

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
LTE Band 4 3MHz QPSK	Company: Samsung Project #: 15K22210 Date: 11-24-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 4, 3MHz BW, QPSK										
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">Chamber Chamber 2</div> <div style="border: 1px solid black; padding: 2px;">Pre-amplifier AFS42</div> <div style="border: 1px solid black; padding: 2px;">Filter Filter 1</div> <div style="border: 1px solid black; padding: 2px;">Limit FCC Part 27</div> </div>										
		<b>f GHz</b>	<b>SG reading (dBm)</b>	<b>Ant. Pol. (H/V)</b>	<b>Distance (m)</b>	<b>Preamp (dB)</b>	<b>Filter (dB)</b>	<b>ERP (dBm)</b>	<b>Limit (dBm)</b>	<b>Delta (dB)</b>	<b>Notes</b>
		Low Channel (1711.5MHz)									
		3.4230	-16.4	V	3.0	40.2	1.0	-55.6	-13.0	-42.6	
		5.1345	-18.1	V	3.0	40.9	1.0	-58.0	-13.0	-45.0	
		6.8460	-16.3	V	3.0	41.0	1.0	-56.3	-13.0	-43.3	
		3.4230	-15.2	H	3.0	40.2	1.0	-54.4	-13.0	-41.4	
		5.1345	-13.0	H	3.0	40.9	1.0	-52.9	-13.0	-39.9	
		6.8460	-16.4	H	3.0	41.0	1.0	-56.4	-13.0	-43.4	
		Mid Channel (1732.5MHz)									
		3.4650	-17.5	V	3.0	40.3	1.0	-56.7	-13.0	-43.7	
		5.1975	-16.1	V	3.0	40.9	1.0	-56.0	-13.0	-43.0	
		6.9300	-16.3	V	3.0	41.0	1.0	-56.3	-13.0	-43.3	
		3.4650	-16.5	H	3.0	40.3	1.0	-55.8	-13.0	-42.8	
		5.1975	-14.4	H	3.0	40.9	1.0	-54.3	-13.0	-41.3	
		6.9300	-16.8	H	3.0	41.0	1.0	-56.8	-13.0	-43.8	
		High Channel (1753.5MHz)									
		3.5070	-17.4	V	3.0	40.3	1.0	-56.7	-13.0	-43.7	
		5.2605	-18.1	V	3.0	40.9	1.0	-58.0	-13.0	-45.0	
		7.0140	-16.8	V	3.0	41.0	1.0	-56.8	-13.0	-43.8	
		3.5070	-18.8	H	3.0	40.3	1.0	-58.1	-13.0	-45.1	
		5.2605	-16.2	H	3.0	40.9	1.0	-56.1	-13.0	-43.1	
		7.0140	-16.4	H	3.0	41.0	1.0	-56.4	-13.0	-43.4	
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									
LTE Band 4 3MHz 16QAM	Company: Samsung Project #: 15K22210 Date: 11-24-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 4, 3MHz BW, 16QAM										
	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">Chamber Chamber 2</div> <div style="border: 1px solid black; padding: 2px;">Pre-amplifier AFS42</div> <div style="border: 1px solid black; padding: 2px;">Filter Filter 1</div> <div style="border: 1px solid black; padding: 2px;">Limit FCC Part 27</div> </div>										
		<b>f GHz</b>	<b>SG reading (dBm)</b>	<b>Ant. Pol. (H/V)</b>	<b>Distance (m)</b>	<b>Preamp (dB)</b>	<b>Filter (dB)</b>	<b>ERP (dBm)</b>	<b>Limit (dBm)</b>	<b>Delta (dB)</b>	<b>Notes</b>
		Low Channel (1711.5MHz)									
		3.4230	-19.1	V	3.0	40.2	1.0	-58.3	-13.0	-45.3	
		5.1345	-18.5	V	3.0	40.9	1.0	-58.4	-13.0	-45.4	
		6.8460	-16.4	V	3.0	41.0	1.0	-56.4	-13.0	-43.4	
		3.4230	-17.4	H	3.0	40.2	1.0	-56.7	-13.0	-43.7	
		5.1345	-14.8	H	3.0	40.9	1.0	-54.7	-13.0	-41.7	
		6.8460	-16.7	H	3.0	41.0	1.0	-56.7	-13.0	-43.7	
		Mid Channel (1732.5MHz)									
		3.4650	-19.2	V	3.0	40.3	1.0	-58.4	-13.0	-45.4	
		5.1975	-17.1	V	3.0	40.9	1.0	-57.0	-13.0	-44.0	
		6.9300	-16.8	V	3.0	41.0	1.0	-56.8	-13.0	-43.8	
		3.4650	-18.4	H	3.0	40.3	1.0	-57.7	-13.0	-44.7	
		5.1975	-15.4	H	3.0	40.9	1.0	-55.3	-13.0	-42.3	
		6.9300	-16.8	H	3.0	41.0	1.0	-56.8	-13.0	-43.8	
		High Channel (1752.5MHz)									
		3.5070	-19.3	V	3.0	40.3	1.0	-58.6	-13.0	-45.6	
		5.2605	-18.9	V	3.0	40.9	1.0	-58.7	-13.0	-45.7	
		7.0140	-16.9	V	3.0	41.0	1.0	-56.9	-13.0	-43.9	
		3.5070	-20.3	H	3.0	40.3	1.0	-59.6	-13.0	-46.6	
		5.2605	-16.9	H	3.0	40.9	1.0	-56.8	-13.0	-43.8	
		7.0140	-16.6	H	3.0	41.0	1.0	-56.6	-13.0	-43.6	
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement										
LTE Band 4 1.4MHz QPSK	Company:	Samsung										
	Project #:	15K22210										
	Date:	11-24-15										
	Test Engineer:	Steven Kim										
	Configuration:	EUT / AC Adapter / Ear Phone / X-Position										
	Mode:	TX, LTE BAND 4, 1.4MHz BW, QPSK										
			Chamber	Pre-amplifier	Filter	Limit						
			Chamber 2	AFS42	Filter 1	FCC Part 27						
			f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
			Low Channel (1710.7MHz)									
			3.4214	-13.4	V	3.0	40.2	1.0	-52.6	-13.0	-39.6	
			5.1321	-14.7	V	3.0	40.9	1.0	-54.6	-13.0	-41.6	
			6.8428	-14.5	V	3.0	41.0	1.0	-54.5	-13.0	-41.5	
			3.4214	-16.6	H	3.0	40.2	1.0	-55.8	-13.0	-42.8	
			5.1321	-16.3	H	3.0	40.9	1.0	-56.2	-13.0	-43.2	
			6.8428	-16.0	H	3.0	41.0	1.0	-56.0	-13.0	-43.0	
			Mid Channel (1732.5MHz)									
			3.4650	-16.5	V	3.0	40.3	1.0	-55.8	-13.0	-42.8	
			5.1975	-17.9	V	3.0	40.9	1.0	-57.8	-13.0	-44.8	
			6.9300	-15.6	V	3.0	41.0	1.0	-55.6	-13.0	-42.6	
			3.4650	-18.1	H	3.0	40.3	1.0	-57.3	-13.0	-44.3	
			5.1975	-14.3	H	3.0	40.9	1.0	-54.1	-13.0	-41.1	
			6.9300	-16.5	H	3.0	41.0	1.0	-56.5	-13.0	-43.5	
			High Channel (1754.3MHz)									
			3.5086	-18.3	V	3.0	40.3	1.0	-57.6	-13.0	-44.6	
		5.2629	-17.5	V	3.0	40.9	1.0	-57.3	-13.0	-44.3		
		7.0172	-16.8	V	3.0	41.0	1.0	-56.8	-13.0	-43.8		
		3.5086	-17.2	H	3.0	40.3	1.0	-56.5	-13.0	-43.5		
		5.2629	-15.9	H	3.0	40.9	1.0	-55.8	-13.0	-42.8		
		7.0172	-16.3	H	3.0	41.0	1.0	-56.3	-13.0	-43.3		
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										
LTE Band 4 1.4MHz 16QAM	Company:	Samsung										
	Project #:	15K22210										
	Date:	11-24-15										
	Test Engineer:	Steven Kim										
	Configuration:	EUT / AC Adapter / Ear Phone / X-Position										
	Mode:	TX, LTE BAND 4, 1.4MHz BW, 16QAM										
			Chamber	Pre-amplifier	Filter	Limit						
			Chamber 2	AFS42	Filter 1	FCC Part 27						
			f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
			Low Channel (1710.7MHz)									
			3.4214	-15.4	V	3.0	40.2	1.0	-54.6	-13.0	-41.6	
			5.1321	-16.4	V	3.0	40.9	1.0	-56.3	-13.0	-43.3	
			6.8428	-16.0	V	3.0	41.0	1.0	-55.9	-13.0	-42.9	
			3.4214	-18.3	H	3.0	40.2	1.0	-57.5	-13.0	-44.5	
			5.1321	-17.4	H	3.0	40.9	1.0	-57.3	-13.0	-44.3	
			6.8428	-16.4	H	3.0	41.0	1.0	-56.4	-13.0	-43.4	
			Mid Channel (1732.5MHz)									
			3.4650	-19.5	V	3.0	40.3	1.0	-58.7	-13.0	-45.7	
			5.1975	-18.4	V	3.0	40.9	1.0	-58.3	-13.0	-45.3	
			6.9300	-16.3	V	3.0	41.0	1.0	-56.3	-13.0	-43.3	
			3.4650	-19.8	H	3.0	40.3	1.0	-59.0	-13.0	-46.0	
			5.1975	-15.7	H	3.0	40.9	1.0	-55.6	-13.0	-42.6	
			6.9300	-16.6	H	3.0	41.0	1.0	-56.6	-13.0	-43.6	
			High Channel (1754.3MHz)									
			3.5086	-19.7	V	3.0	40.3	1.0	-59.0	-13.0	-46.0	
		5.2629	-18.6	V	3.0	40.9	1.0	-58.5	-13.0	-45.5		
		7.0172	-17.1	V	3.0	41.0	1.0	-57.1	-13.0	-44.1		
		3.5086	-19.0	H	3.0	40.3	1.0	-58.3	-13.0	-45.3		
		5.2629	-17.5	H	3.0	40.9	1.0	-57.4	-13.0	-44.4		
		7.0172	-16.6	H	3.0	41.0	1.0	-56.6	-13.0	-43.6		
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

**LTE Band 2**

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung									
		Project #: 15K22210									
		Date: 11-23-15									
		Test Engineer: Steven Kim									
		Configuration: EUT / AC Adapter / Ear Phone / X-Position									
		Mode: TX, LTE BAND 2, 20MHz BW, QPSK									
		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Chamber</div> Chamber 2		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pre-amplifier</div> AFS42		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Filter</div> Filter 1		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Limit</div> FCC Part 24			
f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Channel (1860MHz)											
3.7200	-13.0	V	3.0	40.5	1.0	-52.5	-13.0	-39.5			
5.5800	-19.1	V	3.0	40.8	1.0	-58.9	-13.0	-45.9			
7.4400	-16.6	V	3.0	40.8	1.0	-56.4	-13.0	-43.4			
3.7200	-11.2	H	3.0	40.5	1.0	-50.7	-13.0	-37.7			
5.5800	-19.1	H	3.0	40.8	1.0	-58.9	-13.0	-45.9			
7.4400	-16.3	H	3.0	40.8	1.0	-56.1	-13.0	-43.1			
Mid Channel (1880MHz)											
3.7600	-10.9	V	3.0	40.5	1.0	-50.5	-13.0	-37.5			
5.6400	-18.4	V	3.0	40.8	1.0	-58.2	-13.0	-45.2			
7.5200	-15.9	V	3.0	40.7	1.0	-55.6	-13.0	-42.6			
3.7600	-8.7	H	3.0	40.5	1.0	-48.2	-13.0	-35.2			
5.6400	-18.5	H	3.0	40.8	1.0	-58.3	-13.0	-45.3			
7.5200	-15.7	H	3.0	40.7	1.0	-55.4	-13.0	-42.4			
High Channel (1900MHz)											
3.8000	-9.7	V	3.0	40.6	1.0	-49.3	-13.0	-36.3			
5.7000	-18.4	V	3.0	40.8	1.0	-58.2	-13.0	-45.2			
7.6000	-16.1	V	3.0	40.7	1.0	-55.7	-13.0	-42.7			
3.8000	129.0	H	3.0	40.6	1.0	89.5	-13.0	102.5			
5.7000	-18.4	H	3.0	40.8	1.0	-58.2	-13.0	-45.2			
7.6000	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6			
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											
		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
		Company: Samsung									
		Project #: 15K22210									
		Date: 11-23-15									
		Test Engineer: Steven Kim									
		Configuration: EUT / AC Adapter / Ear Phone / X-Position									
		Mode: TX, LTE BAND 2, 20MHz BW, 16QAM									
		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Chamber</div> Chamber 2		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pre-amplifier</div> AFS42		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Filter</div> Filter 1		<div style="border: 1px solid black; padding: 2px; display: inline-block;">Limit</div> FCC Part 24			
f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Channel (1860MHz)											
3.7200	-15.4	V	3.0	40.5	1.0	-54.9	-13.0	-41.9			
5.5800	-19.1	V	3.0	40.8	1.0	-58.9	-13.0	-45.9			
7.4400	-16.5	V	3.0	40.8	1.0	-56.3	-13.0	-43.3			
3.7200	-13.9	H	3.0	40.5	1.0	-53.4	-13.0	-40.4			
5.5800	-19.1	H	3.0	40.8	1.0	-58.9	-13.0	-45.9			
7.4400	-16.1	H	3.0	40.8	1.0	-55.9	-13.0	-42.9			
Mid Channel (1880MHz)											
3.7600	-13.2	V	3.0	40.5	1.0	-52.7	-13.0	-39.7			
5.6400	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6			
7.5200	-16.1	V	3.0	40.7	1.0	-55.8	-13.0	-42.8			
3.7600	-11.2	H	3.0	40.5	1.0	-50.8	-13.0	-37.8			
5.6400	-18.6	H	3.0	40.8	1.0	-58.4	-13.0	-45.4			
7.5200	-15.8	H	3.0	40.7	1.0	-55.5	-13.0	-42.5			
High Channel (1900MHz)											
3.8000	-12.3	V	3.0	40.6	1.0	-51.9	-13.0	-38.9			
5.7000	-18.4	V	3.0	40.8	1.0	-58.2	-13.0	-45.2			
7.6000	-16.2	V	3.0	40.7	1.0	-55.8	-13.0	-42.8			
3.8000	-9.6	H	3.0	40.6	1.0	-49.2	-13.0	-36.2			
5.7000	-18.5	H	3.0	40.8	1.0	-58.3	-13.0	-45.3			
7.6000	-16.0	H	3.0	40.7	1.0	-55.7	-13.0	-42.7			
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
LTE Band 2 15MHz QPSK	Company: Samsung Project #: 15K22210 Date: 11-23-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 2, 15MHz BW, QPSK	Chamber Chamber 2		Pre-amplifier AFS42		Filter Filter 1		Limit FCC Part 24			
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Channel (1857.5MHz)										
	3.7150	-13.8	V	3.0	40.5	1.0	-53.3	-13.0	-40.3		
	5.5725	-19.4	V	3.0	40.8	1.0	-59.2	-13.0	-46.2		
	7.4300	-16.5	V	3.0	40.8	1.0	-56.3	-13.0	-43.3		
	3.7150	-11.0	H	3.0	40.5	1.0	-50.5	-13.0	-37.5		
	5.5725	-19.2	H	3.0	40.8	1.0	-59.0	-13.0	-46.0		
	7.4300	-16.5	H	3.0	40.8	1.0	-56.2	-13.0	-43.2		
	Mid Channel (1880MHz)										
	3.7600	-11.1	V	3.0	40.5	1.0	-50.7	-13.0	-37.7		
	5.6400	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6		
	7.5200	-15.7	V	3.0	40.7	1.0	-55.4	-13.0	-42.4		
	3.7600	-8.7	H	3.0	40.5	1.0	-48.2	-13.0	-35.2		
	5.6400	-18.8	H	3.0	40.8	1.0	-58.6	-13.0	-45.6		
	7.5200	-15.6	H	3.0	40.7	1.0	-55.3	-13.0	-42.3		
	High Channel (1902.5MHz)										
	3.8050	-10.1	V	3.0	40.6	1.0	-49.7	-13.0	-36.7		
	5.7075	-18.2	V	3.0	40.8	1.0	-58.0	-13.0	-45.0		
	7.6100	-16.1	V	3.0	40.7	1.0	-55.7	-13.0	-42.7		
	3.8050	-6.7	H	3.0	40.6	1.0	-46.3	-13.0	-33.3		
	5.7075	-18.4	H	3.0	40.8	1.0	-58.2	-13.0	-45.2		
	7.6100	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6		
	Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										
	LTE Band 2 15MHz 16QAM	Company: Samsung Project #: 15K22210 Date: 11-23-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 2, 15MHz BW, 16QAM	Chamber Chamber 2		Pre-amplifier AFS42		Filter Filter 1		Limit FCC Part 24		
f GHz		SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Channel (1857.5MHz)											
3.7150		-16.1	V	3.0	40.5	1.0	-55.6	-13.0	-42.6		
5.5725		-19.2	V	3.0	40.8	1.0	-59.1	-13.0	-46.1		
7.4300		-16.5	V	3.0	40.8	1.0	-56.3	-13.0	-43.3		
3.7150		-13.7	H	3.0	40.5	1.0	-53.2	-13.0	-40.2		
5.5725		-19.1	H	3.0	40.8	1.0	-58.9	-13.0	-45.9		
7.4300		-16.6	H	3.0	40.8	1.0	-56.4	-13.0	-43.4		
Mid Channel (1880MHz)											
3.7600		-13.2	V	3.0	40.5	1.0	-52.8	-13.0	-39.8		
5.6400		-18.7	V	3.0	40.8	1.0	-58.5	-13.0	-45.5		
7.5200		-16.1	V	3.0	40.7	1.0	-55.8	-13.0	-42.8		
3.7600		-11.2	H	3.0	40.5	1.0	-50.8	-13.0	-37.8		
5.6400		-18.8	H	3.0	40.8	1.0	-58.6	-13.0	-45.6		
7.5200		-15.7	H	3.0	40.7	1.0	-55.4	-13.0	-42.4		
High Channel (1902.5MHz)											
3.8050		-13.0	V	3.0	40.6	1.0	-52.6	-13.0	-39.6		
5.7075		-18.1	V	3.0	40.8	1.0	-57.9	-13.0	-44.9		
7.6100		-16.0	V	3.0	40.7	1.0	-55.7	-13.0	-42.7		
3.8050		-10.1	H	3.0	40.6	1.0	-49.6	-13.0	-36.6		
5.7075		-18.2	H	3.0	40.8	1.0	-58.0	-13.0	-45.0		
7.6100		-16.0	H	3.0	40.7	1.0	-55.6	-13.0	-42.6		
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement										
LTE Band 2 10MHz QPSK	Company:	Samsung										
	Project #:	15K22210										
	Date:	11-23-15										
	Test Engineer:	Steven Kim										
	Configuration:	EUT / AC Adapter / Ear Phone / X-Position										
	Mode:	TX, LTE BAND 2, 10MHz BW, QPSK										
			Chamber	Pre-amplifier	Filter	Limit						
			Chamber 2	AFS42	Filter 1	FCC Part 24						
			f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
			Low Channel (1855MHz)									
			3.7100	-14.5	V	3.0	40.5	1.0	-54.0	-13.0	-41.0	
			5.5650	-19.0	V	3.0	40.8	1.0	-58.8	-13.0	-45.8	
			7.4450	-16.6	V	3.0	40.8	1.0	-56.4	-13.0	-43.4	
			3.7100	-11.5	H	3.0	40.5	1.0	-51.0	-13.0	-38.0	
			5.5650	-19.2	H	3.0	40.8	1.0	-59.0	-13.0	-46.0	
			7.4450	-16.5	H	3.0	40.8	1.0	-56.3	-13.0	-43.3	
			Mid Channel (1880MHz)									
			3.7600	-12.3	V	3.0	40.5	1.0	-51.8	-13.0	-38.8	
			5.6400	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6	
			7.5200	-16.1	V	3.0	40.7	1.0	-55.8	-13.0	-42.8	
			3.7600	-8.8	H	3.0	40.5	1.0	-48.3	-13.0	-35.3	
			5.6400	-18.3	H	3.0	40.8	1.0	-58.1	-13.0	-45.1	
			7.5200	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6	
			High Channel (1905MHz)									
			3.8100	-9.9	V	3.0	40.6	1.0	-49.5	-13.0	-36.5	
		5.7150	-18.1	V	3.0	40.8	1.0	-57.9	-13.0	-44.9		
		7.6200	-16.0	V	3.0	40.7	1.0	-55.7	-13.0	-42.7		
		3.8100	-6.5	H	3.0	40.6	1.0	-46.1	-13.0	-33.1		
		5.7150	-17.7	H	3.0	40.8	1.0	-57.5	-13.0	-44.5		
		7.6200	-16.1	H	3.0	40.7	1.0	-55.7	-13.0	-42.7		
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										
LTE Band 2 10MHz 16QAM	Company:	Samsung										
	Project #:	15K22210										
	Date:	11-23-15										
	Test Engineer:	Steven Kim										
	Configuration:	EUT / AC Adapter / Ear Phone / X-Position										
	Mode:	TX, LTE BAND 2, 10MHz BW, 16QAM										
			Chamber	Pre-amplifier	Filter	Limit						
			Chamber 2	AFS42	Filter 1	FCC Part 24						
			f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
			Low Channel (1855MHz)									
			3.7100	-17.0	V	3.0	40.5	1.0	-56.5	-13.0	-43.5	
			5.5650	-19.3	V	3.0	40.8	1.0	-59.1	-13.0	-46.1	
			7.4450	-16.6	V	3.0	40.8	1.0	-56.4	-13.0	-43.4	
			3.7100	-14.4	H	3.0	40.5	1.0	-53.9	-13.0	-40.9	
			5.5650	-19.1	H	3.0	40.8	1.0	-58.9	-13.0	-45.9	
			7.4450	-16.5	H	3.0	40.8	1.0	-56.3	-13.0	-43.3	
			Mid Channel (1880MHz)									
			3.7600	-14.4	V	3.0	40.5	1.0	-53.9	-13.0	-40.9	
			5.6400	-18.9	V	3.0	40.8	1.0	-58.7	-13.0	-45.7	
			7.5200	-16.0	V	3.0	40.7	1.0	-55.7	-13.0	-42.7	
			3.7600	-10.7	H	3.0	40.5	1.0	-50.3	-13.0	-37.3	
			5.6400	-18.6	H	3.0	40.8	1.0	-58.4	-13.0	-45.4	
			7.5200	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6	
			High Channel (1905MHz)									
			3.8100	-12.5	V	3.0	40.6	1.0	-52.1	-13.0	-39.1	
		5.7150	-18.2	V	3.0	40.8	1.0	-58.0	-13.0	-45.0		
		7.6200	-16.3	V	3.0	40.7	1.0	-56.0	-13.0	-43.0		
		3.8100	-9.8	H	3.0	40.6	1.0	-49.4	-13.0	-36.4		
		5.7150	-18.2	H	3.0	40.8	1.0	-58.0	-13.0	-45.0		
		7.6200	-16.1	H	3.0	40.7	1.0	-55.8	-13.0	-42.8		
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
LTE Band 2 5MHz QPSK	Company: Samsung Project #: 15K22210 Date: 11-23-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 2, 5MHz BW, QPSK	Chamber: Chamber 2		Pre-amplifier: AFS42		Filter: Filter 1		Limit: FCC Part 24			
	f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Channel (1852.5MHz)										
	3.7050	-14.6	V	3.0	40.5	1.0	-54.1	-13.0	-41.1		
	5.5575	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6		
	7.4100	-17.0	V	3.0	40.8	1.0	-56.8	-13.0	-43.8		
	3.7050	-11.3	H	3.0	40.5	1.0	-50.8	-13.0	-37.8		
	5.5575	-19.1	H	3.0	40.8	1.0	-59.0	-13.0	-46.0		
	7.4100	-17.0	H	3.0	40.8	1.0	-56.8	-13.0	-43.8		
	Mid Channel (1880MHz)										
	3.7600	-11.7	V	3.0	40.5	1.0	-51.2	-13.0	-38.2		
	5.6400	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6		
	7.5200	-16.0	V	3.0	40.7	1.0	-55.7	-13.0	-42.7		
	3.7600	-8.5	H	3.0	40.5	1.0	-48.1	-13.0	-35.1		
	5.6400	-18.7	H	3.0	40.8	1.0	-58.5	-13.0	-45.5		
	7.5200	-15.8	H	3.0	40.7	1.0	-55.5	-13.0	-42.5		
	High Channel (1907.5MHz)										
	3.8150	-10.0	V	3.0	40.6	1.0	-49.6	-13.0	-36.6		
	5.7225	-18.6	V	3.0	40.8	1.0	-58.3	-13.0	-45.3		
	7.6300	-15.9	V	3.0	40.7	1.0	-55.5	-13.0	-42.5		
	3.8150	-6.5	H	3.0	40.6	1.0	-46.1	-13.0	-33.1		
	5.7225	-18.3	H	3.0	40.8	1.0	-58.1	-13.0	-45.1		
	7.6300	-15.6	H	3.0	40.7	1.0	-55.3	-13.0	-42.3		
	Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.										
	LTE Band 2 5MHz 16QAM	Company: Samsung Project #: 15K22210 Date: 11-23-15 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Ear Phone / X-Position Mode: TX, LTE BAND 2, 5MHz BW, 16QAM	Chamber: Chamber 2		Pre-amplifier: AFS42		Filter: Filter 1		Limit: FCC Part 24		
f GHz		SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Channel (1852.5MHz)											
3.7050		-17.1	V	3.0	40.5	1.0	-56.6	-13.0	-43.6		
5.5575		-18.7	V	3.0	40.8	1.0	-58.5	-13.0	-45.5		
7.4100		-17.0	V	3.0	40.8	1.0	-56.8	-13.0	-43.8		
3.7050		-14.0	H	3.0	40.5	1.0	-53.5	-13.0	-40.5		
5.5575		-19.0	H	3.0	40.8	1.0	-58.8	-13.0	-45.8		
7.4100		-17.0	H	3.0	40.8	1.0	-56.8	-13.0	-43.8		
Mid Channel (1880MHz)											
3.7600		-14.0	V	3.0	40.5	1.0	-53.6	-13.0	-40.6		
5.6400		-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6		
7.5200		-16.3	V	3.0	40.7	1.0	-56.0	-13.0	-43.0		
3.7600		-10.8	H	3.0	40.5	1.0	-50.3	-13.0	-37.3		
5.6400		-18.6	H	3.0	40.8	1.0	-58.4	-13.0	-45.4		
7.5200		-16.1	H	3.0	40.7	1.0	-55.8	-13.0	-42.8		
High Channel (1907.5MHz)											
3.8150		-12.5	V	3.0	40.6	1.0	-52.1	-13.0	-39.1		
5.7225		-18.4	V	3.0	40.8	1.0	-58.2	-13.0	-45.2		
7.6300		-15.8	V	3.0	40.7	1.0	-55.5	-13.0	-42.5		
3.8150		-9.3	H	3.0	40.6	1.0	-48.9	-13.0	-35.9		
5.7225		-18.5	H	3.0	40.8	1.0	-58.3	-13.0	-45.3		
7.6300		-15.7	H	3.0	40.7	1.0	-55.4	-13.0	-42.4		
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
LTE Band 2 3MHz QPSK	Company: Samsung										
	Project #: 15K22210										
	Date: 11-23-15										
	Test Engineer: Steven Kim										
	Configuration: EUT / AC Adapter / Ear Phone / X-Position										
	Mode: TX LTE BAND 2, 3MHz BW,QPSK										
	Chamber		Pre-amplifier		Filter		Limit				
	Chamber 2		AFS42		Filter 1		FCC Part 24				
	f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Channel (1851.5MHz)										
	3.7030	-12.2	V	3.0	40.5	1.0	-51.7	-13.0	-38.7		
	5.5545	-16.2	V	3.0	40.8	1.0	-56.0	-13.0	-43.0		
	7.4060	-16.6	V	3.0	40.8	1.0	-56.4	-13.0	-43.4		
	3.7030	-12.1	H	3.0	40.5	1.0	-51.5	-13.0	-38.5		
	5.5545	-14.2	H	3.0	40.8	1.0	-54.0	-13.0	-41.0		
	7.4060	-16.4	H	3.0	40.8	1.0	-56.2	-13.0	-43.2		
	Mid Channel (1880MHz)										
	3.7600	-10.8	V	3.0	40.5	1.0	-50.4	-13.0	-37.4		
	5.6400	-13.6	V	3.0	40.8	1.0	-53.4	-13.0	-40.4		
	7.5200	-15.1	V	3.0	40.7	1.0	-54.8	-13.0	-41.8		
	3.7600	-9.7	H	3.0	40.5	1.0	-49.2	-13.0	-36.2		
	5.6400	-9.3	H	3.0	40.8	1.0	-49.1	-13.0	-36.1		
	7.5200	-16.0	H	3.0	40.7	1.0	-55.7	-13.0	-42.7		
	High Channel (1908.5MHz)										
	3.8170	-6.2	V	3.0	40.6	1.0	-45.8	-13.0	-32.8		
5.7255	-11.8	V	3.0	40.8	1.0	-51.6	-13.0	-38.6			
7.6340	-14.9	V	3.0	40.7	1.0	-54.5	-13.0	-41.5			
3.8170	-7.7	H	3.0	40.6	1.0	-47.3	-13.0	-34.3			
5.7255	-6.6	H	3.0	40.8	1.0	-46.4	-13.0	-33.4			
7.6340	-16.1	H	3.0	40.7	1.0	-55.7	-13.0	-42.7			
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											
LTE Band 2 3MHz 16QAM	Company: Samsung										
	Project #: 15K22210										
	Date: 11-23-15										
	Test Engineer: Steven Kim										
	Configuration: EUT / AC Adapter / Ear Phone / X-Position										
	Mode: TX LTE BAND 2, 3MHz BW,16QAM										
	Chamber		Pre-amplifier		Filter		Limit				
	Chamber 2		AFS42		Filter 1		FCC Part 24				
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
	Low Channel (1851.5MHz)										
	3.703	-14.6	V	3.0	40.5	1.0	-54.1	-13.0	-41.1		
	5.555	-18.0	V	3.0	40.8	1.0	-57.8	-13.0	-44.8		
	7.406	-16.5	V	3.0	40.8	1.0	-56.3	-13.0	-43.3		
	3.703	-14.7	H	3.0	40.5	1.0	-54.2	-13.0	-41.2		
	5.555	-16.6	H	3.0	40.8	1.0	-56.4	-13.0	-43.4		
	7.406	-16.5	H	3.0	40.8	1.0	-56.3	-13.0	-43.3		
	Mid Channel (1880MHz)										
	3.760	-13.1	V	3.0	40.5	1.0	-52.6	-13.0	-39.6		
	5.640	-16.5	V	3.0	40.8	1.0	-56.3	-13.0	-43.3		
	7.520	-15.7	V	3.0	40.7	1.0	-55.4	-13.0	-42.4		
	3.760	-11.9	H	3.0	40.5	1.0	-51.5	-13.0	-38.5		
	5.640	-13.7	H	3.0	40.8	1.0	-53.5	-13.0	-40.5		
	7.520	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6		
	High Channel (1908.5MHz)										
	3.817	-9.1	V	3.0	40.6	1.0	-48.7	-13.0	-35.7		
5.726	-15.7	V	3.0	40.8	1.0	-55.5	-13.0	-42.5			
7.634	-15.7	V	3.0	40.7	1.0	-55.4	-13.0	-42.4			
3.817	-10.6	H	3.0	40.6	1.0	-50.2	-13.0	-37.2			
5.726	-12.5	H	3.0	40.8	1.0	-52.3	-13.0	-39.3			
7.634	-16.3	H	3.0	40.7	1.0	-55.9	-13.0	-42.9			
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.											

		UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
LTE	Band 2	Company: Samsung									
		Project #: 15K22210									
		Date: 11-23-15									
		Test Engineer: Steven Kim									
		Configuration: EUT / AC Adapter / Ear Phone / X-Position									
		Mode: TX, LTE BAND 2, 1.4MHz BW,QPSK									
		Chamber: Chamber 2		Pre-amplifier: AFS42		Filter: Filter 1		Limit: FCC Part 24			
		f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
		Low Channel (1850.7MHz)									
		3.7014	-16.0	V	3.0	40.5	1.0	-55.5	-13.0	-42.5	
		5.5071	-18.9	V	3.0	40.8	1.0	-58.7	-13.0	-45.7	
		7.3578	-16.4	V	3.0	40.8	1.0	-56.2	-13.0	-43.2	
		3.7014	-17.0	H	3.0	40.5	1.0	-56.5	-13.0	-43.5	
		5.5071	-18.8	H	3.0	40.8	1.0	-58.7	-13.0	-45.7	
		7.3578	-16.3	H	3.0	40.8	1.0	-56.2	-13.0	-43.2	
		Mid Channel (1880MHz)									
		3.7600	-16.0	V	3.0	40.5	1.0	-55.5	-13.0	-42.5	
		5.6400	-18.7	V	3.0	40.8	1.0	-58.5	-13.0	-45.5	
		7.5200	-16.0	V	3.0	40.7	1.0	-55.7	-13.0	-42.7	
		3.7600	-14.6	H	3.0	40.5	1.0	-54.1	-13.0	-41.1	
		5.6400	-17.2	H	3.0	40.8	1.0	-57.0	-13.0	-44.0	
		7.5200	-15.9	H	3.0	40.7	1.0	-55.6	-13.0	-42.6	
		High Channel (1909.3MHz)									
		3.8186	-10.9	V	3.0	40.6	1.0	-50.5	-13.0	-37.5	
		5.7279	-18.3	V	3.0	40.8	1.0	-58.1	-13.0	-45.1	
		7.6732	-16.5	V	3.0	40.6	1.0	-56.2	-13.0	-43.2	
		3.8186	-12.8	H	3.0	40.6	1.0	-52.4	-13.0	-39.4	
		5.7279	-16.5	H	3.0	40.8	1.0	-56.3	-13.0	-43.3	
		7.6732	-16.4	H	3.0	40.6	1.0	-56.0	-13.0	-43.0	
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									
LTE	Band 2	Company: Samsung									
		Project #: 15K22210									
		Date: 11-23-15									
		Test Engineer: Steven Kim									
		Configuration: EUT / AC Adapter / Ear Phone / X-Position									
		Mode: TX, LTE BAND 2, 1.4MHz BW,16QAM									
		Chamber: Chamber 2		Pre-amplifier: AFS42		Filter: Filter 1		Limit: FCC Part 24			
		f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
		Low Channel (1850.7MHz)									
		3.7014	-17.2	V	3.0	40.5	1.0	-56.7	-13.0	-43.7	
		5.5071	-18.9	V	3.0	40.8	1.0	-58.7	-13.0	-45.7	
		7.3578	-16.6	V	3.0	40.8	1.0	-56.4	-13.0	-43.4	
		3.7014	-18.2	H	3.0	40.5	1.0	-57.7	-13.0	-44.7	
		5.5071	-18.9	H	3.0	40.8	1.0	-58.7	-13.0	-45.7	
		7.3578	-16.3	H	3.0	40.8	1.0	-56.1	-13.0	-43.1	
		Mid Channel (1880MHz)									
		3.7600	-16.7	V	3.0	40.5	1.0	-56.3	-13.0	-43.3	
		5.6400	-18.8	V	3.0	40.8	1.0	-58.6	-13.0	-45.6	
		7.5200	-16.1	V	3.0	40.7	1.0	-55.8	-13.0	-42.8	
		3.7600	-15.4	H	3.0	40.5	1.0	-55.0	-13.0	-42.0	
		5.6400	-17.6	H	3.0	40.8	1.0	-57.4	-13.0	-44.4	
		7.5200	-16.0	H	3.0	40.7	1.0	-55.7	-13.0	-42.7	
		High Channel (1909.3MHz)									
		3.8186	-11.8	V	3.0	40.6	1.0	-51.4	-13.0	-38.4	
		5.7279	-18.7	V	3.0	40.8	1.0	-58.5	-13.0	-45.5	
		7.6732	-16.4	V	3.0	40.6	1.0	-56.1	-13.0	-43.1	
		3.8186	-13.8	H	3.0	40.6	1.0	-53.4	-13.0	-40.4	
		5.7279	-17.3	H	3.0	40.8	1.0	-57.1	-13.0	-44.1	
		7.6732	-16.3	H	3.0	40.6	1.0	-56.0	-13.0	-43.0	
		Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									