

Report No.: AGC07308171201FE05

Page 51 of 76

11. RADIATED EMISSION

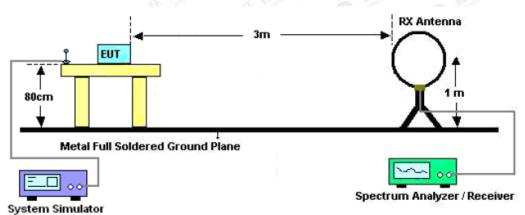
11.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase 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 supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. 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. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

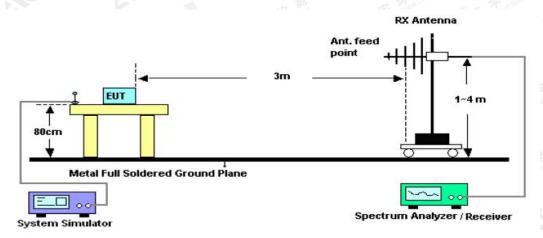


11.2. TEST SETUP

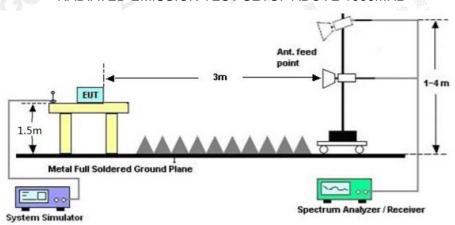
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz





Report No.: AGC07308171201FE05

Page 53 of 76

11.3. LIMITS AND MEASUREMENT RESULT

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

Frequencies (MHz)	Field Strength (micorvolts/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	The state of the s
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

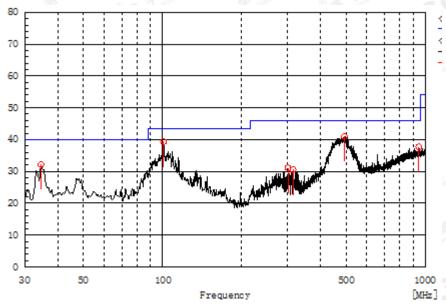
RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.



RADIATED EMISSION BELOW 1GHZ

EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



Frequency., MHz.,	Polarization.	Reading. dB(uV).	Factor., dB., (1/m).,	Level. dB(uV/m). PK.,	Limit., dB(uV/m)., QP.,	Margin., dB.,	Pass/Fail.	Height.	Angle. deg.	*
34.365.,	Н.,	16.0.,	16.1.,	32.1.1	40.0.,	7.9.,	Pass.	150.0.1	274.2.,	4
100.810.,	Н.,	25.9.,	13.5.,	39.4.,	43.5.,	4.1.5	Pass.	150.0.1	17.6.,	4
300.145.,	H.,	13.7.,	17.4.,	31.1.	46.0.,	14.9.,	Pass.	100.0.,	240.5.1	4
313.725.,	Н.,	12.9.,	17.7.,	30.6.,	46.0.,	15.4.	Pass.	100.0.1	265.2.1	4
492.205.,	H.,	18.2.,	22.8.,	41.0.,	46.0.,	5.0.,	Pass.	150.0.1	268.0.1	4.00
946.650.,	Н.,	7.1.,	30.6.,	37.7.,	46.0.,	8.3.,	Pass.	150.0.	249.0.	4

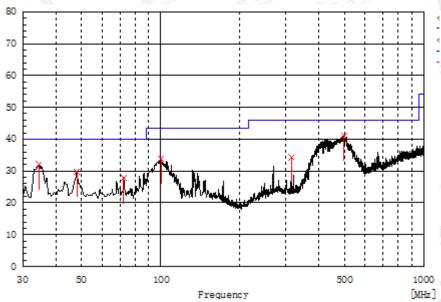
RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at attp://www.agc.gett.com.

Attestation of Global Compliance



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



_		- M 10"									_
	Frequency., MHz.,	Polarization.	Reading. dB(<u>uV</u>).	Factor., dB., (1/m).,	Level., dB(uV/m)., PK.,	Limit., dB(uV/m)., QP.,	Margin dB.,	Pass/Fail.	Height.	Angle., deg.,	4
3	34.365.,	V .,	15.9.,	16.1.,	32.0.,	40.0.,	8.0.,	Pass.	150.0.1	107.3.	4
	47.945.,	V.,	12.6.,	17.2.,	29.8.1	40.0.,	10.2.1	Pass.	150.0.1	335.9.,	4
	72.195.,	V .1	14.0.,	13.8.,	27.8.,	40.0.1	12.2.1	Pass.	200.0.1	143.2.,	4
	100.325.,	V.,	20.4.,	13.4.,	33.8.,	43.5.,	9.7.,	Pass.	200.0.1	48.8.,	4
- TAN	313.725.,	V .,	16.6.	17.7.,	34.3.,	46.0.,	11.7.	Pass.	100.0.,	356.8.,	4 . 6
	497.540.,	V .,	18.3.,	22.8.,	41.1.5	46.0.,	4.9.,	Pass.	200.0.1	202.7.1	4

RESULT: PASS

Note:

- 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.
- 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.



Report No.: AGC07308171201FE05

Page 56 of 76

RADIATED EMISSION ABOVE 1GHZ

EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal

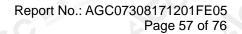
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type
4824.052	48.45	3.72	52.17	74	-21.83	peak
4824.104	42.22	3.72	45.94	54	-8.06	AVG
7236.119	43.37	8.15	51.52	74	-22.48	peak
7236.053	38.42	8.15	46.57	54	-7.43	AVG
Attestation	® Mestation C.	Allestan				litze
					7 7	War Marce
Remark:			llin:	T.	Complian	* * Slopal Con
actor = Ante	enna Factor + Ca	able Loss – I	Pre-amplifier.	® # Jion of Glon	(e) 1	ion of the
	410	254 7779	100			

EUT	MULTIMEDIA NAVIGATION		Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical

	To The Table	The state of the s	7 7 010	est valion		
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4824.048	47.71	3.72	51.43	74	-22.57	peak
4824.038	41.52	3.72	45.24	54	-8.76	AVG
7236.090	43.46	8.15	51.61	74	-22.39	peak
7236.041	37.19	8.15	45.34	54	-8.66	AVG
in the co	Copy (C)	Aller allon of Gib	AC NO	60		
Remark:	100°				125L	300
actor = Ante	enna Factor + Ca	ıble Loss – I	Pre-amplifier.	TA Compliance	Thomas Com	Alles'
	•	-(()))	- W	967 1 1/0		

The results shown this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by KGE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.agc.gett.com.

Attestation of Global Compliance





		N ZN . Co	The state of the s
EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
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
4874.056	49.53	3.75	53.28	74	-20.72	peak
4874.042	45.84	3.75	49.59	54	-4.41	AVG
7311.055	43.64	8.16	51.8	74	-22.2	peak
7311.079	38.37	8.16	46.53	54	-7.47	AVG
Attestation	(B) Westation of	Allesten				llin
					THE STATE OF	Wil Mance
Remark:			llin:	私	Complian	E Slopal Com
actor = Ante	enna Factor + Ca	able Loss – I	Pre-amplifier.	® # ion of Glov	(E) ### (B) #### (B) ### (B) #	iono
				2000 100		

EUT MULTIMEDIA NAVIGAT		Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
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
4874.035	48.52	3.75	52.27	74	-21.73	peak
4874.071	43.46	3.75	47.21	54	-6.79	AVG
7311.035	44.34	8.16	52.5	74	-21.5	peak
7311.064	38.27	8.16	46.43	54	-7.57	AVG
impliance ®	and the second second	Attestation .				
emark:	1.GO			1427 man.c.	不恒	TA pliance ® 45kg
actor = Ante	enna Factor + Ca	able Loss – I	Pre-amplifier.	The Comp	Global Global	Alle

The results shown this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by KGC, this document to annot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at attp://www.agc.gett.com.

Attestation of Global Compliance



Report No.: AGC07308171201FE05

Page 58 of 76

EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
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
4924.112	49.52	3.81	53.33	74	-20.67	peak
4924.078	45.64	3.81	49.45	54	-4.55	AVG
7386.084	44.59	8.19	52.78	74	-21.22	peak
7386.077	38.41	8.19	46.6	54	-7.4	AVG
亚亚	Company TK No.	3	Calop Court	statu	Alle	
® Allon of Car	® # Hion of Glov	(B) Wittestation of				
Remark:	Alless	- ()			lin:	
actor = Ante	enna Factor + Ca	ble Loss – F	Pre-amplifier.	1	KI diance	The Compilar

EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical

Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
48.72	3.81	52.53	74	-21.47	peak
44.59	3.81	48.4	54	-5.6	AVG
43.66	8.19	51.85	74	-22.15	peak
38.53	8.19	46.72	54	-7.28	AVG
The Manual Manage	I In Compile	® Example Gov	(C) ###	on of	
ol Glopa, ©	ation of Co	Alles			
enna Factor + Ca	ble Loss - I	Pre-amplifier.	LILE:		4431 - 1900°
	(dBµV) 48.72 44.59 43.66 38.53	(dBµV) (dB) 48.72 3.81 44.59 3.81 43.66 8.19 38.53 8.19	(dBμV) (dB) (dBμV/m) 48.72 3.81 52.53 44.59 3.81 48.4 43.66 8.19 51.85	(dBμV) (dB) (dBμV/m) (dBμV/m) 48.72 3.81 52.53 74 44.59 3.81 48.4 54 43.66 8.19 51.85 74 38.53 8.19 46.72 54	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 48.72 3.81 52.53 74 -21.47 44.59 3.81 48.4 54 -5.6 43.66 8.19 51.85 74 -22.15 38.53 8.19 46.72 54 -7.28

RESULT: PASS

Note:

Other emissions from 1GHz to 25 GHz are considered as ambient noise. No recording in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-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.



Report No.: AGC07308171201FE05

Page 59 of 76

12. BAND EDGE EMISSION

12.1. MEASUREMENT PROCEDURE

Radiated restricted band edge measurements

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting

12.2. TEST SET-UP

same as 11.2

Note:

- 1. Factor=Antenna Factor + Cable loss Amplifier gain. Field Strength=Factor + Reading level
- 2. The factor had been edited in the "Input Correction" of the Spectrum Analyzer. So the Amplitude of test plots is equal to Reading level plus the Factor in dB. Use the A dB(μ V) to represent the Amplitude. Use the F dB(μ V/m) to represent the Field Strength. So A=F.

The results spound this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by XCC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at attp://www.ago.go.tt.com.

Attestation of Global Compliance



12.3. TEST RESULT

EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

PK



AV



RESULT: PASS

The results spound this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by XCC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a true www.ago.gent.com.

AGC 8



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical



ΑV



RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a type of the confirmed at a type of type of type of the confirmed at a type of typ



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal



ΑV



RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a type of the confirmed at a type of type of type of the confirmed at a type of typ



	26 P 1 2 V			
	EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
	Temperature	25°C	Relative Humidity	55.4%
on of	Pressure	960hPa	Test Voltage	Normal Voltage
	Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical

PK



AV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Horizontal



ΑV



RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a type of the confirmed at a type of type of type of the confirmed at a type of typ



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2412MHZ	Antenna	Vertical



ΑV



RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a type of the confirmed at a type of type of type of the confirmed at a type of typ



	EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
4	Temperature	25°C	Relative Humidity	55.4%
of	Pressure	960hPa	Test Voltage	Normal Voltage
	Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Horizontal

PK



ΑV



RESULT: PASS

The results shows if this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by (CC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a state of the sample (s) are retained for 30 days only. The document is issued by (CC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a state of the sample (s) are retained for 30 days only. The document is issued by (CC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a state of the sample (s) are retained for 30 days only. The document is issued by (CC, this document cannot be reproduced except in full with our prior written permission.



2016 101.			
EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g with data rate 6 2462MHZ	Antenna	Vertical

PK



AV



RESULT: PASS

The results showed this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at a the confirmed at a three confir



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	Antenna	Horizontal



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2412MHZ	Antenna	Vertical



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2462MHZ	Antenna	Horizontal



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 20 with data rate 6.5 2462MHZ	Antenna	Vertical



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Horizontal



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Vertical



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40with data rate 13.5 2452MHZ	Antenna	Horizontal



ΑV



RESULT: PASS



EUT	MULTIMEDIA NAVIGATION	Model Name	Costa Mesa 900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	Antenna	Vertical



ΑV

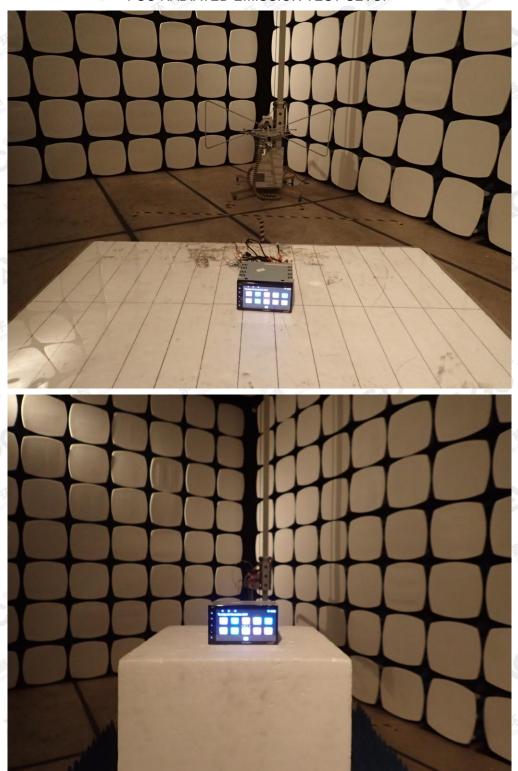


RESULT: PASS



APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC RADIATED EMISSION TEST SETUP



----END OF REPORT----

The results spowd this jest report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by AGC, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at attr://www.agc-gent.com.

Attestation of Global Compliance