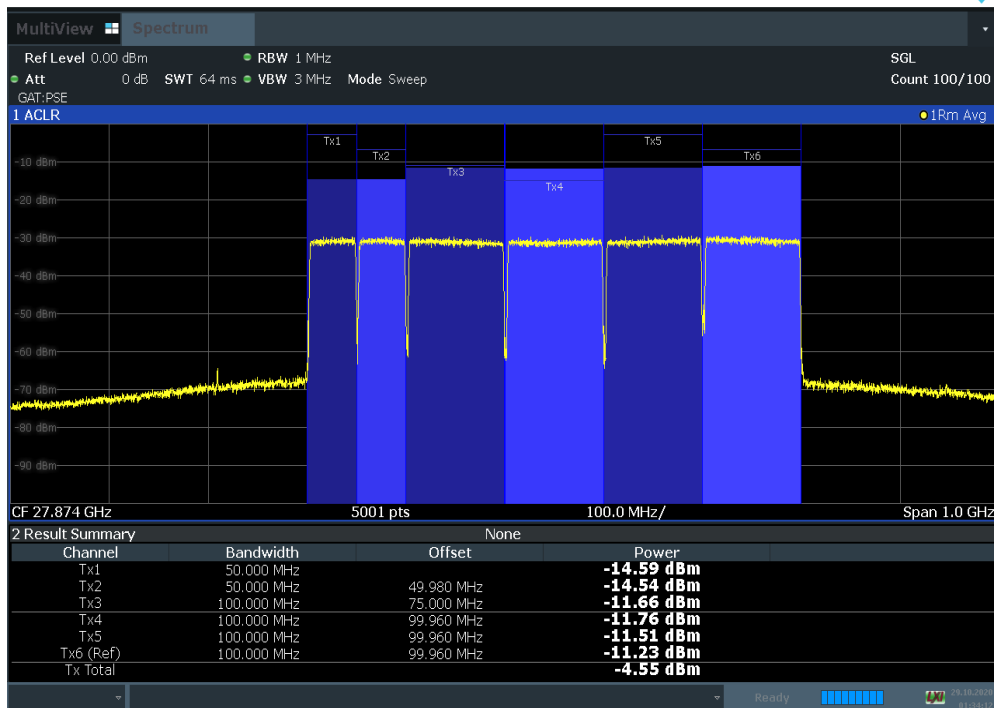
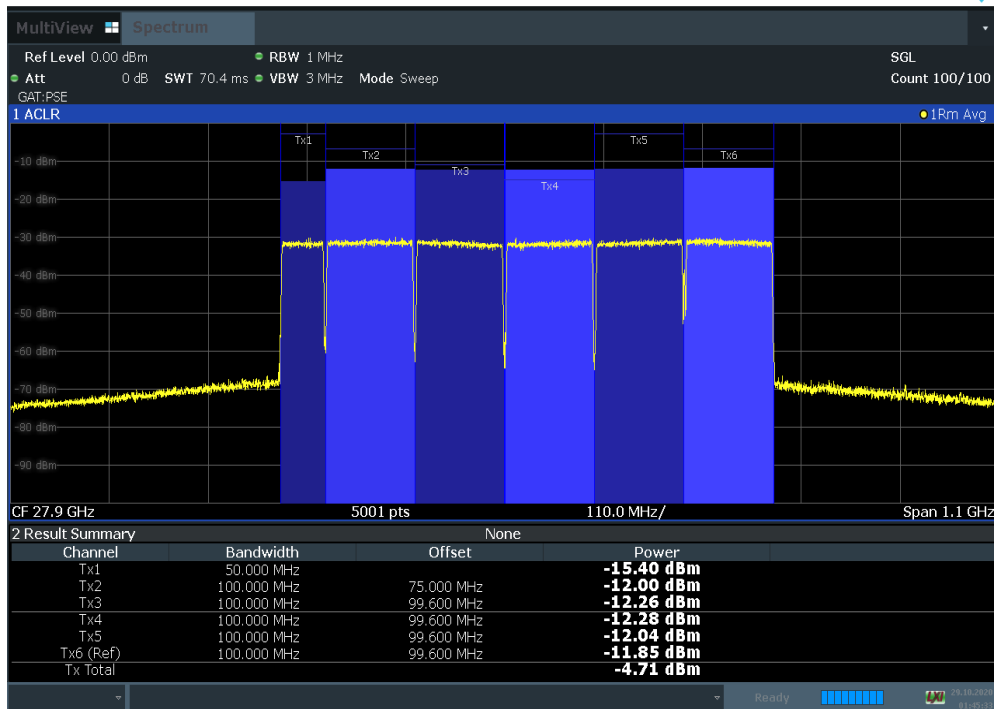


Plot 7-127. Antenna C EIRP Density Plot (50 MHz 1CC + 100 MHz 4CC BW QPSK Mid Channel)

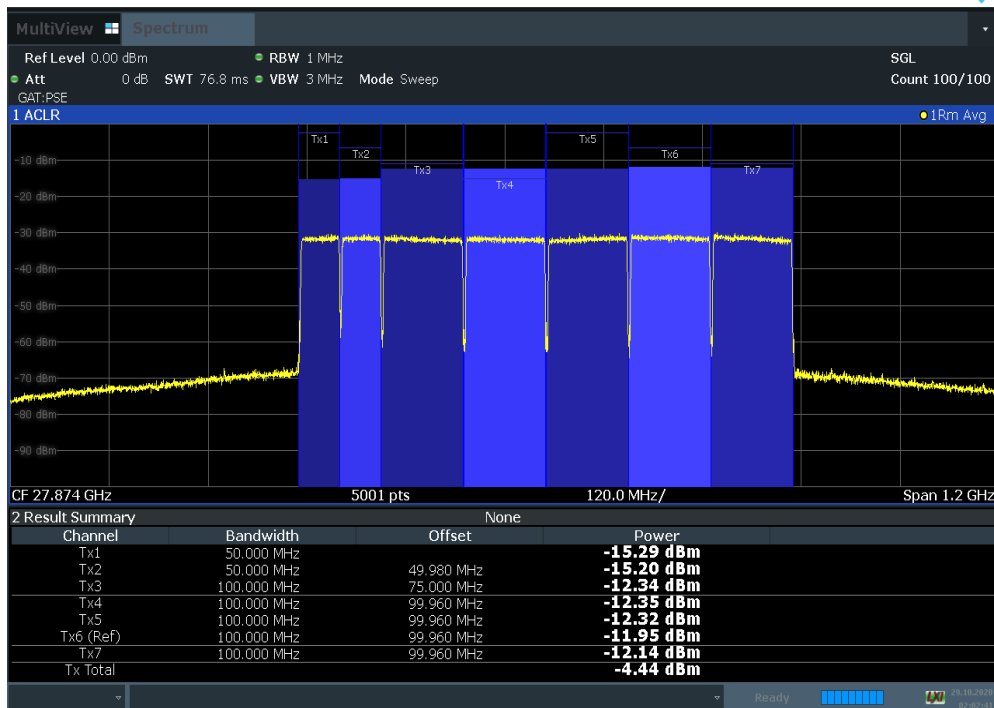


Plot 7-128. Antenna C EIRP Density Plot (50 MHz 2CC + 100 MHz 4CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 87 of 322

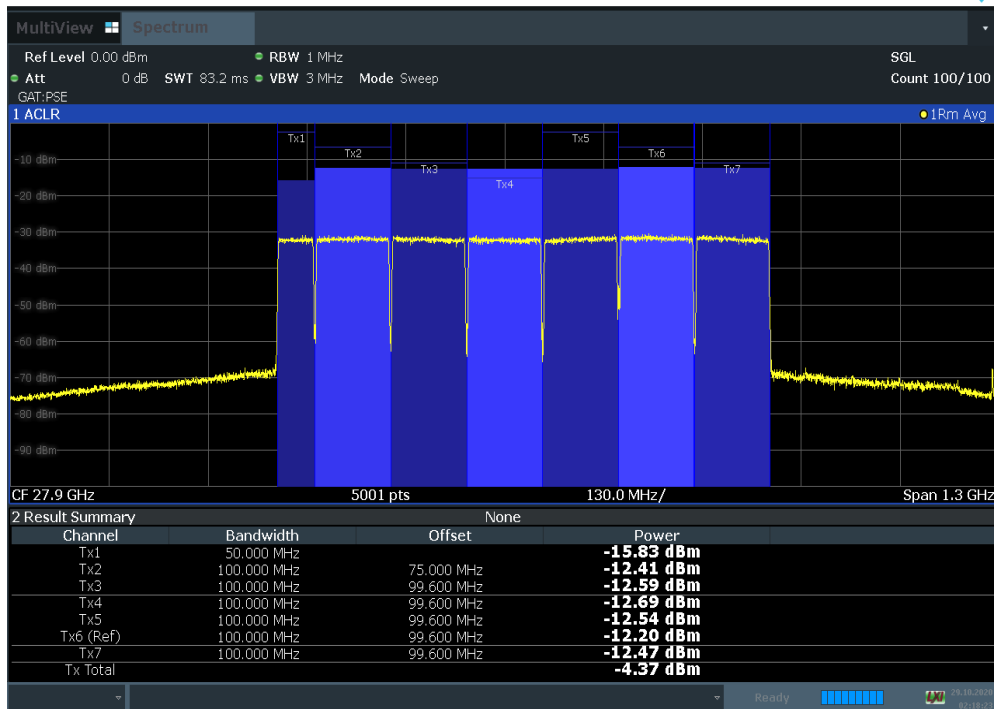


Plot 7-129. Antenna C EIRP Density Plot (50 MHz 1CC + 100 MHz 5CC BW QPSK Mid Channel)

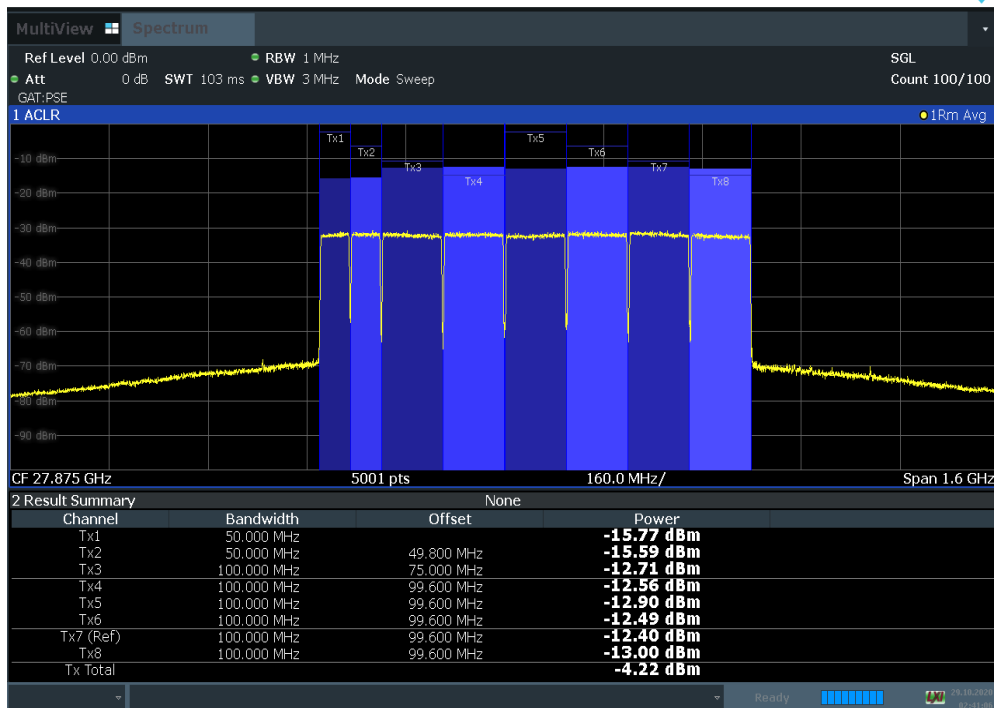


Plot 7-130. Antenna C EIRP Density Plot (50 MHz 2CC + 100 MHz 5CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 88 of 322



Plot 7-131. Antenna C EIRP Density Plot (50 MHz 1CC + 100 MHz 6CC BW QPSK Mid Channel)





Plot 7-132. Antenna C EIRP Density Plot (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel)

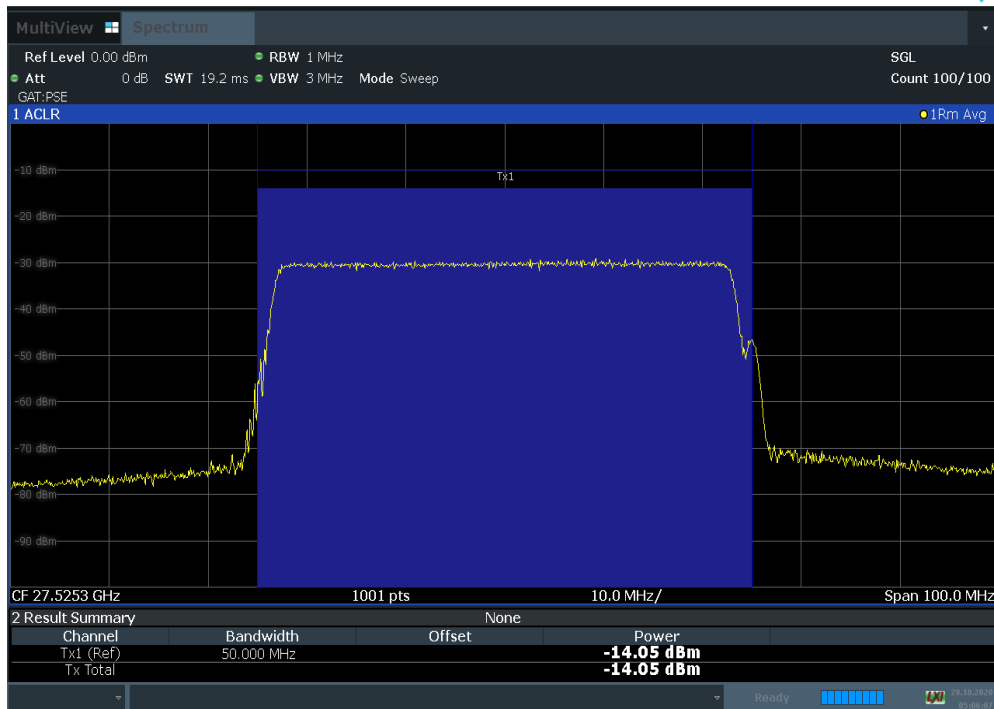
FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 89 of 322

7.3.4 Antenna D EIRP Density

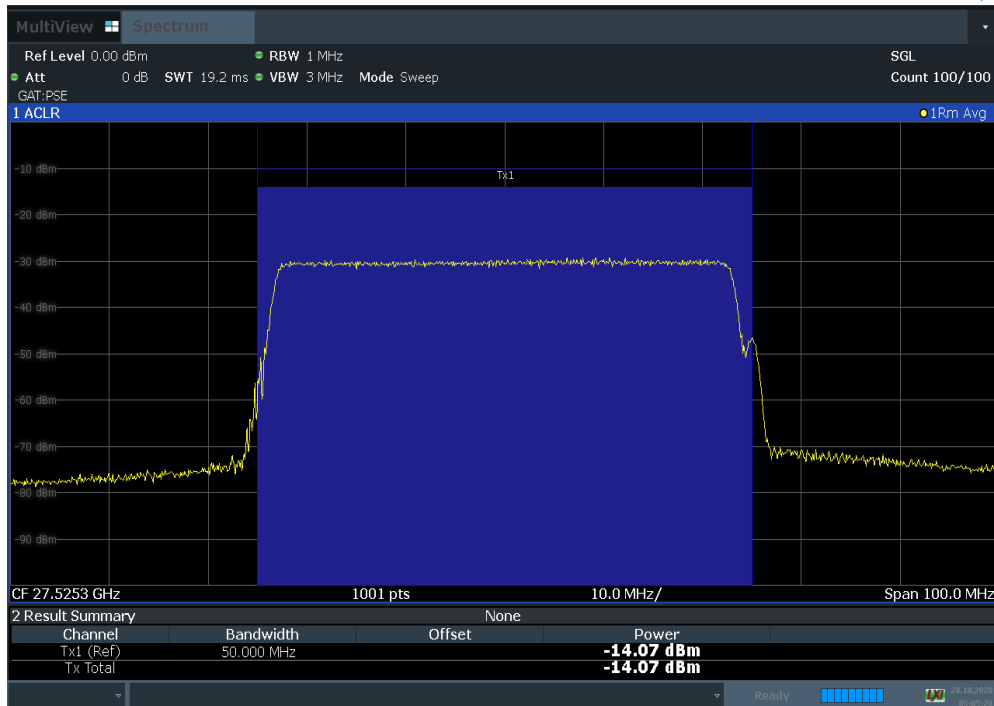
Antenna	Bandwidth	Configuration	Chan.	Frequency	Modulation	Horn Angle	Analyzer Level	Average e.i.r.p. PSD	Scaling factor	Average e.i.r.p. PSD	PSD Limit	Margin
	[MHz]			[GHz]		[degrees]	[dBm]	[dBm]	[dB]	[dBm/100MHz]	[dBm/100MHz]	[dB/100MHz]
D	50	1CC	Low	27.550	QPSK	45.0	-14.05	45.35	3.01	48.36	75.00	-29.65
	50		Low	27.550	16QAM	45.0	-14.07	45.34	3.01	48.35	75.00	-29.66
	50		Low	27.550	64QAM	45.0	-14.08	45.32	3.01	48.33	75.00	-29.68
	50	2CC	Low	27.550	QPSK	45.0	-13.85	45.55	3.01	48.56	75.00	-29.45
	50		Low	27.550	16QAM	45.0	-13.88	45.52	3.01	48.53	75.00	-29.48
	50		Low	27.550	64QAM	45.0	-13.93	45.47	3.01	48.48	75.00	-29.53
	50	1CC	Mid	27.925	QPSK	45.0	-14.25	45.24	3.01	48.25	75.00	-29.76
	50		Mid	27.925	16QAM	45.0	-14.33	45.16	3.01	48.17	75.00	-29.84
	50		Mid	27.925	64QAM	45.0	-14.36	45.12	3.01	48.13	75.00	-29.88
	50	2CC	Mid	27.925	QPSK	45.0	-14.21	45.27	3.01	48.28	75.00	-29.73
	50		Mid	27.925	16QAM	45.0	-14.24	45.24	3.01	48.25	75.00	-29.76
	50		Mid	27.925	64QAM	45.0	-14.30	45.18	3.01	48.19	75.00	-29.82
	50	1CC	High	28.300	QPSK	45.0	-14.15	45.66	3.01	48.67	75.00	-29.34
	50		High	28.300	16QAM	45.0	-14.21	45.60	3.01	48.61	75.00	-29.40
	50		High	28.300	64QAM	45.0	-14.17	45.64	3.01	48.65	75.00	-29.36
	50	2CC	High	28.300	QPSK	45.0	-13.99	45.83	3.01	48.84	75.00	-29.17
	50		High	28.300	16QAM	45.0	-13.99	45.83	3.01	48.84	75.00	-29.17
	50		High	28.300	64QAM	45.0	-13.98	45.83	3.01	48.84	75.00	-29.17
	100	2NC	Mid	27.925	QPSK	45.0	-10.90	48.58	0.00	48.58	75.00	-26.42
	100	3NC	Mid	27.925	QPSK	45.0	-11.04	48.44	0.00	48.44	75.00	-26.56
	100	4NC	Mid	27.925	QPSK	45.0	-10.50	48.98	0.00	48.98	75.00	-26.02
	100	5NC	Mid	27.925	QPSK	45.0	-11.35	48.13	0.00	48.13	75.00	-26.87
	100	6NC	Mid	27.925	QPSK	45.0	-12.24	47.24	0.00	47.24	75.00	-27.76
	100	7NC	Mid	27.925	QPSK	45.0	-13.03	46.46	0.00	46.46	75.00	-28.54
	50	50M x1 + 100M x1	Mid	27.925	QPSK	45.0	-14.54	44.94	3.01	47.95	75.00	-30.06
		50M x2 + 100M x1	Mid	27.925	QPSK	45.0	-11.15	48.34	0.00	48.34	75.00	-26.66
		50M x1 + 100M x2	Mid	27.925	QPSK	45.0	-10.88	48.60	0.00	48.60	75.00	-26.40
		50M x2 + 100M x2	Mid	27.925	QPSK	45.0	-10.69	48.79	0.00	48.79	75.00	-26.21
		50M x1 + 100M x3	Mid	27.925	QPSK	45.0	-10.68	48.80	0.00	48.80	75.00	-26.20
		50M x2 + 100M x3	Mid	27.925	QPSK	45.0	-10.55	48.94	0.00	48.94	75.00	-26.06
50M x1 + 100M x4		Mid	27.925	QPSK	45.0	-11.06	48.42	0.00	48.42	75.00	-26.58	
50M x2 + 100M x4		Mid	27.925	QPSK	45.0	-11.28	48.20	0.00	48.20	75.00	-26.80	
50M x1 + 100M x5		Mid	27.925	QPSK	45.0	-11.87	47.61	0.00	47.61	75.00	-27.39	
50M x2 + 100M x5		Mid	27.925	QPSK	45.0	-12.23	47.26	0.00	47.26	75.00	-27.74	
50M x1 + 100M x6	Mid	27.925	QPSK	45.0	-12.53	46.96	0.00	46.96	75.00	-28.04		
50M x2 + 100M x6	Mid	27.925	QPSK	45.0	-15.88	43.60	3.01	46.61	75.00	-31.40		

Table 7-10. Antenna D EIRP Density Summary Data

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)			Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 90 of 322	

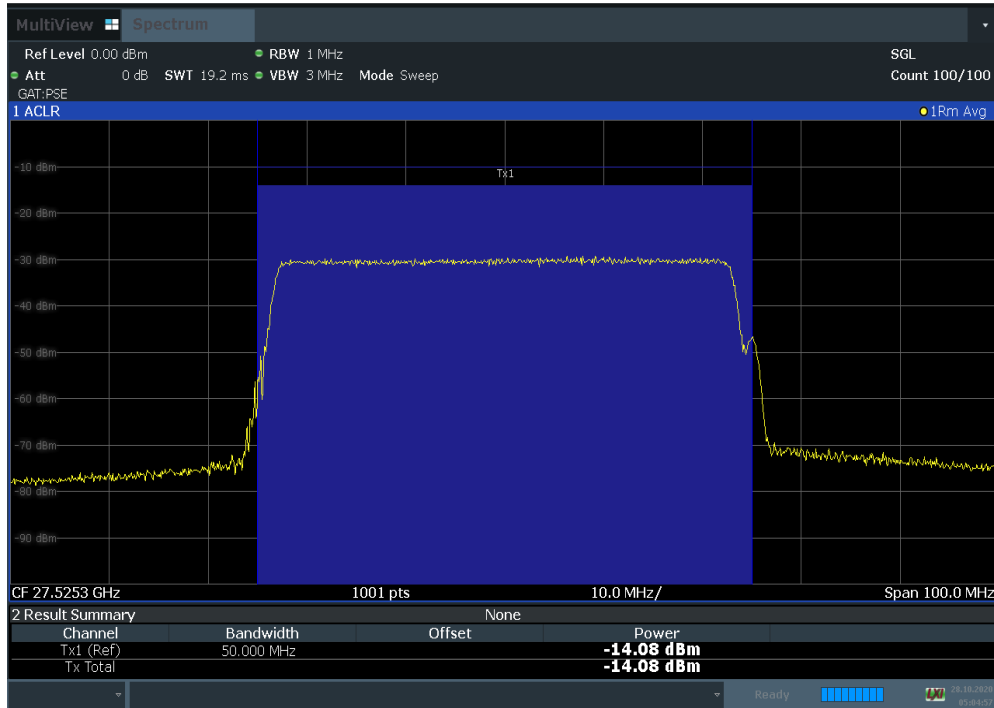


Plot 7-133. Antenna D EIRP Density Plot (50 MHz 1CC BW QPSK Low Channel)

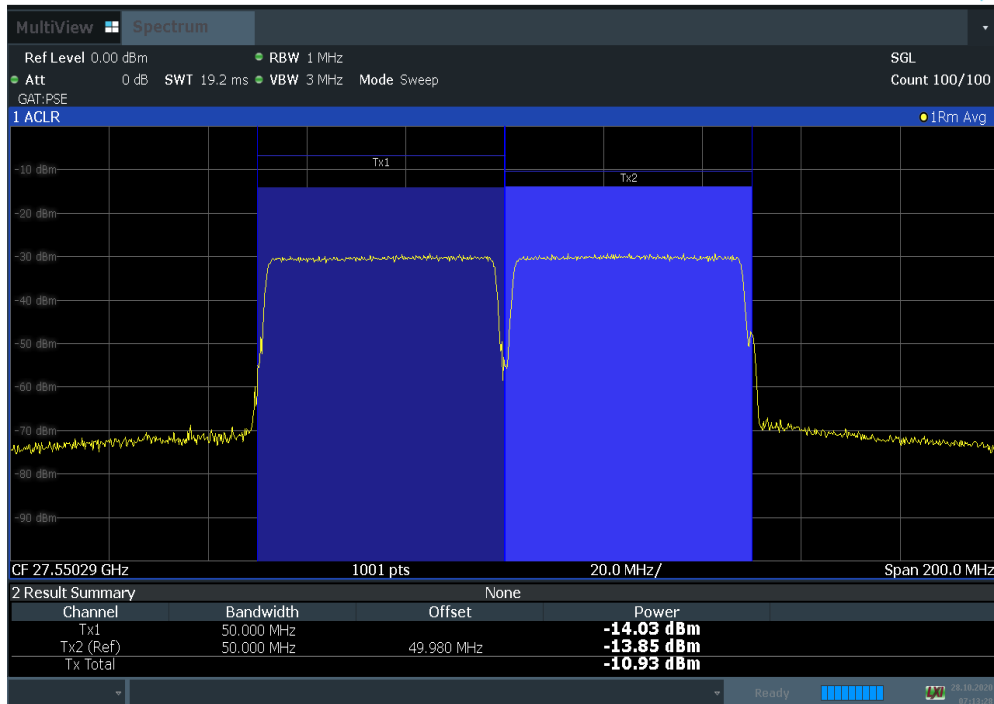


Plot 7-134. Antenna D EIRP Density Plot (50 MHz 1CC BW 16QAM Low Channel)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 91 of 322

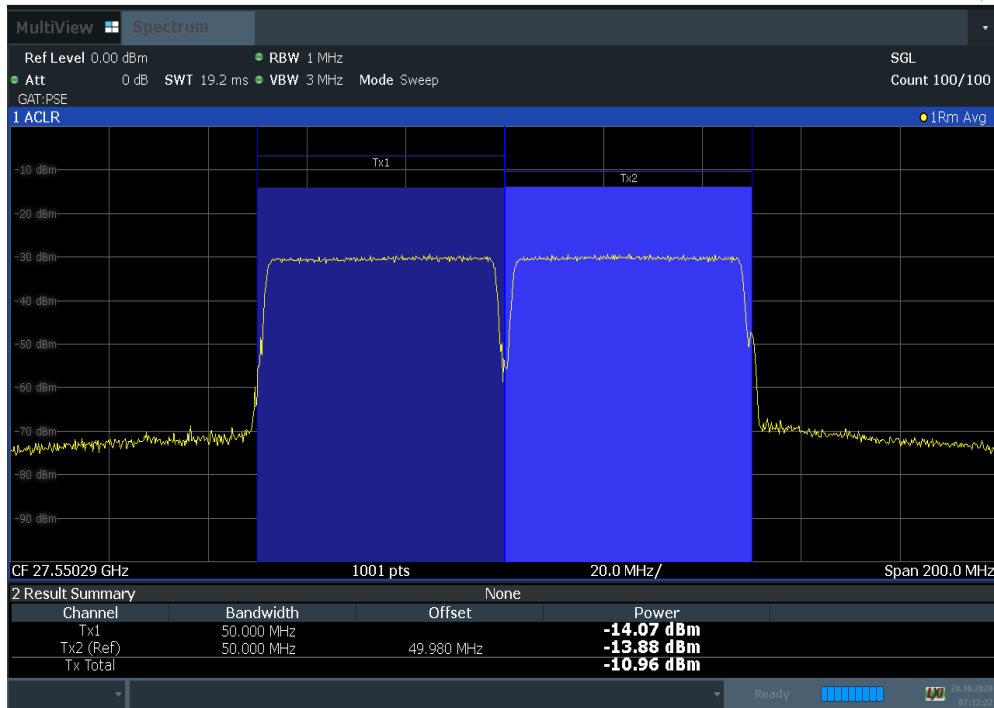


Plot 7-135. Antenna D EIRP Density Plot (50 MHz 1CC BW 64QAM Low Channel)

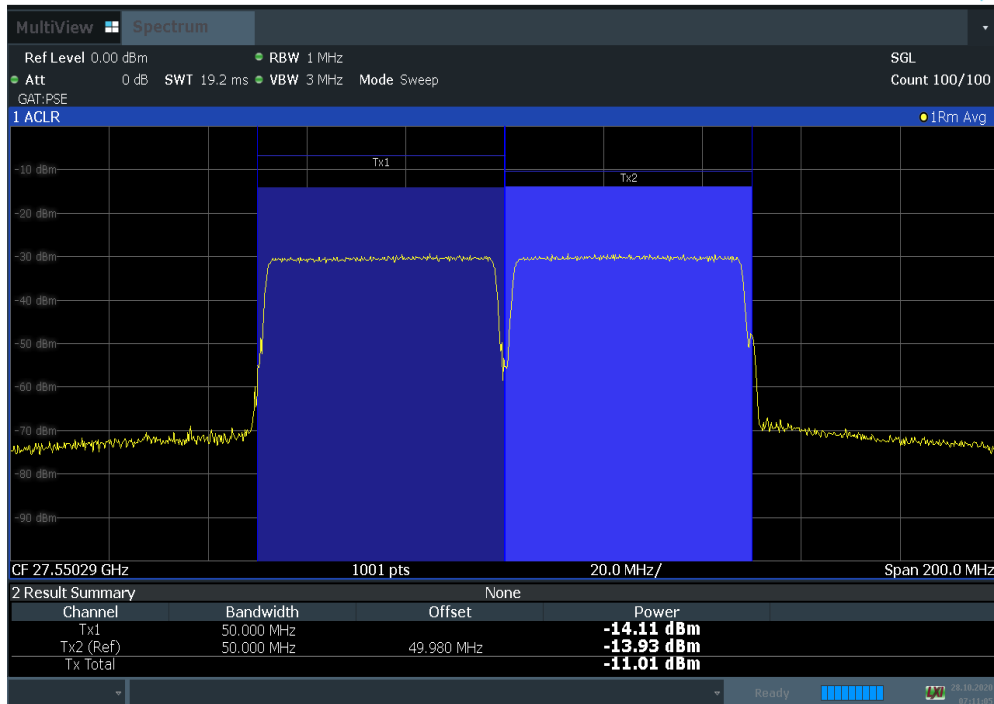


Plot 7-136. Antenna D EIRP Density Plot (50 MHz 2CC BW QPSK Low Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 92 of 322

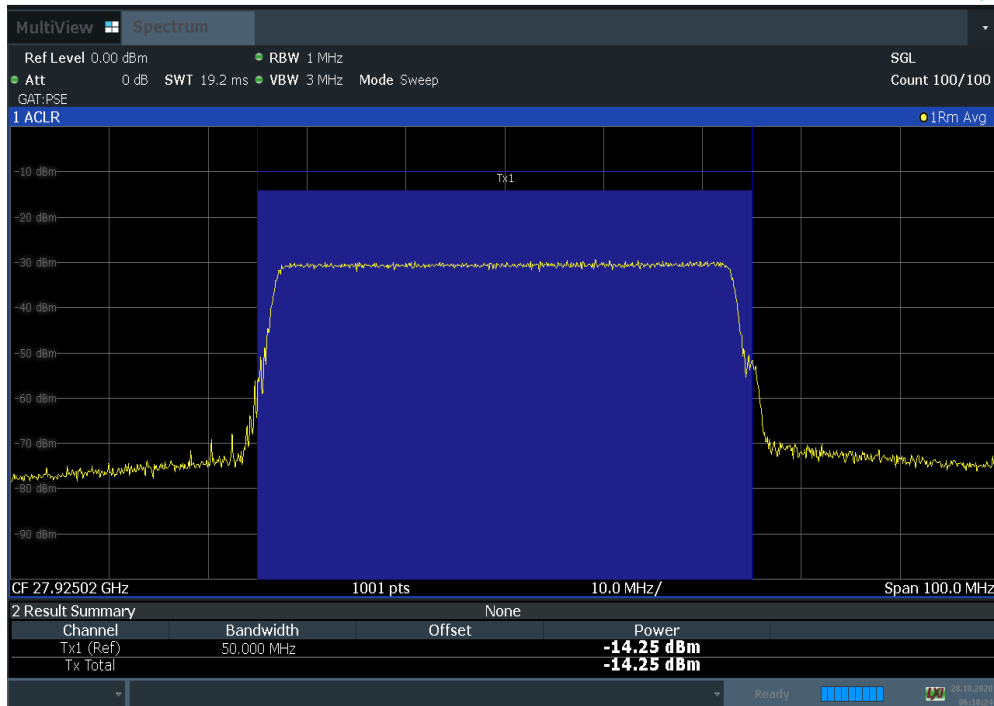


Plot 7-137. Antenna D EIRP Density Plot (50 MHz 2CC BW 16QAM Low Channel)

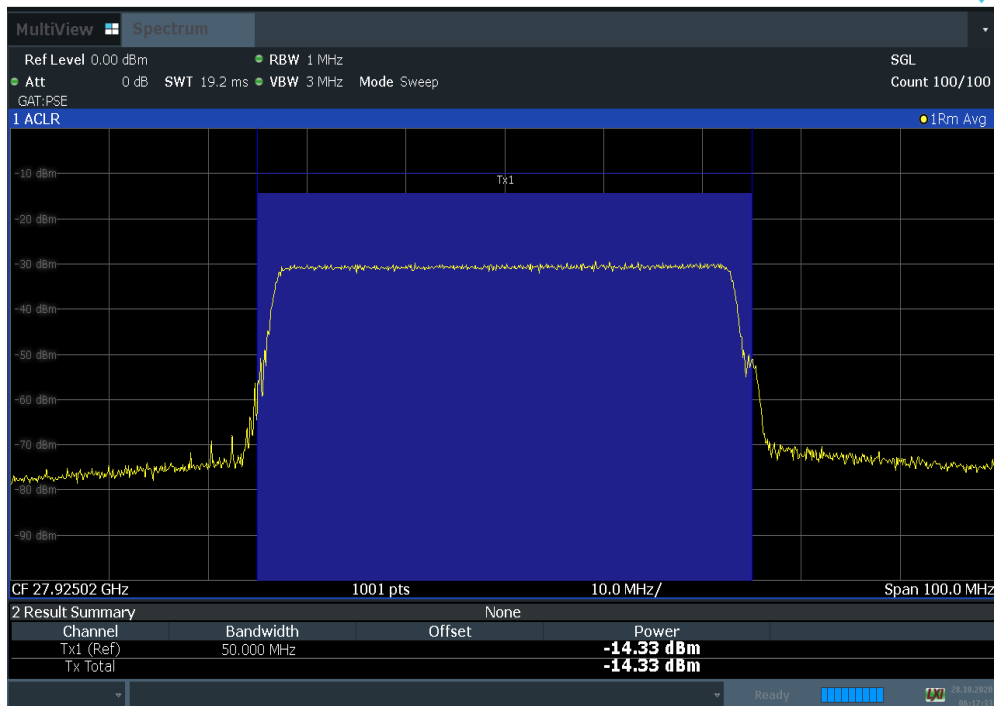


Plot 7-138. Antenna D EIRP Density Plot (50 MHz 2CC BW 64QAM Low Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 93 of 322

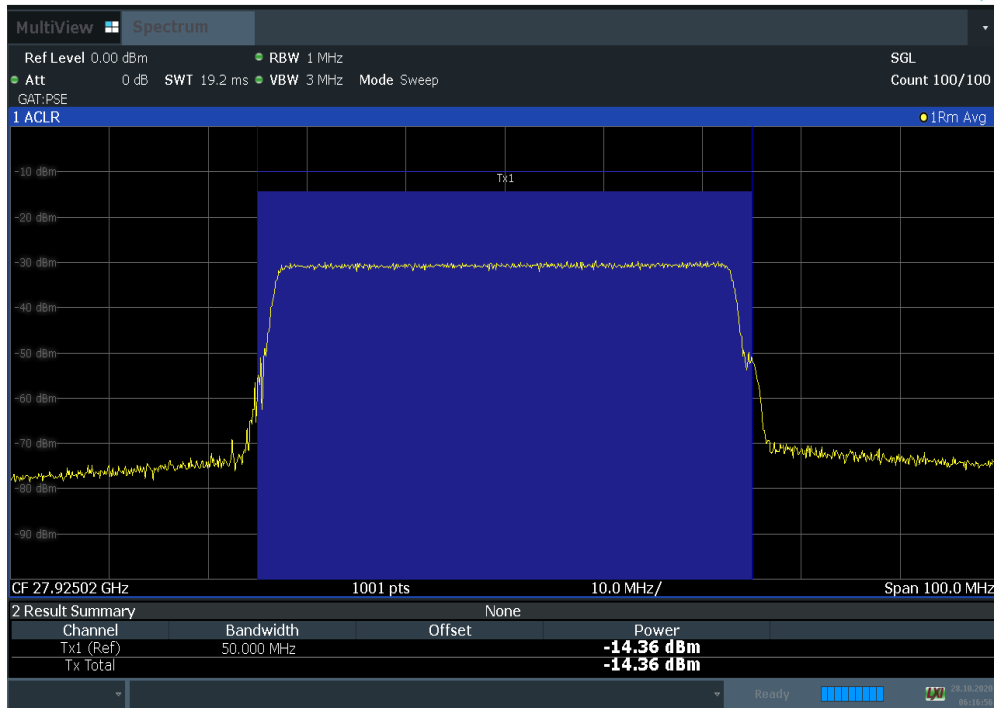


Plot 7-139. Antenna D EIRP Density Plot (50 MHz 1CC BW QPSK Mid Channel)

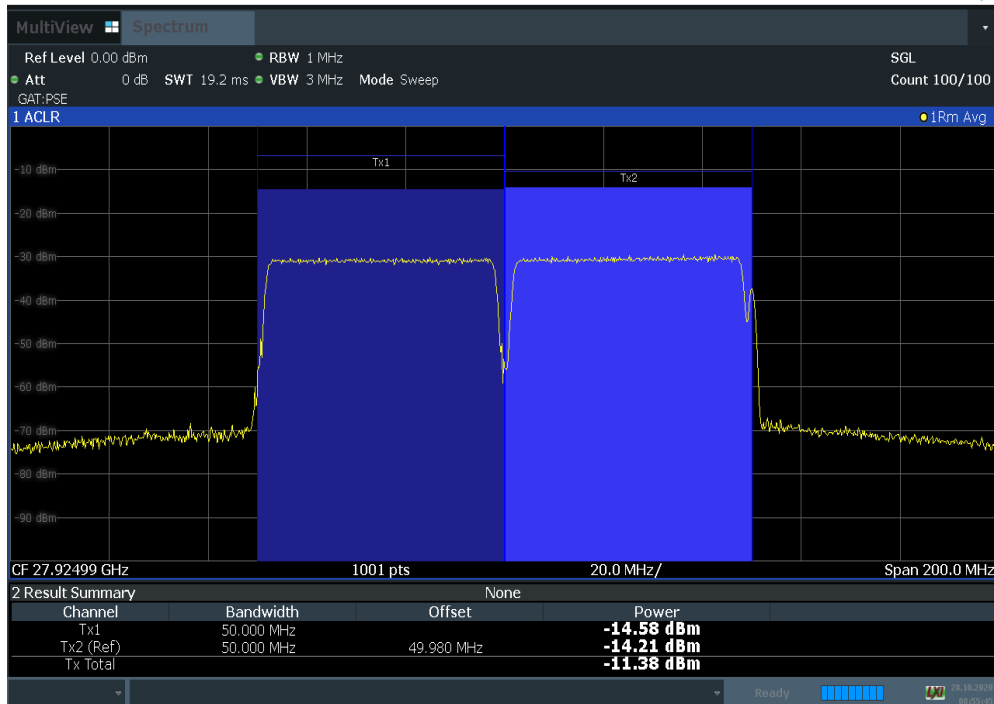


Plot 7-140. Antenna D EIRP Density Plot (50 MHz 1CC BW 16QAM Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 94 of 322

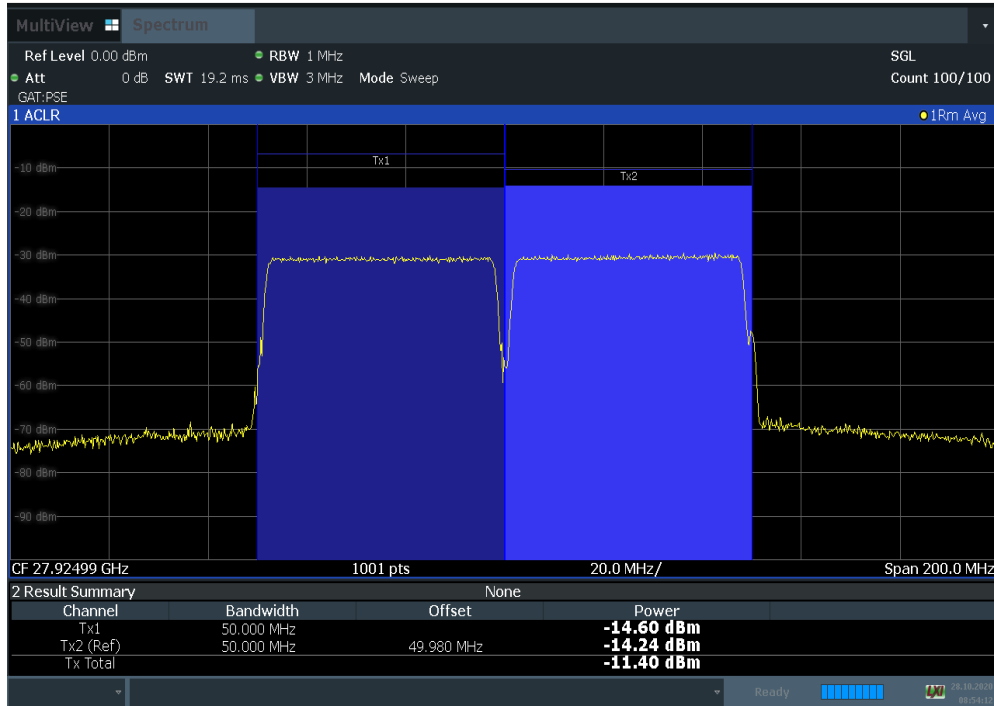


Plot 7-141. Antenna D EIRP Density Plot (50 MHz 1CC BW 64QAM Mid Channel)

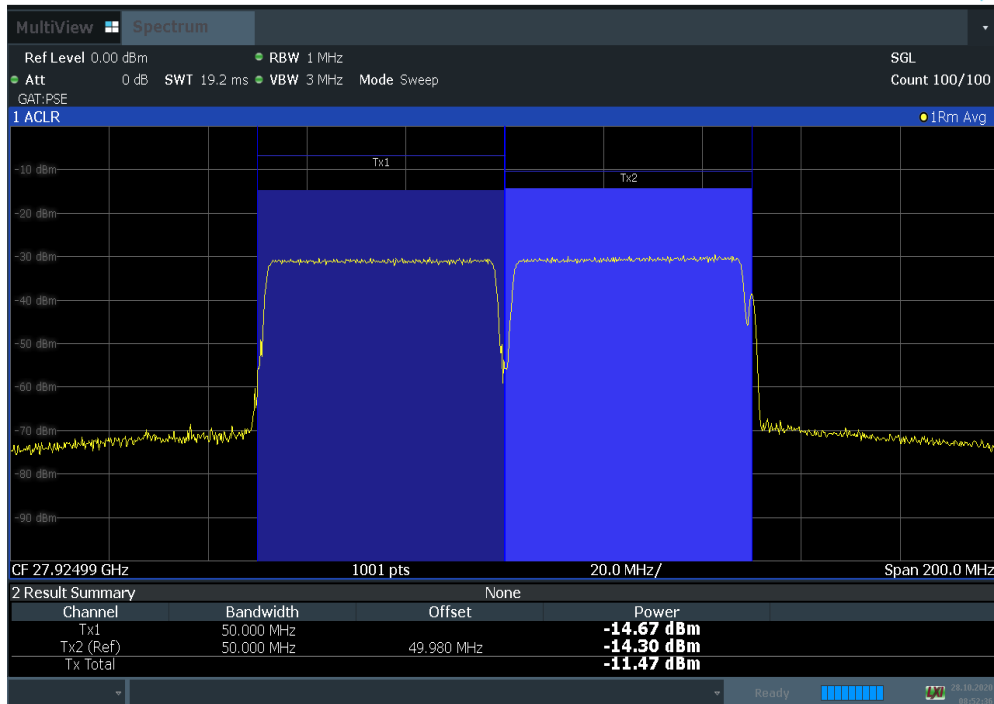


Plot 7-142. Antenna D EIRP Density Plot (50 MHz 2CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 95 of 322

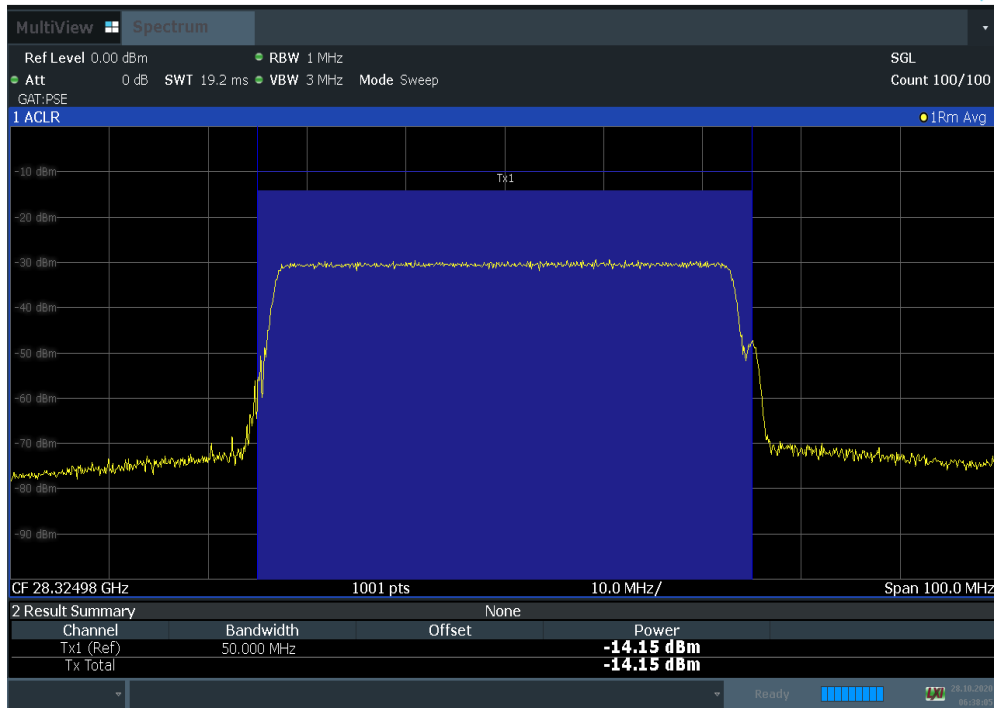


Plot 7-143. Antenna D EIRP Density Plot (50 MHz 2CC BW 16QAM Mid Channel)

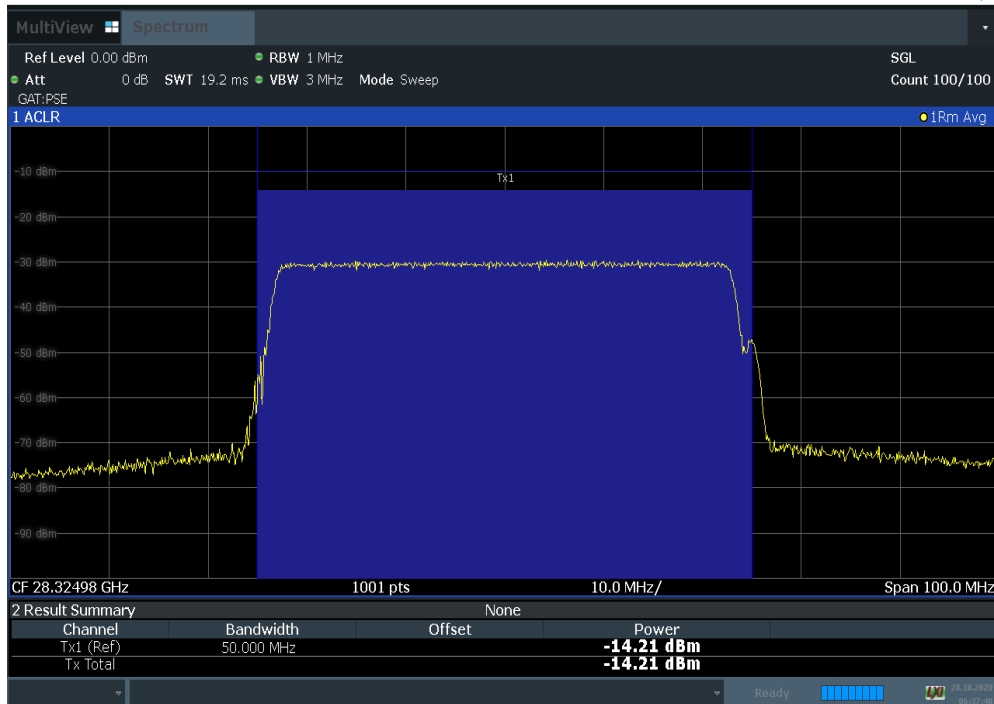


Plot 7-144. Antenna D EIRP Density Plot (50 MHz 2CC BW 64QAM Mid Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 96 of 322

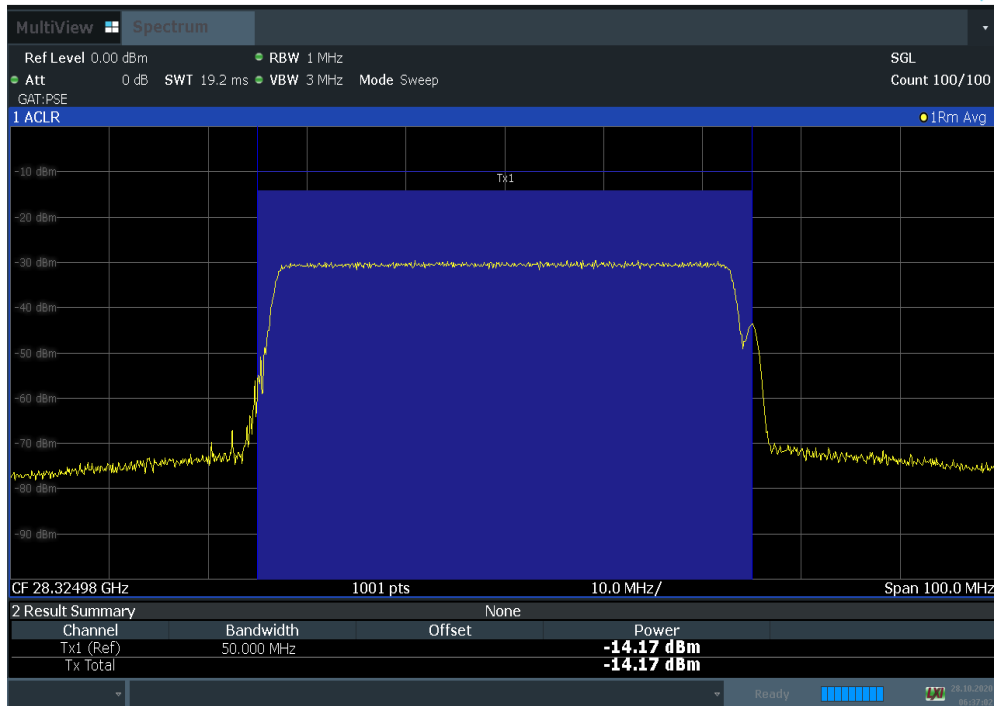


Plot 7-145. Antenna D EIRP Density Plot (50 MHz 1CC BW QPSK High Channel)

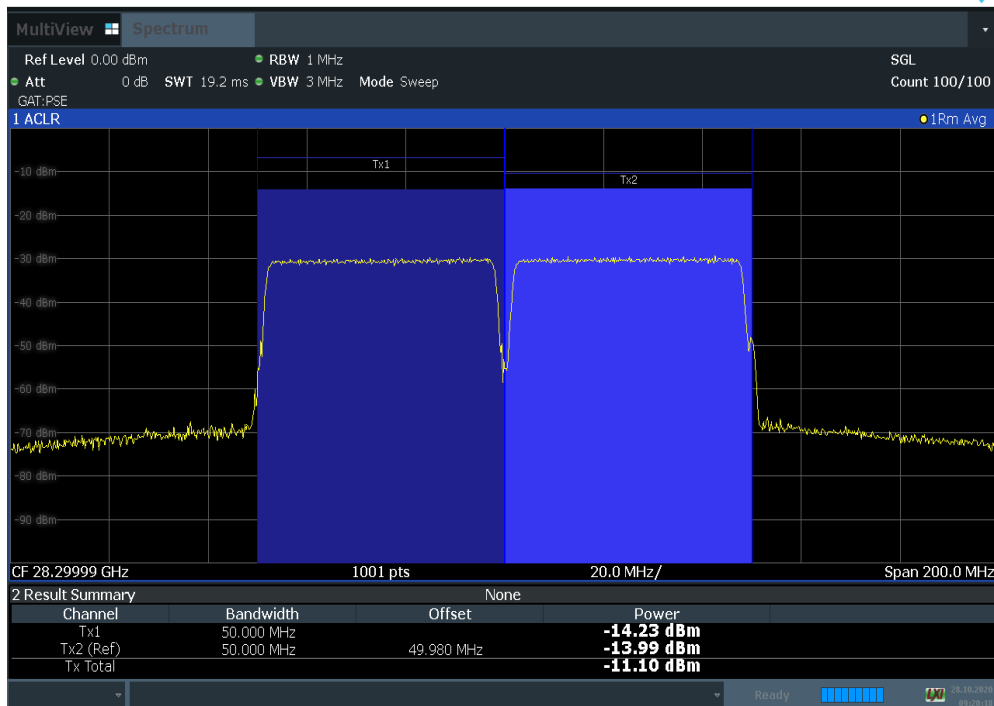


Plot 7-146. Antenna D EIRP Density Plot (50 MHz 1CC BW 16QAM High Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 97 of 322

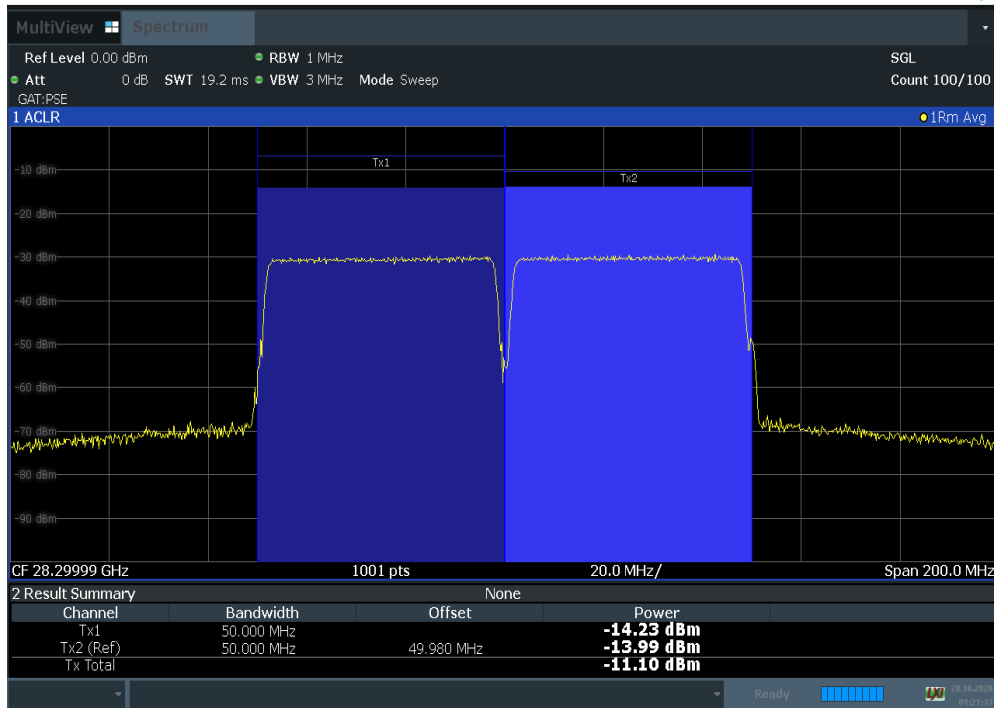


Plot 7-147. Antenna D EIRP Density Plot (50 MHz 1CC BW 64QAM High Channel)

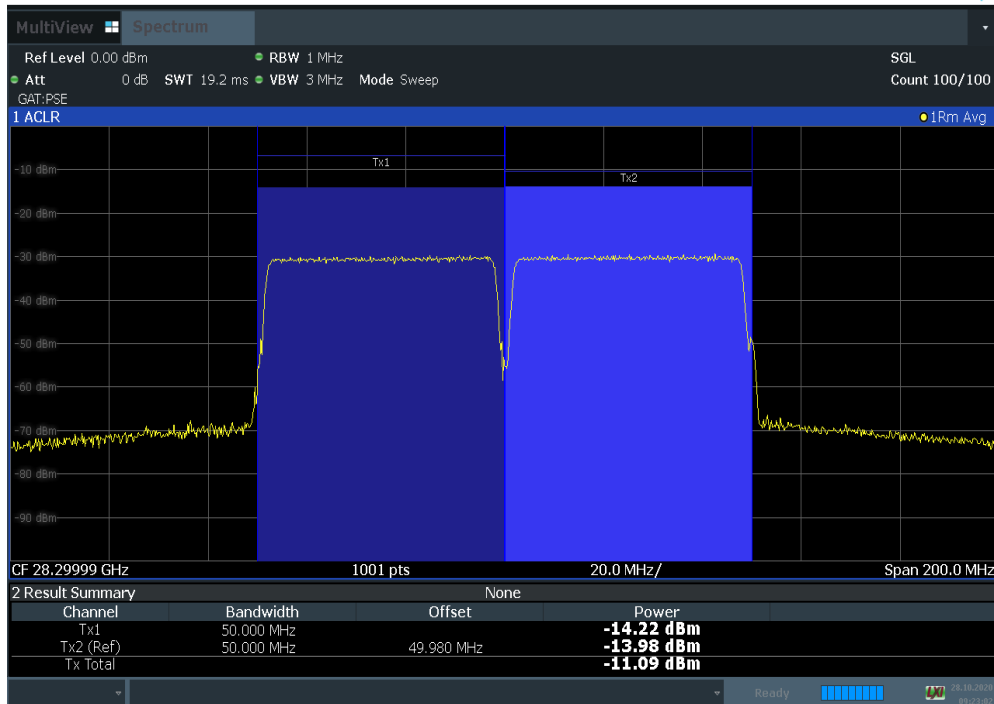


Plot 7-148. Antenna D EIRP Density Plot (50 MHz 2CC BW QPSK High Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 98 of 322

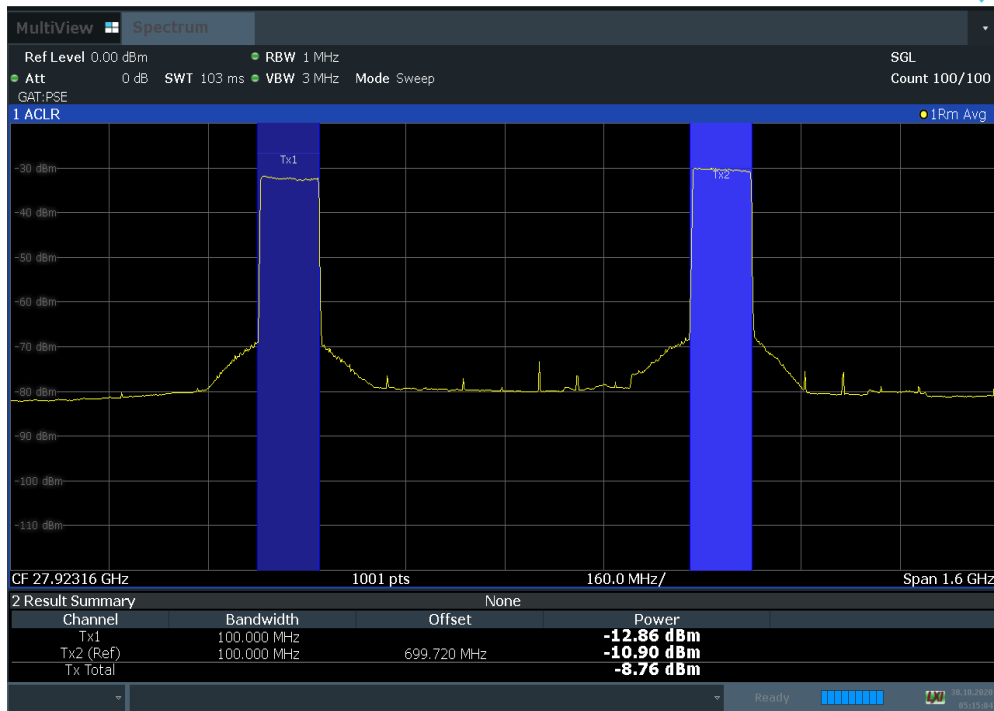


Plot 7-149. Antenna D EIRP Density Plot (50 MHz 2CC BW 16QAM High Channel)

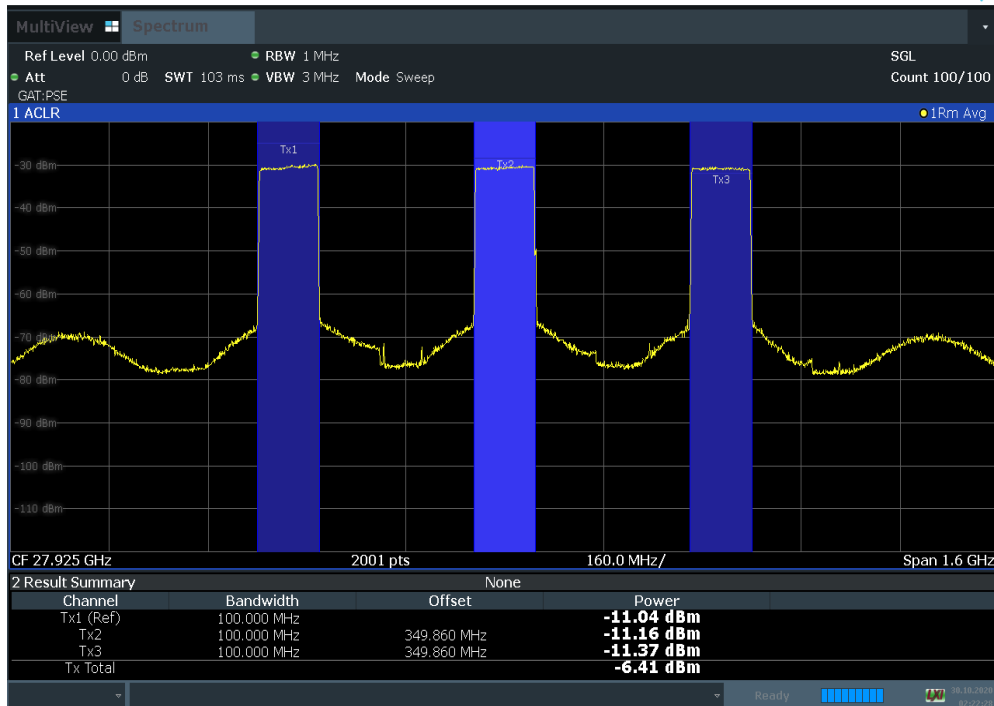


Plot 7-150. Antenna D EIRP Density Plot (50 MHz 2CC BW 64QAM High Channel)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 99 of 322

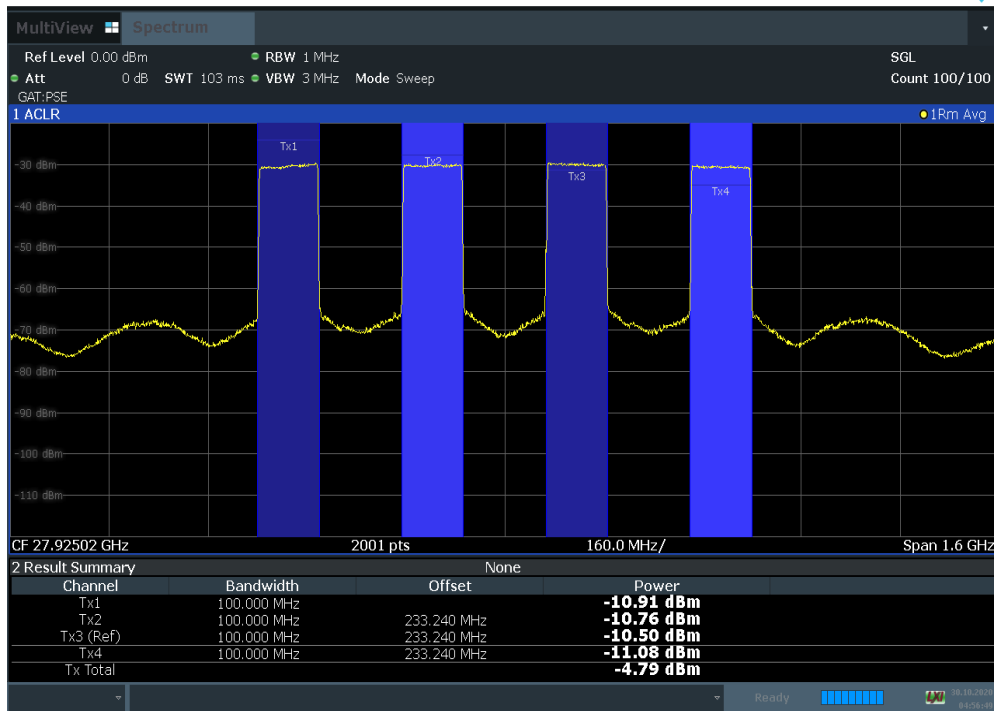


Plot 7-151. Antenna D EIRP Density Plot (100 MHz 2NC BW QPSK Mid Channel)

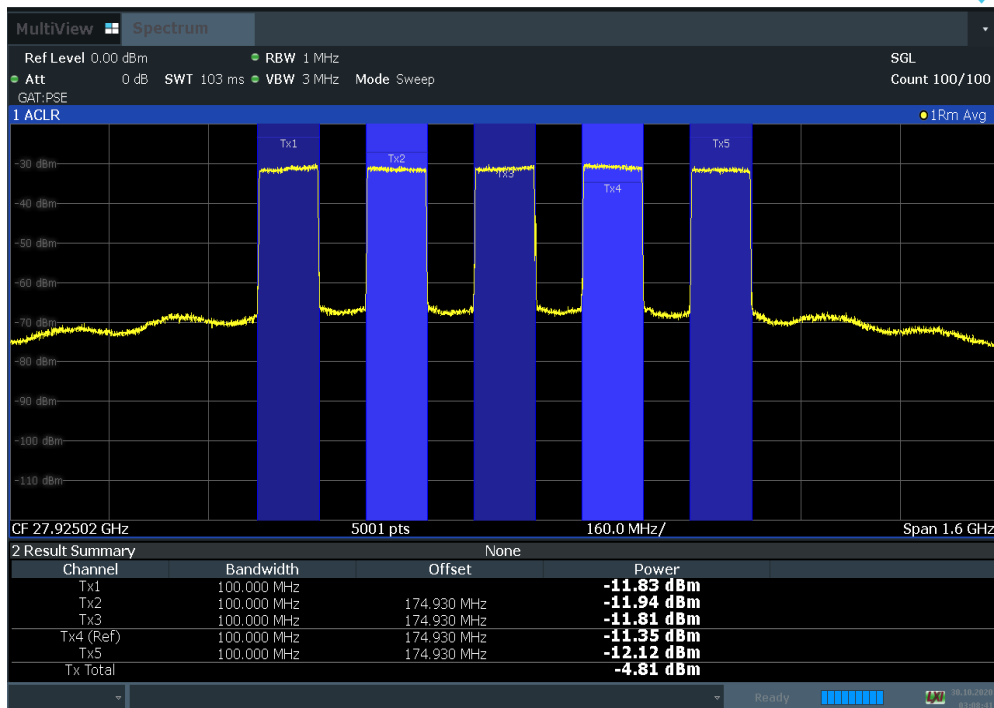


Plot 7-152. Antenna D EIRP Density Plot (100 MHz 3NC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 100 of 322

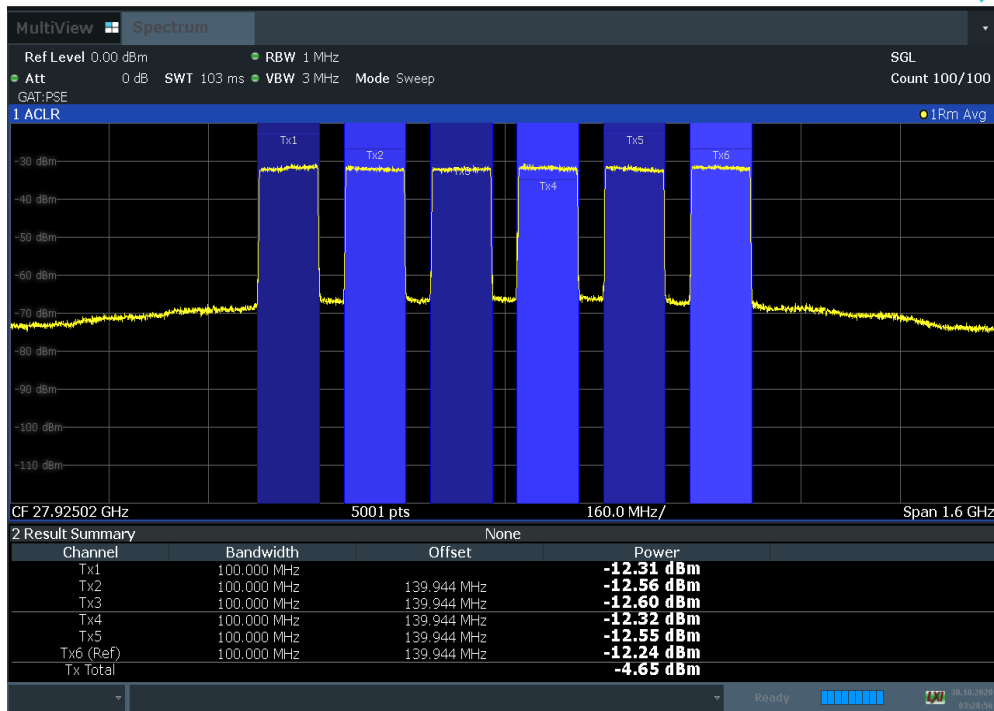


Plot 7-153. Antenna D EIRP Density Plot (100 MHz 4NC BW QPSK Mid Channel)

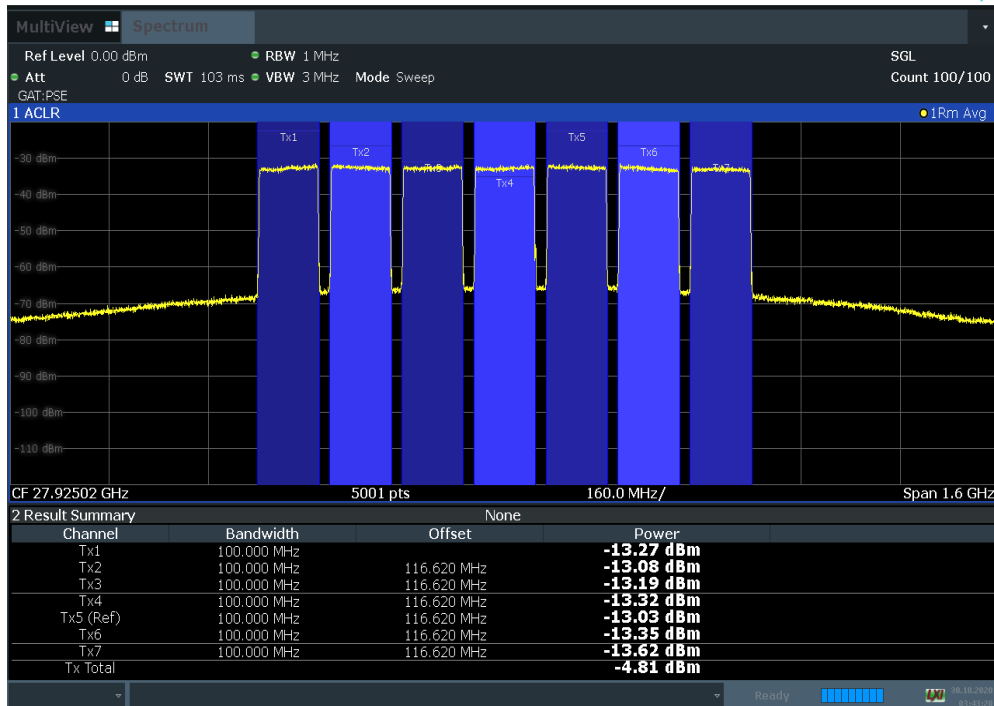


Plot 7-154. Antenna D EIRP Density Plot (100 MHz 5NC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 101 of 322

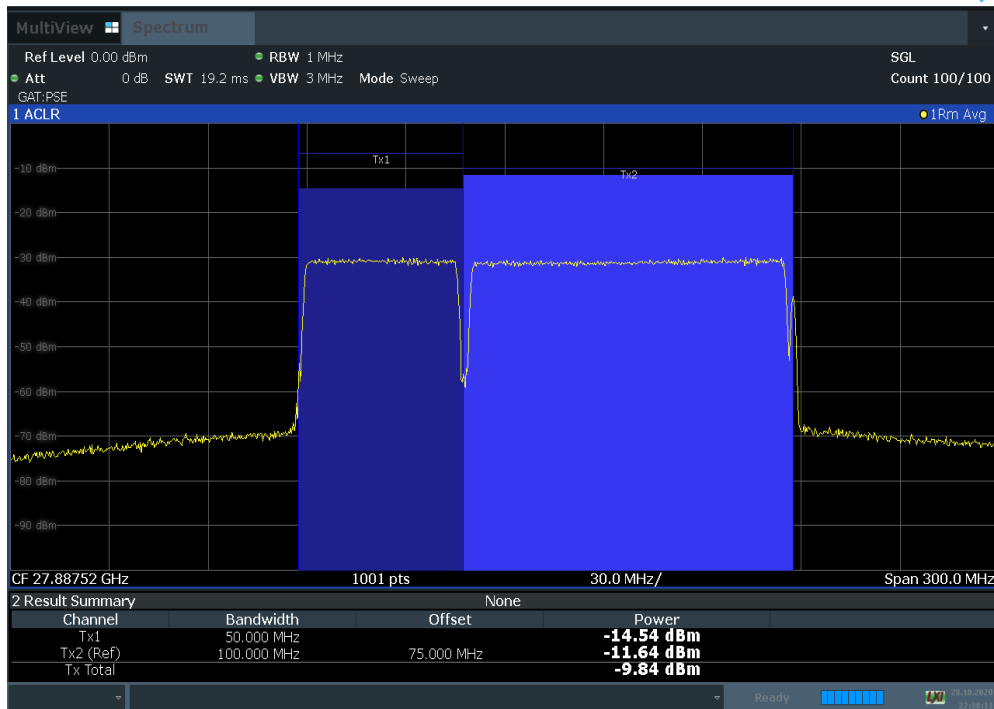


Plot 7-155. Antenna D EIRP Density Plot (100 MHz 6NC BW QPSK Mid Channel)

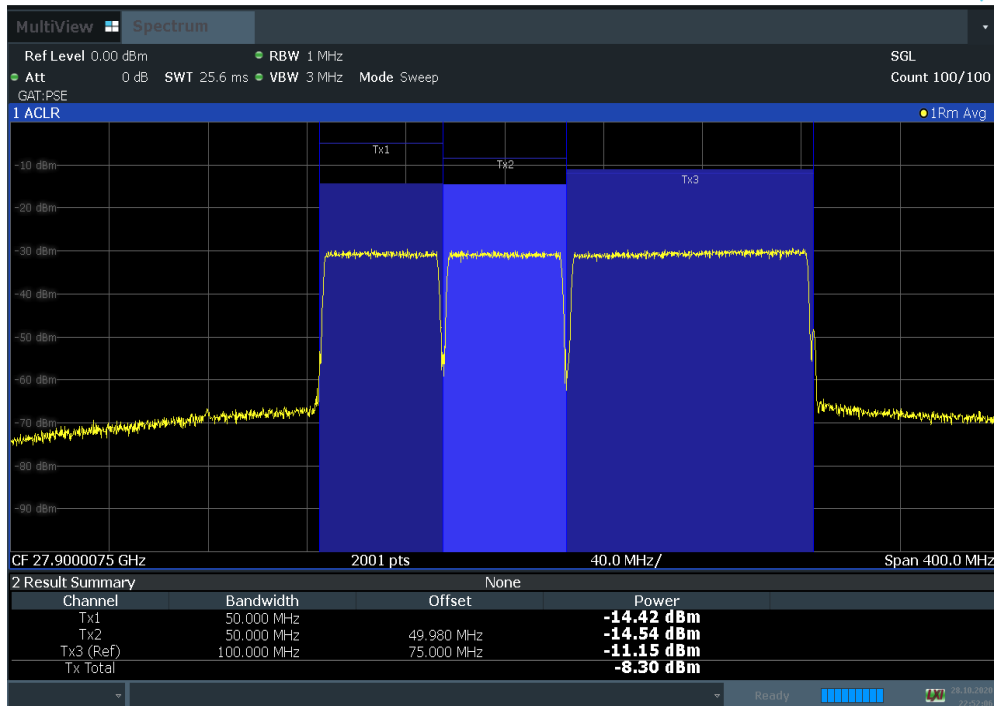


Plot 7-156. Antenna D EIRP Density Plot (100 MHz 7NC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 102 of 322

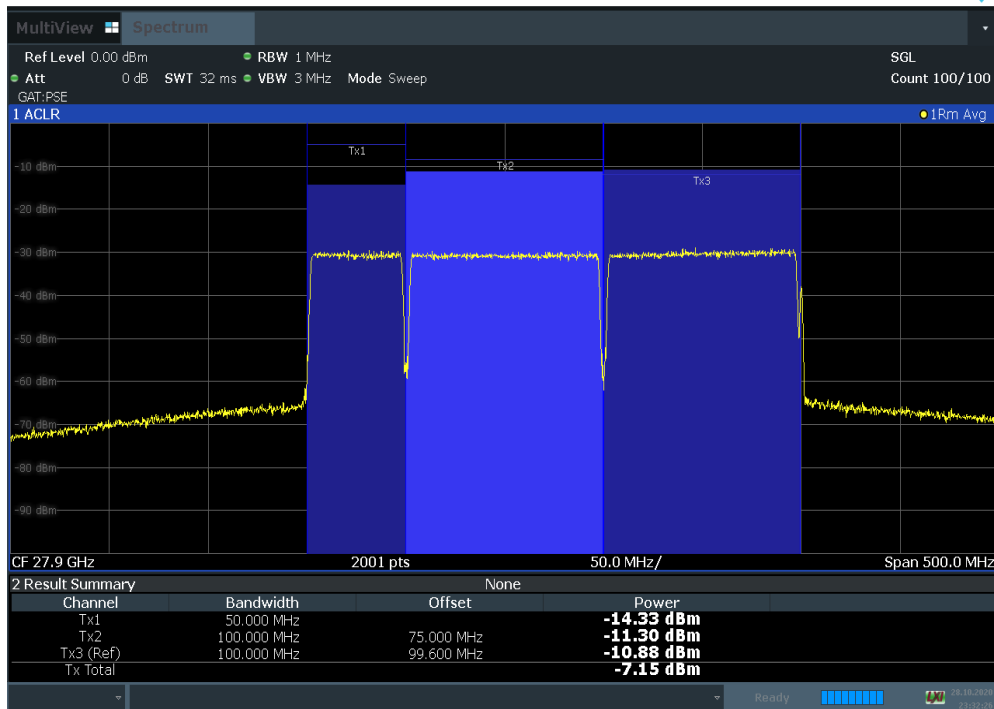


Plot 7-157. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 1CC BW QPSK Mid Channel)

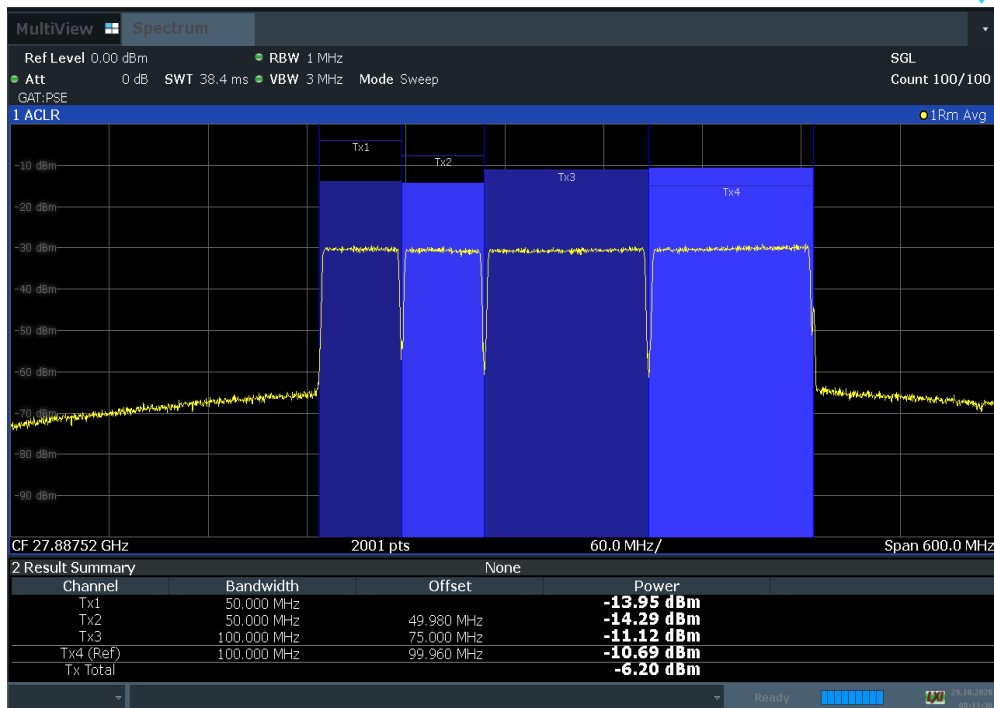


Plot 7-158. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 1CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 103 of 322

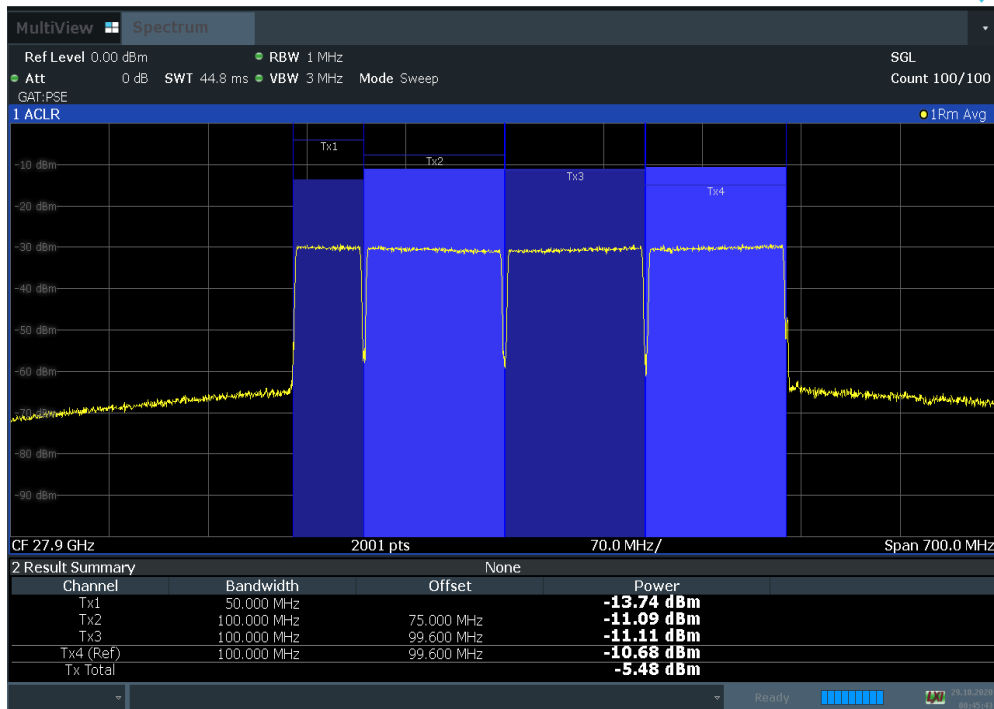


Plot 7-159. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 2CC BW QPSK Mid Channel)

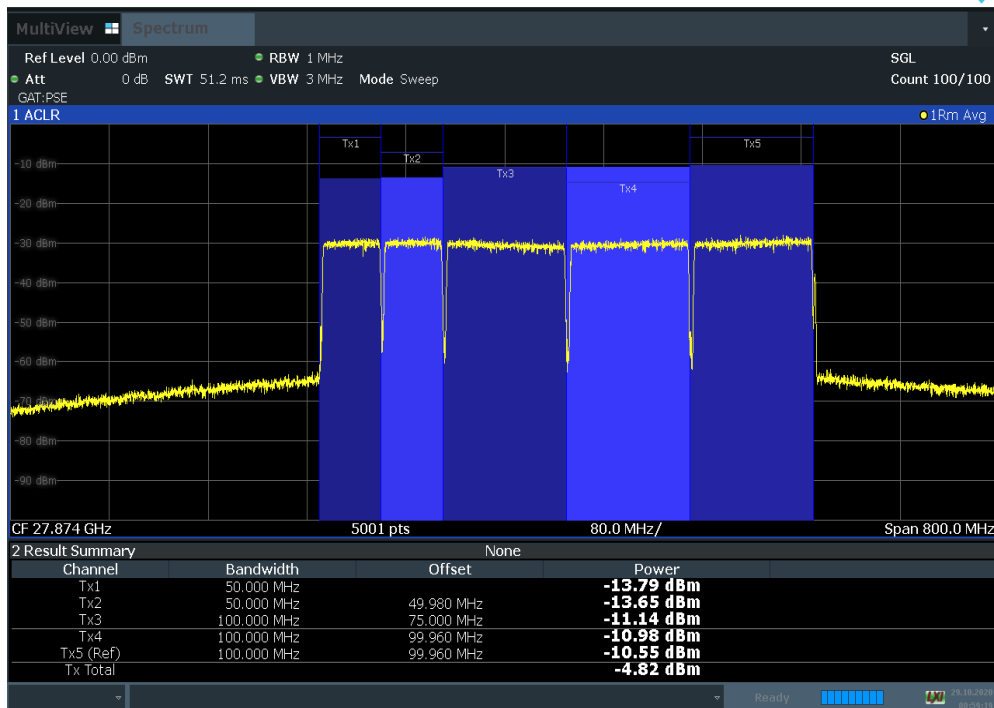


Plot 7-160. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 2CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 104 of 322

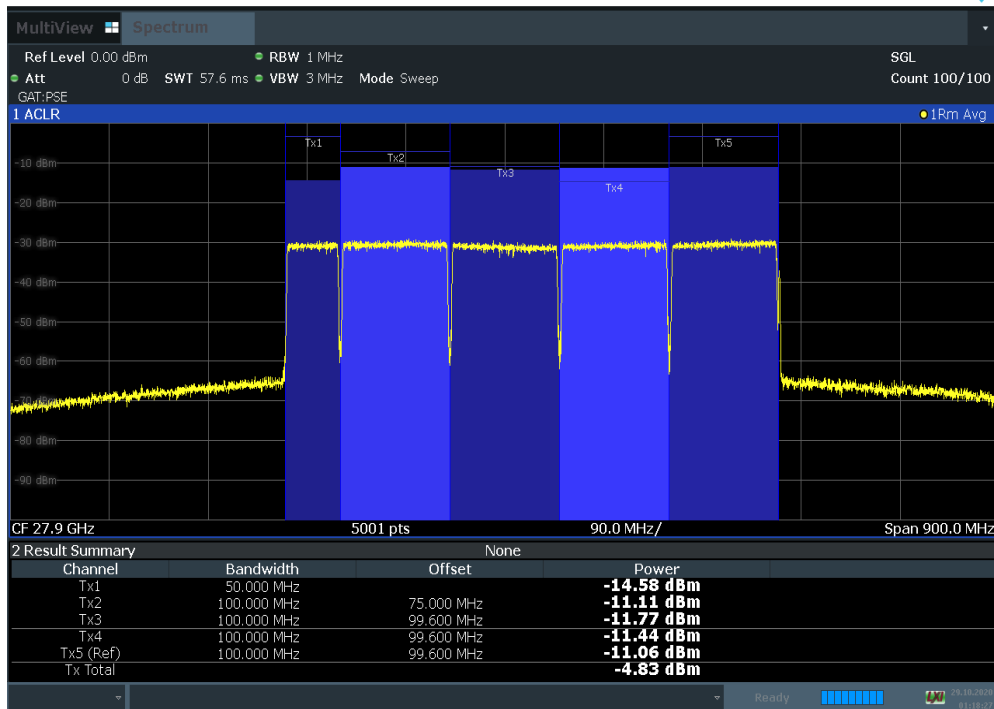


Plot 7-161. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 3CC BW QPSK Mid Channel)

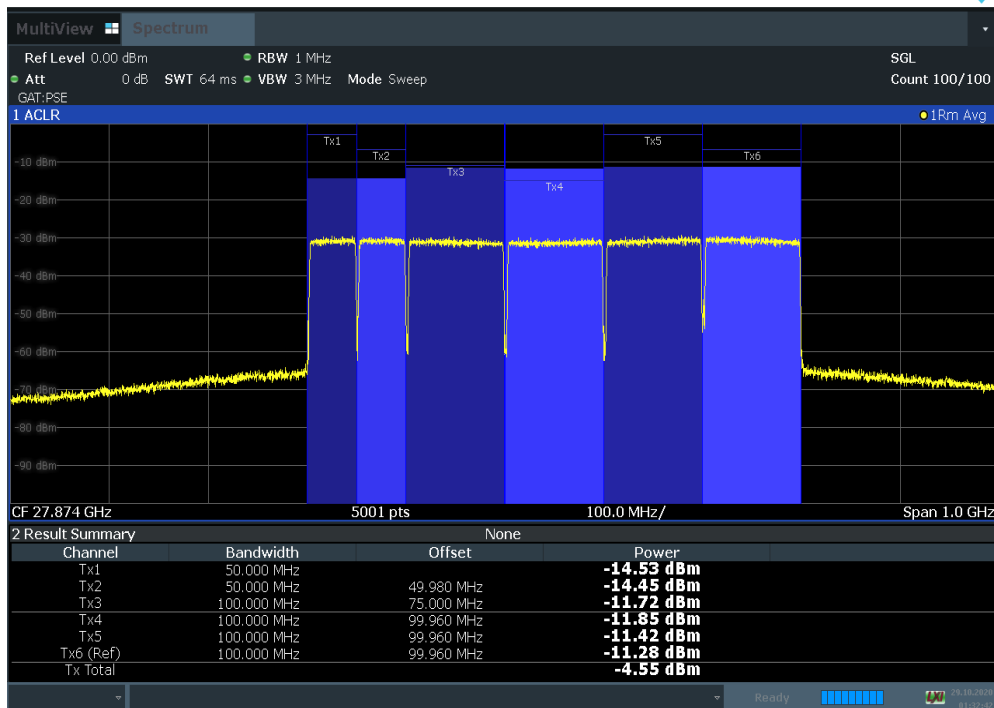


Plot 7-162. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 105 of 322

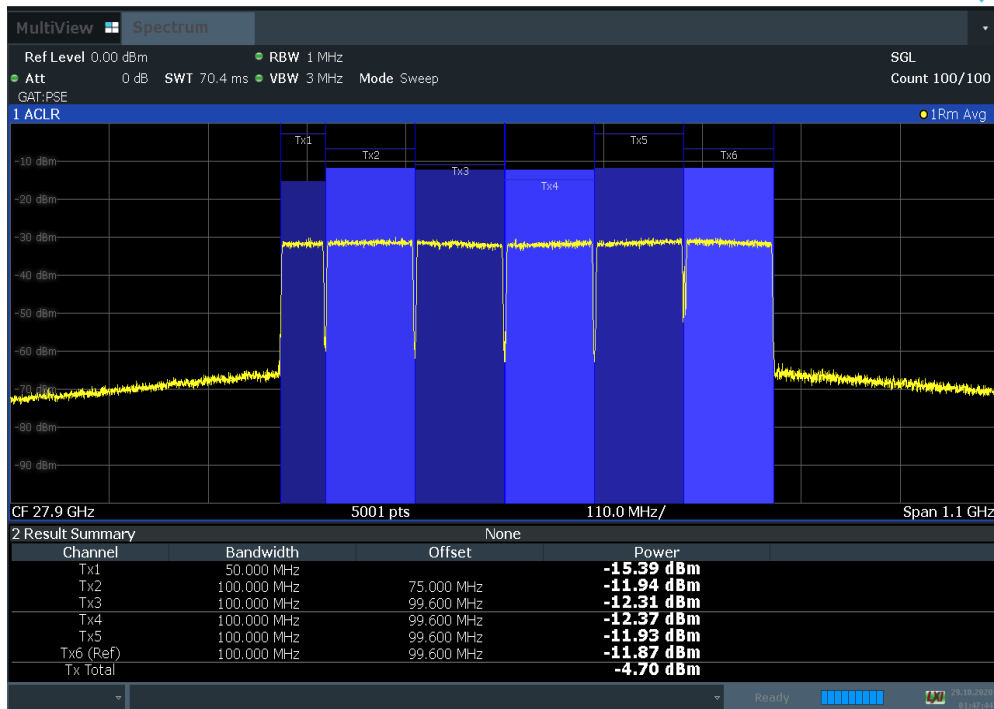


Plot 7-163. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 4CC BW QPSK Mid Channel)

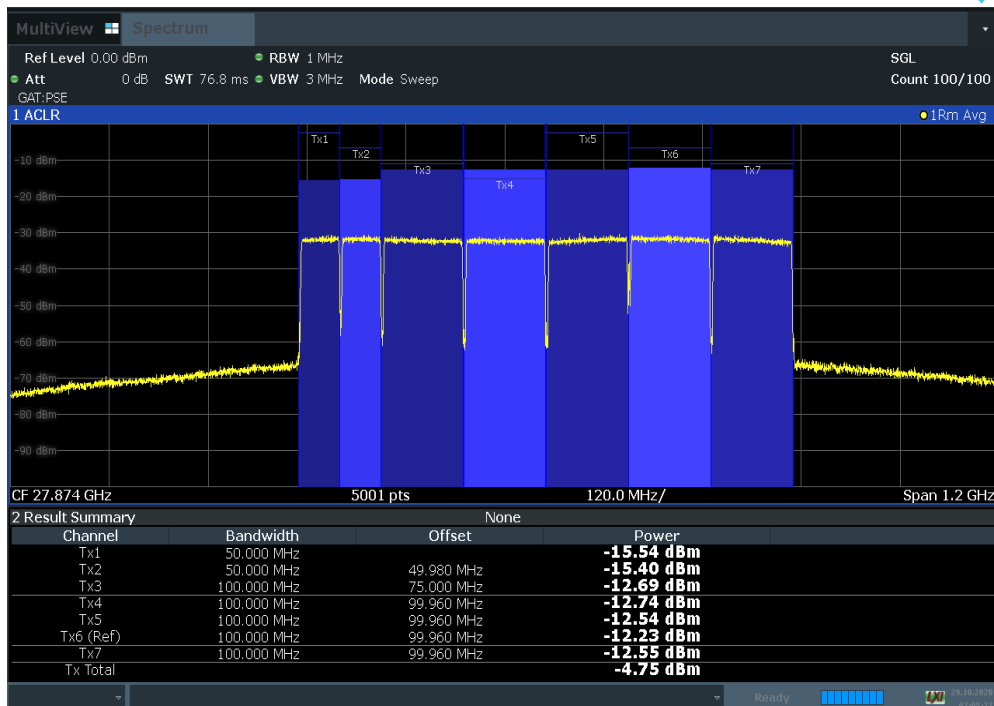


Plot 7-164. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 4CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 106 of 322

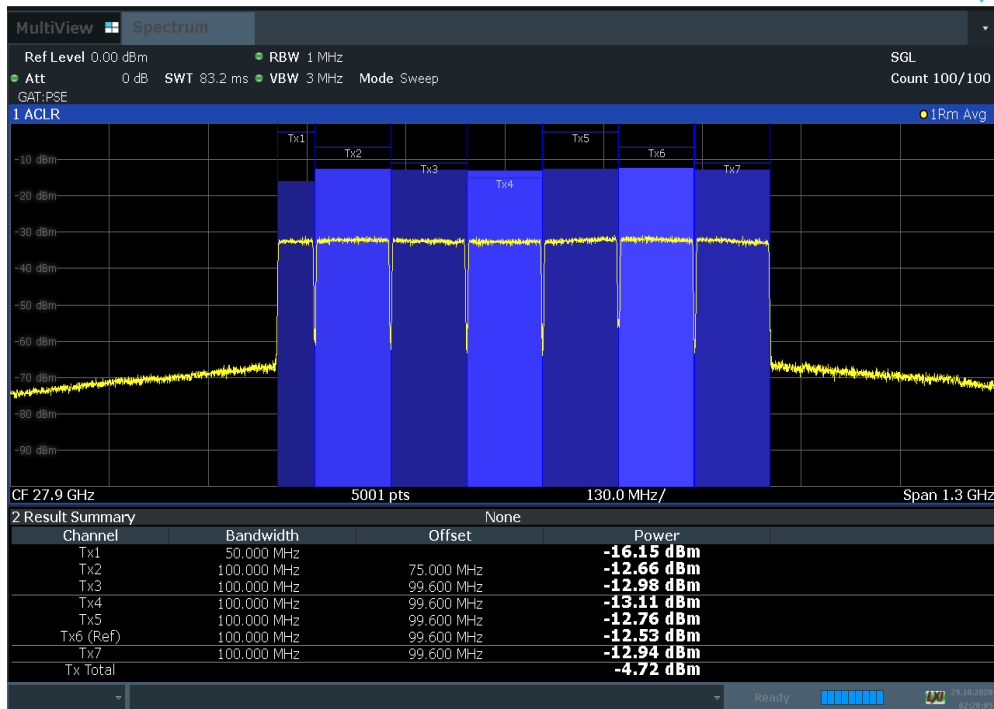


Plot 7-165. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 5CC BW QPSK Mid Channel)

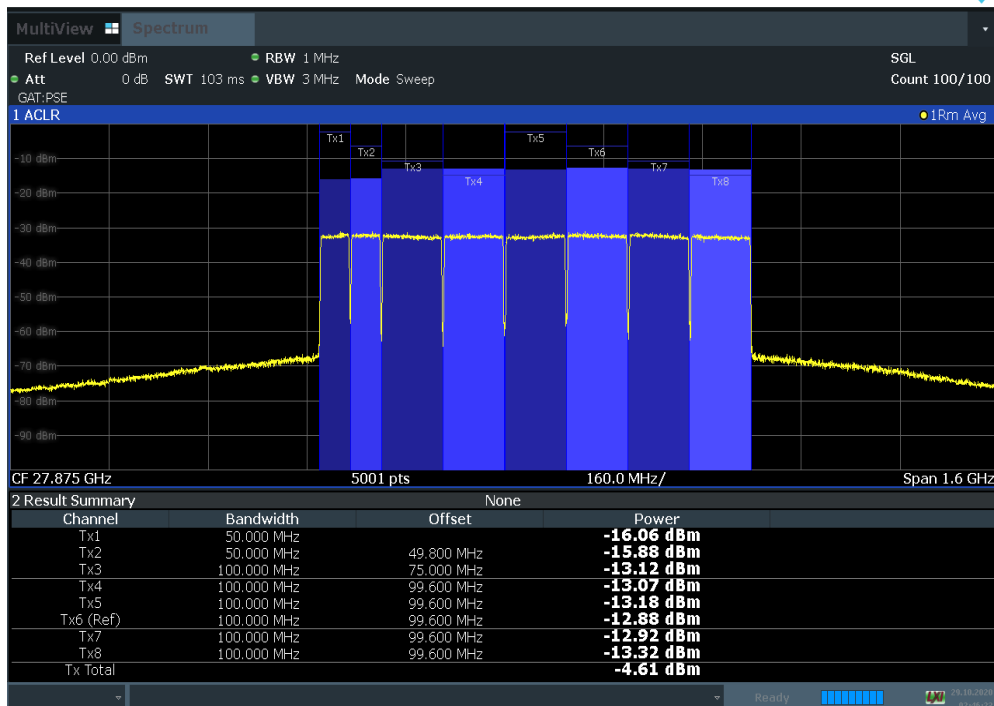


Plot 7-166. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 5CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 107 of 322



Plot 7-167. Antenna D EIRP Density Plot (50 MHz 1CC + 100 MHz 6CC BW QPSK Mid Channel)





Plot 7-168. Antenna D EIRP Density Plot (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 108 of 322

7.3.5 MIMO EIRP Density



Antenna	Bandwidth	Configuration	Chan.	Frequency	Modulation	Average e.i.r.p. PSD	PSD Limit	Margin
	[MHz]			[GHz]		[dBm/100MHz]	[dBm/100MHz]	[dB/100MHz]
A + C	50	1CC	Low	27.550	QPSK	51.97	75.00	-23.03
	50		Low	27.550	16QAM	51.92	75.00	-23.08
	50		Low	27.550	64QAM	51.93	75.00	-23.07
	50	2CC	Low	27.550	QPSK	52.16	75.00	-22.84
	50		Low	27.550	16QAM	52.26	75.00	-22.74
	50		Low	27.550	64QAM	52.30	75.00	-22.70
	50	1CC	Mid	27.925	QPSK	51.82	75.00	-23.18
	50		Mid	27.925	16QAM	51.76	75.00	-23.24
	50		Mid	27.925	64QAM	51.55	75.00	-23.45
	50	2CC	Mid	27.925	QPSK	51.64	75.00	-23.36
	50		Mid	27.925	16QAM	51.61	75.00	-23.39
	50		Mid	27.925	64QAM	51.51	75.00	-23.49
	50	1CC	High	28.300	QPSK	52.22	75.00	-22.78
	50		High	28.300	16QAM	52.09	75.00	-22.91
	50		High	28.300	64QAM	52.16	75.00	-22.84
	50	2CC	High	28.300	QPSK	52.31	75.00	-22.69
	50		High	28.300	16QAM	52.24	75.00	-22.76
	50		High	28.300	64QAM	52.12	75.00	-22.88
	100	2NC	Mid	27.925	QPSK	52.13	75.00	-22.87
	100	3NC	Mid	27.925	QPSK	51.56	75.00	-23.44
	100	4NC	Mid	27.925	QPSK	52.39	75.00	-22.61
	100	5NC	Mid	27.925	QPSK	51.83	75.00	-23.17
	100	6NC	Mid	27.925	QPSK	50.58	75.00	-24.42
	100	7NC	Mid	27.925	QPSK	49.97	75.00	-25.03
	50	50M x1 + 100M x1	Mid	27.925	QPSK	51.41	75.00	-23.59
		50M x2 + 100M x1	Mid	27.925	QPSK	51.36	75.00	-23.64
		50M x1 + 100M x2	Mid	27.925	QPSK	52.05	75.00	-22.95
		50M x2 + 100M x2	Mid	27.925	QPSK	52.30	75.00	-22.70
		50M x1 + 100M x3	Mid	27.925	QPSK	52.37	75.00	-22.63
		50M x2 + 100M x3	Mid	27.925	QPSK	52.47	75.00	-22.53
50M x1 + 100M x4		Mid	27.925	QPSK	52.00	75.00	-23.00	
50M x2 + 100M x4		Mid	27.925	QPSK	51.44	75.00	-23.56	
50M x1 + 100M x5		Mid	27.925	QPSK	50.96	75.00	-24.04	
50M x2 + 100M x5		Mid	27.925	QPSK	50.70	75.00	-24.30	
50M x1 + 100M x6		Mid	27.925	QPSK	50.54	75.00	-24.46	
50M x2 + 100M x6		Mid	27.925	QPSK	50.08	75.00	-24.92	

Table 7-11. MIMO EIRP Density Summary Data (Antenna A + C)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)			Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 109 of 322	



Antenna	Bandwidth	Configuration	Chan.	Frequency	Modulation	Average e.i.r.p. PSD	PSD Limit	Margin
	[MHz]			[GHz]		[dBm/100MHz]	[dBm/100MHz]	[dB/100MHz]
B + D	50	1CC	Low	27.550	QPSK	51.50	75.00	-23.50
	50		Low	27.550	16QAM	51.51	75.00	-23.49
	50		Low	27.550	64QAM	51.52	75.00	-23.48
	50	2CC	Low	27.550	QPSK	51.60	75.00	-23.40
	50		Low	27.550	16QAM	51.68	75.00	-23.32
	50		Low	27.550	64QAM	51.69	75.00	-23.31
	50	1CC	Mid	27.925	QPSK	51.27	75.00	-23.73
	50		Mid	27.925	16QAM	51.31	75.00	-23.69
	50		Mid	27.925	64QAM	51.31	75.00	-23.69
	50	2CC	Mid	27.925	QPSK	51.19	75.00	-23.81
	50		Mid	27.925	16QAM	51.30	75.00	-23.70
	50		Mid	27.925	64QAM	51.26	75.00	-23.74
	50	1CC	High	28.300	QPSK	51.75	75.00	-23.25
	50		High	28.300	16QAM	51.73	75.00	-23.27
	50		High	28.300	64QAM	51.77	75.00	-23.23
	50	2CC	High	28.300	QPSK	51.78	75.00	-23.22
	50		High	28.300	16QAM	51.83	75.00	-23.17
	50		High	28.300	64QAM	51.87	75.00	-23.13
	100	2NC	Mid	27.925	QPSK	51.68	75.00	-23.32
	100	3NC	Mid	27.925	QPSK	51.43	75.00	-23.57
	100	4NC	Mid	27.925	QPSK	52.02	75.00	-22.98
	100	5NC	Mid	27.925	QPSK	51.11	75.00	-23.89
	100	6NC	Mid	27.925	QPSK	50.21	75.00	-24.79
	100	7NC	Mid	27.925	QPSK	49.47	75.00	-25.53
	50	50M x1 + 100M x1	Mid	27.925	QPSK	50.97	75.00	-24.03
		50M x2 + 100M x1	Mid	27.925	QPSK	51.40	75.00	-23.60
		50M x1 + 100M x2	Mid	27.925	QPSK	51.59	75.00	-23.41
		50M x2 + 100M x2	Mid	27.925	QPSK	51.79	75.00	-23.21
		50M x1 + 100M x3	Mid	27.925	QPSK	51.87	75.00	-23.13
		50M x2 + 100M x3	Mid	27.925	QPSK	52.00	75.00	-23.00
50M x1 + 100M x4		Mid	27.925	QPSK	51.45	75.00	-23.55	
50M x2 + 100M x4		Mid	27.925	QPSK	51.14	75.00	-23.86	
50M x1 + 100M x5		Mid	27.925	QPSK	50.62	75.00	-24.38	
50M x2 + 100M x5		Mid	27.925	QPSK	50.26	75.00	-24.74	
50M x1 + 100M x6		Mid	27.925	QPSK	49.97	75.00	-25.03	
50M x2 + 100M x6		Mid	27.925	QPSK	49.61	75.00	-25.39	

Table 7-12. MIMO EIRP Density Summary Data (Antenna B + D)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)			Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 110 of 322	

Antenna	Bandwidth	Configuration	Chan.	Frequency	Modulation	Average e.i.r.p. PSD	PSD Limit	Margin	
	[MHz]			[GHz]		[dBm/100MHz]	[dBm/100MHz]	[dB/100MHz]	
A + B + C + D	50	1CC	Low	27.550	QPSK	54.75	75.00	-20.25	
	50		Low	27.550	16QAM	54.73	75.00	-20.27	
	50		Low	27.550	64QAM	54.74	75.00	-20.26	
	50	2CC	Low	27.550	QPSK	54.90	75.00	-20.10	
	50		Low	27.550	16QAM	54.99	75.00	-20.01	
	50		Low	27.550	64QAM	55.01	75.00	-19.99	
	50	1CC	Mid	27.925	QPSK	54.57	75.00	-20.43	
	50		Mid	27.925	16QAM	54.55	75.00	-20.45	
	50		Mid	27.925	64QAM	54.44	75.00	-20.56	
	50	2CC	Mid	27.925	QPSK	54.43	75.00	-20.57	
	50		Mid	27.925	16QAM	54.47	75.00	-20.53	
	50		Mid	27.925	64QAM	54.39	75.00	-20.61	
	50	1CC	High	28.300	QPSK	55.00	75.00	-20.00	
	50		High	28.300	16QAM	54.93	75.00	-20.07	
	50		High	28.300	64QAM	54.98	75.00	-20.02	
	50	2CC	High	28.300	QPSK	55.06	75.00	-19.94	
	50		High	28.300	16QAM	55.05	75.00	-19.95	
	50		High	28.300	64QAM	55.01	75.00	-19.99	
	100	2NC	Mid	27.925	QPSK	54.92	75.00	-20.08	
	100	3NC	Mid	27.925	QPSK	54.50	75.00	-20.50	
	100	4NC	Mid	27.925	QPSK	55.22	75.00	-19.78	
	100	5NC	Mid	27.925	QPSK	54.49	75.00	-20.51	
	100	6NC	Mid	27.925	QPSK	53.41	75.00	-21.59	
	100	7NC	Mid	27.925	QPSK	52.73	75.00	-22.27	
	50	50	50M x1 + 100M x1	Mid	27.925	QPSK	54.20	75.00	-20.80
			50M x2 + 100M x1	Mid	27.925	QPSK	54.39	75.00	-20.61
			50M x1 + 100M x2	Mid	27.925	QPSK	54.84	75.00	-20.16
			50M x2 + 100M x2	Mid	27.925	QPSK	55.06	75.00	-19.94
			50M x1 + 100M x3	Mid	27.925	QPSK	55.14	75.00	-19.86
			50M x2 + 100M x3	Mid	27.925	QPSK	55.25	75.00	-19.75
50M x1 + 100M x4			Mid	27.925	QPSK	54.75	75.00	-20.25	
50M x2 + 100M x4			Mid	27.925	QPSK	54.30	75.00	-20.70	
50M x1 + 100M x5			Mid	27.925	QPSK	53.81	75.00	-21.19	
50M x2 + 100M x5			Mid	27.925	QPSK	53.50	75.00	-21.50	
50M x1 + 100M x6			Mid	27.925	QPSK	53.28	75.00	-21.72	
50M x2 + 100M x6			Mid	27.925	QPSK	52.87	75.00	-22.13	

Table 7-13. MIMO EIRP Density Summary Data (Antenna A + B + C + D)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)			Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 111 of 322	

7.4 RF Conducted Output Power

\$2.1046

Test Overview



RF conducted output power measurements are performed using broadband horn antennas. The conducted power is determined by maximizing the full spectrum EIRP for all component carrier configurations and then subtracting the known antenna gain from the EIRP. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 Section 5.2.4.4.1
ANSI C63.26-2015 Section 6.4

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW
3. VBW \geq 3 x RBW
4. Span = 2x to 3x the OBW
5. No. of sweep points \geq 2 x span / RBW
6. Detector = RMS
7. The integration bandwidth was roughly set equal to the measured RF Conducted Output Power of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
8. Trace mode = trace averaging (RMS) over 100 sweeps
9. The trace was allowed to stabilize

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
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Test Notes

- 1) The EUT was tested while positioned upright and mounted on a mast at 1.5 m height. The worst case emissions are reported with the EUT in this fixed position and with the modulations and active component carriers shown in the tables below.
- 2) Elements within the same antenna array are correlated to produce beamforming array gain.
- 3) Measurements were taken in the far field of the mmWave signal based on the formula: $R \geq 2D^2/\text{wavelength}$.
- 4) The test case with 1 CC active, "CC0" representing the component carrier with the lowest frequency, was selected for the worst case emission testing as it created the highest EIRP within 50 MHz and 100 MHz bandwidth.
- 5) The average EIRP reported below is calculated per formula specific in d) of ANSI C63.26-2015 Section 5.2.7:

$$\text{EIRP (dBm)} = E (\text{dB}\mu\text{V/m}) + 20\log(D) - 104.8;$$
 where D is the measurement distance (in the far field region) in m.
 For this section, all EIRP density measurements were performed at a distance of 3.20 m, so the effective correction is:

$$\begin{aligned} \text{EIRP (dBm)} &= E (\text{dB}\mu\text{V/m}) - 94.72 \text{ dB} \\ &= \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 107 \text{ dB} - 94.72 \text{ dB} \\ &= \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 12.28 \text{ dB} \end{aligned}$$
- 6) The conducted average power over the full channel BW is calculated as follows:



$$\text{Conducted Average Power (dBm)} = \text{Average EIRP (dBm)} - \text{Antenna Gain (dBi)}$$
 * Summed Across All Antennas are calculated based on dBm/100MHz. Thus, 50 MHz bandwidth component carrier is adopted with 3.01 dB scaling factor.
- 7) Per ANSI C63.26-2015 Section 6.4, individual EIRPs are also summed before compared to the limit.
- 8) The angle of the horn antenna was rotated to maximize and find the worst case emissions. Worst case EIRP is reported below.
- 9) 7.3 Equivalent Isotropic Radiated Power (EIRP) Density plots cover for 7.4 Conducted Output Power plot.
- 10) A3LAT1K01-A10 test result is referenced as A3LAT1K01-A00 result which is difference of power type between AC(A3LAT1K01-A00) source and DC(A3LAT1K01-A10) source. Power supply condition is not affected to declared RF specification.

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)	Page 113 of 322	

7.4.1 Antenna A Conducted Power

Antenna	Bandwidth	Configuration	Chan.	Modulation	Analyzer Level	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
A	50	1CC	Low	QPSK	-13.34	59.40	28.12	33.76	17.94
	50		Low	16QAM	-13.40	59.40	28.12	33.70	17.88
	50		Low	64QAM	-13.32	59.40	28.12	33.78	17.96
	50	2CC	Low	QPSK	-13.01	59.40	28.12	34.09	18.27
	50		Low	16QAM	-13.00	59.40	28.12	34.10	18.28
	50		Low	64QAM	-12.93	59.40	28.12	34.17	18.35
	50	1CC	Mid	QPSK	-13.66	59.48	28.20	33.52	17.63
	50		Mid	16QAM	-13.71	59.48	28.20	33.47	17.57
	50		Mid	64QAM	-14.06	59.48	28.20	33.12	17.22
	50	2CC	Mid	QPSK	-13.73	59.48	28.20	33.45	17.55
	50		Mid	16QAM	-13.76	59.48	28.20	33.42	17.52
	50		Mid	64QAM	-13.75	59.48	28.20	33.43	17.54
	50	1CC	High	QPSK	-13.52	59.81	28.33	33.99	17.97
	50		High	16QAM	-13.50	59.81	28.33	34.01	17.99
	50		High	64QAM	-13.46	59.81	28.33	34.05	18.03
	50	2CC	High	QPSK	-13.43	59.81	28.33	34.08	18.05
	50		High	16QAM	-13.48	59.81	28.33	34.03	18.00
	50		High	64QAM	-13.44	59.81	28.33	34.07	18.05
	100	2NC	Mid	QPSK	-10.17	59.48	28.20	37.01	21.12
	100	3NC	Mid	QPSK	-10.79	59.48	28.20	36.39	20.50
	100	4NC	Mid	QPSK	-9.79	59.48	28.20	37.39	21.50
	100	5NC	Mid	QPSK	-10.42	59.48	28.20	36.76	20.87
	100	6NC	Mid	QPSK	-11.70	59.48	28.20	35.48	19.58
	100	7NC	Mid	QPSK	-12.34	59.48	28.20	34.84	18.94
	50 + 100	50M x1 + 100M x1	Mid	QPSK	-13.89	59.48	28.20	33.29	17.40
		50M x2 + 100M x1	Mid	QPSK	-11.03	59.48	28.20	36.15	20.25
		50M x1 + 100M x2	Mid	QPSK	-10.25	59.48	28.20	36.93	21.03
		50M x2 + 100M x2	Mid	QPSK	-10.03	59.48	28.20	37.15	21.25
		50M x1 + 100M x3	Mid	QPSK	-12.89	59.48	28.20	34.29	18.40
		50M x2 + 100M x3	Mid	QPSK	-12.77	59.48	28.20	34.41	18.51
50M x1 + 100M x4		Mid	QPSK	-10.16	59.48	28.20	37.02	21.12	
50M x2 + 100M x4		Mid	QPSK	-10.88	59.48	28.20	36.30	20.41	
50M x1 + 100M x5		Mid	QPSK	-11.23	59.48	28.20	35.95	20.05	
50M x2 + 100M x5		Mid	QPSK	-11.64	59.48	28.20	35.54	19.64	
50M x1 + 100M x6		Mid	QPSK	-11.73	59.48	28.20	35.45	19.55	
50M x2 + 100M x6		Mid	QPSK	-15.43	59.48	28.20	31.75	15.85	



Table 7-14. Antenna A Conducted Power Summary Data

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)			Approved by: Quality Manager
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7.4.2 Antenna B Conducted Power

Antenna	Bandwidth	Configuration	Chan.	Modulation	Analyzer Level	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
B	50	1CC	Low	QPSK	-13.80	59.40	28.12	33.30	17.48
	50		Low	16QAM	-13.77	59.40	28.12	33.33	17.51
	50		Low	64QAM	-13.72	59.40	28.12	33.38	17.56
	50	2CC	Low	QPSK	-13.80	59.40	28.12	33.30	17.48
	50		Low	16QAM	-13.60	59.40	28.12	33.50	17.68
	50		Low	64QAM	-13.55	59.40	28.12	33.55	17.73
	50	1CC	Mid	QPSK	-14.22	59.48	28.20	32.96	17.06
	50		Mid	16QAM	-14.07	59.48	28.20	33.11	17.21
	50		Mid	64QAM	-14.03	59.48	28.20	33.15	17.25
	50	2CC	Mid	QPSK	-14.41	59.48	28.20	32.77	16.87
	50		Mid	16QAM	-14.17	59.48	28.20	33.01	17.11
	50		Mid	64QAM	-14.19	59.48	28.20	32.99	17.09
	50	1CC	High	QPSK	-14.01	59.81	28.33	33.50	17.48
	50		High	16QAM	-14.00	59.81	28.33	33.51	17.49
	50		High	64QAM	-13.96	59.81	28.33	33.55	17.52
	50	2CC	High	QPSK	-14.12	59.81	28.33	33.39	17.36
	50		High	16QAM	-14.02	59.81	28.33	33.49	17.47
	50		High	64QAM	-13.94	59.81	28.33	33.57	17.54
	100	2NC	Mid	QPSK	-10.72	59.48	28.20	36.46	20.57
	100	3NC	Mid	QPSK	-11.08	59.48	28.20	36.10	20.20
	100	4NC	Mid	QPSK	-10.45	59.48	28.20	36.73	20.84
	100	5NC	Mid	QPSK	-11.42	59.48	28.20	35.76	19.86
	100	6NC	Mid	QPSK	-12.33	59.48	28.20	34.85	18.96
	100	7NC	Mid	QPSK	-13.03	59.48	28.20	34.15	18.26
	50	50M x1 + 100M x1	Mid	QPSK	-14.53	59.48	28.20	32.65	16.75
		50M x2 + 100M x1	Mid	QPSK	-11.05	59.48	28.20	36.13	20.24
		50M x1 + 100M x2	Mid	QPSK	-10.93	59.48	28.20	36.25	20.36
		50M x2 + 100M x2	Mid	QPSK	-10.72	59.48	28.20	36.46	20.56
		50M x1 + 100M x3	Mid	QPSK	-13.57	59.48	28.20	33.61	17.71
		50M x2 + 100M x3	Mid	QPSK	-13.46	59.48	28.20	33.72	17.83
50M x1 + 100M x4		Mid	QPSK	-11.02	59.48	28.20	36.16	20.26	
50M x2 + 100M x4		Mid	QPSK	-11.43	59.48	28.20	35.75	19.86	
50M x1 + 100M x5		Mid	QPSK	-11.87	59.48	28.20	35.31	19.41	
50M x2 + 100M x5		Mid	QPSK	-12.24	59.48	28.20	34.94	19.04	
50M x1 + 100M x6		Mid	QPSK	-12.51	59.48	28.20	34.67	18.77	
50M x2 + 100M x6		Mid	QPSK	-15.90	59.48	28.20	31.28	15.38	



Table 7-15. Antenna B Conducted Power Summary Data

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7.4.3 Antenna C Conducted Power

Antenna	Bandwidth	Configuration	Chan.	Modulation	Analyzer Level	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
C	50	1CC	Low	QPSK	-13.57	59.40	28.12	33.53	17.71
	50		Low	16QAM	-13.60	59.40	28.12	33.50	17.68
	50		Low	64QAM	-13.68	59.40	28.12	33.42	17.60
	50	2CC	Low	QPSK	-13.52	59.40	28.12	33.58	17.76
	50		Low	16QAM	-13.33	59.40	28.12	33.77	17.96
	50		Low	64QAM	-13.33	59.40	28.12	33.77	17.96
	50	1CC	Mid	QPSK	-13.70	59.48	28.20	33.48	17.58
	50		Mid	16QAM	-13.77	59.48	28.20	33.41	17.52
	50		Mid	64QAM	-13.85	59.48	28.20	33.33	17.43
	50	2CC	Mid	QPSK	-14.00	59.48	28.20	33.18	17.29
	50		Mid	16QAM	-14.04	59.48	28.20	33.14	17.25
	50		Mid	64QAM	-14.26	59.48	28.20	32.92	17.02
	50	1CC	High	QPSK	-13.71	59.81	28.33	33.80	17.77
	50		High	16QAM	-14.00	59.81	28.33	33.51	17.49
	50		High	64QAM	-13.90	59.81	28.33	33.61	17.58
	50	2CC	High	QPSK	-13.62	59.81	28.33	33.89	17.86
	50		High	16QAM	-13.71	59.81	28.33	33.80	17.78
	50		High	64QAM	-14.01	59.81	28.33	33.50	17.47
	100	2NC	Mid	QPSK	-10.58	59.48	28.20	36.60	20.71
	100	3NC	Mid	QPSK	-11.09	59.48	28.20	36.09	20.19
	100	4NC	Mid	QPSK	-10.45	59.48	28.20	36.73	20.83
	100	5NC	Mid	QPSK	-10.93	59.48	28.20	36.25	20.36
	100	6NC	Mid	QPSK	-12.15	59.48	28.20	35.03	19.13
	100	7NC	Mid	QPSK	-12.72	59.48	28.20	34.46	18.56
	50	50M x1 + 100M x1	Mid	QPSK	-14.32	59.48	28.20	32.86	16.97
		50M x2 + 100M x1	Mid	QPSK	-11.25	59.48	28.20	35.93	20.03
		50M x1 + 100M x2	Mid	QPSK	-10.64	59.48	28.20	36.54	20.64
		50M x2 + 100M x2	Mid	QPSK	-10.37	59.48	28.20	36.81	20.91
		50M x1 + 100M x3	Mid	QPSK	-10.38	59.48	28.20	36.80	20.90
		50M x2 + 100M x3	Mid	QPSK	-10.31	59.48	28.20	36.87	20.98
50M x1 + 100M x4		Mid	QPSK	-10.85	59.48	28.20	36.33	20.43	
50M x2 + 100M x4		Mid	QPSK	-11.23	59.48	28.20	35.95	20.05	
50M x1 + 100M x5		Mid	QPSK	-11.85	59.48	28.20	35.33	19.43	
50M x2 + 100M x5		Mid	QPSK	-11.95	59.48	28.20	35.23	19.34	
50M x1 + 100M x6		Mid	QPSK	-12.20	59.48	28.20	34.98	19.09	
50M x2 + 100M x6		Mid	QPSK	-12.40	59.48	28.20	34.78	18.89	



Table 7-16. Antenna C Conducted Power Summary Data

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7.4.4 Antenna D Conducted Power

Antenna	Bandwidth	Configuration	Chan.	Modulation	Analyzer Level	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
D	50	1CC	Low	QPSK	-14.05	59.40	28.12	33.05	17.23
	50		Low	16QAM	-14.07	59.40	28.12	33.03	17.22
	50		Low	64QAM	-14.08	59.40	28.12	33.02	17.20
	50	2CC	Low	QPSK	-13.85	59.40	28.12	33.25	17.43
	50		Low	16QAM	-13.88	59.40	28.12	33.22	17.40
	50		Low	64QAM	-13.93	59.40	28.12	33.17	17.35
	50	1CC	Mid	QPSK	-14.25	59.48	28.20	32.93	17.04
	50		Mid	16QAM	-14.33	59.48	28.20	32.85	16.96
	50		Mid	64QAM	-14.36	59.48	28.20	32.82	16.92
	50	2CC	Mid	QPSK	-14.21	59.48	28.20	32.97	17.07
	50		Mid	16QAM	-14.24	59.48	28.20	32.94	17.04
	50		Mid	64QAM	-14.30	59.48	28.20	32.88	16.98
	50	1CC	High	QPSK	-14.15	59.81	28.33	33.36	17.33
	50		High	16QAM	-14.21	59.81	28.33	33.30	17.28
	50		High	64QAM	-14.17	59.81	28.33	33.34	17.32
	50	2CC	High	QPSK	-13.99	59.81	28.33	33.52	17.50
	50		High	16QAM	-13.99	59.81	28.33	33.52	17.50
	50		High	64QAM	-13.98	59.81	28.33	33.53	17.50
	100	2NC	Mid	QPSK	-10.90	59.48	28.20	36.28	20.38
	100	3NC	Mid	QPSK	-11.04	59.48	28.20	36.14	20.24
	100	4NC	Mid	QPSK	-10.50	59.48	28.20	36.68	20.78
	100	5NC	Mid	QPSK	-11.35	59.48	28.20	35.83	19.93
	100	6NC	Mid	QPSK	-12.24	59.48	28.20	34.94	19.04
	100	7NC	Mid	QPSK	-13.03	59.48	28.20	34.15	18.26
	50	50M x1 + 100M x1	Mid	QPSK	-14.54	59.48	28.20	32.64	16.74
		50M x2 + 100M x1	Mid	QPSK	-11.15	59.48	28.20	36.03	20.14
		50M x1 + 100M x2	Mid	QPSK	-10.88	59.48	28.20	36.30	20.40
		50M x2 + 100M x2	Mid	QPSK	-10.69	59.48	28.20	36.49	20.59
		50M x1 + 100M x3	Mid	QPSK	-10.68	59.48	28.20	36.50	20.60
		50M x2 + 100M x3	Mid	QPSK	-10.55	59.48	28.20	36.63	20.74
50M x1 + 100M x4		Mid	QPSK	-11.06	59.48	28.20	36.12	20.22	
50M x2 + 100M x4		Mid	QPSK	-11.28	59.48	28.20	35.90	20.00	
50M x1 + 100M x5		Mid	QPSK	-11.87	59.48	28.20	35.31	19.41	
50M x2 + 100M x5		Mid	QPSK	-12.23	59.48	28.20	34.95	19.06	
50M x1 + 100M x6		Mid	QPSK	-12.53	59.48	28.20	34.65	18.76	
50M x2 + 100M x6		Mid	QPSK	-15.88	59.48	28.20	31.30	15.40	

Table 7-17. Antenna D Conducted Power Summary Data

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7.5 Radiated Spurious and Harmonic Emissions

§2.1051 §30.203

Test Overview

The spectrum is scanned from 30 MHz to 100 GHz for n261. All out of band emissions are measured in a radiated setup while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All modulations were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The conductive power or total radiated power of any emissions outside a licensee's frequency block shall be -13 dBm / 1 MHz.

Test Procedure Used



ANSI C63.26-2015 Section 5.7.4
ANSI C63.26-2015 Section 6.4
KDB 842590 D01 v01r01 Section 4.4.2 and Section 4.4.3

Test Settings

1. Start frequency was set to 30 MHz and stop frequency was set to 100 GHz for n261. Several plots are used to show investigations in this entire span.
2. Detector = RMS
3. Trace mode = trace average
4. Sweep time = auto couple
5. Number of sweep points $\geq 2 \times \text{Span/RBW}$
6. The trace was allowed to stabilize
7. RBW = 1 MHz, VBW = 3 MHz

Test Notes

- 1) The EUT was tested while positioned upright and mounted on a mast 1.5 m height. The worst case emissions are reported with the EUT in this fixed position and with the modulations and active component carriers shown in the tables below.
- 2) All radiated spurious emissions were measured as EIRP to compare with the §30.203 TRP limits.
- 3) Emissions below 18 GHz were measured at a 3 meter test distance, while emissions above 18 GHz were measured at the appropriate far field distance. The far field of the mmWave signal is based on formula; $R > 2D^2/\text{wavelength}$, where D is the larger between the dimension of the measurement antenna and the transmitting antenna of the EUT. In this case, D is the largest dimension of the measurement antenna.
- 4) Out-band Emission of 10% channel bandwidth are exempted on Radiated Spurious and Harmonic Emissions test case.
- 5) The plots from 18-100 GHz show corrected average EIRP levels. The average EIRP reported below is calculated per section 5.2.7 of ANSI C63.26-2015 which states: $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m. The field strength E is calculated $E \text{ (dB}\mu\text{V/m)} = \text{Spectrum Analyzer Level (dBm)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + \text{Duty Cycle (dB)} + \text{Harmonic Mixer Conversion Loss (dB)} + 107$. All appropriate Antenna Factor and Cable Loss have been applied in the spectrum analyzer for each measurement. For measurements > 40 GHz, Harmonic Mixer Conversion Loss was also applied to the spectrum analyzer.

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Frequency Range [GHz]	Wavelength [cm]	Far Field Distance [m]	Measurements Distance [m]
18 to 40	0.749	3.19	3.20
40 to 60	0.500	1.39	1.50
60 to 90	0.333	0.91	1.50
90 to 100	0.214	0.58	1.50

Table 7-18. Far-field Distance & Measurement Distance per Frequency Range

Frequency Range [GHz]	Calculated Measurement D * E [dB]	Duty Cycle [dB]	Reference offset [dB]
18 to 40	12.30	1.37	13.67
40 to 100	5.73	1.37	7.10



Table 7-19. Far-field Distance & Measurement Distance per Frequency Range

- 6) Emissions > 40 GHz were measured using a harmonic mixer with the spectrum analyzer.
- 7) The “-” shown in the following RSE tables are used to denote a noise floor measurement.
- 8) Spurious emissions were measured with all EUT antennas transmitting simultaneously.
 - Per section 4.4.1 of KDB 842590 D01, unwanted emission measurements, “If the device does not meet the emission limit at one or some frequencies, then TRP measurements shall be performed only at the failing frequencies at which emission levels exceed the limit.” The TRP measurement plots using the three cut test method as described in section 4.4 of the KDB, follow all failing emission plots in this report.
 - Failure points and measured TRP results are described in table.
 - : 18 GHz to 27.5 GHz failure points result are addressed in Table 7-22.
 - : 28.35 GHz to 33 GHz failure points result are addressed in Table 7-23.
 - : Around 33.5 GHz failure points result are addressed in Table 7-24.
- 9) Failure frequency points had been conducted as TRP measurement method due to below reason:
 - Around 25 GHz failure value is from module characteristic.
 - Around 27 GHz failure value is lower side of Tx channel edge level.
 - 28.35 GHz to 33 GHz failure is caused by high attenuation of spectrum analyzer that to prevent of spectrum analyzer saturation. Thus, all the configuration of range had been investigated.
 - Around 33.5 GHz is harmonic frequency interfere is from local oscillator frequency.



TRP Measurement Procedure

If the recorded EIRP value was close or above the TRP limit, a Two Cut TRP measurement was done according to KDB 842590 D01 v01 Section 4.4.3.3.2

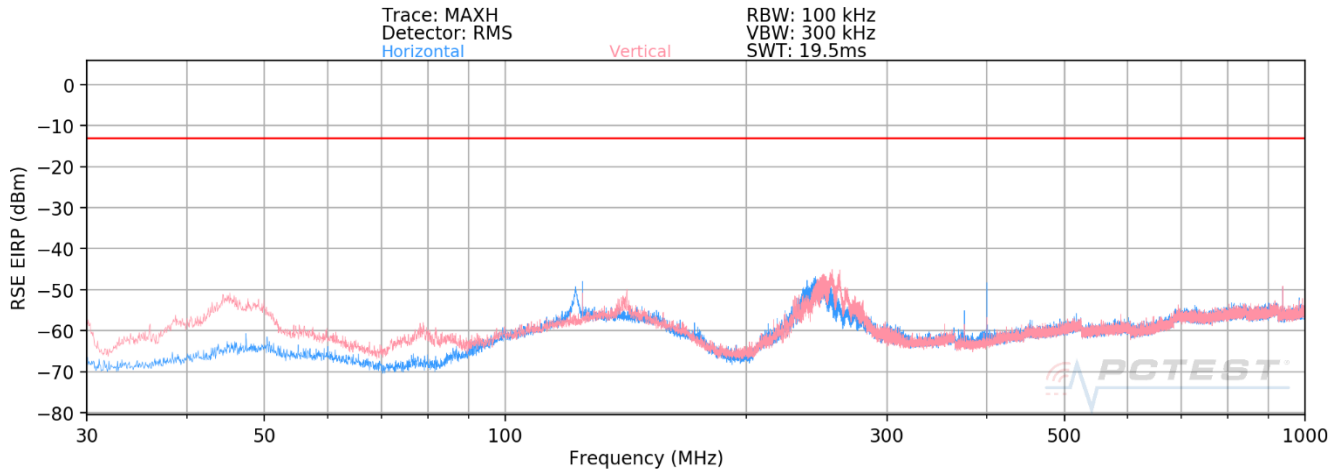
- a) Align the EUT with a chosen xy-plane and the xz-plane of the antenna measurement coordinate system.
NOTE 1 For harmonics and spurious emission frequencies which are beamforming as identified in exploratory scan, it may be required to align the orthogonal cuts to include the peak based on exploratory scans.
- b) Measure the EUT dimensions, i.e., depth (d), width (w), and height (h); see Figure A.1 in Appendix A.
- c) Calculate the spherical and cylindrical diameters (D and D_{cy}) using Equations (A.1) and (A.2) (see Appendix
- d) For the highest frequency (smallest wavelength) of the frequency band measured, calculate the reference angular steps $\Delta\theta_{ref}$ and $\Delta\phi_{ref}$ using Equations (A.3) and (A.4).
- e) Set the grid spatial sampling step $\Delta\theta \leq \Delta\theta_{ref}$ for the vertical angle and $\Delta\phi \leq \Delta\phi_{ref}$ for the horizontal cut.

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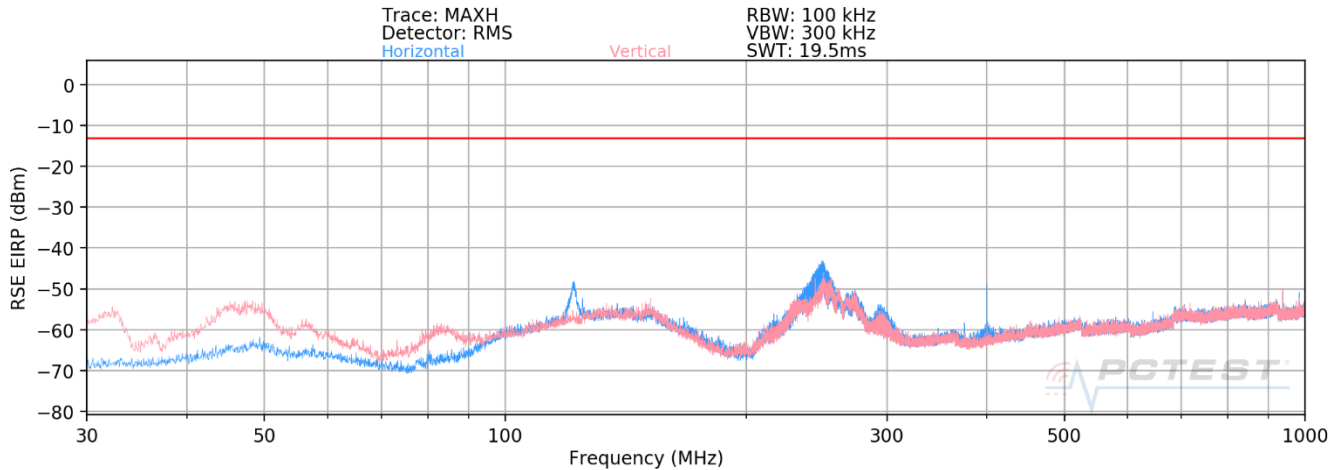
- f) For each emission frequency, measure the EIRP (as a sum of two orthogonal polarizations) at each spatial sampling step on the selected grid.
- g) For each emission frequency, calculate the average EIRP for both the cuts separately, and then take the average of these two average values.
- h) Add 2 dB as a correction factor to the averaged value computed in step g).
- i) If the TRP limit is exceeded, a third orthogonal cut in the yz-plane and using the $\Delta\theta$ angular step, can be added. Now, calculate the average values in all three cuts separately, and then take the average value of these three average values.
- j) Add 1.5 dB as a correction factor to the averaged value computed in step i).
- k) Evaluate the pass/fail decision by comparing TRP from step h) or step j) against the applicable TRP limit.

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7.5.1 Radiated Spurious Emissions Plots (30 MHz to 1 GHz)

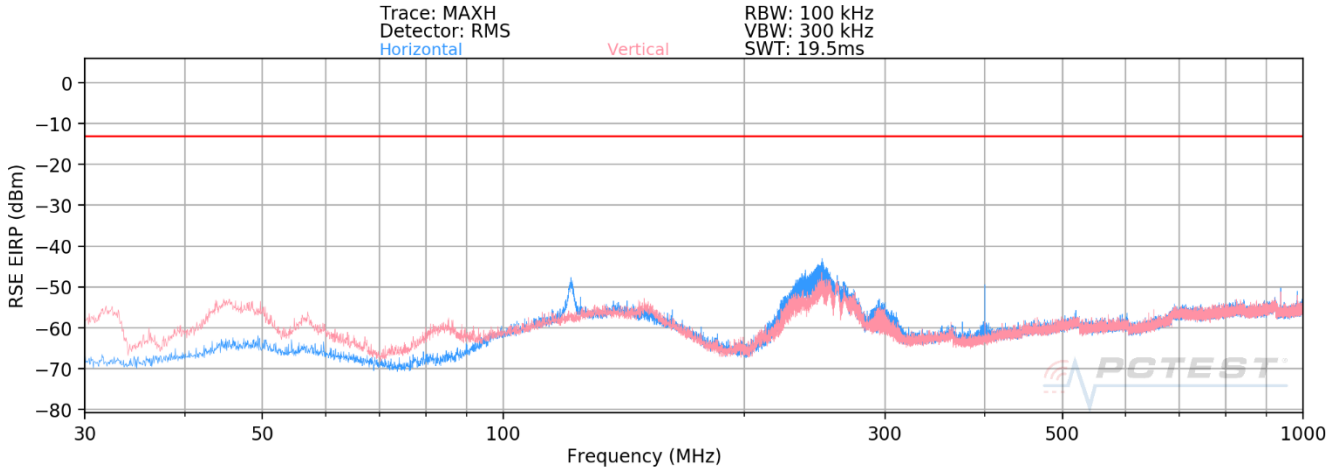


Plot 7-169. Radiated Spurious Plot 30 MHz - 1 GHz (100 MHz 4CC NC BW QPSK Mid Channel)

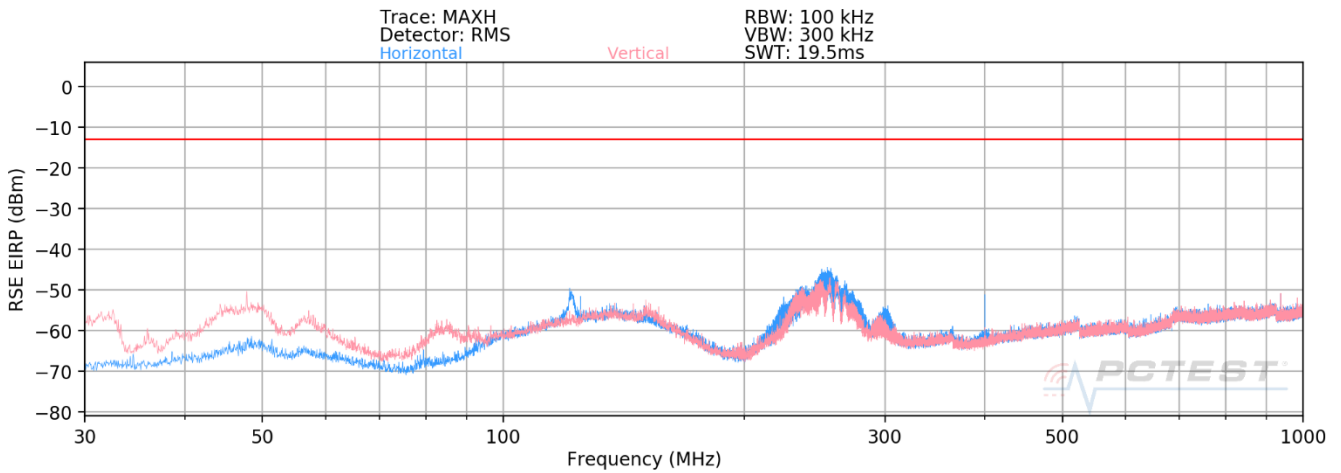


Plot 7-170. Radiated Spurious Plot 30 MHz - 1 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel)

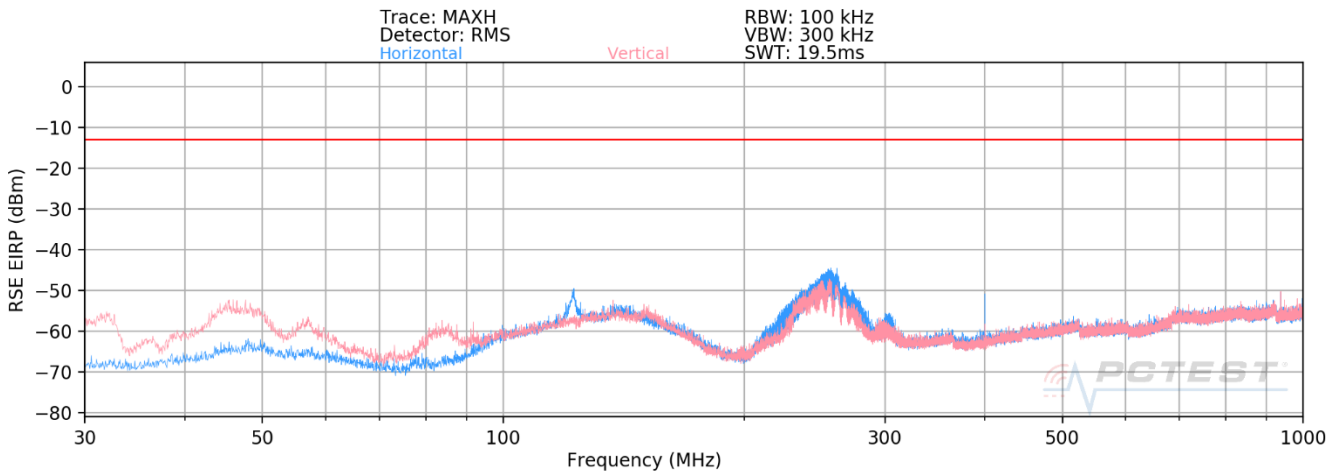
FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
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Plot 7-171. Radiated Spurious Plot 30 MHz - 1 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel)



Plot 7-172. Radiated Spurious Plot 30 MHz - 1 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel)



Plot 7-173. Radiated Spurious Plot 30 MHz - 1 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Mid Channel)

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Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dB μ V/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meters.



$$\text{RSE EIRP (dBm)} = \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 107 + 20\text{Log}(D_m) - 104.8$$

Frequency [MHz]	Channel	Bandwidth [MHz]	CC Active	Antenna Polarization [H/V]	Modulation	Antenna Height [cm]	Turntable Azimuth [degree]	Spurious Emission Level [dBm]	Margin [dB]
400.01	Low	100	4NC	H	QPSK	268	0	-48.76	-35.76
255.56	Low	100	4NC	V	QPSK	265	13	-46.12	-33.12
399.96	Mid	100	4NC	H	QPSK	249	5	-47.91	-34.91
255.91	Mid	100	4NC	V	QPSK	245	8	-47.06	-34.06
399.96	High	100	4NC	H	QPSK	243	21	-48.83	-35.83
255.56	High	100	4NC	V	QPSK	250	9	-46.89	-33.89
399.96	Low	50 + 100	2CC + 3CC	H	QPSK	243	16	-49.83	-36.83
254.81	Low	50 + 100	2CC + 3CC	V	QPSK	252	8	-50.36	-37.36
400.00	Mid	50 + 100	2CC + 3CC	H	QPSK	232	22	-47.92	-34.92
250.00	Mid	50 + 100	2CC + 3CC	V	QPSK	242	352	-48.06	-35.06
400.00	High	50 + 100	2CC + 3CC	H	QPSK	235	356	-46.32	-33.32
250.02	High	50 + 100	2CC + 3CC	V	QPSK	239	4	-48.29	-35.29
400.00	Low	50 + 100	2NC + 3NC	H	QPSK	254	13	-49.96	-36.96
250.03	Low	50 + 100	2NC + 3NC	V	QPSK	254	13	-50.27	-37.27
400.00	Mid	50 + 100	2NC + 3NC	H	QPSK	244	355	-48.95	-35.95
250.71	Mid	50 + 100	2NC + 3NC	V	QPSK	258	357	-49.47	-36.47
400.00	High	50 + 100	2NC + 3NC	H	QPSK	264	10	-49.14	-36.14
248.36	High	50 + 100	2NC + 3NC	V	QPSK	253	13	-49.10	-36.10
400.01	Low	50 + 100	2CC + 6CC	H	QPSK	231	1	-47.51	-34.51
32.20	Low	50 + 100	2CC + 6CC	V	QPSK	238	15	-56.59	-43.59
250.02	Mid	50 + 100	2CC + 6CC	H	QPSK	28	0	-49.00	-36.00
248.36	Mid	50 + 100	2CC + 6CC	V	QPSK	265	10	-49.96	-36.96
399.97	High	50 + 100	2CC + 6CC	H	QPSK	222	4	-48.81	-35.81
232.92	High	50 + 100	2CC + 6CC	V	QPSK	238	15	-51.77	-38.77
399.96	Low	50 + 100	2NC + 6NC	H	QPSK	271	354	-49.56	-36.56
31.93	Low	50 + 100	2NC + 6NC	V	QPSK	258	0	-54.20	-41.20
399.96	Mid	50 + 100	2NC + 6NC	H	QPSK	251	0	-49.20	-36.20
399.96	High	50 + 100	2NC + 6NC	H	QPSK	235	7	-48.64	-35.64

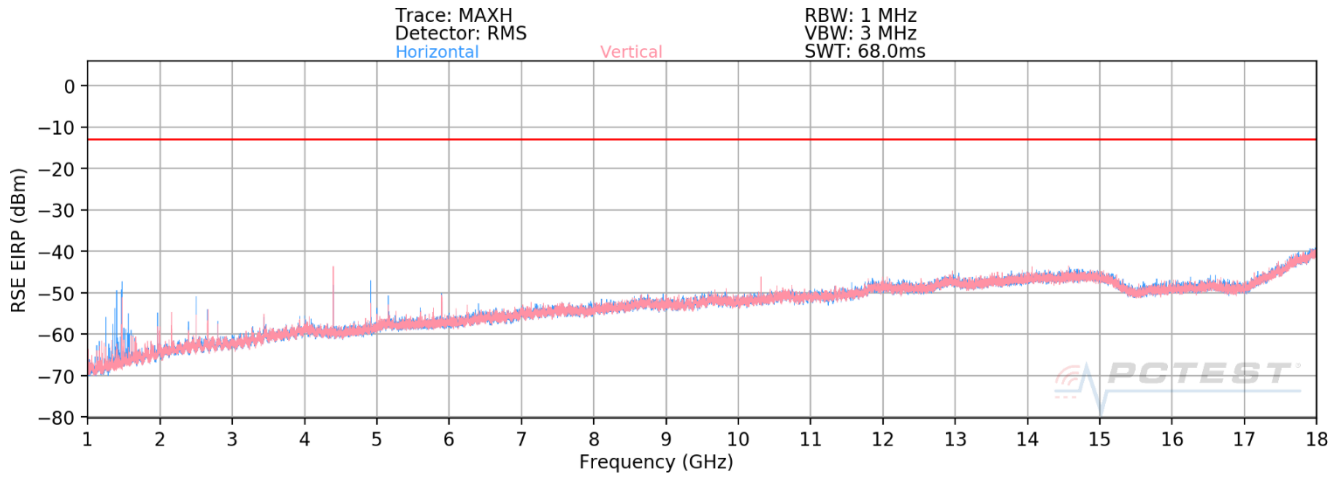
Table 7-20. Spurious Emissions (30 MHz - 1GHz)

Notes

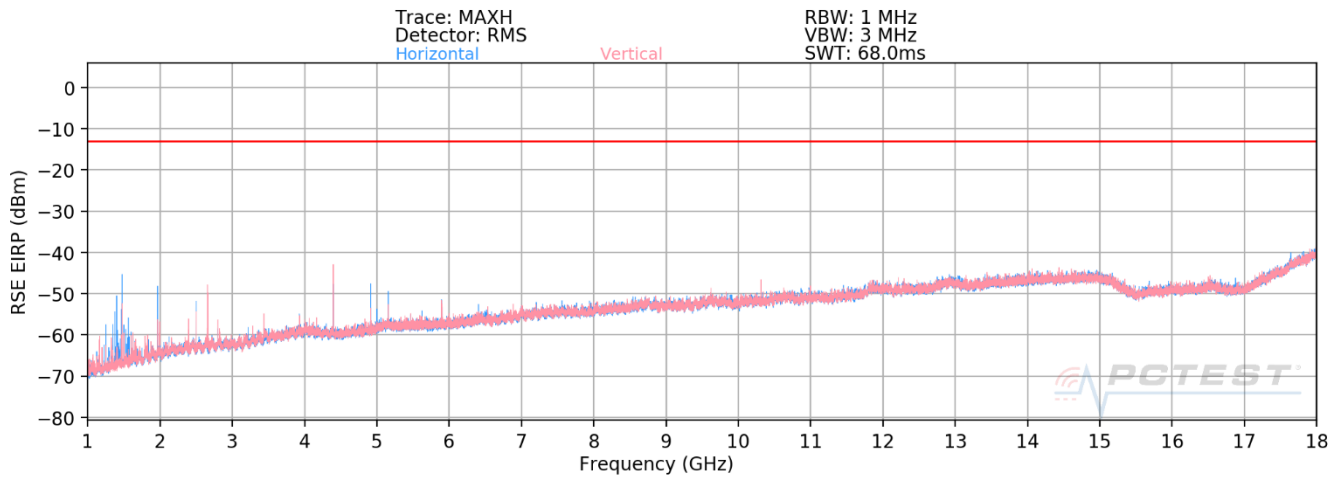
The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a distance of 3 meter.

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7.5.2 Radiated Spurious Emissions Plots (1 GHz to 18 GHz)

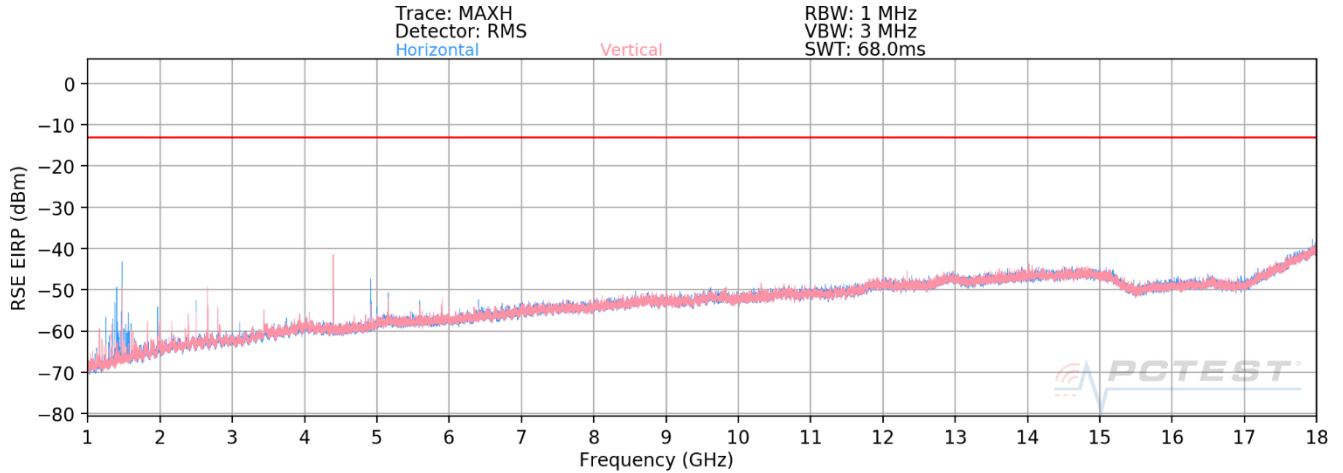


Plot 7-174. Radiated Spurious Plot 1 GHz - 18 GHz (100 MHz 4CC NC BW QPSK Mid Channel)

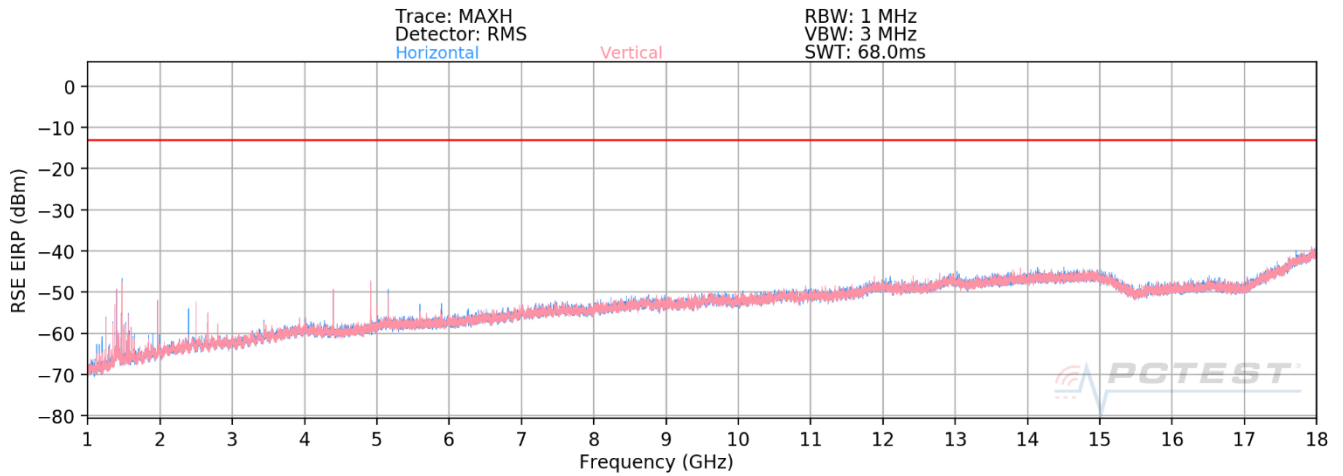


Plot 7-175. Radiated Spurious Plot 1 GHz - 18 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel)

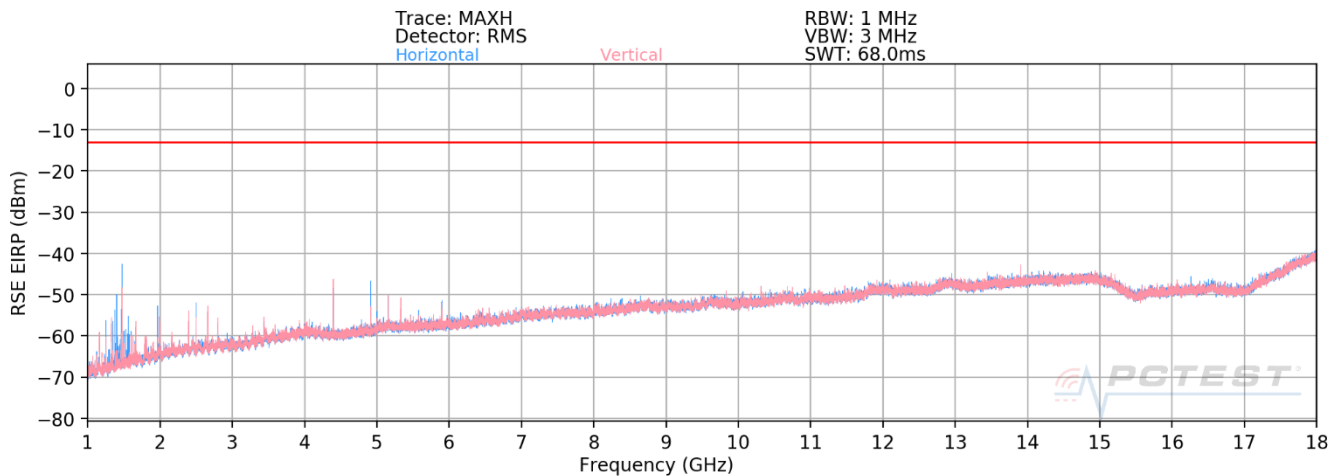
FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)	Page 124 of 322	



Plot 7-176. Radiated Spurious Plot 1 GHz - 18 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel)



Plot 7-177. Radiated Spurious Plot 1 GHz - 18 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel)



FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 125 of 322

Plot 7-178. Radiated Spurious Plot 1 GHz - 18 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Mid Channel)

Spurious Emissions EIRP Sample Calculation (n261)

The raw radiated spurious level is converted to field strength in dBμV/m. Then, the RSE EIRP level is calculated by applying the additional factors shown below for a test distance of 3 meters.



$$\text{RSE EIRP (dBm)} = \text{Analyzer Level (dBm)} + \text{AFCL (dB/m)} + 107 + 20\text{Log}(D_m) - 104.8$$

Frequency [MHz]	Channel	Bandwidth [MHz]	CC Active	Antenna Polarization [H/V]	Modulation	Antenna Height [cm]	Turntable Azimuth [degree]	Spurious Emission Level [dBm]	Margin [dB]
1965.85	Low	100	4NC	H	QPSK	220	9	-53.65	-40.6
4396.77	Low	100	4NC	V	QPSK	236	15	-43.14	-30.1
1965.85	Mid	100	4NC	H	QPSK	230	352	-56.94	-43.9
1474.57	Mid	100	4NC	V	QPSK	235	5	-57.92	-44.9
1965.85	High	100	4NC	H	QPSK	255	9	-54.65	-41.6
4396.77	High	100	4NC	V	QPSK	258	18	-45.04	-32.0
4396.77	Low	50 + 100	2CC + 3CC	H	QPSK	277	13	-48.46	-35.5
4396.77	Low	50 + 100	2CC + 3CC	V	QPSK	265	357	-48.80	-35.8
4396.77	Mid	50 + 100	2CC + 3CC	H	QPSK	247	25	-44.85	-31.8
4396.77	Mid	50 + 100	2CC + 3CC	V	QPSK	234	15	-45.08	-32.1
1965.85	High	50 + 100	2CC + 3CC	H	QPSK	247	10	-53.91	-40.9
4396.77	High	50 + 100	2CC + 3CC	V	QPSK	250	6	-42.14	-29.1
4396.77	Low	50 + 100	2NC + 3NC	H	QPSK	260	11	-44.68	-31.7
1330.64	Low	50 + 100	2NC + 3NC	V	QPSK	265	13	-65.59	-52.6
1965.85	Mid	50 + 100	2NC + 3NC	H	QPSK	251	12	-51.06	-38.1
4396.77	Mid	50 + 100	2NC + 3NC	V	QPSK	240	15	-45.88	-32.9
4396.77	High	50 + 100	2NC + 3NC	H	QPSK	253	25	-47.15	-34.1
4396.77	High	50 + 100	2NC + 3NC	V	QPSK	239	15	-45.11	-32.1
1965.85	Low	50 + 100	2CC + 6CC	H	QPSK	220	12	-54.61	-41.6
4396.77	Low	50 + 100	2CC + 6CC	V	QPSK	236	15	-43.96	-31.0
1965.85	Mid	50 + 100	2CC + 6CC	H	QPSK	255	11	-53.59	-40.6
4396.77	Mid	50 + 100	2CC + 6CC	V	QPSK	263	5	-44.95	-31.9
4396.77	High	50 + 100	2CC + 6CC	H	QPSK	273	21	-46.25	-33.2
1330.07	High	50 + 100	2CC + 6CC	V	QPSK	259	14	-66.87	-53.9
4396.77	Low	50 + 100	2NC + 6NC	H	QPSK	253	353	-52.01	-39.0
4396.77	Low	50 + 100	2NC + 6NC	V	QPSK	258	355	-43.84	-30.8
1965.85	Mid	50 + 100	2NC + 6NC	H	QPSK	251	9	-56.06	-43.1
4396.77	Mid	50 + 100	2NC + 6NC	V	QPSK	260	5	-43.22	-30.2
1965.85	High	50 + 100	2NC + 6NC	H	QPSK	252	8	-56.18	-43.2
4396.77	High	50 + 100	2NC + 6NC	V	QPSK	265	359	-43.28	-30.3

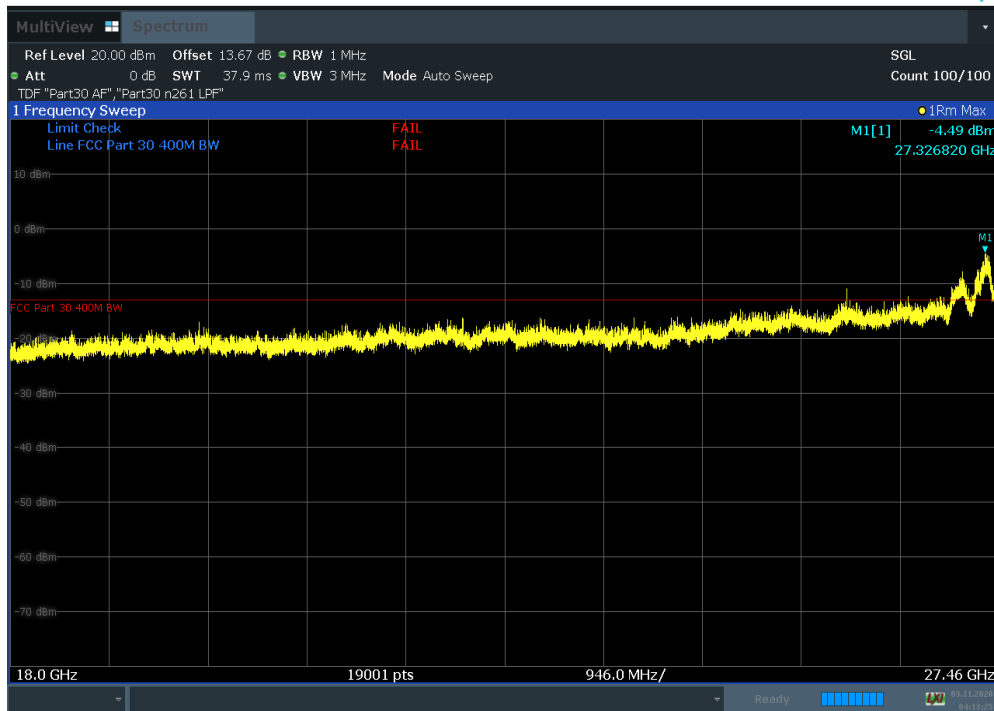
Table 7-21. Spurious Emissions (1 GHz to 18 GHz)

Notes

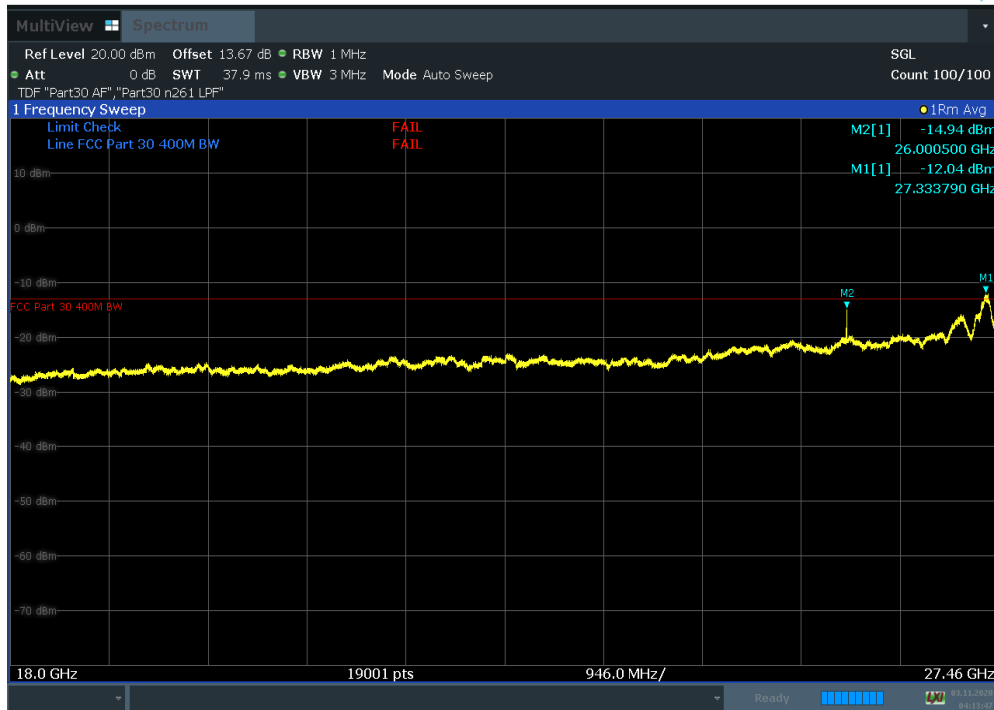
The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, and cable losses. Measurements were performed at a distance of 3 meter.

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
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7.5.3 Radiated Spurious Emissions Plots (18 GHz to 27.5 GHz)

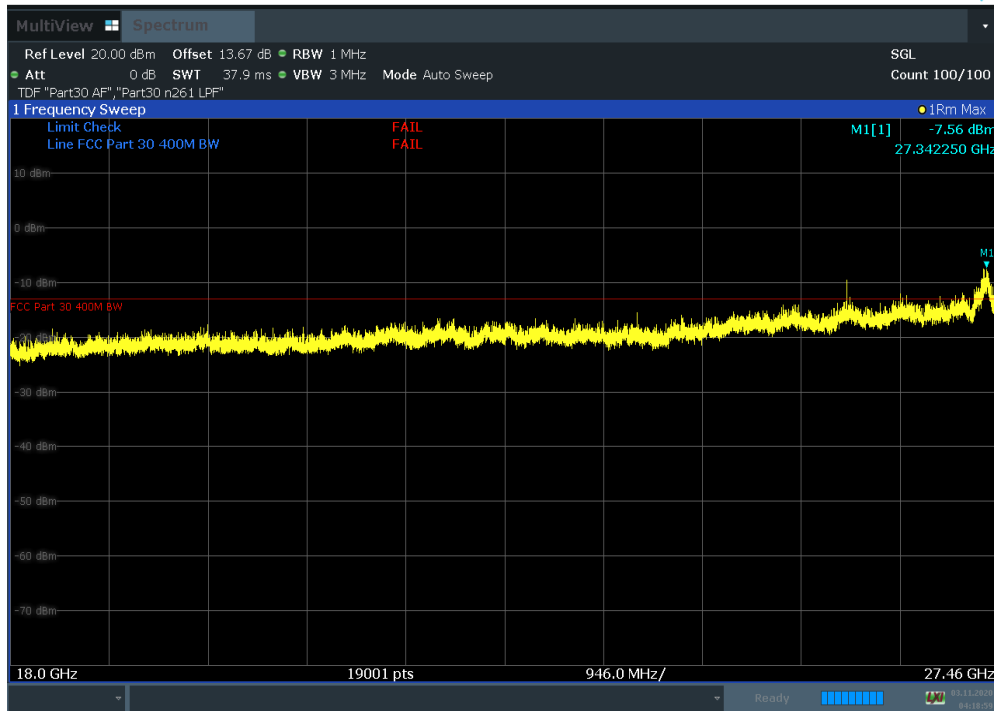


Plot 7-179. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Low Channel Pol. H)

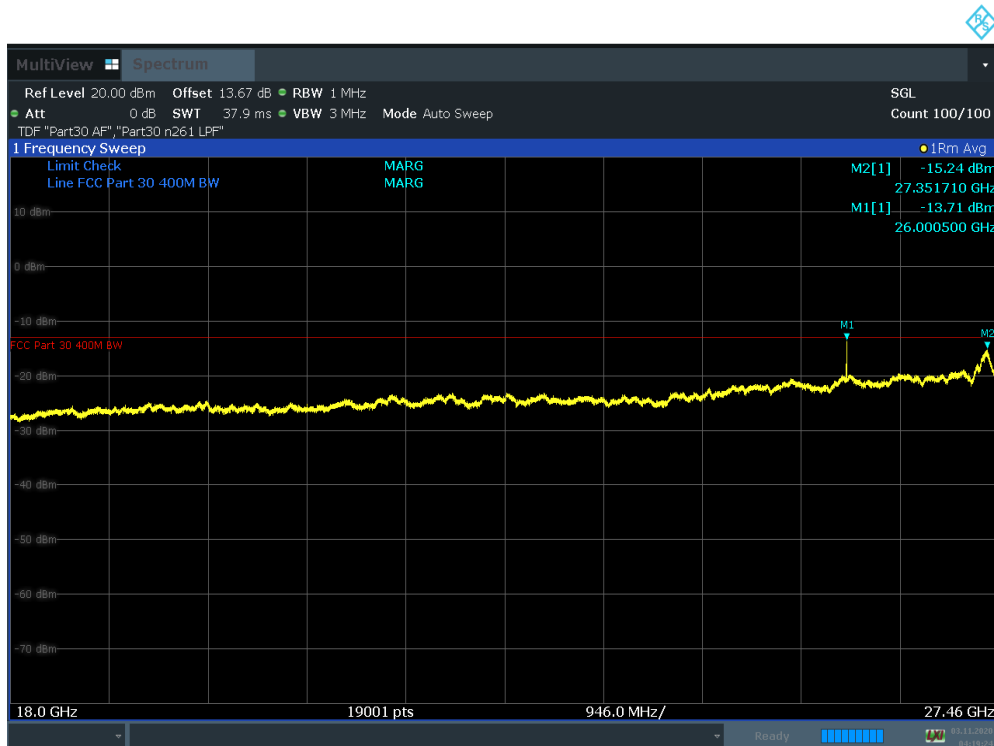


Plot 7-180. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Low Channel Pol. H) Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 127 of 322

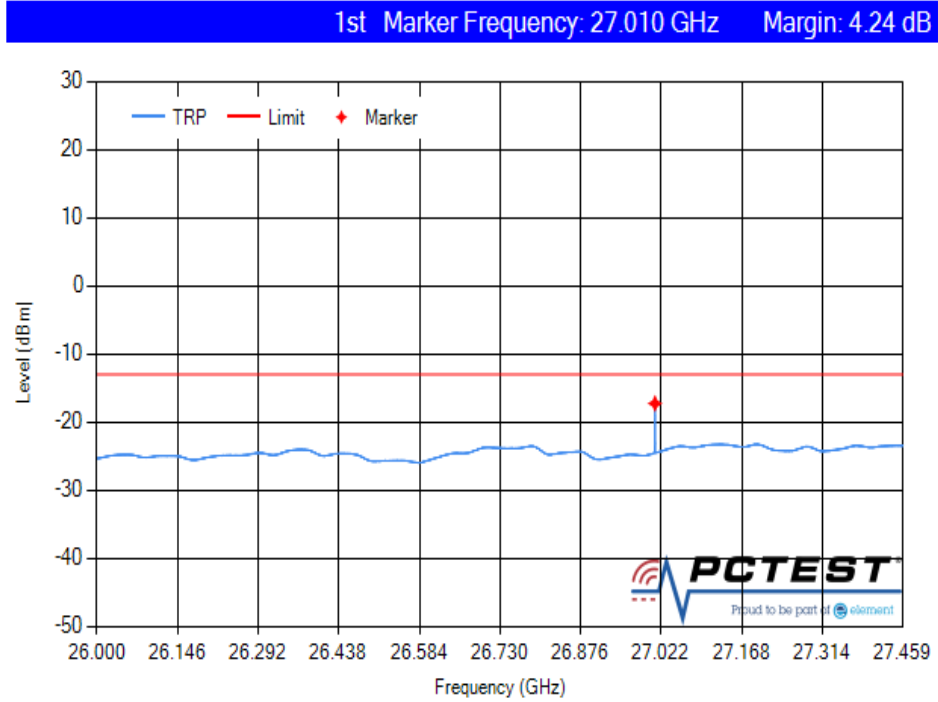


Plot 7-181. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Low Channel Pol. V)

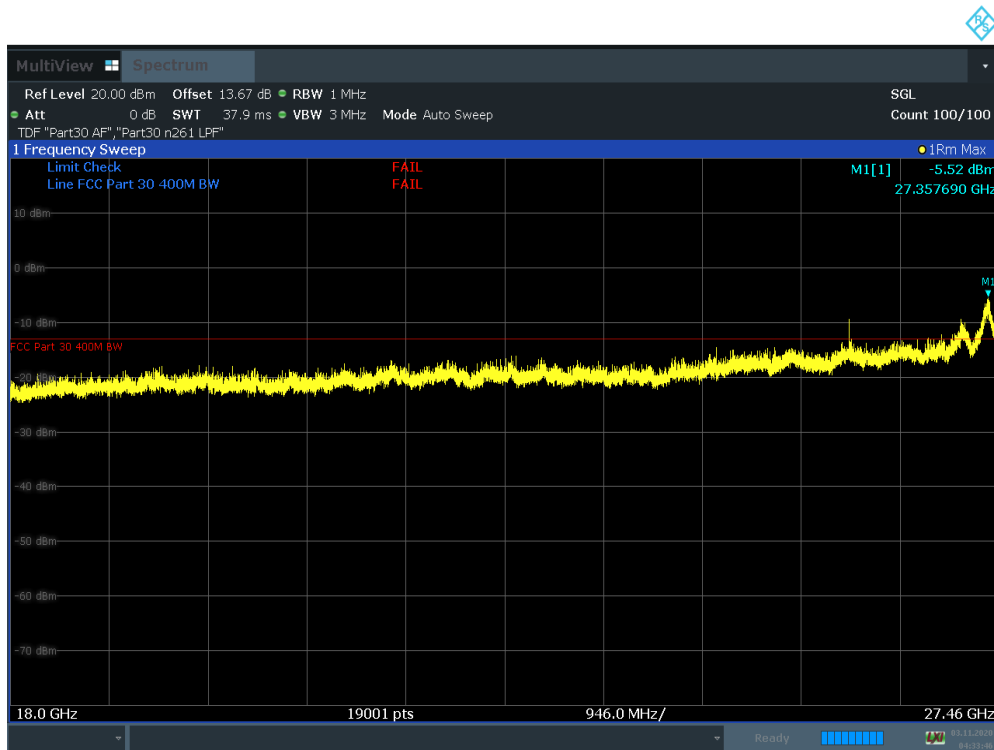


Plot 7-182. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Low Channel Pol. V)
Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 128 of 322

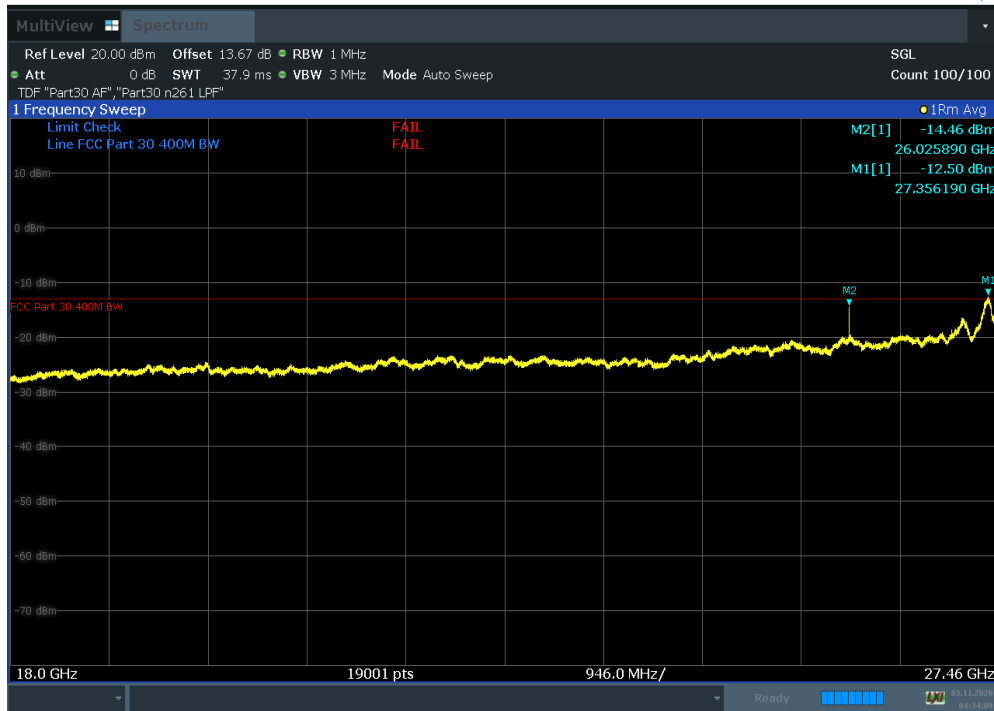


Plot 7-183. Radiated Spurious Plot 26 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Low TRP)

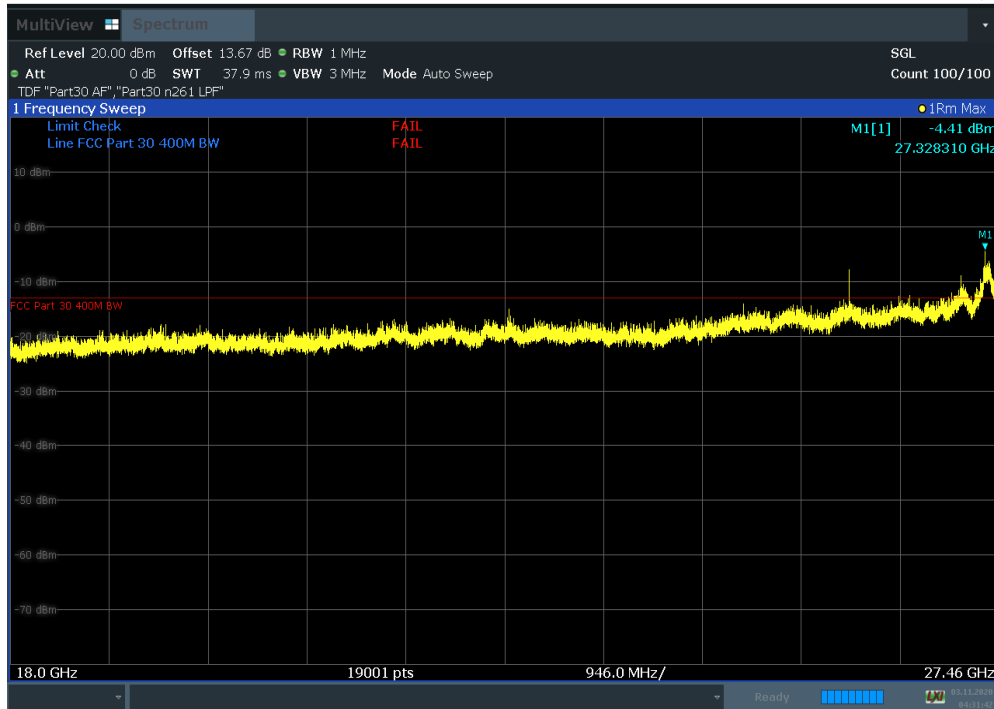


Plot 7-184. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Mid Channel Pol. H)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 129 of 322

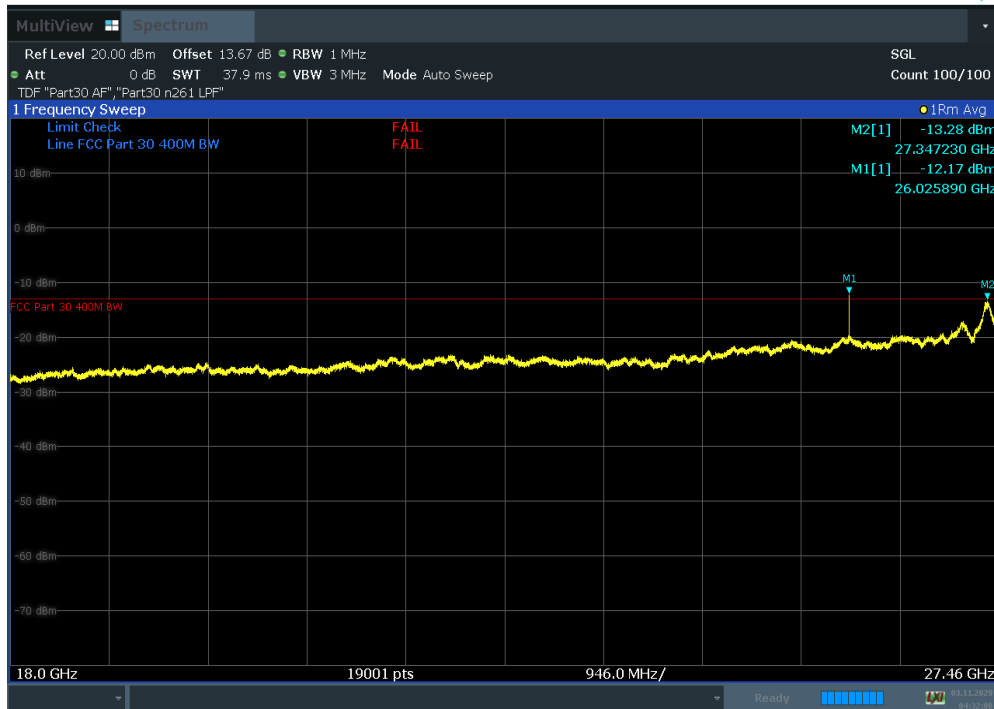


Plot 7-185. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Mid Channel Pol. H) Fin

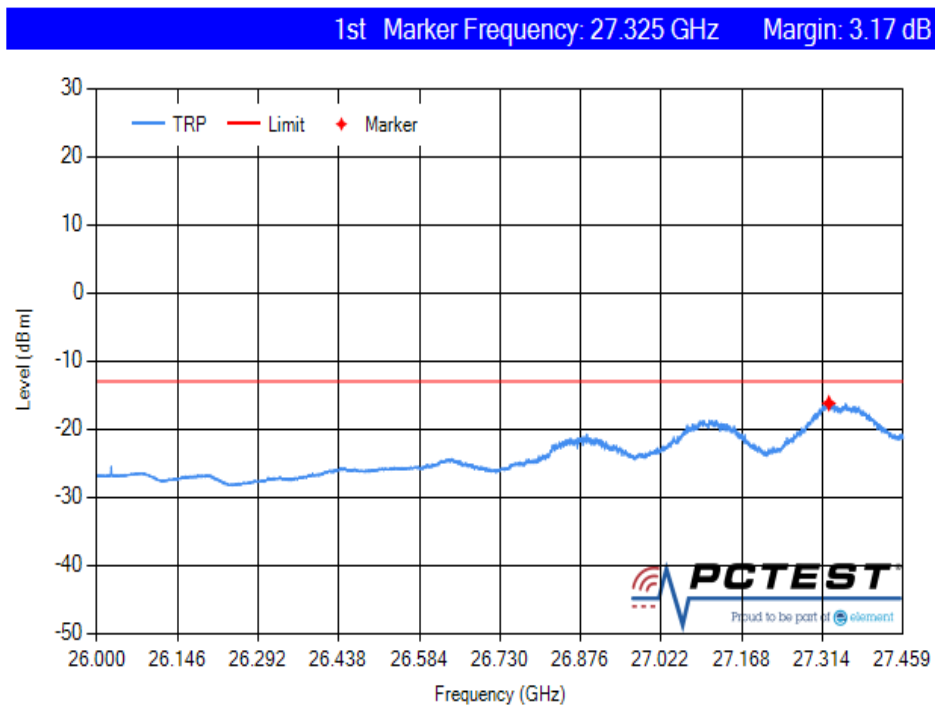


Plot 7-186. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Mid Channel Pol. V)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 130 of 322

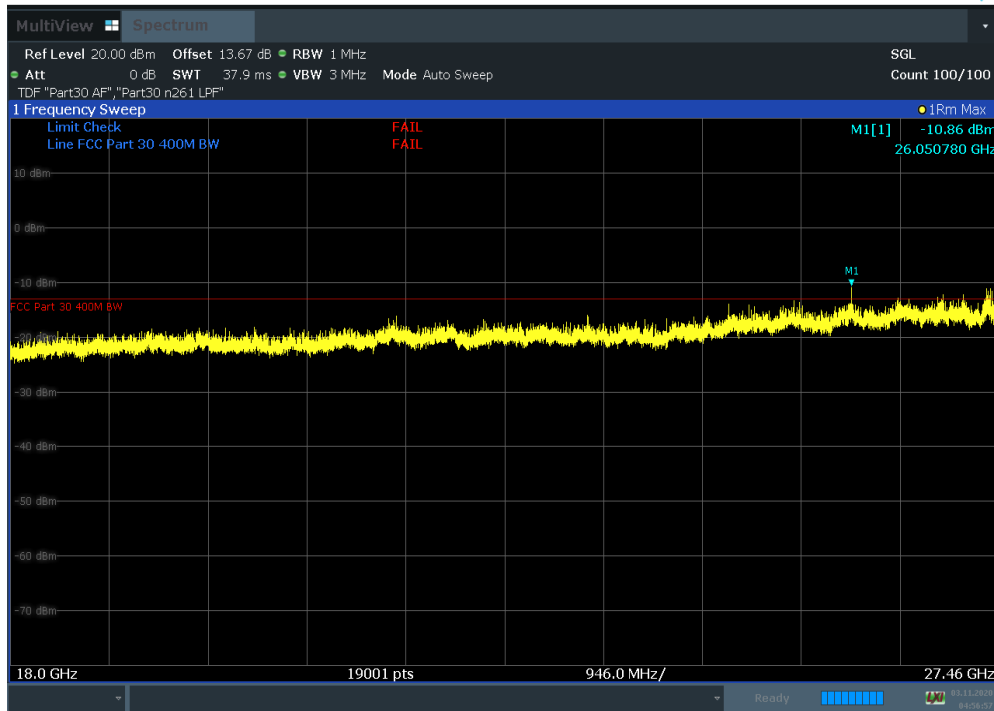


Plot 7-187. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Mid Channel Pol. V) Fin

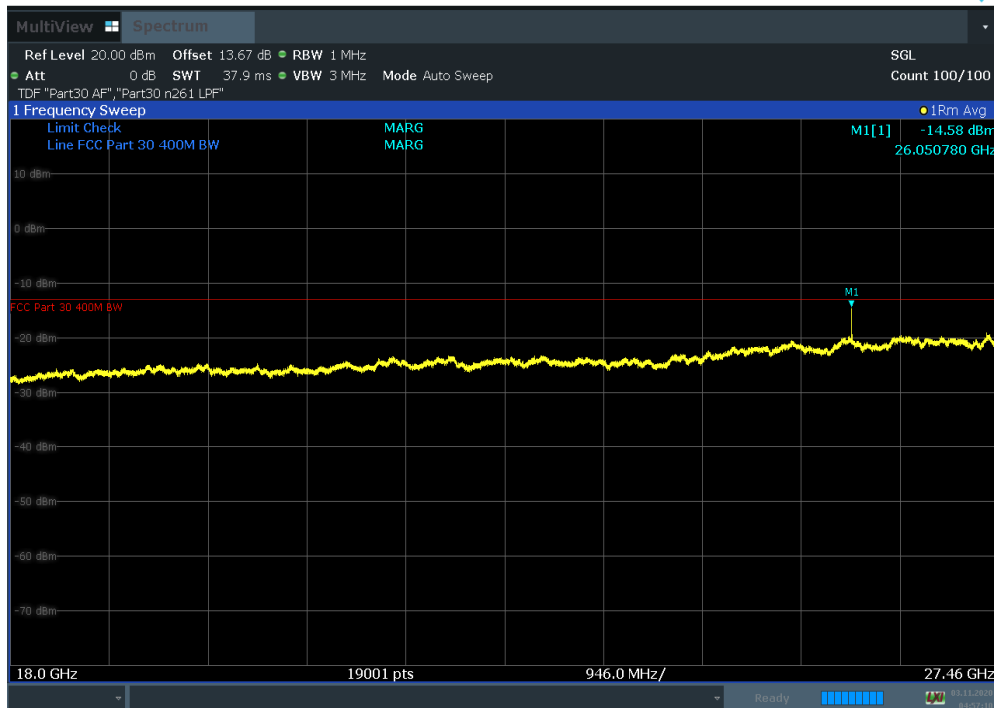


Plot 7-188. Radiated Spurious Plot 26 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK Mid Three cut TRP)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 131 of 322

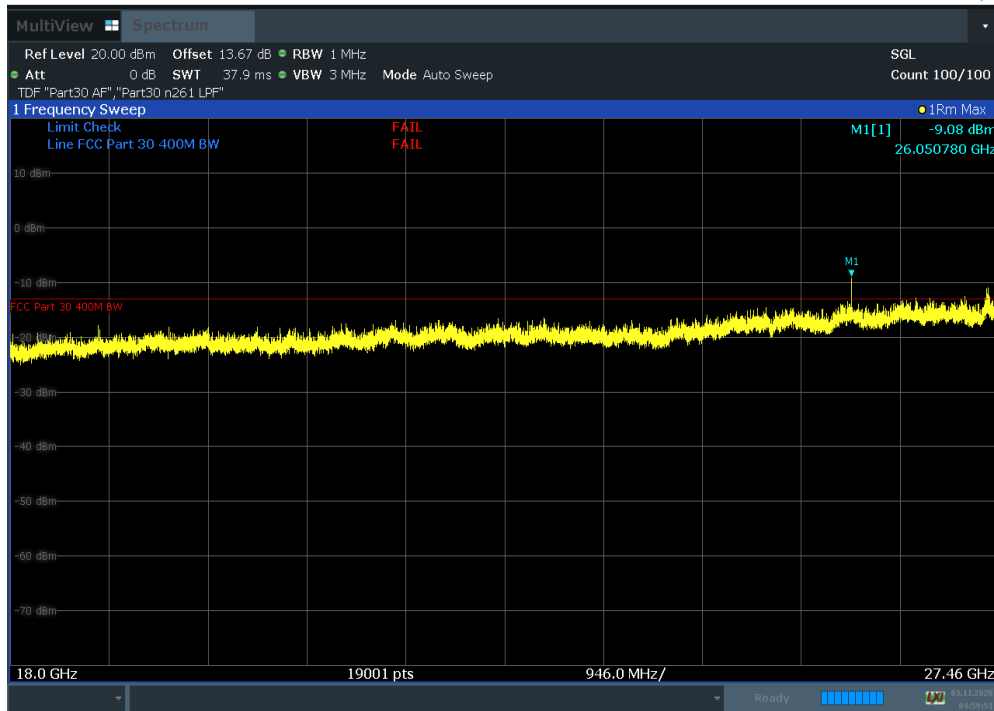


Plot 7-189. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK High Channel Pol. H)

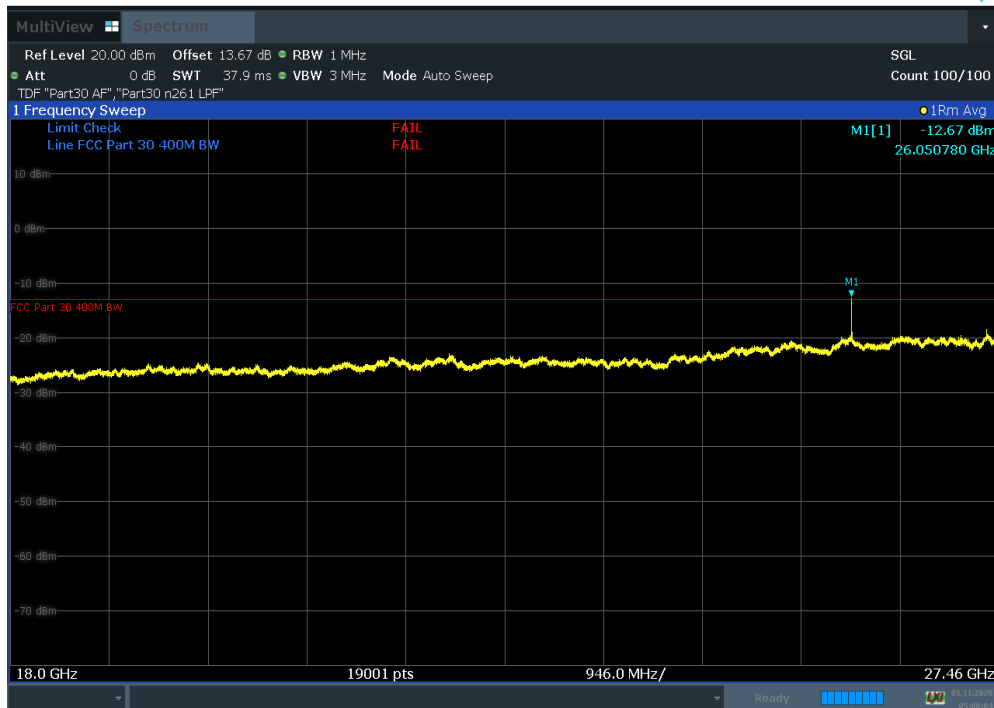


Plot 7-190. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK High Channel Pol. H) Fin



FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 132 of 322

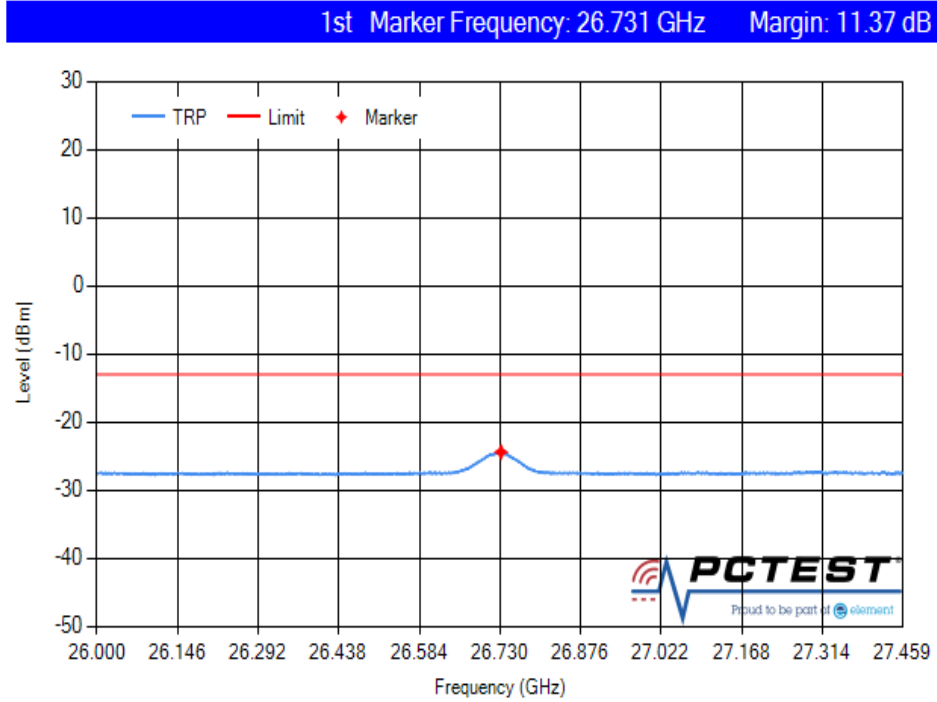


Plot 7-191. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK High Channel Pol. V)

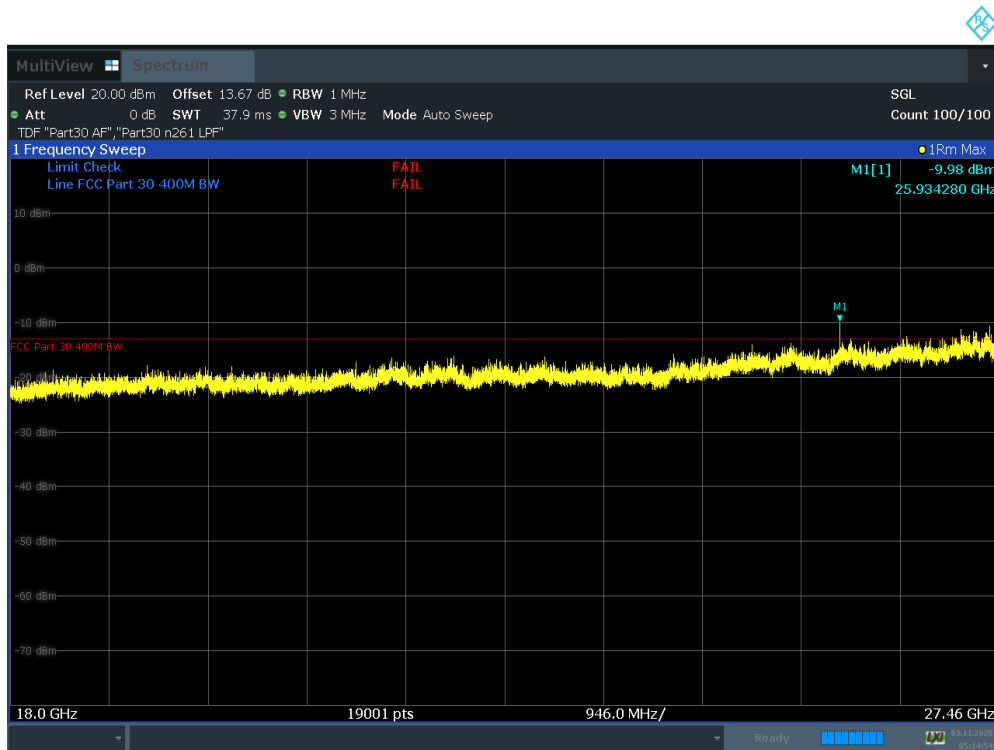


Plot 7-192. Radiated Spurious Plot 18 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK High Channel Pol. V)
Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
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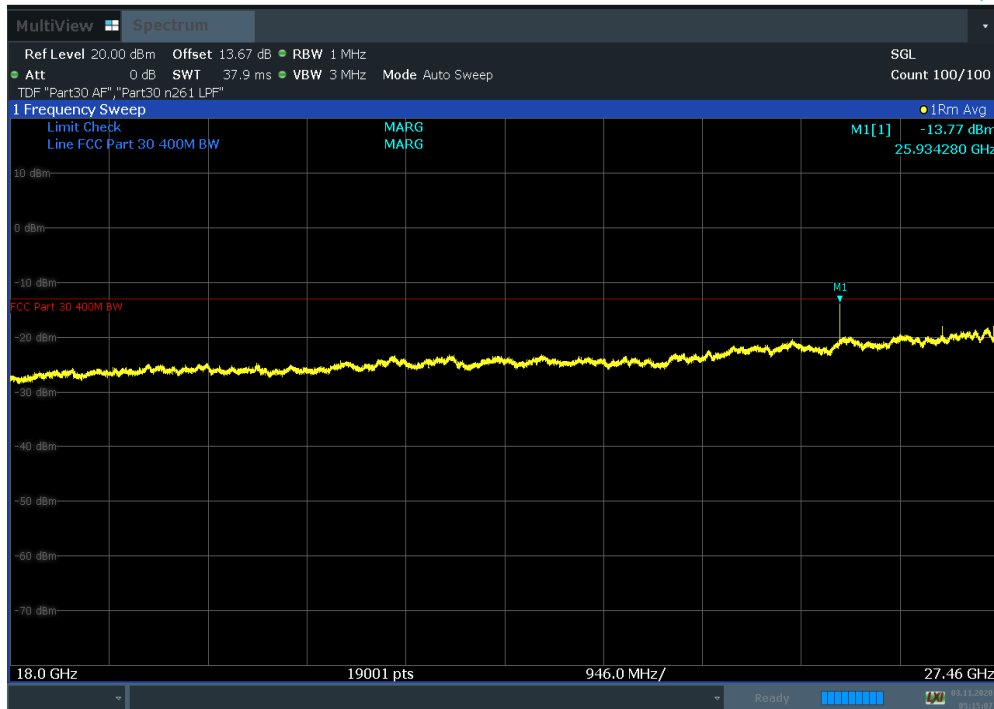


Plot 7-193. Radiated Spurious Plot 26 GHz – 27.46 GHz (100 MHz 4CC NC BW QPSK High TRP)

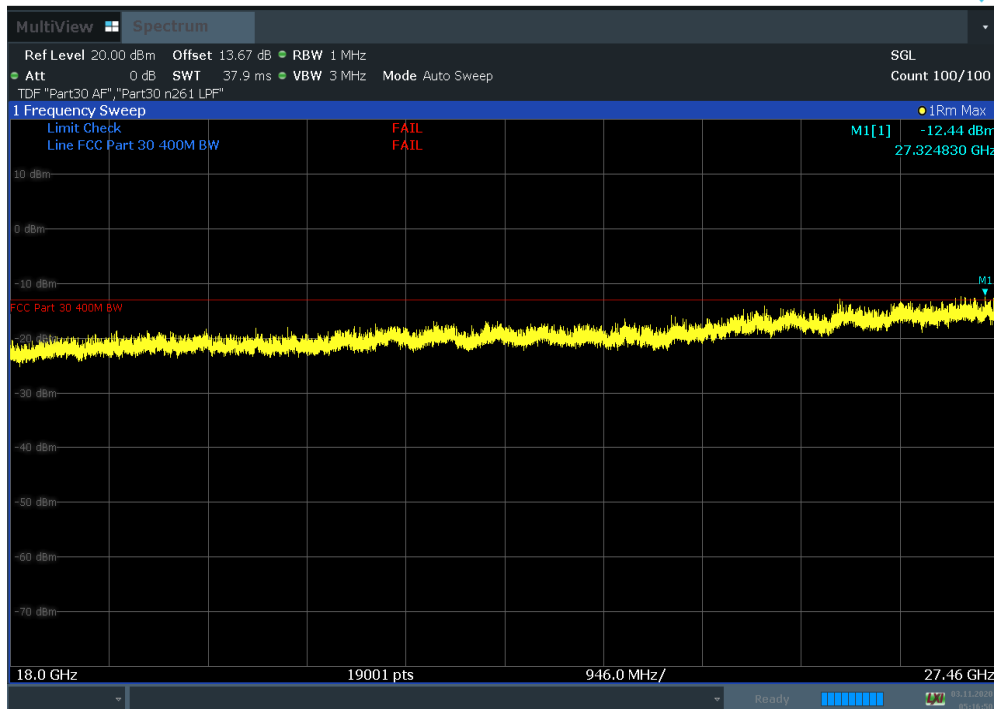


Plot 7-194. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Low Channel Pol. H)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 134 of 322

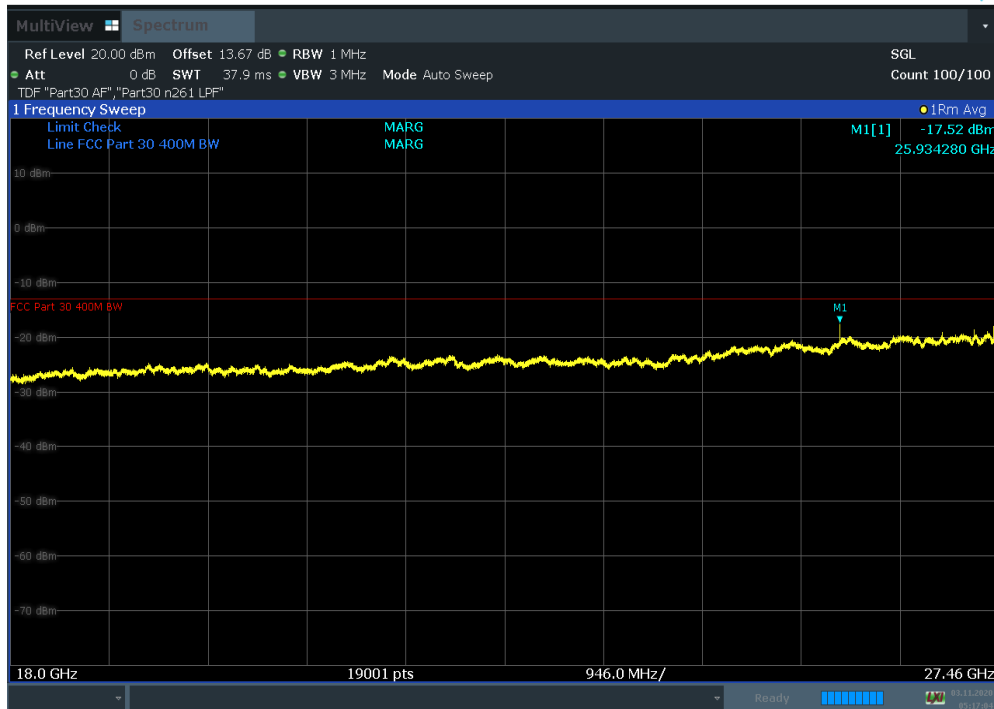


Plot 7-195. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Low Channel Pol. H) Fin

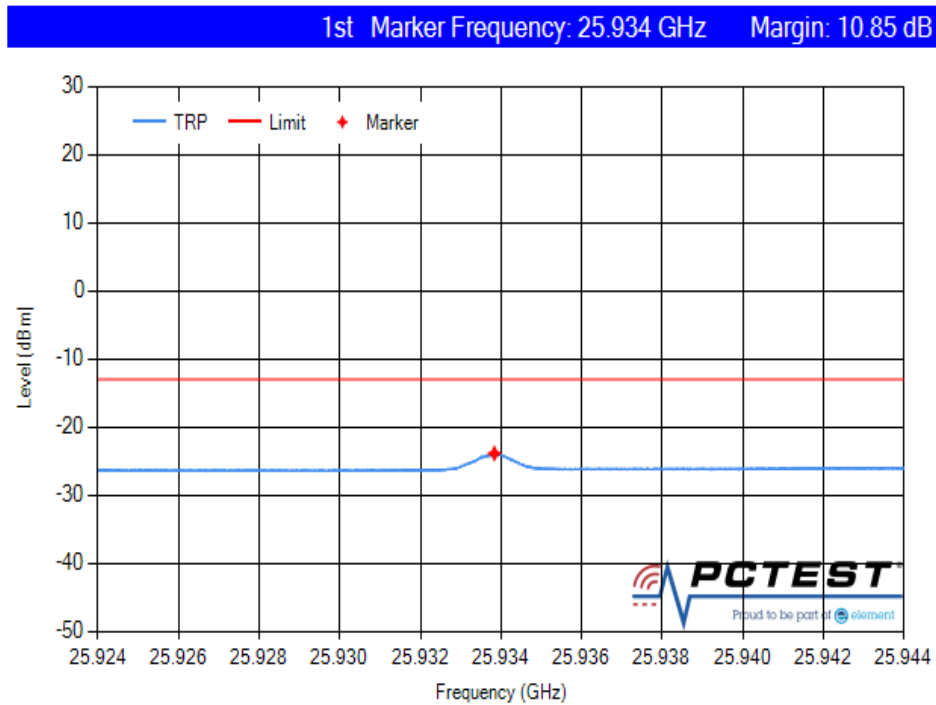


Plot 7-196. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Low Channel Pol. V)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 135 of 322

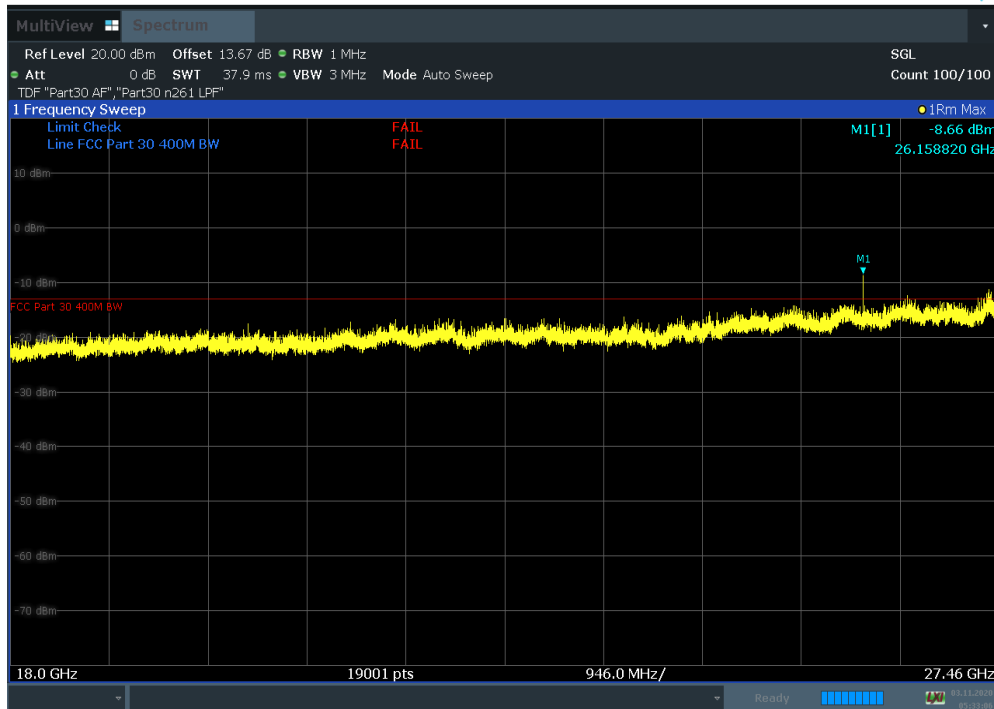


Plot 7-197. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Low Channel Pol. V) Fin

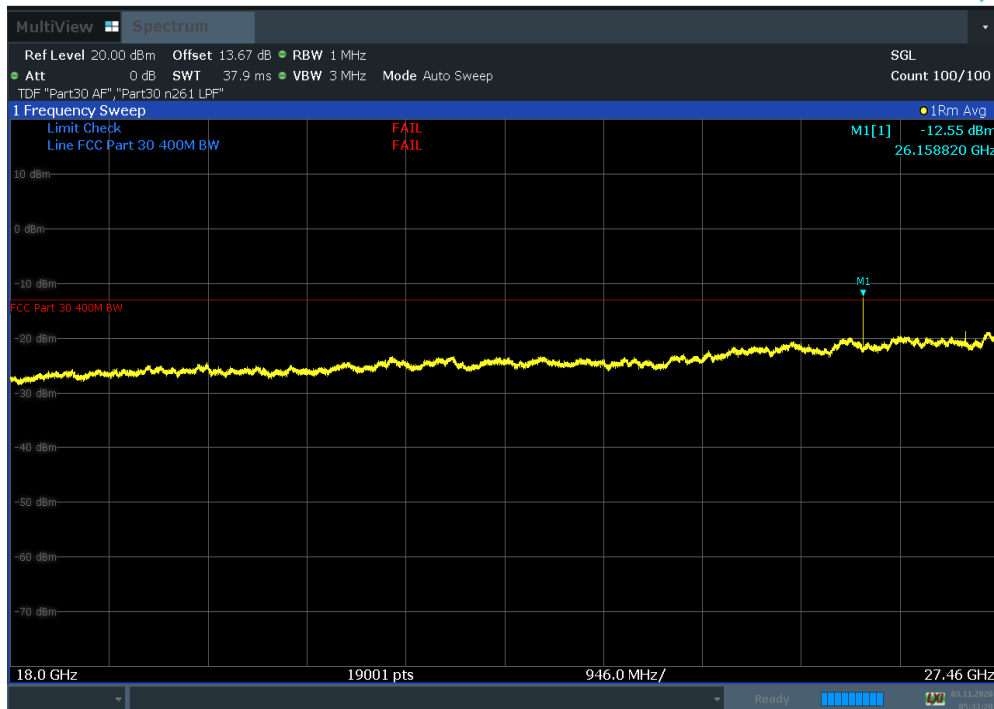


Plot 7-198. Radiated Spurious Plot 25.92 GHz – 25.95 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Low TRP)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
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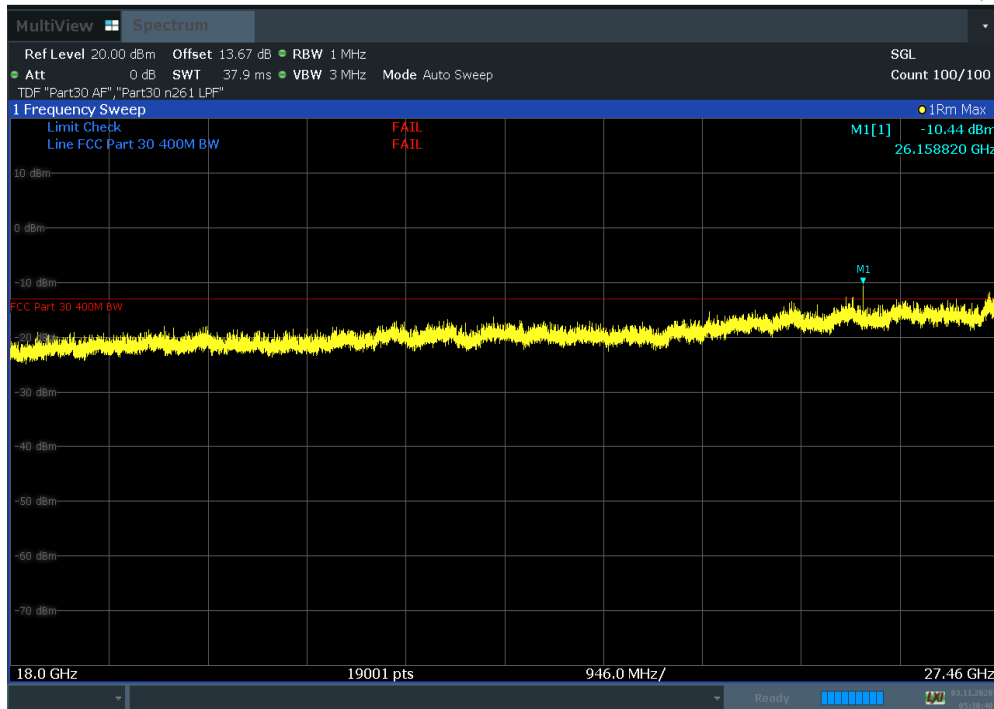


Plot 7-199. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel Pol. H)

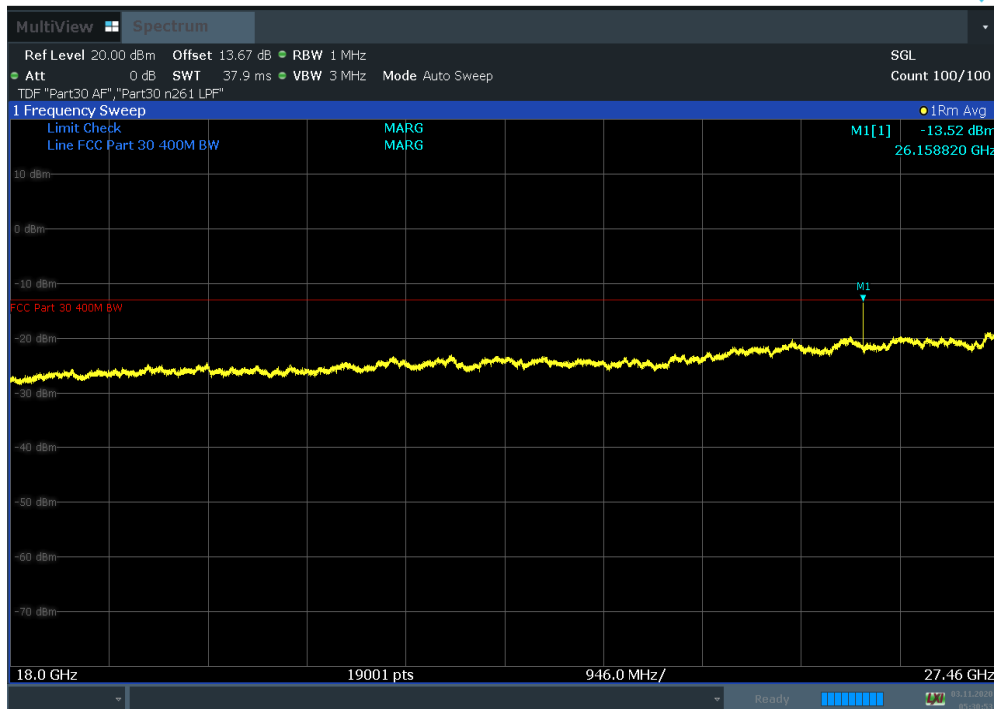


Plot 7-200. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel Pol. H) Fin

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 137 of 322

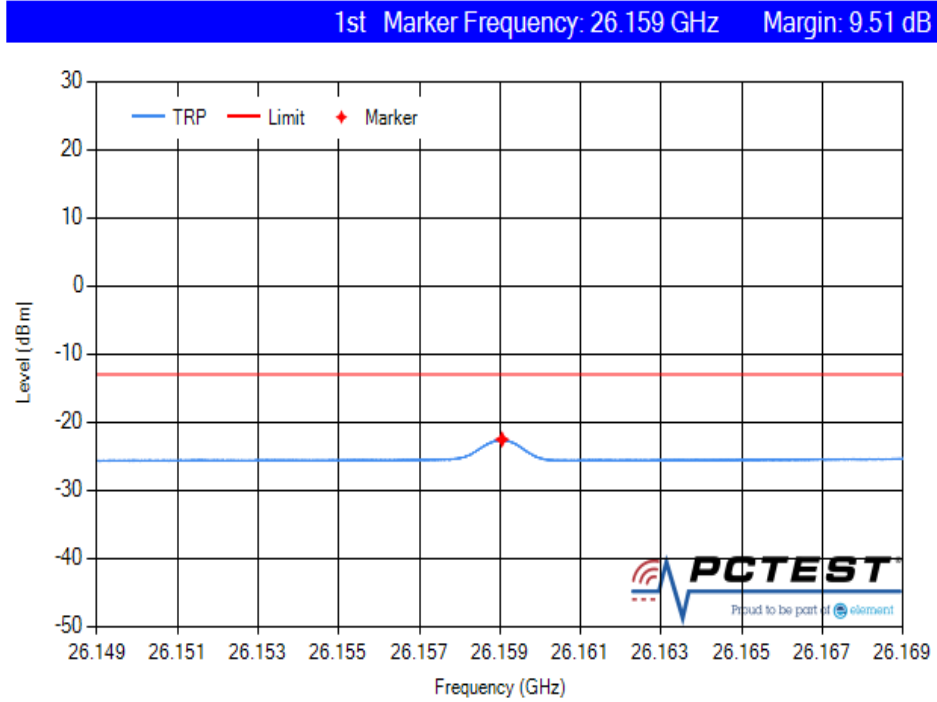


Plot 7-201. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel Pol. V)

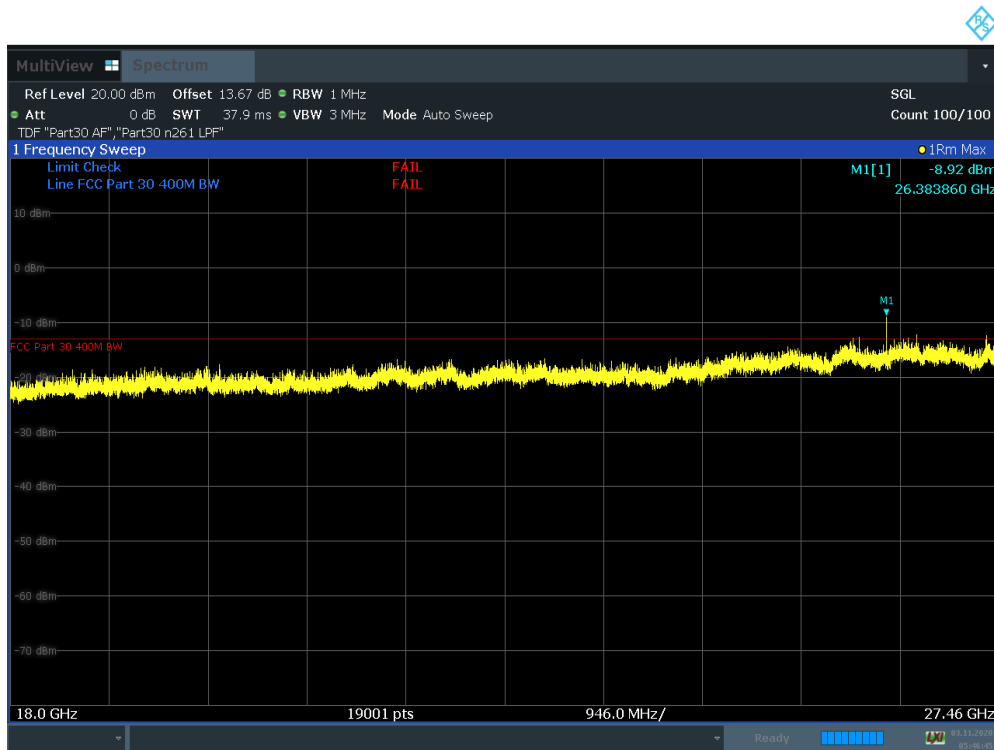


Plot 7-202. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid Channel Pol. V) Fin

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 138 of 322

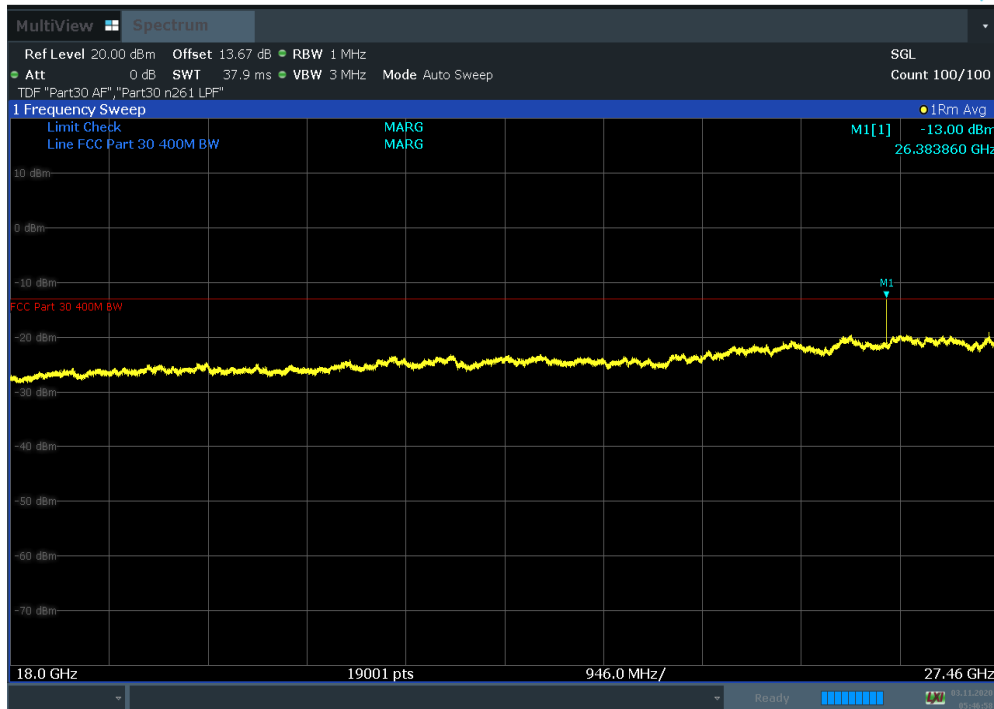


Plot 7-203. Radiated Spurious Plot 26.14 GHz – 26.17 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK Mid TRP)

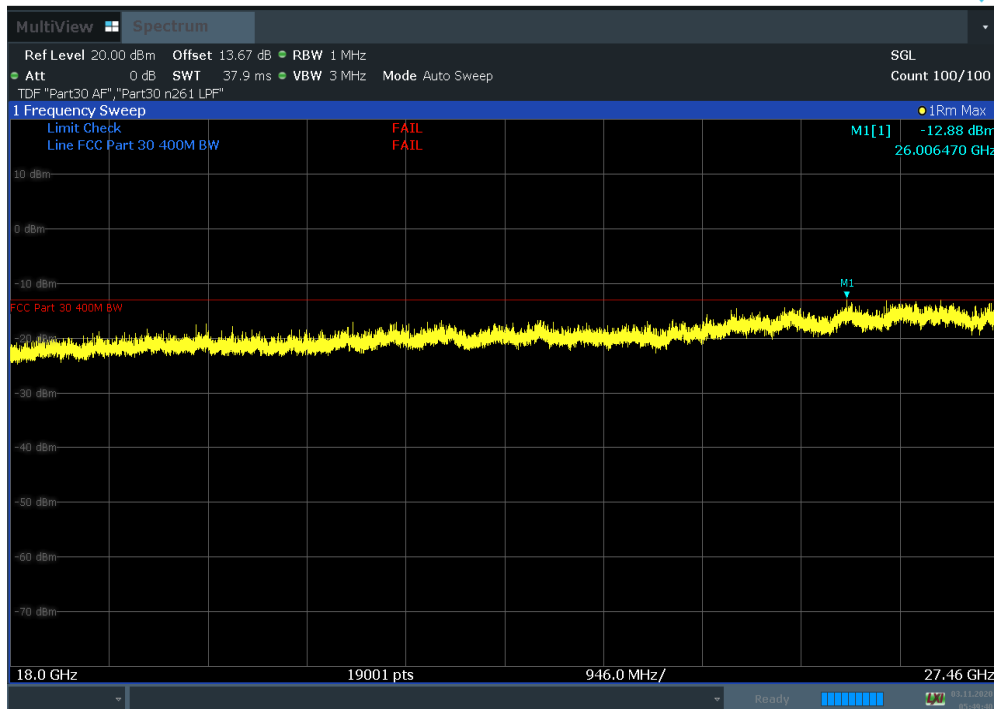


Plot 7-204. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK High Channel Pol. H)



FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 139 of 322

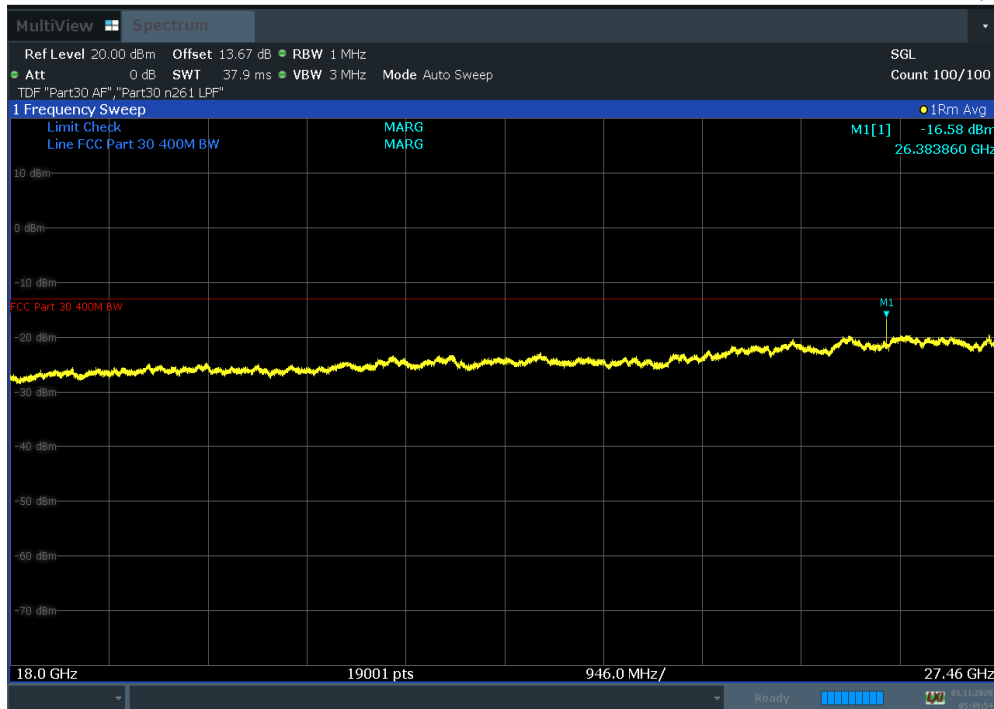


Plot 7-205. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK High Channel Pol. H) Fin

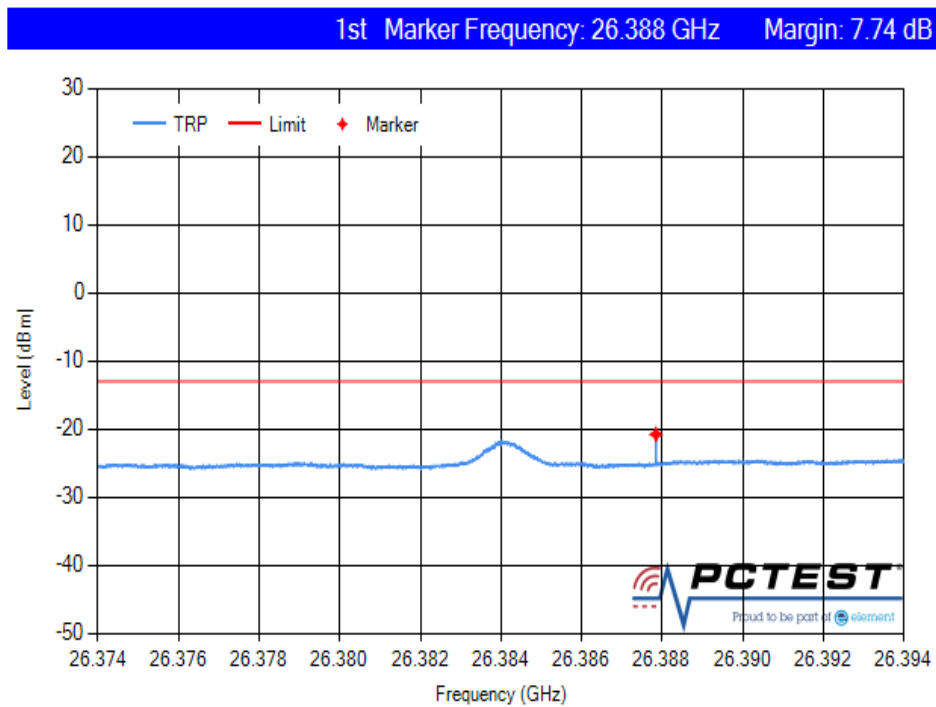


Plot 7-206. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK High Channel Pol. V)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 140 of 322

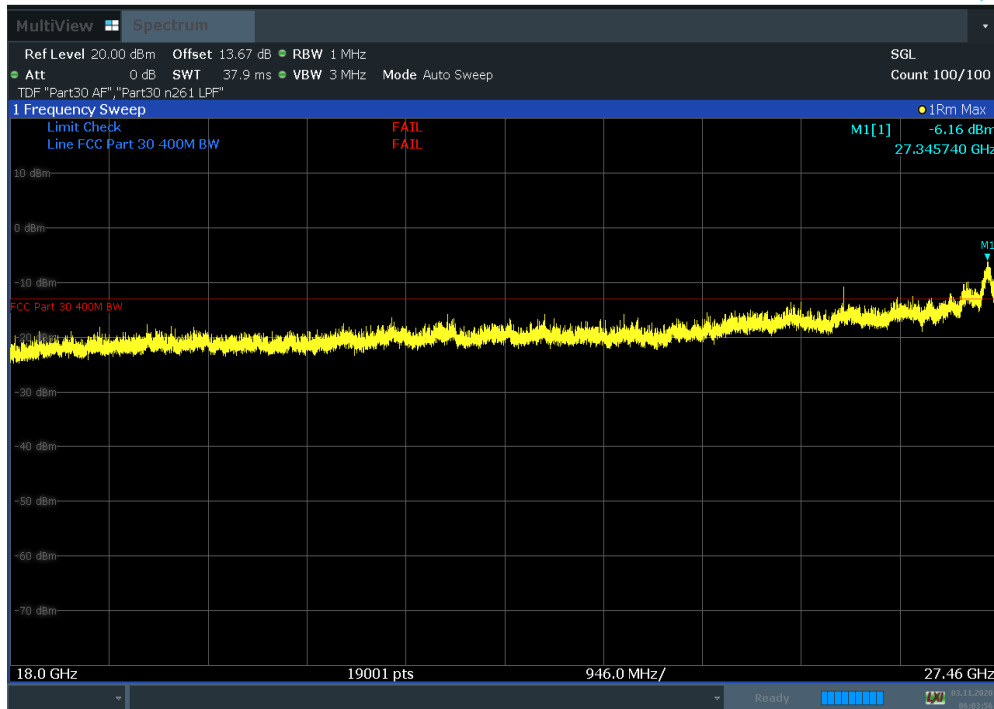


Plot 7-207. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK High Channel Pol. V) Fin

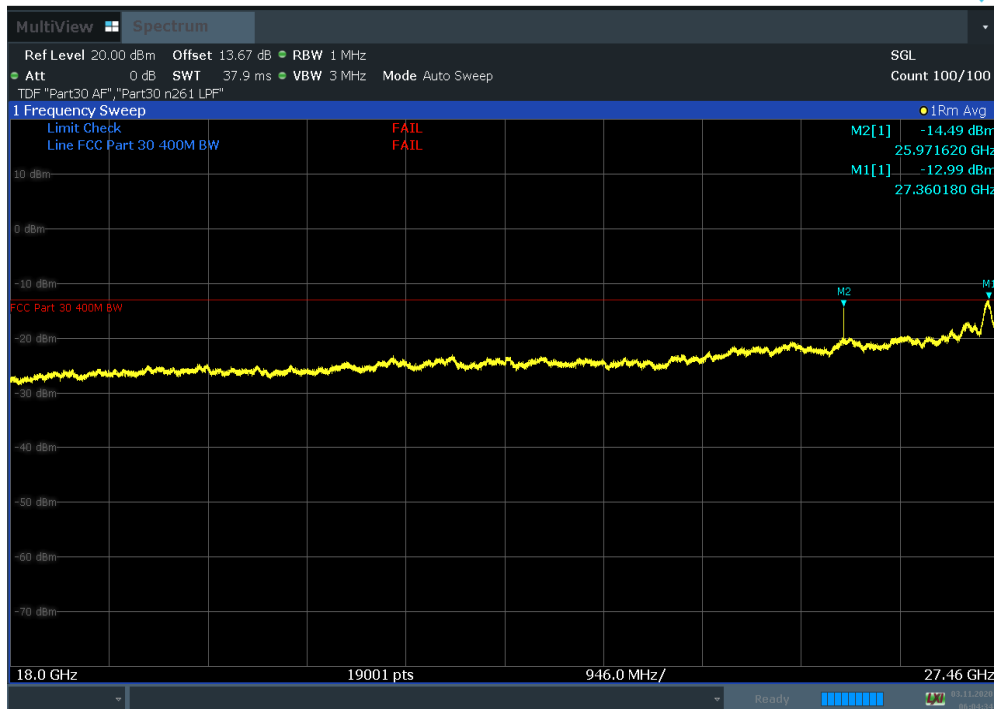


Plot 7-208. Radiated Spurious Plot 26.37 GHz – 26.40 GHz (50 MHz 2CC + 100 MHz 3CC BW QPSK High TRP)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)	Page 141 of 322	

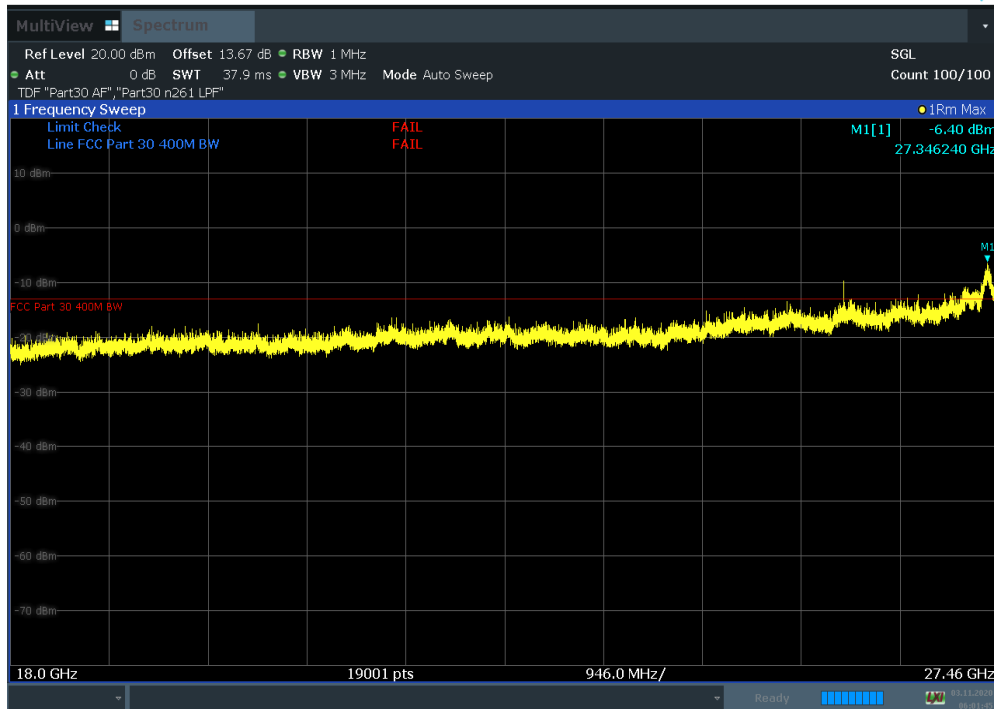


Plot 7-209. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Low Channel Pol. H)

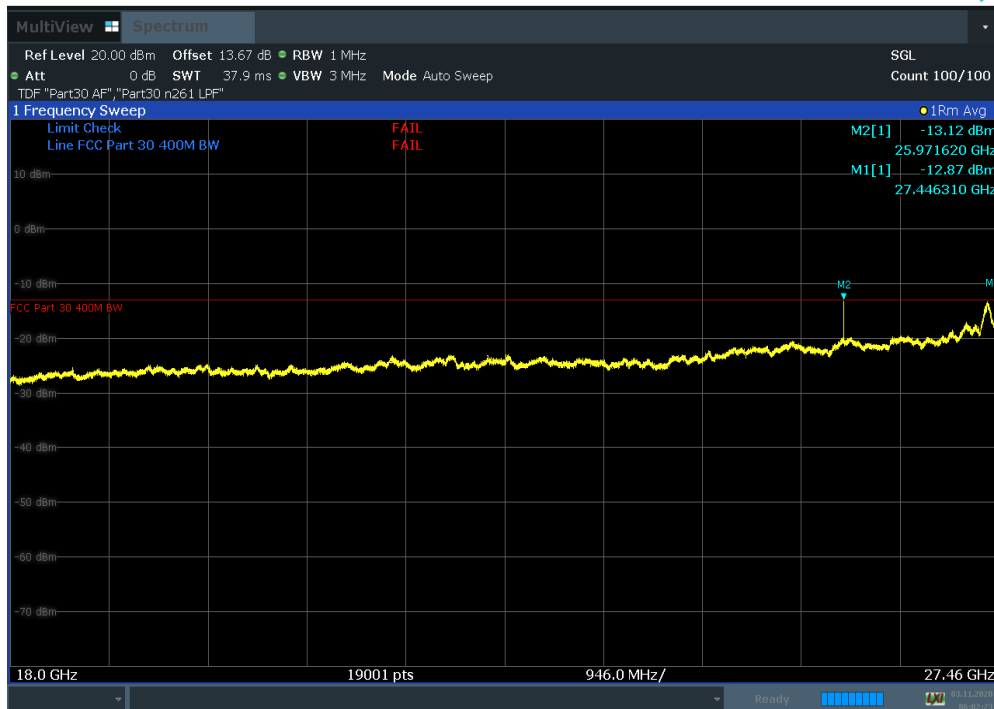


Plot 7-210. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Low Channel Pol. H) Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 142 of 322

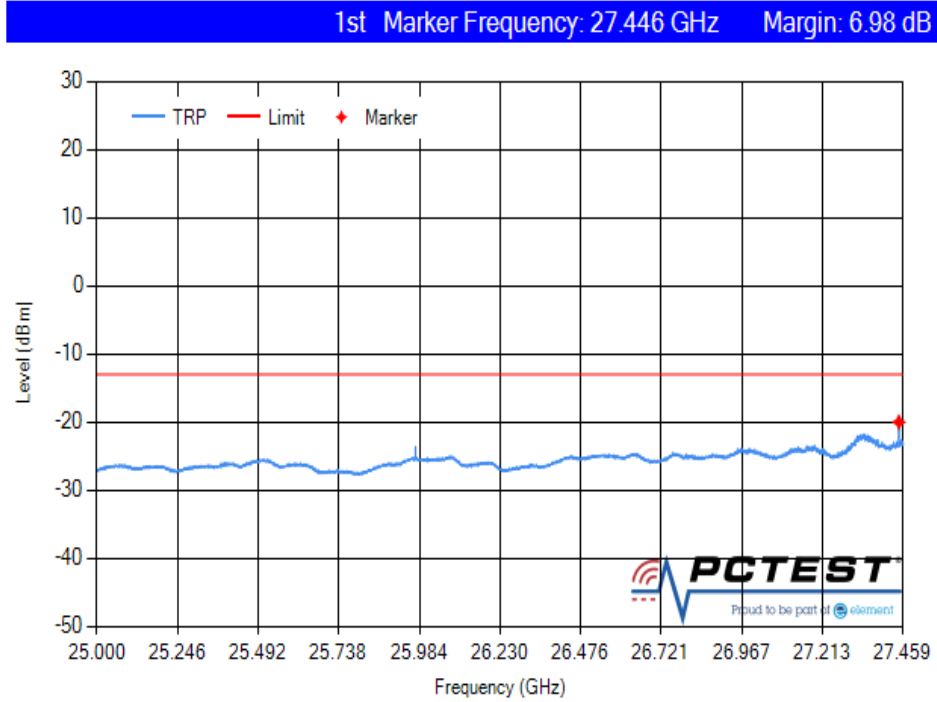


Plot 7-211. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Low Channel Pol. V)

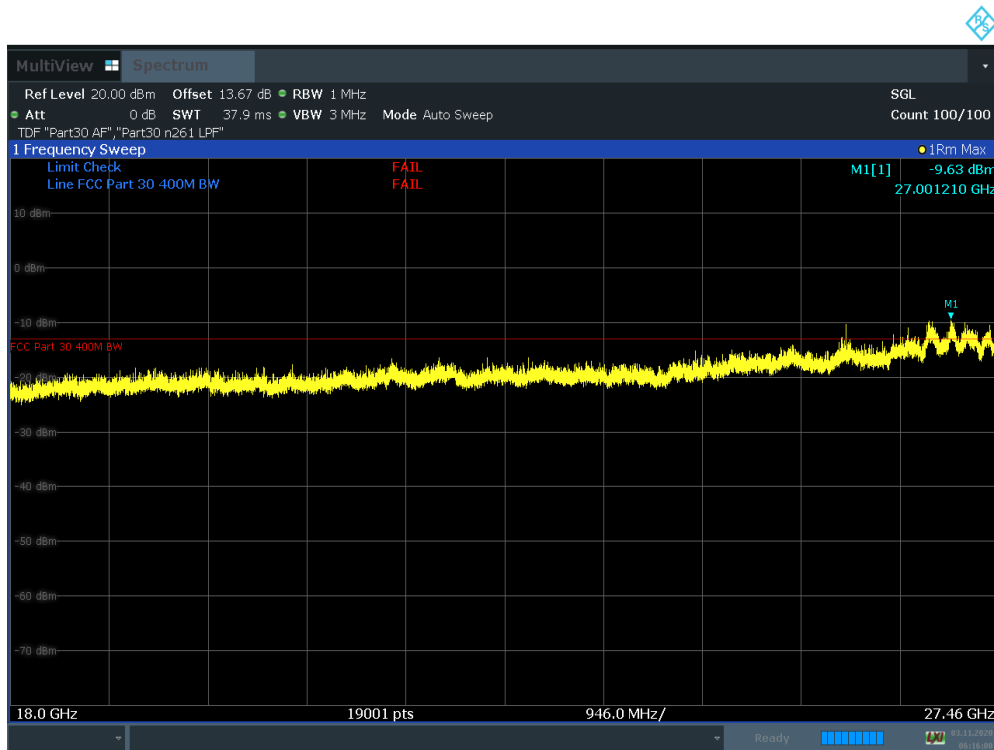


Plot 7-212. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Low Channel Pol. V) Fin

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 143 of 322

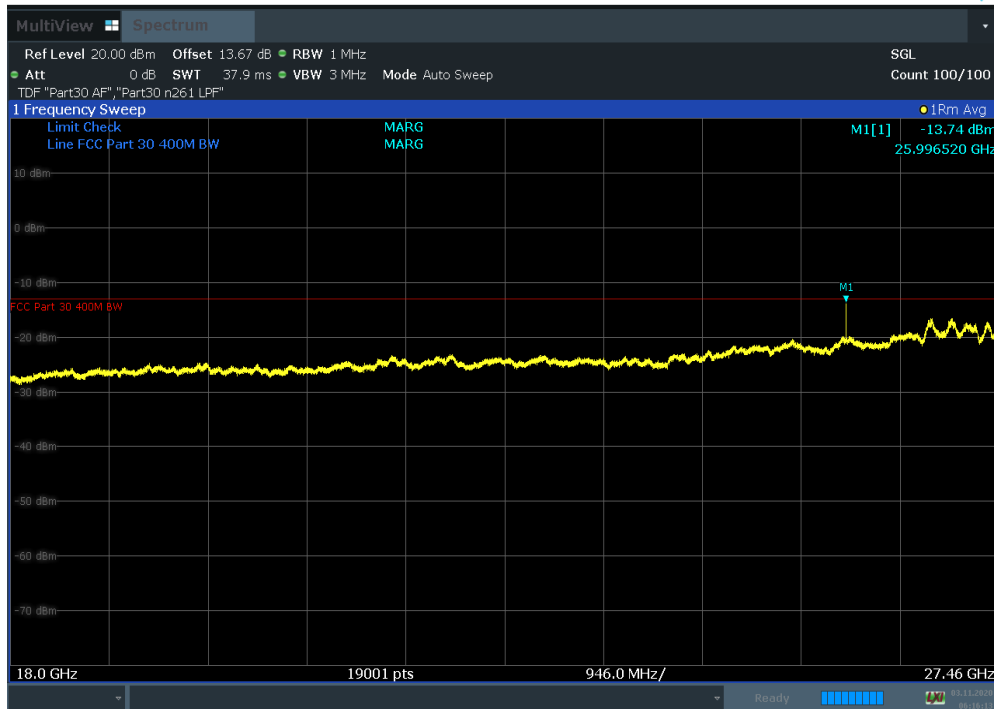


Plot 7-213. Radiated Spurious Plot 25 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Low TRP)

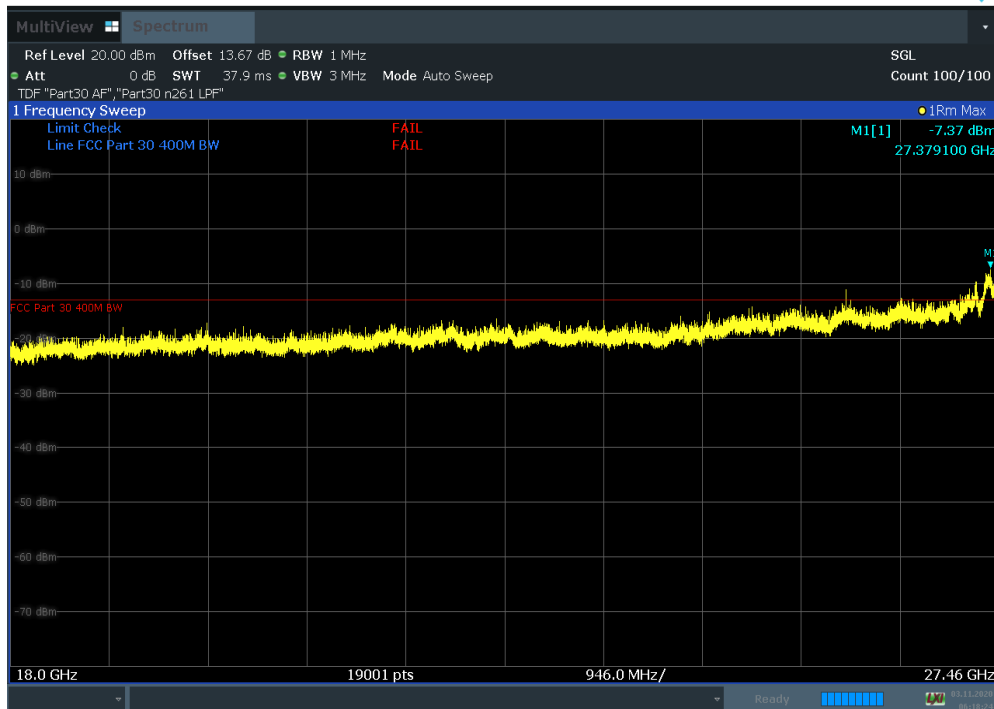


Plot 7-214. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel Pol. H)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 144 of 322

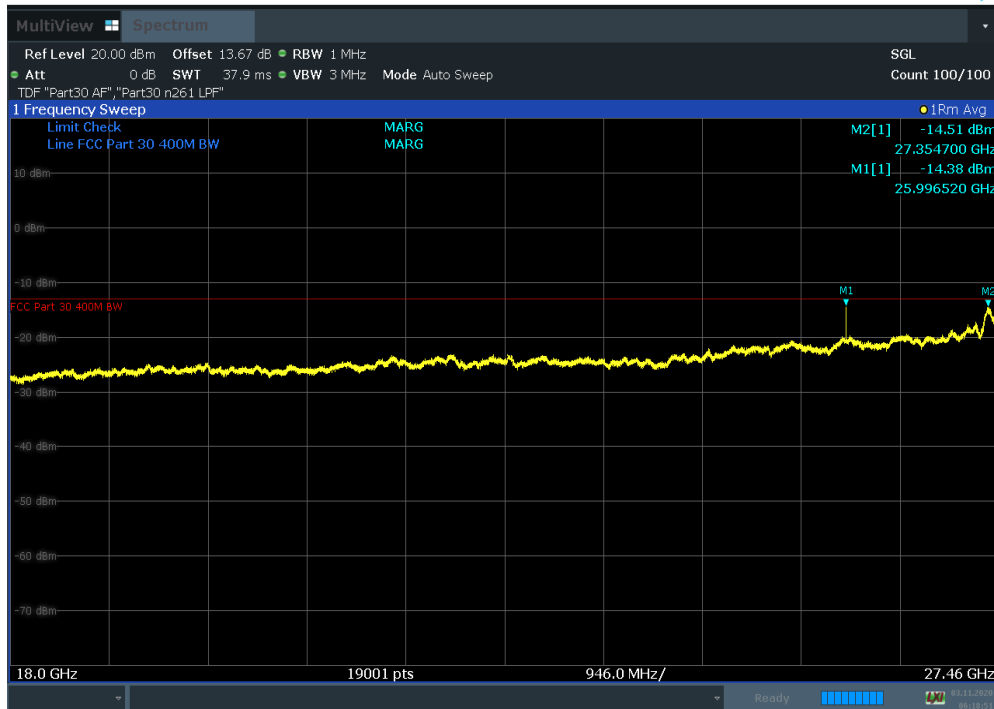


Plot 7-215. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel Pol. H) Fin

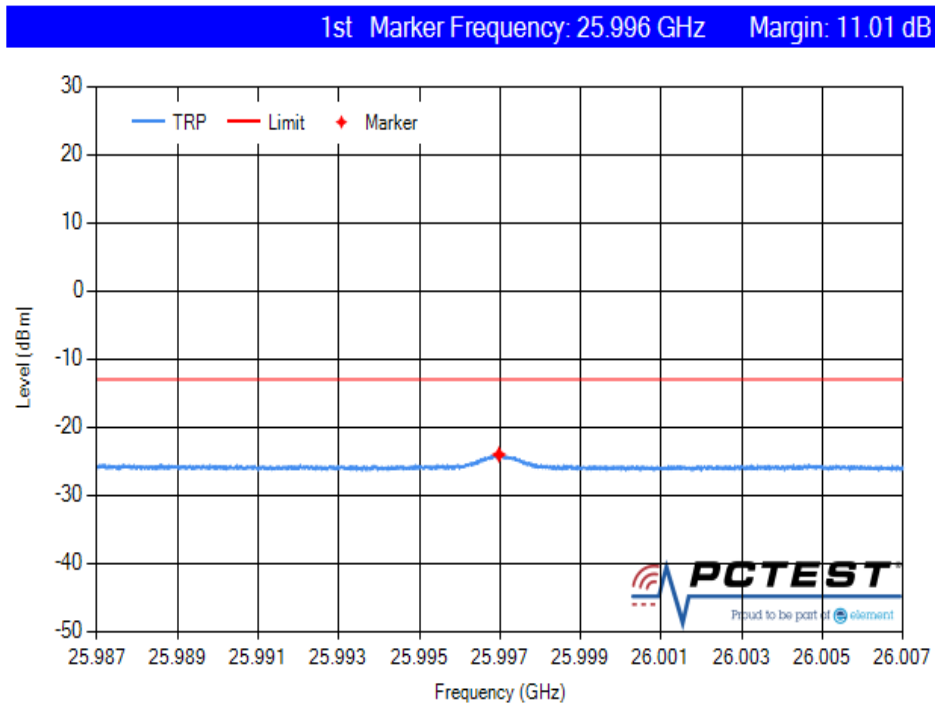


Plot 7-216. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel Pol. V)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 145 of 322

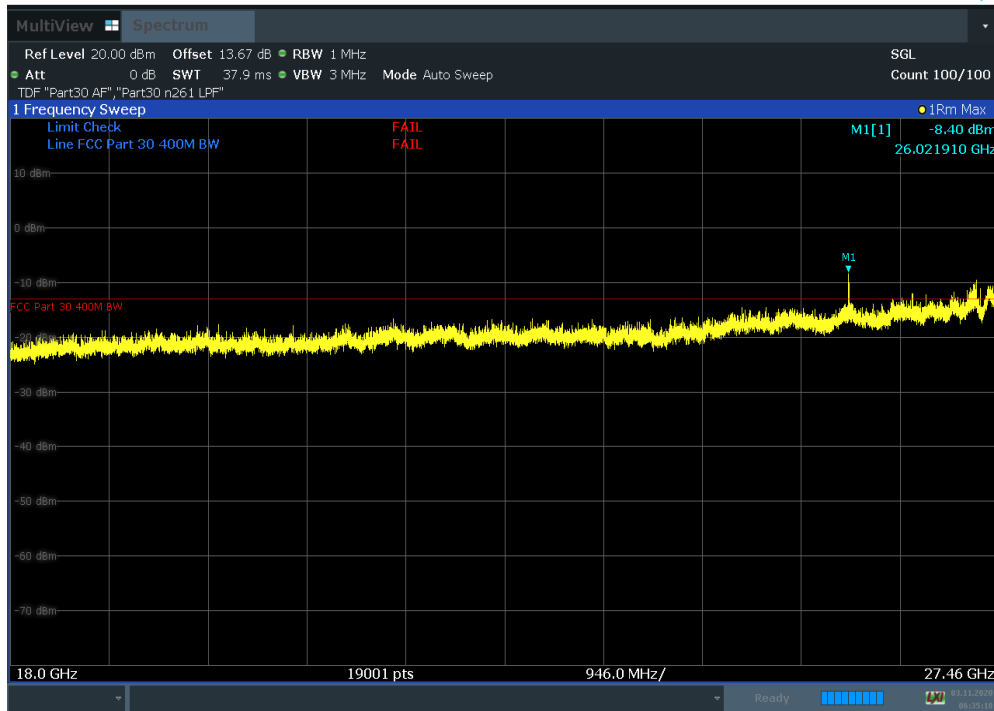


Plot 7-217. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid Channel Pol. V) Fin

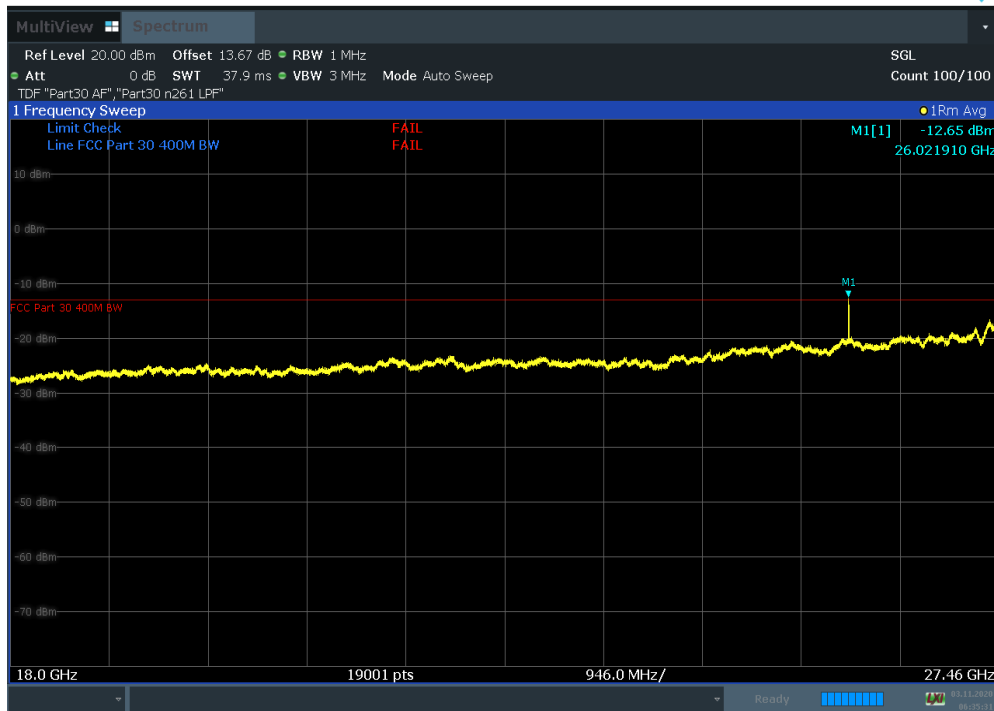


Plot 7-218. Radiated Spurious Plot 25.98 GHz – 26.10 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK Mid TRP)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 146 of 322

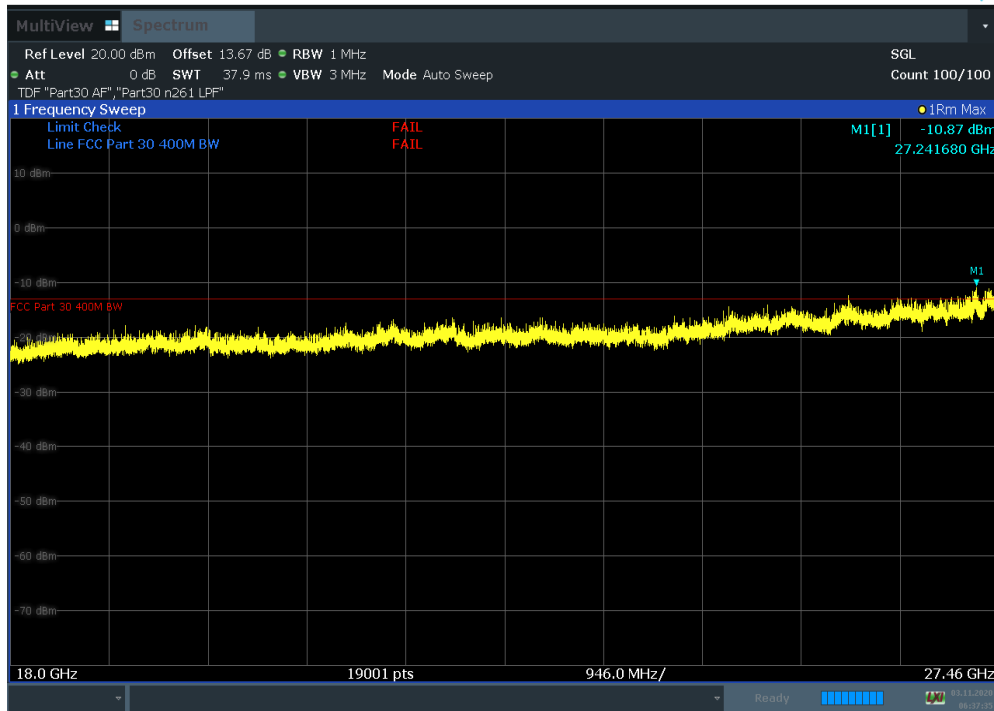


Plot 7-219. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK High Channel Pol. H)

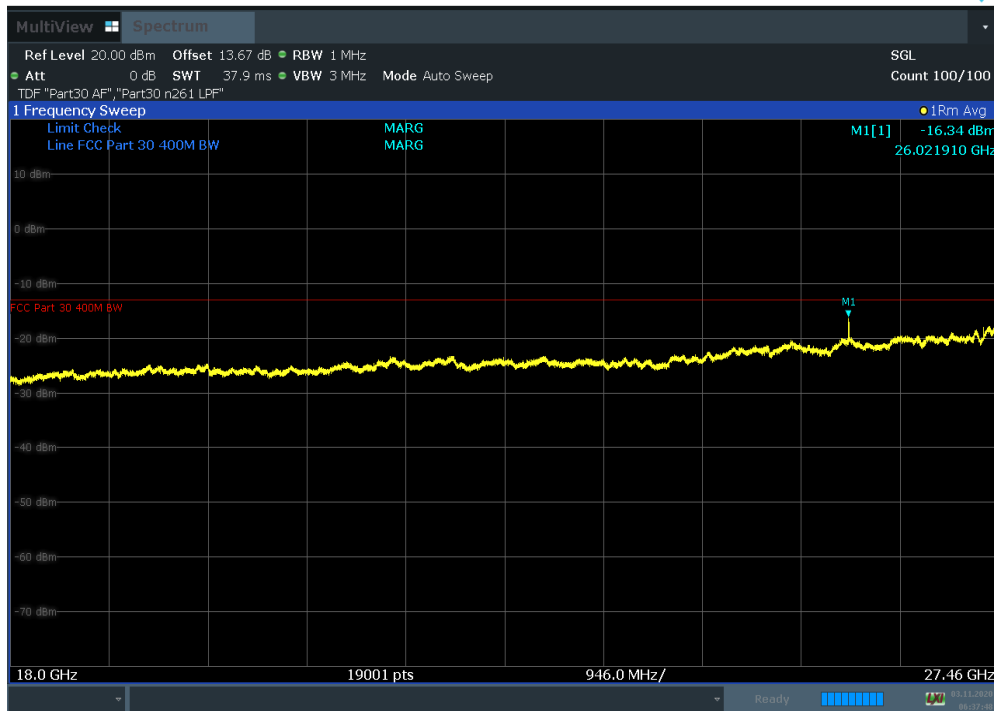


Plot 7-220. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK High Channel Pol. H) Fin



FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 147 of 322

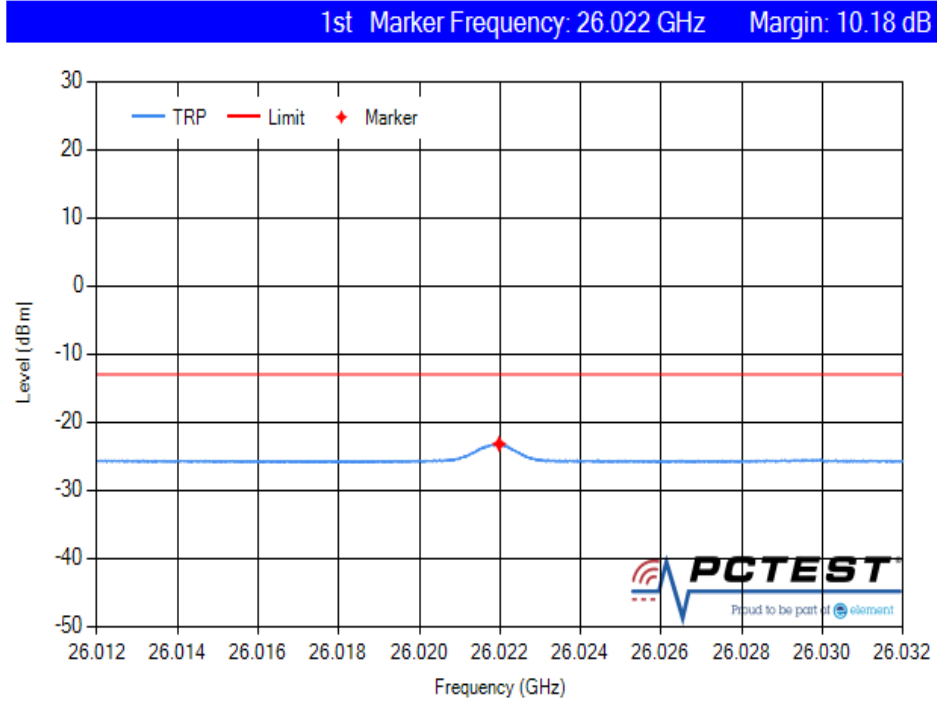


Plot 7-221. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK High Channel Pol. V)

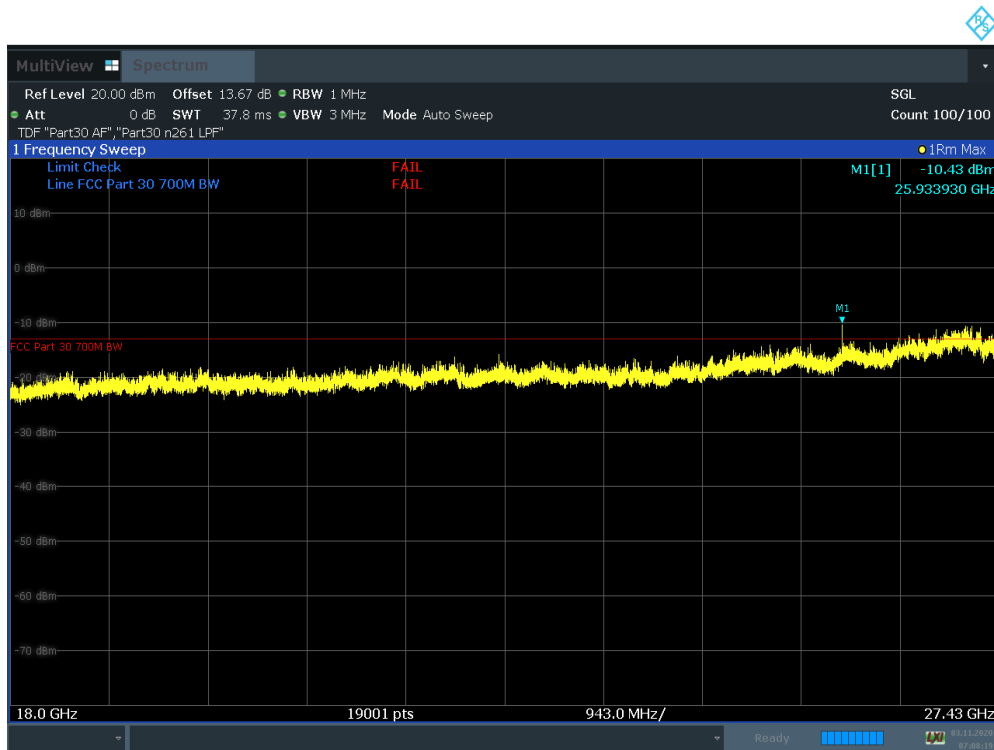


Plot 7-222. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK High Channel Pol. V) Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 148 of 322

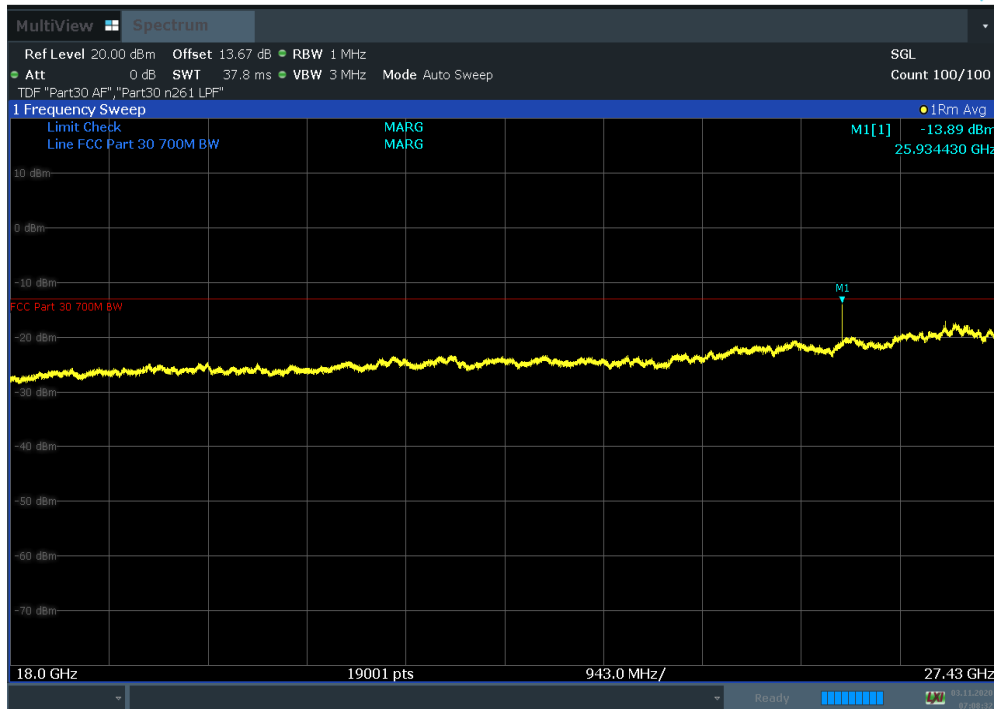


Plot 7-223. Radiated Spurious Plot 26 GHz – 26.04 GHz (50 MHz 2CC + 100 MHz 3CC NC BW QPSK High TRP)

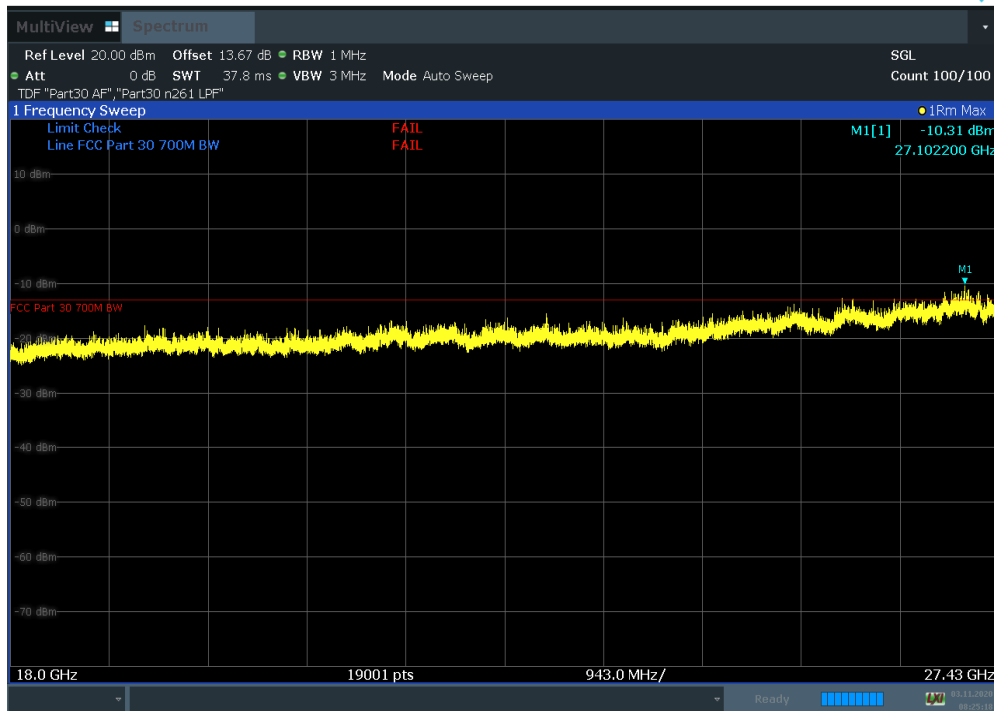


Plot 7-224. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Low Channel Pol. H)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 149 of 322

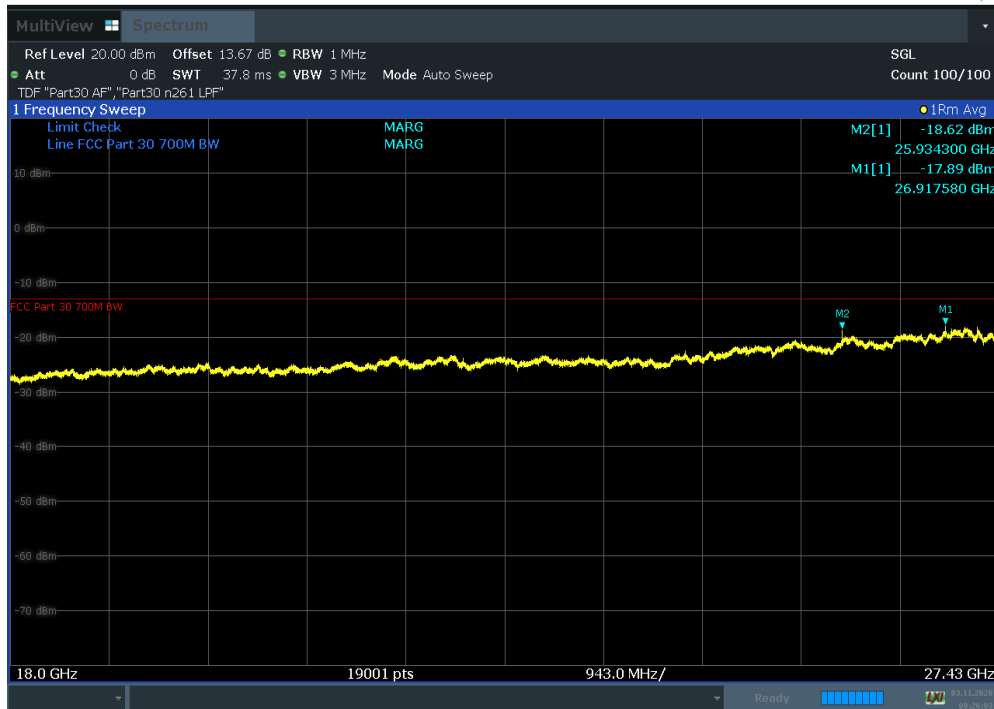


Plot 7-225. Radiated Spurious Plot 18 GHz – 27.46 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Low Channel Pol. H) Fin

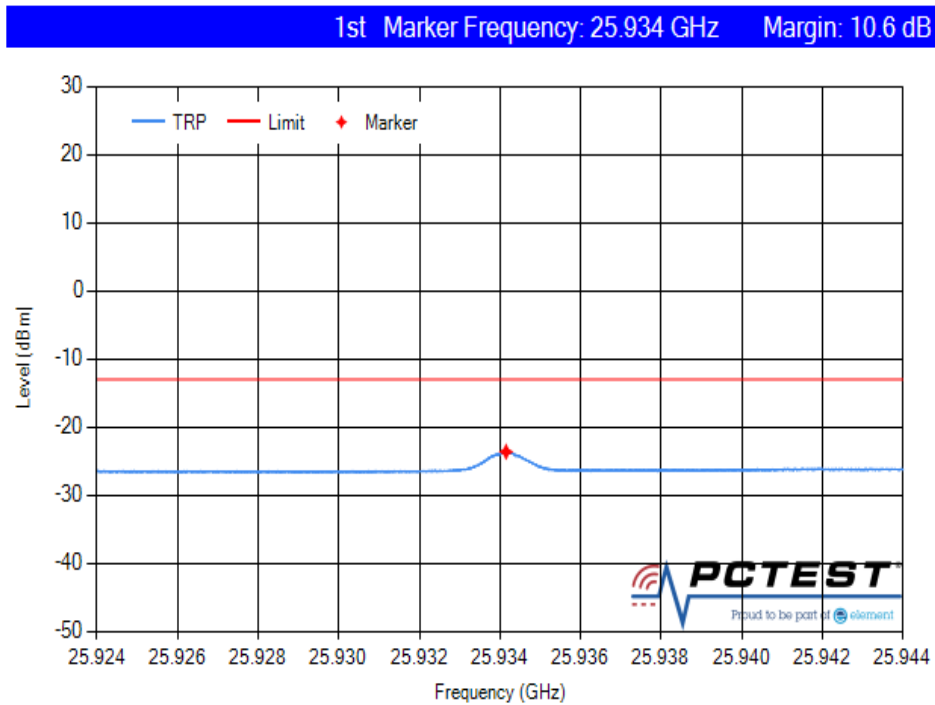


Plot 7-226. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Low Channel Pol. V)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 150 of 322

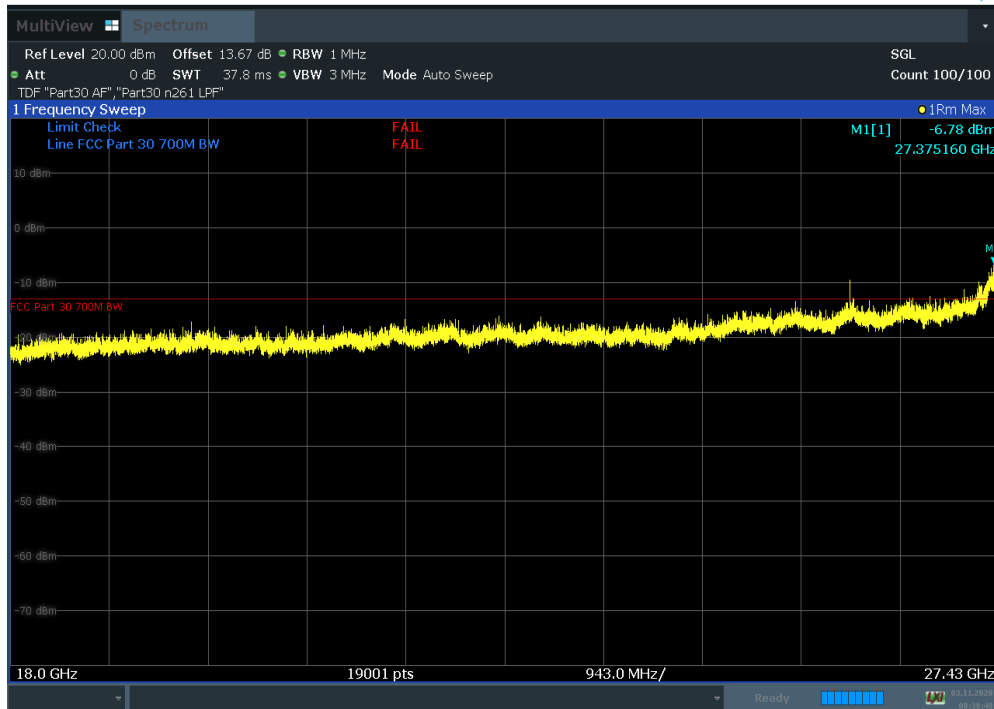


Plot 7-227. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Low Channel Pol. V) Fin

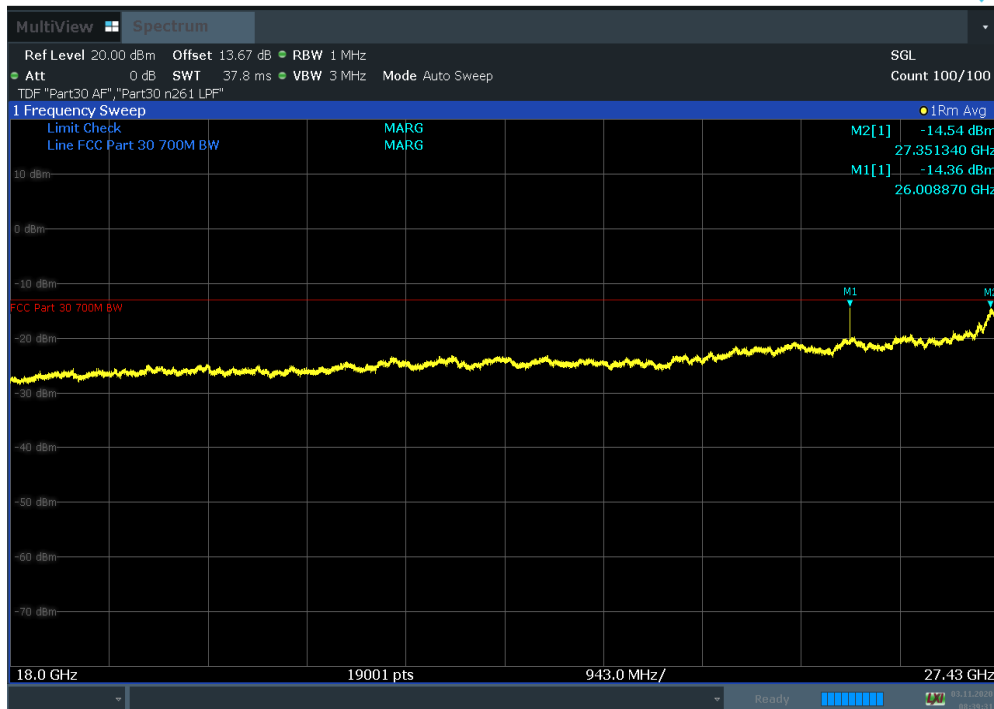


Plot 7-228. Radiated Spurious Plot 25.92 GHz – 25.95 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Low TRP)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 151 of 322

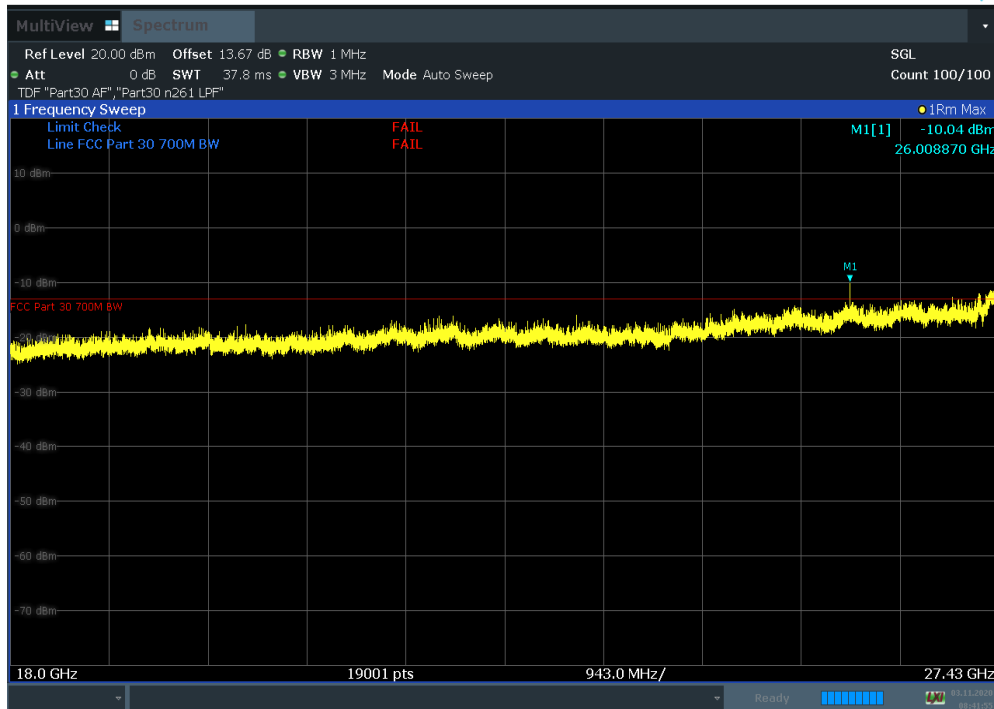


Plot 7-229. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel Pol. H)

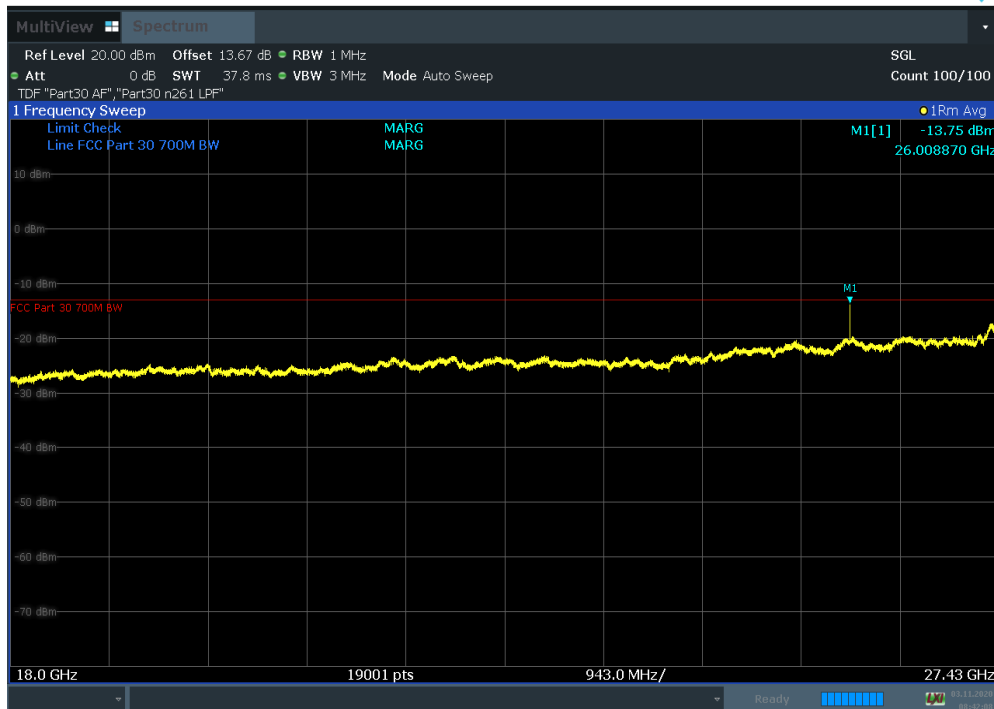


Plot 7-230. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel Pol. H) Fin

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 152 of 322

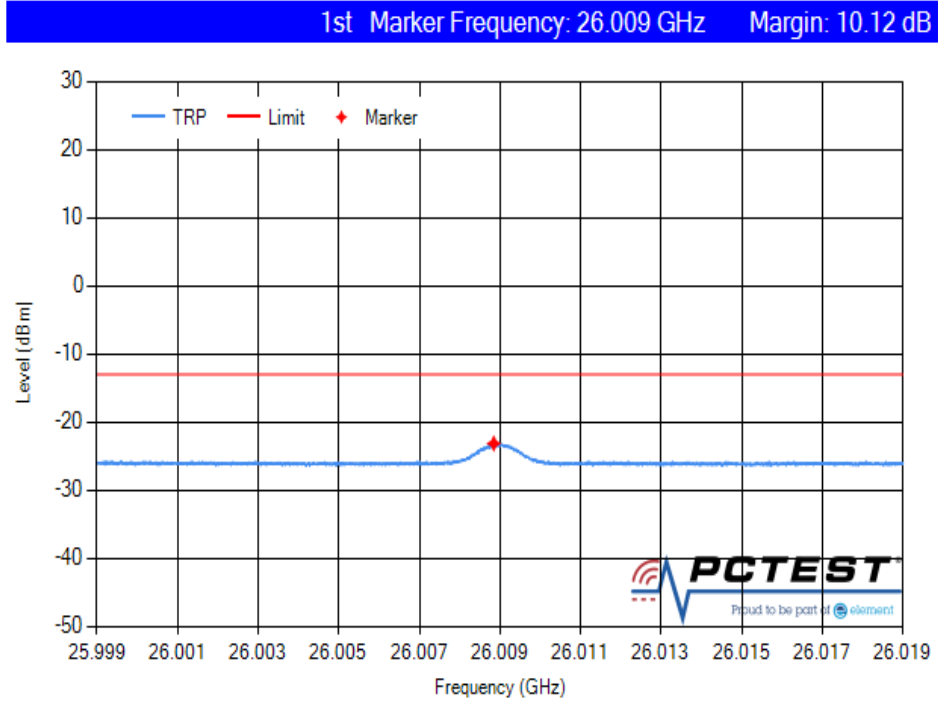


Plot 7-231. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel Pol. V)

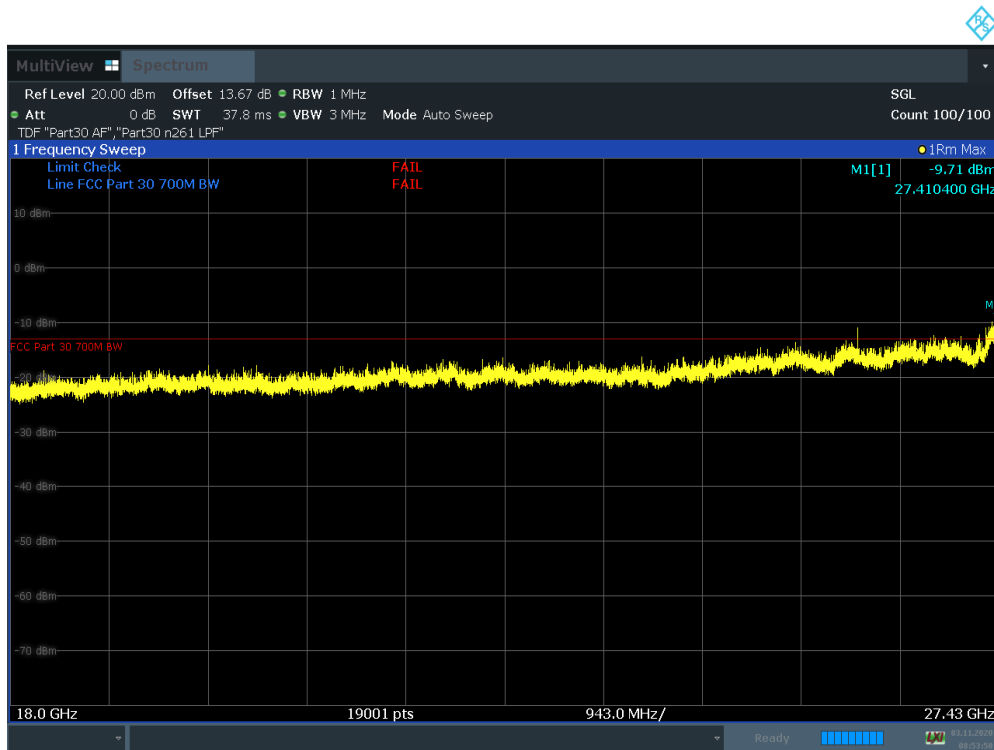


Plot 7-232. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid Channel Pol. V) Fin

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 153 of 322

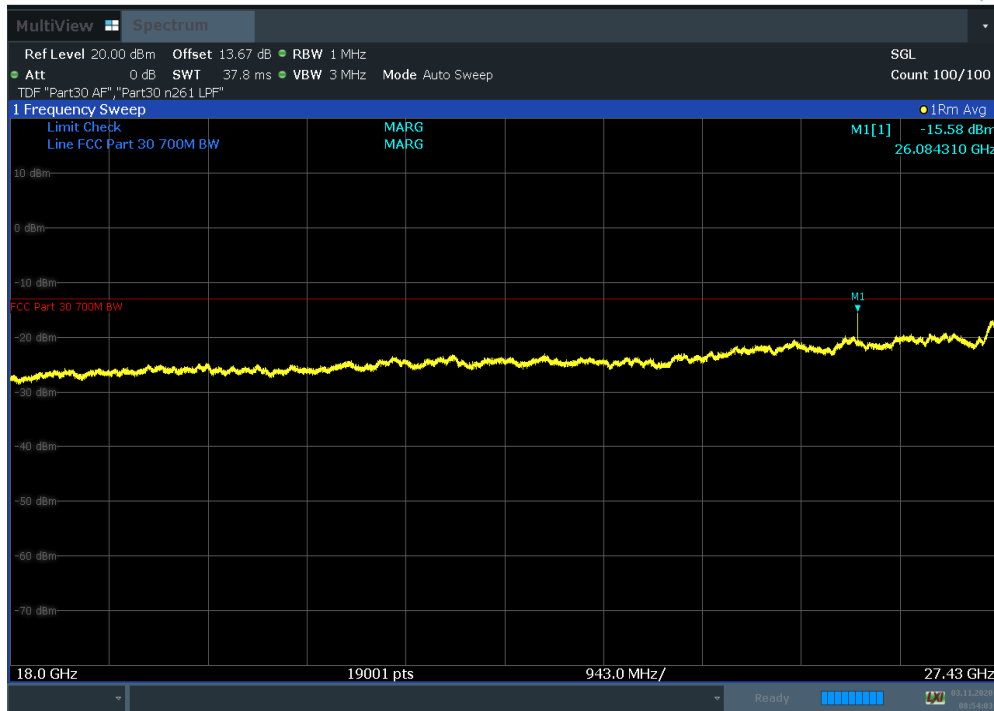


Plot 7-233. Radiated Spurious Plot 25.90 GHz – 26.02 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK Mid TRP)

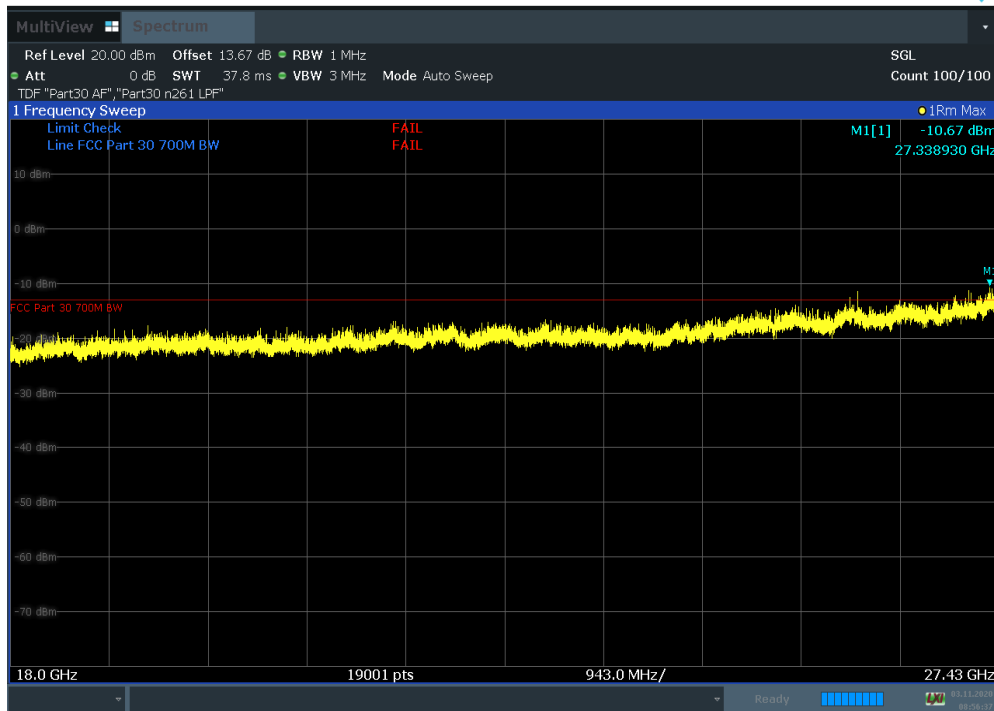


Plot 7-234. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK High Channel Pol. H)



FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 154 of 322

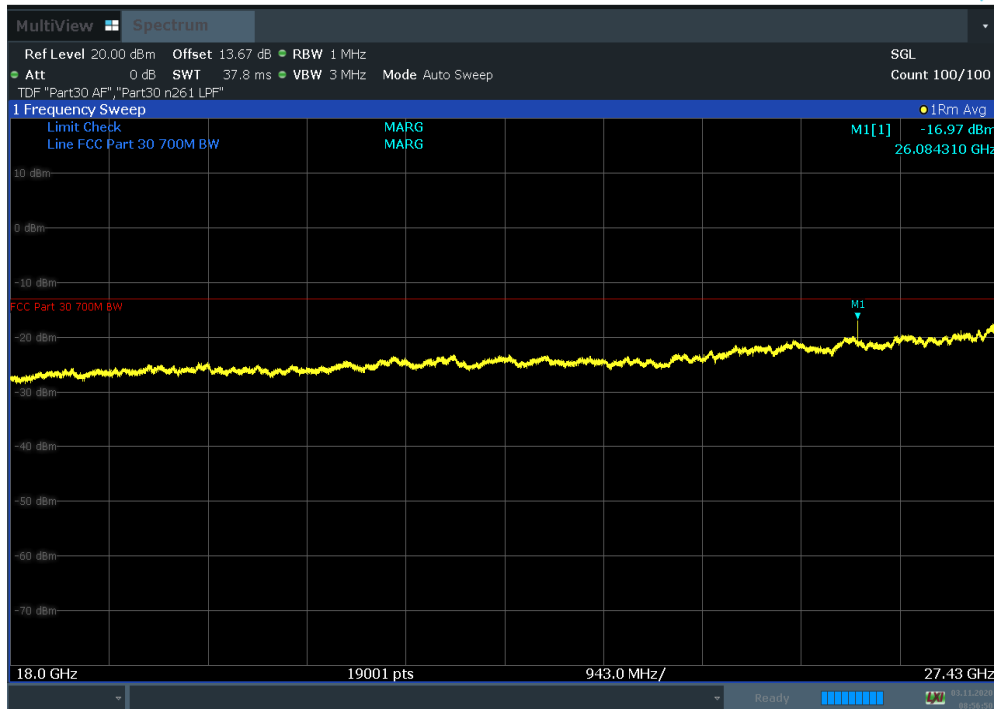


Plot 7-235. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK High Channel Pol. H) Fin

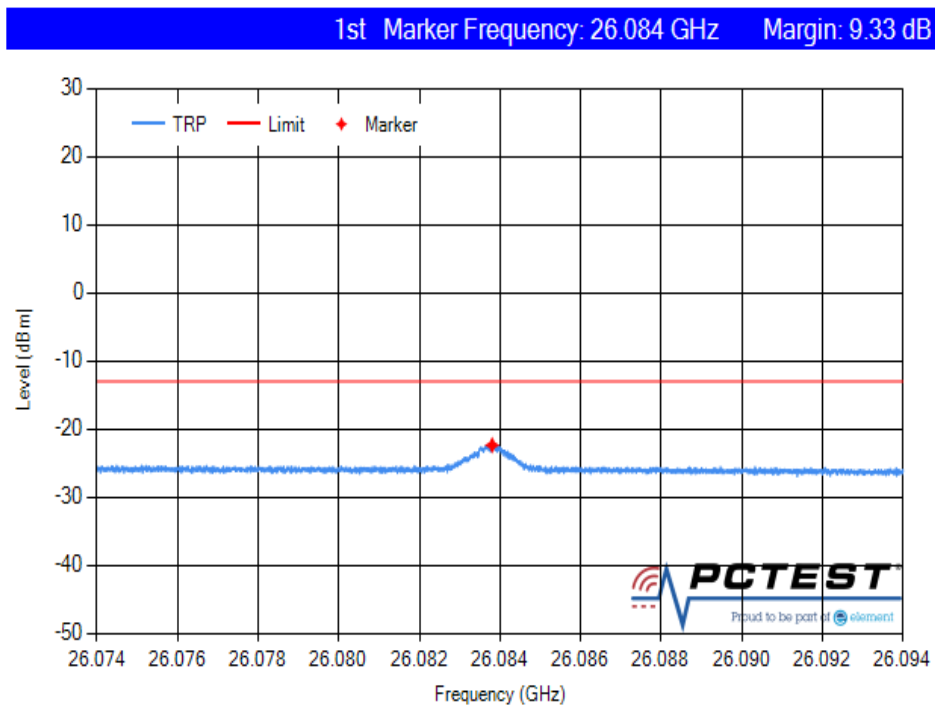


Plot 7-236. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK High Channel Pol. V)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 155 of 322

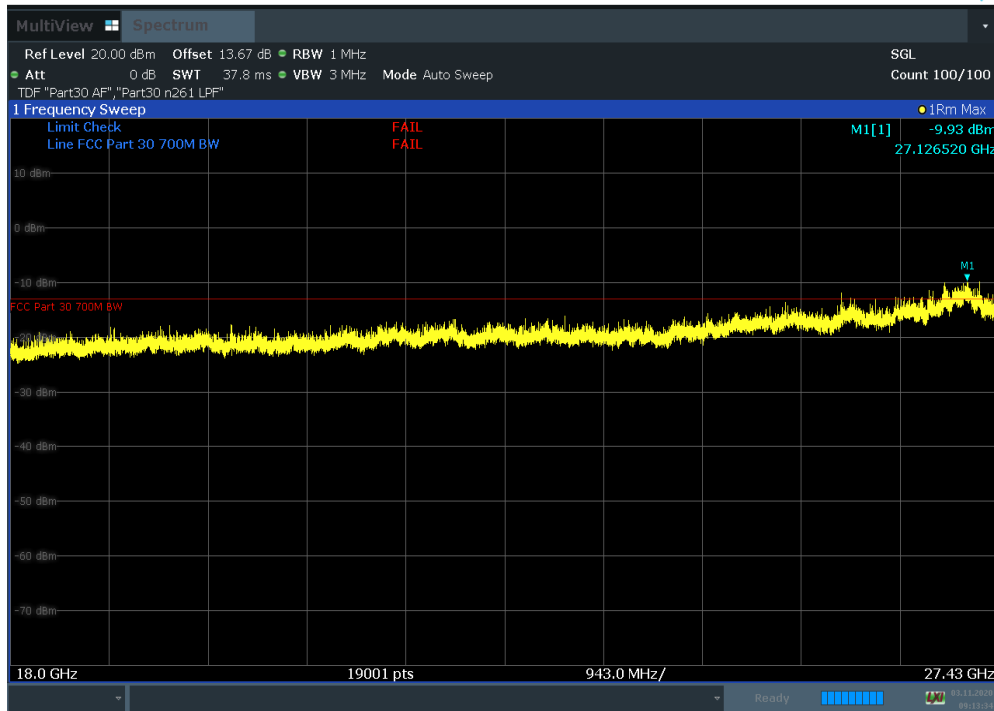


Plot 7-237. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK High Channel Pol. V) Fin

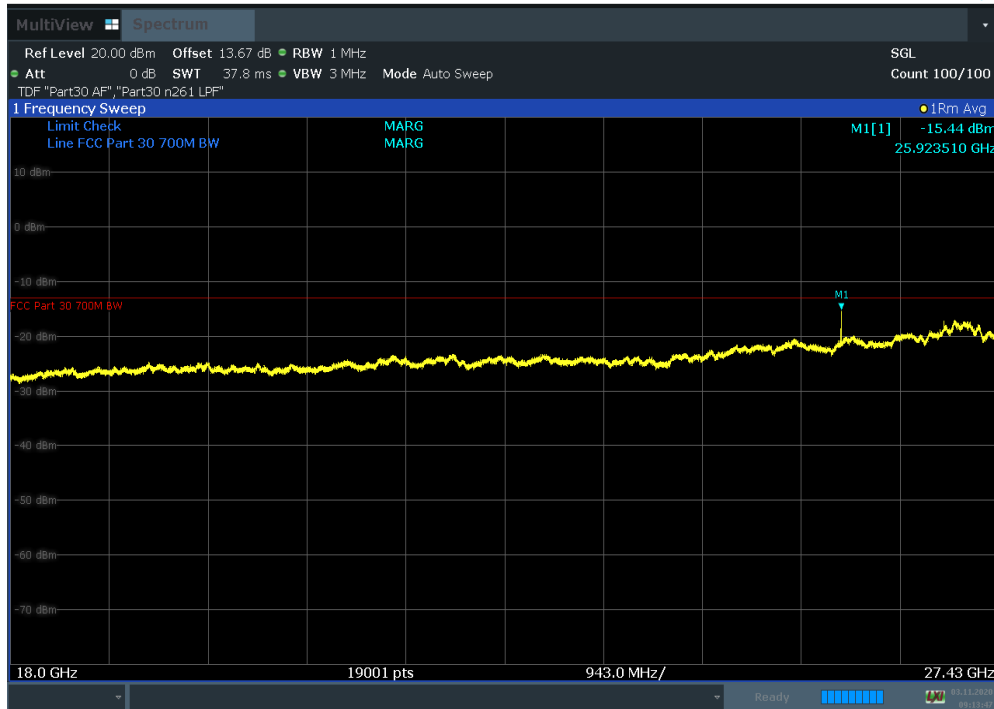


Plot 7-238. Radiated Spurious Plot 26.07 GHz – 26.10 GHz (50 MHz 2CC + 100 MHz 6CC BW QPSK High TRP)

FCC ID: A3LAT1K01-A10		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 156 of 322

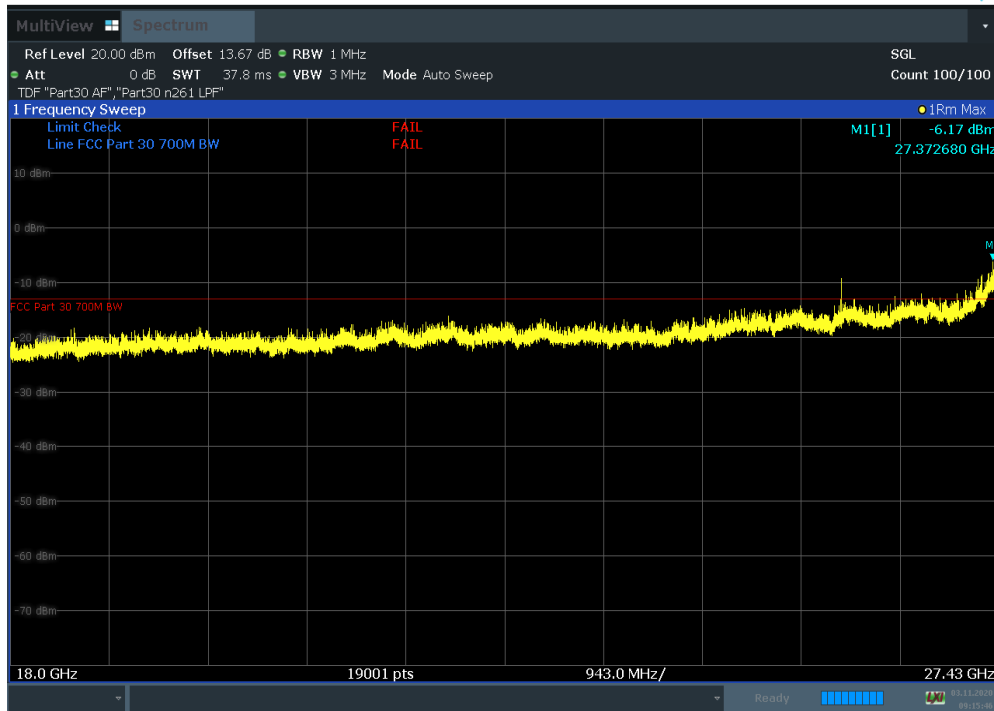


Plot 7-239. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Low Channel Pol. H)

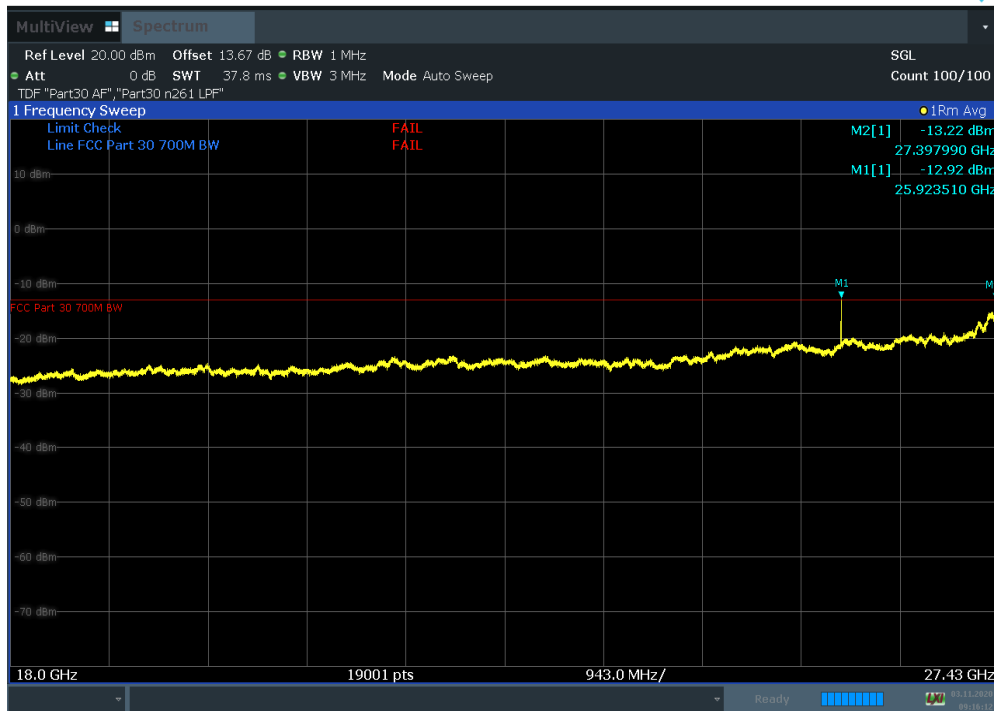


Plot 7-240. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Low Channel Pol. H) Fin

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 157 of 322

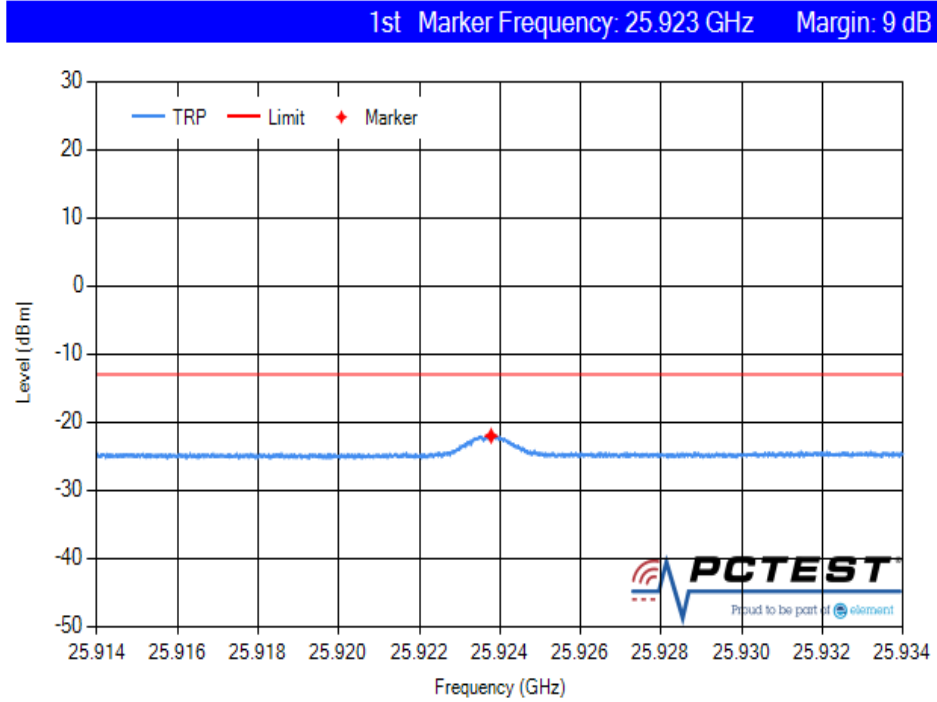


Plot 7-241. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Low Channel Pol. V)

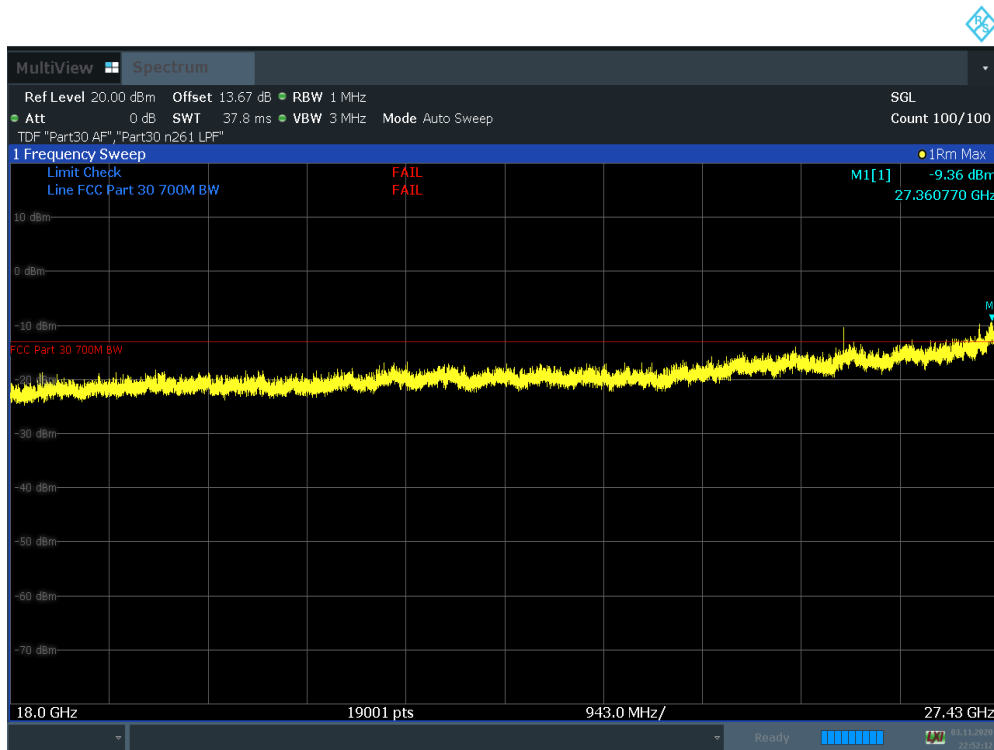


Plot 7-242. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Low Channel Pol. V) Fin

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 158 of 322

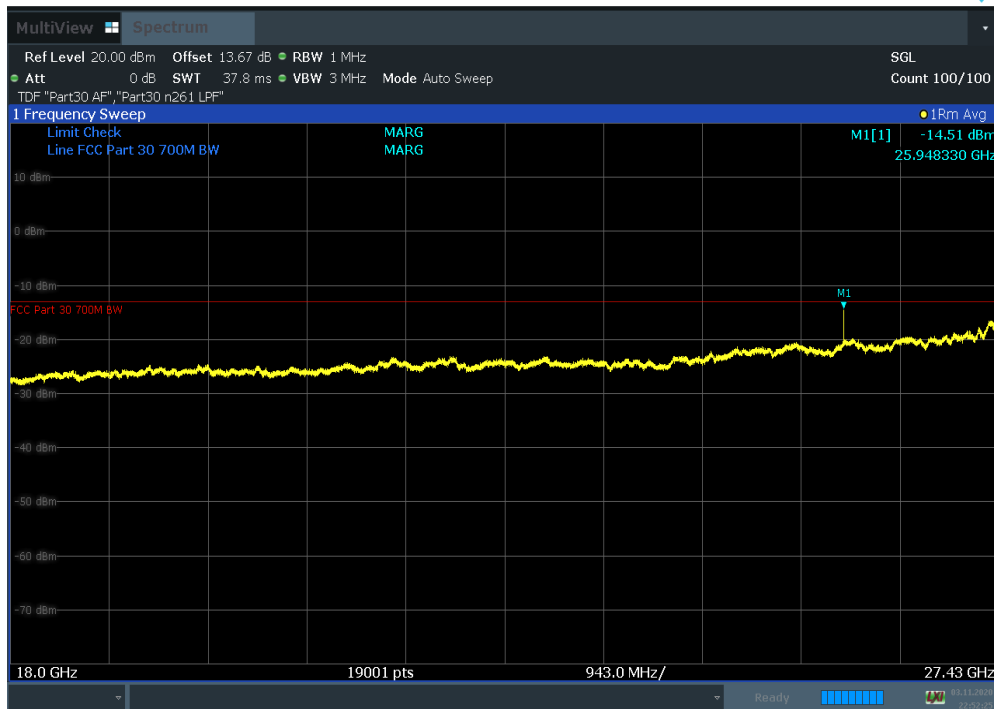


Plot 7-243. Radiated Spurious Plot 25.91 GHz – 25.94 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Low TRP)

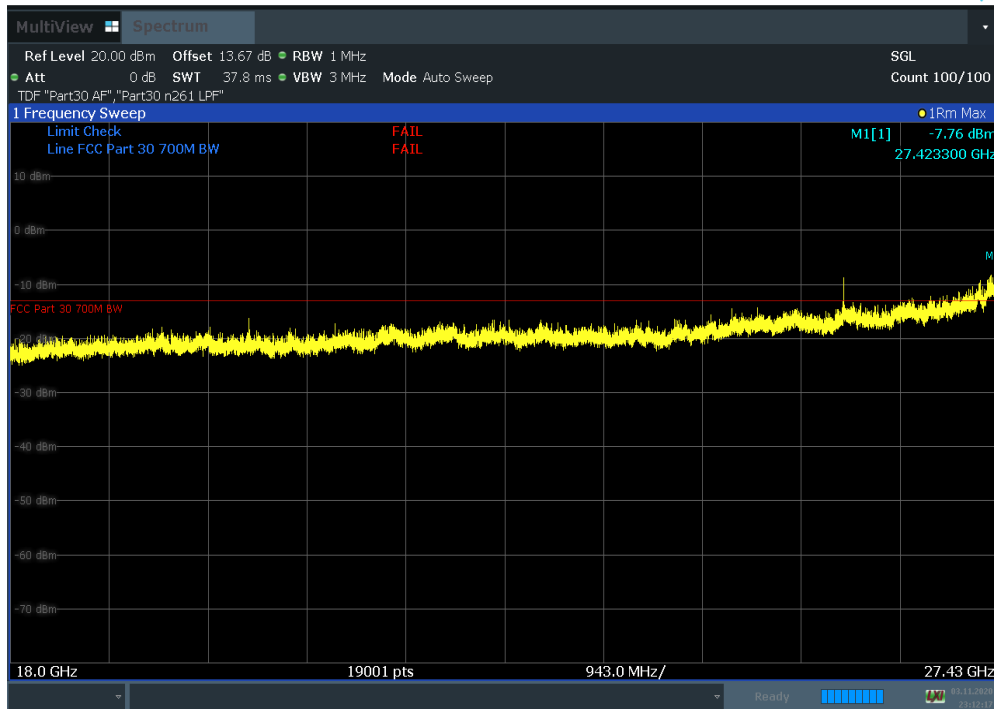


Plot 7-244. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Mid Channel Pol. H)

FCC ID: A3LAT1K01-A10	PCTEST Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 159 of 322



Plot 7-245. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Mid Channel Pol. H) Fin



Plot 7-246. Radiated Spurious Plot 18 GHz – 27.43 GHz (50 MHz 2CC + 100 MHz 6CC NC BW QPSK Mid Channel Pol. V)

FCC ID: A3LAT1K01-A10	Proud to be part of element	MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Quality Manager
Test Report S/N: 8K20092801-02-R4.A3L	Test Dates: 10/27/2020-11/18/2020	EUT Type: AU(AT1K01)		Page 160 of 322