38
802.11n(HT20) Channel_48	10480	PK	V	39.03	12.62	53.12	65.74	74.00	-8.26
	10480	AV	V	39.03	12.62	40.56	53.18	54.00	-0.82
	10480	PK	V	39.03	12.62	47.33	59.95	74.00	-14.05
	10480	AV	V	39.03	12.62	35.26	47.88	54.00	-6.12
802.11n(HT20) Channel_149	11490	PK	V	39.01	14.46	52.63	67.09	74.00	-6.91
	11490	AV	V	39.01	14.46	38.31	52.77	54.00	-1.23
	11490	PK	H	39.01	14.46	48.23	62.69	74.00	-11.31
	11490	AV	H	39.01	14.46	32.79	47.25	54.00	-6.75
802.11n(HT20) Channel_157	11570	PK	V	38.98	14.33	54.00	68.33	74.00	-5.67
	11570	AV	V	38.98	14.33	38.52	52.85	54.00	-1.15
	11570	PK	H	38.98	14.33	51.21	65.54	74.00	-8.46
	11570	AV	H	38.98	14.33	34.17	48.50	54.00	-5.50

Remark1: Correction Factor =Antenna Factor+ Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

Mode	Frequency (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Preamp. Gain (dB)	Correction Factor (dB/m)	Reading (dBμV)	Corrected Reading (dBμV/m)	Limit @ 3 m (dBμV/m)	Margin (dB)
802.11n(HT20) Channel_165	11650	PK	V	38.94	14.16	53.25	67.41	74.00	-6.59
	11650	AV	V	38.94	14.16	39.20	53.36	54.00	-0.64
	11650	PK	H	38.94	14.16	49.28	63.44	74.00	-10.56
	11650	AV	H	38.94	14.16	33.15	47.31	54.00	-6.69
802.11n(HT40) Channel_38	10380	PK	V	38.96	12.29	44.42	56.71	74.00	-17.29
	10380	AV	V	38.96	12.29	34.06	46.35	54.00	-7.65
	10380	PK	H	38.96	12.29	42.27	54.56	74.00	-19.44
	10380	AV	H	38.96	12.29	33.80	46.09	54.00	-7.91
802.11n(HT40) Channel_46	10460	PK	V	39.01	12.56	43.69	56.25	74.00	-17.75
	10460	AV	V	39.01	12.56	33.81	46.37	54.00	-7.63
	10460	PK	H	39.01	12.56	41.32	53.88	74.00	-20.12
	10460	AV	H	39.01	12.56	31.71	44.27	54.00	-9.73
802.11n(HT40) Channel_151	11510	PK	V	39.01	14.46	50.94	65.40	74.00	-8.60
	11510	AV	V	39.01	14.46	38.13	52.59	54.00	-1.41
	11510	PK	H	39.01	14.46	48.86	63.32	74.00	-10.68
	11510	AV	H	39.01	14.46	35.18	49.64	54.00	-4.36
802.11n(HT40) Channel_159	11590	PK	V	38.97	14.29	51.74	66.03	74.00	-7.97
	11590	AV	V	38.97	14.29	38.91	53.20	54.00	-0.80
	11590	PK	H	38.97	14.29	47.25	61.54	74.00	-12.46
	11590	AV	H	38.97	14.29	34.26	48.55	54.00	-5.45
802.11n(VHT80) Channel_42	10420	PK	V	38.99	12.43	42.05	54.48	74.00	-19.52
	10420	AV	V	38.99	12.43	34.30	46.73	54.00	-7.27
	10420	PK	H	38.99	12.43	51.01	63.44	74.00	-10.56
	10420	AV	H	38.99	12.43	34.88	47.31	54.00	-6.69
802.11n(VHT80) Channel_155	11550	PK	V	38.99	14.37	51.61	65.98	74.00	-8.02
	11550	AV	V	38.99	14.37	37.60	51.97	54.00	-2.03
	11550	PK	H	38.99	14.37	47.87	62.24	74.00	-11.76
	11550	AV	H	38.99	14.37	34.74	49.11	54.00	-4.89

Remark1: Correction Factor =Antenna Factor+ Cable Loss + High Pass Filter Loss - Pre_Amplifier Gain

12. Emission on The Band Edge

12.1 Operating environment

Temperature:	25	℃
Relative Humidity:	50	%
Atmospheric Pressure	1008	hPa
Requirement	15.407(b), 15.209	
Channel	36, 38, 42, 46, 48 149,157,165,151, 159, 155	

12.2 Measuring instrument setting

Spectrum analyzer settings	
Spectrum Analyzer function	**Setting**
Detector	Peak
RBW	1MHz
VBW	3MHz for Peak; 10Hz for Average
Sweep	Auto couple
Restrict bands	4500~5150MHz
	5350 ~5460MHz
Attenuation	Auto

Applicable to	**Limit**	
	EIRP Limit (dBm)	**Equivalent Field Strength at 3m (dBμV/m)**
5715-5725MHz 5850-5860MHz	AV	AV
	-17	78.2

12.3 Test procedure

The test procedure is the same as clause 6.4

12.4 Test Result

Mode	Freq	Spectrum Analyzer	Ant. Pol.	Corr. Factor	Reading	Corr. Value	Limit @ 3 m	Margin	Restricted band
	(MHz)	Detector	(H/V)	(dB/m)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)	(MHz)
802.11a	5150.00	PK	V	39.72	22.91	62.63	74	-11.37	4500~5150
	5150.00	AV	V	39.76	9.04	48.80	54	-5.20	
	5448.12	PK	V	40.73	19.63	60.36	74	-13.64	5350~5460
	5375.73	AV	V	40.79	7.72	48.51	54	-5.49	
802.11an (HT20)	5150.00	PK	H	39.75	23.47	63.22	74	-10.78	4500~5150
	5150.00	AV	H	39.76	9.14	48.90	54	-5.10	
	5356.45	PK	H	40.77	18.51	59.28	74	-14.72	5350~5460
	5446.53	AV	H	40.80	7.32	48.12	54	-5.88	
802.11an (HT40)	5150.00	PK	V	40.24	26.87	67.11	74	-6.89	4500~5150
	5150.00	AV	V	39.76	9.09	48.85	54	-5.15	
	5447.32	PK	V	40.65	18.72	59.37	74	-14.63	5350~5460
	5446.70	AV	V	40.80	7.39	48.19	54	-5.81	
802.11ac (VHT80)	5150.00	PK	V	40.26	26.69	66.95	74	-7.05	4500~5150
	5150.00	AV	V	39.76	8.95	48.71	54	-5.29	
	5400.91	PK	V	40.80	19.56	60.36	74	-13.64	5350~5460
	5446.70	AV	V	40.80	7.39	48.19	54	-5.81	

Remark: Corr. Factor = Antenna Factor + Cable Loss

Mode	Freq. (MHz)	Spectrum Analyzer Detector	Ant. Pol. (H/V)	Correction Factor (dB/m)	Reading (dBµV)	Corrected Reading (dBµV/m)	Limit @ 3 m (dBµV/m)	Margin (dB)	Restricted band (MHz)
802.11a 5745MHz Chain 0	5725.00	AV	V	41.05	8.76	49.81	78.2	-28.39	5715~5725
	5851.80	AV	V	41.14	6.08	47.22	78.2	-30.98	5850~5860
802.11a 5785MHz Chain 0	5718.68	AV	V	41.04	5.97	47.01	78.2	-31.19	5715~5725
	5855.87	AV	V	41.14	6.33	47.47	78.2	-30.73	5850~5860
802.11a 5825MHz Chain 0	5722.67	AV	V	41.05	6.05	47.10	78.2	-31.10	5715~5725
	5850.00	AV	V	41.14	6.83	47.96	78.2	-30.24	5850~5860
802.11a 5745MHz Chain 1	5725.00	AV	V	41.05	6.65	47.70	78.2	-30.50	5715~5725
	5857.07	AV	V	41.14	5.84	46.98	78.2	-31.22	5850~5860
802.11a 5785MHz Chain 1	5718.89	AV	V	41.04	5.77	46.81	78.2	-31.39	5715~5725
	5853.95	AV	V	41.14	5.88	47.02	78.2	-31.18	5850~5860
802.11a 5825MHz Chain 1	5722.80	AV	V	41.05	5.95	47.00	78.2	-31.20	5715~5725
	5850.00	AV	V	41.14	6.12	47.25	78.2	-30.95	5850~5860
802.11a 5745MHz Chain 2	5725.00	AV	V	41.05	12.58	53.63	78.2	-24.57	5715~5725
	5856.59	AV	V	41.14	6.08	47.22	78.2	-30.98	5850~5860
802.11a 5785MHz Chain 2	5722.46	AV	V	41.05	6.63	47.68	78.2	-30.52	5715~5725
	5854.07	AV	V	41.14	6.17	47.31	78.2	-30.89	5850~5860
802.11a 5825MHz Chain 2	5718.40	AV	V	41.04	6.20	47.24	78.2	-30.96	5715~5725
	5850.00	AV	V	41.14	7.96	49.09	78.2	-29.11	5850~5860
802.11a 5745MHz Chain 3	5725.00	AV	V	41.05	8.83	49.88	78.2	-28.32	5715~5725
	5851.44	AV	V	41.14	6.09	47.23	78.2	-30.97	5850~5860
802.11a 5785MHz Chain 3	5722.74	AV	V	41.05	6.15	47.20	78.2	-31.00	5715~5725
	5856.11	AV	V	41.14	6.15	47.29	78.2	-30.91	5850~5860
802.11a 5825MHz Chain 3	5721.90	AV	V	41.05	6.01	47.06	78.2	-31.14	5715~5725
	5850.00	AV	V	41.14	7.89	49.02	78.2	-29.18	5850~5860
802.11n (HT20) 5745MHz	5725.00	AV	V	41.05	10.86	51.91	78.2	-26.29	5715~5725
	5860.00	AV	V	41.14	6.03	47.17	78.2	-31.03	5850~5860
802.11n (HT20) 5785MHz	5725.00	AV	V	41.05	5.96	47.01	78.2	-31.19	5715~5725
	5860.00	AV	V	41.14	6.01	47.15	78.2	-31.05	5850~5860
802.11n (HT20) 5825MHz	5725.00	AV	V	41.05	5.91	46.96	78.2	-31.24	5715~5725
	5850.00	AV	V	41.14	6.87	48.00	78.2	-30.20	5850~5860
802.11n (HT40) 5755MHz	5725.00	AV	V	41.05	13.13	54.18	78.2	-24.02	5715~5725
	5860.00	AV	V	41.14	6.07	47.21	78.2	-30.99	5850~5860
802.11n (HT40) 5795MHz	5725.00	AV	V	41.05	6.58	47.63	78.2	-30.57	5715~5725
	5860.00	AV	V	41.14	6.57	47.71	78.2	-30.49	5850~5860
802.11ac (VHT80) 5775MHz	5725.00	AV	V	41.05	12.51	53.56	78.2	-24.64	5715~5725
	5860.00	AV	V	41.14	7.25	48.39	78.2	-29.81	5850~5860

13. Power Line Conducted Emission

13.1 Operating environment

Temperature:	20	℃
Relative Humidity:	55	%
Atmospheric Pressure	1008	hPa
Requirement	15.207	

13.2 Limit for AC power line conducted emission

Freq. (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56*	56 – 46*
0.50~5.00	56	46
5.00~30.0	60	50

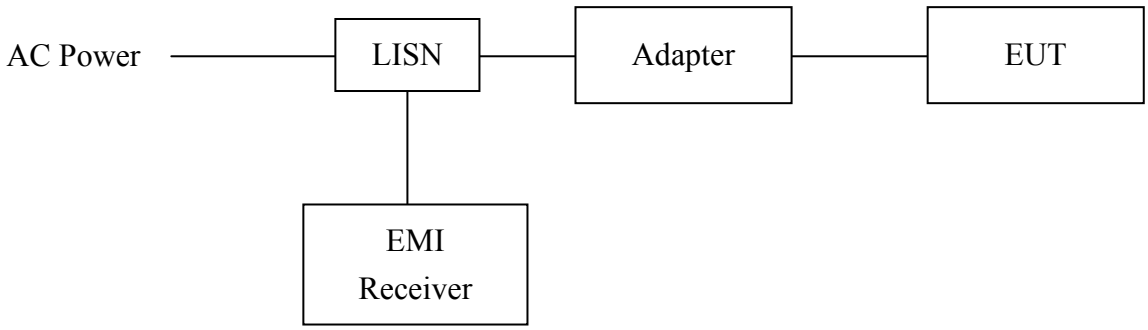
13.3 Measuring instrument setting

Receiver settings	
Receiver function	**Setting**
Detector	QP
Start frequency	0.15MHz
Stop frequency	30MHz
IF bandwidth	9 kHz
Attenuation	10dB

13.4 Test procedure

1. Configure the EUT according to ANSI C63.10. The EUT or host of EHT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network.
3. All the companion devices are connected to the other LISN. The LISN should provide 50Uh/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30MHz was searched
5. Set the test-receiver system to peak detector and specified bandwidth with maximum hold mode.
6. The measurement has to be done between each power line and ground at the power terminal.

13.5 Test diagram



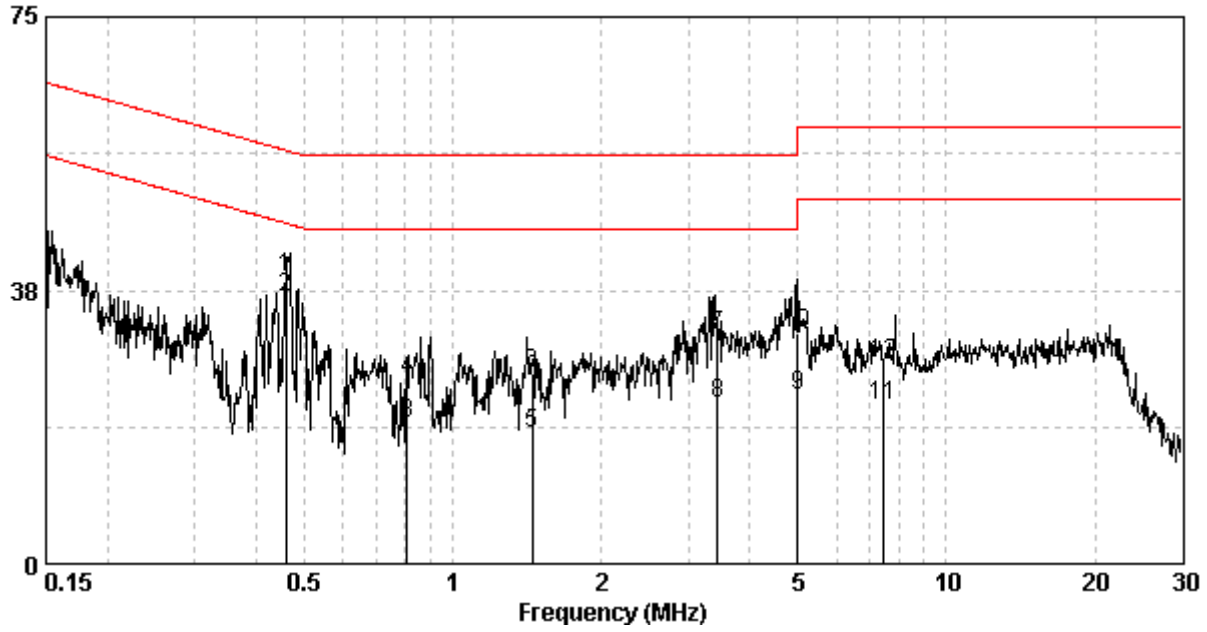
Note: The EUT was tested while in normal communication mode.

13.6 Test results

Phase	: Line
EUT	: G10
Test Condition	: Normal communication mode

Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level AV (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Av
0.459	9.73	39.29	56.71	36.64	46.71	-17.42	-10.08
0.810	9.81	25.25	56.00	19.17	46.00	-30.75	-26.83
1.450	9.85	26.10	56.00	17.89	46.00	-29.90	-28.11
3.440	9.86	31.27	56.00	22.00	46.00	-24.73	-24.00
4.990	9.87	31.70	56.00	22.98	46.00	-24.30	-23.02
7.450	9.89	27.36	60.00	21.80	50.00	-32.64	-28.20

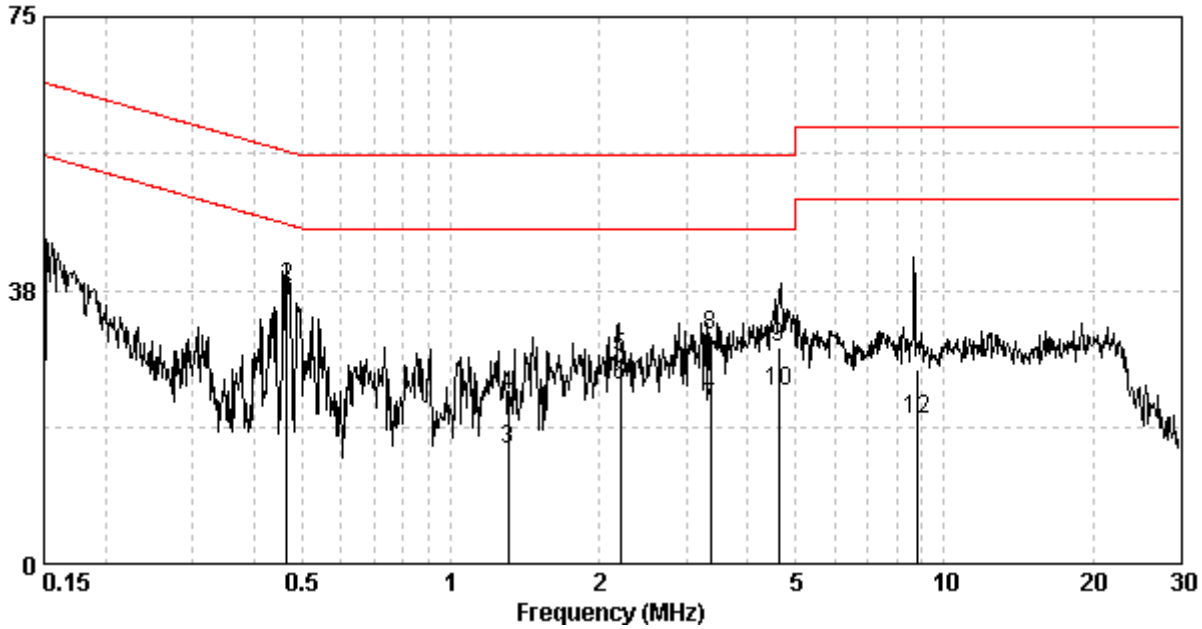
Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Over Limit (dB) = Level (dBuV) – Limit (dBuV)



Phase	: Neutral
EUT	: G10
Test Condition	: Normal communication mode

Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level AV (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Av
0.466	9.73	37.78	56.58	35.20	46.58	-18.81	-11.39
1.310	9.84	23.14	56.00	15.61	46.00	-32.86	-30.39
2.210	9.85	28.28	56.00	24.41	46.00	-27.72	-21.59
3.360	9.86	31.32	56.00	21.42	46.00	-24.68	-24.58
4.610	9.87	29.64	56.00	23.72	46.00	-26.36	-22.28
8.790	9.92	26.61	60.00	19.87	50.00	-33.39	-30.13

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Over Limit (dB) = Level (dBuV) – Limit (dBuV)



Appendix A: Test equipment list

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
ESCI EMI Test Receiver	Rohde & Schwarz	ESCI	100018	2014/12/02	2015/12/01
Spectrum Analyzer	Rohde & Schwarz	FSP30	100137	2015/01/27	2016/01/26
Horn Antenna (1-18G)	Schwarzbeck	BBHA 9120 D	9120D-456	2014/08/29	2017/08/27
Horn Antenna (14-42G)	SHWARZBECK	BBHA 9170	BBHA9170159	2014/09/16	2017/09/14
Broadband Antenna	Schwarzbeck	VULB 9168	9168-172	2013/08/08	2016/08/06
Loop Antenna	RolfHeine	LA-285	02/10033	2014/03/18	2016/03/16
Pre-Amplifier	MITEQ	JS4-26004000--27-8A	828825	2014/09/15	2015/09/14
EMI Test Receiver	Rohde & Schwarz	ESR-7	101232	2014/12/1	2015/11/30
Power Meter	Anritsu	ML2495A	0844001	2014/11/12	2015/11/11
Power Senor	Anritsu	MA2411B	0738452	2014/11/12	2015/11/11
Two-Line V-Network	Rohde & Schwarz	ESH3-Z5	838979/014	2014/10/05	2015/10/04
Signal Analyzer	Agilent	N9030A	MY51380492	2014/09/19	2015/09/18
966-2(A) Cable 9kHz~26.5GHz	SUHNER	SMA / EX 100	N/A	2015/05/06	2016/05/05
966-2(B) Cable 9kHz~26.5GHz	JUNFLON	SMA / J12J100880-00	AUG-26-08-002	2015/05/06	2016/05/05
966-2(A) Cable 9kHz~26.5GHz	SUHNER	SMA / EX 100	N/A	2015/05/06	2016/05/05
966-2(B) Cable 9kHz~26.5GHz	JUNFLON	SMA / J12J100880-00	AUG-26-08-002	2015/05/06	2016/05/05
RF Cable 9kHz~26.5GHz	SUHNER	SUCOFLEX 102	CB0006	2015/05/06	2016/05/04
RF Cable 9kHz~26.5GHz	SUHNER	SUCOFLEX 102	CB0006	2015/05/06	2016/05/05
966-2_3m Semi-Anechoic Chamber	966_2	CEM-966_2	N/A	2015/02/24	2016/02/23
Brand		Software		Version	
ADT		Radiated test system		7.5.14	
Audix		e3		4.2004-1-12k	

Appendix B: Measurement Uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of *k*=2.

Item	Uncertainty
Vertically polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	5.15 dB
Horizontally polarized radiated disturbances from 30MHz~1GHz in a semi-anechoic chamber at a distance of 3m	5.23 dB
Vertically polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	4.19 dB
Horizontally polarized Radiated disturbances from 1GHz~18GHz in a semi-anechoic chamber at a distance of 3m	4.3 dB
Vertically polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	4.19 dB
Horizontally polarized Radiated disturbances from 18GHz~40GHz in a semi-anechoic chamber at a distance of 3m	4.3 dB
Conducted Output power	0.86 dB
Radiated electromagnetic disturbances in the frequency range from 9kHz to 30MHz	2.92 dB
Conducted disturbance measurements at a mains port from 9 kHz to 30 MHz using a 50 Ω/50 μH +5Ω artificial mains network (AMN)	2.5 dB