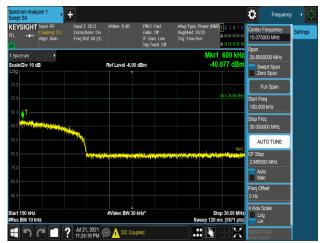




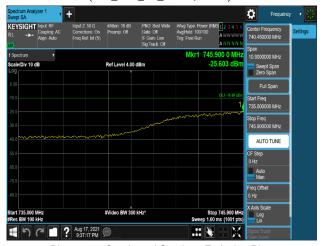
Plot 7-753. Conducted Spurious Emission Plot 9 kHz to 150 kHz (B13_10M_1C_QPSK, Port 0)



Plot 7-754. Conducted Spurious Emission Plot 150 kHz to 30 MHz (B13_10M_1C_QPSK, Port 1)



Plot 7-755. Conducted Spurious Emission Plot 30 MHz to 735 MHz (B13_10M_1C_QPSK, Port 1)



Plot 7-756. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_10M_1C_QPSK, Port 1)



Plot 7-757. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M_1C_QPSK, Port 1)



Plot 7-758. Conducted Spurious Emission Plot 1 GHz to 10 GHz (B13_10M_1C_QPSK, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 201 of 207
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 261 of 367
© 2021 PCTEST				PK-QP-16-14 Rev.01



Channel	Port	Measurement Range	Level (dBm)				Limit	Worst Margin	
Charmer 1 ort	Modeurement Hange	QPSK	16QAM	64QAM	256QAM	(dBm)	(dB)		
		9 kHz to 150 kHz	-50.72	-50.34	-50.77	-50.88	-36.01	-14.33	
		150 kHz to 30 MHz	-41.36	-41.24	-42.20	-41.66	-26.01	-15.23	
	Middle 1	30 MHz to 735 MHz	-43.95	-43.92	-44.10	-44.18	-16.01	-27.91	
		U	735 MHz to 745.9 MHz	-24.83	-25.40	-24.41	-25.76	-16.01	-8.40
		756.1 MHz to 1 GHz	-21.65	-23.48	-20.65	-20.66	-16.01	-4.64	
Middle		1 GHz to 10 GHz	-34.62	-34.80	-34.91	-35.13	-16.01	-18.61	
Middle		9 kHz to 150 kHz	-49.27	-48.94	-49.35	-49.69	-36.01	-12.93	
		150 kHz to 30 MHz	-40.71	-39.33	-40.61	-40.17	-26.01	-13.32	
		30 MHz to 735 MHz	-44.01	-43.86	-43.78	-43.81	-16.01	-27.77	
		735 MHz to 745.9 MHz	-26.59	-26.09	-26.43	-25.84	-16.01	-9.83	
		756.1 MHz to 1 GHz	-21.12	-23.16	-22.62	-21.21	-16.01	-5.11	
		1 GHz to 10 GHz	-33.74	-33.83	-33.58	-33.52	-16.01	-17.51	

Table 7-183. Conducted Spurious Emission Summary Data (B13_5M+5M_2C_2T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 262 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 262 01 367





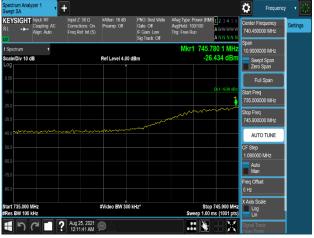
Plot 7-759. Conducted Spurious Emission Plot 9 kHz to 150 kHz (B13_5M+5M_2C_16QAM, Port 1)



Plot 7-760. Conducted Spurious Emission Plot 150 kHz to 30 MHz (B13_5M+5M_2C_16QAM, Port 1)



Plot 7-761. Conducted Spurious Emission Plot 30 MHz to 735 MHz (B13_5M+5M_2C_64QAM, Port 1)



Plot 7-762. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_5M+5M_2C_64QAM, Port 0)



Plot 7-763. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_5M+5M_2C_64QAM, Port 0)



Plot 7-764. Conducted Spurious Emission Plot 1 GHz to 10 GHz (B13_5M+5M_2C_256QAM, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 202 of 207
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 263 of 367
© 2021 PCTEST				PK-QP-16-14 Rev.01



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst	
		go	QPSK	(@)	Margin (dB)	
		9 kHz to 150 kHz	-54.56	-36.01	-18.55	
		150 kHz to 30 MHz	-45.32	-26.01	-19.31	
		30 MHz to 735 MHz	-44.28	-16.01	-28.27	
	0	735 MHz to 745.9 MHz	-30.88	-16.01	-14.87	
Law		756.1 MHz to 1 GHz	-36.87	-16.01	-20.86	
		1 GHz to 10 GHz	-34.75	-16.01	-18.74	
Low		9 kHz to 150 kHz	-53.55	-36.01	-17.54	
		150 kHz to 30 MHz	-44.57	-26.01	-18.56	
		30 MHz to 735 MHz	-45.00	-16.01	-28.99	
	1	735 MHz to 745.9 MHz	-30.38	-16.01	-14.37	
		756.1 MHz to 1 GHz	-36.08	-16.01	-20.07	
		1 GHz to 10 GHz	-34.12	-16.01	-18.11	
		9 kHz to 150 kHz	-54.28	-36.01	-18.27	
		150 kHz to 30 MHz	-45.03	-26.01	-19.02	
		30 MHz to 735 MHz	-44.34	-16.01	-28.33	
	0	735 MHz to 745.9 MHz	-37.56	-16.01	-21.55	
		756.1 MHz to 1 GHz	-34.81	-16.01	-18.80	
		1 GHz to 10 GHz	-34.99	-16.01	-18.98	
Middle		9 kHz to 150 kHz	-53.79	-36.01	-17.78	
		150 kHz to 30 MHz	-44.37	-26.01	-18.36	
		30 MHz to 735 MHz	-44.87	-16.01	-28.86	
	1	735 MHz to 745.9 MHz	-36.40	-16.01	-20.39	
		756.1 MHz to 1 GHz	-35.36	-16.01	-19.35	
		1 GHz to 10 GHz	-34.08	-16.01	-18.07	
		9 kHz to 150 kHz	-54.84	-36.01	-18.83	
		150 kHz to 30 MHz	-45.55	-26.01	-19.54	
		30 MHz to 735 MHz	-43.99	-16.01	-27.98	
	0	735 MHz to 745.9 MHz	-36.43	-16.01	-20.42	
		756.1 MHz to 1 GHz	-24.02	-16.01	-8.01	
		1 GHz to 10 GHz	-35.16	-16.01	-19.15	
High		9 kHz to 150 kHz	-54.24	-36.01	-18.23	
		150 kHz to 30 MHz	-44.38	-26.01	-18.37	
		30 MHz to 735 MHz	-44.83	-16.01	-28.82	
	1	735 MHz to 745.9 MHz	-35.95	-16.01	-19.94	
		756.1 MHz to 1 GHz	-22.18	-16.01	-6.17	
		1 GHz to 10 GHz	-33.87	-16.01	-17.86	

Table 7-184. Conducted Spurious Emission Summary Data (B13_5M+NB-IoT(IB))_2T)

FCC ID: A3LRF4440D-13A	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 264 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 264 of 367





Plot 7-765. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_5M+NB-lot(IB)_1C_QPSK - Low Channel, Port 1)

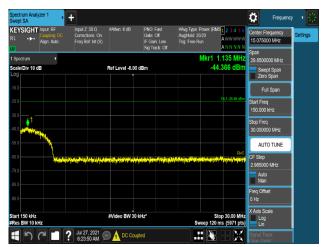


Plot 7-767. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_5M+NB-lot(IB)_1C_QPSK - High Channel, Port 0)



Plot 7-769. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_5M+NB-lot(IB)_1C_QPSK - High Channel, Port 1)



Plot 7-766. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_5M+NB-lot(IB)_1C_QPSK - Middle Channel, Port 1)



Plot 7-768. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz

(B13_5M+NB-lot(IB)_1C_QPSK - Low Channel, Port 1)



Plot 7-770. Conducted Spurious Emission Plot 1 GHz to 10 GHz

(B13_5M+NB-lot(IB)_1C_QPSK - High Channel, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 265 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 265 01 367



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst Margin (dB)	
			QPSK		wargiii (ub)	
		9 kHz to 150 kHz	-45.65	-36.01	-9.64	
		150 kHz to 30 MHz	-33.25	-26.01	-7.24	
	0	30 MHz to 735 MHz	-43.66	-16.01	-27.65	
	0	735 MHz to 745.9 MHz	-22.44	-16.01	-6.43	
		756.1 MHz to 1 GHz	-21.17	-16.01	-5.16	
Middle		1 GHz to 10 GHz	-35.06	-16.01	-19.05	
ivildale		9 kHz to 150 kHz	-46.07	-36.01	-10.06	
		150 kHz to 30 MHz	-32.23	-26.01	-6.22	
	1	30 MHz to 735 MHz	-42.92	-16.01	-26.91	
	ı	735 MHz to 745.9 MHz	-23.22	-16.01	-7.21	
		756.1 MHz to 1 GHz	-20.76	-16.01	-4.75	
		1 GHz to 10 GHz	-32.90	-16.01	-16.89	

Table 7-185. Conducted Spurious Emission Summary Data (B13_10M+NB-loT(GB))_2C_2T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 266 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 266 of 367

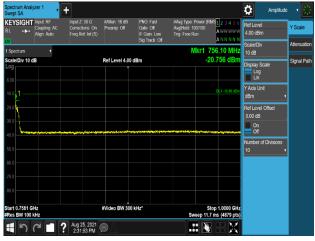




Plot 7-771. Conducted Spurious Emission Plot 9 kHz to 150 kHz



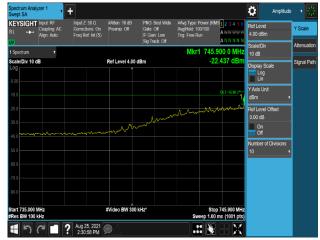
Plot 7-773. Conducted Spurious Emission Plot 30 MHz to 735 MHz (B13_10M+NB-IoT(GB)_2C_QPSK, Port 1)



Plot 7-775. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M+NB-IoT(GB)_2C_QPSK, Port 1)



Plot 7-772. Conducted Spurious Emission Plot 150 kHz to 30 MHz (B13_10M+NB-IoT(GB)_2C_QPSK, Port 1)



Plot 7-774. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_10M+NB-IoT(GB)_2C_QPSK, Port 0)



Plot 7-776. Conducted Spurious Emission Plot 1 GHz to 10 GHz (B13_10M+NB-IoT(GB)_2C_QPSK, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 267 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 207 01 307



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst	
Onarmor 1 on	1 Oit	Wododromont Range	QPSK	Liniit (abin)	Margin (dB)	
		9 kHz to 150 kHz	-50.72	-36.01	-14.71	
		150 kHz to 30 MHz	-39.93	-26.01	-13.92	
	0	30 MHz to 735 MHz	-43.79	-16.01	-27.78	
	0	735 MHz to 745.9 MHz	-27.07	-16.01	-11.06	
		756.1 MHz to 1 GHz	-25.22	-16.01	-9.21	
Middle		1 GHz to 10 GHz	-34.88	-16.01	-18.87	
ivildale		9 kHz to 150 kHz	-48.58	-36.01	-12.57	
		150 kHz to 30 MHz	-37.89	-26.01	-11.88	
	1	30 MHz to 735 MHz	-44.08	-16.01	-28.07	
	'	735 MHz to 745.9 MHz	-25.79	-16.01	-9.78	
		756.1 MHz to 1 GHz	-22.78	-16.01	-6.77	
		1 GHz to 10 GHz	-33.65	-16.01	-17.64	

Table 7-186. Conducted Spurious Emission Summary Data (B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_2T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 268 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 200 01 307





Plot 7-777. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)

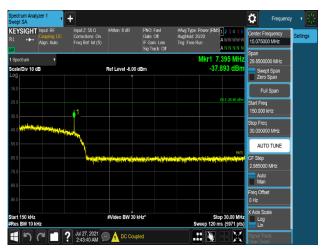


Plot 7-779. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 0)

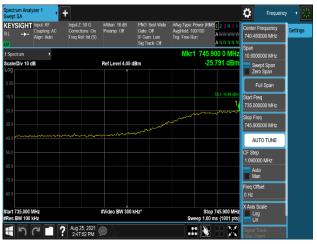


Plot 7-781. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz $(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port\ 1)$



Plot 7-778. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-780. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz

(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-782. Conducted Spurious Emission Plot 1 GHz to 10 GHz

(B13_10M+Low_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)

FCC ID: A3LRF4440D-13A	PETEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION) SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 260 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 269 of 367



Channel	Port	Measurement Range	Level (dBm) QPSK	Limit (dBm)	Worst Margin (dB)
		9 kHz to 150 kHz	-48.13	-36.01	-12.12
		150 kHz to 30 MHz	-39.90	-26.01	-13.89
		30 MHz to 735 MHz	-44.06	-16.01	-28.05
	0	735 MHz to 745.9 MHz	-26.45	-16.01	-10.44
		756.1 MHz to 1 GHz	-26.75	-16.01	-10.74
Mistalla		1 GHz to 10 GHz	-34.31	-16.01	-18.30
Middle		9 kHz to 150 kHz	-47.55	-36.01	-11.54
		150 kHz to 30 MHz	-36.94	-26.01	-10.93
	4	30 MHz to 735 MHz	-44.42	-16.01	-28.41
1	1	735 MHz to 745.9 MHz	-26.51	-16.01	-10.50
		756.1 MHz to 1 GHz	-25.73	-16.01	-9.72
		1 GHz to 10 GHz	-33.68	-16.01	-17.67

Table 7-187. Conducted Spurious Emission Summary Data (B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_2T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 270 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 270 of 367





Plot 7-783. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 1)

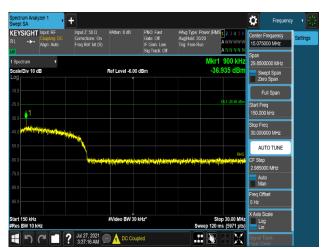


Plot 7-785. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 0)

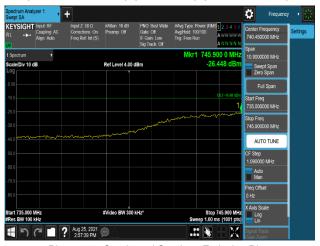


Plot 7-787. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-784. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-786. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 0)



Plot 7-788. Conducted Spurious Emission Plot 1 GHz to 10 GHz

(B13_10M+Low_NB-lot(IB)+Low_NB-lot(IB)_1C_QPSK, Port 1)

FCC ID: A3LRF4440D-13A	PETEST SEGULATION INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 271 of 267	
8K21070501R2-R1	07/09/2021 - 08/25/2021	5/2021 RRU (RF4440d)		Page 271 of 367	



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst
		ğ	QPSK	` ,	Margin (dB)
		9 kHz to 150 kHz	-49.74	-36.01	-13.73
		150 kHz to 30 MHz	-38.39	-26.01	-12.38
	0	30 MHz to 735 MHz	-44.20	-16.01	-28.19
	0	735 MHz to 745.9 MHz	-25.91	-16.01	-9.90
		756.1 MHz to 1 GHz	-24.96	-16.01	-8.95
Middle		1 GHz to 10 GHz	-35.07	-16.01	-19.06
ivildale		9 kHz to 150 kHz	-49.09	-36.01	-13.08
		150 kHz to 30 MHz	-36.99	-26.01	-10.98
	1	30 MHz to 735 MHz	-44.30	-16.01	-28.29
		735 MHz to 745.9 MHz	-26.97	-16.01	-10.96
		756.1 MHz to 1 GHz	-23.73	-16.01	-7.72
		1 GHz to 10 GHz	-33.98	-16.01	-17.97

Table 7-188. Conducted Spurious Emission Summary Data (B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_2T)

FCC ID: A3LRF4440D-13A	PCTEST:	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags 272 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 272 of 367
C	•	·	•	D14 OD 14 11 D 41





Plot 7-789. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)

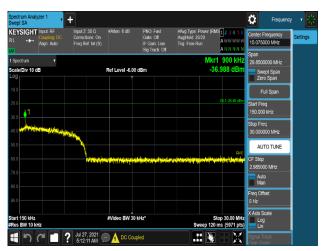


Plot 7-791. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 0)

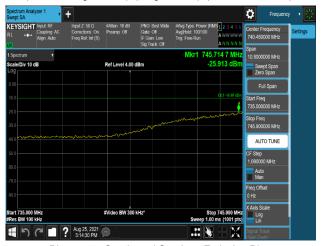


Plot 7-793. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-790. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 1)



Plot 7-792. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_10M+High_NB-lot(IB)+High_NB-lot(IB)_1C_QPSK, Port 0)



Plot 7-794. Conducted Spurious Emission Plot 1 GHz to 10 GHz $(B13_10M + High_NB - Iot(IB) + High_NB - Iot(IB)_1C_QPSK, \ Port \ 1)$

FCC ID: A3LRF4440D-13A	PCTEST ENGINESSING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 272 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 273 of 367



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst
Grianner	Onamici i on	Wedsdroment range	QPSK	Linii (dbiii)	Margin (dB)
		9 kHz to 150 kHz	-41.22	-36.01	-5.21
		150 kHz to 30 MHz	-39.90	-26.01	-13.89
	0	30 MHz to 735 MHz	-43.55	-16.01	-27.54
	0	735 MHz to 745.9 MHz	-22.10	-16.01	-6.09
		756.1 MHz to 1 GHz	-35.62	-16.01	-19.61
Middle		1 GHz to 10 GHz	-35.04	-16.01	-19.03
ivildale		9 kHz to 150 kHz	-40.28	-36.01	-4.27
		150 kHz to 30 MHz	-39.25	-26.01	-13.24
	1	30 MHz to 735 MHz	-44.01	-16.01	-28.00
	'	735 MHz to 745.9 MHz	-23.45	-16.01	-7.44
		756.1 MHz to 1 GHz	-30.63	-16.01	-14.62
		1 GHz to 10 GHz	-33.92	-16.01	-17.91

Table 7-189. Conducted Spurious Emission Summary Data (B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_2T)

FCC ID: A3LRF4440D-13A	PETEST SINGLAR OR A TOPY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 274 of 267	
8K21070501R2-R1	07/09/2021 - 08/25/2021	5/2021 RRU (RF4440d)		Page 274 of 367	





Plot 7-795. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 1)

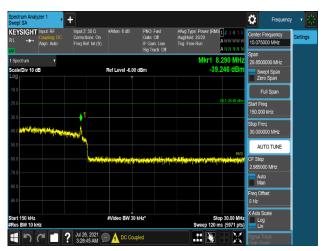


Plot 7-797. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 0)



Plot 7-799. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 1)



Plot 7-796. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 1)



Plot 7-798. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz

(B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 0)



Plot 7-800. Conducted Spurious Emission Plot 1 GHz to 10 GHz (B13_10M+Low_NB-lot(GB)+High_NB-lot(IB)_2C_QPSK, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 275 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 275 01 367



Channel	Port	Measurement Range	Level (dBm)	Limit (dBm)	Worst
Gridinion	Chamer 1 of	Wododromont Range	QPSK	Linii (dbiii)	Margin (dB)
		9 kHz to 150 kHz	-40.83	-36.01	-4.82
		150 kHz to 30 MHz	-40.30	-26.01	-14.29
	0	30 MHz to 735 MHz	-43.57	-16.01	-27.56
	0	735 MHz to 745.9 MHz	-22.49	-16.01	-6.48
		756.1 MHz to 1 GHz	-20.33	-16.01	-4.32
Middle		1 GHz to 10 GHz	-34.79	-16.01	-18.78
ivildale		9 kHz to 150 kHz	-39.65	-36.01	-3.64
		150 kHz to 30 MHz	-37.94	-26.01	-11.93
	1	30 MHz to 735 MHz	-43.98	-16.01	-27.97
	'	735 MHz to 745.9 MHz	-23.58	-16.01	-7.57
		756.1 MHz to 1 GHz	-19.11	-16.01	-3.10
		1 GHz to 10 GHz	-34.04	-16.01	-18.03

Table 7-190. Conducted Spurious Emission Summary Data (B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_2T)

FCC ID: A3LRF4440D-13A	PCTEST SEGING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 276 of 367
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 276 01 367





Plot 7-801. Conducted Spurious Emission Plot 9 kHz to 150 kHz

(B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_QPSK, Port 1)



Plot 7-803. Conducted Spurious Emission Plot 30 MHz to 735 MHz

(B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_QPSK, Port 0)



Plot 7-805. Conducted Spurious Emission Plot 756.1 MHz to 1 GHz (B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_QPSK, Port 1)



Plot 7-802. Conducted Spurious Emission Plot 150 kHz to 30 MHz

(B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_QPSK, Port 1)



Plot 7-804. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_10M+High_NB-lot(GB)+Low_NB-lot(IB)_2C_QPSK, Port 0)



Plot 7-806. Conducted Spurious Emission Plot 1 GHz to 10 GHz $(B13_10M + High_NB - lot(GB) + Low_NB - lot(IB) _ 2C_QPSK, \ Port \ 1)$

FCC ID: A3LRF4440D-13A	PCTEST ENGINESSING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 277 of 267	
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Page 277 of 367	



Chamal	Daw	Measurement Range		Level	(dBm)		Limit	Worst
Channel	Port		QPSK	16QAM	64QAM	256QAM	(dBm)	Margin (dB)
		9 kHz to 150 kHz	-59.13	-58.59	-58.65	-59.16	-39.02	-19.57
		150 kHz to 30 MHz	-51.65	-50.31	-50.62	-50.82	-29.02	-21.29
		30 MHz to 735 MHz	-52.61	-52.87	-53.32	-53.41	-19.02	-33.59
	0	735 MHz to 745.9 MHz	-29.64	-31.23	-31.98	-31.86	-19.02	-10.62
	•	756.1 MHz to 1 GHz	-35.80	-37.13	-36.92	-37.56	-19.02	-16.78
	•	1 GHz to 10 GHz	-35.05	-34.82	-35.06	-34.99	-19.02	-15.80
		9 kHz to 150 kHz	-55.68	-56.54	-57.06	-56.81	-39.02	-16.66
		150 kHz to 30 MHz	-51.45	-51.19	-52.28	-50.64	-29.02	-21.62
		30 MHz to 735 MHz	-51.82	-52.75	-53.45	-52.22	-19.02	-32.80
	1	735 MHz to 745.9 MHz	-27.18	-30.55	-31.69	-30.93	-19.02	-8.16
		756.1 MHz to 1 GHz	-35.81	-36.08	-36.45	-36.37	-19.02	-16.79
		1 GHz to 10 GHz	-33.45	-34.10	-33.75	-33.83	-19.02	-14.43
Low		9 kHz to 150 kHz	-59.07	-58.93	-58.98	-58.84	-39.02	-19.82
	•	150 kHz to 30 MHz	-50.69	-51.23	-50.96	-49.72	-29.02	-20.70
		30 MHz to 735 MHz	-52.63	-53.20	-53.93	-53.80	-19.02	-33.61
	2	735 MHz to 745.9 MHz	-28.13	-28.74	-29.58	-29.75	-19.02	-9.11
	•	756.1 MHz to 1 GHz	-33.21	-32.25	-35.97	-35.63	-19.02	-13.23
		1 GHz to 10 GHz	-34.52	-34.60	-34.61	-34.24	-19.02	-15.22
		9 kHz to 150 kHz	-56.88	-56.34	-56.75	-56.85	-39.02	-17.32
		150 kHz to 30 MHz	-51.13	-50.21	-50.24	-50.84	-29.02	-21.19
		30 MHz to 735 MHz	-53.02	-54.09	-53.07	-53.86	-19.02	-34.00
	3	735 MHz to 745.9 MHz	-28.38	-28.42	-29.44	-30.35	-19.02	-9.36
		756.1 MHz to 1 GHz	-32.05	-33.10	-34.13	-35.22	-19.02	-13.03
		1 GHz to 10 GHz	-36.25	-36.59	-36.10	-36.72	-19.02	-17.08
		9 kHz to 150 kHz	-59.98	-59.82	-59.28	-59.23	-39.02	-20.21
		150 kHz to 30 MHz	-50.68	-51.53	-52.15	-50.80	-29.02	-21.66
		30 MHz to 735 MHz	-51.85	-53.10	-53.46	-52.30	-19.02	-32.83
	0	735 MHz to 745.9 MHz	-36.04	-36.21	-36.10	-36.44	-19.02	-17.02
		756.1 MHz to 1 GHz	-36.09	-34.79	-36.09	-36.53	-19.02	-15.77
		1 GHz to 10 GHz	-34.93	-34.98	-35.04	-34.98	-19.02	-15.91
Middle		9 kHz to 150 kHz	-57.80	-57.06	-57.75	-58.07	-39.02	-18.04
		150 kHz to 30 MHz	-50.73	-50.91	-51.54	-50.06	-29.02	-21.04
	4	30 MHz to 735 MHz	-51.86	-53.11	-52.55	-51.97	-19.02	-32.84
	1	735 MHz to 745.9 MHz	-34.22	-35.92	-35.69	-35.95	-19.02	-15.20
		756.1 MHz to 1 GHz	-34.55	-34.63	-35.15	-35.32	-19.02	-15.53
		1 GHz to 10 GHz	-33.73	-34.20	-34.17	-33.76	-19.02	-14.71
		9 kHz to 150 kHz	-58.79	-59.39	-58.74	-59.09	-39.02	-19.72

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 270 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 278 of 367
© 2021 PCTEST				PK-QP-16-14 Rev.01

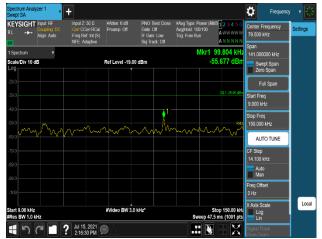


, ,				1	1			
		150 kHz to 30 MHz	-48.88	-50.56	-49.70	-50.56	-29.02	-19.86
		30 MHz to 735 MHz	-52.38	-53.01	-53.71	-53.49	-19.02	-33.36
	2	735 MHz to 745.9 MHz	-31.76	-31.99	-32.95	-32.31	-19.02	-12.74
		756.1 MHz to 1 GHz	-31.50	-32.32	-34.28	-32.58	-19.02	-12.48
		1 GHz to 10 GHz	-34.06	-34.60	-34.54	-34.60	-19.02	-15.04
Middle		9 kHz to 150 kHz	-57.98	-57.30	-57.22	-57.81	-39.02	-18.20
		150 kHz to 30 MHz	-50.37	-49.77	-49.05	-51.17	-29.02	-20.03
	3	30 MHz to 735 MHz	-54.36	-53.60	-53.47	-52.95	-19.02	-33.93
	J	735 MHz to 745.9 MHz	-30.76	-30.49	-32.52	-33.73	-19.02	-11.47
		756.1 MHz to 1 GHz	-30.92	-30.32	-33.88	-33.32	-19.02	-11.30
		1 GHz to 10 GHz	-36.80	-36.45	-36.37	-36.10	-19.02	-17.08
		9 kHz to 150 kHz	-59.25	-59.26	-59.00	-59.24	-39.02	-19.98
		150 kHz to 30 MHz	-51.64	-50.06	-50.65	-51.87	-29.02	-21.04
	0	30 MHz to 735 MHz	-52.86	-53.35	-53.45	-52.80	-19.02	-33.78
	U	735 MHz to 745.9 MHz	-36.70	-37.06	-37.21	-37.15	-19.02	-17.68
		756.1 MHz to 1 GHz	-24.88	-24.98	-25.21	-24.43	-19.02	-5.41
		1 GHz to 10 GHz	-35.29	-35.22	-35.09	-34.73	-19.02	-15.71
		9 kHz to 150 kHz	-57.55	-57.82	-57.57	-57.23	-39.02	-18.21
		150 kHz to 30 MHz	-50.33	-50.83	-51.66	-50.82	-29.02	-21.31
	1	30 MHz to 735 MHz	-53.27	-52.72	-53.54	-53.25	-19.02	-33.70
	'	735 MHz to 745.9 MHz	-36.75	-36.30	-36.62	-36.86	-19.02	-17.28
		756.1 MHz to 1 GHz	-23.91	-24.66	-22.52	-23.54	-19.02	-3.50
High		1 GHz to 10 GHz	-33.54	-33.98	-33.55	-33.74	-19.02	-14.52
g.i		9 kHz to 150 kHz	-58.78	-59.74	-59.56	-58.45	-39.02	-19.43
		150 kHz to 30 MHz	-51.05	-50.93	-50.20	-50.75	-29.02	-21.18
	2	30 MHz to 735 MHz	-53.84	-53.26	-52.80	-52.59	-19.02	-33.57
	_	735 MHz to 745.9 MHz	-35.39	-33.05	-32.89	-34.28	-19.02	-13.87
		756.1 MHz to 1 GHz	-24.27	-26.45	-23.49	-24.61	-19.02	-4.47
		1 GHz to 10 GHz	-34.46	-34.52	-34.40	-34.15	-19.02	-15.13
		9 kHz to 150 kHz	-57.21	-57.75	-57.05	-57.88	-39.02	-18.03
		150 kHz to 30 MHz	-50.77	-50.68	-50.94	-49.96	-29.02	-20.94
	3	30 MHz to 735 MHz	-52.84	-53.40	-53.58	-53.30	-19.02	-33.82
	3	735 MHz to 745.9 MHz	-33.00	-33.08	-34.36	-33.19	-19.02	-13.98
		756.1 MHz to 1 GHz	-23.35	-24.50	-23.04	-23.80	-19.02	-4.02
		1 GHz to 10 GHz	-36.83	-36.70	-36.78	-36.57	-19.02	-17.55
Table 7-191 Conducted Spurious Emission Summary Data (B13 5M 1C 4T)								

Table 7-191. Conducted Spurious Emission Summary Data (B13_5M_1C_4T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags 270 of 267
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 279 of 367
© 2021 PCTEST				PK-QP-16-14 Rev.01





Plot 7-807. Conducted Spurious Emission Plot 9 kHz to 150 kHz (B13_5M_1C_QPSK - Low Channel, Port 1)



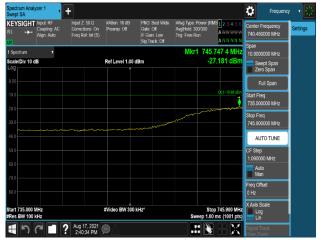
Plot 7-809. Conducted Spurious Emission Plot 30 MHz to 735 MHz (B13_5M_1C_QPSK - Low Channel, Port 1)



Plot 7-811. Conducted Spurious Emission Plot 756.9 MHz to 1 GHz (B13_5M_1C_64QAM - High Channel, Port 1)



Plot 7-808. Conducted Spurious Emission Plot 150 kHz to 30 MHz (B13_5M_1C_QPSK - Middle Channel, Port 2)



Plot 7-810. Conducted Spurious Emission Plot 735 MHz to 745.9 MHz (B13_5M_1C_QPSK - Low Channel, Port 1)



Plot 7-812. Conducted Spurious Emission Plot 1 GHz to 10 GHz (B13_5M_1C_QPSK - Low Channel, Port 1)

FCC ID: A3LRF4440D-13A	PCTEST* ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogg 200 of 207	
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)		Page 280 of 367	
© 2021 PCTEST	•			PK-QP-16-14 Rev.01	



Channel	Port	Measurement Range	Level (dBm)				Limit	Worst Margin
Chamile	1 OIL	go	QPSK	16QAM	64QAM	256QAM	(dBm)	(dB)
		9 kHz to 150 kHz	-57.27	-57.26	-57.72	-57.40	-39.02	-18.24
		150 kHz to 30 MHz	-48.57	-48.46	-49.23	-48.09	-29.02	-19.07
	0	30 MHz to 735 MHz	-51.85	-51.60	-53.18	-52.15	-19.02	-32.58
	U	735 MHz to 745.9 MHz	-29.04	-28.06	-29.39	-27.96	-19.02	-8.94
		756.1 MHz to 1 GHz	-27.16	-26.71	-27.98	-27.37	-19.02	-7.69
		1 GHz to 10 GHz	-34.90	-35.03	-34.83	-34.85	-19.02	-15.81
		9 kHz to 150 kHz	-55.68	-56.16	-55.52	-55.84	-39.02	-16.50
		150 kHz to 30 MHz	-48.60	-48.63	-49.06	-48.12	-29.02	-19.10
	1	30 MHz to 735 MHz	-52.36	-52.39	-53.30	-50.44	-19.02	-31.42
	' [735 MHz to 745.9 MHz	-29.60	-28.42	-29.13	-27.74	-19.02	-8.72
		756.1 MHz to 1 GHz	-27.11	-26.72	-26.13	-26.78	-19.02	-7.11
Middle		1 GHz to 10 GHz	-33.34	-33.31	-33.94	-33.91	-19.02	-14.29
ivildale	_	9 kHz to 150 kHz	-56.39	-56.60	-57.20	-57.38	-39.02	-17.37
		150 kHz to 30 MHz	-48.85	-47.71	-48.81	-47.31	-29.02	-18.29
	2	30 MHz to 735 MHz	-53.26	-53.18	-52.64	-52.06	-19.02	-33.04
	2	735 MHz to 745.9 MHz	-28.59	-28.96	-29.97	-29.18	-19.02	-9.57
		756.1 MHz to 1 GHz	-27.70	-27.27	-26.48	-27.31	-19.02	-7.46
		1 GHz to 10 GHz	-34.24	-34.17	-34.23	-33.89	-19.02	-14.87
		9 kHz to 150 kHz	-56.70	-56.51	-56.35	-54.95	-39.02	-15.93
		150 kHz to 30 MHz	-47.45	-47.59	-47.82	-48.08	-29.02	-18.43
	3	30 MHz to 735 MHz	-53.47	-51.90	-53.63	-53.47	-19.02	-32.88
	S	735 MHz to 745.9 MHz	-28.11	-28.46	-27.48	-28.30	-19.02	-8.46
		756.1 MHz to 1 GHz	-26.65	-25.98	-27.27	-26.56	-19.02	-6.96
		1 GHz to 10 GHz	-36.92	-36.45	-36.64	-36.74	-19.02	-17.43

Table 7-192. Conducted Spurious Emission Summary Data (B13_10M_1C_4T)

FCC ID: A3LRF4440D-13A	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 281 of 367	
8K21070501R2-R1	07/09/2021 - 08/25/2021	RRU (RF4440d)	Fage 201 01 307	