Band

LTE12

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 5MHz 16-QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
701.50	15.04	V	0.9	0.0	14.14	38.5	-24.3	
701.50	-3.70	H	0.9	0.0	-4.60	38.5	-43.0	
Mid Ch								
707.50	14.70	V	0.9	0.0	13.80	38.5	-24.6	
707.50	-3.45	H	0.9	0.0	-4.35	38.5	-42.8	
High Ch								
713.50	15.96	V	0.9	0.0	15.06	38.5	-23.4	
713.50	-2.99	H	0.9	0.0	-3.89	38.5	-42.3	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE12

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 5MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
701.50	15.69	V	0.9	0.0	14.79	38.5	-23.7	
701.50	-3.00	H	0.9	0.0	-3.90	38.5	-42.3	
Mid Ch								
707.50	16.00	V	0.9	0.0	15.10	38.5	-23.3	
707.50	-2.15	H	0.9	0.0	-3.05	38.5	-41.5	
High Ch								
713.50	16.59	V	0.9	0.0	15.69	38.5	-22.8	
713.50	-1.99	H	0.9	0.0	-2.89	38.5	-41.3	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE12

3MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 3MHz 16-QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
700.50	15.40	V	0.9	0.0	14.50	38.5	-23.9	
700.50	-3.70	H	0.9	0.0	-4.60	38.5	-43.0	
Mid Ch								
707.50	15.26	V	0.9	0.0	14.36	38.5	-24.1	
707.50	-3.65	H	0.9	0.0	-4.55	38.5	-43.0	
High Ch								
714.50	15.14	V	0.9	0.0	14.24	38.5	-24.2	
714.50	-2.99	H	0.9	0.0	-3.89	38.5	-42.3	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE12

3MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 3MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
700.50	14.80	V	0.9	0.0	13.90	38.5	-24.5	
700.50	-4.30	H	0.9	0.0	-5.20	38.5	-43.6	
Mid Ch								
707.50	16.56	V	0.9	0.0	15.66	38.5	-22.8	
707.50	-2.38	H	0.9	0.0	-3.28	38.5	-41.7	
High Ch								
714.50	16.09	V	0.9	0.0	15.19	38.5	-23.3	
714.50	-3.29	H	0.9	0.0	-4.19	38.5	-42.6	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE12

1.4MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 1.4MHz 16-QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
699.70	14.99	V	0.9	0.0	14.09	38.5	-24.4	
699.70	-3.70	H	0.9	0.0	-4.60	38.5	-43.0	
Mid Ch								
707.50	15.26	V	0.9	0.0	14.36	38.5	-24.1	
707.50	-3.65	H	0.9	0.0	-4.55	38.5	-43.0	
High Ch								
715.30	15.69	V	0.9	0.0	14.79	38.5	-23.7	
715.30	-2.99	H	0.9	0.0	-3.89	38.5	-42.3	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE12

1.4MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE12 1.4MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
699.70	15.40	V	0.9	0.0	14.50	38.5	-23.9	
699.70	-4.30	H	0.9	0.0	-5.20	38.5	-43.6	
Mid Ch								
707.50	16.56	V	0.9	0.0	15.66	38.5	-22.8	
707.50	-2.38	H	0.9	0.0	-3.28	38.5	-41.7	
High Ch								
715.30	16.10	V	0.9	0.0	15.20	38.5	-23.2	
715.30	-3.29	H	0.9	0.0	-4.19	38.5	-42.6	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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LTE Band 17

Band

LTE17

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: EUT only
Location: Chamber C
Mode: LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
709.00	14.79	V	0.9	0.0	13.89	34.8	-20.9	
709.00	-6.00	H	0.9	0.0	-6.90	34.8	-41.7	
Mid Ch								
710.00	15.00	V	0.9	0.0	14.10	34.8	-20.7	
710.00	-5.92	H	0.9	0.0	-6.82	34.8	-41.6	
High Ch								
711.00	15.20	V	0.9	0.0	14.30	34.8	-20.5	
711.00	-6.19	H	0.9	0.0	-7.09	34.8	-41.9	

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Band

LTE17

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: EUT only
Location: Chamber C
Mode: LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
709.00	15.48	V	0.9	0.0	14.58	34.8	-20.2	
709.00	-5.26	H	0.9	0.0	-6.16	34.8	-40.9	
Mid Ch								
710.00	16.18	V	0.9	0.0	15.28	34.8	-19.5	
710.00	-5.56	H	0.9	0.0	-6.46	34.8	-41.2	
High Ch								
711.00	15.82	V	0.9	0.0	14.92	34.8	-19.9	
711.00	-5.39	H	0.9	0.0	-6.29	34.8	-41.1	

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Band

LTE17

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: EUT only
Location: Chamber C
Mode: LTE_16QAM Band 17 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
706.50	14.61	V	0.9	0.0	13.71	34.8	-21.1	
706.50	-6.30	H	0.9	0.0	-7.20	34.8	-42.0	
Mid Ch								
710.00	14.74	V	0.9	0.0	13.84	34.8	-20.9	
710.00	-5.95	H	0.9	0.0	-6.85	34.8	-41.6	
High Ch								
713.50	15.94	V	0.9	0.0	15.04	34.8	-19.7	
713.50	-5.29	H	0.9	0.0	-6.19	34.8	-41.0	

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Band

LTE17

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: EUT only
Location: Chamber C
Mode: LTE_QPSK Band 17 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
706.50	15.86	V	0.9	0.0	14.96	34.8	-19.8	
706.50	-5.00	H	0.9	0.0	-5.90	34.8	-40.7	
Mid Ch								
710.00	16.35	V	0.9	0.0	15.45	34.8	-19.3	
710.00	-4.30	H	0.9	0.0	-5.20	34.8	-40.0	
High Ch								
713.50	16.50	V	0.9	0.0	15.60	34.8	-19.2	
713.50	-3.59	H	0.9	0.0	-4.49	34.8	-39.3	

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LTE Band 5

Band

LTE5

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 10MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
829.00	17.80	V	0.9	0.0	16.90	38.5	-21.5	
829.00	3.47	H	0.9	0.0	2.57	38.5	-35.9	
Mid Ch								
836.50	18.56	V	0.9	0.0	17.66	38.5	-20.8	
836.50	4.70	H	0.9	0.0	3.80	38.5	-34.6	
High Ch								
844.00	19.63	V	0.9	0.0	18.73	38.5	-19.7	
844.00	5.11	H	0.9	0.0	4.21	38.5	-34.2	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 10MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
829.00	18.63	V	0.9	0.0	17.73	38.5	-20.7	
829.00	4.46	H	0.9	0.0	3.56	38.5	-34.9	
Mid Ch								
836.50	19.03	V	0.9	0.0	18.13	38.5	-20.3	
836.50	5.20	H	0.9	0.0	4.30	38.5	-34.1	
High Ch								
844.00	20.23	V	0.9	0.0	19.33	38.5	-19.1	
844.00	5.44	H	0.9	0.0	4.54	38.5	-33.9	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 4/28/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 5MHz 16-QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.50	19.17	V	0.9	0.0	18.27	38.5	-20.2	
826.50	6.00	H	0.9	0.0	5.10	38.5	-33.3	
Mid Ch								
836.50	19.15	V	0.9	0.0	18.25	38.5	-20.2	
836.50	6.64	H	0.9	0.0	5.74	38.5	-32.7	
High Ch								
846.50	19.84	V	0.9	0.0	18.94	38.5	-19.5	
846.50	7.10	H	0.9	0.0	6.20	38.5	-32.2	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 5/4/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 5MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.50	19.96	V	0.9	0.0	19.06	38.5	-19.4	
826.50	7.57	H	0.9	0.0	6.67	38.5	-31.8	
Mid Ch								
836.50	19.91	V	0.9	0.0	19.01	38.5	-19.4	
836.50	8.64	H	0.9	0.0	7.74	38.5	-30.7	
High Ch								
846.50	20.67	V	0.9	0.0	19.77	38.5	-18.7	
846.50	8.60	H	0.9	0.0	7.70	38.5	-30.7	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

3MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 5/4/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 3MHz 16 QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
825.50	18.94	V	0.9	0.0	18.04	38.5	-20.4	
825.50	5.10	H	0.9	0.0	4.20	38.5	-34.2	
Mid Ch								
836.50	19.04	V	0.9	0.0	18.14	38.5	-20.3	
836.50	5.44	H	0.9	0.0	4.54	38.5	-33.9	
High Ch								
847.50	19.58	V	0.9	0.0	18.68	38.5	-19.8	
847.50	6.20	H	0.9	0.0	5.30	38.5	-33.1	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

3MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 5/4/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 3MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
825.50	20.04	V	0.9	0.0	19.14	38.5	-19.3	
825.50	5.37	H	0.9	0.0	4.47	38.5	-34.0	
Mid Ch								
836.50	20.03	V	0.9	0.0	19.13	38.5	-19.3	
836.50	5.74	H	0.9	0.0	4.84	38.5	-33.6	
High Ch								
847.50	20.65	V	0.9	0.0	19.75	38.5	-18.7	
847.50	6.30	H	0.9	0.0	5.40	38.5	-33.0	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

1.4MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 5/4/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 1.4 MHz 16-QAM

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	19.04	V	0.9	0.0	18.14	38.5	-20.3	
824.70	5.10	H	0.9	0.0	4.20	38.5	-34.2	
Mid Ch								
836.50	19.25	V	0.9	0.0	18.35	38.5	-20.1	
836.50	6.04	H	0.9	0.0	5.14	38.5	-33.3	
High Ch								
848.30	19.71	V	0.9	0.0	18.81	38.5	-19.6	
848.30	6.50	H	0.9	0.0	5.60	38.5	-32.8	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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Band

LTE5

1.4MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 15J20225
Date: 5/4/2015
Test Engineer: David Mun
Configuration: EUT Z-position
Mode: LTE5 1.4 MHz QPSK

Test Equipment:
Receiving: Sunol T185, and 3m Chamber C N-type Cable
Substitution: Dipole T273, 4ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	19.94	V	0.9	0.0	19.04	38.5	-19.4	
824.70	6.20	H	0.9	0.0	5.30	38.5	-33.1	
Mid Ch								
836.50	20.14	V	0.9	0.0	19.24	38.5	-19.2	
836.50	6.80	H	0.9	0.0	5.90	38.5	-32.5	
High Ch								
848.30	20.45	V	0.9	0.0	19.55	38.5	-18.9	
848.30	58.10	H	0.9	0.0	57.20	38.5	18.8	

Rev. 3.17.11
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

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LTE Band 4

Band

LTE4

20MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 20MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1720.00	1.03	V	0.9	8.2	8.37	30.0	-21.6	
1720.00	8.69	H	0.9	8.2	16.03	30.0	-14.0	
Mid Ch								
1732.50	0.70	V	0.9	8.2	7.97	30.0	-22.0	
1732.50	10.28	H	0.9	8.2	17.55	30.0	-12.4	
High Ch								
1745.00	1.32	V	0.9	8.1	8.52	30.0	-21.5	
1745.00	9.01	H	0.9	8.1	16.21	30.0	-13.8	

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Band

LTE4

20MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 20MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1720.00	1.68	V	0.9	8.2	9.02	30.0	-21.0	
1720.00	9.35	H	0.9	8.2	16.69	30.0	-13.3	
Mid Ch								
1732.50	1.47	V	0.9	8.2	8.74	30.0	-21.3	
1732.50	11.10	H	0.9	8.2	18.37	30.0	-11.6	
High Ch								
1745.00	1.96	V	0.9	8.1	9.16	30.0	-20.8	
1745.00	9.82	H	0.9	8.1	17.02	30.0	-13.0	

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Band

LTE4

15MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1717.50	0.75	V	0.9	8.2	8.10	30.0	-21.9	
1717.50	8.51	H	0.9	8.2	15.86	30.0	-14.1	
Mid Ch								
1732.50	0.42	V	0.9	8.2	7.69	30.0	-22.3	
1732.50	9.96	H	0.9	8.2	17.23	30.0	-12.8	
High Ch								
1747.50	1.07	V	0.9	8.1	8.26	30.0	-21.7	
1747.50	9.09	H	0.9	8.1	16.28	30.0	-13.7	

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Band

LTE4

15MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1717.50	1.61	V	0.9	8.2	8.96	30.0	-21.0	
1717.50	9.14	H	0.9	8.2	16.49	30.0	-13.5	
Mid Ch								
1732.50	1.32	V	0.9	8.2	8.59	30.0	-21.4	
1732.50	10.75	H	0.9	8.2	18.02	30.0	-12.0	
High Ch								
1747.50	1.85	V	0.9	8.1	9.04	30.0	-21.0	
1747.50	9.92	H	0.9	8.1	17.11	30.0	-12.9	

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Band

LTE4

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1715.00	0.90	V	0.9	8.2	8.17	30.0	-21.8	
1715.00	8.48	H	0.9	8.2	15.75	30.0	-14.2	
Mid Ch								
1732.50	0.71	V	0.9	8.2	7.98	30.0	-22.0	
1732.50	9.86	H	0.9	8.2	17.13	30.0	-12.9	
High Ch								
1750.00	1.28	V	0.9	8.1	8.47	30.0	-21.5	
1750.00	9.07	H	0.9	8.1	16.26	30.0	-13.7	

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Band

LTE4

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1715.00	1.68	V	0.9	8.2	8.95	30.0	-21.0	
1715.00	9.17	H	0.9	8.2	16.44	30.0	-13.6	
Mid Ch								
1732.50	1.43	V	0.9	8.2	8.70	30.0	-21.3	
1732.50	10.64	H	0.9	8.2	17.91	30.0	-12.1	
High Ch								
1750.00	1.94	V	0.9	8.1	9.13	30.0	-20.9	
1750.00	9.90	H	0.9	8.1	17.09	30.0	-12.9	

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Band

LTE4

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1712.50	0.70	V	0.9	8.2	8.04	30.0	-22.0	
1712.50	8.03	H	0.9	8.2	15.37	30.0	-14.6	
Mid Ch								
1732.50	0.30	V	0.9	8.2	7.57	30.0	-22.4	
1732.50	9.56	H	0.9	8.2	16.83	30.0	-13.2	
High Ch								
1752.50	0.88	V	0.9	8.1	8.08	30.0	-21.9	
1752.50	10.68	H	0.9	8.1	17.88	30.0	-12.1	

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Band

LTE4

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1712.50	1.57	V	0.9	8.2	8.91	30.0	-21.1	
1712.50	8.65	H	0.9	8.2	15.99	30.0	-14.0	
Mid Ch								
1732.50	1.09	V	0.9	8.2	8.36	30.0	-21.6	
1732.50	10.33	H	0.9	8.2	17.60	30.0	-12.4	
High Ch								
1752.50	1.74	V	0.9	8.1	8.94	30.0	-21.1	
1752.50	11.36	H	0.9	8.1	18.56	30.0	-11.4	

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Band

LTE4

3MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 3MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1711.50	1.01	V	0.9	8.2	8.36	30.0	-21.6	
1711.50	8.06	H	0.9	8.2	15.41	30.0	-14.6	
Mid Ch								
1732.50	0.68	V	0.9	8.2	7.95	30.0	-22.0	
1732.50	9.60	H	0.9	8.2	16.87	30.0	-13.1	
High Ch								
1753.50	1.27	V	0.9	8.1	8.46	30.0	-21.5	
1753.50	10.76	H	0.9	8.1	17.95	30.0	-12.0	

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Band

LTE4

3MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1711.50	1.70	V	0.9	8.2	9.05	30.0	-21.0	
1711.50	8.63	H	0.9	8.2	15.98	30.0	-14.0	
Mid Ch								
1732.50	1.42	V	0.9	8.2	8.69	30.0	-21.3	
1732.50	10.33	H	0.9	8.2	17.60	30.0	-12.4	
High Ch								
1753.50	2.06	V	0.9	8.1	9.25	30.0	-20.7	
1753.50	11.49	H	0.9	8.1	18.68	30.0	-11.3	

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Band

LTE4

1.4MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_16QAM Band 4 Fundamentals, 1.4MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1710.70	0.86	V	0.9	8.2	8.13	30.0	-21.9	
1710.70	8.05	H	0.9	8.2	15.32	30.0	-14.7	
Mid Ch								
1732.50	0.43	V	0.9	8.2	7.70	30.0	-22.3	
1732.50	9.08	H	0.9	8.2	16.35	30.0	-13.6	
High Ch								
1754.30	1.65	V	0.9	8.1	8.84	30.0	-21.2	
1754.30	10.61	H	0.9	8.1	17.80	30.0	-12.2	

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Band

LTE4

1.4MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/20/2015
Test Engineer: R. Alegre
Configuration: EUT Only
Location: Chamber C
Mode: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T59, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1710.70	1.62	V	0.9	8.2	8.89	30.0	-21.1	
1710.70	8.74	H	0.9	8.2	16.01	30.0	-14.0	
Mid Ch								
1732.50	1.29	V	0.9	8.2	8.56	30.0	-21.4	
1732.50	9.76	H	0.9	8.2	17.03	30.0	-13.0	
High Ch								
1754.30	2.32	V	0.9	8.1	9.51	30.0	-20.5	
1754.30	11.39	H	0.9	8.1	18.58	30.0	-11.4	

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LTE Band 2

Band

LTE2

20MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth

Test Equpment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1860.00	7.18	V	0.9	8.0	14.29	33.0	-18.7	
1860.00	14.02	H	0.9	8.0	21.13	33.0	-11.9	
Mid Ch								
1880.00	7.37	V	0.9	8.0	14.48	33.0	-18.5	
1880.00	14.54	H	0.9	8.0	21.65	33.0	-11.4	
High Ch								
1900.00	6.51	V	0.9	8.0	13.62	33.0	-19.4	
1900.00	15.25	H	0.9	8.0	22.36	33.0	-10.6	

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Band

LTE2

20MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 20MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1860.00	7.93	V	0.9	8.0	15.04	33.0	-18.0	
1860.00	14.94	H	0.9	8.0	22.05	33.0	-11.0	
Mid Ch								
1880.00	8.21	V	0.9	8.0	15.32	33.0	-17.7	
1880.00	15.43	H	0.9	8.0	22.54	33.0	-10.5	
High Ch								
1900.00	7.36	V	0.9	8.0	14.47	33.0	-18.5	
1900.00	15.99	H	0.9	8.0	23.10	33.0	-9.9	

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Band

LTE2

15MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1857.50	7.13	V	0.9	8.0	14.24	33.0	-18.8	
1857.50	13.90	H	0.9	8.0	21.01	33.0	-12.0	
Mid Ch								
1880.00	7.32	V	0.9	8.0	14.43	33.0	-18.6	
1880.00	14.50	H	0.9	8.0	21.61	33.0	-11.4	
High Ch								
1902.50	6.55	V	0.9	8.0	13.66	33.0	-19.3	
1902.50	14.74	H	0.9	8.0	21.85	33.0	-11.2	

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Band

LTE2

15MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 15MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1857.50	7.88	V	0.9	8.0	14.99	33.0	-18.0	
1857.50	14.85	H	0.9	8.0	21.96	33.0	-11.0	
Mid Ch								
1880.00	8.15	V	0.9	8.0	15.26	33.0	-17.7	
1880.00	15.25	H	0.9	8.0	22.36	33.0	-10.6	
High Ch								
1902.50	7.30	V	0.9	8.0	14.41	33.0	-18.6	
1902.50	15.58	H	0.9	8.0	22.69	33.0	-10.3	

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Band

LTE2

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1855.00	7.16	V	0.9	8.0	14.27	33.0	-18.7	
1855.00	13.80	H	0.9	8.0	20.91	33.0	-12.1	
Mid Ch								
1880.00	7.34	V	0.9	8.0	14.45	33.0	-18.6	
1880.00	14.51	H	0.9	8.0	21.62	33.0	-11.4	
High Ch								
1905.00	6.56	V	0.9	8.0	13.67	33.0	-19.3	
1905.00	14.24	H	0.9	8.0	21.35	33.0	-11.7	

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Band

LTE2

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 10MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1855.00	7.91	V	0.9	8.0	15.02	33.0	-18.0	
1855.00	14.76	H	0.9	8.0	21.87	33.0	-11.1	
Mid Ch								
1880.00	8.16	V	0.9	8.0	15.27	33.0	-17.7	
1880.00	15.45	H	0.9	8.0	22.56	33.0	-10.4	
High Ch								
1905.00	7.31	V	0.9	8.0	14.42	33.0	-18.6	
1905.00	15.05	H	0.9	8.0	22.16	33.0	-10.8	

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Band

LTE2

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1852.50	7.03	V	0.9	8.0	14.14	33.0	-18.9	
1852.50	13.85	H	0.9	8.0	20.96	33.0	-12.0	
Mid Ch								
1880.00	7.43	V	0.9	8.0	14.54	33.0	-18.5	
1880.00	14.40	H	0.9	8.0	21.51	33.0	-11.5	
High Ch								
1907.50	6.55	V	0.9	8.0	13.66	33.0	-19.3	
1907.50	13.91	H	0.9	8.0	21.02	33.0	-12.0	

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Band

LTE2

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 5MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1852.50	7.78	V	0.9	8.0	14.89	33.0	-18.1	
1852.50	14.72	H	0.9	8.0	21.83	33.0	-11.2	
Mid Ch								
1880.00	8.20	V	0.9	8.0	15.31	33.0	-17.7	
1880.00	15.22	H	0.9	8.0	22.33	33.0	-10.7	
High Ch								
1907.50	7.25	V	0.9	8.0	14.36	33.0	-18.6	
1907.50	14.73	H	0.9	8.0	21.84	33.0	-11.2	

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Band

LTE2

3MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 3MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1851.50	7.07	V	0.9	8.0	14.18	33.0	-18.8	
1851.50	13.80	H	0.9	8.0	20.91	33.0	-12.1	
Mid Ch								
1880.00	7.30	V	0.9	8.0	14.41	33.0	-18.6	
1880.00	14.55	H	0.9	8.0	21.66	33.0	-11.3	
High Ch								
1908.50	6.51	V	0.9	8.0	13.62	33.0	-19.4	
1908.50	13.93	H	0.9	8.0	21.04	33.0	-12.0	

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Band

LTE2

3MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 3MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1851.50	7.85	V	0.9	8.0	14.96	33.0	-18.0	
1851.50	14.69	H	0.9	8.0	21.80	33.0	-11.2	
Mid Ch								
1880.00	8.12	V	0.9	8.0	15.23	33.0	-17.8	
1880.00	15.42	H	0.9	8.0	22.53	33.0	-10.5	
High Ch								
1908.50	7.25	V	0.9	8.0	14.36	33.0	-18.6	
1908.50	14.69	H	0.9	8.0	21.80	33.0	-11.2	

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Band

LTE2

1.4MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_16QAM Band 2 Fundamentals, 1.4MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1850.70	7.11	V	0.9	8.0	14.22	33.0	-18.8	
1850.70	13.67	H	0.9	8.0	20.78	33.0	-12.2	
Mid Ch								
1880.00	7.45	V	0.9	8.0	14.56	33.0	-18.4	
1880.00	14.32	H	0.9	8.0	21.43	33.0	-11.6	
High Ch								
1909.30	6.62	V	0.9	8.0	13.73	33.0	-19.3	
1909.30	13.91	H	0.9	8.0	21.02	33.0	-12.0	

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Band

LTE2

1.4MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc.

Company: Sony
Project #: 15J20225
Date: 4/18/2015
Test Engineer: R. Alegre
Configuration: EUT only
Location: Chamber A
Mode: LTE_QPSK Band 2 Fundamentals, 1.4MHz Bandwidth

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn T59, Xft SMA Cable (SN # SERIALNUMBER) Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1850.70	7.88	V	0.9	8.0	14.99	33.0	-18.0	
1850.70	14.60	H	0.9	8.0	21.71	33.0	-11.3	
Mid Ch								
1880.00	8.19	V	0.9	8.0	15.30	33.0	-17.7	
1880.00	15.24	H	0.9	8.0	22.35	33.0	-10.7	
High Ch								
1909.30	7.36	V	0.9	8.0	14.47	33.0	-18.5	
1909.30	14.71	H	0.9	8.0	21.82	33.0	-11.2	

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LTE Band 7

Band

LTE7

20MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 20MHz 16QAM

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2510.00	9.43	V	0.9	9.5	18.03	33.0	-15.0	
2510.00	4.82	H	0.9	9.5	13.42	33.0	-19.6	
Mid Ch								
2535.00	10.99	V	0.9	9.5	19.59	33.0	-13.4	
2535.00	7.30	H	0.9	9.5	15.90	33.0	-17.1	
High Ch								
2560.00	11.10	V	0.9	9.5	19.70	33.0	-13.3	
2560.00	6.93	H	0.9	9.5	15.53	33.0	-17.5	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

20MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 20MHz QPSK

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2510.00	10.19	V	0.9	9.5	18.79	33.0	-14.2	
2510.00	6.02	H	0.9	9.5	14.62	33.0	-18.4	
Mid Ch								
2535.00	11.47	V	0.9	9.5	20.07	33.0	-12.9	
2535.00	7.76	H	0.9	9.5	16.36	33.0	-16.6	
High Ch								
2560.00	11.60	V	0.9	9.5	20.20	33.0	-12.8	
2560.00	8.43	H	0.9	9.5	17.03	33.0	-16.0	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

15MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 15MHz 16QAM

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2507.50	10.13	V	0.9	9.5	18.73	33.0	-14.3	
2507.50	3.12	H	0.9	9.5	11.72	33.0	-21.3	
Mid Ch								
2535.00	10.97	V	0.9	9.5	19.57	33.0	-13.4	
2535.00	3.60	H	0.9	9.5	12.20	33.0	-20.8	
High Ch								
2562.50	11.40	V	0.9	9.5	20.00	33.0	-13.0	
2562.50	4.83	H	0.9	9.5	13.43	33.0	-19.6	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

15MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 15MHz QPSK

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2507.50	10.53	V	0.9	9.5	19.13	33.0	-13.9	
2507.50	3.52	H	0.9	9.5	12.12	33.0	-20.9	
Mid Ch								
2535.00	11.25	V	0.9	9.5	19.85	33.0	-13.1	
2535.00	4.21	H	0.9	9.5	12.81	33.0	-20.2	
High Ch								
2562.50	11.80	V	0.9	9.5	20.40	33.0	-12.6	
2562.50	4.93	H	0.9	9.5	13.53	33.0	-19.5	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

10MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 10MHz 16QAM

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2505.00	10.70	V	0.9	9.5	19.30	33.0	-13.7	
2505.00	5.52	H	0.9	9.5	14.12	33.0	-18.9	
Mid Ch								
2535.00	12.19	V	0.9	9.5	20.79	33.0	-12.2	
2535.00	6.90	H	0.9	9.5	15.50	33.0	-17.5	
High Ch								
2565.00	12.40	V	0.9	9.5	21.00	33.0	-12.0	
2565.00	7.63	H	0.9	9.5	16.23	33.0	-16.8	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

10MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos EUT
Mode: LTE7 10MHz QPSK

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2505.00	11.52	V	0.9	9.5	20.12	33.0	-12.9	
2505.00	6.42	H	0.9	9.5	15.02	33.0	-18.0	
Mid Ch								
2535.00	11.96	V	0.9	9.5	20.56	33.0	-12.4	
2535.00	7.66	H	0.9	9.5	16.26	33.0	-16.7	
High Ch								
2565.00	12.20	V	0.9	9.5	20.80	33.0	-12.2	
2565.00	8.43	H	0.9	9.5	17.03	33.0	-16.0	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

5MHz

16QAM

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z-pos Eut
Mode: LTE7 5MHz 16QAM

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2502.50	9.23	V	0.9	9.5	17.83	33.0	-15.2	
2502.50	4.62	H	0.9	9.5	13.22	33.0	-19.8	
Mid Ch								
2535.00	10.62	V	0.9	9.5	19.22	33.0	-13.8	
2535.00	5.80	H	0.9	9.5	14.40	33.0	-18.6	
High Ch								
2567.50	10.80	V	0.9	9.5	19.40	33.0	-13.6	
2567.50	6.93	H	0.9	9.5	15.53	33.0	-17.5	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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Band

LTE7

5MHz

QPSK

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber A

Company: Sony
Project #: 15J20225
Date: 04/29/15
Test Engineer: David Mun
Configuration: Z- Pos EUT
Mode: LTE7 5MHz QPSK

Test Equipment:
Receiving: Horn T136, and Chamber A SMA Cables
Substitution: Horn S/N: T72, SMA Cable #C6 Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2502.50	9.99	V	0.9	9.5	18.59	33.0	-14.4	
2502.50	5.72	H	0.9	9.5	14.32	33.0	-18.7	
Mid Ch								
2535.00	11.19	V	0.9	9.5	19.79	33.0	-13.2	
2535.00	6.82	H	0.9	9.5	15.42	33.0	-17.6	
High Ch								
2567.50	11.20	V	0.9	9.5	19.80	33.0	-13.2	
2567.50	7.33	H	0.9	9.5	15.93	33.0		

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

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11.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §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.

Part 27: (m)(4) (4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

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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.

MODES TESTED

GSM, WCDMA and LTE

RESULTS

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701I
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11.2.1. SPURIOUS RADIATION PLOTS

GSM

Band

GSM

1900

EGPRS

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: EGPRS 1900 MHz Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.2									
3700.40	-19.8	V	3.0	35.9	1.0	-54.6	-13.0	-41.6	
5550.60	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7400.80	-20.0	V	3.0	35.7	1.0	-54.7	-13.0	-41.7	
3700.40	-20.2	H	3.0	35.9	1.0	-55.0	-13.0	-42.0	
5550.60	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7400.80	-18.2	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
Mid Ch, 1880									
3760.00	-19.7	V	3.0	35.8	1.0	-54.5	-13.0	-41.5	
5640.00	-17.1	V	3.0	35.5	1.0	-51.6	-13.0	-38.6	
7520.00	-19.4	V	3.0	35.7	1.0	-54.2	-13.0	-41.2	
3760.00	-18.3	H	3.0	35.8	1.0	-53.1	-13.0	-40.1	
5640.00	-19.0	H	3.0	35.5	1.0	-53.5	-13.0	-40.5	
7520.00	-17.5	H	3.0	35.7	1.0	-52.2	-13.0	-39.2	
High Ch, 1909.8									
3819.60	-18.1	V	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5729.40	-19.5	V	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7639.20	-19.0	V	3.0	35.8	1.0	-53.7	-13.0	-40.7	
3819.60	-13.0	H	3.0	35.8	1.0	-47.8	-13.0	-34.8	
5729.40	-18.3	H	3.0	35.5	1.0	-52.8	-13.0	-39.8	
7639.20	-17.3	H	3.0	35.8	1.0	-52.1	-13.0	-39.1	

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Band

GSM

1900

GPRS

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: GPRS 1900 MHz Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.2									
3700.40	-17.9	V	3.0	35.9	1.0	-52.8	-13.0	-39.8	
5550.60	-18.9	V	3.0	35.5	1.0	-53.3	-13.0	-40.3	
7400.80	-19.8	V	3.0	35.7	1.0	-54.5	-13.0	-41.5	
3700.40	-19.9	H	3.0	35.9	1.0	-54.7	-13.0	-41.7	
5550.60	-17.5	H	3.0	35.5	1.0	-52.0	-13.0	-39.0	
7400.80	-18.1	H	3.0	35.7	1.0	-52.8	-13.0	-39.8	
Mid Ch, 1880									
3760.00	-17.6	V	3.0	35.8	1.0	-52.4	-13.0	-39.4	
5640.00	-17.5	V	3.0	35.5	1.0	-52.0	-13.0	-39.0	
7520.00	-19.4	V	3.0	35.7	1.0	-54.2	-13.0	-41.2	
3760.00	-15.7	H	3.0	35.8	1.0	-50.5	-13.0	-37.5	
5640.00	-16.4	H	3.0	35.5	1.0	-50.9	-13.0	-37.9	
7520.00	-18.2	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
High Ch, 1909.8									
3819.60	-17.2	V	3.0	35.8	1.0	-52.0	-13.0	-39.0	
5729.40	-16.8	V	3.0	35.5	1.0	-51.3	-13.0	-38.3	
7639.20	-18.9	V	3.0	35.8	1.0	-53.6	-13.0	-40.6	
3819.60	-10.3	H	3.0	35.8	1.0	-45.1	-13.0	-32.1	
5729.40	-15.4	H	3.0	35.5	1.0	-49.9	-13.0	-36.9	
7639.20	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

GSM

850

EGPRS

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SONY
Project #: 15J20225
Date: 4/21/2015
Test Engineer: G. Escano
Configuration: EUT + Charger
Location: Chamber C
Mode: EGPRS 850 MHz Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.2									
1648.40	-29.8	V	3.0	37.0	1.0	-65.8	-13.0	-52.8	
2472.60	-24.1	V	3.0	36.4	1.0	-59.6	-13.0	-46.6	
3296.80	-22.7	V	3.0	36.2	1.0	-57.8	-13.0	-44.8	
1648.40	-30.0	H	3.0	37.0	1.0	-66.0	-13.0	-53.0	
2472.60	-25.1	H	3.0	36.4	1.0	-60.5	-13.0	-47.5	
3296.80	-23.8	H	3.0	36.2	1.0	-58.9	-13.0	-45.9	
Mid Ch, 836.6									
1673.20	-30.2	V	3.0	37.0	1.0	-66.2	-13.0	-53.2	
2509.80	-24.0	V	3.0	36.4	1.0	-59.4	-13.0	-46.4	
3346.40	-23.2	V	3.0	36.1	1.0	-58.4	-13.0	-45.4	
1673.20	-30.8	H	3.0	37.0	1.0	-66.8	-13.0	-53.8	
2509.80	-26.5	H	3.0	36.4	1.0	-61.9	-13.0	-48.9	
3346.40	-24.1	H	3.0	36.1	1.0	-59.2	-13.0	-46.2	
High Ch, 848.8									
1697.60	-29.3	V	3.0	37.0	1.0	-65.2	-13.0	-52.2	
2546.40	-24.6	V	3.0	36.4	1.0	-60.0	-13.0	-47.0	
3395.20	-22.9	V	3.0	36.1	1.0	-57.9	-13.0	-44.9	
1697.60	-29.7	H	3.0	37.0	1.0	-65.6	-13.0	-52.6	
2546.40	-26.3	H	3.0	36.4	1.0	-61.7	-13.0	-48.7	
3395.20	-23.5	H	3.0	36.1	1.0	-58.6	-13.0	-45.6	

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Band

GSM

850

GPRS

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SONY
Project #: 15J20225
Date: 4/21/2015
Test Engineer: A. Escamilla
Configuration: EUT + Charger
Location: Chamber C
Mode: GPRS 850 MHz Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.2									
1648.40	-28.8	V	3.0	37.0	1.0	-64.8	-13.0	-51.8	
2472.60	-23.7	V	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3296.80	-22.2	V	3.0	36.2	1.0	-57.3	-13.0	-44.3	
1648.40	-28.6	H	3.0	37.0	1.0	-64.7	-13.0	-51.7	
2472.60	-25.4	H	3.0	36.4	1.0	-60.8	-13.0	-47.8	
3296.80	-22.0	H	3.0	36.2	1.0	-57.2	-13.0	-44.2	
Mid Ch, 836.6									
1673.20	-29.9	V	3.0	37.0	1.0	-65.9	-13.0	-52.9	
2509.80	-24.0	V	3.0	36.4	1.0	-59.4	-13.0	-46.4	
3346.40	-23.3	V	3.0	36.1	1.0	-58.4	-13.0	-45.4	
1673.20	-30.7	H	3.0	37.0	1.0	-66.7	-13.0	-53.7	
2509.80	-25.4	H	3.0	36.4	1.0	-60.8	-13.0	-47.8	
3346.40	-23.7	H	3.0	36.1	1.0	-58.8	-13.0	-45.8	
High Ch, 848.8									
1697.60	-29.0	V	3.0	37.0	1.0	-64.9	-13.0	-51.9	
2546.40	-24.3	V	3.0	36.4	1.0	-59.7	-13.0	-46.7	
3395.20	-22.8	V	3.0	36.1	1.0	-57.9	-13.0	-44.9	
1697.60	-28.8	H	3.0	37.0	1.0	-64.8	-13.0	-51.8	
2546.40	-26.0	H	3.0	36.4	1.0	-61.4	-13.0	-48.4	
3395.20	-22.5	H	3.0	36.1	1.0	-57.6	-13.0	-44.6	

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WCDMA

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Mode: HSDPA_B2

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T34 8449B	Filter 1	Part 24

Band	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									
Band 2	3.705	-21.4	V	3.0	35.4	1.0	-55.8	-13.0	-42.8	
	5.557	-20.1	V	3.0	34.7	1.0	-53.8	-13.0	-40.8	
HSDPA	7.410	-18.9	V	3.0	34.9	1.0	-52.8	-13.0	-39.8	
	3.705	-21.7	H	3.0	35.4	1.0	-56.1	-13.0	-43.1	
	5.557	-19.5	H	3.0	34.7	1.0	-53.2	-13.0	-40.2	
	7.410	-17.8	H	3.0	34.9	1.0	-51.7	-13.0	-38.7	
	Mid Ch, 1880MHz									
	3.760	-21.3	V	3.0	35.3	1.0	-55.6	-13.0	-42.6	
	5.640	-19.9	V	3.0	34.7	1.0	-53.7	-13.0	-40.7	
	7.520	-18.4	V	3.0	34.9	1.0	-52.3	-13.0	-39.3	
	3.760	-19.3	H	3.0	35.3	1.0	-53.7	-13.0	-40.7	
	5.640	-19.5	H	3.0	34.7	1.0	-53.2	-13.0	-40.2	
	7.520	-17.4	H	3.0	34.9	1.0	-51.4	-13.0	-38.4	
	High Ch, 1907.6MHz									
	3.815	-21.0	V	3.0	35.3	1.0	-55.3	-13.0	-42.3	
	5.723	-19.7	V	3.0	34.7	1.0	-53.4	-13.0	-40.4	
	7.630	-18.2	V	3.0	34.9	1.0	-52.1	-13.0	-39.1	
	3.815	-21.3	H	3.0	35.3	1.0	-55.6	-13.0	-42.6	
	5.723	-19.2	H	3.0	34.7	1.0	-53.0	-13.0	-40.0	
	7.630	-17.3	H	3.0	34.9	1.0	-51.2	-13.0	-38.2	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Mode: REL99_B2

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T34 8449B	Filter 1	Part 24

Band

Band 2

REL99

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									
3.705	-21.5	V	3.0	35.4	1.0	-55.9	-13.0	-42.9	
5.557	-20.0	V	3.0	34.7	1.0	-53.7	-13.0	-40.7	
7.410	-18.9	V	3.0	34.9	1.0	-52.8	-13.0	-39.8	
3.705	-21.8	H	3.0	35.4	1.0	-56.2	-13.0	-43.2	
5.557	-19.6	H	3.0	34.7	1.0	-53.3	-13.0	-40.3	
7.410	-18.0	H	3.0	34.9	1.0	-51.9	-13.0	-38.9	
Mid Ch, 1880MHz									
3.760	-21.2	V	3.0	35.3	1.0	-55.5	-13.0	-42.5	
5.640	-20.2	V	3.0	34.7	1.0	-53.9	-13.0	-40.9	
7.520	-18.2	V	3.0	34.9	1.0	-52.1	-13.0	-39.1	
3.760	-21.3	H	3.0	35.3	1.0	-55.7	-13.0	-42.7	
5.640	-19.6	H	3.0	34.7	1.0	-53.3	-13.0	-40.3	
7.520	-17.0	H	3.0	34.9	1.0	-50.9	-13.0	-37.9	
High Ch, 1907.6MHz									
3.815	-20.8	V	3.0	35.3	1.0	-55.1	-13.0	-42.1	
5.723	-19.9	V	3.0	34.7	1.0	-53.6	-13.0	-40.6	
7.630	-18.2	V	3.0	34.9	1.0	-52.1	-13.0	-39.1	
3.815	-18.9	H	3.0	35.3	1.0	-53.2	-13.0	-40.2	
5.723	-19.1	H	3.0	34.7	1.0	-52.8	-13.0	-39.8	
7.630	-17.2	H	3.0	34.9	1.0	-51.1	-13.0	-38.1	

Rev. 03.03.09

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Company:	Sony
Project #:	15J20225
Date:	04/30/15
Test Engineer:	David Mun
Configuration:	X-pos EUT, Ac Charger, Headset
Mode:	HSDPA B5

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

Band 5

HSDPA

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4MHz									
1.653	-31.6	V	3.0	37.4	1.0	-68.0	-13.0	-55.0	
2.479	-24.8	V	3.0	36.4	1.0	-60.2	-13.0	-47.2	
3.306	-20.5	V	3.0	35.8	1.0	-55.3	-13.0	-42.3	
1.653	-31.7	H	3.0	37.4	1.0	-68.0	-13.0	-55.0	
2.479	-26.7	H	3.0	36.4	1.0	-62.1	-13.0	-49.1	
3.306	-21.9	H	3.0	35.8	1.0	-56.7	-13.0	-43.7	
Mid Ch, 836.6MHz									
1.673	-30.2	V	3.0	37.3	1.0	-66.6	-13.0	-53.6	
2.510	-24.0	V	3.0	36.4	1.0	-59.3	-13.0	-46.3	
3.346	-21.2	V	3.0	35.8	1.0	-55.9	-13.0	-42.9	
1.673	-30.8	H	3.0	37.3	1.0	-67.1	-13.0	-54.1	
2.510	-26.2	H	3.0	36.4	1.0	-61.5	-13.0	-48.5	
3.346	-22.0	H	3.0	35.8	1.0	-56.7	-13.0	-43.7	
High Ch, 846.6MHz									
1.693	-31.1	V	3.0	37.3	1.0	-67.4	-13.0	-54.4	
2.540	-25.2	V	3.0	36.3	1.0	-60.5	-13.0	-47.5	
3.386	-22.7	V	3.0	35.7	1.0	-57.4	-13.0	-44.4	
1.693	-31.6	H	3.0	37.3	1.0	-67.9	-13.0	-54.9	
2.540	-26.8	H	3.0	36.3	1.0	-62.1	-13.0	-49.1	
3.386	-21.6	H	3.0	35.7	1.0	-56.3	-13.0	-43.3	

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UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Mode: REL99_B5

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 22

Band

Band 5

REL99

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4MHz									
1.653	-26.3	V	3.0	37.4	1.0	-62.7	-13.0	-49.7	
2.479	-22.8	V	3.0	36.4	1.0	-58.2	-13.0	-45.2	
3.306	-21.1	V	3.0	35.8	1.0	-55.9	-13.0	-42.9	
1.653	-24.7	H	3.0	37.4	1.0	-61.0	-13.0	-48.0	
2.479	-24.2	H	3.0	36.4	1.0	-59.6	-13.0	-46.6	
3.306	-21.2	H	3.0	35.8	1.0	-56.0	-13.0	-43.0	
Mid Ch, 836.6MHz									
1.673	-28.1	V	3.0	37.3	1.0	-64.4	-13.0	-51.4	
2.510	-24.0	V	3.0	36.4	1.0	-59.3	-13.0	-46.3	
3.346	-21.6	V	3.0	35.8	1.0	-56.3	-13.0	-43.3	
1.673	-25.3	H	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.510	-25.5	H	3.0	36.4	1.0	-60.8	-13.0	-47.8	
3.346	-21.1	H	3.0	35.8	1.0	-55.9	-13.0	-42.9	
High Ch, 846.6MHz									
1.693	-27.4	V	3.0	37.3	1.0	-63.7	-13.0	-50.7	
2.540	-23.7	V	3.0	36.3	1.0	-59.0	-13.0	-46.0	
3.386	-21.6	V	3.0	35.7	1.0	-56.4	-13.0	-43.4	
1.693	-22.8	H	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2.540	-24.8	H	3.0	36.3	1.0	-60.2	-13.0	-47.2	
3.386	-21.8	H	3.0	35.7	1.0	-56.5	-13.0	-43.5	

Rev. 03.03.09

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LTE Band 12

UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 12 Harmonics, 10MHz Bandwidth

Band
LTE12
10MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,704									
1408.00	-28.8	V	3.0	37.4	1.0	-65.2	-13.0	-52.2	
2112.00	-22.7	V	3.0	36.6	1.0	-58.3	-13.0	-45.3	
2816.00	-21.2	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
1408.00	-27.7	H	3.0	37.4	1.0	-64.0	-13.0	-51.0	
2112.00	-23.7	H	3.0	36.6	1.0	-59.3	-13.0	-46.3	
2816.00	-22.1	H	3.0	36.4	1.0	-57.4	-13.0	-44.4	
Mid Ch,707.5									
1415.00	-29.6	V	3.0	37.3	1.0	-65.9	-13.0	-52.9	
2122.50	-22.7	V	3.0	36.6	1.0	-58.3	-13.0	-45.3	
2830.00	-21.4	V	3.0	36.4	1.0	-56.7	-13.0	-43.7	
1415.00	-29.0	H	3.0	37.3	1.0	-65.3	-13.0	-52.3	
2122.50	-24.2	H	3.0	36.6	1.0	-59.8	-13.0	-46.8	
2830.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	
High Ch,711									
1422.00	-29.0	V	3.0	37.3	1.0	-65.3	-13.0	-52.3	
2133.00	-22.9	V	3.0	36.6	1.0	-58.5	-13.0	-45.5	
2844.00	-21.1	V	3.0	36.4	1.0	-56.5	-13.0	-43.5	
1422.00	-28.3	H	3.0	37.3	1.0	-64.6	-13.0	-51.6	
2133.00	-24.2	H	3.0	36.6	1.0	-59.8	-13.0	-46.8	
2844.00	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 12 Harmonics, 10MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch,704									
LTE12	1408.00	-29.5	V	3.0	37.4	1.0	-65.9	-13.0	-52.9	
	2112.00	-22.9	V	3.0	36.6	1.0	-58.5	-13.0	-45.5	
10MHz	2816.00	-21.3	V	3.0	36.4	1.0	-56.7	-13.0	-43.7	
	1408.00	-27.8	H	3.0	37.4	1.0	-64.2	-13.0	-51.2	
QPSK	2112.00	-23.7	H	3.0	36.6	1.0	-59.2	-13.0	-46.2	
	2816.00	-22.4	H	3.0	36.4	1.0	-57.8	-13.0	-44.8	
	Mid Ch,707.5									
	1415.00	-29.3	V	3.0	37.3	1.0	-65.7	-13.0	-52.7	
	2122.50	-22.2	V	3.0	36.6	1.0	-57.8	-13.0	-44.8	
	2830.00	-21.4	V	3.0	36.4	1.0	-56.8	-13.0	-43.8	
	1415.00	-28.2	H	3.0	37.3	1.0	-64.5	-13.0	-51.5	
	2122.50	-24.1	H	3.0	36.6	1.0	-59.7	-13.0	-46.7	
	2830.00	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9	
	High Ch,711									
	1422.00	-29.5	V	3.0	37.3	1.0	-65.8	-13.0	-52.8	
	2133.00	-23.0	V	3.0	36.6	1.0	-58.6	-13.0	-45.6	
	2844.00	-20.9	V	3.0	36.4	1.0	-56.3	-13.0	-43.3	
	1422.00	-28.5	H	3.0	37.3	1.0	-64.8	-13.0	-51.8	
	2133.00	-24.3	H	3.0	36.6	1.0	-59.9	-13.0	-46.9	
	2844.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 12 Harmonics, 5MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 701.50									
LTE12	1403.00	-29.0	V	3.0	37.4	1.0	-65.4	-13.0	-52.4	
	2104.50	-22.5	V	3.0	36.6	1.0	-58.1	-13.0	-45.1	
5MHz	2806.00	-21.1	V	3.0	36.4	1.0	-56.4	-13.0	-43.4	
	1403.00	-28.4	H	3.0	37.4	1.0	-64.8	-13.0	-51.8	
16QAM	2104.50	-23.4	H	3.0	36.6	1.0	-59.0	-13.0	-46.0	
	2806.00	-21.9	H	3.0	36.4	1.0	-57.3	-13.0	-44.3	
	Mid Ch, 707.50									
	1415.00	-29.3	V	3.0	37.3	1.0	-65.7	-13.0	-52.7	
	2122.50	-23.4	V	3.0	36.6	1.0	-58.9	-13.0	-45.9	
	2830.00	-21.3	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
	1415.00	-28.9	H	3.0	37.3	1.0	-65.2	-13.0	-52.2	
	2122.50	-24.4	H	3.0	36.6	1.0	-60.0	-13.0	-47.0	
	2830.00	-22.2	H	3.0	36.4	1.0	-57.5	-13.0	-44.5	
	High Ch, 713.50									
	1427.00	-29.1	V	3.0	37.3	1.0	-65.4	-13.0	-52.4	
	2140.50	-22.4	V	3.0	36.6	1.0	-58.0	-13.0	-45.0	
	2854.00	-21.0	V	3.0	36.4	1.0	-56.3	-13.0	-43.3	
	1427.00	-28.6	H	3.0	37.3	1.0	-65.0	-13.0	-52.0	
	2140.50	-23.7	H	3.0	36.6	1.0	-59.3	-13.0	-46.3	
	2854.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 12 Harmonics, 5MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 701.50									
LTE12	1403.00	-28.8	V	3.0	37.4	1.0	-65.2	-13.0	-52.2	
	2104.50	-22.2	V	3.0	36.6	1.0	-57.7	-13.0	-44.7	
5MHz	2806.00	-21.5	V	3.0	36.4	1.0	-56.9	-13.0	-43.9	
	1403.00	-28.1	H	3.0	37.4	1.0	-64.4	-13.0	-51.4	
QPSK	2104.50	-23.7	H	3.0	36.6	1.0	-59.3	-13.0	-46.3	
	2806.00	-21.9	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	
	Mid Ch, 707.50									
	1415.00	-29.5	V	3.0	37.3	1.0	-65.8	-13.0	-52.8	
	2122.50	-23.5	V	3.0	36.6	1.0	-59.0	-13.0	-46.0	
	2830.00	-21.7	V	3.0	36.4	1.0	-57.1	-13.0	-44.1	
	1415.00	-28.6	H	3.0	37.3	1.0	-65.0	-13.0	-52.0	
	2122.50	-23.9	H	3.0	36.6	1.0	-59.5	-13.0	-46.5	
	2830.00	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	
	High Ch, 713.50									
	1427.00	-28.8	V	3.0	37.3	1.0	-65.1	-13.0	-52.1	
	2140.50	-22.3	V	3.0	36.6	1.0	-57.8	-13.0	-44.8	
	2854.00	-20.0	V	3.0	36.4	1.0	-55.4	-13.0	-42.4	
	1427.00	-28.1	H	3.0	37.3	1.0	-64.4	-13.0	-51.4	
	2140.50	-24.0	H	3.0	36.6	1.0	-59.6	-13.0	-46.6	
	2854.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 12 Harmonics, 3MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 700.5									
LTE12	1401.00	-29.5	V	3.0	37.4	1.0	-65.9	-13.0	-52.9	
	2101.50	-23.2	V	3.0	36.6	1.0	-58.8	-13.0	-45.8	
3MHz	2802.00	-21.6	V	3.0	36.4	1.0	-57.0	-13.0	-44.0	
	1401.00	-28.8	H	3.0	37.4	1.0	-65.2	-13.0	-52.2	
16QAM	2101.50	-24.1	H	3.0	36.6	1.0	-59.7	-13.0	-46.7	
	2802.00	-22.6	H	3.0	36.4	1.0	-58.0	-13.0	-45.0	
	Mid Ch, 707.50									
	1415.00	-29.0	V	3.0	37.3	1.0	-65.3	-13.0	-52.3	
	2122.00	-23.0	V	3.0	36.6	1.0	-58.6	-13.0	-45.6	
	2830.00	-21.2	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
	1415.00	-28.3	H	3.0	37.3	1.0	-64.7	-13.0	-51.7	
	2122.00	-23.8	H	3.0	36.6	1.0	-59.3	-13.0	-46.3	
	2830.00	-22.6	H	3.0	36.4	1.0	-57.9	-13.0	-44.9	
	High Ch, 714.5									
	1429.00	-29.4	V	3.0	37.3	1.0	-65.7	-13.0	-52.7	
	2143.50	-22.7	V	3.0	36.6	1.0	-58.2	-13.0	-45.2	
	2858.00	-20.4	V	3.0	36.4	1.0	-55.7	-13.0	-42.7	
	1429.00	-28.9	H	3.0	37.3	1.0	-65.2	-13.0	-52.2	
	2143.50	-24.4	H	3.0	36.6	1.0	-59.9	-13.0	-46.9	
	2858.00	-22.1	H	3.0	36.4	1.0	-57.5	-13.0	-44.5	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 700.5									
LTE12	1401.00	-29.7	V	3.0	37.4	1.0	-66.0	-13.0	-53.0	
	2101.50	-22.6	V	3.0	36.6	1.0	-58.2	-13.0	-45.2	
3MHz	2802.00	-21.2	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
	1401.00	-28.6	H	3.0	37.4	1.0	-65.0	-13.0	-52.0	
QPSK	2101.50	-24.0	H	3.0	36.6	1.0	-59.6	-13.0	-46.6	
	2802.00	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9	
	Mid Ch, 707.50									
	1415.00	-29.5	V	3.0	37.3	1.0	-65.8	-13.0	-52.8	
	2122.00	-22.7	V	3.0	36.6	1.0	-58.2	-13.0	-45.2	
	2830.00	-20.7	V	3.0	36.4	1.0	-56.1	-13.0	-43.1	
	1415.00	-28.3	H	3.0	37.3	1.0	-64.7	-13.0	-51.7	
	2122.00	-23.9	H	3.0	36.6	1.0	-59.5	-13.0	-46.5	
	2830.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	
	High Ch, 714.5									
	1429.00	-29.7	V	3.0	37.3	1.0	-66.1	-13.0	-53.1	
	2143.50	-22.8	V	3.0	36.6	1.0	-58.4	-13.0	-45.4	
	2858.00	-20.5	V	3.0	36.4	1.0	-55.9	-13.0	-42.9	
	1429.00	-28.3	H	3.0	37.3	1.0	-64.6	-13.0	-51.6	
	2143.50	-24.4	H	3.0	36.6	1.0	-60.0	-13.0	-47.0	
	2858.00	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 12 Harmonics, 1.4MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 699.7									
LTE12	1399.40	-29.9	V	3.0	37.4	1.0	-66.2	-13.0	-53.2	
	2099.10	-22.1	V	3.0	36.6	1.0	-57.7	-13.0	-44.7	
1.4MHz	2798.80	-21.3	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
	1399.40	-28.6	H	3.0	37.4	1.0	-64.9	-13.0	-51.9	
16QAM	2099.10	-24.2	H	3.0	36.6	1.0	-59.8	-13.0	-46.8	
	2798.80	-22.3	H	3.0	36.4	1.0	-57.7	-13.0	-44.7	
	Mid Ch, 707.50									
	1415.00	-30.5	V	3.0	37.3	1.0	-66.8	-13.0	-53.8	
	2122.00	-24.0	V	3.0	36.6	1.0	-59.6	-13.0	-46.6	
	2830.00	-22.6	V	3.0	36.4	1.0	-58.0	-13.0	-45.0	
	1415.00	-29.6	H	3.0	37.3	1.0	-66.0	-13.0	-53.0	
	2122.00	-25.4	H	3.0	36.6	1.0	-61.0	-13.0	-48.0	
	2830.00	-22.5	H	3.0	36.4	1.0	-57.8	-13.0	-44.8	
	High Ch, 715.3									
	1430.60	-27.0	V	3.0	37.3	1.0	-63.4	-13.0	-50.4	
	2145.90	-22.0	V	3.0	36.6	1.0	-57.5	-13.0	-44.5	
	2861.20	-21.3	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
	1430.60	-28.3	H	3.0	37.3	1.0	-64.7	-13.0	-51.7	
	2145.90	-24.0	H	3.0	36.6	1.0	-59.6	-13.0	-46.6	
	2861.20	-21.6	H	3.0	36.4	1.0	-57.0	-13.0	-44.0	

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 12 Harmonics, 1.4MHz Bandwidth

Band	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 699.7									
LTE12	1399.40	-29.2	V	3.0	37.4	1.0	-65.5	-13.0	-52.5	
	2099.10	-22.6	V	3.0	36.6	1.0	-58.2	-13.0	-45.2	
1.4MHz	2798.80	-21.9	V	3.0	36.4	1.0	-57.2	-13.0	-44.2	
	1399.40	-27.5	H	3.0	37.4	1.0	-63.8	-13.0	-50.8	
QPSK	2099.10	-24.1	H	3.0	36.6	1.0	-59.7	-13.0	-46.7	
	2798.80	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	
	Mid Ch, 707.50									
	1415.00	-30.3	V	3.0	37.3	1.0	-66.6	-13.0	-53.6	
	2122.00	-24.4	V	3.0	36.6	1.0	-60.0	-13.0	-47.0	
	2830.00	-22.4	V	3.0	36.4	1.0	-57.8	-13.0	-44.8	
	1415.00	-29.1	H	3.0	37.3	1.0	-65.5	-13.0	-52.5	
	2122.00	-25.1	H	3.0	36.6	1.0	-60.7	-13.0	-47.7	
	2830.00	-23.3	H	3.0	36.4	1.0	-58.7	-13.0	-45.7	
	High Ch, 715.3									
	1430.60	-27.2	V	3.0	37.3	1.0	-63.6	-13.0	-50.6	
	2145.90	-22.3	V	3.0	36.6	1.0	-57.8	-13.0	-44.8	
	2861.20	-21.0	V	3.0	36.4	1.0	-56.4	-13.0	-43.4	
	1430.60	-26.6	H	3.0	37.3	1.0	-62.9	-13.0	-49.9	
	2145.90	-22.9	H	3.0	36.6	1.0	-58.5	-13.0	-45.5	
	2861.20	-21.9	H	3.0	36.4	1.0	-57.3	-13.0	-44.3	

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LTE Band 17

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Mode: LTE17 10M 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 27

Band

LTE17

10MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,709MHz									
1.418	-28.6	V	3.0	37.8	1.0	-65.4	-13.0	-52.4	
2.127	-23.4	V	3.0	36.7	1.0	-59.1	-13.0	-46.1	
2.836	-20.7	V	3.0	36.2	1.0	-55.9	-13.0	-42.9	
1.418	-28.7	H	3.0	37.8	1.0	-65.4	-13.0	-52.4	
2.127	-24.3	H	3.0	36.7	1.0	-59.9	-13.0	-46.9	
2.836	-22.1	H	3.0	36.2	1.0	-57.3	-13.0	-44.3	
Mid Ch,710MHz									
1.420	-29.2	V	3.0	37.8	1.0	-66.0	-13.0	-53.0	
2.130	-23.1	V	3.0	36.7	1.0	-58.8	-13.0	-45.8	
2.840	-21.2	V	3.0	36.2	1.0	-56.4	-13.0	-43.4	
1.420	-28.8	H	3.0	37.8	1.0	-65.6	-13.0	-52.6	
2.130	-24.3	H	3.0	36.7	1.0	-60.0	-13.0	-47.0	
2.840	-21.1	H	3.0	36.2	1.0	-56.3	-13.0	-43.3	
High Ch, 711MHz									
1.422	-28.4	V	3.0	37.8	1.0	-65.1	-13.0	-52.1	
2.133	-23.4	V	3.0	36.7	1.0	-59.1	-13.0	-46.1	
2.844	-21.7	V	3.0	36.2	1.0	-56.9	-13.0	-43.9	
1.422	-28.1	H	3.0	37.8	1.0	-64.9	-13.0	-51.9	
2.133	-24.2	H	3.0	36.7	1.0	-59.9	-13.0	-46.9	
2.844	-21.8	H	3.0	36.2	1.0	-57.0	-13.0	-44.0	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Mode: LTE17 10M QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 27

Band
LTE17
10MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,709MHz									
1.418	-29.1	V	3.0	37.8	1.0	-65.9	-13.0	-52.9	
2.127	-22.6	V	3.0	36.7	1.0	-58.3	-13.0	-45.3	
2.836	-21.7	V	3.0	36.2	1.0	-56.8	-13.0	-43.8	
1.418	-28.9	H	3.0	37.8	1.0	-65.7	-13.0	-52.7	
2.127	-23.8	H	3.0	36.7	1.0	-59.4	-13.0	-46.4	
2.836	-22.4	H	3.0	36.2	1.0	-57.6	-13.0	-44.6	
Mid Ch,710MHz									
1.420	-29.1	V	3.0	37.8	1.0	-65.9	-13.0	-52.9	
2.130	-23.5	V	3.0	36.7	1.0	-59.2	-13.0	-46.2	
2.840	-21.7	V	3.0	36.2	1.0	-56.8	-13.0	-43.8	
1.420	-28.9	H	3.0	37.8	1.0	-65.6	-13.0	-52.6	
2.130	-25.1	H	3.0	36.7	1.0	-60.8	-13.0	-47.8	
2.840	-22.3	H	3.0	36.2	1.0	-57.5	-13.0	-44.5	
High Ch, 711MHz									
1.422	-28.3	V	3.0	37.8	1.0	-65.0	-13.0	-52.0	
2.133	-23.0	V	3.0	36.7	1.0	-58.7	-13.0	-45.7	
2.844	-21.3	V	3.0	36.2	1.0	-56.4	-13.0	-43.4	
1.422	-28.6	H	3.0	37.8	1.0	-65.3	-13.0	-52.3	
2.133	-23.7	H	3.0	36.7	1.0	-59.4	-13.0	-46.4	
2.844	-22.0	H	3.0	36.2	1.0	-57.2	-13.0	-44.2	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Mode: LTE17 5M 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 27

Band
LTE17
5MHz
16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch,706.5MHz									
1.413	-28.7	V	3.0	37.8	1.0	-65.5	-13.0	-52.5	
2.120	-22.8	V	3.0	36.7	1.0	-58.5	-13.0	-45.5	
2.826	-21.2	V	3.0	36.2	1.0	-56.4	-13.0	-43.4	
1.413	-28.9	H	3.0	37.8	1.0	-65.7	-13.0	-52.7	
2.120	-24.6	H	3.0	36.7	1.0	-60.3	-13.0	-47.3	
2.826	-21.8	H	3.0	36.2	1.0	-57.0	-13.0	-44.0	
Mid Ch,710MHz									
1.420	-28.7	V	3.0	37.8	1.0	-65.5	-13.0	-52.5	
2.130	-23.3	V	3.0	36.7	1.0	-59.0	-13.0	-46.0	
2.840	-21.1	V	3.0	36.2	1.0	-56.3	-13.0	-43.3	
1.420	-28.9	H	3.0	37.8	1.0	-65.7	-13.0	-52.7	
2.130	-23.6	H	3.0	36.7	1.0	-59.3	-13.0	-46.3	
2.840	-21.9	H	3.0	36.2	1.0	-57.1	-13.0	-44.1	
High Ch, 713.5MHz									
1.427	-28.4	V	3.0	37.7	1.0	-65.2	-13.0	-52.2	
2.141	-23.6	V	3.0	36.7	1.0	-59.3	-13.0	-46.3	
2.854	-20.5	V	3.0	36.2	1.0	-55.6	-13.0	-42.6	
1.427	-28.7	H	3.0	37.7	1.0	-65.5	-13.0	-52.5	
2.141	-24.7	H	3.0	36.7	1.0	-60.4	-13.0	-47.4	
2.854	-22.4	H	3.0	36.2	1.0	-57.6	-13.0	-44.6	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Mode: LTE17 5M QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
3m Chamber	T34 8449B	Filter 1	Part 27

Band	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch,706.5MHz									
LTE17	1.413	-28.8	V	3.0	37.8	1.0	-65.6	-13.0	-52.6	
	2.120	-23.1	V	3.0	36.7	1.0	-58.8	-13.0	-45.8	
5MHz	2.826	105.7	V	3.0	36.2	1.0	70.5	-13.0	83.5	
	1.413	-28.2	H	3.0	37.8	1.0	-65.0	-13.0	-52.0	
	2.120	-24.3	H	3.0	36.7	1.0	-60.0	-13.0	-47.0	
QPSK	2.826	-22.7	H	3.0	36.2	1.0	-57.9	-13.0	-44.9	
	Mid Ch,710MHz									
	1.420	-28.5	V	3.0	37.8	1.0	-65.2	-13.0	-52.2	
	2.130	-23.2	V	3.0	36.7	1.0	-58.9	-13.0	-45.9	
	2.840	-21.4	V	3.0	36.2	1.0	-56.5	-13.0	-43.5	
	1.420	-28.7	H	3.0	37.8	1.0	-65.4	-13.0	-52.4	
	2.130	-23.7	H	3.0	36.7	1.0	-59.4	-13.0	-46.4	
	2.840	-21.9	H	3.0	36.2	1.0	-57.1	-13.0	-44.1	
	High Ch, 713.5MHz									
	1.427	-29.2	V	3.0	37.7	1.0	-65.9	-13.0	-52.9	
	2.141	-23.4	V	3.0	36.7	1.0	-59.1	-13.0	-46.1	
	2.854	-21.6	V	3.0	36.2	1.0	-56.8	-13.0	-43.8	
	1.427	-29.4	H	3.0	37.7	1.0	-66.1	-13.0	-53.1	
	2.141	-24.7	H	3.0	36.7	1.0	-60.3	-13.0	-47.3	
	2.854	-22.3	H	3.0	36.2	1.0	-57.5	-13.0	-44.5	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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LTE Band 5

UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 16QAM 10MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band

LTE5

10MHz

16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1.658	-30.6	V	3.0	37.4	1.0	-67.0	-13.0	-54.0	
2.487	-15.4	V	3.0	36.4	1.0	-50.8	-13.0	-37.8	
3.316	-24.8	V	3.0	35.8	1.0	-59.5	-13.0	-46.5	
1.658	-27.8	H	3.0	37.4	1.0	-64.2	-13.0	-51.2	
2.487	-17.0	H	3.0	36.4	1.0	-52.4	-13.0	-39.4	
3.316	-24.2	H	3.0	35.8	1.0	-59.0	-13.0	-46.0	
Mid Ch, 836.5MHz									
1.673	-27.5	V	3.0	37.3	1.0	-63.9	-13.0	-50.9	
2.510	-17.5	V	3.0	36.4	1.0	-52.9	-13.0	-39.9	
3.346	-21.9	V	3.0	35.8	1.0	-56.7	-13.0	-43.7	
1.673	-26.5	H	3.0	37.3	1.0	-62.8	-13.0	-49.8	
2.510	-17.2	H	3.0	36.4	1.0	-52.6	-13.0	-39.6	
3.346	-22.8	H	3.0	35.8	1.0	-57.5	-13.0	-44.5	
High Ch, 844MHz									
1.688	-26.1	V	3.0	37.3	1.0	-62.4	-13.0	-49.4	
2.532	-15.2	V	3.0	36.3	1.0	-50.6	-13.0	-37.6	
3.376	-24.0	V	3.0	35.7	1.0	-58.7	-13.0	-45.7	
1.688	-23.0	H	3.0	37.3	1.0	-59.3	-13.0	-46.3	
2.532	-16.0	H	3.0	36.3	1.0	-51.3	-13.0	-38.3	
3.376	-22.1	H	3.0	35.7	1.0	-56.9	-13.0	-43.9	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 QPSK 10MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band
LTE5
10MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1.658	-29.3	V	3.0	37.4	1.0	-65.7	-13.0	-52.7	
2.487	-15.5	V	3.0	36.4	1.0	-50.9	-13.0	-37.9	
3.316	-25.7	V	3.0	35.8	1.0	-60.5	-13.0	-47.5	
1.658	-27.3	H	3.0	37.4	1.0	-63.7	-13.0	-50.7	
2.487	-15.9	H	3.0	36.4	1.0	-51.2	-13.0	-38.2	
3.316	-23.5	H	3.0	35.8	1.0	-58.2	-13.0	-45.2	
Mid Ch, 836.5MHz									
1.673	-26.0	V	3.0	37.3	1.0	-62.3	-13.0	-49.3	
2.510	-16.2	V	3.0	36.4	1.0	-51.5	-13.0	-38.5	
3.346	-23.7	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.673	-25.1	H	3.0	37.3	1.0	-61.5	-13.0	-48.5	
2.510	-16.5	H	3.0	36.4	1.0	-51.8	-13.0	-38.8	
3.346	-22.4	H	3.0	35.8	1.0	-57.1	-13.0	-44.1	
High Ch, 844MHz									
1.688	-24.1	V	3.0	37.3	1.0	-60.4	-13.0	-47.4	
2.532	-14.6	V	3.0	36.3	1.0	-50.0	-13.0	-37.0	
3.376	-22.3	V	3.0	35.7	1.0	-57.1	-13.0	-44.1	
1.688	-27.4	H	3.0	37.3	1.0	-63.7	-13.0	-50.7	
2.532	-18.5	H	3.0	36.3	1.0	-53.8	-13.0	-40.8	
3.376	-22.3	H	3.0	35.7	1.0	-57.1	-13.0	-44.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 16QAM 5MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band: LTE5 5MHz 16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1.653	-25.4	V	3.0	37.4	1.0	-61.7	-13.0	-48.7	
2.480	-21.3	V	3.0	36.4	1.0	-56.7	-13.0	-43.7	
3.306	-23.0	V	3.0	35.8	1.0	-57.7	-13.0	-44.7	
1.653	-24.9	H	3.0	37.4	1.0	-61.3	-13.0	-48.3	
2.480	-16.2	H	3.0	36.4	1.0	-51.6	-13.0	-38.6	
3.306	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	
Mid Ch, 836.5MHz									
1.673	-24.9	V	3.0	37.3	1.0	-61.3	-13.0	-48.3	
2.510	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
3.346	-23.8	V	3.0	35.8	1.0	-58.5	-13.0	-45.5	
1.673	-23.9	H	3.0	37.3	1.0	-60.2	-13.0	-47.2	
2.510	-22.8	H	3.0	36.4	1.0	-58.2	-13.0	-45.2	
3.346	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	
High Ch, 846.5MHz									
1.693	-24.6	V	3.0	37.3	1.0	-60.9	-13.0	-47.9	
2.540	-20.4	V	3.0	36.3	1.0	-55.7	-13.0	-42.7	
3.386	-22.6	V	3.0	35.7	1.0	-57.3	-13.0	-44.3	
1.693	-23.6	H	3.0	37.3	1.0	-59.9	-13.0	-46.9	
2.540	-23.9	H	3.0	36.3	1.0	-59.2	-13.0	-46.2	
3.386	-17.1	H	3.0	35.7	1.0	-51.8	-13.0	-38.8	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 QPSK 5MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band
LTE5
5MHz
QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1.653	-26.3	V	3.0	37.4	1.0	-62.7	-13.0	-49.7	
2.480	-20.8	V	3.0	36.4	1.0	-56.2	-13.0	-43.2	
3.306	-22.4	V	3.0	35.8	1.0	-57.2	-13.0	-44.2	
1.653	-24.9	H	3.0	37.4	1.0	-61.2	-13.0	-48.2	
2.480	-17.3	H	3.0	36.4	1.0	-52.7	-13.0	-39.7	
3.306	-23.2	H	3.0	35.8	1.0	-58.0	-13.0	-45.0	
Mid Ch, 836.5MHz									
1.673	-24.1	V	3.0	37.3	1.0	-60.4	-13.0	-47.4	
2.510	-21.6	V	3.0	36.4	1.0	-56.9	-13.0	-43.9	
3.346	-22.9	V	3.0	35.8	1.0	-57.6	-13.0	-44.6	
1.673	-23.3	H	3.0	37.3	1.0	-59.7	-13.0	-46.7	
2.510	-20.3	H	3.0	36.4	1.0	-55.6	-13.0	-42.6	
3.346	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	
High Ch, 846.5MHz									
1.693	-23.5	V	3.0	37.3	1.0	-59.8	-13.0	-46.8	
2.540	-19.1	V	3.0	36.3	1.0	-54.4	-13.0	-41.4	
3.386	-20.9	V	3.0	35.7	1.0	-55.6	-13.0	-42.6	
1.693	-23.1	H	3.0	37.3	1.0	-59.4	-13.0	-46.4	
2.540	-18.9	H	3.0	36.3	1.0	-54.2	-13.0	-41.2	
3.386	-22.4	H	3.0	35.7	1.0	-57.1	-13.0	-44.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 16QAM 3MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band
LTE5
3MHz
16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 825.5MHz									
1.651	-25.1	V	3.0	37.4	1.0	-61.5	-13.0	-48.5	
2.477	-17.0	V	3.0	36.4	1.0	-52.3	-13.0	-39.3	
3.302	-23.3	V	3.0	35.8	1.0	-58.0	-13.0	-45.0	
1.651	-25.7	H	3.0	37.4	1.0	-62.1	-13.0	-49.1	
2.477	-18.2	H	3.0	36.4	1.0	-53.6	-13.0	-40.6	
3.302	-23.2	H	3.0	35.8	1.0	-58.0	-13.0	-45.0	
Mid Ch, 836.5MHz									
1.673	-24.5	V	3.0	37.3	1.0	-60.8	-13.0	-47.8	
2.510	-15.3	V	3.0	36.4	1.0	-50.6	-13.0	-37.6	
3.346	-22.8	V	3.0	35.8	1.0	-57.6	-13.0	-44.6	
1.673	-22.7	H	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2.510	-18.5	H	3.0	36.4	1.0	-53.9	-13.0	-40.9	
3.346	-23.3	H	3.0	35.8	1.0	-58.1	-13.0	-45.1	
High Ch, 847.5MHz									
1.695	-22.5	V	3.0	37.3	1.0	-58.8	-13.0	-45.8	
2.543	-18.2	V	3.0	36.3	1.0	-53.5	-13.0	-40.5	
3.390	-22.8	V	3.0	35.7	1.0	-57.5	-13.0	-44.5	
1.695	-23.3	H	3.0	37.3	1.0	-59.6	-13.0	-46.6	
2.543	-17.0	H	3.0	36.3	1.0	-52.3	-13.0	-39.3	
3.390	-23.7	H	3.0	35.7	1.0	-58.4	-13.0	-45.4	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 QPSK 3MHz Harm

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band: LTE5 3MHz QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 825.5MHz									
1.651	-25.1	V	3.0	37.4	1.0	-61.4	-13.0	-48.4	
2.477	-16.4	V	3.0	36.4	1.0	-51.8	-13.0	-38.8	
3.302	-23.0	V	3.0	35.8	1.0	-57.8	-13.0	-44.8	
1.651	-24.9	H	3.0	37.4	1.0	-61.3	-13.0	-48.3	
2.477	-17.6	H	3.0	36.4	1.0	-53.0	-13.0	-40.0	
3.302	-22.6	H	3.0	35.8	1.0	-57.4	-13.0	-44.4	
Mid Ch, 836.5MHz									
1.673	-24.4	V	3.0	37.3	1.0	-60.7	-13.0	-47.7	
2.510	-14.3	V	3.0	36.4	1.0	-49.6	-13.0	-36.6	
3.346	-22.9	V	3.0	35.8	1.0	-57.7	-13.0	-44.7	
1.673	-22.1	H	3.0	37.3	1.0	-58.4	-13.0	-45.4	
2.510	-19.4	H	3.0	36.4	1.0	-54.8	-13.0	-41.8	
3.346	-22.7	H	3.0	35.8	1.0	-57.5	-13.0	-44.5	
High Ch, 847.5MHz									
1.695	-22.3	V	3.0	37.3	1.0	-58.6	-13.0	-45.6	
2.543	-17.3	V	3.0	36.3	1.0	-52.6	-13.0	-39.6	
3.390	-22.6	V	3.0	35.7	1.0	-57.3	-13.0	-44.3	
1.695	-22.8	H	3.0	37.3	1.0	-59.1	-13.0	-46.1	
2.543	-15.4	H	3.0	36.3	1.0	-50.8	-13.0	-37.8	
3.390	-23.0	H	3.0	35.7	1.0	-57.7	-13.0	-44.7	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 1.4MHz 16QAM HARM

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band
LTE5
1.4MHz
16QAM

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-28.8	V	3.0	37.4	1.0	-65.2	-13.0	-52.2	
2.474	-25.0	V	3.0	36.4	1.0	-60.4	-13.0	-47.4	
3.299	-22.3	V	3.0	35.8	1.0	-57.1	-13.0	-44.1	
1.649	-28.3	H	3.0	37.4	1.0	-64.6	-13.0	-51.6	
2.474	-26.3	H	3.0	36.4	1.0	-61.7	-13.0	-48.7	
3.299	-22.1	H	3.0	35.8	1.0	-56.9	-13.0	-43.9	
Mid Ch, 836.5MHz									
1.673	-24.4	V	3.0	37.3	1.0	-60.7	-13.0	-47.7	
2.510	-25.2	V	3.0	36.4	1.0	-60.5	-13.0	-47.5	
3.346	-23.9	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.673	-23.8	H	3.0	37.3	1.0	-60.2	-13.0	-47.2	
2.510	-25.9	H	3.0	36.4	1.0	-61.3	-13.0	-48.3	
3.346	-23.8	H	3.0	35.8	1.0	-58.6	-13.0	-45.6	
High Ch, 848.3MHz									
1.697	-21.1	V	3.0	37.3	1.0	-57.4	-13.0	-44.4	
2.545	-25.2	V	3.0	36.3	1.0	-60.6	-13.0	-47.6	
3.393	-24.0	V	3.0	35.7	1.0	-58.7	-13.0	-45.7	
1.697	-20.7	H	3.0	37.3	1.0	-57.0	-13.0	-44.0	
2.545	-27.0	H	3.0	36.3	1.0	-62.3	-13.0	-49.3	
3.393	-23.8	H	3.0	35.7	1.0	-58.5	-13.0	-45.5	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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UL Verification Services Chamber G
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: J. hsu
Configuration: EUT + Charger + Headset
Mode: LTE5 1.4MHz QPSK HARM

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T34 8449B	Filter 1	Part 27

Band: LTE5 1.4MHz QPSK

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-26.6	V	3.0	37.4	1.0	-63.0	-13.0	-50.0	
2.474	-23.7	V	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3.299	-21.8	V	3.0	35.8	1.0	-56.6	-13.0	-43.6	
1.649	-26.1	H	3.0	37.4	1.0	-62.5	-13.0	-49.5	
2.474	-25.5	H	3.0	36.4	1.0	-60.9	-13.0	-47.9	
3.299	-21.9	H	3.0	35.8	1.0	-56.7	-13.0	-43.7	
Mid Ch, 836.5MHz									
1.673	-23.7	V	3.0	37.3	1.0	-60.1	-13.0	-47.1	
2.510	-25.0	V	3.0	36.4	1.0	-60.4	-13.0	-47.4	
3.346	-23.3	V	3.0	35.8	1.0	-58.1	-13.0	-45.1	
1.673	-23.3	H	3.0	37.3	1.0	-59.6	-13.0	-46.6	
2.510	-26.5	H	3.0	36.4	1.0	-61.8	-13.0	-48.8	
3.346	-22.6	H	3.0	35.8	1.0	-57.4	-13.0	-44.4	
High Ch, 848.3MHz									
1.697	-20.3	V	3.0	37.3	1.0	-56.6	-13.0	-43.6	
2.545	-24.7	V	3.0	36.3	1.0	-60.0	-13.0	-47.0	
3.393	-22.6	V	3.0	35.7	1.0	-57.3	-13.0	-44.3	
1.697	-19.8	H	3.0	37.3	1.0	-56.1	-13.0	-43.1	
2.545	-26.5	H	3.0	36.3	1.0	-61.8	-13.0	-48.8	
3.393	-22.5	H	3.0	35.7	1.0	-57.2	-13.0	-44.2	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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LTE Band 4

Band

LTE4

5MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/21/2015
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.5									
3425.00	-21.6	V	3.0	36.1	1.0	-56.7	-13.0	-43.7	
5137.50	-18.7	V	3.0	35.4	1.0	-53.1	-13.0	-40.1	
6850.00	-13.5	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3425.00	-20.5	H	3.0	36.1	1.0	-55.5	-13.0	-42.5	
5137.50	-17.8	H	3.0	35.4	1.0	-52.3	-13.0	-39.3	
6850.00	-12.7	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
Mid Ch, 1732.5									
3465.00	-21.1	V	3.0	36.0	1.0	-56.2	-13.0	-43.2	
5197.50	-17.4	V	3.0	35.4	1.0	-51.8	-13.0	-38.8	
6930.00	-13.3	V	3.0	35.7	1.0	-48.0	-13.0	-35.0	
3465.00	-21.1	H	3.0	36.0	1.0	-56.1	-13.0	-43.1	
5197.50	-17.2	H	3.0	35.4	1.0	-51.6	-13.0	-38.6	
6930.00	-12.5	H	3.0	35.7	1.0	-47.1	-13.0	-34.1	
High Ch, 1752.5									
3505.00	-21.9	V	3.0	36.0	1.0	-56.9	-13.0	-43.9	
5257.50	-17.3	V	3.0	35.4	1.0	-51.7	-13.0	-38.7	
7010.00	-13.0	V	3.0	35.7	1.0	-47.7	-13.0	-34.7	
3505.00	-22.1	H	3.0	36.0	1.0	-57.1	-13.0	-44.1	
5257.50	-16.0	H	3.0	35.4	1.0	-50.5	-13.0	-37.5	
7010.00	-11.9	H	3.0	35.7	1.0	-46.6	-13.0	-33.6	

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Band

LTE4

5MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/21/2015
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.5									
3425.00	-21.5	V	3.0	36.1	1.0	-56.5	-13.0	-43.5	
5137.50	-18.4	V	3.0	35.4	1.0	-52.8	-13.0	-39.8	
6850.00	-14.0	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
3425.00	-21.3	H	3.0	36.1	1.0	-56.4	-13.0	-43.4	
5137.50	-17.5	H	3.0	35.4	1.0	-52.0	-13.0	-39.0	
6850.00	-13.1	H	3.0	35.7	1.0	-47.7	-13.0	-34.7	
Mid Ch, 1732.5									
3465.00	-21.0	V	3.0	36.0	1.0	-56.0	-13.0	-43.0	
5197.50	-17.3	V	3.0	35.4	1.0	-51.7	-13.0	-38.7	
6930.00	-13.2	V	3.0	35.7	1.0	-47.9	-13.0	-34.9	
3465.00	-20.7	H	3.0	36.0	1.0	-55.7	-13.0	-42.7	
5197.50	-17.3	H	3.0	35.4	1.0	-51.7	-13.0	-38.7	
6930.00	-11.7	H	3.0	35.7	1.0	-46.3	-13.0	-33.3	
High Ch, 1752.5									
3505.00	-21.5	V	3.0	36.0	1.0	-56.5	-13.0	-43.5	
5257.50	-16.2	V	3.0	35.4	1.0	-50.6	-13.0	-37.6	
7010.00	-13.5	V	3.0	35.7	1.0	-48.1	-13.0	-35.1	
3505.00	-21.0	H	3.0	36.0	1.0	-56.0	-13.0	-43.0	
5257.50	-16.8	H	3.0	35.4	1.0	-51.2	-13.0	-38.2	
7010.00	-11.6	H	3.0	35.7	1.0	-46.2	-13.0	-33.2	

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Band

LTE4

3MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/21/2015
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 3MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1711.5									
3423.00	-21.7	V	3.0	36.1	1.0	-56.8	-13.0	-43.8	
5134.50	-18.0	V	3.0	35.4	1.0	-52.4	-13.0	-39.4	
6846.00	-13.9	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3423.00	-21.7	H	3.0	36.1	1.0	-56.7	-13.0	-43.7	
5134.50	-17.9	H	3.0	35.4	1.0	-52.3	-13.0	-39.3	
6846.00	-12.7	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
Mid Ch, 1732.5									
3465.00	-21.3	V	3.0	36.0	1.0	-56.4	-13.0	-43.4	
5197.50	-17.7	V	3.0	35.4	1.0	-52.1	-13.0	-39.1	
6930.00	-13.4	V	3.0	35.7	1.0	-48.1	-13.0	-35.1	
3465.00	-20.9	H	3.0	36.0	1.0	-55.9	-13.0	-42.9	
5197.50	-17.3	H	3.0	35.4	1.0	-51.7	-13.0	-38.7	
6930.00	-12.3	H	3.0	35.7	1.0	-46.9	-13.0	-33.9	
High Ch, 1753.5									
3507.00	-21.6	V	3.0	36.0	1.0	-56.6	-13.0	-43.6	
5260.50	-16.9	V	3.0	35.4	1.0	-51.4	-13.0	-38.4	
7014.00	-13.0	V	3.0	35.7	1.0	-47.7	-13.0	-34.7	
3507.00	-22.1	H	3.0	36.0	1.0	-57.1	-13.0	-44.1	
5260.50	-16.6	H	3.0	35.4	1.0	-51.1	-13.0	-38.1	
7014.00	-11.7	H	3.0	35.7	1.0	-46.4	-13.0	-33.4	

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Band

LTE4

3MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/21/2015
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 3MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1711.5									
3423.00	-21.2	V	3.0	36.1	1.0	-56.2	-13.0	-43.2	
5134.50	-17.8	V	3.0	35.4	1.0	-52.2	-13.0	-39.2	
6846.00	-13.7	V	3.0	35.7	1.0	-48.3	-13.0	-35.3	
3423.00	-21.2	H	3.0	36.1	1.0	-56.3	-13.0	-43.3	
5134.50	-17.8	H	3.0	35.4	1.0	-52.3	-13.0	-39.3	
6846.00	-12.5	H	3.0	35.7	1.0	-47.1	-13.0	-34.1	
Mid Ch, 1732.5									
3465.00	-21.7	V	3.0	36.0	1.0	-56.7	-13.0	-43.7	
5197.50	-17.8	V	3.0	35.4	1.0	-52.3	-13.0	-39.3	
6930.00	-13.3	V	3.0	35.7	1.0	-48.0	-13.0	-35.0	
3465.00	-21.3	H	3.0	36.0	1.0	-56.4	-13.0	-43.4	
5197.50	-17.6	H	3.0	35.4	1.0	-52.0	-13.0	-39.0	
6930.00	-12.2	H	3.0	35.7	1.0	-46.9	-13.0	-33.9	
High Ch, 1753.5									
3507.00	-21.3	V	3.0	36.0	1.0	-56.3	-13.0	-43.3	
5260.50	-17.1	V	3.0	35.4	1.0	-51.6	-13.0	-38.6	
7014.00	-12.8	V	3.0	35.7	1.0	-47.5	-13.0	-34.5	
3507.00	-22.1	H	3.0	36.0	1.0	-57.1	-13.0	-44.1	
5260.50	-17.1	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
7014.00	-11.5	H	3.0	35.7	1.0	-46.2	-13.0	-33.2	

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Band

LTE4

1.4MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1710.7									
3421.40	-20.0	V	3.0	36.1	1.0	-55.0	-13.0	-42.0	
5132.10	-18.0	V	3.0	35.4	1.0	-52.4	-13.0	-39.4	
6842.80	-13.7	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3421.40	-18.4	H	3.0	36.1	1.0	-53.5	-13.0	-40.5	
5132.10	-17.1	H	3.0	35.4	1.0	-51.6	-13.0	-38.6	
6842.80	-12.8	H	3.0	35.7	1.0	-47.5	-13.0	-34.5	
Mid Ch, 1732.5									
3465.00	-20.9	V	3.0	36.0	1.0	-55.9	-13.0	-42.9	
5197.50	-17.6	V	3.0	35.4	1.0	-52.1	-13.0	-39.1	
6930.00	-12.8	V	3.0	35.7	1.0	-47.5	-13.0	-34.5	
3465.00	-20.9	H	3.0	36.0	1.0	-56.0	-13.0	-43.0	
5197.50	-16.9	H	3.0	35.4	1.0	-51.3	-13.0	-38.3	
6930.00	-12.0	H	3.0	35.7	1.0	-46.7	-13.0	-33.7	
High Ch, 1754.3									
3508.60	-21.6	V	3.0	36.0	1.0	-56.6	-13.0	-43.6	
5262.90	-17.5	V	3.0	35.4	1.0	-52.0	-13.0	-39.0	
7017.20	-12.8	V	3.0	35.7	1.0	-47.4	-13.0	-34.4	
3508.60	-21.5	H	3.0	36.0	1.0	-56.5	-13.0	-43.5	
5262.90	-17.0	H	3.0	35.4	1.0	-51.4	-13.0	-38.4	
7017.20	-12.0	H	3.0	35.7	1.0	-46.7	-13.0	-33.7	

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Band

LTE4

1.4MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 04/21/15
Test Engineer: Angel Escamilla
Configuration: X-pos EUT, Ac Charger, Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1710.7									
3421.40	-20.4	V	3.0	36.1	1.0	-55.5	-13.0	-42.5	
5132.10	-18.1	V	3.0	35.4	1.0	-52.5	-13.0	-39.5	
6842.80	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3421.40	-17.9	H	3.0	36.1	1.0	-52.9	-13.0	-39.9	
5132.10	-17.9	H	3.0	35.4	1.0	-52.3	-13.0	-39.3	
6842.80	-13.0	H	3.0	35.7	1.0	-47.7	-13.0	-34.7	
Mid Ch, 1732.5									
3465.00	-21.1	V	3.0	36.0	1.0	-56.1	-13.0	-43.1	
5197.50	-17.9	V	3.0	35.4	1.0	-52.4	-13.0	-39.4	
6930.00	-12.9	V	3.0	35.7	1.0	-47.6	-13.0	-34.6	
3465.00	-21.1	H	3.0	36.0	1.0	-56.1	-13.0	-43.1	
5197.50	-16.9	H	3.0	35.4	1.0	-51.3	-13.0	-38.3	
6930.00	-12.3	H	3.0	35.7	1.0	-47.0	-13.0	-34.0	
High Ch, 1754.3									
3508.60	-21.2	V	3.0	36.0	1.0	-56.2	-13.0	-43.2	
5262.90	-17.9	V	3.0	35.4	1.0	-52.3	-13.0	-39.3	
7017.20	-12.6	V	3.0	35.7	1.0	-47.3	-13.0	-34.3	
3508.60	-21.8	H	3.0	36.0	1.0	-56.8	-13.0	-43.8	
5262.90	-17.0	H	3.0	35.4	1.0	-51.4	-13.0	-38.4	
7017.20	-12.1	H	3.0	35.7	1.0	-46.8	-13.0	-33.8	

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LTE Band 2

Band

LTE2

20MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-20.2	V	3.0	35.8	1.0	-55.1	-13.0	-42.1	
5580.00	-19.6	V	3.0	35.5	1.0	-54.1	-13.0	-41.1	
7440.00	-19.1	V	3.0	35.7	1.0	-53.9	-13.0	-40.9	
3720.00	-18.6	H	3.0	35.8	1.0	-53.4	-13.0	-40.4	
5580.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7440.00	-18.1	H	3.0	35.7	1.0	-52.8	-13.0	-39.8	
Mid Ch, 1880									
3760.00	-18.2	V	3.0	35.8	1.0	-53.0	-13.0	-40.0	
5640.00	-20.0	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.6	V	3.0	35.7	1.0	-53.4	-13.0	-40.4	
3760.00	-16.3	H	3.0	35.8	1.0	-51.2	-13.0	-38.2	
5640.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7520.00	-17.7	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1900									
3800.00	-21.1	V	3.0	35.8	1.0	-55.9	-13.0	-42.9	
5700.00	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7600.00	-18.6	V	3.0	35.8	1.0	-53.3	-13.0	-40.3	
3800.00	-16.1	H	3.0	35.8	1.0	-50.9	-13.0	-37.9	
5700.00	-19.1	H	3.0	35.5	1.0	-53.6	-13.0	-40.6	
7600.00	-17.4	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

20MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-20.3	V	3.0	35.8	1.0	-55.2	-13.0	-42.2	
5580.00	-19.7	V	3.0	35.5	1.0	-54.2	-13.0	-41.2	
7440.00	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3720.00	-18.8	H	3.0	35.8	1.0	-53.6	-13.0	-40.6	
5580.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7440.00	-18.1	H	3.0	35.7	1.0	-52.8	-13.0	-39.8	
Mid Ch, 1880									
3760.00	-18.1	V	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5640.00	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7520.00	-18.8	V	3.0	35.7	1.0	-53.5	-13.0	-40.5	
3760.00	-16.3	H	3.0	35.8	1.0	-51.1	-13.0	-38.1	
5640.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7520.00	-17.7	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1900									
3800.00	-21.1	V	3.0	35.8	1.0	-55.9	-13.0	-42.9	
5700.00	-19.6	V	3.0	35.5	1.0	-54.1	-13.0	-41.1	
7600.00	-18.6	V	3.0	35.8	1.0	-53.4	-13.0	-40.4	
3800.00	-16.4	H	3.0	35.8	1.0	-51.2	-13.0	-38.2	
5700.00	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7600.00	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

15MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-20.7	V	3.0	35.8	1.0	-55.5	-13.0	-42.5	
5572.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7430.00	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3715.00	-20.2	H	3.0	35.8	1.0	-55.0	-13.0	-42.0	
5572.50	-19.3	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7430.00	-18.2	H	3.0	35.7	1.0	-53.0	-13.0	-40.0	
Mid Ch, 1880									
3760.00	-20.9	V	3.0	35.8	1.0	-55.7	-13.0	-42.7	
5640.00	-20.0	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.6	V	3.0	35.7	1.0	-53.3	-13.0	-40.3	
3760.00	-16.1	H	3.0	35.8	1.0	-51.0	-13.0	-38.0	
5640.00	-19.5	H	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7520.00	-17.8	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1902.5									
3805.00	-19.3	V	3.0	35.8	1.0	-54.1	-13.0	-41.1	
5707.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7610.00	-18.3	V	3.0	35.8	1.0	-53.1	-13.0	-40.1	
3805.00	-21.1	H	3.0	35.8	1.0	-55.8	-13.0	-42.8	
5707.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7610.00	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

15MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-20.5	V	3.0	35.8	1.0	-55.3	-13.0	-42.3	
5572.50	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7430.00	-19.0	V	3.0	35.7	1.0	-53.7	-13.0	-40.7	
3715.00	-20.2	H	3.0	35.8	1.0	-55.0	-13.0	-42.0	
5572.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7430.00	-18.2	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
Mid Ch, 1880									
3760.00	-21.4	V	3.0	35.8	1.0	-56.2	-13.0	-43.2	
5640.00	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7520.00	-18.5	V	3.0	35.7	1.0	-53.2	-13.0	-40.2	
3760.00	-16.4	H	3.0	35.8	1.0	-51.2	-13.0	-38.2	
5640.00	-19.4	H	3.0	35.5	1.0	-53.9	-13.0	-40.9	
7520.00	-17.6	H	3.0	35.7	1.0	-52.3	-13.0	-39.3	
High Ch, 1902.5									
3805.00	-19.3	V	3.0	35.8	1.0	-54.1	-13.0	-41.1	
5707.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7610.00	-18.5	V	3.0	35.8	1.0	-53.3	-13.0	-40.3	
3805.00	-21.1	H	3.0	35.8	1.0	-55.9	-13.0	-42.9	
5707.50	-19.1	H	3.0	35.5	1.0	-53.6	-13.0	-40.6	
7610.00	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

10MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-21.5	V	3.0	35.9	1.0	-56.3	-13.0	-43.3	
5565.00	-20.0	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7420.00	-19.2	V	3.0	35.7	1.0	-53.9	-13.0	-40.9	
3710.00	-21.0	H	3.0	35.9	1.0	-55.9	-13.0	-42.9	
5565.00	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7420.00	-18.2	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
Mid Ch, 1880									
3760.00	-21.3	V	3.0	35.8	1.0	-56.1	-13.0	-43.1	
5640.00	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7520.00	-18.5	V	3.0	35.7	1.0	-53.3	-13.0	-40.3	
3760.00	-17.6	H	3.0	35.8	1.0	-52.4	-13.0	-39.4	
5640.00	-19.4	H	3.0	35.5	1.0	-53.9	-13.0	-40.9	
7520.00	-17.6	H	3.0	35.7	1.0	-52.4	-13.0	-39.4	
High Ch, 1905									
3810.00	-20.4	V	3.0	35.8	1.0	-55.2	-13.0	-42.2	
5715.00	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7620.00	-18.5	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
3810.00	-19.0	H	3.0	35.8	1.0	-53.8	-13.0	-40.8	
5715.00	-19.1	H	3.0	35.5	1.0	-53.6	-13.0	-40.6	
7620.00	-17.4	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

10MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-21.4	V	3.0	35.9	1.0	-56.3	-13.0	-43.3	
5565.00	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7420.00	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3710.00	-21.4	H	3.0	35.9	1.0	-56.3	-13.0	-43.3	
5565.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7420.00	-18.2	H	3.0	35.7	1.0	-53.0	-13.0	-40.0	
Mid Ch, 1880									
3760.00	-21.0	V	3.0	35.8	1.0	-55.8	-13.0	-42.8	
5640.00	-20.0	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7520.00	-18.8	V	3.0	35.7	1.0	-53.6	-13.0	-40.6	
3760.00	-17.7	H	3.0	35.8	1.0	-52.5	-13.0	-39.5	
5640.00	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7520.00	-17.6	H	3.0	35.7	1.0	-52.3	-13.0	-39.3	
High Ch, 1905									
3810.00	-20.3	V	3.0	35.8	1.0	-55.1	-13.0	-42.1	
5715.00	-19.7	V	3.0	35.5	1.0	-54.2	-13.0	-41.2	
7620.00	-18.4	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
3810.00	-19.3	H	3.0	35.8	1.0	-54.1	-13.0	-41.1	
5715.00	-17.3	H	3.0	35.5	1.0	-51.8	-13.0	-38.8	
7620.00	-17.2	H	3.0	35.8	1.0	-51.9	-13.0	-38.9	

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Band

LTE2

5MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-21.3	V	3.0	35.9	1.0	-56.2	-13.0	-43.2	
5557.50	-20.1	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7410.00	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3705.00	-19.5	H	3.0	35.9	1.0	-54.4	-13.0	-41.4	
5557.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7410.00	-18.3	H	3.0	35.7	1.0	-53.0	-13.0	-40.0	
Mid Ch, 1880									
3760.00	-20.2	V	3.0	35.8	1.0	-55.0	-13.0	-42.0	
5640.00	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7520.00	-18.9	V	3.0	35.7	1.0	-53.7	-13.0	-40.7	
3760.00	-17.6	H	3.0	35.8	1.0	-52.5	-13.0	-39.5	
5640.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7520.00	-17.8	H	3.0	35.7	1.0	-52.6	-13.0	-39.6	
High Ch, 1907.5									
3815.00	-18.1	V	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5722.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7630.00	-18.3	V	3.0	35.8	1.0	-53.1	-13.0	-40.1	
3815.00	-17.4	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	
5722.50	-19.0	H	3.0	35.5	1.0	-53.5	-13.0	-40.5	
7630.00	-17.3	H	3.0	35.8	1.0	-52.0	-13.0	-39.0	

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Band

LTE2

5MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-21.2	V	3.0	35.9	1.0	-56.1	-13.0	-43.1	
5557.50	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7410.00	-19.4	V	3.0	35.7	1.0	-54.1	-13.0	-41.1	
3705.00	-20.0	H	3.0	35.9	1.0	-54.9	-13.0	-41.9	
5557.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7410.00	-18.3	H	3.0	35.7	1.0	-53.1	-13.0	-40.1	
Mid Ch, 1880									
3760.00	-19.9	V	3.0	35.8	1.0	-54.7	-13.0	-41.7	
5640.00	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7520.00	-18.8	V	3.0	35.7	1.0	-53.6	-13.0	-40.6	
3760.00	-17.5	H	3.0	35.8	1.0	-52.3	-13.0	-39.3	
5640.00	-19.4	H	3.0	35.5	1.0	-53.9	-13.0	-40.9	
7520.00	-17.7	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1907.5									
3815.00	-17.8	V	3.0	35.8	1.0	-52.6	-13.0	-39.6	
5722.50	-19.7	V	3.0	35.5	1.0	-54.2	-13.0	-41.2	
7630.00	-18.4	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
3815.00	-17.7	H	3.0	35.8	1.0	-52.5	-13.0	-39.5	
5722.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7630.00	-17.4	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

3MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 3MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-21.4	V	3.0	35.9	1.0	-56.3	-13.0	-43.3	
5554.50	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7406.00	-19.4	V	3.0	35.7	1.0	-54.1	-13.0	-41.1	
3703.00	-20.7	H	3.0	35.9	1.0	-55.6	-13.0	-42.6	
5554.50	-19.2	H	3.0	35.5	1.0	-53.7	-13.0	-40.7	
7406.00	-18.2	H	3.0	35.7	1.0	-53.0	-13.0	-40.0	
Mid Ch, 1880									
3760.00	-21.2	V	3.0	35.8	1.0	-56.1	-13.0	-43.1	
5640.00	-20.1	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.6	V	3.0	35.7	1.0	-53.3	-13.0	-40.3	
3760.00	-20.0	H	3.0	35.8	1.0	-54.8	-13.0	-41.8	
5640.00	-19.4	H	3.0	35.5	1.0	-53.9	-13.0	-40.9	
7520.00	-17.6	H	3.0	35.7	1.0	-52.4	-13.0	-39.4	
High Ch, 1908.5									
3817.00	-18.4	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
5725.50	-19.5	V	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7634.00	-18.3	V	3.0	35.8	1.0	-53.0	-13.0	-40.0	
3817.00	-18.1	H	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5725.50	-18.7	H	3.0	35.5	1.0	-53.2	-13.0	-40.2	
7634.00	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

3MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 3MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-21.3	V	3.0	35.9	1.0	-56.2	-13.0	-43.2	
5554.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7406.00	-19.5	V	3.0	35.7	1.0	-54.2	-13.0	-41.2	
3703.00	-20.6	H	3.0	35.9	1.0	-55.4	-13.0	-42.4	
5554.50	-19.4	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7406.00	-18.4	H	3.0	35.7	1.0	-53.1	-13.0	-40.1	
Mid Ch, 1880									
3760.00	-21.2	V	3.0	35.8	1.0	-56.0	-13.0	-43.0	
5640.00	-20.0	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.9	V	3.0	35.7	1.0	-53.6	-13.0	-40.6	
3760.00	-19.7	H	3.0	35.8	1.0	-54.5	-13.0	-41.5	
5640.00	-19.1	H	3.0	35.5	1.0	-53.6	-13.0	-40.6	
7520.00	-17.6	H	3.0	35.7	1.0	-52.4	-13.0	-39.4	
High Ch, 1908.5									
3817.00	-18.5	V	3.0	35.8	1.0	-53.3	-13.0	-40.3	
5725.50	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7634.00	-18.5	V	3.0	35.8	1.0	-53.3	-13.0	-40.3	
3817.00	-18.1	H	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5725.50	-18.9	H	3.0	35.5	1.0	-53.4	-13.0	-40.4	
7634.00	-17.5	H	3.0	35.8	1.0	-52.2	-13.0	-39.2	

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Band

LTE2

1.4MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_16QAM Band 2 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-21.5	V	3.0	35.9	1.0	-56.4	-13.0	-43.4	
5552.10	-19.9	V	3.0	35.5	1.0	-54.4	-13.0	-41.4	
7402.80	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3701.40	-21.6	H	3.0	35.9	1.0	-56.5	-13.0	-43.5	
5552.10	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7402.80	-18.1	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
Mid Ch, 1880									
3760.00	-21.3	V	3.0	35.8	1.0	-56.1	-13.0	-43.1	
5640.00	-20.1	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.9	V	3.0	35.7	1.0	-53.7	-13.0	-40.7	
3760.00	-17.7	H	3.0	35.8	1.0	-52.5	-13.0	-39.5	
5640.00	-19.0	H	3.0	35.5	1.0	-53.5	-13.0	-40.5	
7520.00	-17.8	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1909.3									
3818.60	-18.0	V	3.0	35.8	1.0	-52.8	-13.0	-39.8	
5727.90	-19.7	V	3.0	35.5	1.0	-54.2	-13.0	-41.2	
7637.20	-18.5	V	3.0	35.8	1.0	-53.2	-13.0	-40.2	
3818.60	-18.0	H	3.0	35.8	1.0	-52.8	-13.0	-39.8	
5727.90	-18.7	H	3.0	35.5	1.0	-53.2	-13.0	-40.2	
7637.20	-17.3	H	3.0	35.8	1.0	-52.0	-13.0	-39.0	

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Band

LTE2

1.4MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/19/2015
Test Engineer: O. Stoelting
Configuration: X-pos EUT w/ AC Charger + HS
Location: Chamber A
Mode: LTE_QPSK Band 2 Harmonics, 1.4MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-21.5	V	3.0	35.9	1.0	-56.4	-13.0	-43.4	
5552.10	-19.8	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
7402.80	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
3701.40	-21.5	H	3.0	35.9	1.0	-56.3	-13.0	-43.3	
5552.10	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7402.80	-18.2	H	3.0	35.7	1.0	-52.9	-13.0	-39.9	
Mid Ch, 1880									
3760.00	-21.3	V	3.0	35.8	1.0	-56.1	-13.0	-43.1	
5640.00	-20.0	V	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7520.00	-18.7	V	3.0	35.7	1.0	-53.4	-13.0	-40.4	
3760.00	-18.1	H	3.0	35.8	1.0	-52.9	-13.0	-39.9	
5640.00	-19.3	H	3.0	35.5	1.0	-53.8	-13.0	-40.8	
7520.00	-17.8	H	3.0	35.7	1.0	-52.5	-13.0	-39.5	
High Ch, 1909.3									
3818.60	-15.3	V	3.0	35.8	1.0	-50.1	-13.0	-37.1	
5727.90	-19.4	V	3.0	35.5	1.0	-53.9	-13.0	-40.9	
7637.20	-18.5	V	3.0	35.8	1.0	-53.3	-13.0	-40.3	
3818.60	-18.0	H	3.0	35.8	1.0	-52.8	-13.0	-39.8	
5727.90	-18.9	H	3.0	35.5	1.0	-53.4	-13.0	-40.4	
7637.20	-17.3	H	3.0	35.8	1.0	-52.1	-13.0	-39.1	

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LTE Band 7

Band

LTE7

20MHz

16QAM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-20.6	V	3.0	35.5	1.0	-55.1	-25.0	-30.1	-66.1
7530.00	-19.1	V	3.0	35.7	1.0	-53.8	-25.0	-28.8	-67.4
10040.00	-16.8	V	3.0	36.0	1.0	-51.8	-25.0	-26.8	-68.5
5020.00	-20.1	H	3.0	35.5	1.0	-54.6	-25.0	-29.6	-65.7
7530.00	-18.0	H	3.0	35.7	1.0	-52.7	-25.0	-27.7	-67.4
10040.00	-15.7	H	3.0	36.0	1.0	-50.7	-25.0	-25.7	-68.2
Mid Ch, 2535									
5070.00	-19.9	V	3.0	35.4	1.0	-54.4	-25.0	-29.4	-65.7
7605.00	-19.0	V	3.0	35.8	1.0	-53.7	-25.0	-28.7	-67.7
10140.00	-16.5	V	3.0	36.0	1.0	-51.5	-25.0	-26.5	-68.8
5070.00	-19.7	H	3.0	35.4	1.0	-54.2	-25.0	-29.2	-65.6
7605.00	-17.9	H	3.0	35.8	1.0	-52.7	-25.0	-27.7	-67.2
10140.00	-15.6	H	3.0	36.0	1.0	-50.5	-25.0	-25.5	-68.8
High Ch, 2560									
5120.00	-20.2	V	3.0	35.4	1.0	-54.7	-25.0	-29.7	-65.7
7680.00	-18.6	V	3.0	35.8	1.0	-53.4	-25.0	-28.4	-67.6
10240.00	-16.4	V	3.0	35.9	1.0	-51.3	-25.0	-26.3	-68.7
5120.00	-19.0	H	3.0	35.4	1.0	-53.4	-25.0	-28.4	-65.5
7680.00	-17.9	H	3.0	35.8	1.0	-52.7	-25.0	-27.7	-67.9
10240.00	-15.8	H	3.0	35.9	1.0	-50.7	-25.0	-25.7	-68.3

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Band

LTE7

20MHz

QPSK

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-18.0	V	3.0	35.5	1.0	-52.4	-25.0	-27.4	
7530.00	-15.6	V	3.0	35.7	1.0	-50.4	-25.0	-25.4	
10040.00	-13.5	V	3.0	36.0	1.0	-48.5	-25.0	-23.5	
5020.00	-17.4	H	3.0	35.5	1.0	-51.9	-25.0	-26.9	
7530.00	-14.5	H	3.0	35.7	1.0	-49.2	-25.0	-24.2	
10040.00	-12.9	H	3.0	36.0	1.0	-47.9	-25.0	-22.9	
Mid Ch, 2535									
5070.00	-17.4	V	3.0	35.4	1.0	-51.8	-25.0	-26.8	
7605.00	-15.1	V	3.0	35.8	1.0	-49.8	-25.0	-24.8	
10140.00	-13.7	V	3.0	36.0	1.0	-48.7	-25.0	-23.7	
5070.00	-16.4	H	3.0	35.4	1.0	-50.8	-25.0	-25.8	
7605.00	-14.3	H	3.0	35.8	1.0	-49.0	-25.0	-24.0	
10140.00	-12.5	H	3.0	36.0	1.0	-47.5	-25.0	-22.5	
High Ch, 2560									
5120.00	-20.1	V	3.0	35.4	1.0	-54.5	-25.0	-29.5	
7680.00	-15.3	V	3.0	35.8	1.0	-50.1	-25.0	-25.1	
10240.00	-10.5	V	3.0	35.9	1.0	-45.4	-25.0	-20.4	
5120.00	-16.3	H	3.0	35.4	1.0	-50.8	-25.0	-25.8	
7680.00	-14.6	H	3.0	35.8	1.0	-49.4	-25.0	-24.4	
10240.00	-12.9	H	3.0	35.9	1.0	-47.8	-25.0	-22.8	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 7 Harmonics, 15MHz Bandwidth

Band
LTE7
15MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-17.7	V	3.0	35.5	1.0	-52.2	-25.0	-27.2	
7522.50	-15.6	V	3.0	35.7	1.0	-50.3	-25.0	-25.3	
10030.00	-13.7	V	3.0	36.0	1.0	-48.7	-25.0	-23.7	
5015.00	-17.4	H	3.0	35.5	1.0	-51.9	-25.0	-26.9	
7522.50	-14.8	H	3.0	35.7	1.0	-49.6	-25.0	-24.6	
10030.00	-13.0	H	3.0	36.0	1.0	-48.0	-25.0	-23.0	
Mid Ch, 2535									
5070.00	-15.1	V	3.0	35.4	1.0	-49.5	-25.0	-24.5	
7605.00	-12.7	V	3.0	35.8	1.0	-47.5	-25.0	-22.5	
10140.00	-11.6	V	3.0	36.0	1.0	-46.5	-25.0	-21.5	
5070.00	-15.3	H	3.0	35.4	1.0	-49.7	-25.0	-24.7	
7605.00	-11.2	H	3.0	35.8	1.0	-46.0	-25.0	-21.0	
10140.00	-10.8	H	3.0	36.0	1.0	-45.8	-25.0	-20.8	
High Ch, 2562.5									
5125.00	-17.0	V	3.0	35.4	1.0	-51.5	-25.0	-26.5	
7687.50	-14.2	V	3.0	35.8	1.0	-49.0	-25.0	-24.0	
10250.00	-13.1	V	3.0	35.9	1.0	-48.0	-25.0	-23.0	
5125.00	-16.6	H	3.0	35.4	1.0	-51.0	-25.0	-26.0	
7687.50	-13.3	H	3.0	35.8	1.0	-48.1	-25.0	-23.1	
10250.00	-13.0	H	3.0	35.9	1.0	-47.9	-25.0	-22.9	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 7 Harmonics, 15MHz Bandwidth

Band
LTE7
15MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-16.4	V	3.0	35.5	1.0	-50.8	-25.0	-25.8	
7522.50	-14.8	V	3.0	35.7	1.0	-49.6	-25.0	-24.6	
10030.00	-12.9	V	3.0	36.0	1.0	-47.9	-25.0	-22.9	
5015.00	-16.8	H	3.0	35.5	1.0	-51.2	-25.0	-26.2	
7522.50	-13.9	H	3.0	35.7	1.0	-48.6	-25.0	-23.6	
10030.00	-12.7	H	3.0	36.0	1.0	-47.7	-25.0	-22.7	
Mid Ch, 2535									
5070.00	-15.3	V	3.0	35.4	1.0	-49.7	-25.0	-24.7	
7605.00	-13.2	V	3.0	35.8	1.0	-47.9	-25.0	-22.9	
10140.00	-11.6	V	3.0	36.0	1.0	-46.5	-25.0	-21.5	
5070.00	-14.4	H	3.0	35.4	1.0	-48.8	-25.0	-23.8	
7605.00	-11.9	H	3.0	35.8	1.0	-46.7	-25.0	-21.7	
10140.00	-10.7	H	3.0	36.0	1.0	-45.7	-25.0	-20.7	
High Ch, 2562.5									
5125.00	-17.0	V	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7687.50	-14.4	V	3.0	35.8	1.0	-49.2	-25.0	-24.2	
10250.00	-13.0	V	3.0	35.9	1.0	-47.9	-25.0	-22.9	
5125.00	-16.5	H	3.0	35.4	1.0	-50.9	-25.0	-25.9	
7687.50	-13.7	H	3.0	35.8	1.0	-48.4	-25.0	-23.4	
10250.00	-13.4	H	3.0	35.9	1.0	-48.3	-25.0	-23.3	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 7 Harmonics, 10MHz Bandwidth

Band
LTE7
10MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2505									
5010.00	-15.1	V	3.0	35.5	1.0	-49.5	-25.0	-24.5	
7515.00	-12.2	V	3.0	35.7	1.0	-47.0	-25.0	-22.0	
10020.00	-11.8	V	3.0	36.0	1.0	-46.8	-25.0	-21.8	
5010.00	-14.9	H	3.0	35.5	1.0	-49.3	-25.0	-24.3	
7515.00	-12.0	H	3.0	35.7	1.0	-46.7	-25.0	-21.7	
10020.00	-10.9	H	3.0	36.0	1.0	-45.9	-25.0	-20.9	
Mid Ch, 2535									
5070.00	-14.5	V	3.0	35.4	1.0	-49.0	-25.0	-24.0	
7605.00	-12.8	V	3.0	35.8	1.0	-47.6	-25.0	-22.6	
10140.00	-11.4	V	3.0	36.0	1.0	-46.3	-25.0	-21.3	
5070.00	-14.3	H	3.0	35.4	1.0	-48.8	-25.0	-23.8	
7605.00	-11.6	H	3.0	35.8	1.0	-46.3	-25.0	-21.3	
10140.00	-10.8	H	3.0	36.0	1.0	-45.7	-25.0	-20.7	
High Ch, 2565									
5130.00	-14.4	V	3.0	35.4	1.0	-48.8	-25.0	-23.8	
7695.00	-12.0	V	3.0	35.8	1.0	-46.8	-25.0	-21.8	
10260.00	-12.3	V	3.0	35.9	1.0	-47.2	-25.0	-22.2	
5130.00	-14.2	H	3.0	35.4	1.0	-48.6	-25.0	-23.6	
7695.00	-10.8	H	3.0	35.8	1.0	-45.6	-25.0	-20.6	
10260.00	-11.5	H	3.0	35.9	1.0	-46.4	-25.0	-21.4	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 7 Harmonics, 10MHz Bandwidth

Band LTE7 10MHz QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2505									
5010.00	-15.9	V	3.0	35.5	1.0	-50.4	-25.0	-25.4	
7515.00	-13.4	V	3.0	35.7	1.0	-48.1	-25.0	-23.1	
10020.00	-11.4	V	3.0	36.0	1.0	-46.5	-25.0	-21.5	
5010.00	-14.5	H	3.0	35.5	1.0	-48.9	-25.0	-23.9	
7515.00	-11.9	H	3.0	35.7	1.0	-46.6	-25.0	-21.6	
10020.00	-10.8	H	3.0	36.0	1.0	-45.9	-25.0	-20.9	
Mid Ch, 2535									
5070.00	-14.1	V	3.0	35.4	1.0	-48.5	-25.0	-23.5	
7605.00	-12.3	V	3.0	35.8	1.0	-47.0	-25.0	-22.0	
10140.00	-11.4	V	3.0	36.0	1.0	-46.4	-25.0	-21.4	
5070.00	-14.6	H	3.0	35.4	1.0	-49.1	-25.0	-24.1	
7605.00	-12.2	H	3.0	35.8	1.0	-46.9	-25.0	-21.9	
10140.00	-10.9	H	3.0	36.0	1.0	-45.8	-25.0	-20.8	
High Ch, 2565									
5130.00	-14.5	V	3.0	35.4	1.0	-48.9	-25.0	-23.9	
7695.00	-11.8	V	3.0	35.8	1.0	-46.6	-25.0	-21.6	
10260.00	-12.3	V	3.0	35.9	1.0	-47.2	-25.0	-22.2	
5130.00	-13.7	H	3.0	35.4	1.0	-48.1	-25.0	-23.1	
7695.00	-10.7	H	3.0	35.8	1.0	-45.5	-25.0	-20.5	
10260.00	-10.7	H	3.0	35.9	1.0	-45.6	-25.0	-20.6	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_16QAM Band 7 Harmonics, 5MHz Bandwidth

Band
LTE7
5MHz
16QAM

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-14.5	V	3.0	35.5	1.0	-49.0	-25.0	-24.0	
7507.50	-12.6	V	3.0	35.7	1.0	-47.4	-25.0	-22.4	
10010.00	-11.7	V	3.0	36.0	1.0	-46.8	-25.0	-21.8	
5005.00	-14.6	H	3.0	35.5	1.0	-49.0	-25.0	-24.0	
7507.50	-11.9	H	3.0	35.7	1.0	-46.6	-25.0	-21.6	
10010.00	-11.3	H	3.0	36.0	1.0	-46.3	-25.0	-21.3	
Mid Ch, 2535									
5070.00	-19.6	V	3.0	35.4	1.0	-54.1	-25.0	-29.1	
7605.00	-17.8	V	3.0	35.8	1.0	-52.6	-25.0	-27.6	
10140.00	-16.2	V	3.0	36.0	1.0	-51.2	-25.0	-26.2	
5070.00	-18.6	H	3.0	35.4	1.0	-53.0	-25.0	-28.0	
7605.00	-17.0	H	3.0	35.8	1.0	-51.7	-25.0	-26.7	
10140.00	-16.0	H	3.0	36.0	1.0	-50.9	-25.0	-25.9	
High Ch, 2567.5									
5135.00	-14.7	V	3.0	35.4	1.0	-49.1	-25.0	-24.1	
7702.50	-12.3	V	3.0	35.8	1.0	-47.1	-25.0	-22.1	
10270.00	-11.6	V	3.0	35.9	1.0	-46.5	-25.0	-21.5	
5135.00	-12.2	H	3.0	35.4	1.0	-46.7	-25.0	-21.7	
7702.50	-10.9	H	3.0	35.8	1.0	-45.7	-25.0	-20.7	
10270.00	-11.7	H	3.0	35.9	1.0	-46.6	-25.0	-21.6	

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Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Sony
Project #: 15J20225
Date: 4/22/2015
Test Engineer: Jude Semana/David Mun
Configuration: X-pos EUT/ AC Charger/ HS
Location: Chamber G
Mode: LTE_QPSK Band 7 Harmonics, 5MHz Bandwidth

Band
LTE7
5MHz
QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-14.5	V	3.0	35.5	1.0	-48.9	-25.0	-23.9	
7507.50	-12.4	V	3.0	35.7	1.0	-47.1	-25.0	-22.1	
10010.00	-11.5	V	3.0	36.0	1.0	-46.6	-25.0	-21.6	
5005.00	-14.6	H	3.0	35.5	1.0	-49.0	-25.0	-24.0	
7507.50	-12.5	H	3.0	35.7	1.0	-47.2	-25.0	-22.2	
10010.00	-10.4	H	3.0	36.0	1.0	-45.5	-25.0	-20.5	
Mid Ch, 2535									
5070.00	-19.5	V	3.0	35.4	1.0	-54.0	-25.0	-29.0	
7605.00	-17.6	V	3.0	35.8	1.0	-52.4	-25.0	-27.4	
10140.00	-16.8	V	3.0	36.0	1.0	-51.7	-25.0	-26.7	
5070.00	-13.9	H	3.0	35.4	1.0	-48.3	-25.0	-23.3	
7605.00	-11.6	H	3.0	35.8	1.0	-46.4	-25.0	-21.4	
10140.00	-10.4	H	3.0	36.0	1.0	-45.3	-25.0	-20.3	
High Ch, 2567.5									
5135.00	-14.8	V	3.0	35.4	1.0	-49.2	-25.0	-24.2	
7702.50	-12.6	V	3.0	35.8	1.0	-47.4	-25.0	-22.4	
10270.00	-12.1	V	3.0	35.9	1.0	-47.0	-25.0	-22.0	
5135.00	-12.8	H	3.0	35.4	1.0	-47.3	-25.0	-22.3	
7702.50	-11.9	H	3.0	35.8	1.0	-46.7	-25.0	-21.7	
10270.00	-11.6	H	3.0	35.9	1.0	-46.5	-25.0	-21.5	

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