

LTE Band 5

LTE Band 5 10MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: TX, LTE BAND 5, 10MHz BW,QPSK Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	829.00	9.88	V	1.1	-1.5	7.30	38.5	-31.2	
	829.00	22.52	H	1.1	-1.5	19.94	38.5	-18.5	
	Mid Ch								
	836.50	8.70	V	1.1	-1.4	6.21	38.5	-32.2	
	836.50	23.38	H	1.1	-1.4	20.89	38.5	-17.6	
	High Ch								
	844.00	8.14	V	1.1	-1.3	5.75	38.5	-32.7	
	844.00	23.25	H	1.1	-1.3	20.83	38.5	-17.6	
	Rev. 3.17.11								
	Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
LTE Band 5 10MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 10MHz FUND 16QAM Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	829.00	8.76	V	1.1	-1.5	6.18	38.5	-32.3	
	829.00	21.38	H	1.1	-1.5	18.80	38.5	-19.7	
	Mid Ch								
	836.50	7.65	V	1.1	-1.4	5.14	38.5	-33.3	
	836.50	22.35	H	1.1	-1.4	19.84	38.5	-18.6	
	High Ch								
	844.00	7.06	V	1.1	-1.3	4.64	38.5	-33.8	
	844.00	22.18	H	1.1	-1.3	19.76	38.5	-18.7	
	Rev. 3.17.11								
	Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

LTE Band 5 5MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 5MHz FUND QPSK Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	826.50	6.23	V	1.1	-1.5	3.63	38.5	-34.8	
	826.50	20.15	H	1.1	-1.5	17.55	38.5	-20.9	
	Mid Ch								
	836.50	8.20	V	1.1	-1.4	5.71	38.5	-32.7	
	836.50	23.40	H	1.1	-1.4	20.91	38.5	-17.5	
	High Ch								
	846.50	7.84	V	1.6	-1.3	4.96	38.5	-33.5	
	846.50	21.70	H	1.6	-1.3	18.82	38.5	-19.6	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									
LTE Band 5 5MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 5MHz FUND 16QAM Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	826.50	5.18	V	1.1	-1.5	2.58	38.5	-35.9	
	826.50	19.05	H	1.1	-1.5	16.45	38.5	-22.0	
	Mid Ch								
	836.50	7.19	V	1.1	-1.4	4.70	38.5	-33.8	
	836.50	22.42	H	1.1	-1.4	19.93	38.5	-18.5	
	High Ch								
	846.50	6.79	V	1.1	-1.3	4.41	38.5	-34.0	
	846.50	20.56	H	1.1	-1.3	18.18	38.5	-20.3	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									

LTE Band 5 3MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 3MHz FUND QPSK								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	825.50	13.91	V	1.1	-1.5	11.31	38.5	-27.1	
	825.50	22.74	H	1.1	-1.5	20.14	38.5	-18.3	
	Mid Ch								
	836.50	7.45	V	1.1	-1.4	4.96	38.5	-33.5	
	836.50	23.55	H	1.1	-1.4	21.06	38.5	-17.4	
	High Ch								
	847.50	7.95	V	1.6	-1.3	5.07	38.5	-33.4	
	847.50	23.72	H	1.6	-1.3	20.84	38.5	-17.6	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
LTE Band 5 3MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 3MHz FUND 16QAM								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	825.50	12.86	V	1.1	-1.5	10.26	38.5	-28.2	
	825.50	21.53	H	1.1	-1.5	18.93	38.5	-19.5	
	Mid Ch								
	836.50	6.40	V	1.1	-1.4	3.90	38.5	-34.5	
	836.50	22.52	H	1.1	-1.4	20.03	38.5	-18.4	
	High Ch								
	847.50	6.89	V	1.1	-1.3	4.51	38.5	-33.9	
	847.50	22.63	H	1.1	-1.3	20.24	38.5	-18.2	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

LTE Band 5 1.4MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 1.4MHz FUND QPSK								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	824.70	6.63	V	1.1	-1.5	4.03	38.5	-34.4	
	824.70	20.62	H	1.1	-1.5	18.02	38.5	-20.4	
	Mid Ch								
	836.50	3.57	V	1.1	-1.4	1.08	38.5	-37.4	
	836.50	20.68	H	1.1	-1.4	18.19	38.5	-20.3	
	High Ch								
	848.30	2.53	V	1.6	-1.3	-0.35	38.5	-38.8	
	848.30	20.77	H	1.6	-1.3	17.89	38.5	-20.6	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
LTE Band 5 1.4MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22598 Date: 01-18-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, X Position Mode: LTE5 1.4MHz FUND 16QAM								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	824.70	5.59	V	1.1	-1.5	2.99	38.5	-35.5	
	824.70	19.61	H	1.1	-1.5	17.01	38.5	-21.4	
	Mid Ch								
	836.50	2.40	V	1.1	-1.4	-0.10	38.5	-38.5	
	836.50	19.58	H	1.1	-1.4	17.09	38.5	-21.4	
	High Ch								
	848.30	1.55	V	1.1	-1.3	-0.83	38.5	-39.3	
	848.30	19.71	H	1.1	-1.3	17.33	38.5	-21.1	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

11.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238 and §27. 53

LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

RESULTS

11.2.1. SPURIOUS RADIATION PLOTS

WCDMA Band 5

WCDMA Band 5 REL99	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 16K22598 Date: 01-20-16 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Earphone / X Position Mode: Tx, REL99,850MHz Chamber Chamber 2 Pre-amplifier AFS42 Filter Filter 1 Limit Part 22 <table> <tr> <th>f GHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Distance (m)</th><th>Preamp (dB)</th><th>Filter (dB)</th><th>ERP (dBm)</th><th>Limit (dBm)</th><th>Delta (dB)</th><th>Notes</th></tr> <tr><td colspan="10">Low Ch, 826.40MHz</td></tr> <tr><td>1.6520</td><td>-14.1</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.2</td><td>-13.0</td><td>-39.2</td><td></td></tr> <tr><td>2.4790</td><td>-13.6</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-52.2</td><td>-13.0</td><td>-39.2</td><td></td></tr> <tr><td>3.3056</td><td>-14.8</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-53.9</td><td>-13.0</td><td>-40.9</td><td></td></tr> <tr><td>1.6520</td><td>-14.7</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.8</td><td>-13.0</td><td>-39.8</td><td></td></tr> <tr><td>2.4790</td><td>-15.1</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-53.6</td><td>-13.0</td><td>-40.6</td><td></td></tr> <tr><td>3.3056</td><td>-14.8</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-53.9</td><td>-13.0</td><td>-40.9</td><td></td></tr> <tr><td colspan="10">Mid Ch, 836.6MHz</td></tr> <tr><td>1.6732</td><td>-15.8</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.9</td><td>-13.0</td><td>-40.9</td><td></td></tr> <tr><td>2.5098</td><td>-16.6</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-55.1</td><td>-13.0</td><td>-42.1</td><td></td></tr> <tr><td>3.3464</td><td>-15.1</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-54.2</td><td>-13.0</td><td>-41.2</td><td></td></tr> <tr><td>1.6732</td><td>-14.2</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.3</td><td>-13.0</td><td>-39.3</td><td></td></tr> <tr><td>2.5098</td><td>-17.3</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-55.8</td><td>-13.0</td><td>-42.8</td><td></td></tr> <tr><td>3.3464</td><td>-15.7</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-54.9</td><td>-13.0</td><td>-41.9</td><td></td></tr> <tr><td colspan="10">High Ch, 846.6MHz</td></tr> <tr><td>1.6932</td><td>-14.7</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.9</td><td>-13.0</td><td>-39.9</td><td></td></tr> <tr><td>2.5390</td><td>-16.3</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-54.8</td><td>-13.0</td><td>-41.8</td><td></td></tr> <tr><td>3.3860</td><td>-15.1</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-54.3</td><td>-13.0</td><td>-41.3</td><td></td></tr> <tr><td>1.6932</td><td>-14.7</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.8</td><td>-13.0</td><td>-39.8</td><td></td></tr> <tr><td>2.5390</td><td>-16.9</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-55.5</td><td>-13.0</td><td>-42.5</td><td></td></tr> <tr><td>3.3860</td><td>-15.6</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-54.8</td><td>-13.0</td><td>-41.8</td><td></td></tr> <tr><td colspan="10">Rev. 03.03.09</td></tr> <tr><td colspan="10">Note: No other emissions were detected above the system noise floor.</td></tr> </table>	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch, 826.40MHz										1.6520	-14.1	V	3.0	39.1	1.0	-52.2	-13.0	-39.2		2.4790	-13.6	V	3.0	39.5	1.0	-52.2	-13.0	-39.2		3.3056	-14.8	V	3.0	40.1	1.0	-53.9	-13.0	-40.9		1.6520	-14.7	H	3.0	39.1	1.0	-52.8	-13.0	-39.8		2.4790	-15.1	H	3.0	39.5	1.0	-53.6	-13.0	-40.6		3.3056	-14.8	H	3.0	40.1	1.0	-53.9	-13.0	-40.9		Mid Ch, 836.6MHz										1.6732	-15.8	V	3.0	39.1	1.0	-53.9	-13.0	-40.9		2.5098	-16.6	V	3.0	39.5	1.0	-55.1	-13.0	-42.1		3.3464	-15.1	V	3.0	40.1	1.0	-54.2	-13.0	-41.2		1.6732	-14.2	H	3.0	39.1	1.0	-52.3	-13.0	-39.3		2.5098	-17.3	H	3.0	39.5	1.0	-55.8	-13.0	-42.8		3.3464	-15.7	H	3.0	40.1	1.0	-54.9	-13.0	-41.9		High Ch, 846.6MHz										1.6932	-14.7	V	3.0	39.1	1.0	-52.9	-13.0	-39.9		2.5390	-16.3	V	3.0	39.6	1.0	-54.8	-13.0	-41.8		3.3860	-15.1	V	3.0	40.2	1.0	-54.3	-13.0	-41.3		1.6932	-14.7	H	3.0	39.1	1.0	-52.8	-13.0	-39.8		2.5390	-16.9	H	3.0	39.6	1.0	-55.5	-13.0	-42.5		3.3860	-15.6	H	3.0	40.2	1.0	-54.8	-13.0	-41.8		Rev. 03.03.09										Note: No other emissions were detected above the system noise floor.									
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2.5098	-16.6	V	3.0	39.5	1.0	-55.1	-13.0	-42.1																																																																																																																																																																																																																																									
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1.6932	-14.7	H	3.0	39.1	1.0	-52.8	-13.0	-39.8																																																																																																																																																																																																																																									
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3.3860	-15.6	H	3.0	40.2	1.0	-54.8	-13.0	-41.8																																																																																																																																																																																																																																									
Rev. 03.03.09																																																																																																																																																																																																																																																	
Note: No other emissions were detected above the system noise floor.																																																																																																																																																																																																																																																	
WCDMA Band 5 HSDPA	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 16K22598 Date: 01-20-16 Test Engineer: Steven Kim Configuration: EUT / AC Adapter / Earphone / X Position Mode: Tx, HSDPA,850MHz Chamber Chamber 2 Pre-amplifier AFS42 Filter Filter 1 Limit Part 22 <table> <tr> <th>f GHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Distance (m)</th><th>Preamp (dB)</th><th>Filter (dB)</th><th>ERP (dBm)</th><th>Limit (dBm)</th><th>Delta (dB)</th><th>Notes</th></tr> <tr><td colspan="10">Low Ch, 826.40MHz</td></tr> <tr><td>1.6520</td><td>-14.7</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.8</td><td>-13.0</td><td>-39.8</td><td></td></tr> <tr><td>2.4790</td><td>-15.3</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-53.8</td><td>-13.0</td><td>-40.8</td><td></td></tr> <tr><td>3.3056</td><td>-15.7</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-54.8</td><td>-13.0</td><td>-41.8</td><td></td></tr> <tr><td>1.6520</td><td>-18.0</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-56.1</td><td>-13.0</td><td>-43.1</td><td></td></tr> <tr><td>2.4790</td><td>-16.5</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-55.0</td><td>-13.0</td><td>-42.0</td><td></td></tr> <tr><td>3.3056</td><td>-15.9</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-55.0</td><td>-13.0</td><td>-42.0</td><td></td></tr> <tr><td colspan="10">Mid Ch, 836.6MHz</td></tr> <tr><td>1.6732</td><td>-13.3</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-51.4</td><td>-13.0</td><td>-38.4</td><td></td></tr> <tr><td>2.5098</td><td>-17.3</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-55.8</td><td>-13.0</td><td>-42.8</td><td></td></tr> <tr><td>3.3464</td><td>-15.6</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-54.8</td><td>-13.0</td><td>-41.8</td><td></td></tr> <tr><td>1.6732</td><td>-15.0</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.2</td><td>-13.0</td><td>-40.2</td><td></td></tr> <tr><td>2.5098</td><td>-17.8</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-56.3</td><td>-13.0</td><td>-43.3</td><td></td></tr> <tr><td>3.3464</td><td>-15.9</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-55.1</td><td>-13.0</td><td>-42.1</td><td></td></tr> <tr><td colspan="10">High Ch, 846.6MHz</td></tr> <tr><td>1.6932</td><td>-15.6</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.7</td><td>-13.0</td><td>-40.7</td><td></td></tr> <tr><td>2.5390</td><td>-16.9</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-55.4</td><td>-13.0</td><td>-42.4</td><td></td></tr> <tr><td>3.3860</td><td>-15.3</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-54.5</td><td>-13.0</td><td>-41.5</td><td></td></tr> <tr><td>1.6932</td><td>-15.7</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.8</td><td>-13.0</td><td>-40.8</td><td></td></tr> <tr><td>2.5390</td><td>-17.1</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-55.7</td><td>-13.0</td><td>-42.7</td><td></td></tr> <tr><td>3.3860</td><td>-16.0</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-55.2</td><td>-13.0</td><td>-42.2</td><td></td></tr> <tr><td colspan="10">Rev. 03.03.09</td></tr> <tr><td colspan="10">Note: No other emissions were detected above the system noise floor.</td></tr> </table>	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch, 826.40MHz										1.6520	-14.7	V	3.0	39.1	1.0	-52.8	-13.0	-39.8		2.4790	-15.3	V	3.0	39.5	1.0	-53.8	-13.0	-40.8		3.3056	-15.7	V	3.0	40.1	1.0	-54.8	-13.0	-41.8		1.6520	-18.0	H	3.0	39.1	1.0	-56.1	-13.0	-43.1		2.4790	-16.5	H	3.0	39.5	1.0	-55.0	-13.0	-42.0		3.3056	-15.9	H	3.0	40.1	1.0	-55.0	-13.0	-42.0		Mid Ch, 836.6MHz										1.6732	-13.3	V	3.0	39.1	1.0	-51.4	-13.0	-38.4		2.5098	-17.3	V	3.0	39.5	1.0	-55.8	-13.0	-42.8		3.3464	-15.6	V	3.0	40.1	1.0	-54.8	-13.0	-41.8		1.6732	-15.0	H	3.0	39.1	1.0	-53.2	-13.0	-40.2		2.5098	-17.8	H	3.0	39.5	1.0	-56.3	-13.0	-43.3		3.3464	-15.9	H	3.0	40.1	1.0	-55.1	-13.0	-42.1		High Ch, 846.6MHz										1.6932	-15.6	V	3.0	39.1	1.0	-53.7	-13.0	-40.7		2.5390	-16.9	V	3.0	39.6	1.0	-55.4	-13.0	-42.4		3.3860	-15.3	V	3.0	40.2	1.0	-54.5	-13.0	-41.5		1.6932	-15.7	H	3.0	39.1	1.0	-53.8	-13.0	-40.8		2.5390	-17.1	H	3.0	39.6	1.0	-55.7	-13.0	-42.7		3.3860	-16.0	H	3.0	40.2	1.0	-55.2	-13.0	-42.2		Rev. 03.03.09										Note: No other emissions were detected above the system noise floor.									
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Rev. 03.03.09																																																																																																																																																																																																																																																	
Note: No other emissions were detected above the system noise floor.																																																																																																																																																																																																																																																	

WCDMA Band 2

WCDMA

Band 2

REL99

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company:

Samsung

Project #:

16K22598

Date:

01-21-16

Test Engineer:

Steven Kim

Configuration:

EUT / AC Adapter / Earphone / X Position

Mode:

Tx, REL99,1900MHz

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.7048	-12.8	V	3.0	40.5	1.0	-52.3	-13.0	-39.3	
5.5572	-6.3	V	3.0	40.8	1.0	-46.1	-13.0	-33.1	
7.4096	-9.3	V	3.0	40.8	1.0	-49.1	-13.0	-36.1	
3.7048	-13.8	H	3.0	40.5	1.0	-53.3	-13.0	-40.3	
5.5572	-10.2	H	3.0	40.8	1.0	-50.0	-13.0	-37.0	
7.4096	-9.2	H	3.0	40.8	1.0	-49.0	-13.0	-36.0	
Mid Ch, 1880MHz									
3.7600	-7.2	V	3.0	40.5	1.0	-46.8	-13.0	-33.8	
5.6400	-1.0	V	3.0	40.8	1.0	-40.8	-13.0	-27.8	
7.5200	-1.7	V	3.0	40.7	1.0	-41.4	-13.0	-28.4	
3.7600	-8.3	H	3.0	40.5	1.0	-47.9	-13.0	-34.9	
5.6400	-3.0	H	3.0	40.8	1.0	-42.8	-13.0	-29.8	
7.5200	-5.4	H	3.0	40.7	1.0	-45.1	-13.0	-32.1	
High Ch, 1907.6MHz									
3.8152	-11.9	V	3.0	40.6	1.0	-51.5	-13.0	-38.5	
5.7228	-3.6	V	3.0	40.8	1.0	-43.4	-13.0	-30.4	
7.6304	-8.2	V	3.0	40.7	1.0	-47.8	-13.0	-34.8	
3.8152	-9.7	H	3.0	40.6	1.0	-49.3	-13.0	-36.3	
5.7228	-7.7	H	3.0	40.8	1.0	-47.5	-13.0	-34.5	
7.6304	-8.2	H	3.0	40.7	1.0	-47.8	-13.0	-34.8	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

WCDMA

Band 2

HSDPA

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company:

Samsung

Project #:

16K22598

Date:

01-21-16

Test Engineer:

Steven Kim

Configuration:

EUT / AC Adapter / Earphone / X Position

Mode:

Tx, HSDPA,1900MHz

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.7048	-10.8	V	3.0	40.5	1.0	-50.3	-13.0	-37.3	
5.5572	-6.1	V	3.0	40.8	1.0	-45.9	-13.0	-32.9	
7.4096	-9.3	V	3.0	40.8	1.0	-49.1	-13.0	-36.1	
3.7048	-14.7	H	3.0	40.5	1.0	-54.2	-13.0	-41.2	
5.5572	-10.2	H	3.0	40.8	1.0	-50.0	-13.0	-37.0	
7.4096	-9.0	H	3.0	40.8	1.0	-48.8	-13.0	-35.8	
Mid Ch, 1880MHz									
3.7600	0.6	V	3.0	40.5	1.0	-38.9	-13.0	-25.9	
5.6400	3.0	V	3.0	40.8	1.0	-36.8	-13.0	-23.8	
7.5200	7.3	V	3.0	40.7	1.0	-32.4	-13.0	-19.4	
3.7600	0.1	H	3.0	40.5	1.0	-39.5	-13.0	-26.5	
5.6400	-0.5	H	3.0	40.8	1.0	-40.3	-13.0	-27.3	
7.5200	1.9	H	3.0	40.7	1.0	-37.8	-13.0	-24.8	
High Ch, 1907.6MHz									
3.8152	-10.8	V	3.0	40.6	1.0	-50.4	-13.0	-37.4	
5.7228	-3.8	V	3.0	40.8	1.0	-43.6	-13.0	-30.6	
7.6304	-9.5	V	3.0	40.7	1.0	-49.2	-13.0	-36.2	
3.8152	-10.3	H	3.0	40.6	1.0	-49.9	-13.0	-36.9	
5.7228	-9.4	H	3.0	40.8	1.0	-49.2	-13.0	-36.2	
7.6304	-8.4	H	3.0	40.7	1.0	-48.0	-13.0	-35.0	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 17

LTE

Band 17

10MHz

QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 16K22598

Date: 01-21-16

Test Engineer: Steven.Kim

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 17, 10MHz BW, QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

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 (709MHz)									
1.4180	-2.0	V	3.0	39.0	1.0	-40.0	-13.0	-27.0	
2.1270	-17.9	V	3.0	39.3	1.0	-56.2	-13.0	-43.2	
2.8360	-23.3	V	3.0	39.7	1.0	-62.0	-13.0	-49.0	
1.4180	-2.3	H	3.0	39.0	1.0	-40.3	-13.0	-27.3	
2.1270	-22.4	H	3.0	39.3	1.0	-60.7	-13.0	-47.7	
2.8360	-23.8	H	3.0	39.7	1.0	-62.5	-13.0	-49.5	
Mid Channel (710MHz)									
1.4200	-9.4	V	3.0	39.0	1.0	-47.4	-13.0	-34.4	
2.1300	-23.0	V	3.0	39.3	1.0	-61.3	-13.0	-48.3	
2.8400	-22.3	V	3.0	39.7	1.0	-61.0	-13.0	-48.0	
1.4200	-2.5	H	3.0	39.0	1.0	-40.5	-13.0	-27.5	
2.1300	-22.6	H	3.0	39.3	1.0	-60.9	-13.0	-47.9	
2.8400	-23.3	H	3.0	39.7	1.0	-62.1	-13.0	-49.1	
High Channel (711MHz)									
1.4220	-8.7	V	3.0	39.0	1.0	-46.7	-13.0	-33.7	
2.1330	-22.1	V	3.0	39.3	1.0	-60.5	-13.0	-47.5	
2.8440	-23.4	V	3.0	39.7	1.0	-62.1	-13.0	-49.1	
1.4220	-2.0	H	3.0	39.0	1.0	-40.0	-13.0	-27.0	
2.1330	-23.4	H	3.0	39.3	1.0	-61.7	-13.0	-48.7	
2.8440	-23.3	H	3.0	39.7	1.0	-62.0	-13.0	-49.0	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE

Band 17

10MHz

16QAM

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 16K22598

Date: 01-21-16

Test Engineer: Steven.Kim

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 17, 10MHz BW, 16QAM

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

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 (709MHz)									
1.4180	-3.6	V	3.0	39.0	1.0	-41.6	-13.0	-28.6	
2.1270	-18.8	V	3.0	39.3	1.0	-57.2	-13.0	-44.2	
2.8360	-23.0	V	3.0	39.7	1.0	-61.7	-13.0	-48.7	
1.4180	-3.4	H	3.0	39.0	1.0	-41.4	-13.0	-28.4	
2.1270	-21.8	H	3.0	39.3	1.0	-60.1	-13.0	-47.1	
2.8360	-24.0	H	3.0	39.7	1.0	-62.7	-13.0	-49.7	
Mid Channel (710MHz)									
1.4200	-10.9	V	3.0	39.0	1.0	-48.9	-13.0	-35.9	
2.1300	-23.3	V	3.0	39.3	1.0	-61.6	-13.0	-48.6	
2.8400	-22.7	V	3.0	39.7	1.0	-61.4	-13.0	-48.4	
1.4200	-4.3	H	3.0	39.0	1.0	-42.3	-13.0	-29.3	
2.1300	-23.4	H	3.0	39.3	1.0	-61.7	-13.0	-48.7	
2.8400	-23.5	H	3.0	39.7	1.0	-62.2	-13.0	-49.2	
High Channel (711MHz)									
1.4220	-10.5	V	3.0	39.0	1.0	-48.5	-13.0	-35.5	
2.1330	-22.5	V	3.0	39.3	1.0	-60.9	-13.0	-47.9	
2.8440	-23.6	V	3.0	39.7	1.0	-62.3	-13.0	-49.3	
1.4220	-3.2	H	3.0	39.0	1.0	-41.2	-13.0	-28.2	
2.1330	-23.6	H	3.0	39.3	1.0	-62.0	-13.0	-49.0	
2.8440	-23.5	H	3.0	39.7	1.0	-62.3	-13.0	-49.3	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE

Band 17

5MHz

QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 16K22598

Date: 01-21-16

Test Engineer: Steven.Kim

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 17, 5MHz BW, QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

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 (706.5MHz)									
1.4130	-10.3	V	3.0	39.0	1.0	-48.3	-13.0	-35.3	
2.1195	-21.2	V	3.0	39.3	1.0	-59.5	-13.0	-46.5	
2.8260	-22.6	V	3.0	39.7	1.0	-61.3	-13.0	-48.3	
1.4130	-10.4	H	3.0	39.0	1.0	-48.4	-13.0	-35.4	
2.1195	-19.6	H	3.0	39.3	1.0	-57.9	-13.0	-44.9	
2.8260	-23.4	H	3.0	39.7	1.0	-62.1	-13.0	-49.1	
Mid Channel (710MHz)									
1.4200	-8.9	V	3.0	39.0	1.0	-46.9	-13.0	-33.9	
2.1300	-21.9	V	3.0	39.3	1.0	-60.2	-13.0	-47.2	
2.8400	-21.3	V	3.0	39.7	1.0	-60.0	-13.0	-47.0	
1.4200	-2.5	H	3.0	39.0	1.0	-40.5	-13.0	-27.5	
2.1300	-23.8	H	3.0	39.3	1.0	-62.2	-13.0	-49.2	
2.8400	-23.5	H	3.0	39.7	1.0	-62.3	-13.0	-49.3	
High Channel (713.5MHz)									
1.4270	-8.5	V	3.0	39.0	1.0	-46.5	-13.0	-33.5	
2.1405	-20.7	V	3.0	39.3	1.0	-59.0	-13.0	-46.0	
2.8540	-23.3	V	3.0	39.7	1.0	-62.0	-13.0	-49.0	
1.4270	-5.8	H	3.0	39.0	1.0	-43.8	-13.0	-30.8	
2.1405	-21.4	H	3.0	39.3	1.0	-59.7	-13.0	-46.7	
2.8540	-23.7	H	3.0	39.7	1.0	-62.4	-13.0	-49.4	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE

Band 17

5MHz

16QAM

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 16K22598

Date: 01-21-16

Test Engineer: Steven.Kim

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 17, 5MHz BW, 16QAM

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

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 (706.5MHz)									
1.4130	7.6	V	3.0	39.0	1.0	-30.4	-13.0	-17.4	
2.1195	-22.1	V	3.0	39.3	1.0	-60.5	-13.0	-47.5	
2.8260	-23.1	V	3.0	39.7	1.0	-61.8	-13.0	-48.8	
1.4130	-12.2	H	3.0	39.0	1.0	-50.2	-13.0	-37.2	
2.1195	-21.1	H	3.0	39.3	1.0	-59.4	-13.0	-46.4	
2.8260	-23.6	H	3.0	39.7	1.0	-62.4	-13.0	-49.4	
Mid Channel (710MHz)									
1.4200	-10.3	V	3.0	39.0	1.0	-48.3	-13.0	-35.3	
2.1300	-22.2	V	3.0	39.3	1.0	-60.6	-13.0	-47.6	
2.8400	-21.6	V	3.0	39.7	1.0	-60.3	-13.0	-47.3	
1.4200	-3.8	H	3.0	39.0	1.0	-41.9	-13.0	-28.9	
2.1300	-24.2	H	3.0	39.3	1.0	-62.6	-13.0	-49.6	
2.8400	-23.6	H	3.0	39.7	1.0	-62.4	-13.0	-49.4	
High Channel (713.5MHz)									
1.4270	-10.5	V	3.0	39.0	1.0	-48.5	-13.0	-35.5	
2.1405	-21.4	V	3.0	39.3	1.0	-59.8	-13.0	-46.8	
2.8540	-23.0	V	3.0	39.7	1.0	-61.8	-13.0	-48.8	
1.4270	-7.8	H	3.0	39.0	1.0	-45.9	-13.0	-32.9	
2.1405	-22.2	H	3.0	39.3	1.0	-60.5	-13.0	-47.5	
2.8540	-24.0	H	3.0	39.7	1.0	-62.7	-13.0	-49.7	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 5

LTE

Band 5

10MHz

QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (829MHz)									
1.6580	-21.2	V	3.0	39.1	1.0	-59.3	-13.0	-46.3	
2.4870	-16.5	V	3.0	39.5	1.0	-55.0	-13.0	-42.0	
3.3160	-21.6	V	3.0	40.1	1.0	-60.7	-13.0	-47.7	
1.6580	-18.5	H	3.0	39.1	1.0	-56.6	-13.0	-43.6	
2.4870	-15.8	H	3.0	39.5	1.0	-54.4	-13.0	-41.4	
3.3160	-21.7	H	3.0	40.1	1.0	-60.8	-13.0	-47.8	
Mid Channel (836.5MHz)									
1.6730	-15.6	V	3.0	39.1	1.0	-53.7	-13.0	-40.7	
2.5090	-22.4	V	3.0	39.5	1.0	-60.9	-13.0	-47.9	
3.3460	-21.7	V	3.0	40.1	1.0	-60.8	-13.0	-47.8	
1.6730	-9.3	H	3.0	39.1	1.0	-47.4	-13.0	-34.4	
2.5090	-22.6	H	3.0	39.5	1.0	-61.2	-13.0	-48.2	
3.3460	-21.8	H	3.0	40.1	1.0	-60.9	-13.0	-47.9	
High Channel (844MHz)									
1.6880	-19.9	V	3.0	39.1	1.0	-58.1	-13.0	-45.1	
2.5320	-23.7	V	3.0	39.5	1.0	-62.2	-13.0	-49.2	
3.3760	-21.8	V	3.0	40.2	1.0	-60.9	-13.0	-47.9	
1.6880	-16.4	H	3.0	39.1	1.0	-54.5	-13.0	-41.5	
2.5320	-18.6	H	3.0	39.5	1.0	-57.1	-13.0	-44.1	
3.3760	-22.4	H	3.0	40.2	1.0	-61.6	-13.0	-48.6	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE

Band 5

10MHz

16QAM

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (829MHz)									
1.6580	-22.0	V	3.0	39.1	1.0	-60.1	-13.0	-47.1	
2.4870	-17.6	V	3.0	39.5	1.0	-56.1	-13.0	-43.1	
3.3160	-21.7	V	3.0	40.1	1.0	-60.8	-13.0	-47.8	
1.6580	-19.3	H	3.0	39.1	1.0	-57.5	-13.0	-44.5	
2.4870	-17.2	H	3.0	39.5	1.0	-55.7	-13.0	-42.7	
3.3160	-21.9	H	3.0	40.1	1.0	-61.0	-13.0	-48.0	
Mid Channel (836.5MHz)									
1.6730	-17.1	V	3.0	39.1	1.0	-55.3	-13.0	-42.3	
2.5090	-22.8	V	3.0	39.5	1.0	-61.3	-13.0	-48.3	
3.3460	-21.6	V	3.0	40.1	1.0	-60.8	-13.0	-47.8	
1.6730	-10.5	H	3.0	39.1	1.0	-48.7	-13.0	-35.7	
2.5090	-23.0	H	3.0	39.5	1.0	-61.5	-13.0	-48.5	
3.3460	-21.9	H	3.0	40.1	1.0	-61.0	-13.0	-48.0	
High Channel (844MHz)									
1.6880	-20.4	V	3.0	39.1	1.0	-58.5	-13.0	-45.5	
2.5320	-23.7	V	3.0	39.5	1.0	-62.3	-13.0	-49.3	
3.3760	-22.3	V	3.0	40.2	1.0	-61.5	-13.0	-48.5	
1.6880	-17.4	H	3.0	39.1	1.0	-55.6	-13.0	-42.6	
2.5320	-19.7	H	3.0	39.5	1.0	-58.2	-13.0	-45.2	
3.3760	-22.6	H	3.0	40.2	1.0	-61.8	-13.0	-48.8	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 5 5MHz QPSK	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Project #: Date: Test Engineer: Configuration: Mode: Samsung 16K22598 01-20-16 Steven.Kim EUT / AC Adapter / Earphone, X Position TX, LTE BAND 5, 5MHz BW, QPSK Chamber Pre-amplifier Filter Limit Chamber 2 AFS42 Filter 1 Part 22 <table> <tr> <th>f GHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Distance (m)</th><th>Preamp (dB)</th><th>Filter (dB)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Delta (dB)</th><th>Notes</th></tr> <tr><td colspan="10">Low Channel (826.5MHz)</td></tr> <tr><td>1.6530</td><td>-15.1</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.2</td><td>-13.0</td><td>-40.2</td><td></td></tr> <tr><td>2.4790</td><td>-21.1</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-59.7</td><td>-13.0</td><td>-46.7</td><td></td></tr> <tr><td>3.3060</td><td>-22.9</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-62.0</td><td>-13.0</td><td>-49.0</td><td></td></tr> <tr><td>1.6530</td><td>-17.1</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-55.2</td><td>-13.0</td><td>-42.2</td><td></td></tr> <tr><td>2.4790</td><td>-16.4</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-54.9</td><td>-13.0</td><td>-41.9</td><td></td></tr> <tr><td>3.3060</td><td>-23.0</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-62.1</td><td>-13.0</td><td>-49.1</td><td></td></tr> <tr><td colspan="10">Mid Channel (836.5MHz)</td></tr> <tr><td>1.6730</td><td>-18.4</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-56.5</td><td>-13.0</td><td>-43.5</td><td></td></tr> <tr><td>2.5090</td><td>-24.5</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-63.0</td><td>-13.0</td><td>-50.0</td><td></td></tr> <tr><td>3.3460</td><td>-22.4</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-61.6</td><td>-13.0</td><td>-48.6</td><td></td></tr> <tr><td>1.6730</td><td>-14.8</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.0</td><td>-13.0</td><td>-40.0</td><td></td></tr> <tr><td>2.5090</td><td>-23.1</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-61.6</td><td>-13.0</td><td>-48.6</td><td></td></tr> <tr><td>3.3460</td><td>-23.0</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-62.1</td><td>-13.0</td><td>-49.1</td><td></td></tr> <tr><td colspan="10">High Channel (846.5MHz)</td></tr> <tr><td>1.6930</td><td>-18.4</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-56.5</td><td>-13.0</td><td>-43.5</td><td></td></tr> <tr><td>2.5390</td><td>-21.3</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-59.9</td><td>-13.0</td><td>-46.9</td><td></td></tr> <tr><td>3.3860</td><td>-22.7</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-61.9</td><td>-13.0</td><td>-48.9</td><td></td></tr> <tr><td>1.6930</td><td>-13.8</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-52.0</td><td>-13.0</td><td>-39.0</td><td></td></tr> <tr><td>2.5390</td><td>-21.4</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-60.0</td><td>-13.0</td><td>-47.0</td><td></td></tr> <tr><td>3.3860</td><td>-23.0</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-62.2</td><td>-13.0</td><td>-49.2</td><td></td></tr> </table> Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Channel (826.5MHz)										1.6530	-15.1	V	3.0	39.1	1.0	-53.2	-13.0	-40.2		2.4790	-21.1	V	3.0	39.5	1.0	-59.7	-13.0	-46.7		3.3060	-22.9	V	3.0	40.1	1.0	-62.0	-13.0	-49.0		1.6530	-17.1	H	3.0	39.1	1.0	-55.2	-13.0	-42.2		2.4790	-16.4	H	3.0	39.5	1.0	-54.9	-13.0	-41.9		3.3060	-23.0	H	3.0	40.1	1.0	-62.1	-13.0	-49.1		Mid Channel (836.5MHz)										1.6730	-18.4	V	3.0	39.1	1.0	-56.5	-13.0	-43.5		2.5090	-24.5	V	3.0	39.5	1.0	-63.0	-13.0	-50.0		3.3460	-22.4	V	3.0	40.1	1.0	-61.6	-13.0	-48.6		1.6730	-14.8	H	3.0	39.1	1.0	-53.0	-13.0	-40.0		2.5090	-23.1	H	3.0	39.5	1.0	-61.6	-13.0	-48.6		3.3460	-23.0	H	3.0	40.1	1.0	-62.1	-13.0	-49.1		High Channel (846.5MHz)										1.6930	-18.4	V	3.0	39.1	1.0	-56.5	-13.0	-43.5		2.5390	-21.3	V	3.0	39.6	1.0	-59.9	-13.0	-46.9		3.3860	-22.7	V	3.0	40.2	1.0	-61.9	-13.0	-48.9		1.6930	-13.8	H	3.0	39.1	1.0	-52.0	-13.0	-39.0		2.5390	-21.4	H	3.0	39.6	1.0	-60.0	-13.0	-47.0		3.3860	-23.0	H	3.0	40.2	1.0	-62.2	-13.0	-49.2		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes																																																																																																																																																																																																																					
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Mid Channel (836.5MHz)																																																																																																																																																																																																																														
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3.3460	-22.4	V	3.0	40.1	1.0	-61.6	-13.0	-48.6																																																																																																																																																																																																																						
1.6730	-14.8	H	3.0	39.1	1.0	-53.0	-13.0	-40.0																																																																																																																																																																																																																						
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High Channel (846.5MHz)																																																																																																																																																																																																																														
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2.5390	-21.3	V	3.0	39.6	1.0	-59.9	-13.0	-46.9																																																																																																																																																																																																																						
3.3860	-22.7	V	3.0	40.2	1.0	-61.9	-13.0	-48.9																																																																																																																																																																																																																						
1.6930	-13.8	H	3.0	39.1	1.0	-52.0	-13.0	-39.0																																																																																																																																																																																																																						
2.5390	-21.4	H	3.0	39.6	1.0	-60.0	-13.0	-47.0																																																																																																																																																																																																																						
3.3860	-23.0	H	3.0	40.2	1.0	-62.2	-13.0	-49.2																																																																																																																																																																																																																						
LTE Band 5 5MHz 16QAM	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Project #: Date: Test Engineer: Configuration: Mode: Samsung 16K22598 01-20-16 Steven.Kim EUT / AC Adapter / Earphone, X Position TX, LTE BAND 5, 5MHz BW, 16QAM Chamber Pre-amplifier Filter Limit Chamber 2 AFS42 Filter 1 Part 22 <table> <tr> <th>f GHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Distance (m)</th><th>Preamp (dB)</th><th>Filter (dB)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Delta (dB)</th><th>Notes</th></tr> <tr><td colspan="10">Low Channel (826.5MHz)</td></tr> <tr><td>1.6530</td><td>-16.8</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-54.9</td><td>-13.0</td><td>-41.9</td><td></td></tr> <tr><td>2.4790</td><td>-22.4</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-60.9</td><td>-13.0</td><td>-47.9</td><td></td></tr> <tr><td>3.3060</td><td>-22.7</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-61.8</td><td>-13.0</td><td>-48.8</td><td></td></tr> <tr><td>1.6530</td><td>-18.2</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-56.3</td><td>-13.0</td><td>-43.3</td><td></td></tr> <tr><td>2.4790</td><td>-17.8</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-56.3</td><td>-13.0</td><td>-43.3</td><td></td></tr> <tr><td>3.3060</td><td>-23.0</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-62.1</td><td>-13.0</td><td>-49.1</td><td></td></tr> <tr><td colspan="10">Mid Channel (836.5MHz)</td></tr> <tr><td>1.6730</td><td>-19.5</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-57.6</td><td>-13.0</td><td>-44.6</td><td></td></tr> <tr><td>2.5090</td><td>-24.5</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-63.0</td><td>-13.0</td><td>-50.0</td><td></td></tr> <tr><td>3.3460</td><td>-22.7</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-61.9</td><td>-13.0</td><td>-48.9</td><td></td></tr> <tr><td>1.6730</td><td>-13.8</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-51.9</td><td>-13.0</td><td>-38.9</td><td></td></tr> <tr><td>2.5090</td><td>-23.9</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-62.4</td><td>-13.0</td><td>-49.4</td><td></td></tr> <tr><td>3.3460</td><td>-23.1</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-62.2</td><td>-13.0</td><td>-49.2</td><td></td></tr> <tr><td colspan="10">High Channel (846.5MHz)</td></tr> <tr><td>1.6930</td><td>-19.8</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-58.0</td><td>-13.0</td><td>-45.0</td><td></td></tr> <tr><td>2.5390</td><td>-22.6</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-61.2</td><td>-13.0</td><td>-48.2</td><td></td></tr> <tr><td>3.3860</td><td>-22.7</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-61.9</td><td>-13.0</td><td>-48.9</td><td></td></tr> <tr><td>1.6930</td><td>-15.3</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-53.4</td><td>-13.0</td><td>-40.4</td><td></td></tr> <tr><td>2.5390</td><td>-22.7</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-61.2</td><td>-13.0</td><td>-48.2</td><td></td></tr> <tr><td>3.3860</td><td>-22.9</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-62.1</td><td>-13.0</td><td>-49.1</td><td></td></tr> </table> Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Channel (826.5MHz)										1.6530	-16.8	V	3.0	39.1	1.0	-54.9	-13.0	-41.9		2.4790	-22.4	V	3.0	39.5	1.0	-60.9	-13.0	-47.9		3.3060	-22.7	V	3.0	40.1	1.0	-61.8	-13.0	-48.8		1.6530	-18.2	H	3.0	39.1	1.0	-56.3	-13.0	-43.3		2.4790	-17.8	H	3.0	39.5	1.0	-56.3	-13.0	-43.3		3.3060	-23.0	H	3.0	40.1	1.0	-62.1	-13.0	-49.1		Mid Channel (836.5MHz)										1.6730	-19.5	V	3.0	39.1	1.0	-57.6	-13.0	-44.6		2.5090	-24.5	V	3.0	39.5	1.0	-63.0	-13.0	-50.0		3.3460	-22.7	V	3.0	40.1	1.0	-61.9	-13.0	-48.9		1.6730	-13.8	H	3.0	39.1	1.0	-51.9	-13.0	-38.9		2.5090	-23.9	H	3.0	39.5	1.0	-62.4	-13.0	-49.4		3.3460	-23.1	H	3.0	40.1	1.0	-62.2	-13.0	-49.2		High Channel (846.5MHz)										1.6930	-19.8	V	3.0	39.1	1.0	-58.0	-13.0	-45.0		2.5390	-22.6	V	3.0	39.6	1.0	-61.2	-13.0	-48.2		3.3860	-22.7	V	3.0	40.2	1.0	-61.9	-13.0	-48.9		1.6930	-15.3	H	3.0	39.1	1.0	-53.4	-13.0	-40.4		2.5390	-22.7	H	3.0	39.6	1.0	-61.2	-13.0	-48.2		3.3860	-22.9	H	3.0	40.2	1.0	-62.1	-13.0	-49.1		
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