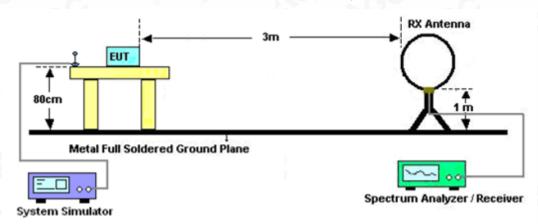
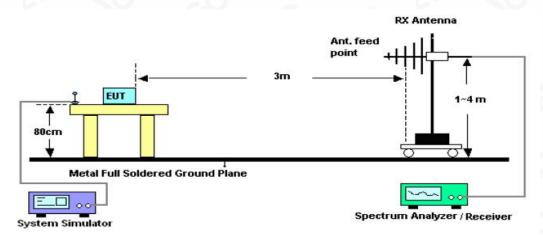


11.2. TEST SETUP

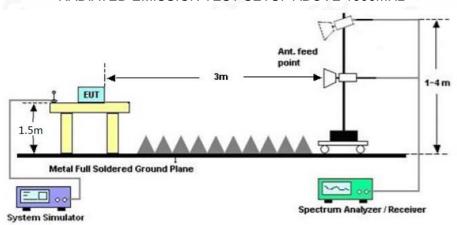
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz





Report No.: AGC10625210902FE05

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11.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

11.4. TEST RESULT

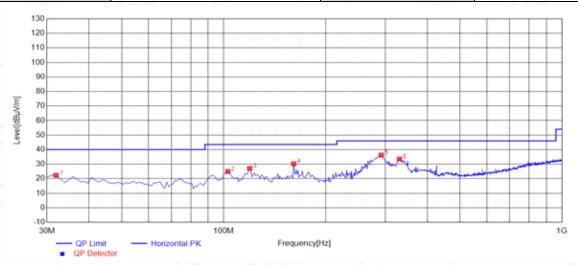
Radiated emission below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.



Radiated emission from 30MHz to 1000MHz

EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHz	Antenna	Horizontal



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.9419	22.33	10.19	40.00	17.67	100	150	Horizontal
2	102.8228	24.93	11.67	43.50	18.57	100	175	Horizontal
3	119.3293	27.01	13.40	43.50	16.49	100	18	Horizontal
4	161.0811	30.24	14.83	43.50	13.26	100	150	Horizontal
5	292.1622	36.24	15.33	46.00	9.76	100	74	Horizontal
6	331.0010	33.53	15.51	46.00	12.47	100	137	Horizontal

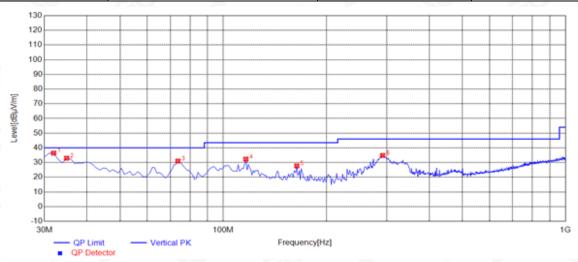
RESULT: PASS

/Inspection The test results

he test report.



EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHz	Antenna	Vertical

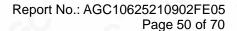


NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.9419	36.41	10.19	40.00	3.59	100	121	Vertical
2	34.8549	32.95	10.70	40.00	7.05	100	109	Vertical
3	73.6937	30.99	8.46	40.00	9.01	100	134	Vertical
4	116.4164	32.30	13.10	43.50	11.20	100	331	Vertical
5	163.9940	27.75	14.54	43.50	15.75	100	90	Vertical
6	292.1622	34.81	15.33	46.00	11.19	100	103	Vertical

RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Limit-Level.

- 2. The "Factor" value can be calculated automatically by software of measurement system.
- 3. All test modes had been pre-tested. The 802.11b at low channel is the worst case and recorded in the report.





Radiated emission above 1GHz

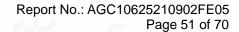
EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHz	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4824.000	54.64	0.08	54.72	74	-19.28	peak
4824.000	45.21	0.08	45.29	54	-8.71	AVG
7236.000	49.36	2.21	51.57	74	-22.43	peak
7236.000	40.27	2.21	42.48	54	-11.52	AVG
	0		· · · · · · · · · · · · · · · · · · ·			C.C
emark:		10	20	8		
ctor = Anter	nna Factor + Cabl	e Loss – Pre-	amplifier.			®

EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHz	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4824.000	55.26	0.08	55.34	74	-18.66	peak
4824.000	45.34	0.08	45.42	54	-8.58	AVG
7236.000	51.12	2.21	53.33	74	-20.67	peak
7236.000	40.84	2.21	43.05	54	-10.95	AVG
		8				©
		- 0	(8)			- 0

Factor = Antenna Factor + Cable Loss - Pre-amplifier.



g/Inspection
The test results
the test report.



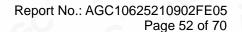
EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHz	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4874.000	56.33	0.14	56.47	74	-17.53	peak
4874.000	45.94	0.14	46.08	54	-7.92	AVG
7311.000	51.05	2.36	53.41	74	-20.59	peak
7311.000	40.29	2.36	42.65	54	-11.35	AVG
emark:	<u>.</u> C	0		NOC.		0

EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHz	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4874.000	55.34	0.14	55.48	74	-18.52	peak
4874.000	46.18	0.14	46.32	54	-7.68	AVG
7311.000	50.23	2.36	52.59	74	-21.41	peak
7311.000	40.35	2.36	42.71	54	-11.29	AVG
26	0		0	y C		8
Remark:	~ C) -		(0)			
Factor = Anter	nna Factor + Cable	Loss – Pre-a	mplifier.			

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EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHz	Antenna	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4924.000	54.31	0.22	54.53	74	-19.47	peak
4924.000	43.23	0.22	43.45	54	-10.55	AVG
7386.000	49.29	2.64	51.93	74	-22.07	peak
7386.000	40.07	2.64	42.71	54	-11.29	AVG
8				8		
G	(8)				(8)	
emark:		8			<i>a.</i> C	8
actor = Anter	nna Factor + Cable	Loss - Pre-	amplifier.			

EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHz	Antenna	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin 💮	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4924.000	56.11	0.22	56.33	74	-17.67	peak
4924.000	45.14	0.22	45.36	54	-8.64	AVG
7386.000	51.09	2.64	53.73	74	-20.27	peak
7386.000	42.34	2.64	44.98	54	-9.02	AVG
	- G-	2.0	⊗			-,0
emark:			-C	(8)		
	nna Factor + Cable	Loss - Pre-a	mplifier	G	(8)	

Note:

The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin=Level-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

All test modes had been pre-tested. The 802.11b mode is the worst case and recorded in the report.

The test results

the test report.



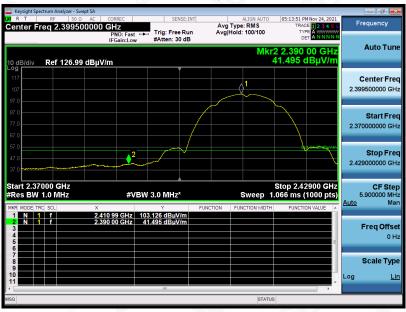
Test result for band edge emission at restricted bands

EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: PASS



EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



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EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement





EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement





EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



g/Inspection
The test results
the test report.



EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: PASS



EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement





EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement





EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n20 with data rate 6.5 2412MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



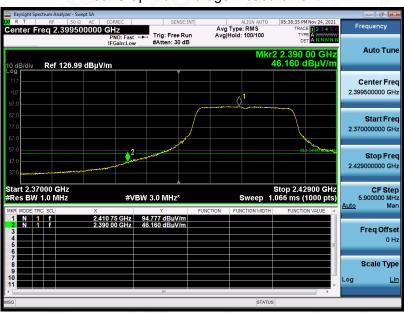


EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n20 with data rate 6.5 2412MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



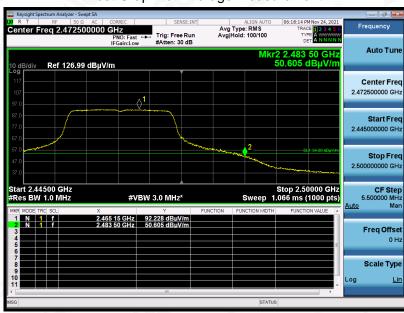


EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n20 with data rate 6.5 2462MHz	Antenna	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement





EUT	Outdoor Smart Dimmer plug	Model Name	WP11
Temperature	25°C	Relative Humidity	60%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n20 with data rate 6.5 2462MHz	Antenna	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement





12. LINE CONDUCTED EMISSION TEST

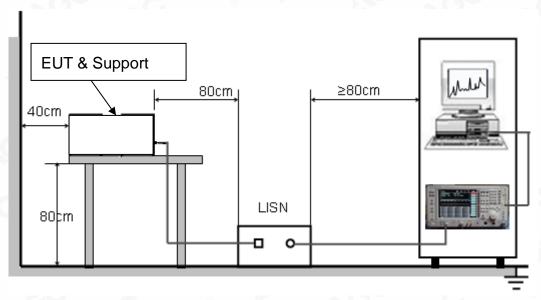
12.1. LIMITS OF LINE CONDUCTED EMISSION TEST

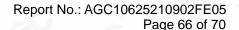
Fraguenov	Maximum RF Line Voltage			
Frequency	Q.P (dBµV)	Average (dBµV)		
150kHz~500kHz	66-56	56-46		
500kHz~5MHz	56	46		
5MHz~30MHz	60	50		

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

12.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST







12.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 Ohm load; the second scan had Line 1 connected to a 50 Ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

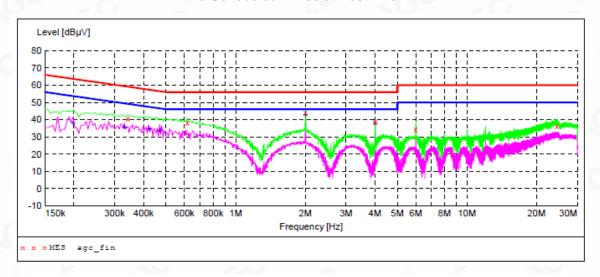
12.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case was reported on the Summary Data page.



12.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Line Conducted Emission Test Line 1-L



MEASUREMENT RESULT: "agc_fin"

2021/10/29 21 Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line
0.342000 0.618000 2.002000 4.006000 6.006000 24.490000	40.80 38.10 44.10 38.70 34.50 36.40	5.9 5.4 6.5 6.5 6.6 9.1	59 56 56 56 60	11.9	QP QP QP	L1 L1 L1 L1 L1 L1

MEASUREMENT RESULT: "agc_fin2"

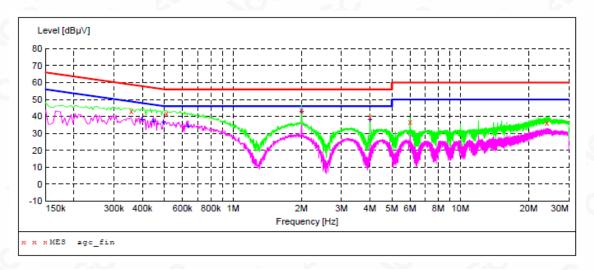
2021/10/29 21:31

2021/10/29 21:	21					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.198000	38.40	6.6	54	15.3	AV	L1
0.330000	35.90	5.9	50	13.6	AV	L1
0.422000	34.80	5.6	47	12.6	AV	L1
0.470000	34.10	5.5	47	12.4	AV	L1
2.002000	43.00	6.5	46	3.0	AV	L1
4.006000	38.20	6.5	46	7.8	AV	L1

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Line Conducted Emission Test Line 2-N



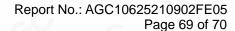
MEASUREMENT RESULT: "agc_fin"

2021/10/29 2: Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line
0.358000	43.10	5.8	59	15.7	QP	N
0.510000	41.70	5.4	56	14.3	QP	N
2.002000	43.40	6.5	56	12.6	QP	N
4.006000	39.60	6.5	56	16.4	QP	N
6.010000	36.70	6.6	60	23.3	QP	N
24.034000	36.40	9.1	60	23.6	QP	N

MEASUREMENT RESULT: "agc fin2"

2021/10/29 21:41 Frequency Level Transd Limit Margin Detector Line dΒμV dΒ dΒμV 0.398000 38.00 5.7 48 9.9 ΑV Ν 0.446000 37.50 5.5 47 Ν ΑV 0.494000 36.70 5.4 46 Ν ΑV 34.50 5.4 0.634000 46 Ν ΑV 6.5 2.002000 43.00 46 3.0 ΑV Ν 4.006000 38.30

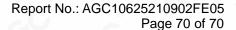
RESULT: PASS





APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Refer to the Report No.: AGC10625210902AP01





APPENDIX B: PHOTOGRAPHS OF EUT

Refer to the Report No.: AGC10625210902AP02

----END OF REPORT----



Conditions of Issuance of Test Reports

- 1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
- 2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
- 9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.