





























































































































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

	Below 1GHz											
Polarization	Frequency (MHz)	Peak Level (dBµV/m)	QPeak Level (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)							
Vertical	32.2	-	24.78	29.5	4.72							
Vertical	216	-	24.55	33	8.45							
Vertical	384	-	27.18	35.5	8.32							
Vertical	560	-	29.8	35.5	5.7							
Vertical	650	-	30.42	35.5	5.08							
Vertical	750	-	29.5	35.5	6							

				Above 1G								
	802.11a C1/C2/C3 (5150MHz-5250MHz)											
	1	T	C1/C2	2/C3 (5150MH	z-5250MHz)	1	1					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Horizontale	1212	34,70	34,77	54	19,30	45,54	74	28,46				
Horizontale	5150	48,88	48,95	54	5,12	62,10	74	11,90				
Verticale	5150	51,29	51,36	54	2,71	68,50	74	5,50				
Horizontale	5350	28,85	28,92	54	25,15	41,22	74	32,78				
Verticale	5350	25,95	26,02	54	28,05	38,92	74	35,08				
Horizontale	3799	23,40	23,47	54	30,60	35,35	74	38,65				
Horizontale	6047	34,37	34,44	54	19,63	49,75	74	24,25				
Horizontale	6900	32,60	32,67	54	21,40	44,10	74	29,90				
Horizontale	7656	22,82	22,89	54	31,18	40,73	74	33,27				
Verticale	10361	29,72	29,79	54	24,28	43,77	74	30,23				



				Above 1G	Hz							
				802.11a								
	C4/C5/C6 (5250MHz-5350MHz)											
Polarization	/ N/I LI 7 1	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Horizontale	1296	29,89	29,96	54	24,11	41,29	74	32,71				
Horizontale	1882	17,26	17,33	54	36,74	44,36	74	29,64				
Horizontale	2840	18,98	19,05	54	35,02	41,85	74	32,15				
Horizontale	3925	23,86	23,93	54	30,14	35,80	74	38,20				
Horizontale	4425	21,14	21,21	54	32,86	48,65	74	25,35				
Horizontale	5150	24,75	24,82	54	29,25	36,91	74	37,09				
Verticale	5150	26,28	26,35	54	27,72	37,80	74	36,20				
Horizontale	5350	44,70	44,77	54	9,30	62,40	74	11,60				
Verticale	5350	35,14	35,21	54	18,86	53,60	74	20,40				
Horizontale	7013	35,23	35,30	54	18,77	40,04	74	33,96				

				Above 1G	Hz							
	802.11a											
	C7/C8/C9 (5470MHz-5725MHz)											
Polarization		Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Verticale	1217	19,94	20,01	54	34,06	32,52	74	41,48				
Verticale	1730	19,2	19,27	54	34,8	31,50	74	42,5				
Verticale	1882	19,25	19,32	54	34,75	47,54	74	26,46				
Horizontale	4405	23,93	24,01	54	30,07	35,75	74	38,25				
Horizontale	5470	46,95	47,02	54	7,05	59,13	74	14,87				
Verticale	5470	45,91	45,98	54	8,09	58,01	74	15,99				
Horizontale	5725	47,42	47,49	54	6,58	60,70	74	13,3				
Verticale	5725	46,66	46,73	54	7,34	58,54	74	15,46				
Horizontale	6200	36,22	36,29	54	17,78	40,16	74	33,84				
Horizontale	6430	20,40	20,47	54	33,60	44,15	74	29,85				
Horizontale	7440	27,90	27,97	54	26,10	36,46	74	37,54				



				Above 1GH	Z								
	802.11a												
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 (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)					
Horizontale	1351	25,5	25,57	68,20	42.63	36.98	68,20	31.22					
Horizontale	5725	61,89	61,96	122,2	60,31	83.76	122,2	38,44					
Verticale	5725	62,27	62,34	122,2	59,93	83.12	122,2	39,08					
Horizontale	5850	54,82	54,89	122,2	67,38	74.22	122,2	47,98					
Verticale	5850	54,99	55,06	122,2	67,21	72.58	122,2	49,62					
Verticale	5967	48,1	48,17	68,20	20,03	60.40	68,20	7,80					
Verticale	5992	47,58	47,65	68,20	20,55	65.80	68,20	2,40					
Horizontale	6588	21,58	21,65	68,20	46,55	40.56	68,20	27,64					
Verticale	11480	36,73	36,80	68,20	31,4	50.20	68,20	18,00					
Horizontale	11652	42,85	42,92	68,20	25,28	57.23	68,20	10,97					
Verticale	17477	31,95	32,02	68,20	36,18	49.32	68,20	18,88					

			90	Above 1G									
	802.11n HT20/ac VHT20 C1/C2/C3 (5150MHz-5250MHz)												
Polarization		Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)					
Horizontale	1210	32,35	32,63	54	21,65	43.96	74	30,04					
Horizontale	3803	21,57	21,85	54	32,43	33.98	74	40,02					
Horizontale	5150	52,55	52,83	54	1,45	71.43	74	2,57					
Verticale	5150	50,84	51,12	54	3,16	68.12	74	5,88					
Horizontale	5350	46,92	47,2	54	7,08	59.46	74	14,54					
Verticale	5350	46,71	46,99	54	7,29	58.33	74	15,67					
Verticale	5822	26,74	27,02	54	27,26	39.44	74	34,56					
Horizontale	6900	26,03	26,31	54	27,97	37.50	74	36,5					
Horizontale	6933	31,15	31,43	54	22,85	42.05	74	31,95					
Horizontale	10358	28,18	28,46	54	25,82	43.73	74	30,27					



	Above 1GHz										
802.11n HT20/ac VHT20											
			C4/C5	5/C6 (5150MH	z-5250MHz)						
Polarization	/N/H7\	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	I IMIT	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)			
Horizontale	1289	27,61	27,89	54	26,39	40,05	74	33,95			
Horizontale	5150	43,6	43,88	54	10,40	54,83	74	19,17			
Verticale	5150	43,3	43,58	54	10,70	55,18	74	18,82			
Horizontale	5350	47,36	47,64	54	6,64	61,37	74	12,63			
Verticale	Verticale 5350 46,4 46,68 54 7,60 61,62 74 12,38										
Verticale	Verticale 5911 33,14 33,42 54 20,86 38,46 74 35,54										
Horizontale	7013	35,25	35,53	54	18,75	40,34	74	33,66			

				Above 1G	Hz							
	802.11n HT20/ac VHT20											
			C7/C8	3/C9 (5470MH	z-5725MHz)							
Polarization	/N/H71	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Horizontale	1228	19,37	19,65	54	34,63	32,57	74	41,43				
Horizontale	1529	21,29	21,57	54	32,71	34,35	74	39,65				
Verticale	4889	26,77	27,05	54	27,23	35,81	74	38,19				
Horizontale	5470	46,22	46,5	54	7,78	66,93	74	7,07				
Verticale	5470	45,6	45,88	54	8,40	57,41	74	16,59				
Horizontale	5725	46,96	47,24	54	7,04	62,7	74	11,30				
Verticale	5725	46,81	47,09	54	7,19	63,45	74	10,55				
Horizontale	6111	35,95	36,23	54	18,05	40,62	74	33,38				
Horizontale	7333	29,3	29,58	54	24,70	36,15	74	37,85				



				Above 1G	Hz							
			80	2.11n HT20/a	c VHT20							
	C11/C12/C13 (5725MHz-5850MHz)											
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Horizontale	1363	23,67	23,95	68,20	44,53	36,52	68,20	31,68				
Horizontale	1775	17,38	17,66	68,20	50,82	29,5	68,20	38,70				
Horizontale	4650	20,64	20,92	68,20	47,56	33,04	68,20	35,16				
Horizontale	5725	62,96	63,24	122,2	59,24	84,75	122,2	37,45				
Verticale	5725	62,65	62,93	122,2	59,55	83,25	122,2	38,95				
Horizontale	5850	57,63	57,91	122,2	64,57	72,72	122,2	49,48				
Verticale	5850	56,64	56,92	122,2	65,56	72,2	122,2	50,00				
Horizontale	6383	25,47	25,75	68,20	42,73	37,66	68,20	30,54				
Verticale	11489	36,68	36,96	68,20	31,52	49,76	68,20	18,44				
Verticale	11569	35,75	36,03	68,20	32,45	49,69	68,20	18,51				
Verticale	17357	28,23	28,51	68,20	39,97	43,45	68,20	24,75				
Horizontale	11653	40,19	40,47	68,20	28,01	54,63	68,20	13,57				
Verticale	17478	30,85	31,13	68,20	37,35	46,77	68,20	21,43				

				Above 1G	Hz							
	802.11n HT40/ac VHT40											
			C14/0	C15 (5150MHz	2-5250MHz)	1						
Polarization	/8/14/21	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)				
Horizontale	1215	27,07	27,62	54	26,93	41.08	74	32,92				
Horizontale	5150	51,98	52,53	54	2,02	71.04	74	2,96				
Verticale	5150	44,47	45,02	54	9,53	71.69	74	2,31				
Horizontale	5350	47,29	47,84	54	6,71	59.08	74	14,92				
Verticale	5350	46,34	46,89	54	7,66	58.83	74	15,17				
Horizontale	5767	32,99	33,54	54	21,01	42.67	74	31,33				
Horizontale	6920	29,42	29,97	54	24,58	42.92	74	31,08				
Horizontale	10462	26,14	26,69	54	27,86	42.53	74	31,47				



				Above 1G	Hz						
802.11n HT40/ac VHT40											
			C16/0	C17 (5250MHz	z-5350MHz)	1					
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)	Average Limit (dBµV/m)	Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)			
Horizontale	1300	24,93	25,47	54	29,07	38,78	74	35,22			
Horizontale	5150	43,3	43,84	54	10,70	54,42	74	19,58			
Verticale	5150	43,45	43,99	54	10,55	54,85	74	19,15			
Horizontale	5350	48,31	48,85	54	5,69	61,12	74	12,88			
Verticale	5350	47,64	48,18	54	6,36	60,99	74	13,01			
Horizontale	Horizontale 5856 31,56 32,1 54 22,44 39,77 74 34,23										
Verticale	Verticale 5900 36,57 37,11 54 17,43 41,36 74 32,64										
Horizontale	7027	29,75	30,29	54	24,25	36,74	74	37,26			

	Above 1GHz								
	802.11n HT40/ac VHT40								
			C18/C1	9/C20 (5470M	Hz-5725MHz)	1			
Polarization							Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)	
Horizontale	1553	19,12	19,67	54	34,88	74	32,26	41,74	
Horizontale	1937	24,36	24,91	54	29,64	74	39,55	34,45	
Horizontale	5470	47,85	48,40	54	6,15	74	61,18	12,82	
Verticale	5470	46,59	47,14	54	7,41	74	62,92	11,08	
Horizontale	5725	47,67	48,22	54	6,33	74	61,46	12,54	
Verticale	5725	47,86	48,41	54	6,14	74	59,67	14,33	
Horizontale	6167	37,44	37,99	54	16,56	74	43,40	30,6	
Verticale	6300	38,66	39,21	54	15,34	74	43,63	30,37	
Horizontale	7400	28,06	28,61	54	25,94	74	36,49	37,51	



Above 1GHz									
	802.11n HT40/ac VHT40								
			C22/0	C23 (5725MHz	z-5850MHz)				
Polarization		Average Level (dBµV/m)	Average Level + Duty Cycle Factor (dBµV/m)		Average Margin Level (dBµV/m)	Peak Level (dBµV/m)	Peak Limit (dBµV/m)	Peak Margin Level (dBµV/m)	
Horizontale	1373	21,37	21,92	68,2	46,83	33,47	68,2	34,73	
Horizontale	5725	67,45	68,00	122,2	54,75	89,53	122,2	32,67	
Verticale	5725	65,98	66,53	122,2	56,22	87,39	122,2	34,81	
Horizontale	5850	61,15	61,7	122,2	61,05	71,49	122,2	50,71	
Verticale	5850	60,77	61,32	122,2	61,43	72,52	122,2	49,68	
Verticale	6394	28,56	29,11	68,2	39,64	39,31	68,2	28,89	
Verticale	11509	33,85	34,40	68,2	34,35	47,11	68,2	21,09	

	Above 1GHz							
	802.11ac VHT80							
			C2	4 (5150MHz-5	5250MHz			
Polarization	olarization Frequency (MHz) Average Level + Duty Cycle Factor (dBμV/m) Average (dBμV/m) Average Level (dBμV/m) Average Level (dBμV/m) Average Level (dBμV/m) Average Level (dBμV/m) Peak Level (dBμV/m) Peak Level (dBμV/m)							
Horizontale	1216	24,34	25,16	54	29,66	36,11	74	37,89
Horizontale	5150	52,14	52,96	54	1,86	66,32	74	7,68
Verticale	5150	45,09	45,91	54	8,91	65,99	74	8,01
Horizontale	5350	46,91	47,73	54	7,09	59,59	74	14,41
Verticale	5350	49,95	50,77	54	4,05	58,83	74	15,17
Horizontale	5789	30,06	30,88	54	23,94	37,49	74	36,51
Horizontale	6947	29,10	29,92	54	24,90	38,12	74	35,88

	Above 1GHz								
	802.11ac VHT80								
			C2	5 (5250MHz-5	350MHz)				
Polarization	Frequency (MHz) Average Level + Duty Cycle Factor (dBμV/m) Average Level + (dBμV/m) Average Level (dBμV/m) Average Limit (dBμV/m) Peak Level (dBμV/m)							Peak Margin Level (dBµV/m)	
Horizontale	1325	21,83	22,65	54	32,17	34,31	74	39,69	
Horizontale	5150	43,45	44,27	54	10,55	55,24	74	18,76	
Verticale	5150	43,3	44,12	54	10,70	54,94	74	19,06	
Horizontale	5350	48,44	49,26	54	5,56	64,85	74	9,15	
Verticale	5350	48,09	48,91	54	5,91	61,87	74	12,13	
Horizontale	5878	28,51	29,33	54	25,49	35,84	74	38,16	
Verticale	7053	33,46	34,28	54	20,54	38,99	74	35,01	



	Above 1GHz							
			000//	802.11ac VI				
	ı	ı	C26/0	C27 (5470MHz	2-5/25WHZ)	1	1	
Polarization	on Frequency (MHz) Average Level + Duty Cycle Factor (dBμV/m) Average Limit (dBμV/m) Peak Limit (dBμV/m) Peak Limit (dBμV/m)						Peak Margin Level (dBµV/m)	
Horizontale	5470	43,5	44,32	54	10,50	63,66	74	10,34
Verticale	5470	46,11	46,93	54	7,89	58,77	74	15,23
Horizontale	5725	45,46	46,28	54	8,54	56,8	74	17,20
Verticale	5725	45,71	46,53	54	8,29	59,8	74	14,20
Verticale	6144	34,09	34,91	54	19,91	39,45	74	34,55
Horizontale	7373	28,95	29,77	54	25,05	35,65	74	38,35

	Above 1GHz							
				802.11ac VI				
		1	C2	9 (5725MHz-5	850MHz)	1		
Polarization	Frequency   Average   Level + Duty   Level + Duty   Level + Duty   Level   Level + Duty   Lev							Peak Margin Level (dBµV/m)
Horizontale	5725	63,16	63,98	122,2	59,04	80,20	122,2	42,00
Verticale	5725	61,27	62,09	122,2	60,93	80,59	122,2	41,61
Horizontale	5850	58,62	59,44	122,2	63,58	74,93	122,2	47,27
Verticale	5850	58,4	59,22	122,2	63,8	77,80	122,2	44,40
Verticale	11542	30,93	31,75	68,20	37,27	44,16	68,20	24,04

## 11.7. CONCLUSION

Unwanted emissions & Undesirable emission measurement performed on the sample of the product **SAGEMCOM DCIWA384 UHD Alt US V2**, SN: **253764997**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 limits.



## 12. 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	

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