



Plot 7-261. EIRP Density (Ant D 50 MHz 1CC + 100 MHz BW 5CC QPSK High)



Plot 7-262. EIRP Density (Ant D 50 MHz 2CC + 100 MHz BW 5CC QPSK High)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 177 of 466
8K20090901-R2.A3L	09/10/2020-10/08/2020	5G Access Unit		Page 177 01 400
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				\$
MultiView 🗄 Spectru	m			•
RefLevel -10.00 dBm Att 10 dB SW	● RBW 1 MH WT 83.2 ms ● VBW 3 MH	z z Mode Auto Sweep		SGL Count 100/100
1 ACLR				• 1Rm Avg
-20 dBm	Tx1	x2 Tx3	Tx5	Тх7
-30 dBm	akana -			
-40 dBm				
-50 dBm-				
-60 dBm				
ดานี้และเห็นของสามหารุกษาตามสามหารุกษา	المرود المرود المرود المرود			and the second of the second
-80 dBm				
-90 dBm-				
-100 dBm-				
CF 28.00014 GHz		5001 pts	130.0 MHz/	Span 1.3 GHz
2 Result Summary		None		
	50.000 MH 7	Offset	-14 59 dBm	
Tx2 (Ref)	100.000 MHz	75.000 MHz	-12.41 dBm	
Tx3	100.000 MHz	99.600 MHz	-13.07 dBm	
Tx4	100.000 MHz	99.600 MHz	-13.54 dBm	
1x5	100.000 MHz	99.600 MHz	-13.42 dBm	
IX0 Ty7	100.000 MHz	99.600 MHZ	-12.99 dBm	
Tx Total	100.000-14112	55.000 Miliz	-4.81 dBm	
•				 Ready 04.10.2020 16:57:16

16:57:16 04.10.2020





Plot 7-264. EIRP Density (Ant D 50 MHz 2CC + 100 MHz BW 6CC QPSK High)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 179 of 466
8K20090901-R2.A3L	09/10/2020-10/08/2020	5G Access Unit		Page 178 01 466
© 2020 PCTEST.	•	•		PK-QP-16-09 Rev.02



7.3.5 MIMO EIRP Density

Antenna	Bandwidth	Configuration	Channel	CCs active	Modulation	Average e.i.r.p. PSD [dBm/100MHz]	PSD Limit [dBm/100MHz]	Margin [dB]
		1CC	Low	0	QPSK	50.53	75.00	24.47
		1CC	Low	0	16QAM	50.44	75.00	24.56
		1CC	Low	0	64QAM	50.52	75.00	24.48
		2CC	Low	0-1	QPSK	50.62	75.00	24.38
		2CC	Low	0-1	16QAM	50.61	75.00	24.39
		2CC	Low	0-1	64QAM	50.60	75.00	24.40
		1CC	Mid	4	QPSK	50.47	75.00	24.53
		1CC	Mid	4	16QAM	50.35	75.00	24.65
		1CC	Mid	4	64QAM	50.47	75.00	24.53
	50 MHZ	2CC	Mid	0-1	QPSK	50.51	75.00	24.49
		2CC	Mid	0-1	16QAM	50.56	75.00	24.44
		2CC	Mid	0-1	64QAM	50.58	75.00	24.42
		1CC	High	7	QPSK	51.05	75.00	23.95
		1CC	High	7	16QAM	50.96	75.00	24.04
		1CC	High	7	64QAM	51.01	75.00	23.99
		2CC	High	0-1	QPSK	51.17	75.00	23.83
		2CC	High	0-1	16QAM	51.08	75.00	23.92
		2CC	High	0-1	64QAM	51.09	75.00	23.91
		1CC	Low	0	QPSK	50.64	75.00	24.36
		1CC	Low	0	16QAM	50.58	75.00	24.40 20 24.53 20 24.65 20 24.65 20 24.49 20 24.49 20 24.44 20 24.42 20 23.95 20 23.95 20 23.99 20 23.91 20 23.91 20 24.36 20 24.37 20 24.37 20 26.62 20 24.74 20 24.58 20 24.58 20 24.58 20 24.51 20 26.67 20 26.63 20 24.74
		1CC	Low	0	64QAM	50.63	75.00	24.37
A + C		8CC	Low	0-7	QPSK	48.38	75.00	26.62
		8CC	Low	0-7	16QAM	48.35	75.00	26.65
		8CC	Low	0-7	64QAM	48.36	75.00	26.64
		1CC	Mid	4	QPSK	50.26	75.00	24.74
		1CC	Mid	4	16QAM	50.42	75.00	24.58
		1CC	Mid	4	64QAM	50.49	75.00	75.00 24.80 75.00 24.38 75.00 24.39 75.00 24.39 75.00 24.40 75.00 24.53 75.00 24.65 75.00 24.65 75.00 24.49 75.00 24.44 75.00 24.42 75.00 24.44 75.00 24.42 75.00 23.95 75.00 23.99 75.00 23.99 75.00 23.91 75.00 23.92 75.00 24.36 75.00 24.36 75.00 24.36 75.00 24.36 75.00 24.36 75.00 24.37 75.00 26.65 75.00 26.65 75.00 26.55 75.00 26.63 75.00 26.63 75.00 24.03 75.00 24.03 75.00
		8CC	Mid	0-7	QPSK	48.45	75.00 24.42 75.00 23.95 75.00 23.95 75.00 23.99 75.00 23.99 75.00 23.92 75.00 23.91 75.00 23.91 75.00 23.91 75.00 24.36 75.00 24.36 75.00 24.37 75.00 24.37 75.00 26.62 75.00 26.65 75.00 26.64 75.00 24.58 75.00 24.58 75.00 24.58 75.00 24.51 75.00 26.65 75.00 26.67 75.00 26.63 75.00 26.63 75.00 24.03 75.00 24.03 75.00 24.03 75.00 24.03 75.00 24.08 75.00 24.08 75.00 24.12 75.00	
		8CC	Mid	0-7	16QAM	48.33	75.00	26.67
		8CC	Mid	0-7	64QAM	48.37	75.00	26.63
	100 MHz	1CC	High	7	QPSK	50.97	75.00	24.03
		1CC	High	7	16QAM	50.88	75.00	24.12
		1CC	High	7	64QAM	50.92	75.00	24.08
		2CC	High	0-1	QPSK	50.73	75.00	24.27
		3CC	High	0-2	QPSK	51.09	75.00	24.42 23.95 24.04 23.99 23.83 23.91 24.36 24.42 24.37 26.62 26.65 26.65 26.64 24.74 24.58 24.51 26.65 26.63 24.03 24.12 24.03 24.12 24.08 24.27 23.91 23.76 24.68 25.46 26.12 26.18 26.20
		4CC	High	0-3	QPSK	51.24	75.00	
		5CC	High	0-4	QPSK	50.32	75.00	24.68
		6CC	High	0-5	QPSK	49.54	75.00	25.46
		7CC	High	0-6	QPSK	48.88	75.00	26.12
		8CC	High	0-7	QPSK	48.79	75.00	26.21
		8CC	High	0-7	16QAM	48.82	75.00	26.18
		8CC	High	0-7	64QAM	48.80	75.00	26.20

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

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 170 of 466	
8K20090901-R2.A3L	09/10/2020-10/08/2020	5G Access Unit	Page 179 of 466	
B ANNA DOTEOT			DK OD 10 00 Dev 02	



Antenna	Bandwidth	Configuration	Channel	CCs active	Modulation	Average e.i.r.p. PSD [dBm/100MHz]	PSD Limit [dBm/100MHz]	Margin [dB]
		1CC	Low	0	QPSK	50.23	75.00	24.77
		1CC	Low	0	16QAM	50.38	75.00	24.62
		1CC	Low	0	64QAM	50.46	75.00	24.54
		2CC	Low	0-1	QPSK	50.61	75.00	24.39
		2CC	Low	0-1	16QAM	50.58	75.00	24.42
		2CC	Low	0-1	64QAM	50.56	75.00	24.44
		1CC	Mid	4	QPSK	50.66	75.00	24.34
		1CC	Mid	4	16QAM	50.58	75.00	24.42
		1CC	Mid	4	64QAM	50.64	75.00	24.36
	50 MHZ	2CC	Mid	0-1	QPSK	50.84	75.00	24.16
		2CC	Mid	0-1	16QAM	50.79	75.00	24.21
		2CC	Mid	0-1	64QAM	50.77	75.00	24.23
		1CC	High	7	QPSK	50.82	75.00	24.18
		1CC	High	7	16QAM	50.63	75.00	24.37
		1CC	High	7	64QAM	50.78	75.00	24.22
		2CC	High	0-1	QPSK	50.94	75.00	24.06
		2CC	High	0-1	16QAM	50.89	75.00	24.11
		2CC	High	0-1	64QAM	50.86	75.00	24.14
		1CC	Low	0	QPSK	50.56	75.00	24.44
		1CC	Low	0	16QAM	50.52	75.00	24.48
		1CC	Low	0	64QAM	50.60	75.00	24.11 24.14 24.44 24.48 24.40 26.75 26.85 26.85 26.78 24.56
B + D		8CC	Low	0-7	QPSK	48.25	75.00	26.75
		8CC	Low	0-7	16QAM	48.15	75.00	26.85
		8CC	Low	0-7	64QAM	48.22	75.00	26.78
		1CC	Mid	4	QPSK	50.44	75.00	24.56
		1CC	Mid	4	16QAM	50.39	75.00	24.61
		1CC	Mid	4	64QAM	50.45	75.00	24.55
		8CC	Mid	0-7	QPSK	48.40	75.00	26.60
		8CC	Mid	0-7	16QAM	48.39	75.00	26.61
	100 1411	8CC	Mid	0-7	64QAM	48.42	75.00	26.58
	100 MHz	1CC	High	7	QPSK	50.51	75.00	24.49
		1CC	High	7	16QAM	50.39	75.00	24.61
		1CC	High	7	64QAM	50.47	75.00	24.53
		2CC	High	0-1	QPSK	50.79	75.00	24.21
		3CC	High	0-2	QPSK	51.10	75.00	23.90
		4CC	High	0-3	QPSK	51.02	75.00	23.98
		5CC	High	0-4	QPSK	50.26	75.00	24.74
		6CC	High	0-5	QPSK	49.44	75.00	25.56
		7CC	High	0-6	QPSK	48.80	75.00	26.20
		8CC	High	0-7	QPSK	48.54	75.00	26.46
		8CC	High	0-7	16QAM	48.57	75.00	26.43
		8CC	High	0-7	64QAM	48.62	75.00	26.38

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

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 190 of 466
8K20090901-R2.A3L	09/10/2020-10/08/2020	5G Access Unit	Fage 100 01 400



1CC Low 0 QPSK 53.39 75.00 21.61 1CC Low 0 16QAM 53.42 75.00 21.58 1CC Low 0 64QAM 53.50 75.00 21.50 2CC Low 0.1 QPSK 53.62 75.00 21.38 2CC Low 0.1 16QAM 53.60 75.00 21.40 2CC Low 0.1 16QAM 53.60 75.00 21.40 2CC Low 0.1 64QAM 53.59 75.00 21.40 2CC Low 0.1 64QAM 53.58 75.00 21.40 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 16QAM 53.57 75.00 21.43 2CC Mid 0.1 QPSK 53.69 75.00 21.31 2CC Mid 0.1 QPSK 53.69 75.00	Antenna	Bandwidth	Configuration	Channel	CCs active	Modulation	Average e.i.r.p. PSD [dBm/100MHz]	PSD Limit [dBm/100MHz]	Margin [dB]
1CC Low 0 16QAM 53.42 75.00 21.58 1CC Low 0 64QAM 53.50 75.00 21.50 2CC Low 0.1 QPSK 53.62 75.00 21.38 2CC Low 0.1 QPSK 53.62 75.00 21.40 2CC Low 0.1 16QAM 53.59 75.00 21.40 2CC Low 0.1 64QAM 53.59 75.00 21.41 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 GQAM 53.57 75.00 21.42 1CC Mid 0-1 QPSK 53.69 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00			1CC	Low	0	QPSK	53.39	75.00	21.61
1CC Low 0 64QAM 53.50 75.00 21.50 2CC Low 0-1 QPSK 53.62 75.00 21.38 2CC Low 0-1 16QAM 53.60 75.00 21.40 2CC Low 0-1 64QAM 53.59 75.00 21.40 2CC Low 0-1 64QAM 53.58 75.00 21.42 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 16QAM 53.48 75.00 21.42 1CC Mid 4 16QAM 53.48 75.00 21.42 1CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.69 75.00 21.32 1CC High 7 QPSK 53.95 75.00			1CC	Low	0	16QAM	53.42	75.00	21.58
2CC Low 0-1 QPSK 53.62 75.00 21.38 2CC Low 0-1 16QAM 53.60 75.00 21.40 2CC Low 0-1 64QAM 53.59 75.00 21.41 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 QPSK 53.58 75.00 21.52 1CC Mid 4 64QAM 53.57 75.00 21.43 1CC Mid 0-1 QPSK 53.69 75.00 21.43 1CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 GQAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 64QAM 53.91 75.00			1CC	Low	0	64QAM	53.50	75.00	21.50
2CC Low 0-1 16QAM 53.60 75.00 21.40 2CC Low 0-1 64QAM 53.59 75.00 21.41 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 16QAM 53.48 75.00 21.52 1CC Mid 4 64QAM 53.57 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 16QAM 53.81 75.00 21.05 1CC High 7 64QAM 53.91 75.00			2CC	Low	0-1	QPSK	53.62	75.00	21.38
2CC Low 0-1 64QAM 53.59 75.00 21.41 1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 16QAM 53.48 75.00 21.42 1CC Mid 4 64QAM 53.48 75.00 21.42 1CC Mid 4 64QAM 53.57 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00			2CC	Low	0-1	16QAM	53.60	75.00	21.40
1CC Mid 4 QPSK 53.58 75.00 21.42 1CC Mid 4 16QAM 53.48 75.00 21.52 1CC Mid 4 64QAM 53.57 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.69 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.91 75.00 21.09 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00			2CC	Low	0-1	64QAM	53.59	75.00	21.41
1CC Mid 4 16QAM 53.48 75.00 21.52 1CC Mid 4 64QAM 53.57 75.00 21.31 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.68 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.93 1CC High 7 16QAM 53.91 75.00 21.99 1CC High 7 64QAM 53.91 75.00 20.93 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00			1CC	Mid	4	QPSK	53.58	75.00	21.42
50 MHz 1CC Mid 4 64QAM 53.57 75.00 21.43 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.81 75.00 21.05 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 I6QAM 54.00 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.09			1CC	Mid	4	16QAM	53.48	75.00	21.52
SU MH2 2CC Mid 0-1 QPSK 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.81 75.00 21.19 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 I6QAM 54.00 75.00 20.93		50 MHz	1CC	Mid	4	64QAM	53.57	75.00	21.43
2CC Mid 0-1 16QAM 53.69 75.00 21.31 2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.81 75.00 21.19 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.09			2CC	Mid	0-1	QPSK	53.69	75.00	21.31
2CC Mid 0-1 64QAM 53.68 75.00 21.32 1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.81 75.00 21.19 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.09			2CC	Mid	0-1	16QAM	53.69	75.00	21.31
1CC High 7 QPSK 53.95 75.00 21.05 1CC High 7 16QAM 53.81 75.00 21.19 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.00			2CC	Mid	0-1	64QAM	53.68	75.00	21.32
1CC High 7 16QAM 53.81 75.00 21.19 1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.09			1CC	High	7	QPSK	53.95	75.00	21.05
1CC High 7 64QAM 53.91 75.00 21.09 2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.09			1CC	High	7	16QAM	53.81	75.00	21.19
2CC High 0-1 QPSK 54.07 75.00 20.93 2CC High 0-1 16QAM 54.00 75.00 21.00			1CC	High	7	64QAM	53.91	75.00	21.09
2CC High 0-1 16QAM 54.00 75.00 21.00			2CC	High	0-1	QPSK	54.07	75.00	20.93
			2CC	High	0-1	16QAM	54.00	75.00	21.00
2CC High 0-1 64QAM 53.98 75.00 21.02			2CC	High	0-1	64QAM	53.98	75.00	21.02
1CC Low 0 QPSK 53.61 75.00 21.39			1CC	Low	0	QPSK	53.61	75.00	21.39
1CC Low 0 16QAM 53.56 75.00 21.44			1CC	Low	0	16QAM	53.56	75.00	21.44
1CC Low 0 64QAM 53.62 75.00 21.38			1CC	Low	0	64QAM	53.62	75.00	21.38
A + B + C + D 8CC Low 0-7 QPSK 51.32 75.00 23.68	A + B + C + D		8CC	Low	0-7	QPSK	51.32	75.00	23.68
8CC Low 0-7 16QAM 51.26 75.00 23.74			8CC	Low	0-7	16QAM	51.26	75.00	23.74
8CC Low 0-7 64QAM 51.30 75.00 23.70			8CC	Low	0-7	64QAM	51.30	75.00	23.70
1CC Mid 4 QPSK 53.36 75.00 21.64			1CC	Mid	4	QPSK	53.36	75.00	21.64
1CC Mid 4 16QAM 53.42 75.00 21.58			1CC	Mid	4	16QAM	53.42	75.00	21.58
1CC Mid 4 64QAM 53.48 75.00 21.52			1CC	Mid	4	64QAM	53.48	75.00	21.52
8CC Mid 0-7 QPSK 51.44 75.00 23.56			8CC	Mid	0-7	QPSK	51.44	75.00	23.56
8CC Mid 0-7 16QAM 51.37 75.00 23.63			8CC	Mid	0-7	16QAM	51.37	75.00 21.44 75.00 21.38 75.00 23.68 75.00 23.74 75.00 23.70 75.00 23.70 75.00 21.58 75.00 21.52 75.00 23.56 75.00 23.63	
8CC Mid 0-7 64QAM 51.41 75.00 23.59			8CC	Mid	0-7	64QAM	51.41	75.00	23.59
100 MHz 1CC High 7 QPSK 53.75 75.00 21.25		100 MHz	1CC	High	7	QPSK	53.75	75.00	21.25
1CC High 7 16QAM 53.65 75.00 21.35			1CC	High	7	16QAM	53.65	75.00	21.35
1CC High 7 64QAM 53.71 75.00 21.29			1CC	High	7	64QAM	53.71	75.00	21.29
2CC High 0-1 QPSK 53.77 75.00 21.23			2CC	High	0-1	QPSK	53.77	75.00	21.23
3CC High 0-2 QPSK 54.11 75.00 20.89			3CC	High	0-2	QPSK	54.11	75.00	20.89
4CC High 0-3 QPSK 54.14 75.00 20.86			4CC	High	0-3	QPSK	54.14	75.00	20.86
5CC High 0-4 QPSK 53.30 75.00 21.70			5CC	High	0-4	QPSK	53.30	75.00	21.40 21.41 21.42 21.52 21.52 21.31 21.31 21.31 21.31 21.31 21.31 21.31 21.31 21.31 21.31 21.31 21.32 21.05 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.09 21.39 21.44 21.38 23.68 23.70 21.52 23.63 21.52 23.63 23.56 23.63 21.25 21.25 21.25 21.25 21.23 20.88 21.70 22.50 23.15
6CC High 0-5 QPSK 52.50 75.00 22.50			6CC	High	0-5	QPSK	52.50	75.00	22.50
7CC High 0-6 QPSK 51.85 75.00 23.15			7CC	High	0-6	QPSK	51.85	75.00	23.15
8CC High 0-7 QPSK 51.67 75.00 23.33			8CC	Hiah	0-7	QPSK	51.67	75.00	23.33
8CC High 0-7 16QAM 51.71 75.00 23.29			8CC	Hiah	0-7	16QAM	51.71	75.00	23.29
8CC High 0-7 64QAM 51.72 75.00 23.28			8CC	High	0-7	64QAM	51.72	75.00	23.28

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

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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 $\geq 2 \times \text{span} / \text{RBW}$
- 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

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- 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: $R \ge 2D^2/wavelength$.
- 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:

EIRP (dBm) = E (dB μ V/m) + 20log(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 3.19 m, so the effective correction is:

EIRP (dBm) = E (dBuV/m) - 94.72 dB

= Analyzer Level (dBm) + AFCL (dB/m) + 107 dB - 94.72 dB

= Analyzer Level (dBm) + AFCL (dB/m) + 12.28 dB

6) The conducted average power over the full channel BW is calculated as follows:

Conducted Average Power (dBm) = Average EIRP (dBm) - Antenna Gain (dBi)

- 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.
- CCs active 0, 4, 7 = 1 Components Carriers Active, 0-7 = 8 Component Carriers Active. 0-7(NC) = 8 Noncontiguous Component Carriers Active. Each component carrier's bandwidth is either of 50 MHz or 100 MHz Bandwidth.

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7.4.1 Antenna A Conducted Power

Antenna	Bandwidth	Chan.	CCs active	Modulation	Horn Angle	Horn Height	Turntable Azimuth	Analyzer Level (Total Pwr)	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[degrees]	[cm]	[degrees]	[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
		Low	0	QPSK	135.0	156	54	-12.99	57.65	28.12	44.66	16.54
		Low	0	16QAM	135.0	156	54	-13.10	57.65	28.12	44.55	16.43
		Low	0	64QAM	135.0	156	54	-12.99	57.65	28.12	44.66	16.54
		Low	0-1	QPSK	135.0	156	54	-12.85	57.65	28.12	44.80	16.68
		Low	0-1	16QAM	135.0	156	54	-12.83	57.65	28.12	44.82	16.70
Antenna		Low	0-1	64QAM	135.0	156	54	-12.83	57.65	28.12	44.82	16.70
		Mid	4	QPSK	135.0	156	54	-13.14	57.74	28.18	44.60	16.42
		Mid	4	16QAM	135.0	156	54	-13.31	57.74	28.18	44.43	16.25
	50	Mid	4	64QAM	135.0	156	54	-13.17	57.74	28.18	44.57	16.39
	50	Mid	0-1	QPSK	135.0	156	54	-13.12	57.74	28.18	44.62	16.44
		Mid	0-1	16QAM	135.0	156	54	-13.09	57.74	28.18	44.65	16.47
		Mid	0-1	64QAM	135.0	156	54	-13.05	57.74	28.18	44.69	16.51
		High	7	QPSK	135.0	156	54	-12.95	58.09	28.33	45.14	16.81
		High	7	16QAM	135.0	156	54	-13.07	58.09	28.33	45.02	16.69
		High	7	64QAM	135.0	156	54	-12.97	58.09	28.33	45.12	16.79
		High	0-1	QPSK	135.0	156	54	-12.86	58.09	28.33	45.23	16.90
		High	0-1	16QAM	135.0	156	54	-12.95	58.09	28.33	45.14	16.81
		High	0-1	64QAM	135.0	156	54	-12.94	58.09	28.33	45.15	16.82
		Low	0	QPSK	135.0	156	54	-9.98	57.65	28.12	47.67	19.55
		Low	0	16QAM	135.0	156	54	-10.05	57.65	28.12	47.60	19.48
		Low	0	64QAM	135.0	156	54	-9.99	57.65	28.12	47.66	19.54
A		Low	0-7	QPSK	135.0	156	54	-12.01	57.65	28.12	45.64	17.52
		Low	0-7	16QAM	135.0	156	54	-12.06	57.65	28.12	45.59	17.47
		Low	0-7	64QAM	135.0	156	54	-12.06	57.65	28.12	45.59	17.47
		Mid	4	QPSK	135.0	156	54	-10.50	57.74	28.18	47.24	19.06
		Mid	4	16QAM	135.0	156	54	-10.11	57.74	28.18	47.63	19.45
		Mid	4	64QAM	135.0	156	54	-10.04	57.74	28.18	47.70	19.52
		Mid	0-7	QPSK	135.0	156	54	-11.99	57.74	28.18	45.75	17.57
		Mid	0-7	16QAM	135.0	156	54	-12.24	57.74	28.18	45.50	17.32
	400	Mid	0-7	64QAM	135.0	156	54	-12.18	57.74	28.18	45.56	17.38
	100	High	7	QPSK	135.0	156	54	-10.23	58.09	28.33	47.86	19.53
		High	7	16QAM	135.0	156	54	-10.33	58.09	28.33	47.76	19.43
		High	7	64QAM	135.0	156	54	-10.30	58.09	28.33	47.79	19.46
		High	0-1	QPSK	135.0	156	54	-10.21	58.09	28.33	47.88	19.55
		High	0-2	QPSK	135.0	156	54	-9.78	58.09	28.33	48.31	19.98
		High	0-3	QPSK	135.0	156	54	-9.61	58.09	28.33	48.48	20.15
		High	0-4	QPSK	135.0	156	54	-10.45	58.09	28.33	47.64	19.32
		High	0-5	QPSK	135.0	156	54	-11.26	58.09	28.33	46.83	18.51
		High	0-6	QPSK	135.0	156	54	-11.94	58.09	28.33	46.15	17.83
		High	0-7	QPSK	135.0	156	54	-12.79	58.09	28.33	45.30	16.97
		High	0-7	16QAM	135.0	156	54	-12.53	58.09	28.33	45.56	17.23
		High	0-7	64QAM	135.0	156	54	-12.73	58.09	28.33	45.36	17.03

Table 7-14. Antenna A Conducted Power Summary Data

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7.4.2 Antenna B Conducted Power

Antenna	Bandwidth	Chan.	CCs active	Modulation	Horn Angle	Horn Height	Turntable Azimuth	Analyzer Level (Total Pwr)	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[degrees]	[cm]	[degrees]	[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
		Low	0	QPSK	45.0	1.44	52	-13.41	57.65	28.12	44.24	16.12
		Low	0	16QAM	45.0	1.44	52	-13.15	57.65	28.12	44.50	16.38
		Low	0	64QAM	45.0	1.44	52	-13.08	57.65	28.12	44.57	16.45
		Low	0-1	QPSK	45.0	1.44	52	-12.78	57.65	28.12	44.87	16.75
		Low	0-1	16QAM	45.0	1.44	52	-12.82	57.65	28.12	44.83	16.71
		Low	0-1	64QAM	45.0	1.44	52	-12.83	57.65	28.12	44.82	16.70
		Mid	4	QPSK	45.0	1.44	52	-13.19	57.74	28.18	44.55	16.36
		Mid	4	16QAM	45.0	1.44	52	-13.31	57.74	28.18	44.43	16.24
	50	Mid	4	64QAM	45.0	1.44	52	-13.26	57.74	28.18	44.48	16.30
	50	Mid	0-1	QPSK	45.0	1.44	52	-12.91	57.74	28.18	44.83	16.65
		Mid	0-1	16QAM	45.0	1.44	52	-12.94	57.74	28.18	44.80	16.62
		Mid	0-1	64QAM	45.0	1.44	52	-12.98	57.74	28.18	44.76	16.58
		High	7	QPSK	45.0	1.44	52	-13.38	58.09	28.33	44.71	16.38
		High	7	16QAM	45.0	1.44	52	-13.49	58.09	28.33	44.60	16.27
		High	7	64QAM	45.0	1.44	52	-13.41	58.09	28.33	44.68	16.35
		High	0-1	QPSK	45.0	1.44	52	-13.20	58.09	28.33	44.89	16.56
		High	0-1	16QAM	45.0	1.44	52	-13.24	58.09	28.33	44.85	16.52
		High	0-1	64QAM	45.0	1.44	52	-13.28	58.09	28.33	44.81	16.49
		Low	0	QPSK	45.0	1.44	52	-9.91	57.65	28.12	47.74	19.62
		Low	0	16QAM	45.0	1.44	52	-9.96	57.65	28.12	47.69	19.57
Б		Low	0	64QAM	45.0	1.44	52	-9.90	57.65	28.12	47.75	19.63
Б		Low	0-7	QPSK	45.0	1.44	52	-12.45	57.65	28.12	45.20	17.08
		Low	0-7	16QAM	45.0	1.44	52	-12.56	57.65	28.12	45.09	16.97
		Low	0-7	64QAM	45.0	1.44	52	-12.47	57.65	28.12	45.18	17.06
		Mid	4	QPSK	45.0	1.44	52	-10.36	57.74	28.18	47.38	19.20
		Mid	4	16QAM	45.0	1.44	52	-10.39	57.74	28.18	47.35	19.16
		Mid	4	64QAM	45.0	1.44	52	-10.33	57.74	28.18	47.41	19.23
		Mid	0-7	QPSK	45.0	1.44	52	-12.35	57.74	28.18	45.39	17.21
		Mid	0-7	16QAM	45.0	1.44	52	-12.41	57.74	28.18	45.33	17.15
	100	Mid	0-7	64QAM	45.0	1.44	52	-12.38	57.74	28.18	45.36	17.18
	100	High	7	QPSK	45.0	1.44	52	-10.55	58.09	28.33	47.54	19.21
		High	7	16QAM	45.0	1.44	52	-10.63	58.09	28.33	47.46	19.13
		High	7	64QAM	45.0	1.44	52	-10.56	58.09	28.33	47.53	19.20
		High	0-1	QPSK	45.0	1.44	52	-10.64	58.09	28.33	47.45	19.12
		High	0-2	QPSK	45.0	1.44	52	-10.25	58.09	28.33	47.84	19.52
		High	0-3	QPSK	45.0	1.44	52	-10.12	58.09	28.33	47.97	19.64
		High	0-4	QPSK	45.0	1.44	52	-11.13	58.09	28.33	46.96	18.63
		High	0-5	QPSK	45.0	1.44	52	-11.92	58.09	28.33	46.17	17.85
		High	0-6	QPSK	45.0	1.44	52	-12.43	58.09	28.33	45.66	17.34
		High	0-7	QPSK	45.0	1.44	52	-12.52	58.09	28.33	45.57	17.24
		High	0-7	16QAM	45.0	1.44	52	-12.52	58.09	28.33	45.57	17.24
		High	0-7	64QAM	45.0	1.44	52	-12.52	58.09	28.33	45.57	17.25

Table 7-15. Antenna B Conducted Power Summary Data

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7.4.3 Antenna C Conducted Power

Antenna	Bandwidth	Chan.	CCs active	Modulation	Horn Angle	Horn Height	Turntable Azimuth	Analyzer Level (Total Pwr)	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[degrees]	[cm]	[degrees]	[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
		Low	0	QPSK	135.0	156	55	-13.29	57.65	28.12	44.36	16.24
		Low	0	16QAM	135.0	156	55	-13.36	57.65	28.12	44.29	16.17
		Low	0	64QAM	135.0	156	55	-13.32	57.65	28.12	44.33	16.21
		Low	0-1	QPSK	135.0	156	55	-13.25	57.65	28.12	44.40	16.28
		Low	0-1	16QAM	135.0	156	55	-13.30	57.65	28.12	44.35	16.23
		Low	0-1	64QAM	135.0	156	55	-13.32	57.65	28.12	44.33	16.21
		Mid	4	QPSK	135.0	156	55	-13.44	57.74	28.18	44.30	16.12
		Mid	4	16QAM	135.0	156	55	-13.50	57.74	28.18	44.24	16.06
	50	Mid	4	64QAM	135.0	156	55	-13.41	57.74	28.18	44.33	16.15
	50	Mid	0-1	QPSK	135.0	156	55	-13.39	57.74	28.18	44.35	16.17
		Mid	0-1	16QAM	135.0	156	55	-13.30	57.74	28.18	44.44	16.26
		Mid	0-1	64QAM	135.0	156	55	-13.32	57.74	28.18	44.42	16.24
		High	7	QPSK	135.0	156	55	-13.16	58.09	28.33	44.93	16.61
		High	7	16QAM	135.0	156	55	-13.23	58.09	28.33	44.86	16.53
		High	7	64QAM	135.0	156	55	-13.23	58.09	28.33	44.86	16.54
		High	0-1	QPSK	135.0	156	55	-13.01	58.09	28.33	45.08	16.76
		High	0-1	16QAM	135.0	156	55	-13.10	58.09	28.33	44.99	16.66
		High	0-1	64QAM	135.0	156	55	-13.20	58.09	28.33	44.89	16.56
		Low	0	QPSK	135.0	156	55	-10.05	57.65	28.12	47.60	19.48
		Low	0	16QAM	135.0	156	55	-10.11	57.65	28.12	47.54	19.42
0		Low	0	64QAM	135.0	156	55	-10.07	57.65	28.12	47.58	19.46
C		Low	0-7	QPSK	135.0	156	55	-12.57	57.65	28.12	45.08	16.96
		Low	0-7	16QAM	135.0	156	55	-12.58	57.65	28.12	45.07	16.95
		Low	0-7	64QAM	135.0	156	55	-12.55	57.65	28.12	45.10	16.98
		Mid	4	QPSK	135.0	156	55	-10.47	57.74	28.18	47.27	19.09
		Mid	4	16QAM	135.0	156	55	-10.56	57.74	28.18	47.18	19.00
		Mid	4	64QAM	135.0	156	55	-10.49	57.74	28.18	47.25	19.07
		Mid	0-7	QPSK	135.0	156	55	-12.63	57.74	28.18	45.11	16.93
		Mid	0-7	16QAM	135.0	156	55	-12.60	57.74	28.18	45.14	16.96
	100	Mid	0-7	64QAM	135.0	156	55	-12.58	57.74	28.18	45.16	16.98
	100	High	7	QPSK	135.0	156	55	-10.03	58.09	28.33	48.06	19.74
		High	7	16QAM	135.0	156	55	-10.11	58.09	28.33	47.98	19.65
		High	7	64QAM	135.0	156	55	-10.05	58.09	28.33	48.04	19.71
		High	0-1	QPSK	135.0	156	55	-10.53	58.09	28.33	47.56	19.23
		High	0-2	QPSK	135.0	156	55	-10.24	58.09	28.33	47.85	19.52
		High	0-3	QPSK	135.0	156	55	-10.13	58.09	28.33	47.96	19.63
		High	0-4	QPSK	135.0	156	55	-11.14	58.09	28.33	46.95	18.62
		High	0-5	QPSK	135.0	156	55	-11.87	58.09	28.33	46.22	17.89
		High	0-6	QPSK	135.0	156	55	-12.51	58.09	28.33	45.58	17.25
		High	0-7	QPSK	135.0	156	55	-12.48	58.09	28.33	45.61	17.28
		High	0-7	16QAM	135.0	156	55	-12.49	58.09	28.33	45.60	17.27
		High	0-7	64QAM	135.0	156	55	-12.56	58.09	28.33	45.53	17.21

Table 7-16. Antenna C Conducted Power Summary Data

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.4.4 Antenna D Conducted Power

Antenna	Bandwidth	Chan.	CCs active	Modulation	Horn Angle	Horn Height	Turntable Azimuth	Analyzer Level (Total Pwr)	AFCL	EUT Antenna Gain	Average e.i.r.p.	Conducted Average Power
	[MHz]				[degrees]	[cm]	[degrees]	[dBm]	[dB/m]	[dBi]	[dBm]	[dBm]
		Low	0	QPSK	45.0	1.44	51	-13.47	57.65	28.12	44.18	16.06
		Low	0	16QAM	45.0	1.44	51	-13.42	57.65	28.12	44.23	16.11
		Low	0	64QAM	45.0	1.44	51	-13.34	57.65	28.12	44.31	16.19
		Low	0-1	QPSK	45.0	1.44	51	-13.36	57.65	28.12	44.29	16.17
		Low	0-1	16QAM	45.0	1.44	51	-13.38	57.65	28.12	44.27	16.15
		Low	0-1	64QAM	45.0	1.44	51	-13.40	57.65	28.12	44.25	16.13
		Mid	4	QPSK	45.0	1.44	51	-13.01	57.74	28.18	44.73	16.55
		Mid	4	16QAM	45.0	1.44	51	-13.04	57.74	28.18	44.70	16.52
	50	Mid	4	64QAM	45.0	1.44	51	-12.97	57.74	28.18	44.77	16.59
	50	Mid	0-1	QPSK	45.0	1.44	51	-12.92	57.74	28.18	44.82	16.64
		Mid	0-1	16QAM	45.0	1.44	51	-12.99	57.74	28.18	44.75	16.57
		Mid	0-1	64QAM	45.0	1.44	51	-13.00	57.74	28.18	44.74	16.56
		High	7	QPSK	45.0	1.44	51	-13.19	58.09	28.33	44.90	16.57
		High	7	16QAM	45.0	1.44	51	-13.47	58.09	28.33	44.62	16.30
		High	7	64QAM	45.0	1.44	51	-13.25	58.09	28.33	44.84	16.51
		High	0-1	QPSK	45.0	1.44	51	-13.14	58.09	28.33	44.95	16.62
		High	0-1	16QAM	45.0	1.44	51	-13.20	58.09	28.33	44.89	16.56
		High	0-1	64QAM	45.0	1.44	51	-13.22	58.09	28.33	44.87	16.54
		Low	0	QPSK	45.0	1.44	51	-10.29	57.65	28.12	47.36	19.24
		Low	0	16QAM	45.0	1.44	51	-10.32	57.65	28.12	47.33	19.21
		Low	0	64QAM	45.0	1.44	51	-10.22	57.65	28.12	47.43	19.31
D		Low	0-7	QPSK	45.0	1.44	51	-12.37	57.65	28.12	45.28	17.16
		Low	0-7	16QAM	45.0	1.44	51	-12.46	57.65	28.12	45.19	17.07
		Low	0-7	64QAM	45.0	1.44	51	-12.41	57.65	28.12	45.24	17.12
		Mid	4	QPSK	45.0	1.44	51	-10.26	57.74	28.18	47.48	19.30
		Mid	4	16QAM	45.0	1.44	51	-10.32	57.74	28.18	47.42	19.24
		Mid	4	64QAM	45.0	1.44	51	-10.27	57.74	28.18	47.47	19.29
		Mid	0-7	QPSK	45.0	1.44	51	-12.34	57.74	28.18	45.40	17.22
		Mid	0-7	16QAM	45.0	1.44	51	-12.30	57.74	28.18	45.44	17.26
	400	Mid	0-7	64QAM	45.0	1.44	51	-12.28	57.74	28.18	45.46	17.27
	100	High	7	QPSK	45.0	1.44	51	-10.63	58.09	28.33	47.46	19.13
		High	7	16QAM	45.0	1.44	51	-10.78	58.09	28.33	47.31	18.98
		High	7	64QAM	45.0	1.44	51	-10.69	58.09	28.33	47.40	19.07
		High	0-1	QPSK	45.0	1.44	51	-10.00	58.09	28.33	48.09	19.76
		High	0-2	QPSK	45.0	1.44	51	-9.75	58.09	28.33	48.34	20.01
		High	0-3	QPSK	45.0	1.44	51	-10.04	58.09	28.33	48.05	19.72
		High	0-4	QPSK	45.0	1.44	51	-10.57	58.09	28.33	47.52	19.20
		High	0-5	QPSK	45.0	1.44	51	-11.40	58.09	28.33	46.69	18.36
		High	0-6	QPSK	45.0	1.44	51	-12.17	58.09	28.33	45.92	17.59
		High	0-7	QPSK	45.0	1.44	51	-12.60	58.09	28.33	45.49	17.16
		High	0-7	16QAM	45.0	1.44	51	-12.53	58.09	28.33	45.56	17.23
		High	0-7	64QAM	45.0	1.44	51	-12.44	58.09	28.33	45.65	17.32

Table 7-17. Antenna D Conducted Power Summary Data

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.4.5 Conducted Total Power (Summed Across All Antennas)

Antenna	Bandwidth	Chan.	CCs active	Modulation	Ant A	Ant B	Ant C	Ant D	Average e.i.r.p.	Conducted Average Power
	[MHz]				[dBm]	[dBm]	[dBm]	[dBm]	[dBm]	[dBm]
		Low	0	QPSK	16.54	16.12	16.24	16.06	50.38	22.25
		Low	0	16QAM	16.43	16.38	16.17	16.11	50.42	22.28
		Low	0	64QAM	16.54	16.45	16.21	16.19	50.49	22.38
		Low	0-1	QPSK	16.68	16.75	16.28	16.17	50.62	22.48
		Low	0-1	16QAM	16.70	16.71	16.23	16.15	50.60	22.48
		Low	0-1	64QAM	16.70	16.70	16.21	16.13	50.58	22.48
		Mid	4	QPSK	16.42	16.36	16.12	16.55	50.57	22.38
		Mid	4	16QAM	16.25	16.24	16.06	16.52	50.47	22.28
	50	Mid	4	64QAM	16.39	16.30	16.15	16.59	50.56	22.41
	50	Mid	0-1	QPSK	16.44	16.65	16.17	16.64	50.68	22.48
		Mid	0-1	16QAM	16.47	16.62	16.26	16.57	50.68	22.48
		Mid	0-1	64QAM	16.51	16.58	16.24	16.56	50.68	22.48
		High	7	QPSK	16.81	16.38	16.61	16.57	50.94	22.60
		High	7	16QAM	16.69	16.27	16.53	16.30	50.80	22.48
		High	7	64QAM	16.79	16.35	16.54	16.51	50.90	22.58
		High	0-1	QPSK	16.90	16.56	16.76	16.62	51.06	22.72
		High	0-1	16QAM	16.81	16.52	16.66	16.56	50.99	22.65
		High	0-1	64QAM	16.82	16.49	16.56	16.54	50.95	22.62
		Low	0	QPSK	19.55	19.62	19.48	19.24	53.62	25.50
		Low	0	16QAM	19.48	19.57	19.42	19.21	53.56	25.44
		Low	0	64QAM	19.54	19.63	19.46	19.31	53.63	25.50
A + B + C + D		Low	0-7	QPSK	17.52	17.08	16.96	17.16	51.33	23.20
		Low	0-7	16QAM	17.47	16.97	16.95	17.07	51.26	23.16
		Low	0-7	64QAM	17.47	17.06	16.98	17.12	51.30	23.20
		Mid	4	QPSK	19.06	19.20	19.09	19.30	53.36	25.19
		Mid	4	16QAM	19.45	19.16	19.00	19.24	53.42	25.22
		Mid	4	64QAM	19.52	19.23	19.07	19.29	53.48	25.31
		Mid	0-7	QPSK	17.57	17.21	16.93	17.22	51.44	23.26
		Mid	0-7	16QAM	17.32	17.15	16.96	17.26	51.38	23.20
		Mid	0-7	64QAM	17.38	17.18	16.98	17.27	51.41	23.23
	100	High	7	QPSK	19.53	19.21	19.74	19.13	53.76	25.43
		High	7	16QAM	19.43	19.13	19.65	18.98	53.66	25.33
		High	7	64QAM	19.46	19.20	19.71	19.07	53.72	25.39
		High	0-1	QPSK	19.55	19.12	19.23	19.76	53.77	25.44
		High	0-2	QPSK	19.98	19.52	19.52	20.01	54.11	25.78
		High	0-3	QPSK	20.15	19.64	19.63	19.72	54.14	25.81
		High	0-4	QPSK	19.32	18.63	18.62	19.20	53.30	24.97
		High	0-5	QPSK	18.51	17.85	17.89	18.36	52.51	24.18
		High	0-6	QPSK	17.83	17.34	17.25	17.59	51.85	23.53
		High	0-7	QPSK	16.97	17.24	17.28	17.16	51.51	23.18
		High	0-7	16QAM	17.23	17.24	17.27	17.23	51.59	23.26
		High	0-7	64QAM	17.03	17.25	17.21	17.32	51.55	23.22

Table 7-18. Conducted Total Power Summary Data

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7.5 Radiated Spurious and Harmonic Emissions §2.1051 §30.203

Test Overview

All out of band emissions were scanned from 30 MHz to 100 GHz for n261. Emissions are measured in a radiated test 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. 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 = 1 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) 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. See Table 3-1 for distances used for measurements based on theoretical far field distance.
- 3) All appropriate Antenna Factors, Cable Losses, and Mixer Conversion Losses have been applied as an offset in the spectrum analyzer for each measurement.
- 4) 1CC = 1 Components Carriers Active, 2CC = 2 Component Carriers Active. 2CC NC = 2 Non-contiguous Component Carriers Active. Each component carrier's bandwidth is 50 MHz.
- 5) 1CC = 1 Components Carriers Active, 8CC = 8 Component Carriers Active. 8CC NC = 8 Non-contiguous Component Carriers Active. Each component carrier's bandwidth is 100 MHz.
- 6) 2CC = 2 Components Carriers Active, 8CC = 8 Component Carriers Active. 8CC NC = 8 Non-contiguous Component Carriers Active. Each component carrier's mixed bandwidth is 50 MHz + 100 MHz.
- 7) Ch. is stands for Channel, Final is stands for Final measurement.

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- 8) The angle of the horn antenna was rotated to maximize and find the worst case emissions. The worst case is reported in this section.
- 9) Spurious emissions were measured with all EUT antennas transmitting simultaneously.
- 10) Some frequency points exceed the limit which requires to investigate with TRP method for this spurious emission evaluation according to 4.4 Unwanted Emission Measurements of KDB 842590 D01.
- 11) No emissions were found below 1 GHz.
- 12) Lower and Upper Band Edge range also has been tested for investigation purpose.
- 13) All radiated spurious emissions were measured as EIRP to compare with the §30.203 TRP limits.
- 14) The plots from 1-100 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; EIRP (dBm) = E (dB μ V/m) + 20log(D) 104.8; where D is the measurement distance (in the far field region) in m. The field strength E is calculated E (dB μ V/m) = Spectrum Analyzer Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + 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.
- 15) Emission below 18 GHz were measured at a 3 M 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/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.

Frequency Range [GHz]	Wavelength [cm]	Far Field Distance [m]	Measurements Distance [m]
18 to 40	0.749	3.19	3.19
40 to 60	0.500	1.39	3.19
60 to 90	0.333	0.91	3.19
90 to 100	0.214	0.58	2.00

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

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 Dcyl) using Equations (A.1) and (A.2) (see Appendix A).

d) For the highest frequency (smallest wavelength) of the frequency band measured, calculate the reference angular steps $\Delta\theta\theta$ ref and $\Delta\phi\phi$ ref using Equations (A.3) and (A.4).

e) Set the grid spatial sampling step $\Delta\theta\theta \leq \Delta\theta\theta$ ref for the vertical angle and $\Delta\phi\phi \leq \Delta\phi\phi$ ref for the horizontal cut.

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).

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







Plot 7-266. RSE 30 MHz - 1 GHz (100 MHz BW 4CC CC QPSK Low Ant. Pol. V)

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Plot 7-268. RSE 30 MHz - 1 GHz (100 MHz BW 4CC CC QPSK Mid Ant. Pol. V)

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Plot 7-273. RSE 30 MHz - 1 GHz (100 MHz BW 8CC CC QPSK Mid Ant. Pol. H)



Plot 7-274. RSE 30 MHz - 1 GHz (100 MHz BW 8CC CC QPSK Mid Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-277. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Pol. H)



Plot 7-278. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-279. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Mid Ant. Pol. H)



Plot 7-280. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Mid Ant. Pol. V)

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Plot 7-281. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK High Ant. Pol. H)



Plot 7-282. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK High Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-283. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Pol. H)



Plot 7-284. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-285. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Mid Ant. Pol. H)



Plot 7-286. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Mid Ant. Pol. V)

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Plot 7-287. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK High Ant. Pol. H)



Plot 7-288. RSE 30 MHz – 1 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK High Ant. Pol. V)

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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.

Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol [H/V]	Antenna Height [cm]	Turn Table Azimuth [degree]	Analyzer Level [dBm]	AFCL [dBm]	Field Strength [dBµV/m]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
135.21	Mid	CC0- CC7(C)	QPSK	н	300	160	-83.22	18.32	42.10	-53.16	-13.00	40.16
175.35	Mid	CC0- CC7(C)	QPSK	н	300	160	-82.40	15.77	40.37	-54.89	-13.00	41.89
265.66	Mid	CC0- CC7(C)	QPSK	v	300	210	-73.79	19.49	52.70	-42.56	-13.00	29.56
813.55	Mid	CC0- CC7(C)	QPSK	н	200	340	-83.65	24.19	47.54	-47.72	-13.00	34.72
832.91	Mid	CC0- CC7(C)	QPSK	v	200	340	-84.00	24.39	47.39	-47.87	-13.00	34.87
913.38	Mid	CC0- CC7(C)	QPSK	н	200	340	-83.19	25.21	48.89	-46.24	-13.00	33.24

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(D_m) - 104.8

 Table 7-20.
 2Tx-Spurious Emissions (30 MHz to 1GHz)

<u>Notes</u>

The RSE EIRP level is taken directly from the spectrum analyzer which includes the appropriate antenna factors, cable losses, and harmonic mixer conversion 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 7-290. RSE 1 GHz - 18 GHz (100 MHz BW 4CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-292. RSE 1 GHz - 18 GHz (100 MHz BW 4CC CC QPSK Mid Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	G	Approved by: Quality Manager
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Plot 7-294. RSE 1 GHz - 18 GHz (100 MHz BW 4CC CC QPSK High Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-296. RSE 1 GHz - 18 GHz (100 MHz BW 8CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-297. RSE 1 GHz – 18 GHz (100 MHz BW 8CC CC QPSK Mid Ant. Pol. H)



Plot 7-298. RSE 1 GHz - 18 GHz (100 MHz BW 8CC CC QPSK Mid Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-300. RSE 1 GHz - 18 GHz (100 MHz BW 8CC CC QPSK High Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 200 of 466
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Plot 7-301. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Pol. H)



Plot 7-302. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	AMSUNG	Approved by: Quality Manager
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Plot 7-303. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Mid Ant. Pol. H)



Plot 7-304. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK Mid Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 211 of 466
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Plot 7-305. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK High Ant. Pol. H)



Plot 7-306. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 3CC CC QPSK High Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	MSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 212 of 466
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Plot 7-307. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Pol. H)



Plot 7-308. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	MSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 212 of 466
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Plot 7-309. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Mid Ant. Pol. H)



Plot 7-310. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK Mid Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 014 of 466
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Plot 7-311. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK High Ant. Pol. H)



Plot 7-312. RSE 1 GHz – 18 GHz (50 MHz 2CC + 100 MHz BW 6CC CC QPSK High Ant. Pol. V)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 015 of 400
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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.

Frequency [MHz]	Channel	CC Active	Mod.	Ant. Pol [H/V]	Antenna Height [cm]	Turn Table Azimuth [degree]	Analyzer Level [dBm]	AFCL [dBm]	Field Strength [dBµV/m]	RSE EIRP [dBm]	Limit [dBm]	Margin [dB]
12870.73	High	CC0- CC7(C)	QPSK	v	150	100	-76.89	26.83	56.90	-38.32	-13.00	25.32
14971.21	High	CC0- CC7(C)	QPSK	v	150	100	-74.89	27.74	59.90	-35.41	-13.00	22.41
16805.23	High	CC0- CC7(C)	QPSK	v	150	100	-72.71	25.62	59.90	-35.35	-13.00	22.35
17161.68	High	CC0- CC7(C)	QPSK	v	150	260	-73.88	26.76	59.90	-35.38	-13.00	22.38
17624.12	High	CC0- CC7(C)	QPSK	v	150	260	-74.15	30.80	63.60	-31.61	-13.00	18.61
17967.41	High	CC0- CC7(C)	QPSK	н	150	300	-75.11	34.14	69.00	-29.23	-13.00	16.23

RSE EIRP [dBm] = Analyzer Level [dBm] + AFCL [dB/m] + 107 + 20Log(Dm) - 104.8

 Table 7-21.
 2Tx-Spurious Emissions (1 GHz to 18 GHz)

<u>Notes</u>

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

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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7.5.3 Radiated Spurious Emissions Plots (18 GHz to 27.5 GHz)





Plot 7-313. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC CC QPSK Low Ant. Angle 45)

Plot 7-314. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC CC QPSK Low Ant. Angle 45, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-315. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC CC QPSK Low Ant. Angle 135)



17:48:01 06.10.2020

Plot 7-316. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC CC QPSK Low Ant. Angle 135, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-318. RSE 18 GHz - 27.5 GHz (100 MHz BW 4CC NC QPSK Low Ant. Angle 45)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-319. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC NC QPSK Low Ant. Angle 45, Final)



Plot 7-320. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC NC QPSK Low Ant. Angle 135)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-321. RSE 18 GHz – 27.5 GHz (100 MHz BW 4CC NC QPSK Low Ant. Angle 135, Final)





FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-324. RSE 18 GHz – 27.5 GHz (100 MHz BW 8CC CC QPSK Low Ant. Angle 45, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 222 of 466
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MultiView 🕂 Spectrum			•
Ref Level 20.00 dBm Offset : Att 5 dB SWT TDF "Part30 AF", "Part30 CL"	11.46 dB ● RBW 1 MHz 38 ms ● VBW 3 MHz Mode Auto Sweep		SGL Count 100/100
1 Frequency Sweep			●1Rm Max
Limit Check Line FCC Part 30	FÁIL FÁIL		M1[1] 12.51 dBm 27.499250 GHz
10 dBm			
0.10			
U abri-			
-10 dBm-			and a state of the
FCC Part 30		k a je tri ji bili na na na si si si ka	
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-30 dBm-			
-40 dBm-			
-50 dBm-			
-60 dBm-			
-70 dBm-			
18.0 GHz	19001 pts	950.0 MHz/	27.5 GHz
	SCPI Recorder: Automatic Mode a	ctive	Ready 28.09.2020





Plot 7-326. RSE 18 GHz – 27.5 GHz (100 MHz BW 8CC CC QPSK Low Ant. Angle 135, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-329. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Angle 45, Final)



Plot 7-330. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Angle 135)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-331. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC CC QPSK Low Ant. Angle 135, Final)

1st I	Marker Frequency: 27.500 GHz	Margin: 10.84 dB
2nd	Marker Frequency: 25.930 GHz	Margin: 6.67 dB



Plot 7-332. RSE 25 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC CC QPSK Low TRP)

FCC ID: A3LAT1K04-B00	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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			\$
MultiView 🗄 Spectrum			•
Ref Level 20.00 dBm Offset 11.46 dB	• RBW 1 MHz		SGL
●Att 5dB SWT 38ms	• VBW 3 MHz Mode Auto Sweep		Count 100/100
TDF "Part30 AF", "Part30 CL"			o 10m Mov
Limit Check	FÁTI		M1[1] 17.12.4Rm
Line FCC Part 30			27.499750 GHz
10 dBm			2,11,55,700 0.12
U dBm			
			n na serie de la ser
-10 dBm-			new Plana a first of the last
FCC Part 30	يراج بواريين او	a and the second se	a sha birda na sha ti dha na sha sa
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and a standard a standard and a stan			
-3U dBm			
-40 dBm			
-50 dBm-			
-60 dBm-			
-70 dBm			
	10001		
18.0 GHZ	19001 pts	950.0 MHz/	27.5 GHz
▼			Ready 29.09.2020

Plot 7-333. RSE 18 GHz - 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC NC QPSK Low Ant. Angle 45)



Plot 7-334. RSE 18 GHz - 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC NC QPSK Low Ant. Angle 45, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MultiView 🗄 Spectrur	n						•
Ref Level 20.00 dBm Offs	et 11.46 dB • RBW 1 MHz					s	GL
• Att 5 dB SWT	38 ms ● VBW 3 MHz Mo	<b>de</b> Auto Sweep				с	ount 100/100
1 Frequency Sweep							• 1Rm Max
Limit Check	F	AIL				M1[1]	12.25 dBm
Line FCC Part 30		AIL					7.499750 GHZ
10 dBm							
0 dBm							
o don							
							La M
-10 dBm-						المناقبة وبالمراج	the state of the s
FCC Part 30	. بالبري		فيستاسب بناقب	المرابع المراجع المراجع	المتقاط والقائد وتعالم وتدري	terter and the second second	
or grannelling over photons with the effective protection	المتحلفين والمكافر بالرجائه أخراب والمتحاط		ري المراجعة المراجع المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة الم	SANTER A DESCRIPTION OF THE OWNER	A STREET, STORE STREET, ST.	and and a second se	
And the second	and the second state of th						
20.40							
-30 UBM-							
-40 dBm-							
-50 dBm-							
-60 dBm-							
-70 dBm-							
18.0 GHz	19001 p	ts	950	0.0 MH2/			27.5 GHz
					▼ Ready		29.09.2020 14:05:16

~

Plot 7-335. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC NC QPSK Low Ant. Angle 135)



Plot 7-336. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC NC QPSK Low Ant. Angle 135, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-337. RSE 25 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 3CC NC QPSK Low TRP)



Plot 7-338. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Angle 45)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-339. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Angle 45, Final)



Plot 7-340. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Angle 135)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 220 of 466
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Plot 7-341. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC CC QPSK Low Ant. Angle 135, Final)



Plot 7-342. RSE 25 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC CC QPSK Low TRP)

FCC ID: A3LAT1K04-B00	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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MultiView 🖶 Spectrum			•
Ref Level 20.00 dBm Offset 11.46 d	dB ● RBW 1 MHz		SGL
●Att 5 dB SWT 38 m	ns • VBW 3 MHz Mode Auto Sweep		Count 100/100
TDF "Part30 AF", "Part30 CL"			o 1Des Mov
Limit Check	EATI		MILII 11 24 dBm
Line FCC Part 30	FAIL		97 409750 CH
10 dBm			27.499730 002
10 0801			
0 dBm			
10.1			المجالية المحادية المحاد ا
-10 dBm-			
FCC Part 30	يفليه ويرابطه وفريع ومعمد ويتعمد	المتقاصلين والمتروب بالمتروب والمحمقين والمتروب والتروي	
upper united and a test of the first of the second determined in the		A REAL PROPERTY OF A REAPROPERTY OF A REAL PROPERTY	Jack Bill (Web Main Control of Co
and a first state of the state			
-30 dBm-			
-40 dBm			
-50 dBm-			
-60 dBm			
-70 dBm-			
18.0 GHz	19001 pts	950.0 MHz/	27.5 GHz
~			<ul> <li>Ready</li> <li>29.09.2020</li> <li>15:19:25</li> </ul>

~

Plot 7-343. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC NC QPSK Low Ant. Angle 45)



Plot 7-344. RSE 18 GHz – 27.5 GHz (50 MHz BW 2CC + 100 MHz BW 6CC NC QPSK Low Ant. Angle 45, Final)

FCC ID: A3LAT1K04-B00	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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