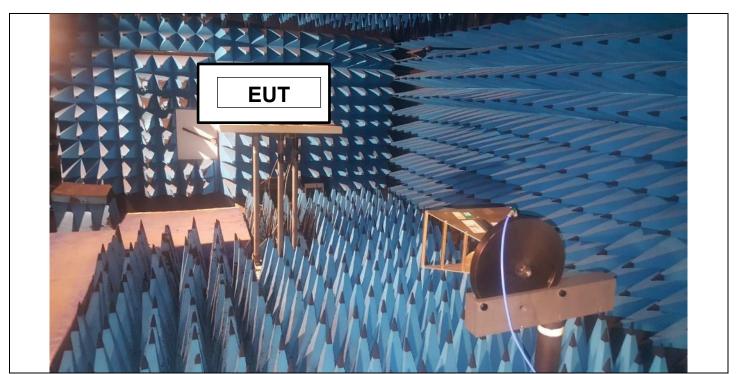
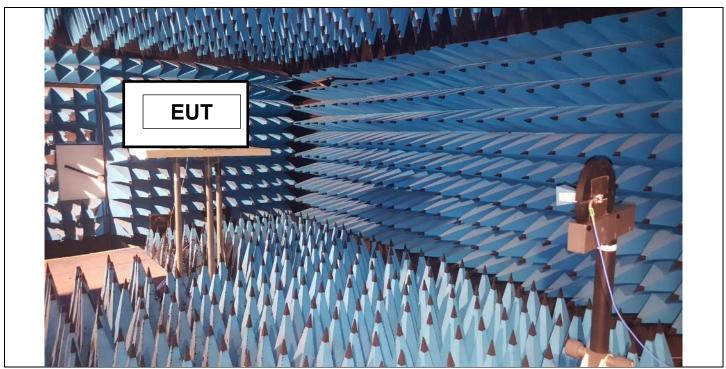


Photograph for Unwanted Emissions & Undesirable Emission limits

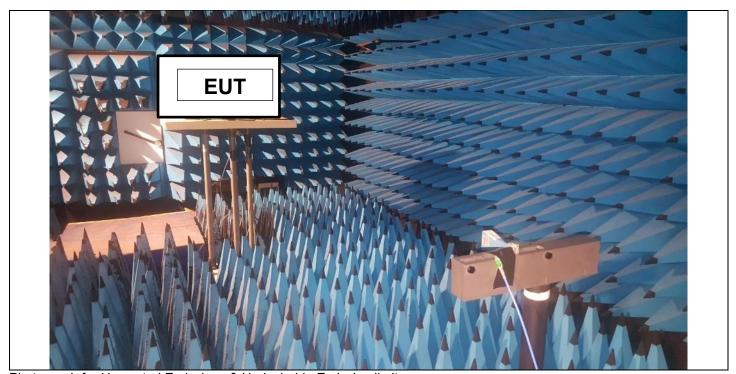


Photograph for Unwanted Emissions & Undesirable Emission limits





Photograph for Unwanted Emissions & Undesirable Emission limits



Photograph for Unwanted Emissions & Undesirable Emission limits



#### 10.3. LIMIT

Limit at 3m:

9kHz to 0,490MHz: 2400/F(kHz) $\mu$ V/m (300m) or 20log(2400/F(kHz))dB $\mu$ V/m (3m) QPeak 0,490MHz to 1.705MHz: 240000/F(kHz) $\mu$ V/m (30m) or 20log(240000/F(kHz))dB $\mu$ V/m (3m) QPeak

1.705MHz to 30MHz: 30µV/m (30m) or dBµV/m (3m) QPeak

30MHz to 88MHz: 40dBμV/m QPeak 88MHz to 216MHz: 43,5dBμV/m QPeak 216MHz to 960MHz: 46dBμV/m QPeak 960MHz to 1000MHz: 54dBμV/m QPeak Above 1000MHz: 74dBμV/m Peak 54dBμV/m Average

Limit at 10m:

 30MHz to 88MHz:
 29.5dBμV/m QPeak

 88MHz to 216MHz:
 33dBμV/m QPeak

 216MHz to 960MHz:
 35.5dBμV/m QPeak

 960MHz to 1000MHz:
 43.5dBμV/m QPeak

 Above 1000MHz:
 63.5BμV/m Peak

43.5BµV/m Average

Limit (dBm):

5150MHz-5250MHz: Shall not exceed EIRP of -27dBm/MHz outside of the band 5250MHz-5350MHz: Shall not exceed EIRP of -27dBm/MHz outside of the band 5470MHz-5725MHz: Shall not exceed EIRP of-27dBm/MHz outside of the band

## FCC 15.407

5725MHz-5850MHz: Shall not exceed EIRP of-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of EIRP of 27 dBm/MHz at the band edge.

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### 10.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Bilog antenna	SCHWARZBECK	VULB9160	C2040150	2018/04	2019/04
Cable	-	-	A5329711	2017/06	2018/07*
SEMI ANECHOIC CHAMBER	SIEPEL	ANE	D3044008	2014/09	2018/09
EMI Receiver	ROHDE & SCHWARZ	ESU26	A2642018	2016/10	2018/10
Cable	-	•	A5329360	-	-
Loop antenna	SCHWARZBECK	FMZB1513	C2040209	2018/03	2020/03
AC power supply	ADAPTIVE	FC210	A7360017	-	-
	POWER SYSTEM				
Full anachoic chamber	SIEPEL	-	D3044019	2014/10	2018/10
EMI receiver	ROHDE & SCHWARZ	ESI40 1088 740K40	A2642010	2016/07	2018/07
Preamplifier	LCIE	LCIE-ALB-001	A7080073	2018/08	2020/08
Horn antenna	AH SYSTEMS	SAS 571	C2042041	2017/09	2018/09
Horn antenna (18- 26,5GHz)	PASTERNACK	PE9852/2F-20	C2042049	2017/12	2019/12
Horn antenna (26,5-40GHz)	PASTERNACK	PE9852/2F-20	C2042052	2018/03	2020/03
Cable S36 chamber	TELEDYNE	084-0505-1MTR	A5329757	2018/03	2019/03
Cable S36 chamber	TELEDYNE	084-0555- 1.5MTR	A5329759	2018/03	2019/03
Cable S36 chamber	TELEDYNE	084-0555-3MTR	A5329760	2018/03	2019/03
Filter	MICRO- TRONICS	HPS17421	A7484059	2017/09	2018/09
Rejector filter 2,4GHz	- Lality system, the test	2.45GHz	A7484048	2017/09	2018/09

Note: In our quality system, the test equipment calibration due is more & less 2 months

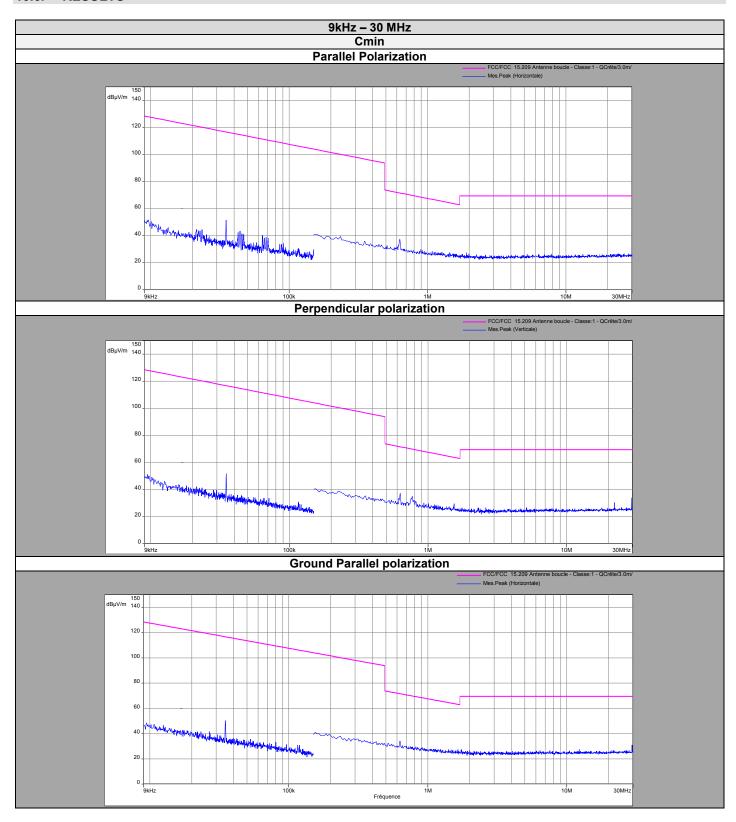
# 10.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

ergence:		
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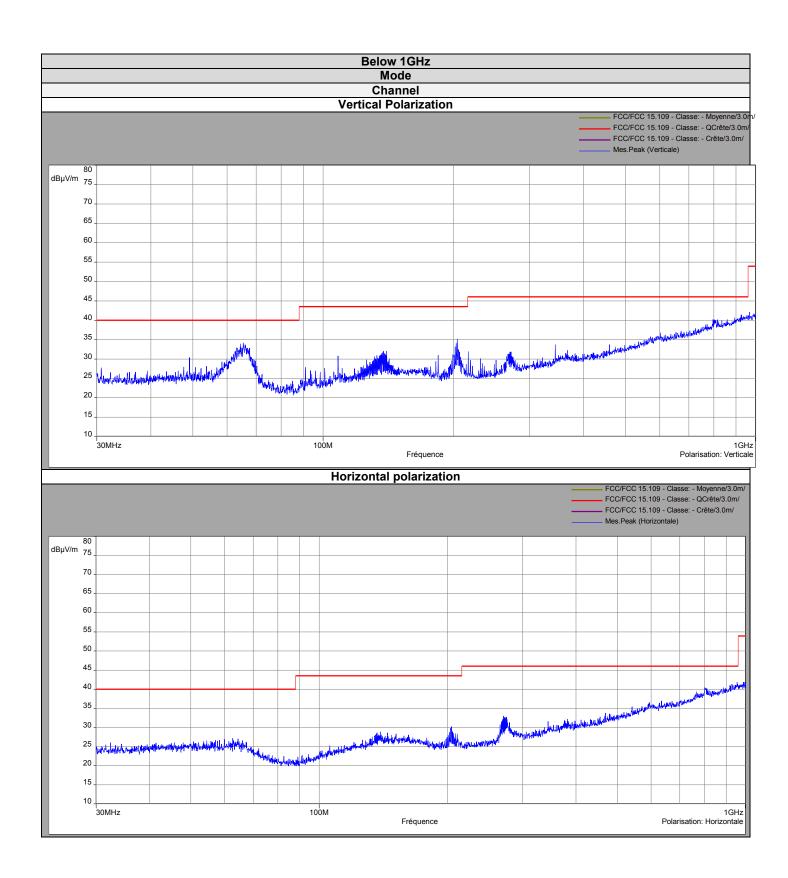
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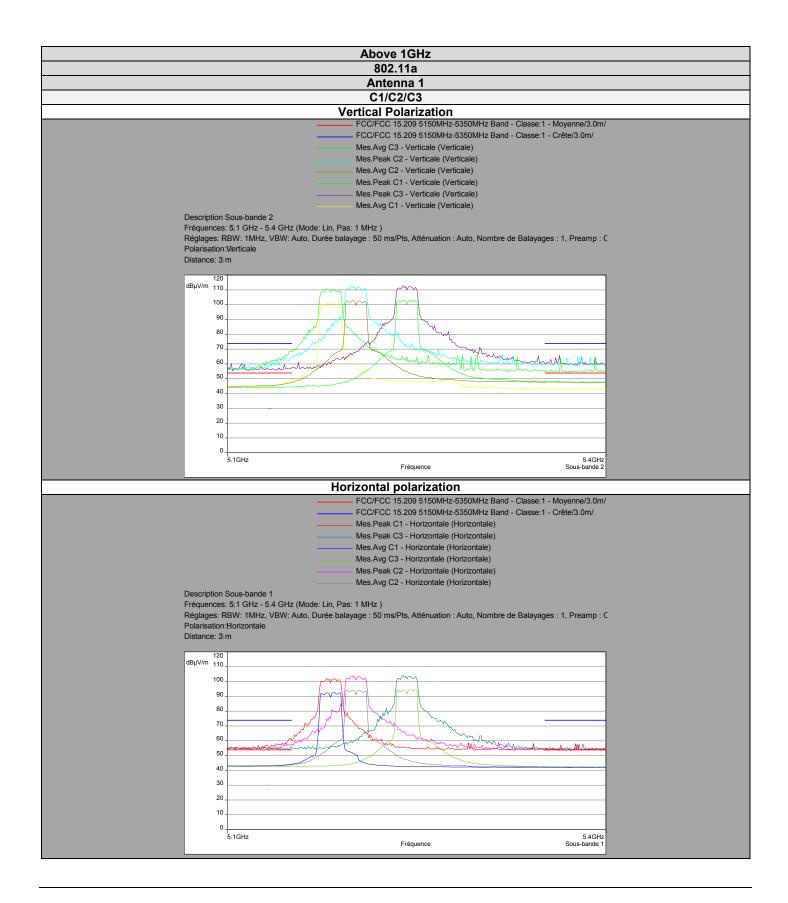
### 10.6. RESULTS



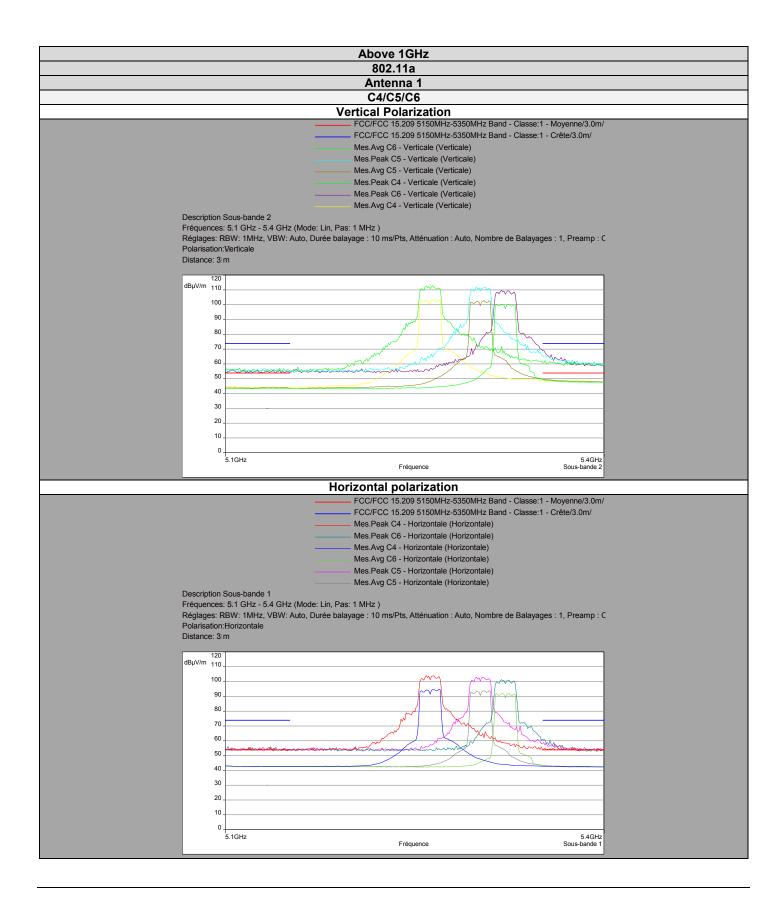




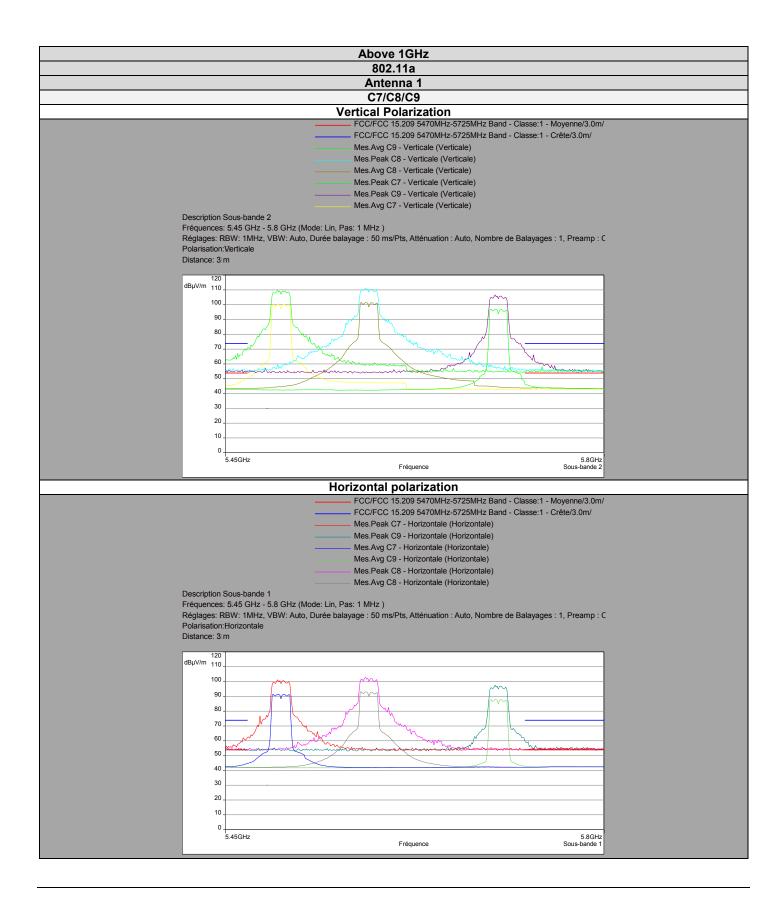




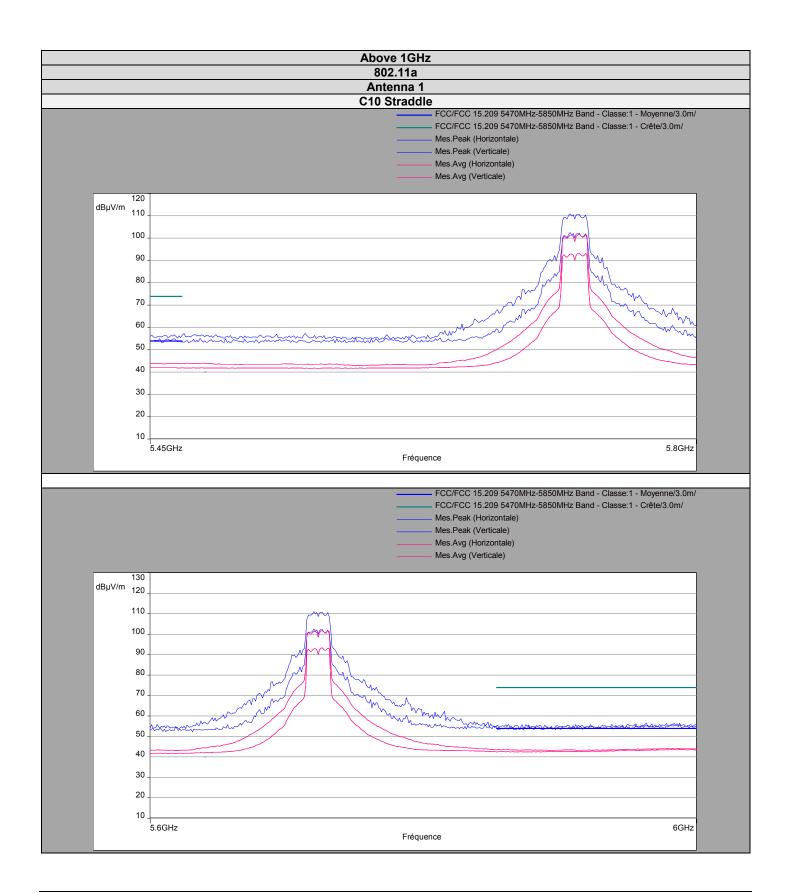




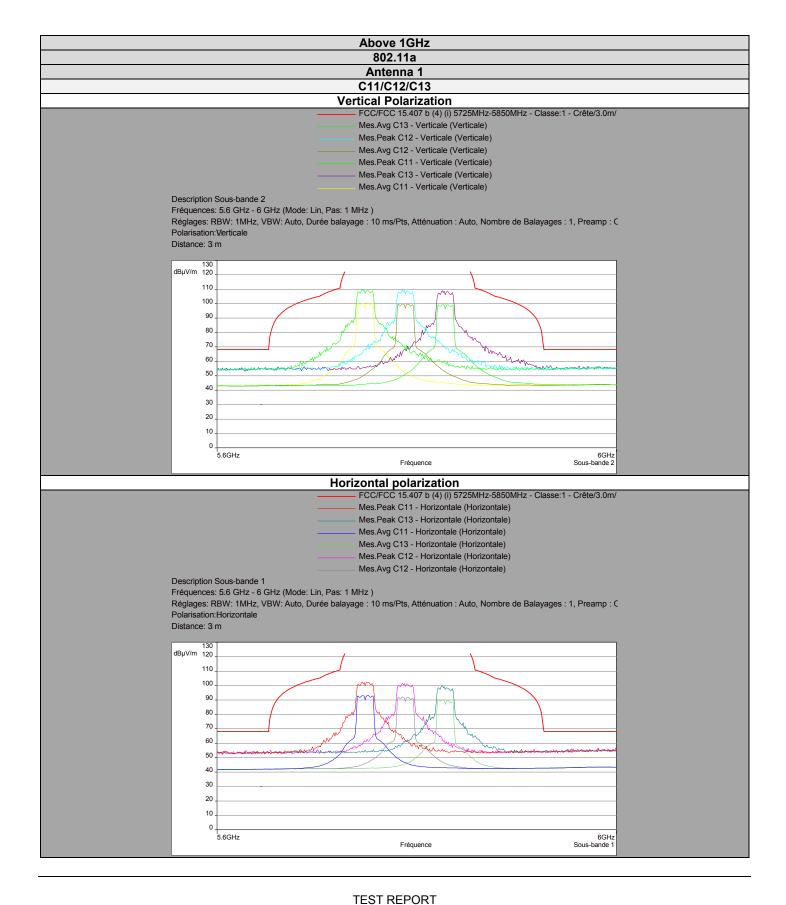




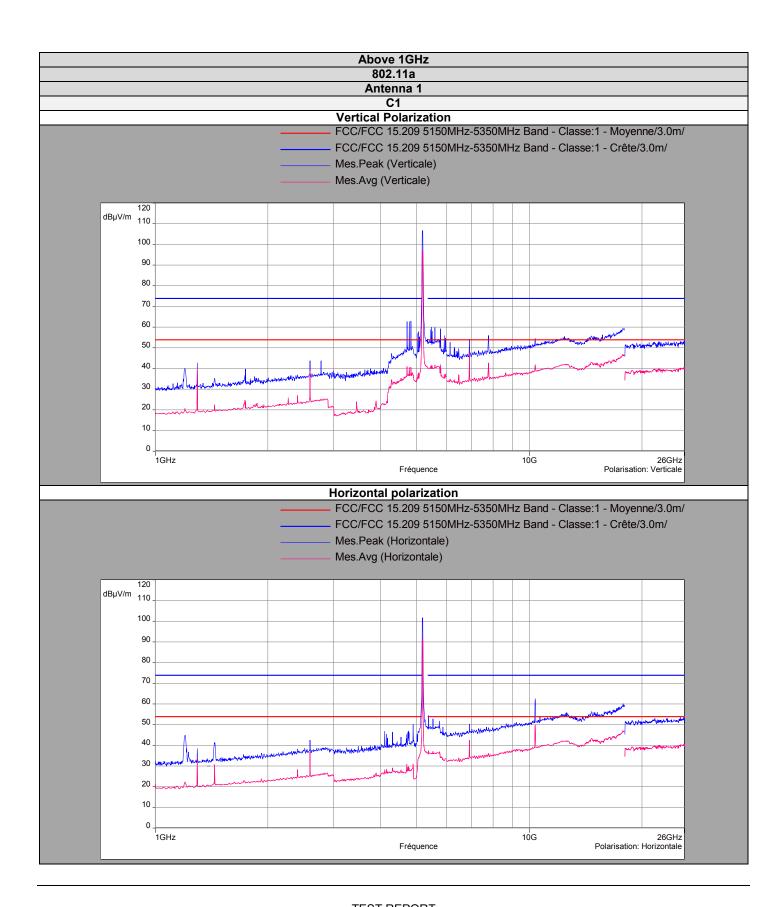




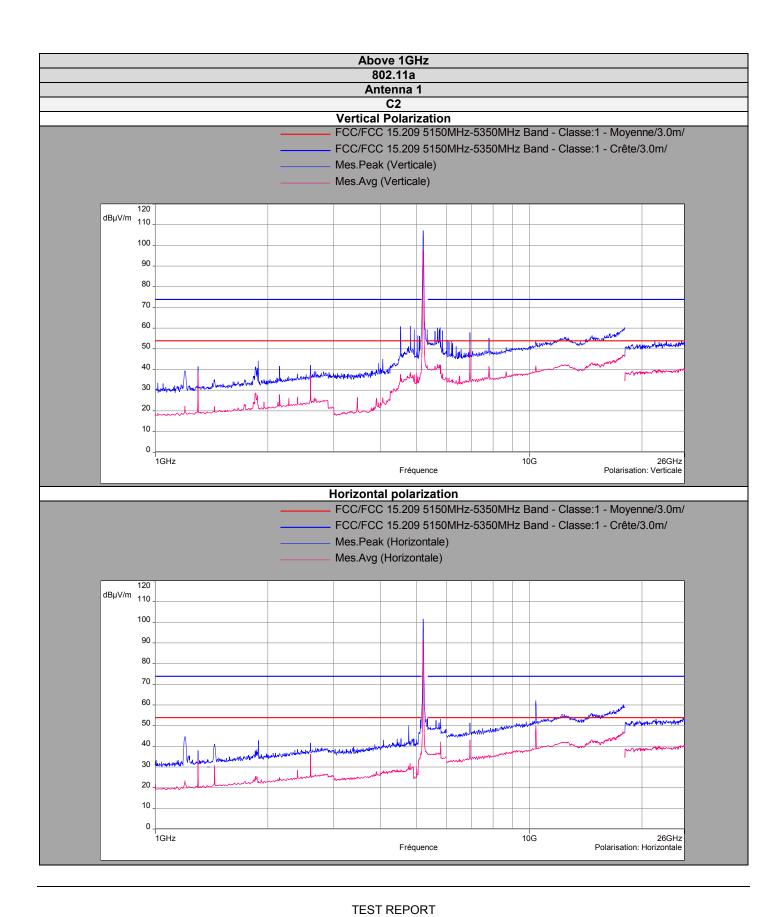




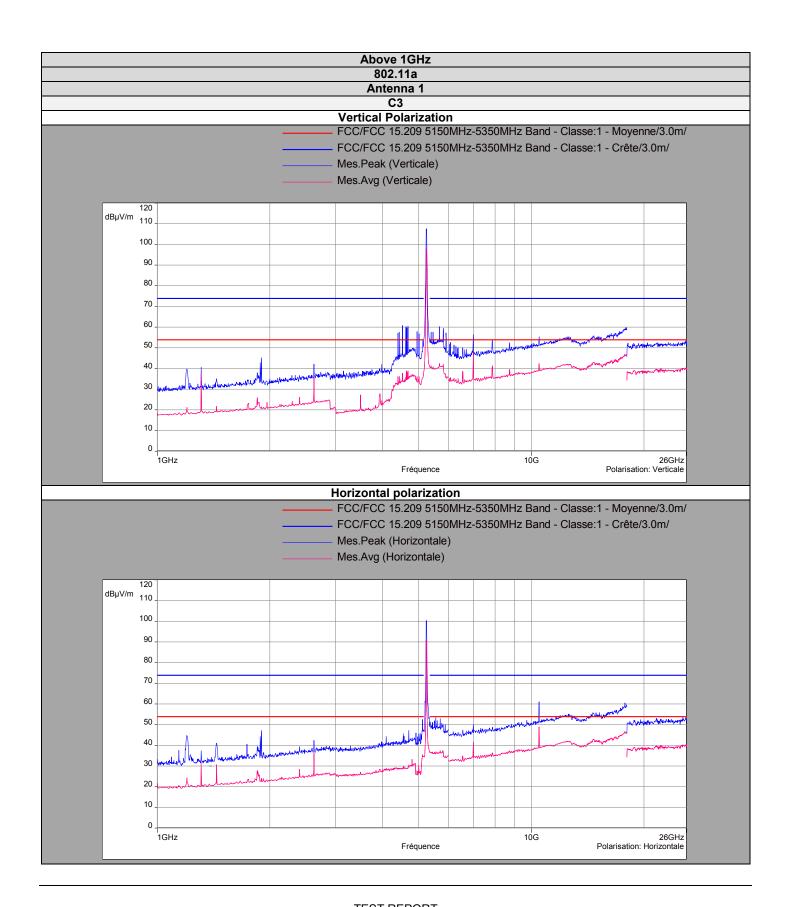




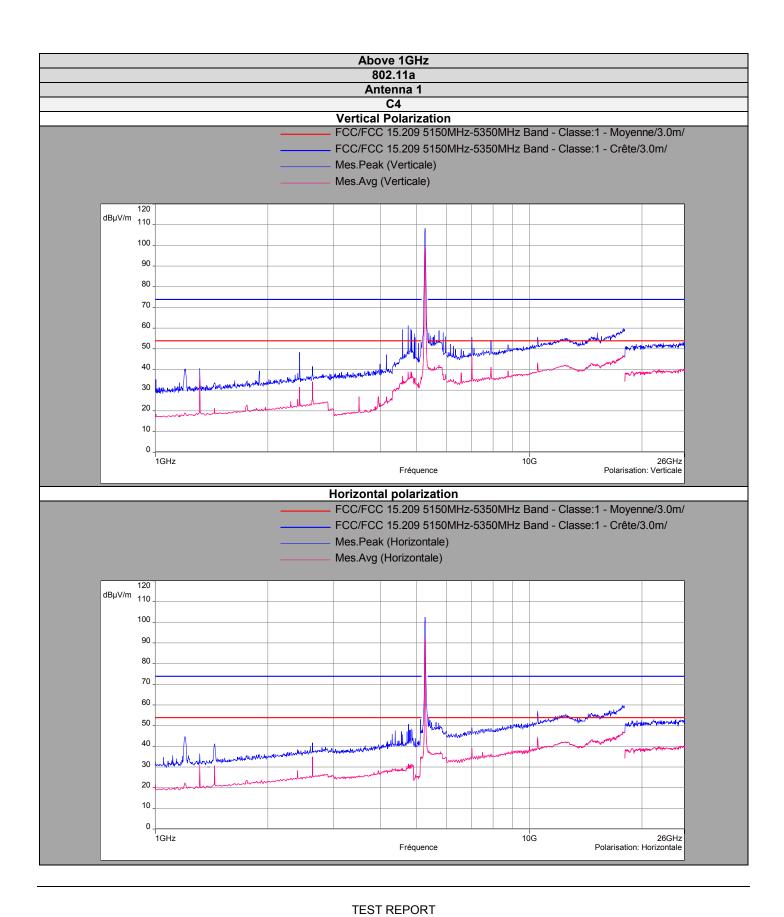




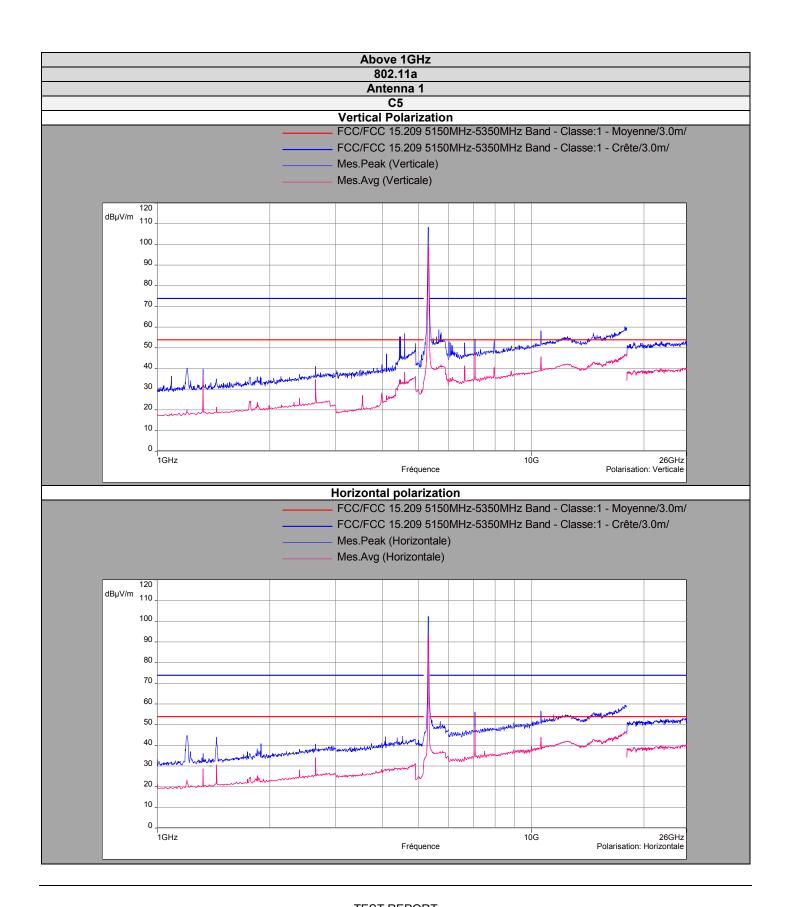




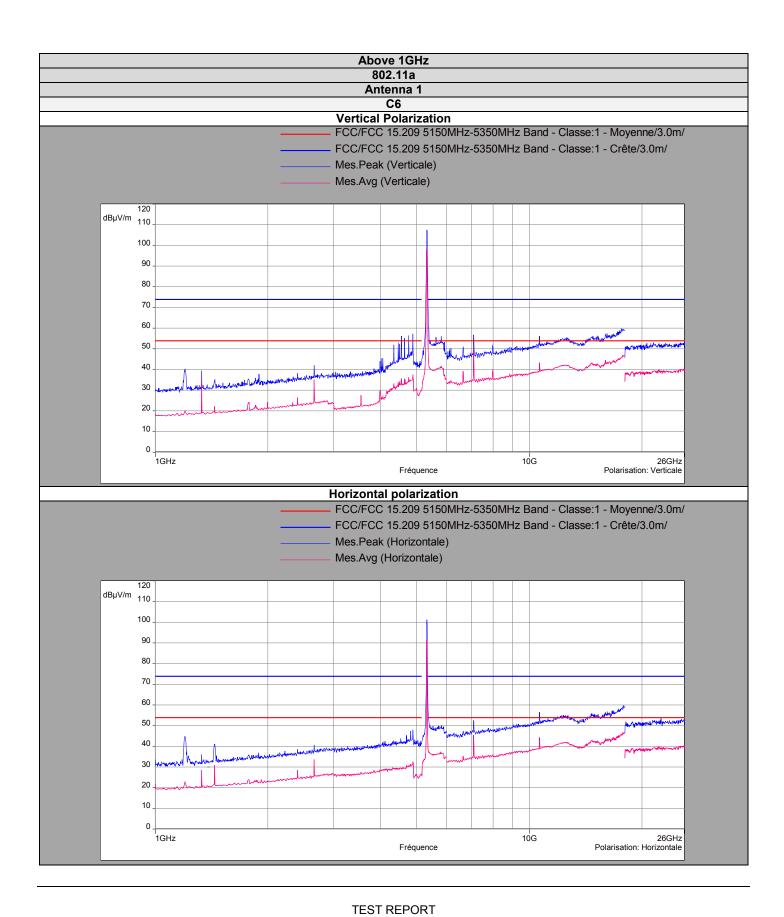




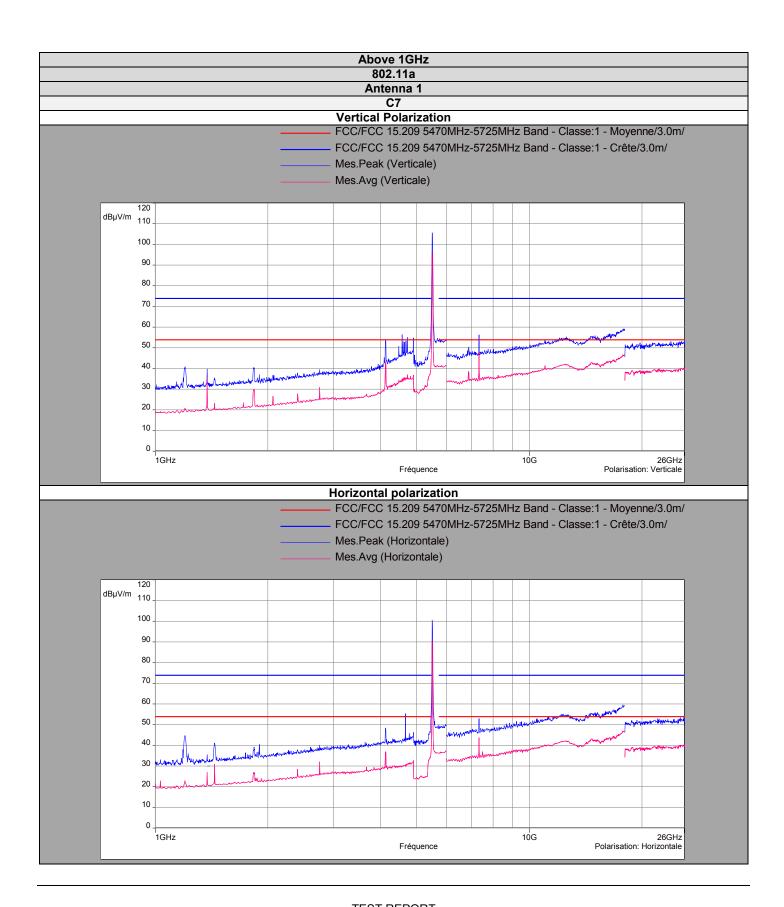




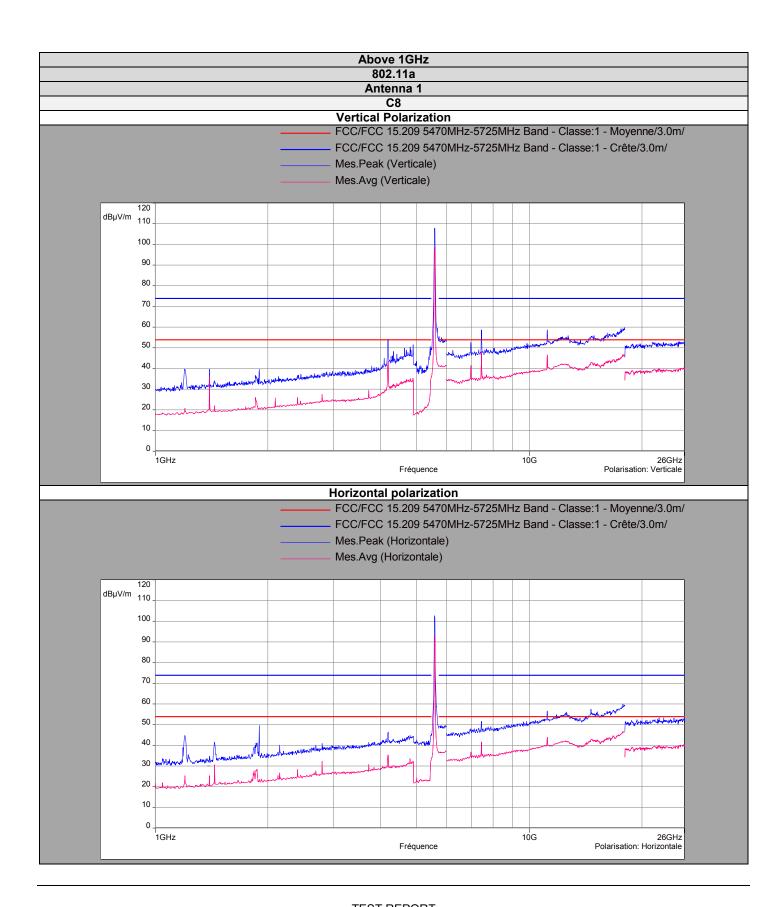




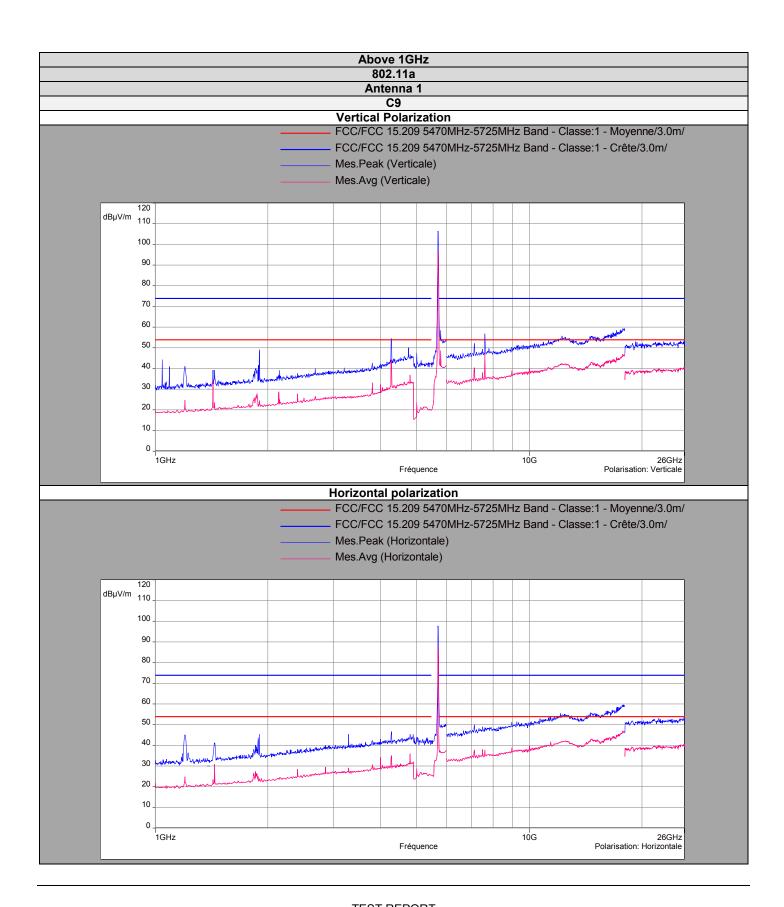




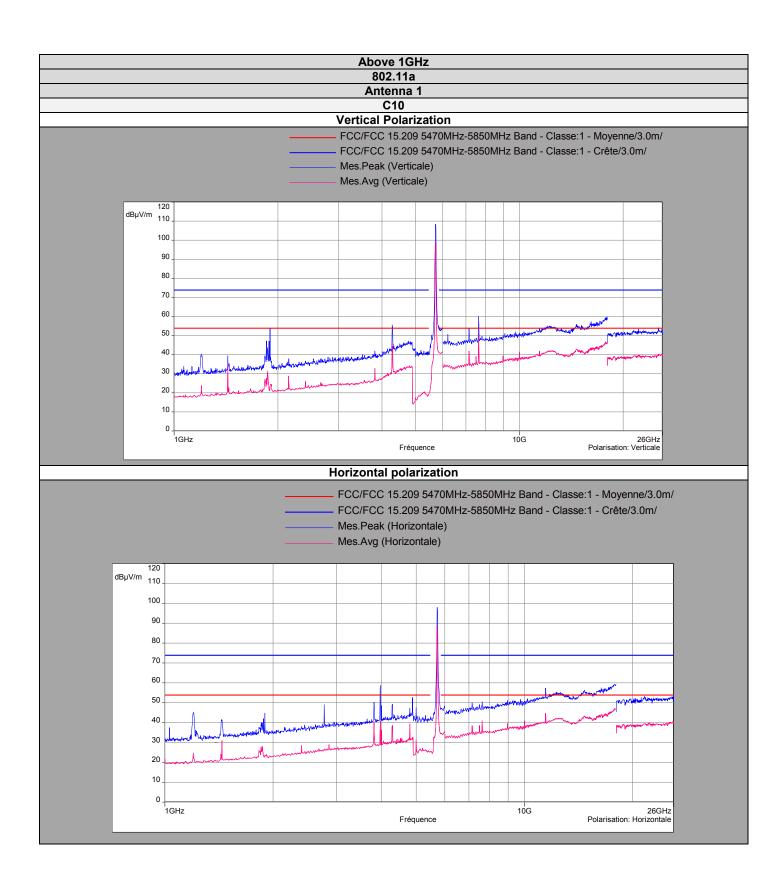




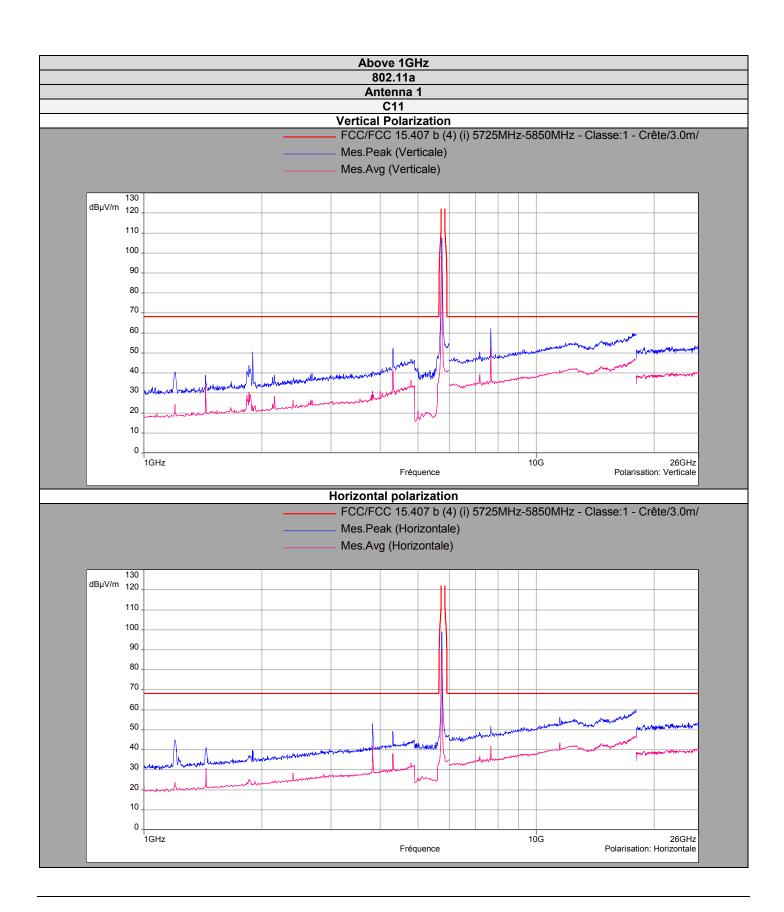




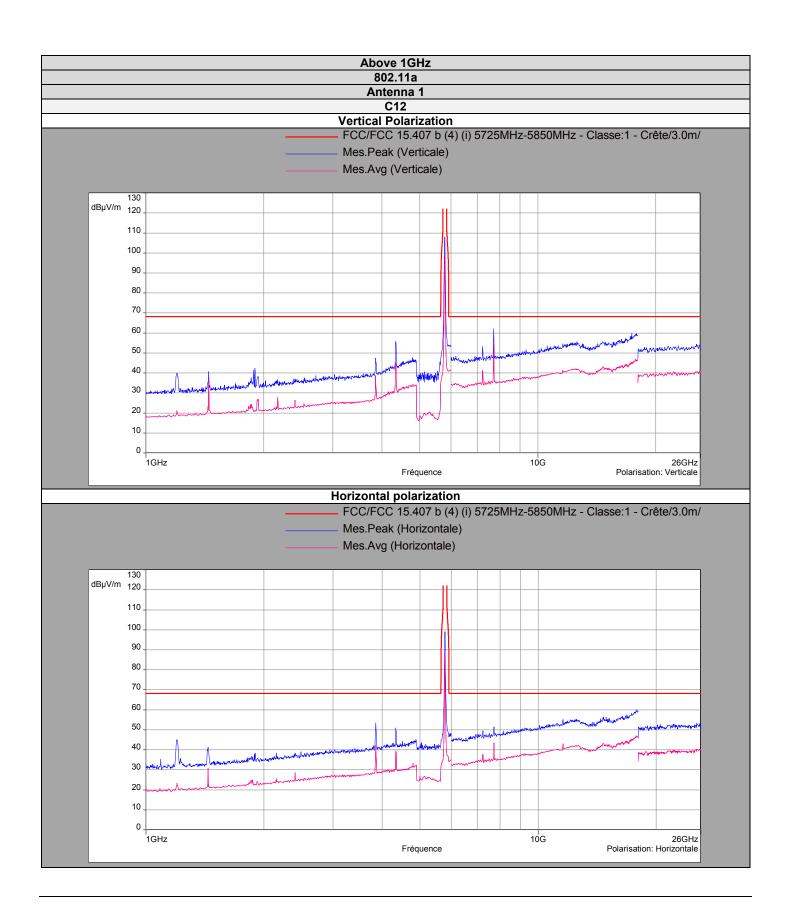




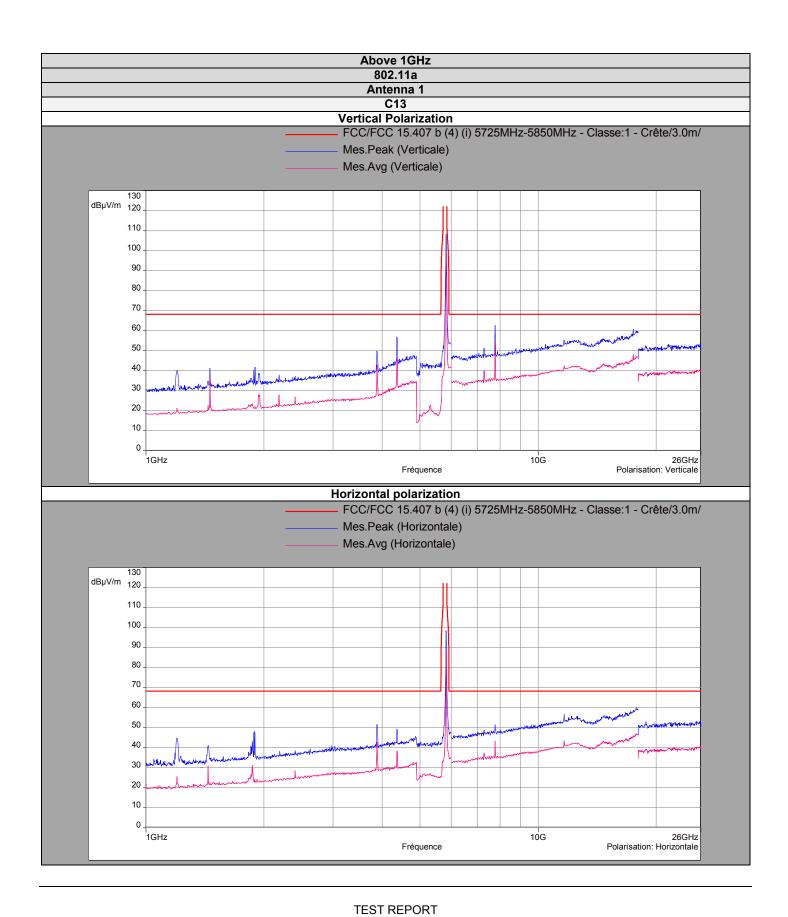




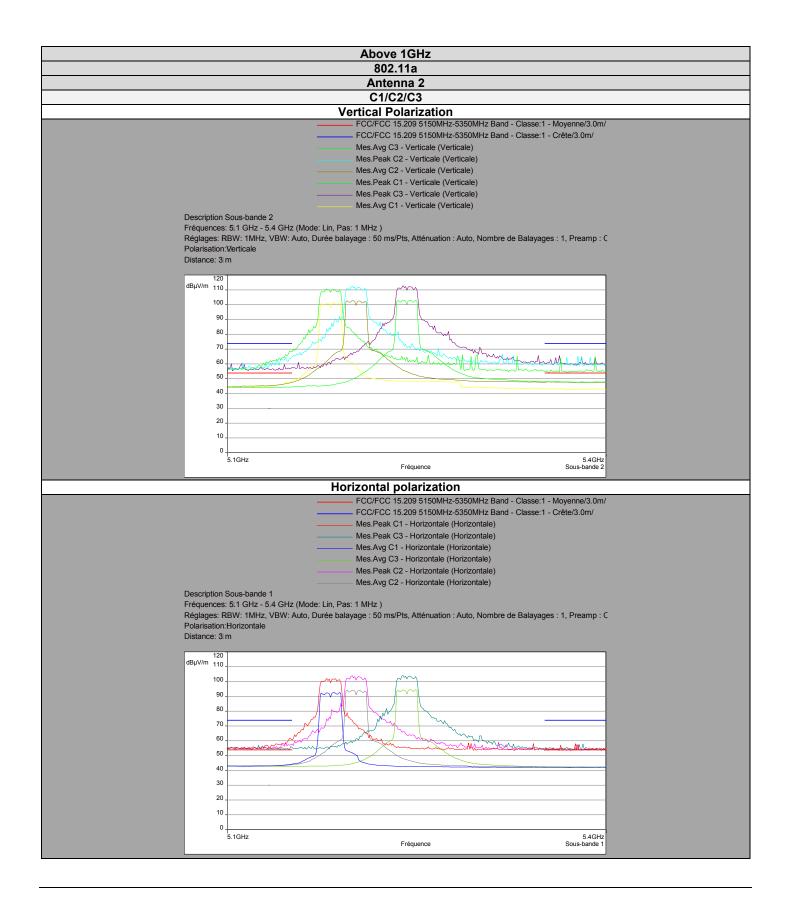




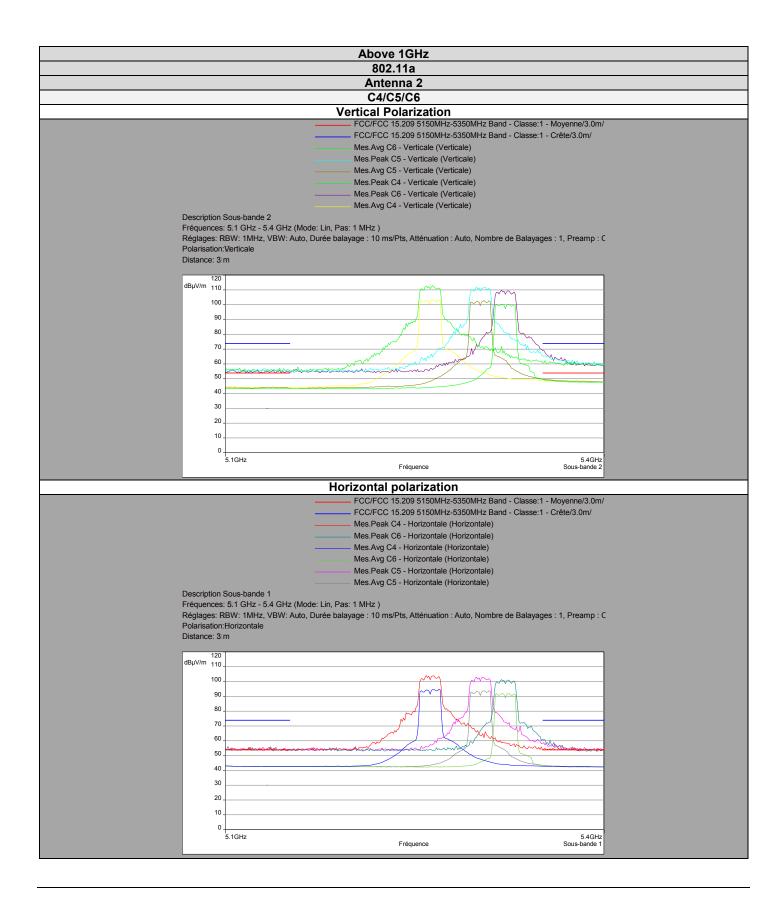




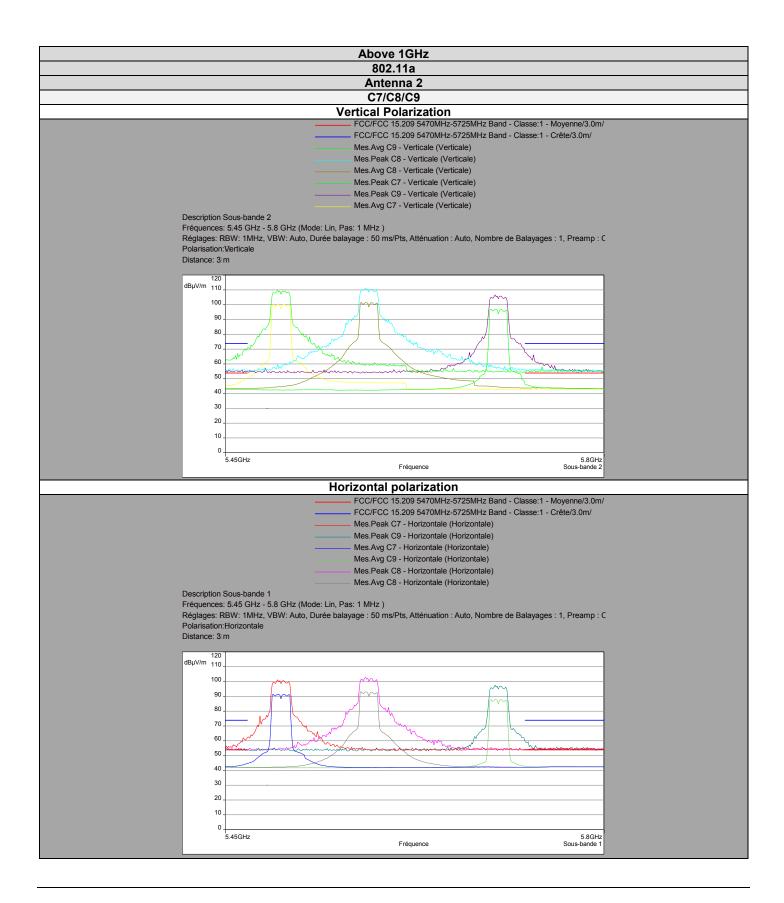




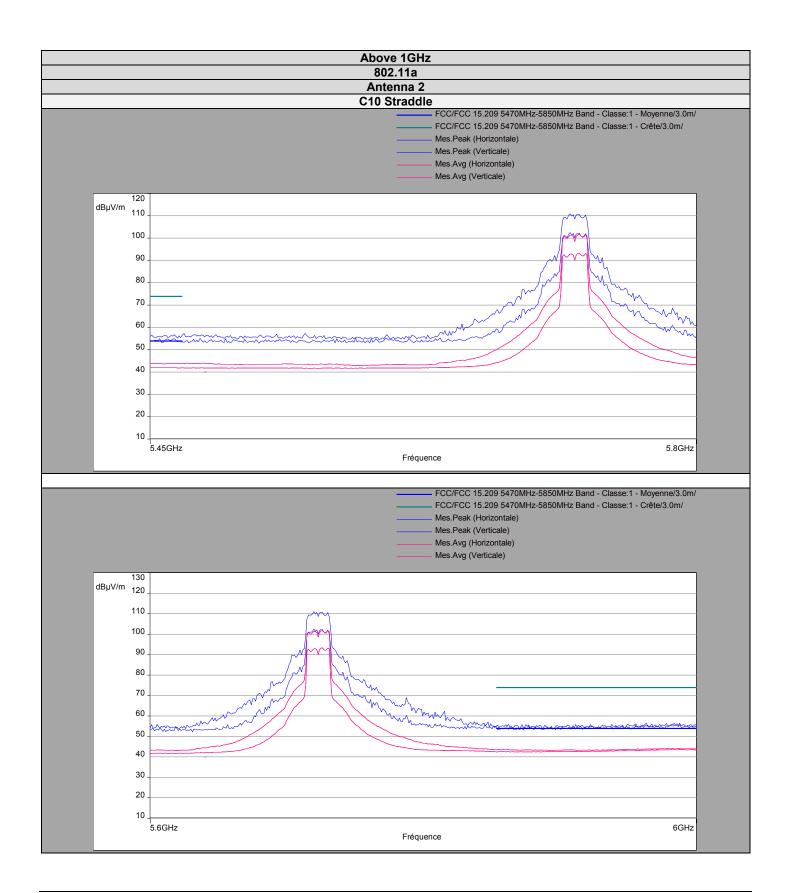




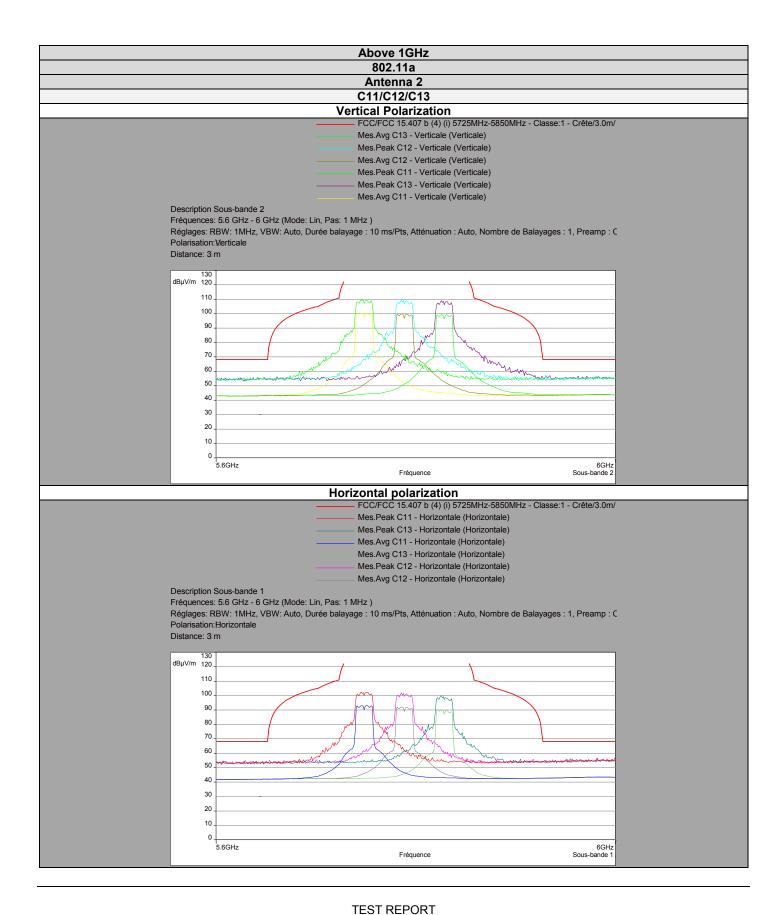




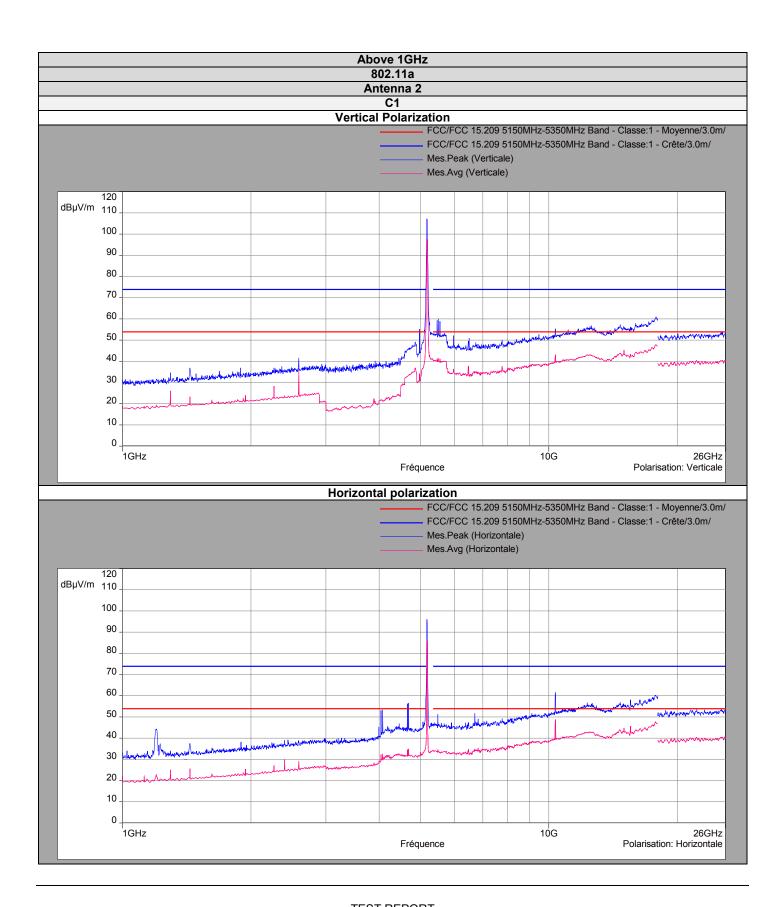




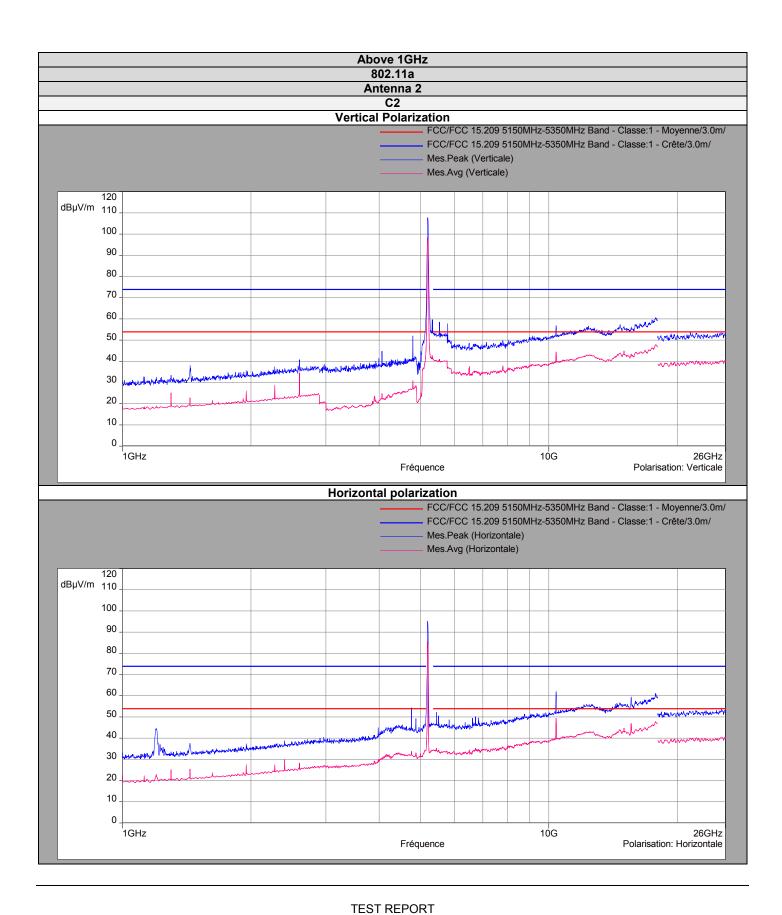




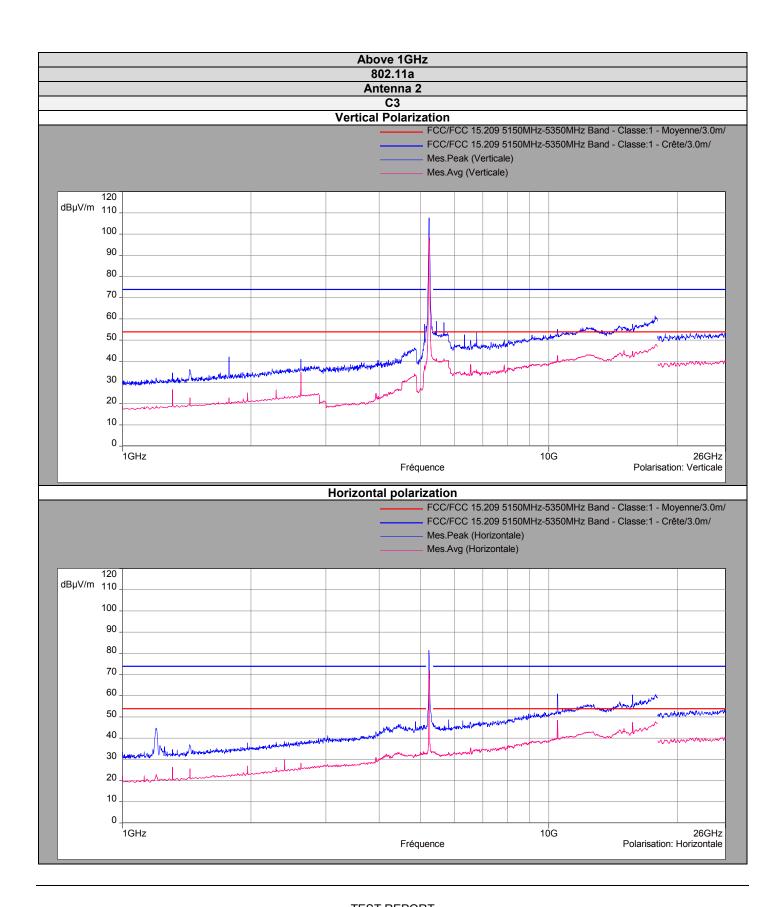




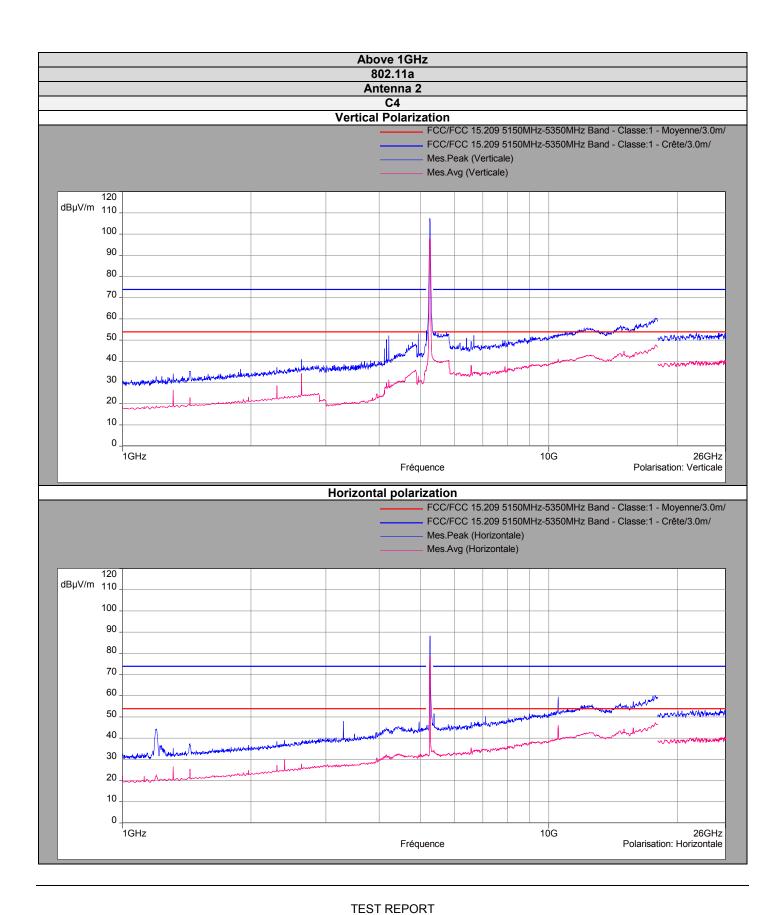




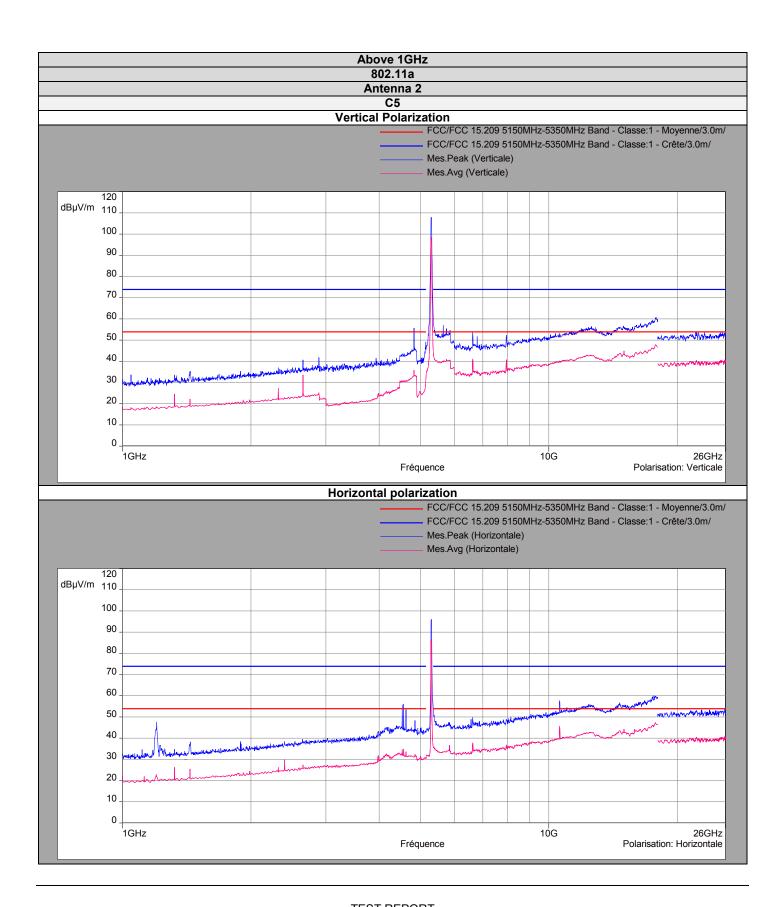




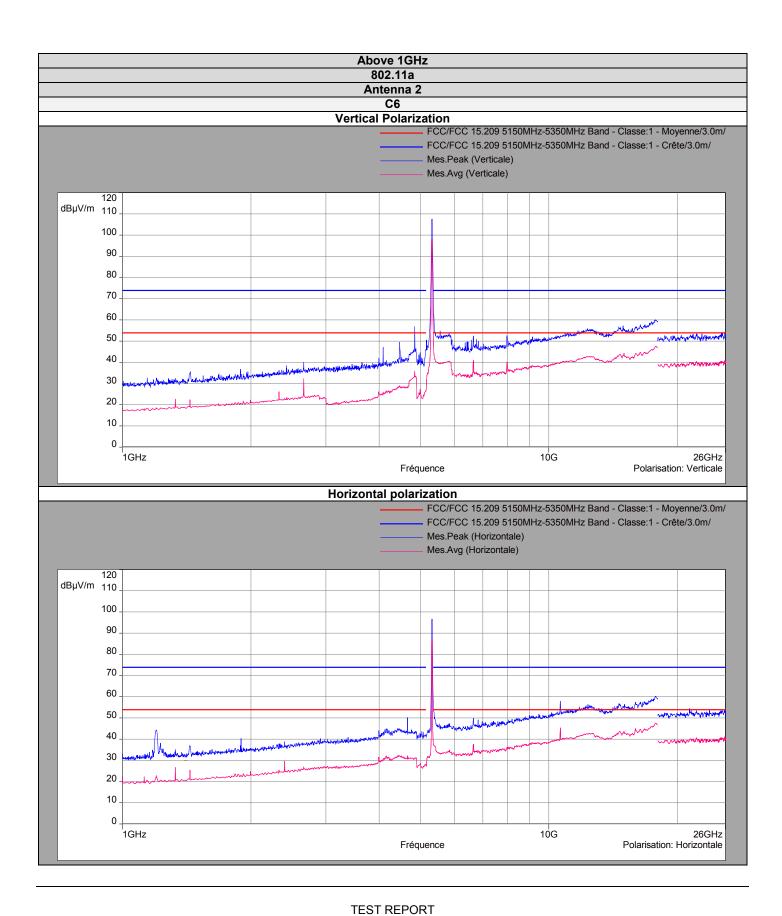




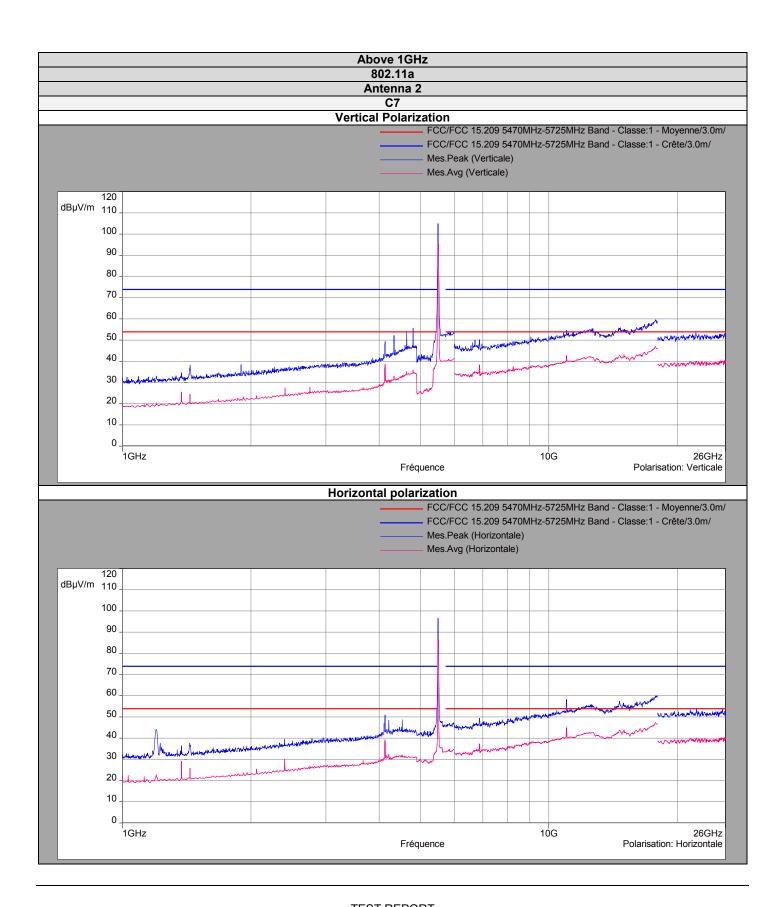




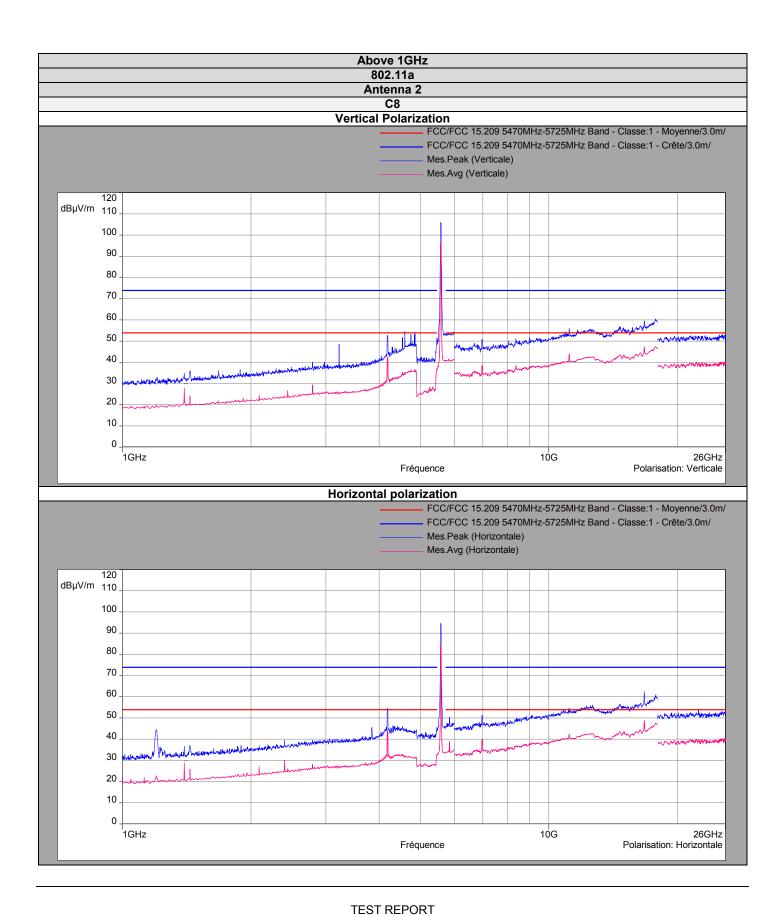




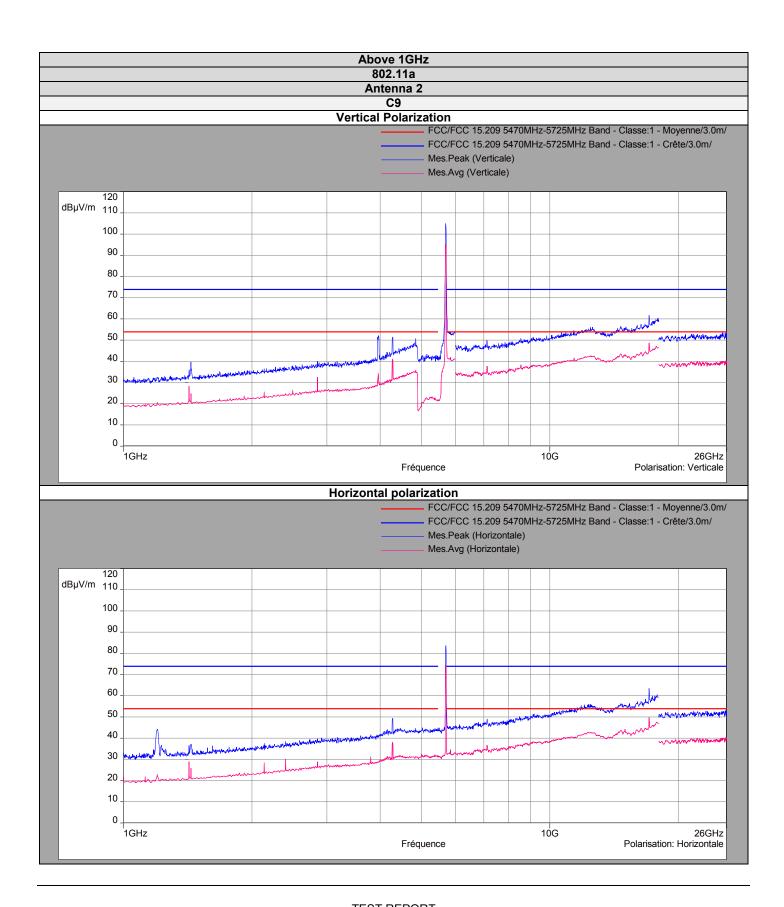




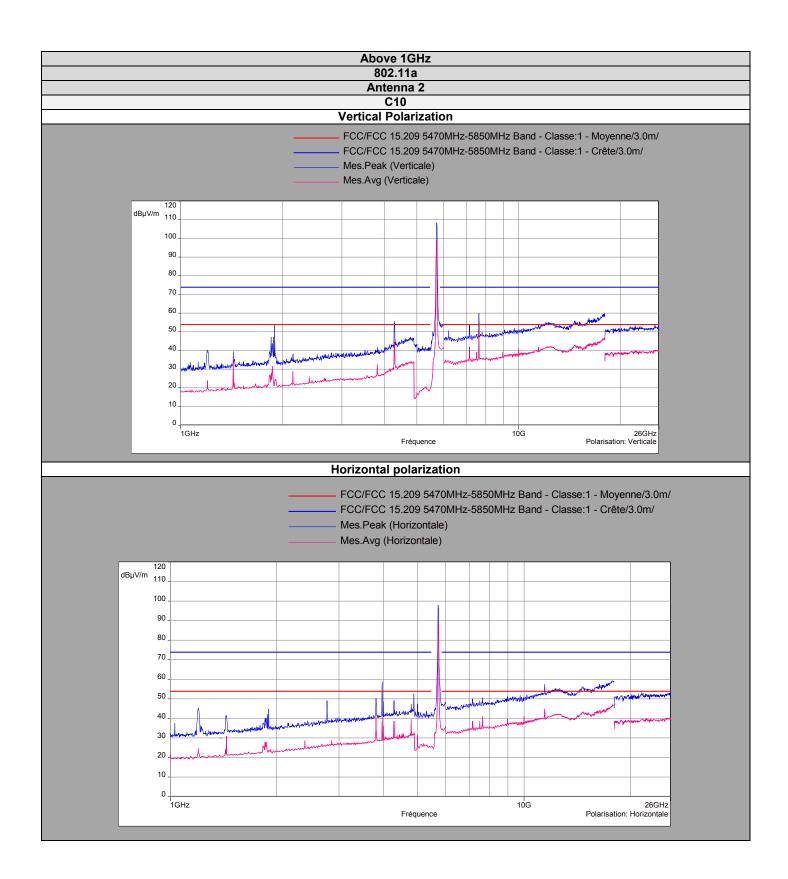




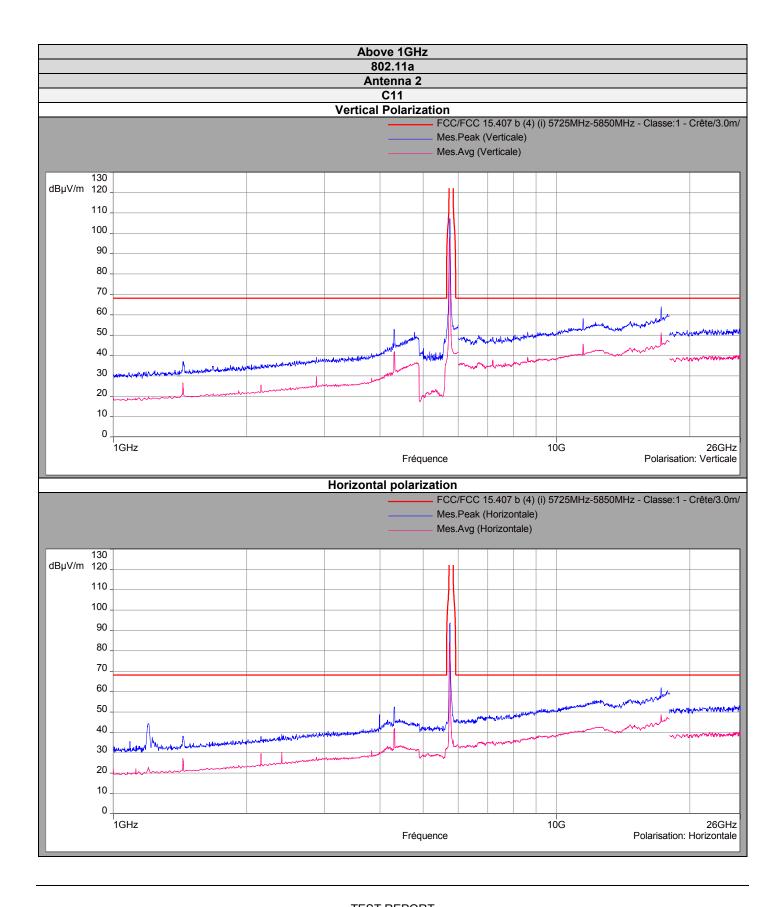




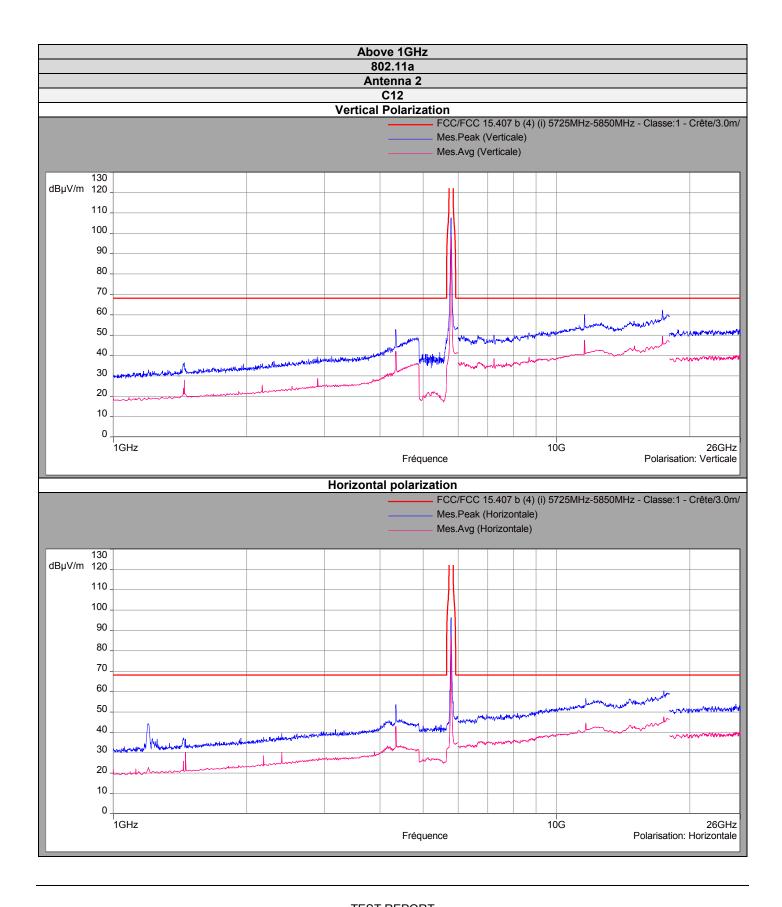




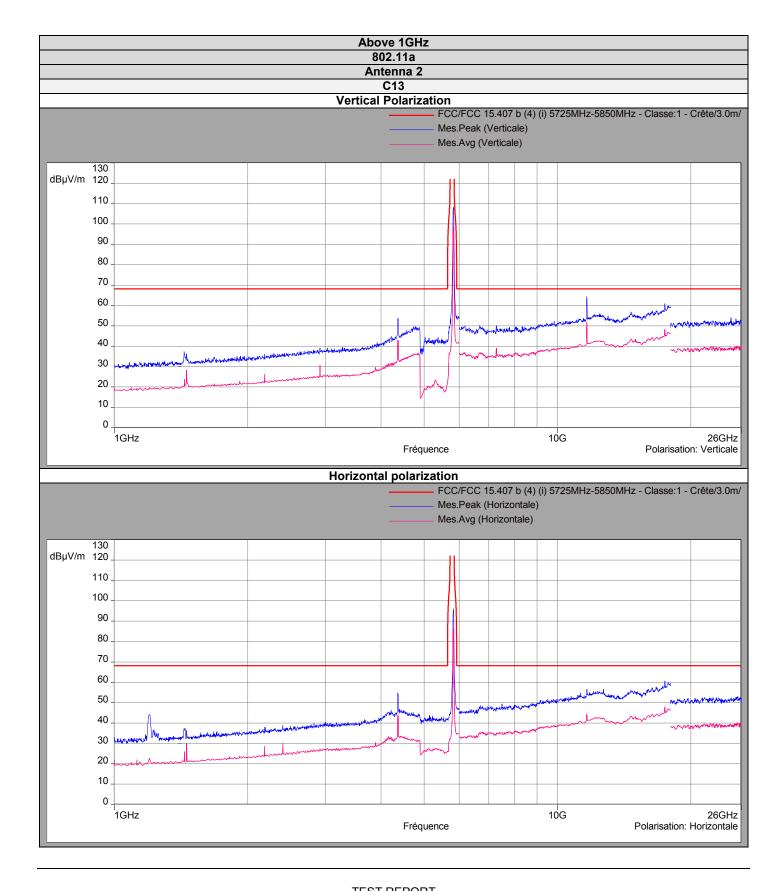




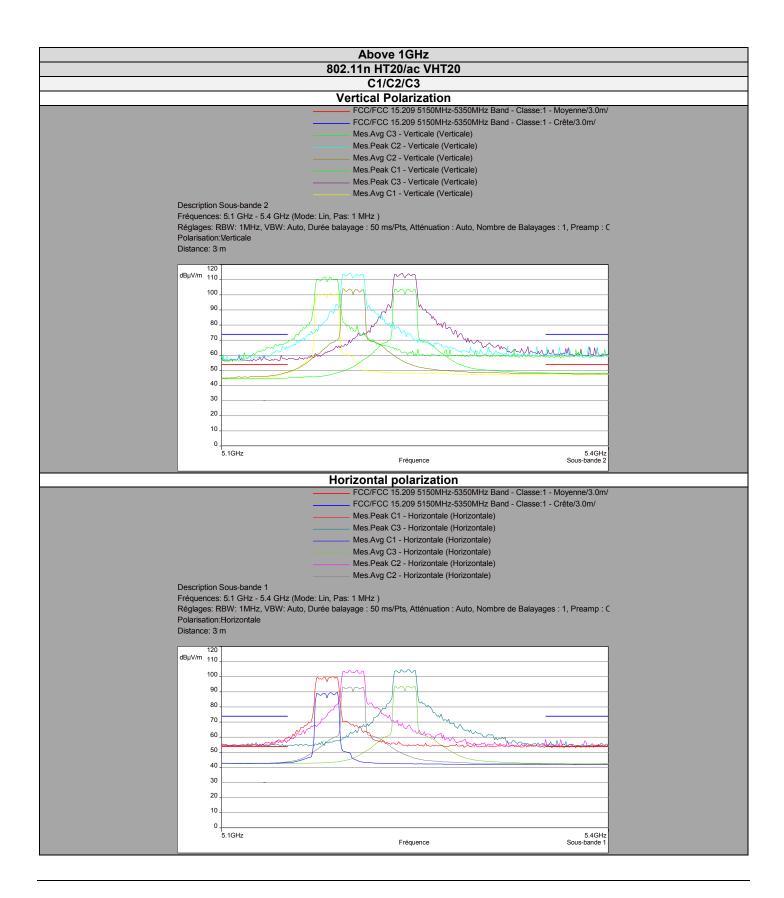




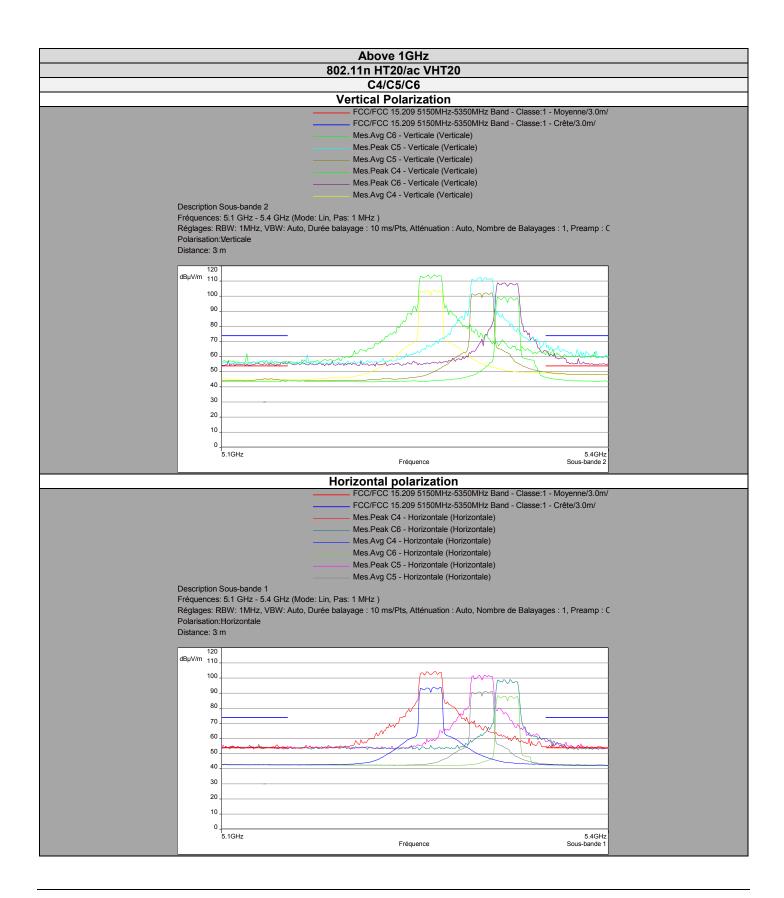




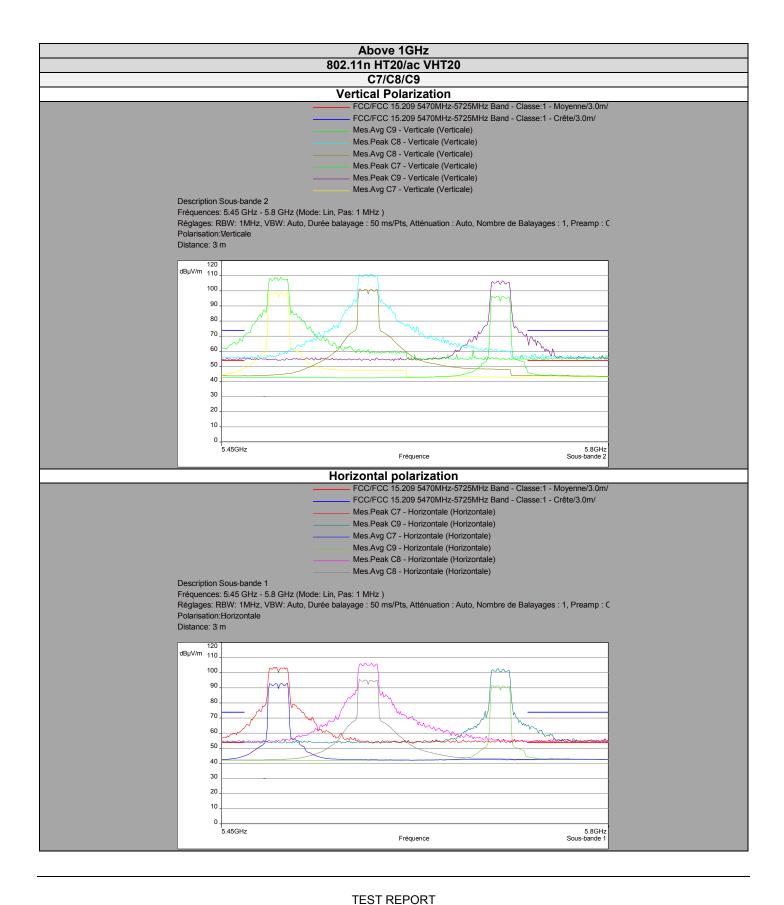




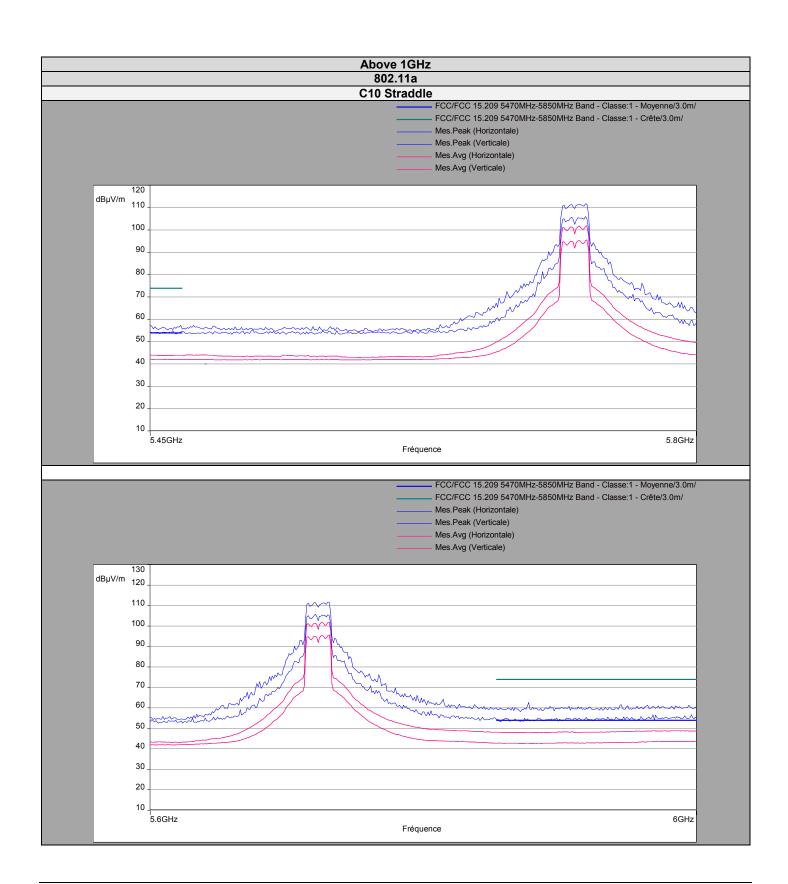




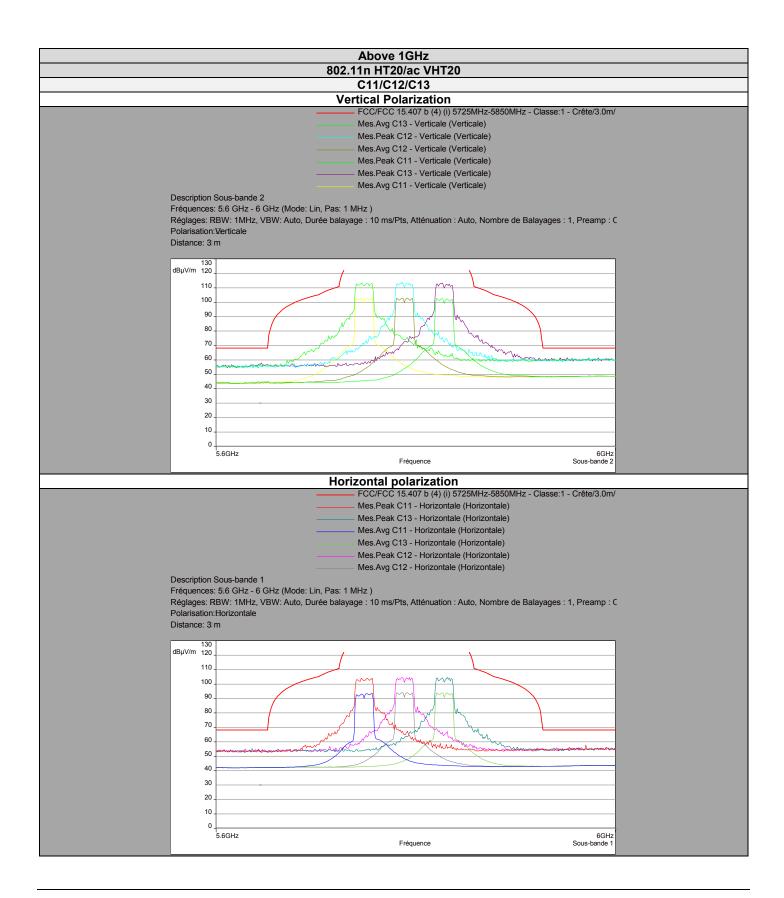




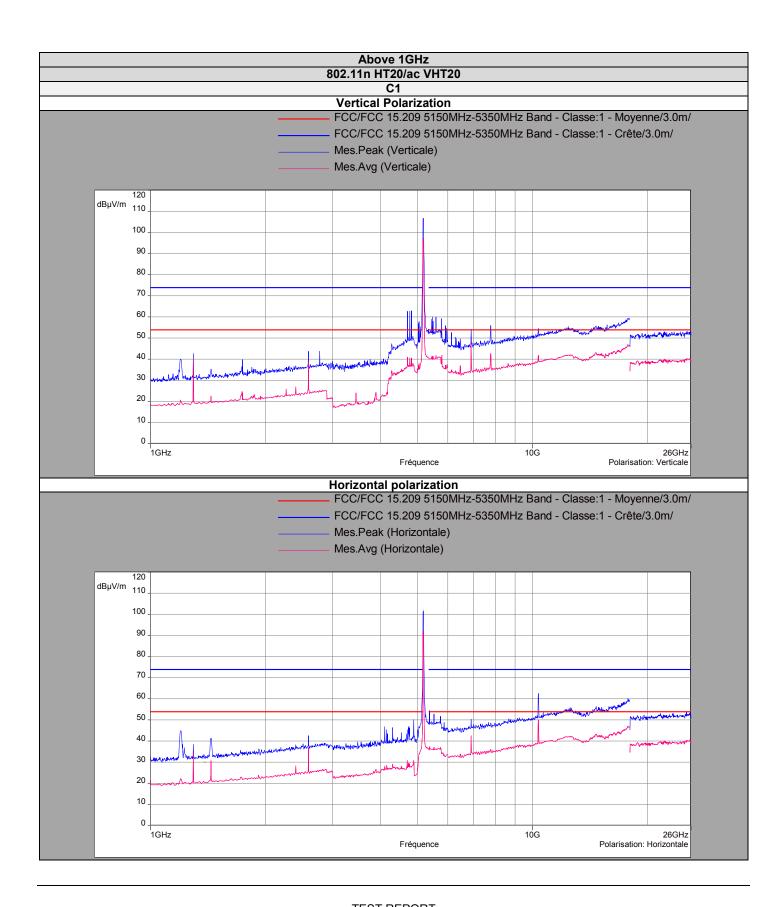




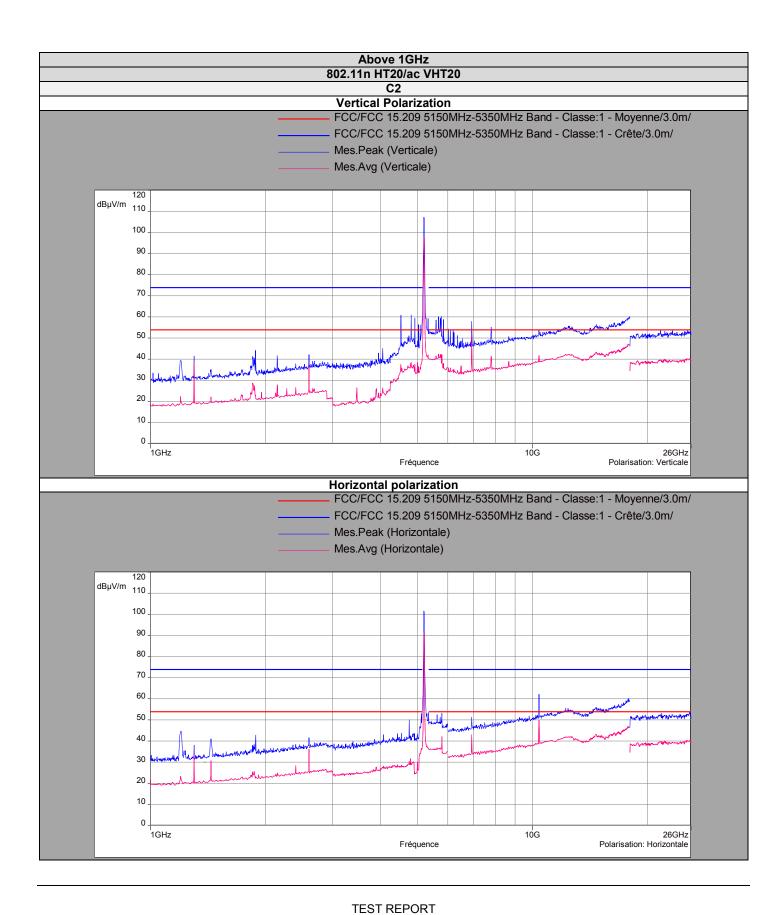




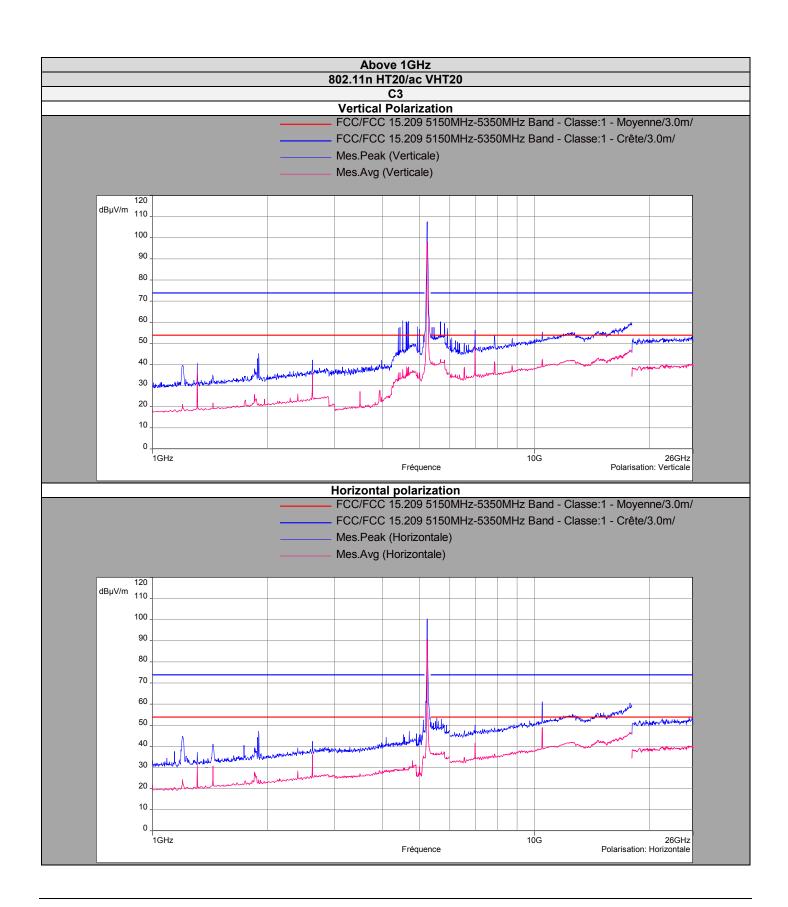




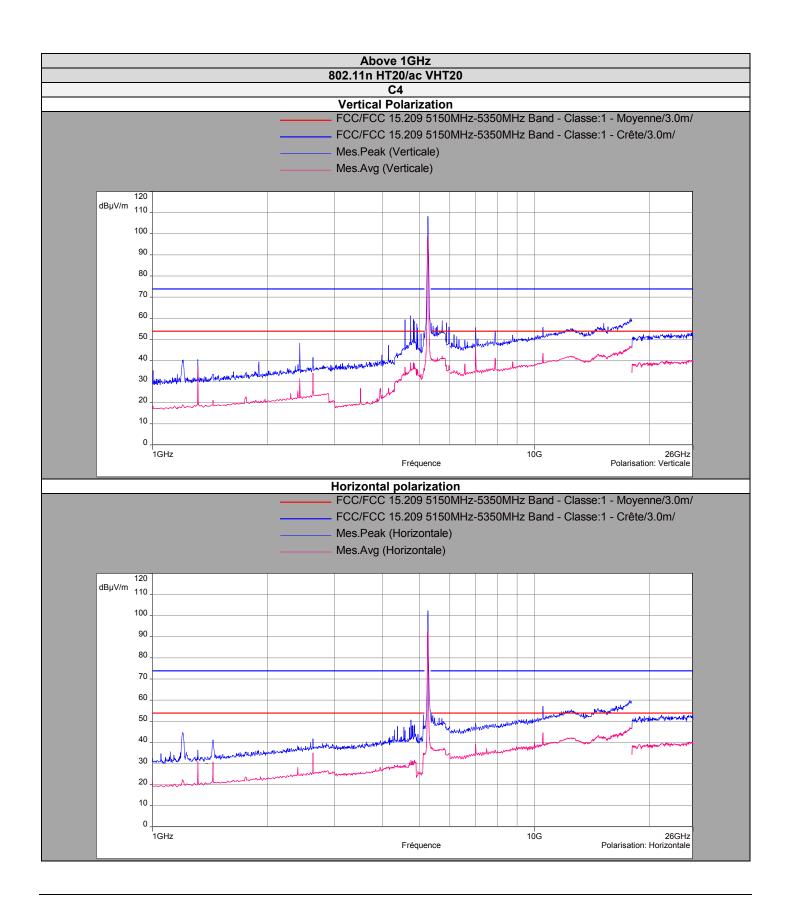




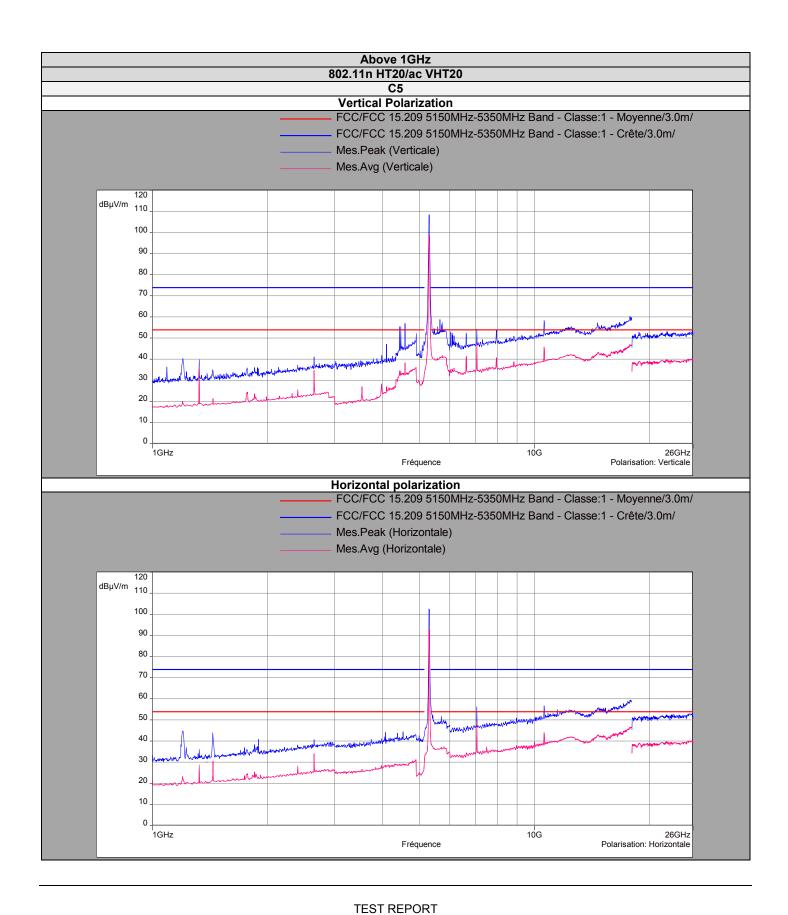




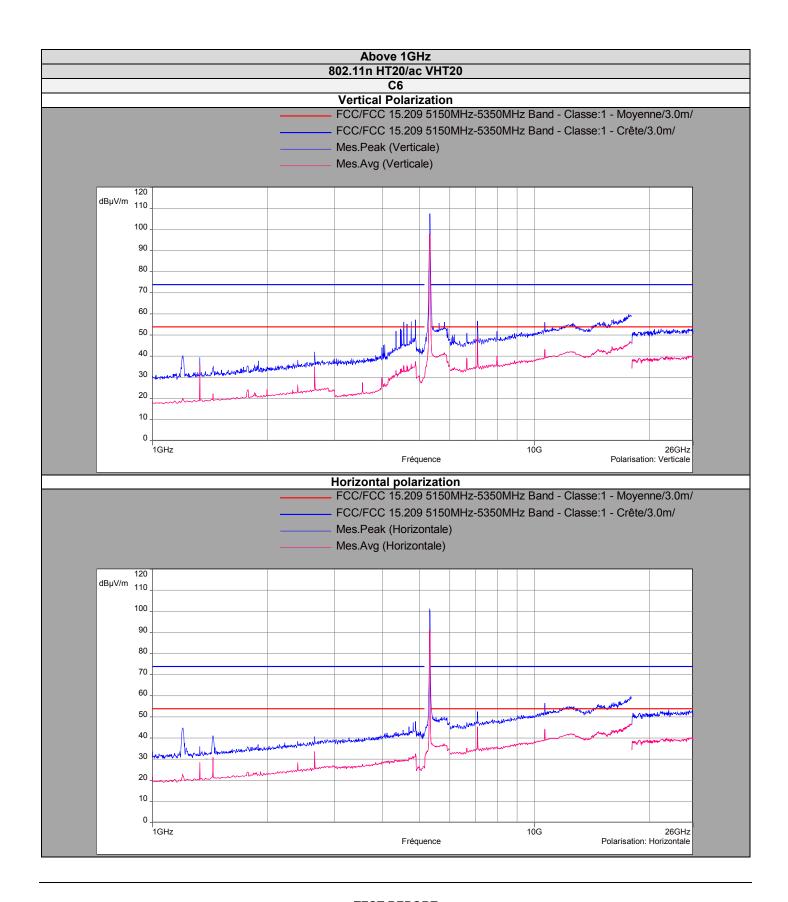




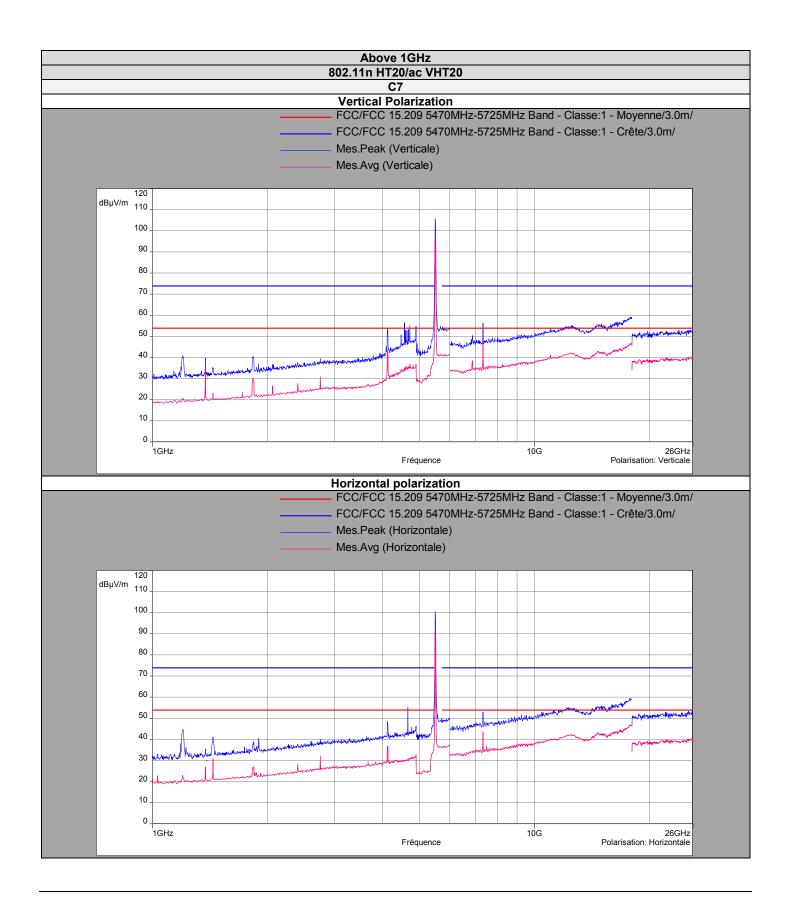




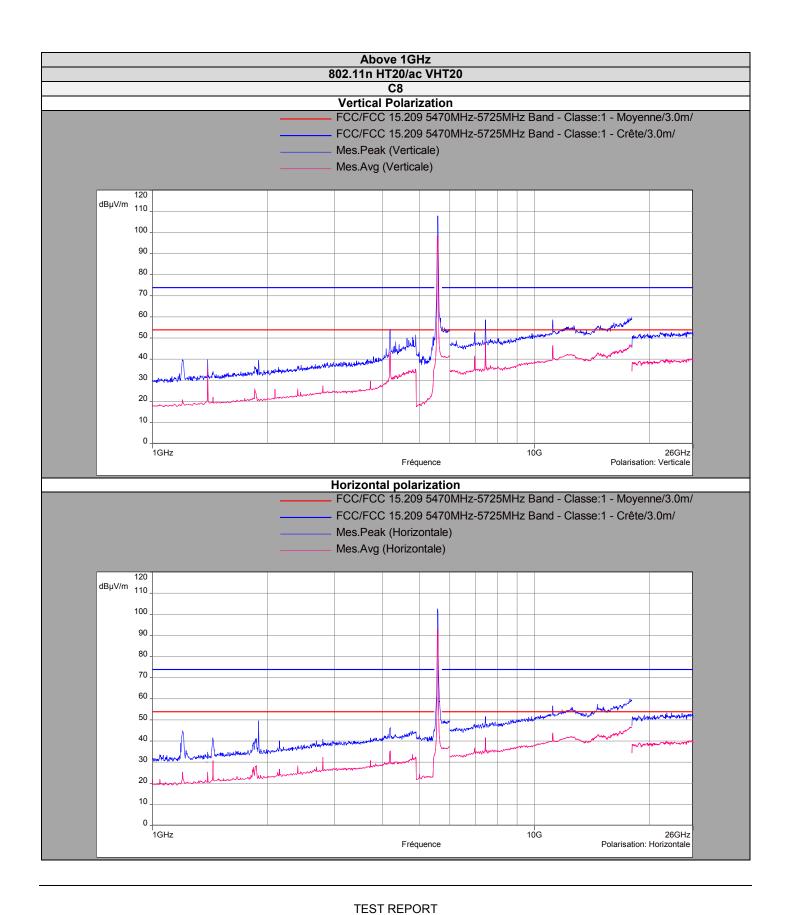




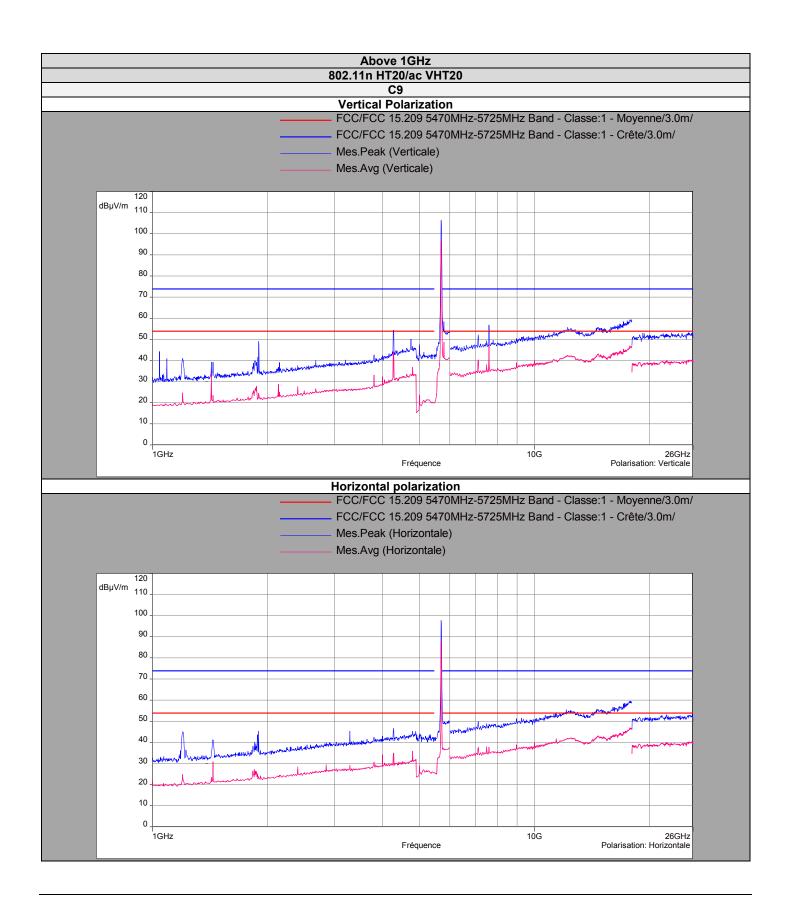




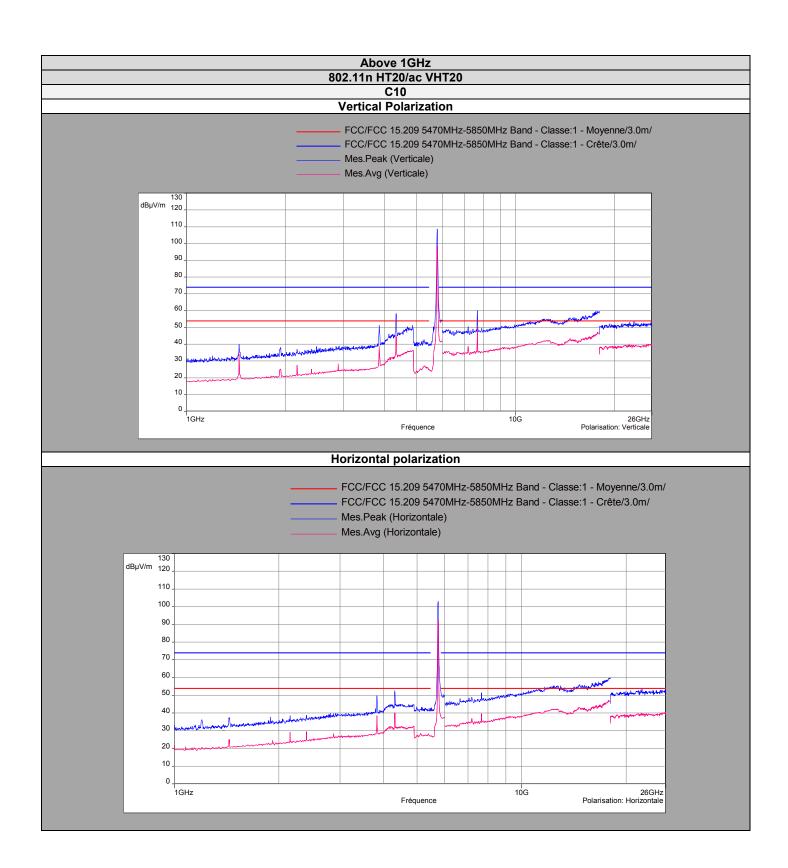




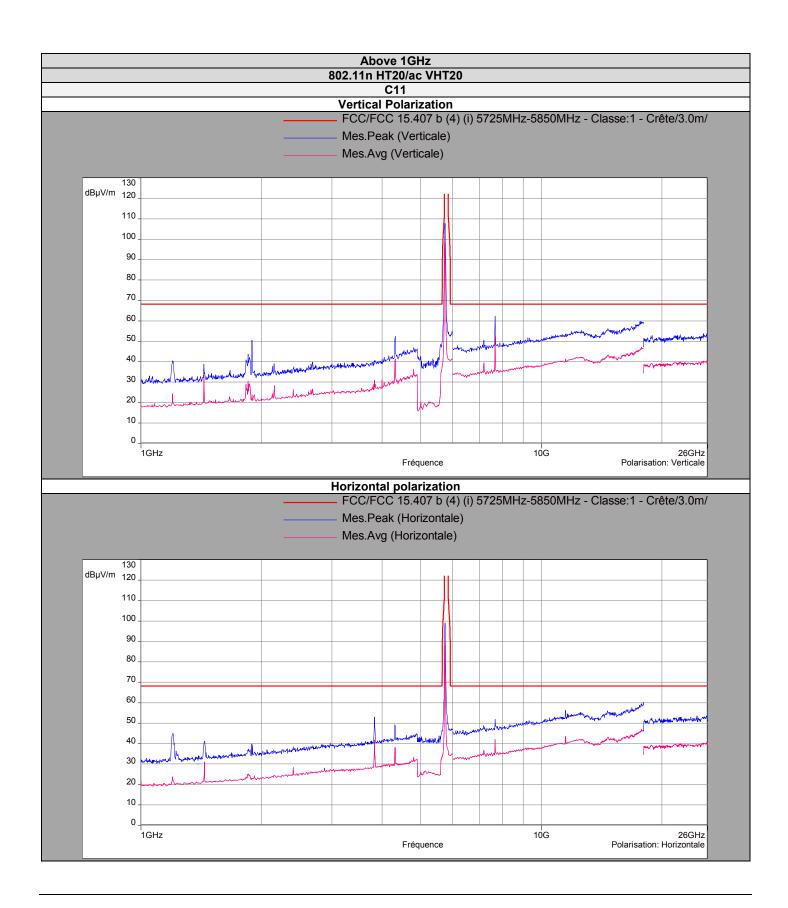




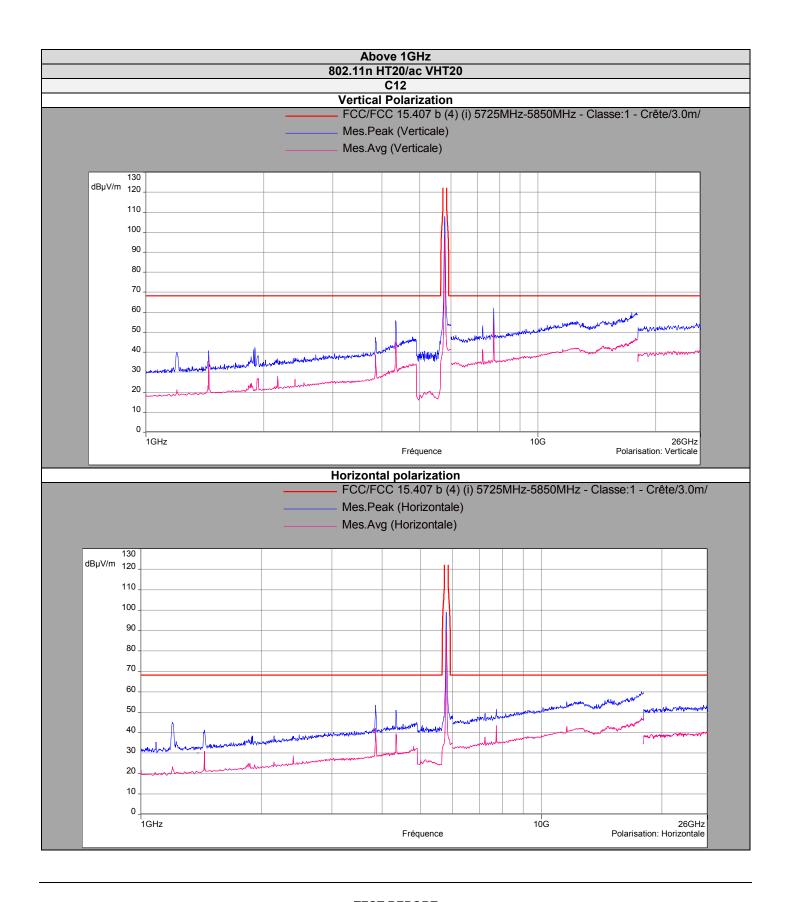




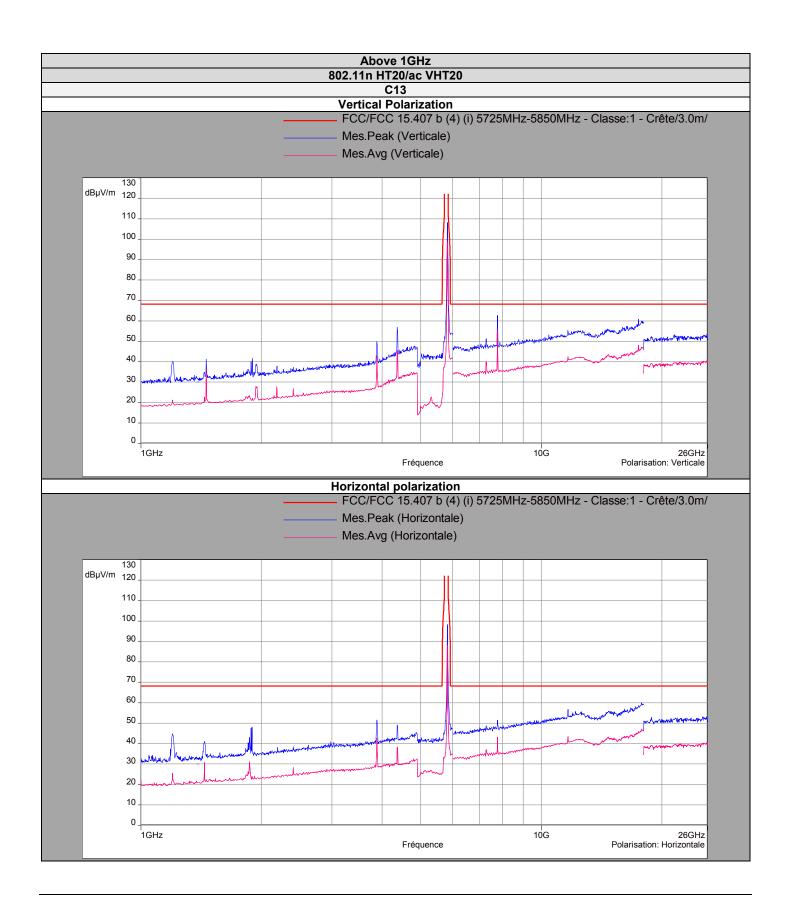




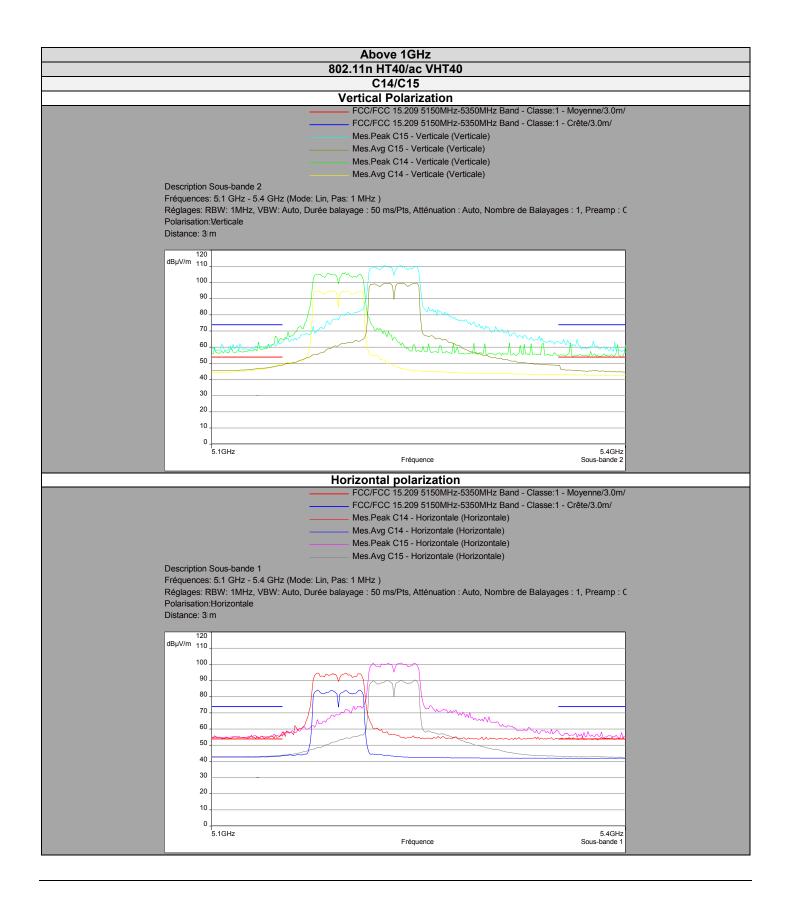




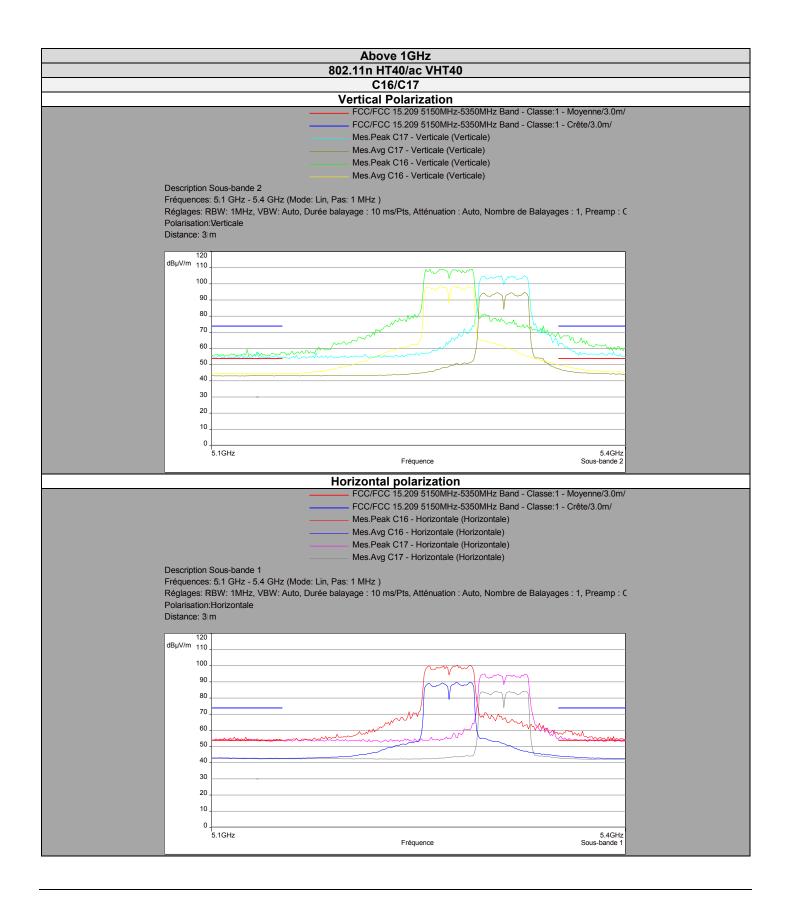




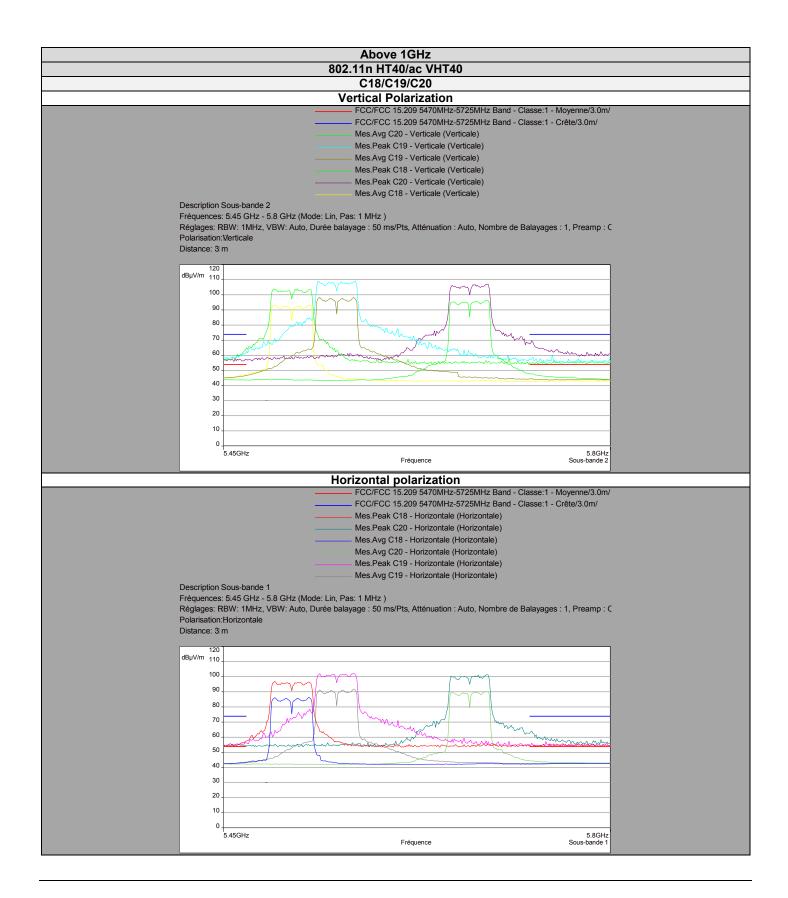




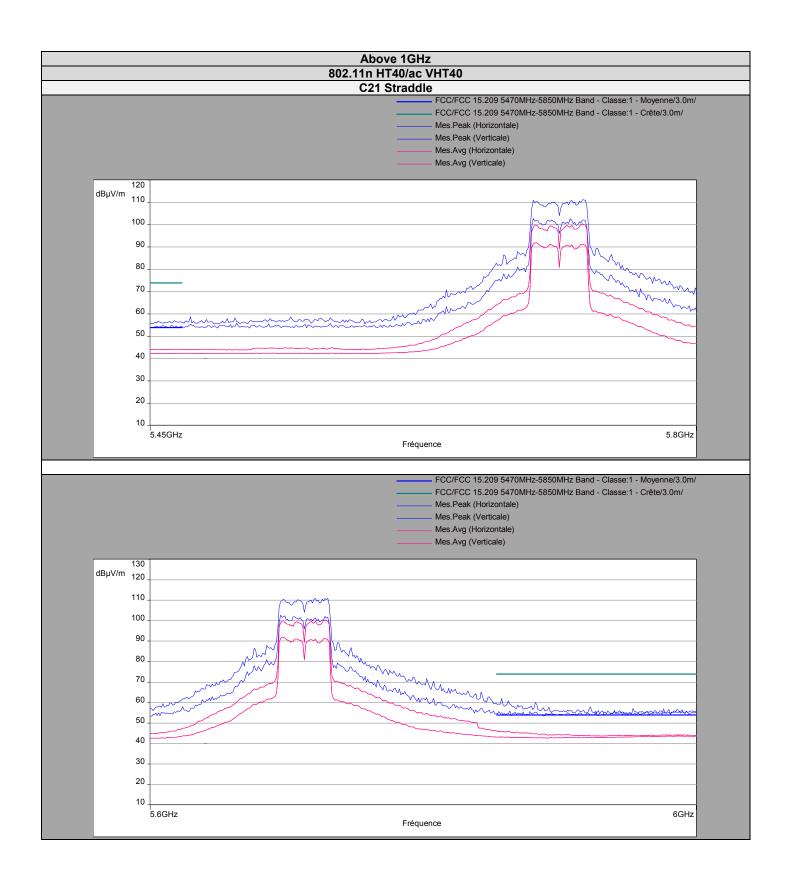




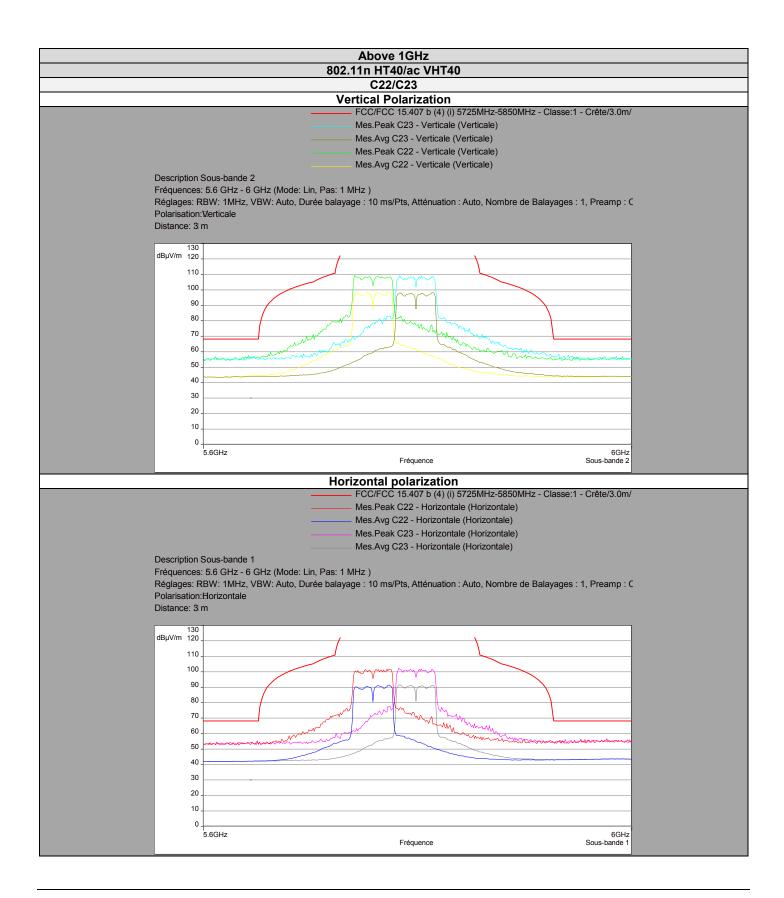




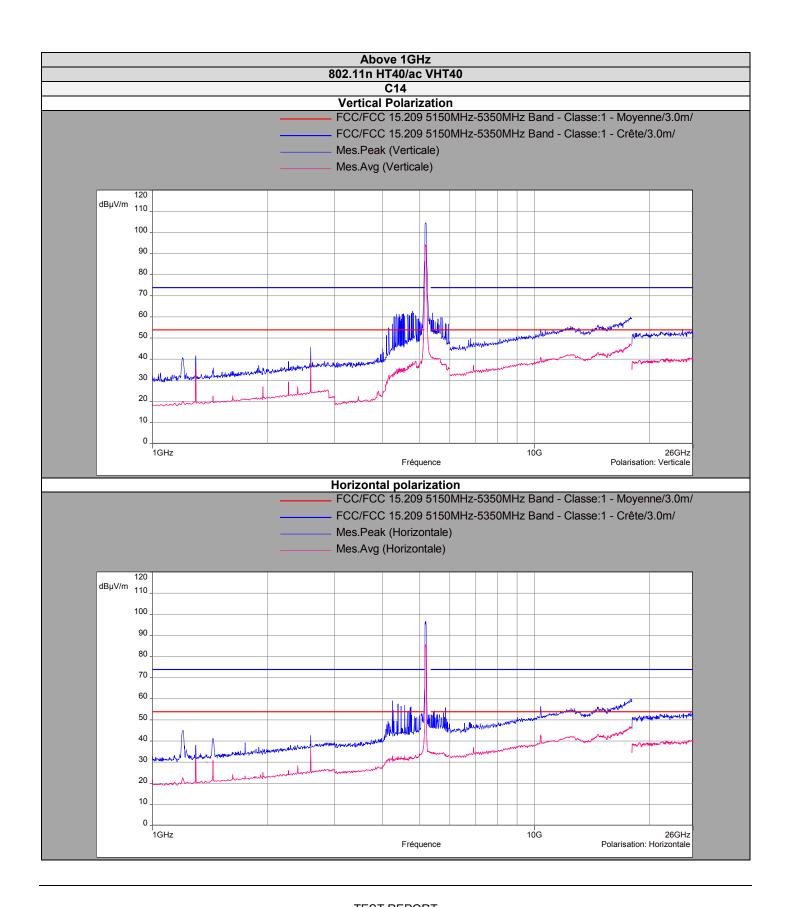




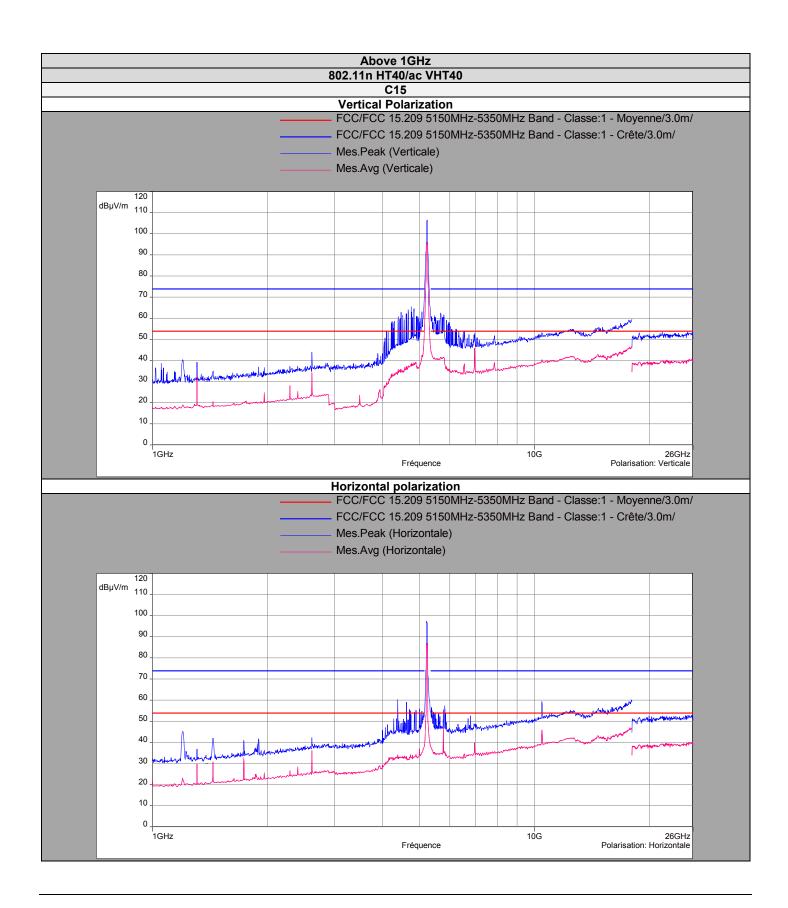




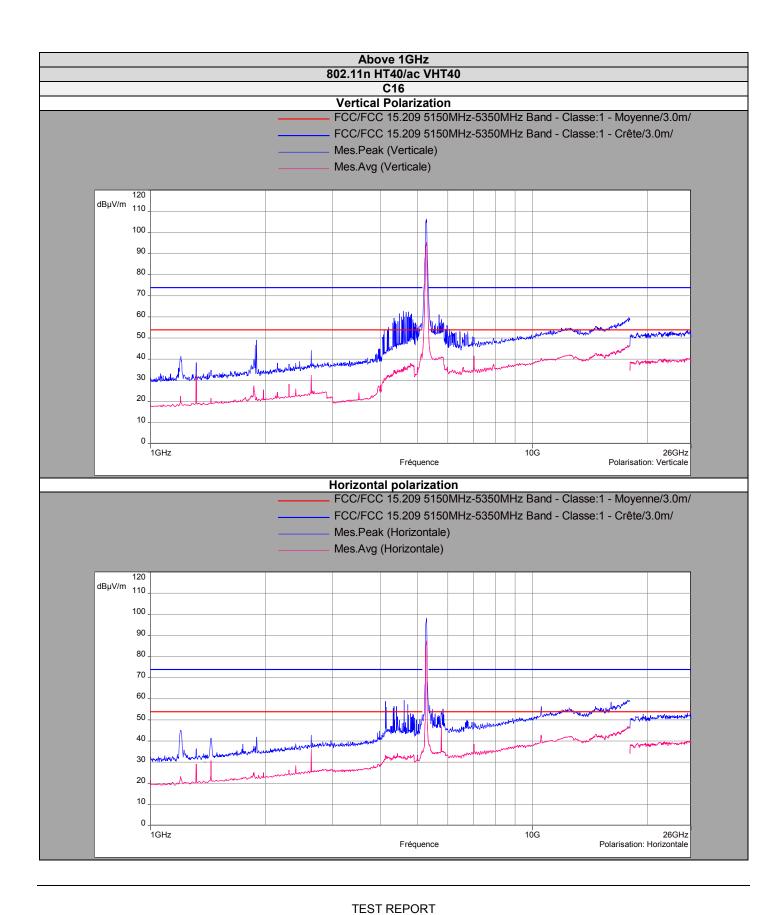




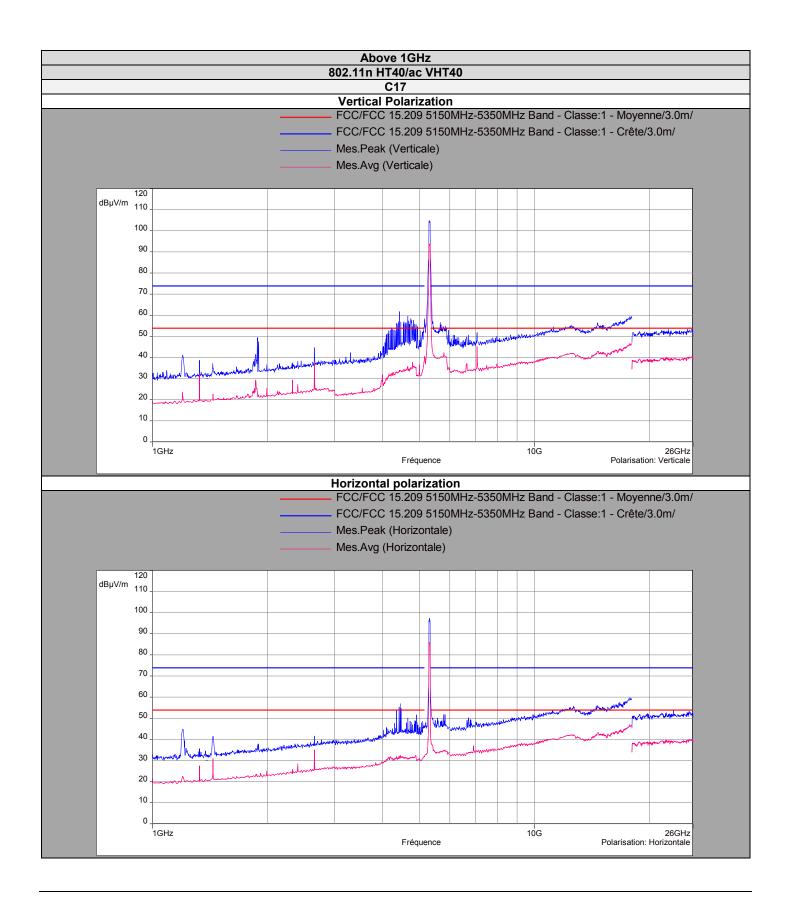




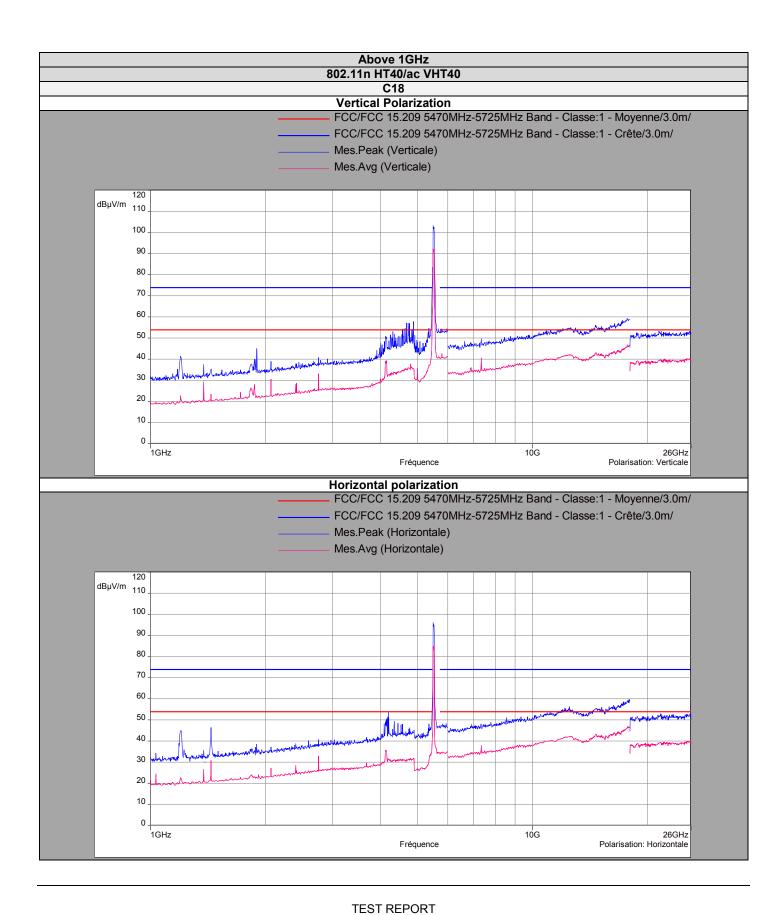




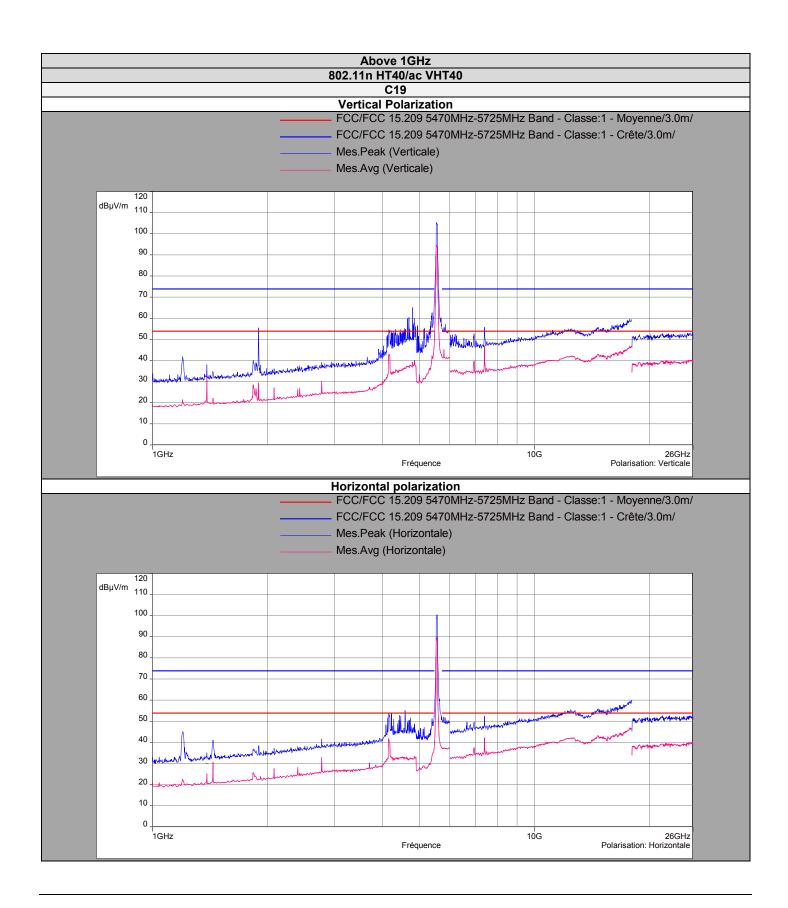




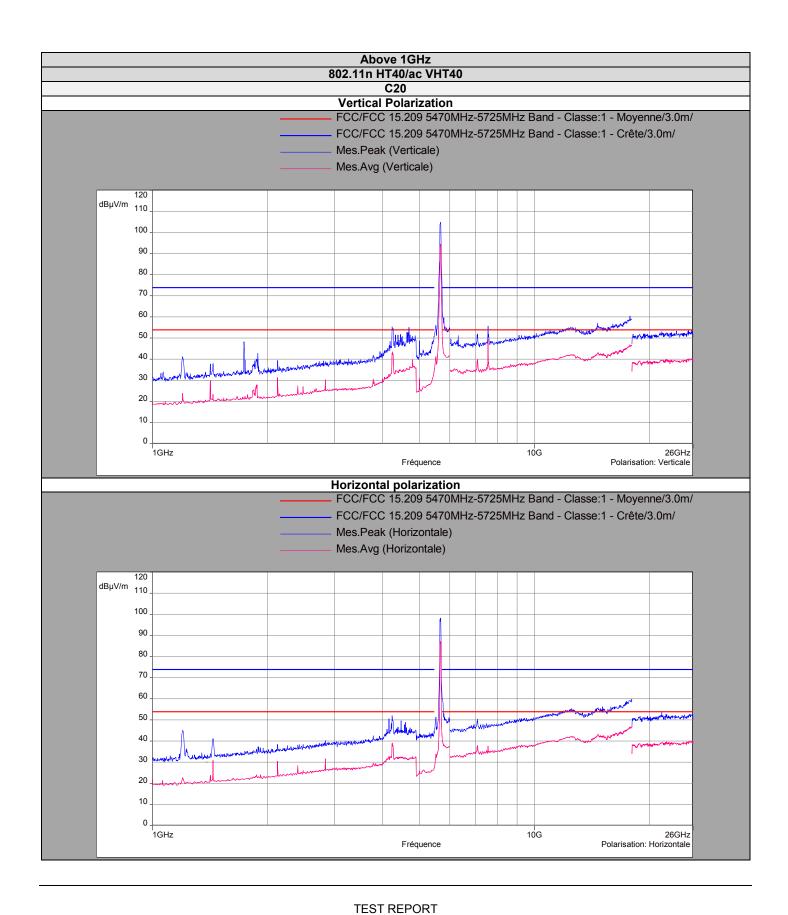




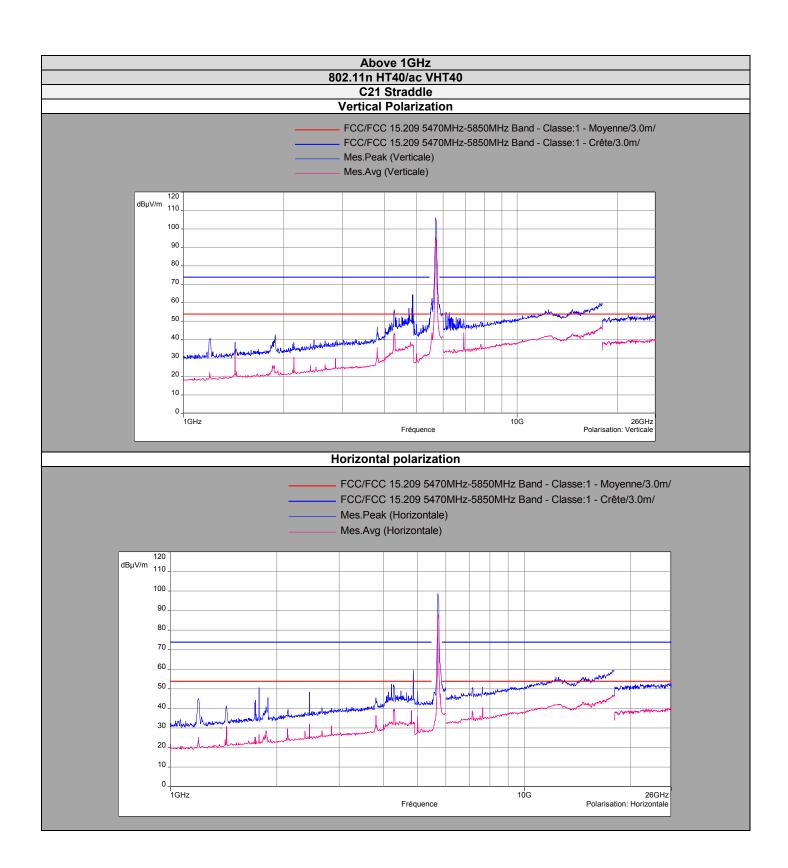




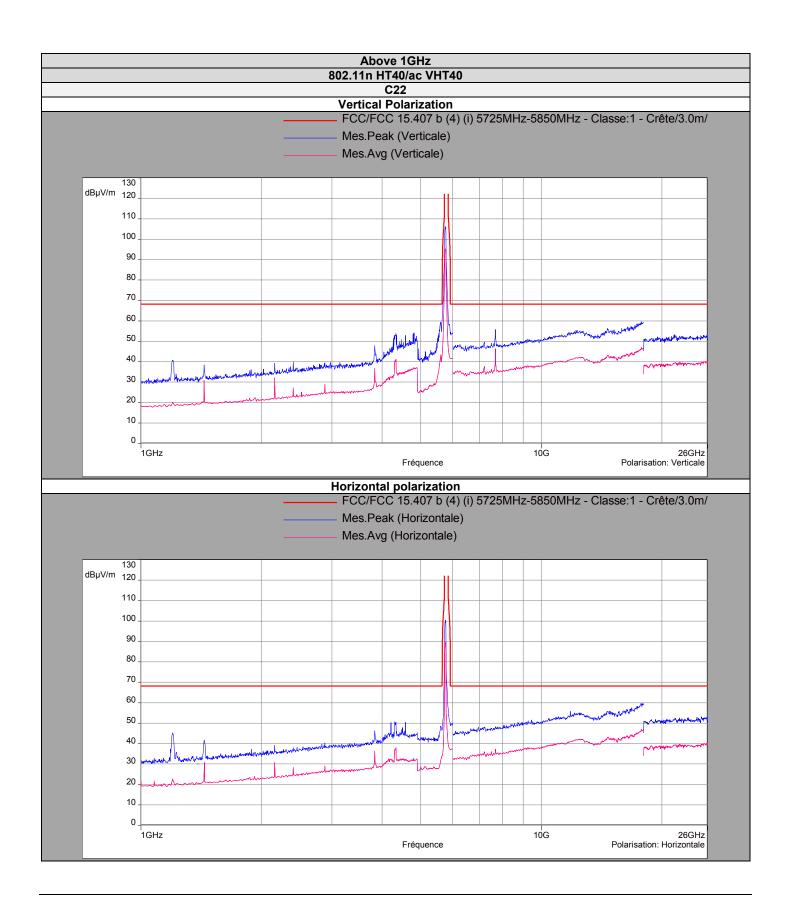




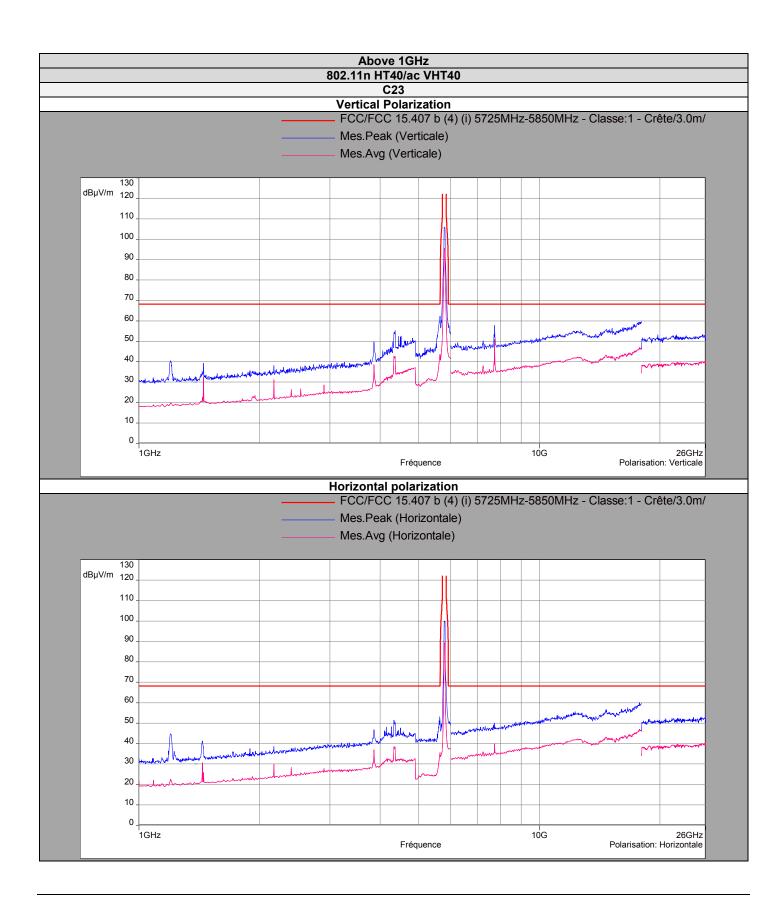




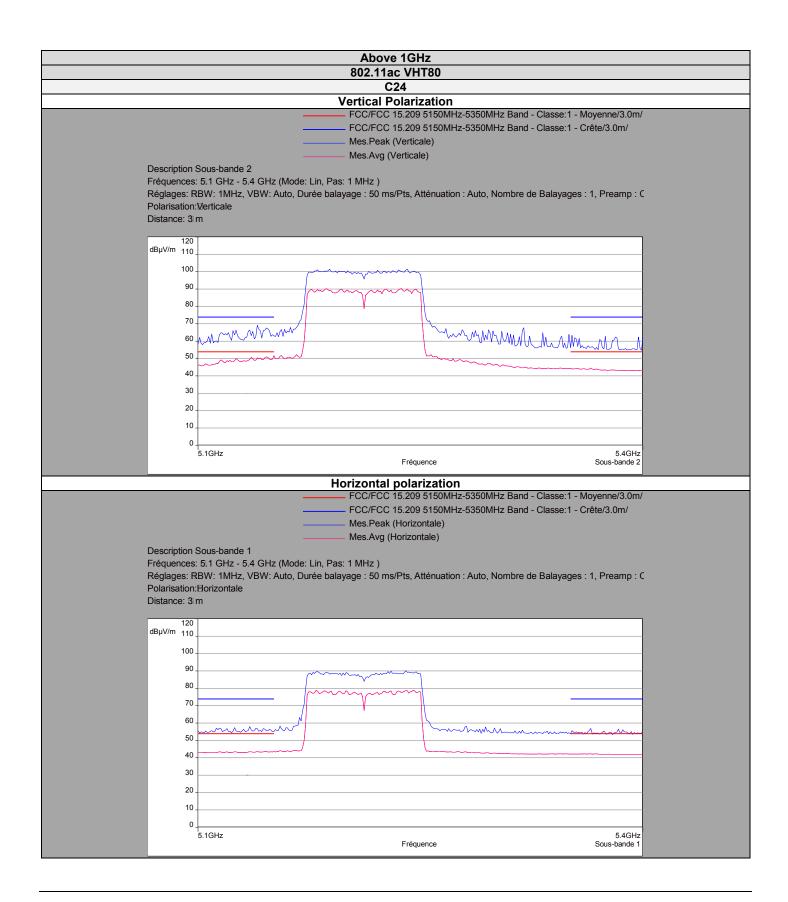








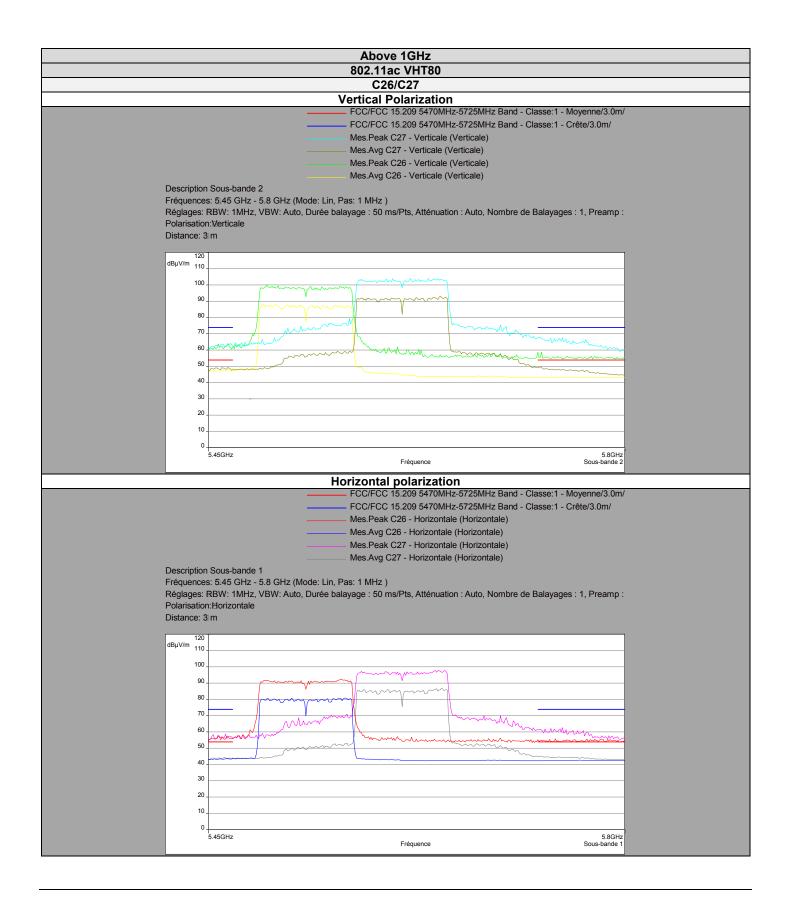




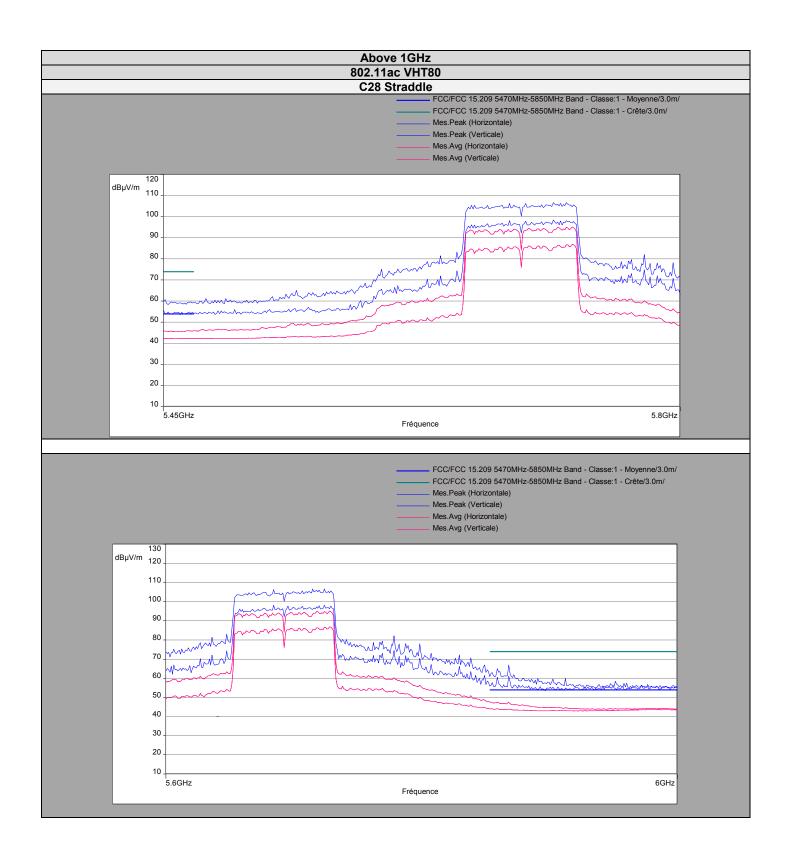




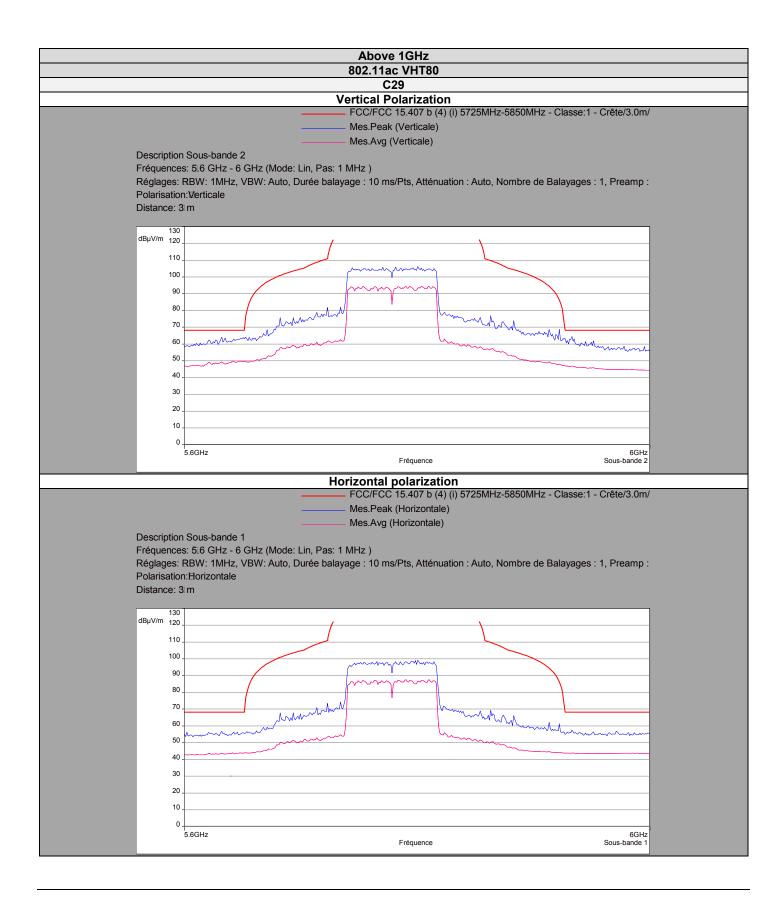




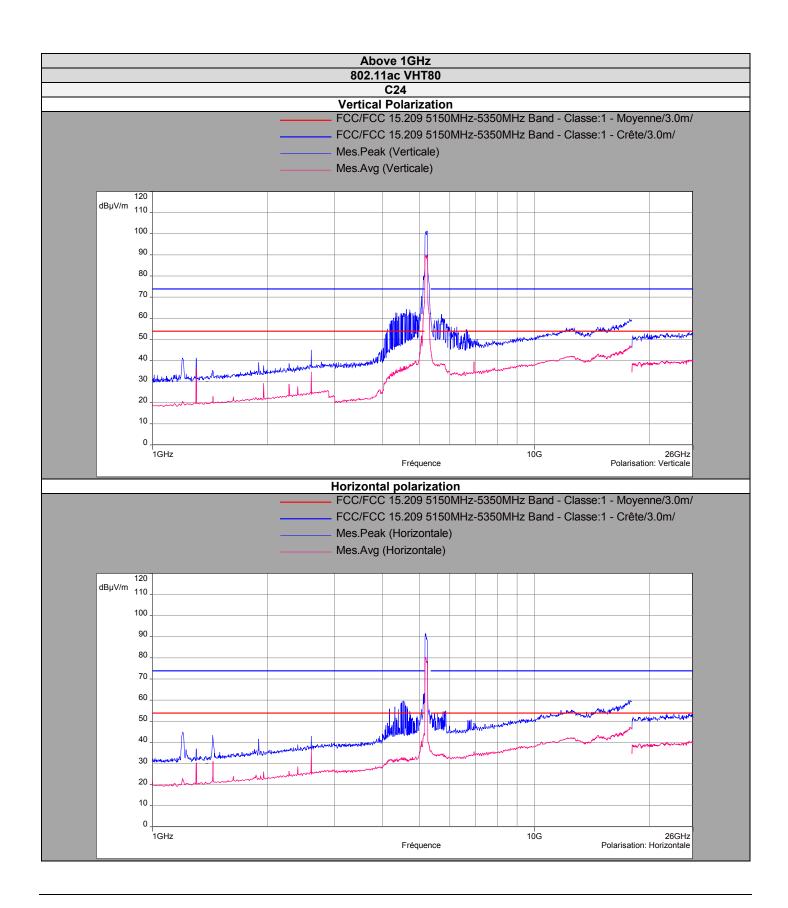




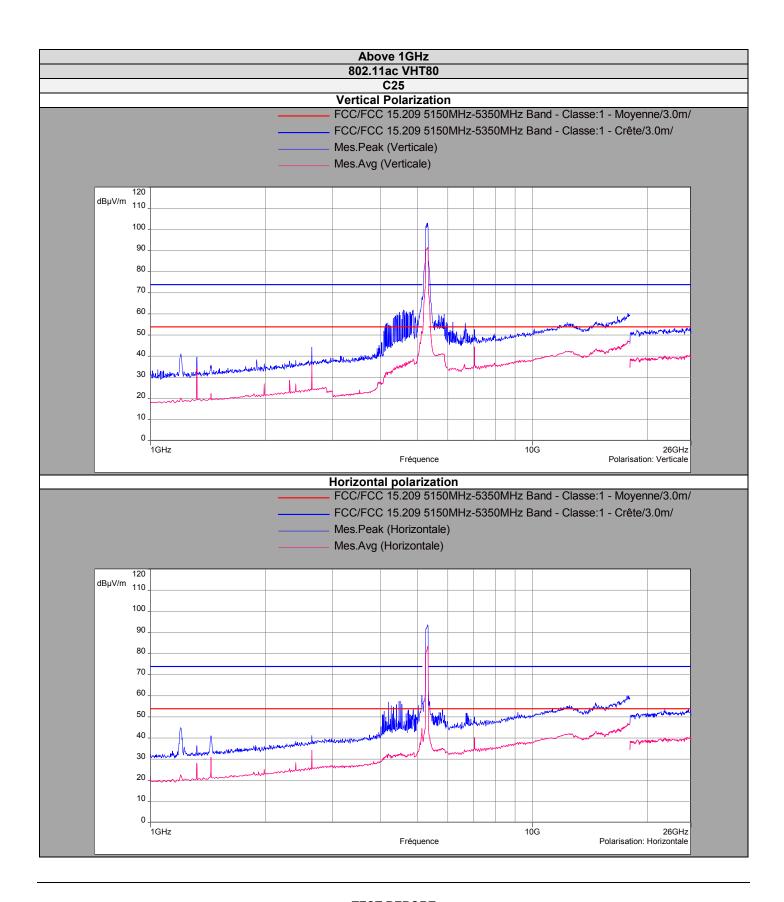




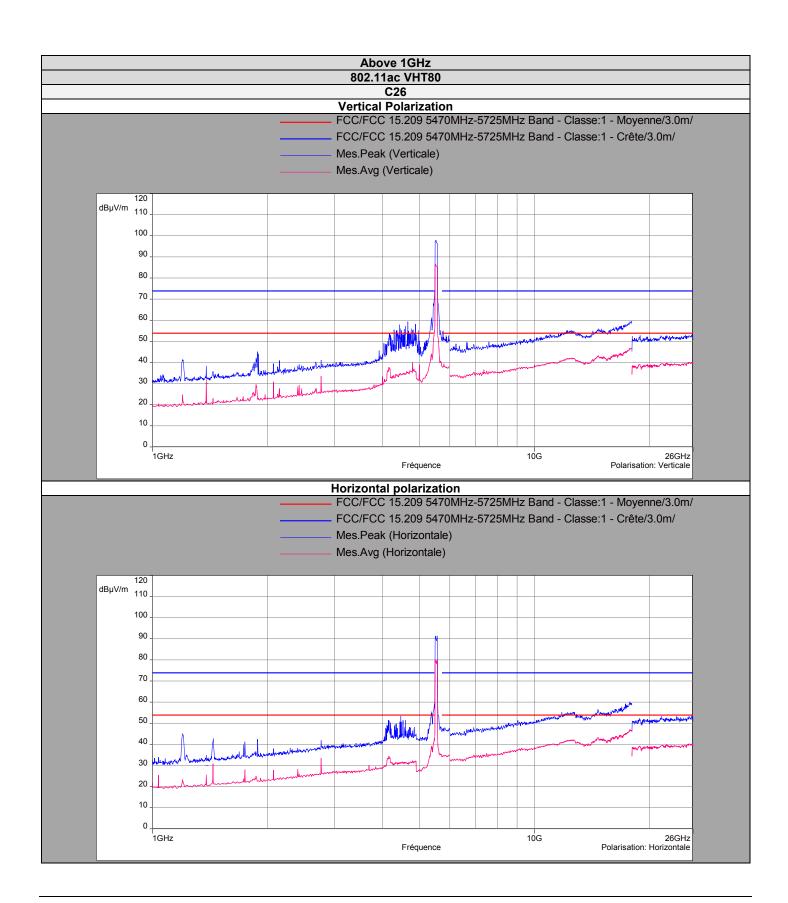




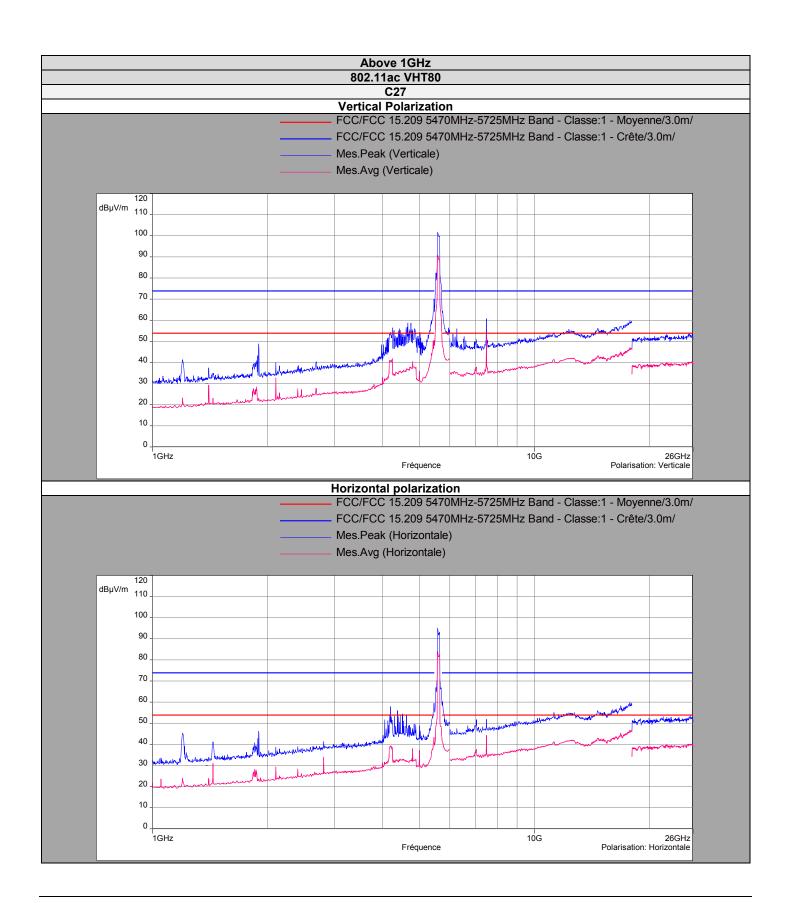




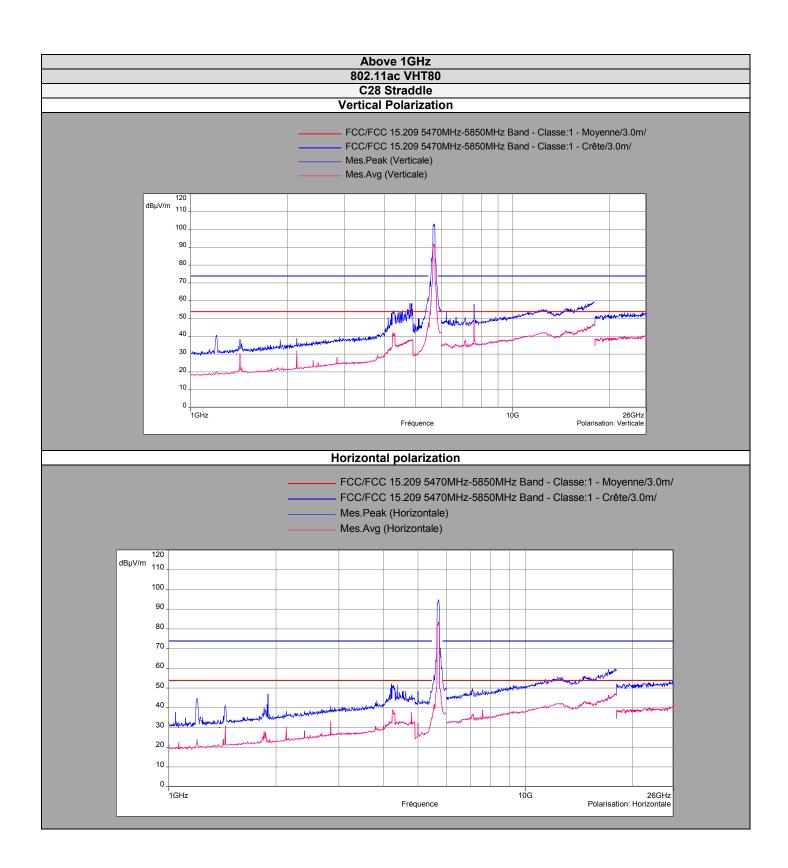




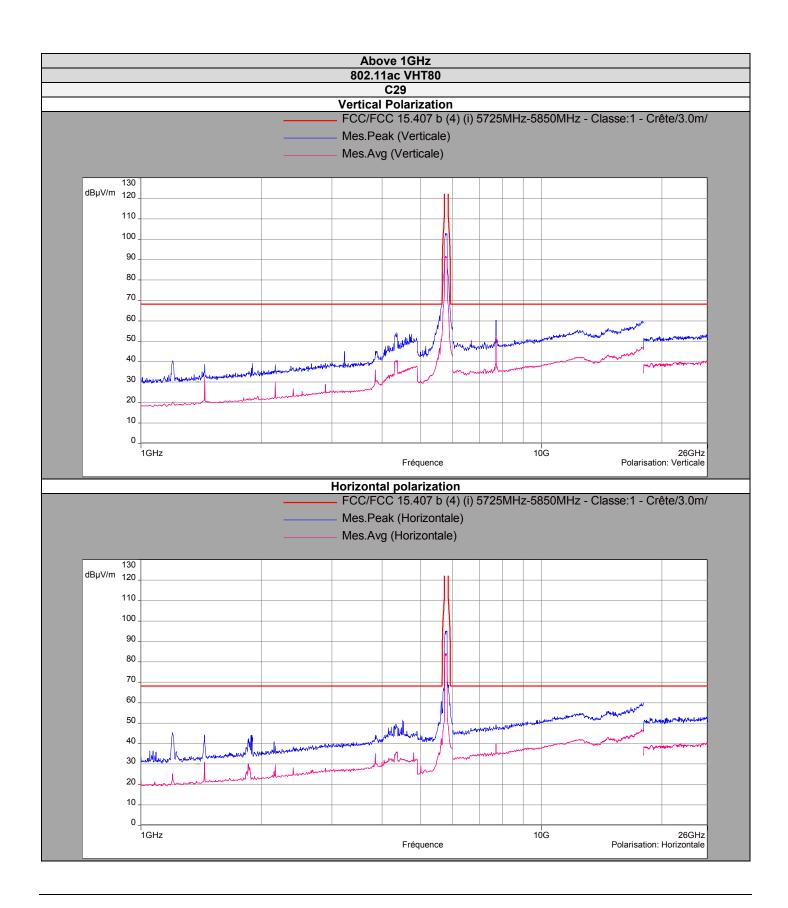














	9kHz to 30MHz								
Polarization	Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBμV/m)	Limit (dBµV/m)					
all emissions were greater than 20 dB below the limit									

	30MHz – 1GHz											
Polarization	Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)							
Verticale	65.4	34.15	-	40.0	5.85							
Verticale	49.15	30.37	-	40.0	9.62							
Verticale	108.3	30.79	-	43.5	12.71							
Verticale	204.26	35.14	-	43.5	8.36							
Horizontale	204.32	30.23	-	43.5	13.27							
Verticale	796.58	40.19	-	46.0	5.81							

				Above 1G	Hz								
				802.11a									
	Antenna 1												
C1/C2/C3 (5150MHz-5250MHz)													
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)					
Verticale	1200	23,35	23,452	54	30,65	44,73	74	29,27					
Verticale	1295	40,13	40,232	54	13,87	42,64	74	31,36					
Verticale	1300	38,74	38,842	54	15,26	41,55	74	32,45					
Verticale	2590	38,76	38,862	54	15,24	43,77	74	30,23					
Horizontale	5150	44,25	44,352	54	9,75	60,55	74	13,45					
Verticale	5150	48,46	48,562	54	5,54	68,16	74	5,84					
Horizontale	5350	42,62	42,722	54	11,38	54,53	74	19,47					
Verticale	5350	48,17	48,272	54	5,83	60,56	74	13,44					
Verticale	6907	48,27	48,372	54	5,73	54,2	74	19,8					
Verticale	6935	49,99	50,092	54	4,01	57,89	74	16,11					
Verticale	6990	48,25	48,352	54	5,75	56,3	74	17,7					
Verticale	7770	42,66	42,762	54	11,34	56,07	74	17,93					
Horizontale	10364	50,01	50,112	54	3,99	62,49	74	11,51					
Horizontale	10400	49,90	50,002	54	4,10	62,13	74	11,87					
Horizontale	10481	48,90	49,002	54	5,10	61,14	74	12,86					
Verticale	10600	45,79	45,892	54	8,21	58,29	74	15,71					



				Above 1G	<b>U</b> _							
				802.11a								
	Antenna 1											
C4/C5/C6 (5150MHz-5250MHz)												
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Horizontale	1200	22,17	22,272	54	31,83	44.83	74	29,17				
Verticale	1295	40,55	40,652	54	13,45	43.11	74	30,89				
Verticale	1315	36,99	37,092	54	17,01	40.56	74	33,44				
Verticale	1330	33,12	33,222	54	20,88	39.99	74	34,01				
Horizontale	1439	30,68	30,782	54	23,32	43.96	74	30,04				
Verticale	2431	32,45	32,552	54	21,55	48.33	74	25,67				
Verticale	2660	35,22	35,322	54	18,78	41.98	74	32,02				
Horizontale	5150	42,61	42,712	54	11,39	54.25	74	19,75				
Verticale	5150	44,30	44,402	54	9,7	55.28	74	18,72				
Horizontale	5350	43,36	43,462	54	10,64	61.24	74	12,76				
Verticale	5350	49,46	49,562	54	4,54	69.01	74	4,99				
Verticale	7014	46,52	46,622	54	7,48	55.61	74	18,39				
Horizontale	7067	48,90	49,002	54	5,1	56.14	74	17,86				
Verticale	7956	41,65	41,752	54	12,35	53.62	74	20,38				
Horizontale	10517	44,50	44,602	54	9,5	57.09	74	16,91				
Verticale	10600	44,12	44,222	54	9,88	58.42	74	15,58				

				Above 1G	Hz							
				802.11a								
	Antenna 1											
C7/C8/C9 (5470MHz-5725MHz)												
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Verticale	1043	20,23	20,332	54	33,77	44,26	74	29,74				
Verticale	1199	21,19	21,292	54	32,81	44,86	74	29,14				
Verticale	1375	36,78	36,882	54	17,22	39,79	74	34,21				
Verticale	1395	36,51	36,612	54	17,49	39,77	74	34,23				
Verticale	1425	34,35	34,452	54	19,65	39,21	74	34,79				
Verticale	4132	42,93	43,032	54	11,07	53,85	74	20,15				
Verticale	4192	43,70	43,802	54	10,3	54,18	74	19,82				
Verticale	4277	44,29	44,392	54	9,71	54,45	74	19,55				
Horizontale	1896	28,35	28,452	54	25,65	49,55	74	24,45				
Horizontale	5470	44,79	44,892	54	9,21	62,46	74	11,54				
Verticale	5470	50,76	50,862	54	3,24	71,11	74	2,89				
Horizontale	5725	42,85	42,952	54	11,15	59,85	74	14,15				
Verticale	5725	46,41	46,512	54	7,59	67,86	74	6,14				
Verticale	6972	41,53	41,632	54	12,47	52,62	74	21,38				
Verticale	7333	41,28	41,382	54	12,72	56,31	74	17,69				
Verticale	7440	48,35	48,452	54	5,65	58,58	74	15,42				
Verticale	7600	47,19	47,292	54	6,81	56,84	74	17,16				
Verticale	11166	46,80	46,902	54	7,2	58,75	74	15,25				



				Above 1GHz	2			
				802.11a				
				Antenna 1				
	T		C11/C12/0	C13 (5725MH	z-5850MHz)		T	T
Polarization	Frequenc y (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)
Horizontale	1200	22,17	22,272	68,2	46,03	44,96	68,2	23,24
Horizontale	1442	30,93	31,032	68,2	37,27	41,24	68,2	26,96
Verticale	1894	30,77	30,872	68,2	37,43	50,5	68,2	17,7
Verticale	3857	42,28	42,382	68,2	25,92	53,52	68,2	14,68
Horizontale	4305	38,07	38,172	68,2	30,13	49,25	68,2	18,95
Verticale	4316	41,65	41,752	68,2	26,55	52,46	68,2	15,74
Verticale	4336	39,55	39,652	68,2	28,65	55,72	68,2	12,48
Verticale	4362	45,65	45,752	68,2	22,55	56,91	68,2	11,29
Horizontale	5725	57,91	58,012	122,2	64,29	75,64	122,2	46,56
Verticale	5725	64,53	64,632	122,2	57,67	82,48	122,2	39,72
Horizontale	5850	51,02	51,122	122,2	71,18	66,03	122,2	56,17
Verticale	5850	61,3	61,402	122,2	60,90	76,82	122,2	45,38
Horizontale	3830	41,87	41,972	68,2	26,33	52,97	68,2	15,23
Verticale	7660	52,80	52,902	68,2	15,40	62,26	68,2	5,94

68,2

68,2

11,83

12,70

62,16

62,76

68,2

68,2

6,04

5,44

Verticale

Verticale

7714

7767

56,37

55,50

56,472

55,602

				Above 1G								
				802.11a								
	Antenna 2											
	C1/C2/C3 (5150MHz-5250MHz)											
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Verticale	1200	24,05	24,152	54	29,95	45,66	74	28,34				
Verticale	1295	40,28	40,382	54	13,72	42,77	74	31,23				
Verticale	1300	37,71	37,812	54	16,29	41,87	74	32,13				
Verticale	2590	38,86	38,962	54	15,14	43,79	74	30,21				
Horizontale	5150	44,39	44,492	54	9,61	60,59	74	13,41				
Verticale	5150	49,55	49,652	54	4,45	68,39	74	5,61				
Horizontale	5350	42,69	42,792	54	11,31	55,13	74	18,87				
Verticale	5350	48,37	48,472	54	5,63	61,02	74	12,98				
Verticale	6907	47,79	47,892	54	6,21	55,28	74	18,72				
Verticale	6935	50,11	50,212	54	3,89	57,99	74	16,01				
Verticale	6990	47,88	47,982	54	6,12	57,99	74	16,01				
Verticale	7770	42,74	42,842	54	11,26	57,33	74	16,67				
Horizontale	10364	50,09	50,192	54	3,91	63,22	74	10,78				
Horizontale	10400	50,21	50,312	54	3,79	61,98	74	12,02				
Horizontale	10481	49,07	49,172	54	4,93	61,33	74	12,67				
Verticale	10600	45,88	45,982	54	8,12	58,85	74	15,15				



				Above 1G	ш-,							
				802.11a								
	Antenna 2											
C4/C5/C6 (5150MHz-5250MHz)												
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Horizontale	1200	23,88	23,982	54	30,12	45,03	74	28,97				
Verticale	1295	40,87	40,972	54	13,13	41,27	74	32,73				
Verticale	1315	38,09	38,192	54	15,91	41,21	74	32,79				
Verticale	1330	34,22	34,322	54	19,78	39,09	74	34,91				
Horizontale	1439	30,96	31,062	54	23,04	44,36	74	29,64				
Verticale	2431	33,58	33,682	54	20,42	49,03	74	24,97				
Verticale	2660	35,99	36,092	54	18,01	40,99	74	33,01				
Horizontale	5150	43,09	43,192	54	10,91	54,55	74	19,45				
Verticale	5150	45,32	45,422	54	8,68	55,61	74	18,39				
Horizontale	5350	43,82	43,922	54	10,18	61,92	74	12,08				
Verticale	5350	49,96	50,062	54	4,04	68,01	74	5,99				
Verticale	7014	46,59	46,692	54	7,41	55,55	74	18,45				
Horizontale	7067	47,91	48,012	54	6,09	56,79	74	17,21				
Verticale	7956	42,65	42,752	54	11,35	53,83	74	20,17				
Horizontale	10517	43,87	43,972	54	10,13	57,85	74	16,15				
Verticale	10600	45,21	45,312	54	8,79	58,49	74	15,51				

				Above 1G	Hz							
				802.11a								
	Antenna 2											
C7/C8/C9 (5470MHz-5725MHz)												
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Verticale	1043	22,84	22,942	54	31,16	44,62	74	29,38				
Verticale	1199	22,11	22,212	54	31,89	44,99	74	29,01				
Verticale	1375	38,21	38,312	54	15,79	40,43	74	33,57				
Verticale	1395	36,57	36,672	54	17,43	40,26	74	33,74				
Verticale	1425	34,69	34,792	54	19,31	39,39	74	34,61				
Verticale	4132	43,01	43,112	54	10,99	53,99	74	20,01				
Verticale	4192	44,07	44,172	54	9,93	54,97	74	19,03				
Verticale	4277	45,12	45,222	54	8,88	54,29	74	19,71				
Horizontale	1896	30,69	30,792	54	23,31	48,39	74	25,61				
Horizontale	5470	44,33	44,432	54	9,67	63,41	74	10,59				
Verticale	5470	50,89	50,992	54	3,11	70,75	74	3,25				
Horizontale	5725	43,82	43,922	54	10,18	60,09	74	13,91				
Verticale	5725	46,49	46,592	54	7,51	68,15	74	5,85				
Verticale	6972	42,05	42,152	54	11,95	54,55	74	19,45				
Verticale	7333	41,39	41,492	54	12,61	58,32	74	15,68				
Verticale	7440	48,48	48,582	54	5,52	59,17	74	14,83				
Verticale	7600	47,55	47,652	54	6,45	57,86	74	16,14				
Verticale	11166	46,89	46,992	54	7,11	59,28	74	14,72				



				Above 1GHz				
				802.11a				
				Antenna 2				
			C11/C12/0	C13 (5725MHz	:-5850MHz)			
Polarization	Frequenc y (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)
Horizontale	1200	25,01	25,112	68,2	43,19	44,07	68,2	24,13
Horizontale	1442	32,32	32,422	68,2	35,88	42,21	68,2	25,99
Verticale	1894	31,29	31,392	68,2	36,91	50,59	68,2	17,61
Verticale	3857	42,87	42,972	68,2	25,33	55,02	68,2	13,18
Horizontale	4305	40,07	40,172	68,2	28,13	50,86	68,2	17,34
Verticale	4316	40,88	40,982	68,2	27,32	52,66	68,2	15,54
Verticale	4336	40,51	40,612	68,2	27,69	54,79	68,2	13,41
Verticale	4362	45,77	45,872	68,2	22,43	57,91	68,2	10,29
Horizontale	5725	57,94	58,042	122,2	64,26	73,98	122,2	48,22
Verticale	5725	65,55	65,652	122,2	56,65	81,68	122,2	40,52
Horizontale	5850	52,08	52,182	122,2	70,12	67,09	122,2	55,11
Verticale	5850	61,39	61,492	122,2	60,81	75,75	122,2	46,45
Horizontale	3830	41,79	41,892	68,2	26,41	52,99	68,2	15,21
Verticale	7660	53,82	53,922	68,2	14,38	62,85	68,2	5,35
Verticale	7714	57,99	58,092	68,2	10,21	62,36	68,2	5,84
Verticale	7767	54,89	54,992	68,2	13,31	62,79	68,2	5,41

	Above 1GHz											
			8	02.11n HT20/ad	VHT20							
	C1/C2/C3 (5150MHz-5250MHz)											
Polarization	Frequency (MHz)		Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Verticale	1200	23,87	24,075	54	30,13	45.07	74	28,93				
Verticale	1295	41,10	41,305	54	12,90	42.69	74	31,31				
Verticale	1300	39,77	39,975	54	14,23	41,98	74	32,02				
Verticale	2590	37,71	37,915	54	16,29	44.91	74	29,09				
Horizontale	5150	42,66	42,865	54	11,34	60,81	74	13,19				
Verticale	5150	47,55	47,755	54	6,45	68,09	74	5,91				
Horizontale	5350	42,77	42,975	54	11,23	54,99	74	19,01				
Verticale	5350	47,17	47,375	54	6,83	60,17	74	13,83				
Verticale	6907	49,26	49,465	54	4,74	54,29	74	19,71				
Verticale	6935	48,95	49,155	54	5,05	57,09	74	16,91				
Verticale	6990	49,11	49,315	54	4,89	56,37	74	17,63				
Verticale	7770	43,06	43,265	54	10,94	56,29	74	17,71				
Horizontale	10364	49,81	50,015	54	4,19	62,55	74	11,45				
Horizontale	10400	49,28	49,485	54	4,72	62,26	74	11,74				
Horizontale	10481	48,82	49,025	54	5,18	61,07	74	12,93				
Verticale	10600	45,85	46,055	54	8,15	58,09	74	15,91				



	Above 1GHz											
	802.11n HT20/ac VHT20											
C4/C5/C6 (5150MHz-5250MHz)												
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)				
Horizontale	1200	22,25	22,455	54	31,75	44,94	74	29,06				
Verticale	1295	41,05	41,255	54	12,95	43,82	74	30,18				
Verticale	1315	35,99	36,195	54	18,01	40,91	74	33,09				
Verticale	1330	33,28	33,485	54	20,72	40,26	74	33,74				
Horizontale	1439	30,77	30,975	54	23,23	42,59	74	31,41				
Verticale	2431	32,88	33,085	54	21,12	48,27	74	25,73				
Verticale	2660	35,35	35,555	54	18,65	41,49	74	32,51				
Horizontale	5150	42,44	42,645	54	11,56	55,01	74	18,99				
Verticale	5150	44,52	44,725	54	9,48	56,09	74	17,91				
Horizontale	5350	44,17	44,375	54	9,83	62,33	74	11,67				
Verticale	5350	50,28	50,485	54	3,72	69,77	74	4,23				
Verticale	7014	46,83	47,035	54	7,17	55,76	74	18,24				
Horizontale	7067	48,88	49,085	54	5,12	56,34	74	17,66				
Verticale	7956	41,96	42,165	54	12,04	53,69	74	20,31				
Horizontale	10517	44,52	44,725	54	9,48	57,22	74	16,78				
Verticale	10600	44,19	44,395	54	9,81	58,81	74	15,19				

				Above 1G	Hz					
			8	02.11n HT20/ad	VHT20					
	C7/C8/C9 (5470MHz-5725MHz)									
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)		
Verticale	1043	20,32	20,525	54	33,68	44,44	74	29,56		
Verticale	1199	21,28	21,485	54	32,72	45,25	74	28,75		
Verticale	1375	36,19	36,395	54	17,81	41,01	74	32,99		
Verticale	1395	36,55	36,755	54	17,45	40,06	74	33,94		
Verticale	1425	34,85	35,055	54	19,15	39,76	74	34,24		
Verticale	4132	43,91	44,115	54	10,09	53,58	74	20,42		
Verticale	4192	43,77	43,975	54	10,23	54,93	74	19,07		
Verticale	4277	43,31	43,515	54	10,69	54,79	74	19,21		
Horizontale	1896	28,53	28,735	54	25,47	49,82	74	24,18		
Horizontale	5470	44,82	45,025	54	9,18	62,36	74	11,64		
Verticale	5470	50,71	50,915	54	3,29	71,51	74	2,49		
Horizontale	5725	42,98	43,185	54	11,02	59,79	74	14,21		
Verticale	5725	46,29	46,495	54	7,71	67,28	74	6,72		
Verticale	6972	41,55	41,755	54	12,45	52,73	74	21,27		
Verticale	7333	41,49	41,695	54	12,51	56,49	74	17,51		
Verticale	7440	48,52	48,725	54	5,48	58,66	74	15,34		
Verticale	7600	47,39	47,595	54	6,61	56,67	74	17,33		
Verticale	11166	46,89	47,095	54	7,11	58,85	74	15,15		



				Above 1GHz	,				
			802.	11n HT20/ac \					
	C11/C12/C13 (5725MHz-5850MHz)								
Polarization	Frequenc y (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	1200	24,37	24,575	68,2	43,83	45,86	68,2	22,34	
Horizontale	1442	32,05	32,255	68,2	36,15	41,69	68,2	26,51	
Verticale	1894	31,21	31,415	68,2	36,99	51,55	68,2	16,65	
Verticale	3857	42,45	42,655	68,2	25,75	53,53	68,2	14,67	
Horizontale	4305	38,47	38,675	68,2	29,73	49,33	68,2	18,87	
Verticale	4316	41,69	41,895	68,2	26,51	52,49	68,2	15,71	
Verticale	4336	39,59	39,795	68,2	28,61	55,75	68,2	12,45	
Verticale	4362	45,77	45,975	68,2	22,43	56,89	68,2	11,31	
Horizontale	5725	58,03	58,235	122,2	76,43	75,69	122,2	46,51	
Verticale	5725	64,99	65,195	122,2	64,17	82,59	122,2	39,61	
Horizontale	5850	51,09	51,295	122,2	57,21	66,09	122,2	56,11	
Verticale	5850	61,07	61,275	122,2	71,11	76,87	122,2	45,33	
Horizontale	3830	41,81	42,015	68,2	26,39	51,99	68,2	22,01	
Verticale	7660	52,84	53,045	68,2	15,36	62,33	68,2	11,67	
Verticale	7714	56,61	56,815	68,2	11,59	62,39	68,2	11,61	
Verticale	7767	55,62	55,825	68,2	12,58	62,86	68,2	11,14	

				Above 1G	Hz					
	802.11n HT40/ac VHT40									
			C14	/C15 (5150MHz	-5250MHz)					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)		
Horizontale	1202	22,72	23,125	54	31,28	45,07	74	28,93		
Verticale	1298	36,51	36,915	54	17,49	41,66	74	32,34		
Verticale	1307	32,65	33,055	54	21,35	39,15	74	34,85		
Horizontale	1440	30,53	30,935	54	23,47	42,99	74	31,01		
Horizontale	1733	32,62	33,025	54	21,38	41,14	74	32,86		
Horizontale	1897	27,11	27,515	54	26,89	41,77	74	32,23		
Verticale	2595	39,22	39,625	54	14,78	45,67	74	28,33		
Verticale	2615	34,17	34,575	54	19,83	44,05	74	29,95		
Horizontale	5150	43,45	43,855	54	10,55	55,58	74	18,42		
Verticale	5150	49,39	49,795	54	4,61	64,63	74	9,37		
Horizontale	5350	43,26	43,665	54	10,74	58,71	74	15,29		
Verticale	5350	48,78	49,185	54	5,22	63,49	74	10,51		
Horizontale	5816	47,76	48,165	54	6,24	57,39	74	16,61		
Horizontale	10382	42,17	42,575	54	11,83	56,48	74	17,52		
Verticale	10458	45,82	46,225	54	8,18	59,41	74	14,59		



				Above 1G	Hz					
	802.11n HT40/ac VHT40									
			C16	/C17 (5250MHz	-5350MHz)					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)		
Horizontale	1200	23,49	23,895	54	30,51	45,19	74	28,81		
Verticale	1318	32,12	32,525	54	21,88	38,44	74	35,56		
Horizontale	1440	31,07	31,475	54	22,93	41,49	74	32,51		
Verticale	1896	27,77	28,175	54	26,23	49,06	74	24,94		
Horizontale	2635	35,96	36,365	54	18,04	42,86	74	31,14		
Verticale	2665	37,86	38,265	54	16,14	44,63	74	29,37		
Horizontale	5150	42,71	43,115	54	11,29	53,91	74	20,09		
Verticale	5150	44,41	44,815	54	9,59	57,54	74	16,46		
Horizontale	5350	42,88	43,285	54	11,12	54,57	74	19,43		
Verticale	5350	47,55	47,955	54	6,45	61,65	74	12,35		
Horizontale	5835	46,45	46,855	54	7,55	55,21	74	18,79		
Horizontale	10538	42,91	43,315	54	11,09	56,41	74	17,59		

	Above 1GHz								
			8	02.11n HT40/ad	VHT40				
			C18/C	19/C20 (5470M	Hz-5725MHz)				
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)	
Horizontale	1199	22,92	427,92	54	31,08	44,97	74	29,03	
Horizontale	1440	30,88	435,88	54	23,12	46,41	74	27,59	
Verticale	1897	28,54	433,54	54	25,46	45,03	74	28,97	
Horizontale	5470	43,59	448,59	54	10,41	57,53	74	16,47	
Verticale	5470	47,61	452,61	54	6,39	64,88	74	9,12	
Horizontale	Horizontale 5725 44,39 449,39 54 9,61 62,53 74 11,47								
Verticale	5725	47,67	452,67	54	6,33	67,46	74	6,54	

				Above 1G	Hz			
			8	02.11n HT40/a	C VHT40			
			C22	/C23 (5725MHz	-5850MHz)			
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)
Horizontale	1200	22,97	23,375	68,2	31,03	45.22	68,2	22,98
Horizontale	1438	30,59	30,995	68,2	23,41	41.38	68,2	26,82
Horizontale	5725	54,85	55,255	122,2	67,35	73.52	122,2	48,68
Verticale	5725	62,61	63,015	122,2	59,59	81.45	122,2	40,75
Horizontale	5850	49,23	49,635	122,2	72,97	66.26	122,2	55,94
Verticale	5850	54,76	55,165	122,2	67,44	70.86	122,2	51,34
Verticale	7673	46,49	46,895	68,2	7,51	55.73	68,2	12,47



				Above 1G	Hz			
				802.11ac VH				
			C	24 (5150MHz-5	250MHz			
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)
Horizontale	1200	23,11	23,845	54	30,89	44,94	74	29,06
Verticale	1302	32,32	33,055	54	21,68	41,17	74	32,83
Horizontale	1438	30,69	31,425	54	23,31	43,39	74	30,61
Verticale	2605	37,38	38,115	54	16,62	44,88	74	29,12
Horizontale	5150	43,65	44,385	54	10,35	55,16	74	18,84
Verticale	5150	51,61	52,345	54	2,39	63,05	74	10,95
Horizontale	5350	42,14	42,875	54	11,86	53,87	74	20,13
Verticale	5350	44,21	44,945	54	9,79	56,22	74	17,78

				Above 1G	Hz						
	802.11ac VHT80										
				25 (5250MHz-5	350MHz)						
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)			
Horizontale	1200	22,93	23,665	54	34,07	44,92	74	29,08			
Verticale	1323	34,78	35,515	54	22,22	39,65	74	34,35			
Horizontale	1442	31,62	32,355	54	25,38	41,33	74	32,67			
Horizontale	2645	37,28	38,015	54	19,72	44,31	74	29,69			
Horizontale	5150	42,92	43,655	54	14,08	54,13	74	19,87			
Verticale	5150	44,71	45,445	54	12,29	57,01	74	16,99			
Horizontale	5350	43,58	44,315	54	13,42	55,81	74	18,19			
Verticale	5350	51,08	51,815	54	5,92	62,79	74	11,21			
Verticale	7053	44,27	45,005	54	12,73	52,61	74	21,39			



	Above 1GHz 802.11ac VHT80									
				C27 (5470MHz	-5725MHz)					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)		
Horizontale	1200	24,71	25,445	54	29,29	45,37	74	28,63		
Horizontale	1442	31,45	32,185	54	22,55	42,69	74	31,31		
Horizontale	1746	28,35	29,085	54	25,65	41,18	74	32,82		
Horizontale	1882	25,05	25,785	54	28,95	42,45	74	31,55		
Verticale	1887	30,09	30,825	54	23,91	45,07	74	28,93		
Horizontale	1897	28,74	29,475	54	25,26	48,85	74	25,15		
Horizontale	2465	33,59	34,325	54	20,41	41,82	74	32,18		
Horizontale	4193	39,61	40,345	54	14,39	57,86	74	16,14		
Horizontale	5470	43,99	44,725	54	10,01	56,25	74	17,75		
Verticale	5470	48,92	49,655	54	5,08	62,13	74	11,87		
Horizontale	5725	44,87	45,605	54	9,13	61,33	74	12,67		
Verticale	5725	49,06	49,795	54	4,94	67,61	74	6,39		
Verticale	7480	53,21	53,945	54	0,79	60,77	74	13,23		

				Above 1GI	Hz					
	802.11ac VHT80									
			С	29 (5725MHz-5	850MHz)					
Polarization	Frequency (MHz)	AVATAGA	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dB)	Peak Level (dBμV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dB)		
Horizontale	1200	24,66	25,395	68.20	43,54	45,43	68.20	22,77		
Horizontale	1441	30,93	31,665	68.20	37,27	44,28	68.20	23,92		
Horizontale	1892	30,29	31,025	68.20	37,91	44,14	68.20	24,06		
Verticale	3222	25,88	26,615	68.20	42,32	45,09	68.20	23,11		
Horizontale	5725	53,04	53,775	122,2	69,16	68,48	122,2	53,72		
Verticale	5725	61,05	61,785	122,2	61,15	77,17	122,2	45,03		
Horizontale	5850	50,94	51,675	122,2	71,26	66,59	122,2	55,61		
Verticale	5850	58,81	59,545	122,2	63,39	74,29	122,2	47,91		
Verticale	7700	52,68	53,415	68.20	15,52	60,45	68.20	7,75		

## 10.7. CONCLUSION

Unwanted emissions & Undesirable emission measurement performed on the sample of the product **Sagemcom® Sound Box SBDV01**, SN: **253770742**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 limits.



## 11. UNCERTAINTIES CHART

47 CFR Part 15.209 & 15.207 Kind of test	Wide uncertainty laboratory (k=2) ±x(dB) / (Hz)/ ms	Uncertainty limit
Measurement of conducted disturbances in voltage on the AC power port (9 kHz – 150 kHz)	2,67	3.8
Measurement of conducted disturbances in voltage on the AC power port (150 kHz - 30 MHz)	2,67	3.4
Measurement of conducted disturbances in voltage on the telecommunication port. (AAN)	3,67	5.0
Measurement of conducted disturbances in current (current clamp)	2,73	2.9
Measurement of disturbance power	2,67	4.5
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC V01	4,48	1
Measurement of radiated magnetic field from 10kHz to 30MHz in SAC C01	4,48	1
Measurement of radiated electric field from 30 to 1000MHz in horizontal position on the OATS (Ecuelles)	4,88	6.3
Measurement of radiated electric field from 1 to 18GHz on the Ecuelles site	5.16	1
Measurement of radiated electric field from 30 to 1000MHz in vertical position on the OATS (Ecuelles)	4,99	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC C01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC C01	5,16	6.3
Measurement of radiated electric field from 30 to 1000MHz in horizontal position in SAC V01	5,08	6.3
Measurement of radiated electric field from 30 to 1000MHz in vertical position in SAC V01	5,15	6.3
Measurement of radiated electric field from 1 to 6 GHz C01	5,1	5.2
Measurement of radiated electric field from 1 to 6 GHz V01	4,85	5.2
Measurement of radiated magnetic field from 10kHz to 30MHz on the OATS (Ecuelles)	4,48	1

Measurement of radiated magnetic field from 10kHz to 30MHz on the OATS (Ecuelles) 4,48 /
The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the CISPR. The conformity of the sample is directly established by the applicable limits values. This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report