

QPSK EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: F. Guarnero Configuration: EUT Only Mode: LTE Band 5, 3MHz QPSK										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F	3m Chamber F	Filter	part 22							
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (825.5MHz)										
1.65	-57.4	H	3.0	-14.3	33.9	1.0	-47.1	-13.0	-34.1	
1.72	-59.1	H	3.0	-15.7	33.9	1.0	-48.5	-13.0	-35.5	
2.44	-63.7	H	3.0	-16.6	34.1	1.0	-49.7	-13.0	-36.7	
1.65	-58.8	V	3.0	-12.9	33.9	1.0	-45.8	-13.0	-32.8	
1.72	-56.7	V	3.0	-10.7	33.9	1.0	-43.5	-13.0	-30.5	
2.44	-64.0	V	3.0	-16.1	34.1	1.0	-49.2	-13.0	-36.2	
Mid Channel (836.5MHz)										
1.67	-57.2	H	3.0	-14.0	33.9	1.0	-46.8	-13.0	-33.8	
2.44	-64.6	H	3.0	-17.5	34.1	1.0	-50.5	-13.0	-37.5	
1.67	-60.4	V	3.0	-14.5	33.9	1.0	-47.3	-13.0	-34.3	
1.73	-58.7	V	3.0	-12.6	33.9	1.0	-45.5	-13.0	-32.5	
2.44	-62.5	V	3.0	-14.6	34.1	1.0	-47.7	-13.0	-34.7	
High Channel (847.5MHz)										
1.69	-66.1	H	3.0	-22.8	33.9	1.0	-55.7	-13.0	-42.7	
1.72	-57.0	H	3.0	-13.5	33.9	1.0	-46.4	-13.0	-33.4	
2.44	-65.5	H	3.0	-18.4	34.1	1.0	-51.4	-13.0	-38.4	
1.69	-67.7	V	3.0	-21.8	33.9	1.0	-54.6	-13.0	-41.6	
1.73	-54.4	V	3.0	-8.3	33.9	1.0	-41.2	-13.0	-28.2	
2.44	-63.4	V	3.0	-15.5	34.1	1.0	-48.5	-13.0	-35.5	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: F. Guarnero Configuration: EUT Only Mode: LTE Band 5, 3MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 22				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (825.5MHz)										
1.65	-58.0	H	3.0	-14.2	33.7	1.0	-46.9	-13.0	-33.9	
1.72	-59.1	H	3.0	-14.7	33.7	1.0	-47.4	-13.0	-34.4	
2.44	-64.3	H	3.0	-16.9	34.2	1.0	-50.0	-13.0	-37.0	
1.65	-59.3	V	3.0	-13.3	33.7	1.0	-46.0	-13.0	-33.0	
1.72	-57.0	V	3.0	-10.8	33.7	1.0	-43.5	-13.0	-30.5	
2.44	-64.8	V	3.0	-16.7	34.2	1.0	-49.9	-13.0	-36.9	
Mid Channel (836.5MHz)										
1.67	-58.3	H	3.0	-14.4	33.7	1.0	-47.1	-13.0	-34.1	
2.44	-65.7	H	3.0	-18.3	34.2	1.0	-51.4	-13.0	-38.4	
1.67	-61.0	V	3.0	-14.9	33.7	1.0	-47.6	-13.0	-34.6	
2.44	-62.9	V	3.0	-14.8	34.2	1.0	-48.0	-13.0	-35.0	
High Channel (847.5MHz)										
1.69	-67.4	H	3.0	-23.2	33.7	1.0	-55.9	-13.0	-42.9	
2.44	-65.2	H	3.0	-17.8	34.2	1.0	-50.9	-13.0	-37.9	
1.69	-67.8	V	3.0	-21.7	33.7	1.0	-54.4	-13.0	-41.4	
1.73	-58.0	V	3.0	-11.8	33.7	1.0	-44.4	-13.0	-31.4	
2.44	-63.4	V	3.0	-15.3	34.2	1.0	-48.4	-13.0	-35.4	

Rev. 09.04.14

QPSK EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																		
<p>Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: F. Guarnero Configuration: EUT Only Mode: LTE Band 5, 5MHz QPSK</p> <p>Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="background-color: #ADD8E6;">Chamber</th> <th style="background-color: #ADD8E6;">Pre-amplifier</th> <th style="background-color: #ADD8E6;">Filter</th> <th style="background-color: #ADD8E6;">Limit</th> </tr> <tr> <td style="text-align: center;">3m Chamber F</td> <td style="text-align: center;">3m Chamber F</td> <td style="text-align: center;">Filter</td> <td style="text-align: center;">part 22</td> </tr> </table>											Chamber	Pre-amplifier	Filter	Limit	3m Chamber F	3m Chamber F	Filter	part 22
Chamber	Pre-amplifier	Filter	Limit															
3m Chamber F	3m Chamber F	Filter	part 22															
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes								
Low Channel (826.5MHz)																		
1.65	-58.1	H	3.0	-15.0	33.9	1.0	-47.8	-13.0	-34.8									
1.73	-55.9	H	3.0	-12.4	33.9	1.0	-45.3	-13.0	-32.3									
2.44	-64.7	H	3.0	-17.6	34.1	1.0	-50.7	-13.0	-37.7									
1.65	-59.4	V	3.0	-13.5	33.9	1.0	-46.3	-13.0	-33.3									
1.73	-59.5	V	3.0	-13.5	33.9	1.0	-46.3	-13.0	-33.3									
2.44	-63.0	V	3.0	-15.1	34.1	1.0	-48.1	-13.0	-35.1									
Mid Channel (836.5MHz)																		
1.67	-59.7	H	3.0	-16.5	33.9	1.0	-49.4	-13.0	-36.4									
1.72	-62.3	H	3.0	-18.8	33.9	1.0	-51.7	-13.0	-38.7									
1.88	-61.6	H	3.0	-17.3	33.9	1.0	-50.2	-13.0	-37.2									
2.44	-63.4	H	3.0	-16.2	34.1	1.0	-49.3	-13.0	-36.3									
1.67	-60.6	V	3.0	-14.6	33.9	1.0	-47.5	-13.0	-34.5									
1.72	-61.9	V	3.0	-15.8	33.9	1.0	-48.7	-13.0	-35.7									
2.44	-66.9	V	3.0	-18.9	34.1	1.0	-52.0	-13.0	-39.0									
High Channel (846.5MHz)																		
1.71	-56.7	H	3.0	-13.3	33.9	1.0	-46.1	-13.0	-33.1									
2.44	-64.7	H	3.0	-17.6	34.1	1.0	-50.7	-13.0	-37.7									
1.72	-59.0	V	3.0	-13.0	33.9	1.0	-45.9	-13.0	-32.9									
2.45	-63.6	V	3.0	-15.6	34.1	1.0	-48.7	-13.0	-35.7									

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16QAM EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: F. Guarero Configuration: EUT Only Mode: LTE Band 5, 5MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 22				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (826.5MHz)										
1.65	-58.9	H	3.0	-15.1	33.7	1.0	-47.8	-13.0	-34.8	
1.73	-56.6	H	3.0	-12.1	33.7	1.0	-44.8	-13.0	-31.8	
2.44	-65.2	H	3.0	-17.8	34.2	1.0	-50.9	-13.0	-37.9	
1.65	-60.0	V	3.0	-14.0	33.7	1.0	-46.1	-13.0	-33.7	
1.73	-60.1	V	3.0	-13.9	33.7	1.0	-46.5	-13.0	-33.5	
2.44	-63.7	V	3.0	-15.6	34.2	1.0	-48.8	-13.0	-35.8	
Mid Channel (836.5MHz)										
1.67	-60.5	H	3.0	-16.5	33.7	1.0	-49.2	-13.0	-36.2	
1.72	-63.1	H	3.0	-18.7	33.7	1.0	-51.3	-13.0	-38.3	
1.88	-62.7	H	3.0	-16.7	33.5	1.0	-49.3	-13.0	-36.3	
2.44	-64.0	H	3.0	-16.6	34.2	1.0	-49.7	-13.0	-36.7	
1.67	-61.3	H	3.0	-17.4	33.7	1.0	-50.1	-13.0	-37.1	
1.72	-62.5	V	3.0	-16.2	33.7	1.0	-48.9	-13.0	-35.9	
2.44	-67.3	V	3.0	-19.2	34.2	1.0	-52.3	-13.0	-39.3	
High Channel (846.5MHz)										
1.71	-58.0	H	3.0	-13.6	33.7	1.0	-46.3	-13.0	-33.3	
2.44	-65.4	H	3.0	-18.0	34.2	1.0	-51.1	-13.0	-38.1	
1.73	-61.4	V	3.0	-15.1	33.7	1.0	-47.8	-13.0	-34.8	
2.44	-64.6	V	3.0	-16.5	34.2	1.0	-49.7	-13.0	-36.7	

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QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/19/15									
Test Engineer:	T Wang									
Configuration:	EUT Only									
Mode:	LTE Band 5, 10MHz QPSK									
Test Equipment:										
Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter			Limit	
3m Chamber F			3m Chamber F			Filter			Part 22	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (829MHz)										
1.658	-65.6	H	3.0	-21.6	34.6	1.0	-55.1	-13.0	-42.1	
2.487	-65.7	H	3.0	-18.3	34.1	1.0	-51.4	-13.0	-38.4	
1.658	-65.0	V	3.0	-20.2	34.6	1.0	-53.8	-13.0	-40.8	
2.487	-65.2	V	3.0	-17.2	34.1	1.0	-50.3	-13.0	-37.3	
Mid Channel (836.5MHz)										
1.673	-66.0	H	3.0	-21.9	34.5	1.0	-55.5	-13.0	-42.5	
2.510	-65.4	H	3.0	-17.9	34.1	1.0	-51.0	-13.0	-38.0	
1.673	-66.2	V	3.0	-21.4	34.5	1.0	-54.9	-13.0	-41.9	
2.510	-65.0	V	3.0	-16.9	34.1	1.0	-50.0	-13.0	-37.0	
High Channel (844MHz)										
1.688	-65.4	H	3.0	-21.3	34.5	1.0	-54.8	-13.0	-41.8	
2.532	-65.7	H	3.0	-18.1	34.1	1.0	-51.3	-13.0	-38.3	
1.688	-65.7	V	3.0	-20.8	34.5	1.0	-54.4	-13.0	-41.4	
2.532	-67.0	V	3.0	-18.8	34.1	1.0	-52.0	-13.0	-39.0	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		02/19/15																	
Test Engineer:		T Wang																	
Configuration:		EUT Only																	
Mode:		LTE Band 5, 10MHz 16QAM																	
Test Equipment:																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter			Limit										
3m Chamber F			3m Chamber F			Filter			Part 22										
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (829MHz)																			
1.658	-66.6	H	3.0	-22.6	34.6	1.0	-56.1	-13.0	-43.1										
2.487	-66.8	H	3.0	-19.4	34.1	1.0	-52.5	-13.0	-39.5										
1.658	-66.1	V	3.0	-21.3	34.6	1.0	-54.9	-13.0	-41.9										
2.487	-66.5	V	3.0	-18.5	34.1	1.0	-51.6	-13.0	-38.6										
Mid Channel (836.5MHz)																			
1.673	-66.9	H	3.0	-22.8	34.5	1.0	-56.4	-13.0	-43.4										
2.510	-66.5	H	3.0	-19.0	34.1	1.0	-52.1	-13.0	-39.1										
1.673	-67.1	V	3.0	-22.3	34.5	1.0	-55.8	-13.0	-42.8										
2.510	-66.2	V	3.0	-18.1	34.1	1.0	-51.2	-13.0	-38.2										
High Channel (844MHz)																			
1.688	-66.5	H	3.0	-22.4	34.5	1.0	-55.9	-13.0	-42.9										
2.532	-66.4	H	3.0	-18.8	34.1	1.0	-52.0	-13.0	-39.0										
1.688	-66.8	V	3.0	-21.9	34.5	1.0	-55.5	-13.0	-42.5										
2.532	-68.1	V	3.0	-19.9	34.1	1.0	-53.1	-13.0	-40.1										
Rev. 09.04.14																			

9.3.4. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:	14U19187																		
Date:	03/27/15																		
Test Engineer:	T Wang																		
Configuration:	EUT Only																		
Mode:	LTE Band 13, 5MHz QPSK																		
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter		Limit											
3m Chamber F			3m Chamber F			Filter		Part 27											
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (779.5MHz)																			
1.559	-67.0	H	3.0	-22.5	33.7	1.0	-55.2	-40.0	-15.2	1559-1610MHz									
2.390	-64.3	H	3.0	-16.9	34.2	1.0	-50.0	-13.0	-37.0										
1.559	-66.3	V	3.0	-20.1	33.7	1.0	-52.7	-40.0	-12.7	1559-1610MHz									
2.390	-65.0	V	3.0	-16.9	34.2	1.0	-50.0	-13.0	-37.0										
Mid Channel (782MHz)																			
1.564	-66.3	H	3.0	-23.4	33.8	1.0	-56.1	-40.0	-16.1	1559-1610MHz									
2.346	-64.8	H	3.0	-17.4	34.1	1.0	-50.5	-13.0	-37.5										
1.564	-66.2	V	3.0	-20.5	33.8	1.0	-53.3	-40.0	-13.3	1559-1610MHz									
2.346	-64.4	V	3.0	-16.4	34.1	1.0	-49.5	-13.0	-36.5										
High Channel (782MHz)																			
1.569	-67.4	H	3.0	-22.9	33.7	1.0	-55.6	-40.0	-15.6	1559-1610MHz									
2.350	-63.7	H	3.0	-16.3	34.2	1.0	-49.4	-13.0	-36.4										
1.569	-66.1	V	3.0	-19.9	33.7	1.0	-52.5	-40.0	-12.5	1559-1610MHz									
2.350	-65.0	V	3.0	-16.9	34.2	1.0	-50.1	-13.0	-37.1										
Rev. 09.04.14																			

16QAM EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 03/27/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 13, 5MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter		Part 27		
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (779.5MHz)										
1.559	-67.4	H	3.0	-22.9	33.7	1.0	-55.6	-40.0	-15.6	1559-1610MHz
2.390	-64.4	H	3.0	-17.0	34.2	1.0	-50.1	-13.0	-37.1	
1.559	-67.2	V	3.0	-21.0	33.7	1.0	-53.6	-40.0	-13.6	1559-1610MHz
2.390	-65.2	V	3.0	-17.1	34.2	1.0	-50.2	-13.0	-37.2	
Mid Channel (782MHz)										
1.564	-66.8	H	3.0	-23.9	33.8	1.0	-56.6	-40.0	-16.6	1559-1610MHz
2.346	-64.7	H	3.0	-17.3	34.1	1.0	-50.4	-13.0	-37.4	
1.564	-66.3	V	3.0	-20.6	33.8	1.0	-53.4	-40.0	-13.4	1559-1610MHz
2.346	-66.6	V	3.0	-18.6	34.1	1.0	-51.7	-13.0	-38.7	
Mid Channel (784.5MHz)										
1.569	-67.2	H	3.0	-22.7	33.7	1.0	-55.4	-40.0	-15.4	1559-1610MHz
2.350	-65.0	H	3.0	-17.6	34.2	1.0	-50.7	-13.0	-37.7	
1.569	-67.4	V	3.0	-21.2	33.7	1.0	-53.8	-40.0	-13.8	1559-1610MHz
2.350	-66.3	V	3.0	-18.2	34.2	1.0	-51.3	-13.0	-38.3	
Rev. 09.04.14										

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/19/15									
Test Engineer:	F. Guarnero									
Configuration:	EUT Only									
Mode:	LTE Band 13, 10MHz QPSK									
<u>Test Equipment:</u> Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 27				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.56	-67.5	H	3.0	-24.6	33.8	1.0	-57.3	-40.0	-17.3	
2.35	-64.7	H	3.0	-17.3	34.1	1.0	-50.4	-13.0	-37.4	
1.56	-66.7	V	3.0	-21.0	33.8	1.0	-53.8	-40.0	-13.8	
2.35	-64.8	V	3.0	-16.8	34.1	1.0	-49.9	-13.0	-36.9	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/19/15									
Test Engineer:	F. Guarnero									
Configuration:	EUT Only									
Mode:	LTE Band 13, 10MHz 16QAM									
<u>Test Equipment:</u>										
Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 27				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (782MHz)										
1.56	-67.7	H	3.0	-24.8	33.8	1.0	-57.5	-40.0	-17.5	
2.35	-64.9	H	3.0	-17.5	34.1	1.0	-50.6	-13.0	-37.6	
1.56	-67.0	V	3.0	-21.3	33.8	1.0	-54.1	-40.0	-14.1	
2.35	-64.9	V	3.0	-16.9	34.1	1.0	-50.0	-13.0	-37.0	
Rev. 09.04.14										

9.3.5. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																										
Company:																										
Project #:	14U19187	Date:	02/20/15 <th data-cs="9" data-kind="parent"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th>																							
Test Engineer:	T Wang	Configuration:	EUT Only																							
Mode:	LTE Band 17, 5MHz QPSK																									
<u>Test Equipment:</u>																										
Substitution: Horn T59 Substitution, and 8ft SMA Cable																										
Chamber			Pre-amplifier			Filter			Limit																	
3m Chamber F			3m Chamber F			Filter			Part 27																	
Frequency	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes																
Low Channel (706.5MHz)																										
1.413	-64.4	H	3.0	-22.3	34.0	1.0	-55.3	-13.0	-42.3																	
2.119	-66.1	H	3.0	-20.6	34.0	1.0	-53.6	-13.0	-40.6																	
2.435	-63.4	H	3.0	-16.3	34.1	1.0	-49.3	-13.0	-36.3																	
1.413	-59.2	V	3.0	-14.3	34.0	1.0	-47.3	-13.0	-34.3																	
2.119	-66.0	V	3.0	-18.9	34.0	1.0	-51.9	-13.0	-38.9																	
2.437	-63.3	V	3.0	-15.4	34.1	1.0	-48.5	-13.0	-35.5																	
Mid Channel (710MHz)																										
1.420	-65.3	H	3.0	-23.1	34.0	1.0	-56.1	-13.0	-43.1																	
2.130	-66.1	H	3.0	-20.5	34.0	1.0	-53.5	-13.0	-40.5																	
2.460	-63.1	H	3.0	-15.9	34.1	1.0	-48.9	-13.0	-35.9																	
1.420	-63.4	V	3.0	-18.4	34.0	1.0	-51.4	-13.0	-38.4																	
2.130	-67.8	V	3.0	-20.7	34.0	1.0	-53.7	-13.0	-40.7																	
2.576	-65.3	V	3.0	-17.0	34.2	1.0	-50.2	-13.0	-37.2																	
High Channel (713.5)																										
1.427	-64.9	H	3.0	-22.7	34.0	1.0	-55.7	-13.0	-42.7																	
2.133	-66.6	H	3.0	-21.0	34.0	1.0	-54.0	-13.0	-41.0																	
1.427	-58.4	V	3.0	-13.4	34.0	1.0	-46.4	-13.0	-33.4																	
2.133	-65.1	V	3.0	-18.0	34.0	1.0	-51.0	-13.0	-38.0																	
2.435	-62.7	V	3.0	-14.8	34.1	1.0	-47.9	-13.0	-34.9																	
Rev. 09.04.14																										

16QAM EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		02/20/15																	
Test Engineer:		T Wang																	
Configuration:		EUT Only																	
Mode:		LTE Band 17, 5MHz 16QAM																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter		Limit											
3m Chamber F			3m Chamber F			Filter		Part 27											
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (706.5MHz)																			
1.413	-65.5	H	3.0	-23.4	34.0	1.0	-56.4	-13.0	-43.4										
2.119	-67.2	H	3.0	-21.7	34.0	1.0	-54.7	-13.0	-41.7										
2.435	-64.3	H	3.0	-17.2	34.1	1.0	-50.2	-13.0	-37.2										
1.413	-60.3	V	3.0	-15.4	34.0	1.0	-48.4	-13.0	-35.4										
2.119	-66.9	V	3.0	-19.8	34.0	1.0	-52.8	-13.0	-39.8										
2.437	-64.4	V	3.0	-16.5	34.1	1.0	-49.6	-13.0	-36.6										
Mid Channel (710MHz)																			
1.420	-66.3	H	3.0	-24.1	34.0	1.0	-57.1	-13.0	-44.1										
2.130	-67.0	H	3.0	-21.4	34.0	1.0	-54.4	-13.0	-41.4										
2.460	-64.2	H	3.0	-17.0	34.1	1.0	-50.0	-13.0	-37.0										
1.420	-64.4	V	3.0	-19.4	34.0	1.0	-52.4	-13.0	-39.4										
2.130	-68.5	V	3.0	-21.4	34.0	1.0	-54.4	-13.0	-41.4										
2.576	-66.2	V	3.0	-17.9	34.2	1.0	-51.1	-13.0	-38.1										
High Channel (713.5MHz)																			
1.427	-65.8	H	3.0	-23.6	34.0	1.0	-56.6	-13.0	-43.6										
2.133	-67.7	H	3.0	-22.1	34.0	1.0	-55.1	-13.0	-42.1										
1.427	-59.3	V	3.0	-14.3	34.0	1.0	-47.3	-13.0	-34.3										
2.133	-66.2	V	3.0	-19.1	34.0	1.0	-52.1	-13.0	-39.1										
2.435	-63.6	V	3.0	-15.7	34.1	1.0	-48.8	-13.0	-35.8										
Rev. 09.04.14																			

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/20/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 17, 10MHz QPSK										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 27				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-63.5	H	3.0	-21.3	34.0	1.0	-54.3	-13.0	41.3	
2.127	-66.4	H	3.0	-20.9	34.0	1.0	-53.8	-13.0	40.8	
2.435	-65.3	H	3.0	-18.2	34.1	1.0	-51.2	-13.0	38.2	
1.418	-58.2	V	3.0	-13.3	34.0	1.0	-46.3	-13.0	33.3	
2.127	-66.1	V	3.0	-19.0	34.0	1.0	-52.0	-13.0	39.0	
2.659	-56.3	V	3.0	-7.7	34.3	1.0	-41.1	-13.0	28.1	
Mid Channel (710MHz)										
1.420	-66.6	H	3.0	-24.4	34.0	1.0	-57.4	-13.0	44.4	
2.130	-66.7	H	3.0	-21.1	34.0	1.0	-54.1	-13.0	41.1	
2.440	-64.9	H	3.0	-17.8	34.1	1.0	-50.8	-13.0	37.8	
1.420	-62.4	V	3.0	-17.4	34.0	1.0	-50.4	-13.0	37.4	
2.130	-66.2	V	3.0	-19.1	34.0	1.0	-52.1	-13.0	39.1	
2.437	-64.2	V	3.0	-16.3	34.1	1.0	-49.4	-13.0	36.4	
High Channel (711MHz)										
1.422	-66.9	H	3.0	-24.7	34.0	1.0	-57.7	-13.0	44.7	
2.133	-66.6	H	3.0	-21.0	34.0	1.0	-54.0	-13.0	41.0	
2.437	-63.7	H	3.0	-16.6	34.1	1.0	-49.6	-13.0	36.6	
1.422	-59.5	V	3.0	-14.5	34.0	1.0	-47.5	-13.0	34.5	
2.133	-66.4	V	3.0	-19.3	34.0	1.0	-52.3	-13.0	39.3	
2.439	-64.2	V	3.0	-16.3	34.1	1.0	-49.4	-13.0	36.4	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/20/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 17, 10MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 27				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (709MHz)										
1.418	-64.4	H	3.0	-22.2	34.0	1.0	-55.2	-13.0	-42.2	
2.217	-67.3	H	3.0	-21.3	34.0	1.0	-54.3	-13.0	-41.3	
2.435	-66.4	H	3.0	-19.3	34.1	1.0	-52.3	-13.0	-39.3	
1.418	-59.1	V	3.0	-14.2	34.0	1.0	-47.2	-13.0	-34.2	
2.217	-67.0	V	3.0	-19.7	34.0	1.0	-52.7	-13.0	-39.7	
2.659	-57.6	V	3.0	-9.0	34.3	1.0	-42.4	-13.0	-29.4	
Mid Channel (710MHz)										
1.420	-67.5	H	3.0	-25.3	34.0	1.0	-58.3	-13.0	-45.3	
2.130	-67.6	H	3.0	-22.0	34.0	1.0	-55.0	-13.0	-42.0	
2.440	-65.9	H	3.0	-18.8	34.1	1.0	-51.8	-13.0	-38.8	
1.420	-63.5	V	3.0	-18.5	34.0	1.0	-51.5	-13.0	-38.5	
2.130	-67.2	V	3.0	-20.1	34.0	1.0	-53.1	-13.0	-40.1	
2.437	-65.3	V	3.0	-17.4	34.1	1.0	-50.5	-13.0	-37.5	
High Channel (711MHz)										
1.422	-67.8	H	3.0	-25.6	34.0	1.0	-58.6	-13.0	-45.6	
2.133	-67.6	H	3.0	-22.0	34.0	1.0	-55.0	-13.0	-42.0	
2.437	-64.7	H	3.0	-17.6	34.1	1.0	-50.6	-13.0	-37.6	
1.422	-60.5	V	3.0	-15.5	34.0	1.0	-48.5	-13.0	-35.5	
2.133	-67.4	V	3.0	-20.3	34.0	1.0	-53.3	-13.0	-40.3	
2.439	-65.1	V	3.0	-17.2	34.1	1.0	-50.3	-13.0	-37.3	
Rev. 09.04.14										

9.3.6. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

16QAM EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 25, 1.4MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 24				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1850.7MHz)										
3.701	-66.2	H	3.0	-15.2	34.4	1.0	-48.6	-13.0	-35.6	
5.552	-66.0	H	3.0	-12.3	34.1	1.0	-45.4	-13.0	-32.4	
3.701	-66.2	V	3.0	-15.1	34.4	1.0	-48.5	-13.0	-35.5	
5.552	-66.8	V	3.0	-12.9	34.1	1.0	-46.0	-13.0	-33.0	
Mid Channel (1882.5MHz)										
3.765	-66.1	H	3.0	-14.9	34.4	1.0	-48.3	-13.0	-35.3	
5.648	-67.3	H	3.0	-13.5	34.1	1.0	-46.6	-13.0	-33.6	
3.765	-65.7	V	3.0	-14.4	34.4	1.0	-47.8	-13.0	-34.8	
5.648	-66.4	V	3.0	-12.4	34.1	1.0	-45.5	-13.0	-32.5	
High Channel (1914.3MHz)										
3.829	-65.6	H	3.0	-14.3	34.4	1.0	-47.6	-13.0	-34.6	
5.743	-66.7	H	3.0	-12.7	34.1	1.0	-45.8	-13.0	-32.8	
3.829	-65.2	V	3.0	-13.8	34.4	1.0	-47.2	-13.0	-34.2	
5.743	-68.1	V	3.0	-14.0	34.1	1.0	-47.1	-13.0	-34.1	
Rev. 09.04.14										

QPSK EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 25, 3MHz QPSK										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter		Part 24		
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1851.5MHz)										
3.703	-65.1	H	3.0	-14.1	34.4	1.0	-47.5	-13.0	-34.5	
5.555	-65.4	H	3.0	-11.7	34.1	1.0	-44.8	-13.0	-31.8	
3.703	-65.0	V	3.0	-13.9	34.4	1.0	-47.3	-13.0	-34.3	
5.555	-66.2	V	3.0	-12.3	34.1	1.0	-45.4	-13.0	-32.4	
Mid Channel (1882.5MHz)										
3.765	64.9	H	3.0	-13.7	34.4	1.0	-47.1	-13.0	-34.1	
5.648	-66.2	H	3.0	-12.4	34.1	1.0	-45.5	-13.0	-32.5	
3.765	64.3	V	3.0	-13.0	34.4	1.0	-46.4	-13.0	-33.4	
5.648	-66.5	V	3.0	-12.5	34.1	1.0	-45.6	-13.0	-32.6	
High Channel (1913.5MHz)										
3.827	-65.2	H	3.0	-13.9	34.4	1.0	-47.2	-13.0	-34.2	
5.741	-66.5	H	3.0	-12.5	34.1	1.0	-45.6	-13.0	-32.6	
3.827	64.4	V	3.0	-13.0	34.4	1.0	-46.4	-13.0	-33.4	
5.741	-67.0	V	3.0	-12.9	34.1	1.0	-46.0	-13.0	-33.0	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: TWang Configuration: EUT Only Mode: LTE Band 25, 3MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter			Part 24	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1851.5MHz)										
3.703	-66.0	H	3.0	-15.0	34.4	1.0	-48.4	-13.0	-35.4	
5.555	-66.3	H	3.0	-12.6	34.1	1.0	-45.7	-13.0	-32.7	
3.703	-66.1	V	3.0	-15.0	34.4	1.0	-48.4	-13.0	-35.4	
5.555	-67.1	V	3.0	-13.2	34.1	1.0	-46.3	-13.0	-33.3	
Mid Channel (1882.5MHz)										
3.765	-65.9	H	3.0	-14.7	34.4	1.0	-48.1	-13.0	-35.1	
5.648	-67.0	H	3.0	-13.2	34.1	1.0	-46.3	-13.0	-33.3	
3.765	-65.4	V	3.0	-14.1	34.4	1.0	-47.5	-13.0	-34.5	
5.648	-67.3	V	3.0	-13.3	34.1	1.0	-46.4	-13.0	-33.4	
High Channel (1913.5MHz)										
3.827	-66.2	H	3.0	-14.9	34.4	1.0	-48.2	-13.0	-35.2	
5.741	-67.4	H	3.0	-13.4	34.1	1.0	-46.5	-13.0	-33.5	
3.827	-65.5	V	3.0	-14.1	34.4	1.0	-47.5	-13.0	-34.5	
5.741	-67.9	V	3.0	-13.8	34.1	1.0	-46.9	-13.0	-33.9	
Rev. 09.04.14										

QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		02/19/15																	
Test Engineer:		T Wang																	
Configuration:		EUT Only																	
Mode:		LTE Band 25, 5MHz QPSK																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter			Limit										
3m Chamber F			3m Chamber F			Filter			Part 24										
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (1852.5MHz)																			
3.705	-64.9	H	3.0	-13.9	34.4	1.0	-47.3	-13.0	-34.3										
5.065	-65.5	H	3.0	-12.5	34.2	1.0	-45.6	-13.0	-32.6										
3.705	-64.4	V	3.0	-13.3	34.4	1.0	-46.7	-13.0	-33.7										
5.065	-65.1	V	3.0	-11.8	34.2	1.0	-45.0	-13.0	-32.0										
Mid Channel (1882.5MHz)																			
3.765	-65.0	H	3.0	-13.8	34.4	1.0	-47.2	-13.0	-34.2										
5.648	-66.4	H	3.0	-12.6	34.1	1.0	-45.7	-13.0	-32.7										
3.765	-64.8	V	3.0	-13.5	34.4	1.0	-46.9	-13.0	-33.9										
5.648	-65.9	V	3.0	-11.9	34.1	1.0	-45.0	-13.0	-32.0										
High Channel (1912.5MHz)																			
3.825	-64.7	H	3.0	-13.4	34.4	1.0	-46.7	-13.0	-33.7										
5.738	-67.1	H	3.0	-13.1	34.1	1.0	-46.2	-13.0	-33.2										
3.825	-63.5	V	3.0	-12.1	34.4	1.0	-45.5	-13.0	-32.5										
5.738	-67.4	V	3.0	-13.3	34.1	1.0	-46.4	-13.0	-33.4										
Rev. 09.04.14																			

16QAM EIRP POWER FOR LTE BAND 25 (5.0MHz BANDWIDTH)

QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 25, 10MHz QPSK										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter			Limit	
3m Chamber F			3m Chamber F			Filter			Part 24	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1855MHz)										
3.710	-65.0	H	3.0	-14.0	34.4	1.0	-47.4	-13.0	-34.4	
5.565	-65.7	H	3.0	-12.0	34.1	1.0	-45.1	-13.0	-32.1	
3.710	-64.6	V	3.0	-13.4	34.4	1.0	-46.9	-13.0	-33.9	
5.565	-65.6	V	3.0	-11.7	34.1	1.0	-44.8	-13.0	-31.8	
Mid Channel (1882.5MHz)										
3.765	-64.9	H	3.0	-13.7	34.4	1.0	-47.1	-13.0	-34.1	
5.648	-65.8	H	3.0	-12.0	34.1	1.0	-45.1	-13.0	-32.1	
3.765	-64.6	V	3.0	-13.3	34.4	1.0	-46.7	-13.0	-33.7	
5.648	-66.0	V	3.0	-12.0	34.1	1.0	-45.1	-13.0	-32.1	
High Channel (1910MHz)										
3.820	-64.6	H	3.0	-13.3	34.4	1.0	-46.7	-13.0	-33.7	
5.730	-66.6	H	3.0	-12.6	34.1	1.0	-45.7	-13.0	-32.7	
3.820	-64.8	V	3.0	-13.4	34.4	1.0	-46.8	-13.0	-33.8	
5.730	-66.5	V	3.0	-12.4	34.1	1.0	-45.5	-13.0	-32.5	

16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

QPSK EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:		14U19187								
Project #:		02/19/15								
Date:		T Wang								
Test Engineer:		EUT Only								
Configuration:		LTE Band 25, 15MHz QPSK								
Mode:		LTE Band 25, 15MHz QPSK								
<u>Test Equipment:</u> Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter			Limit	
3m Chamber F	3m Chamber F	Filter	Part 24							
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1857.5MHz)										
3.715	-66.8	H	3.0	-15.7	34.4	1.0	-49.2	-13.0	-36.2	
5.573	-67.7	H	3.0	-14.0	34.1	1.0	-47.1	-13.0	-34.1	
3.715	-67.0	V	3.0	-15.8	34.4	1.0	-49.3	-13.0	-36.3	
5.573	-68.6	V	3.0	-14.7	34.1	1.0	-47.8	-13.0	-34.8	
Mid Channel (1882.5MHz)										
3.765	-67.1	H	3.0	-15.9	34.4	1.0	-49.3	-13.0	-36.3	
5.648	-67.8	H	3.0	-14.0	34.1	1.0	-47.1	-13.0	-34.1	
3.765	-66.5	V	3.0	-15.2	34.4	1.0	-48.6	-13.0	-35.6	
5.648	-68.3	V	3.0	-14.3	34.1	1.0	-47.4	-13.0	-34.4	
High Channel (1907.5MHz)										
3.815	-66.6	H	3.0	-15.3	34.4	1.0	-48.7	-13.0	-35.7	
5.723	-68.0	H	3.0	-14.1	34.1	1.0	-47.2	-13.0	-34.2	
3.815	-66.7	V	3.0	-15.3	34.4	1.0	-48.7	-13.0	-35.7	
5.723	-68.4	V	3.0	-14.3	34.1	1.0	-47.4	-13.0	-34.4	
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16QAM EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 25, 20MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter			Limit	
3m Chamber F			3m Chamber F			Filter			Part 24	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (1860MHz)										
3.720	-68.0	H	3.0	-16.9	34.4	1.0	-50.4	-13.0	-37.4	
5.580	-68.1	H	3.0	-14.4	34.1	1.0	-47.5	-13.0	-34.5	
3.720	-67.3	V	3.0	-16.1	34.4	1.0	-49.6	-13.0	-36.6	
5.580	-68.4	V	3.0	-14.5	34.1	1.0	-47.6	-13.0	-34.6	
Mid Channel (1882.5MHz)										
3.765	-67.5	H	3.0	-16.3	34.4	1.0	-49.7	-13.0	-36.7	
5.648	-68.3	H	3.0	-14.5	34.1	1.0	-47.6	-13.0	-34.6	
3.765	-67.2	V	3.0	-15.9	34.4	1.0	-49.3	-13.0	-36.3	
5.648	-68.6	V	3.0	-14.6	34.1	1.0	-47.7	-13.0	-34.7	
High Channel (1905MHz)										
3.810	-67.5	H	3.0	-16.2	34.4	1.0	-49.6	-13.0	-36.6	
5.715	-69.0	H	3.0	-15.1	34.1	1.0	-48.2	-13.0	-35.2	
3.810	-67.6	V	3.0	-16.2	34.4	1.0	-49.6	-13.0	-36.6	
5.715	-69.1	V	3.0	-15.0	34.1	1.0	-48.1	-13.0	-35.1	

9.3.7. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		03/20/15																	
Test Engineer:		T Wang																	
Configuration:		EUT only																	
Mode:		LTE Band 26, 1.4MHz QPSK																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter		Limit											
3m Chamber F			3m Chamber F			Filter		Part 90											
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
<u>Low Channel (814.7MHz)</u>																			
1.629	-62.6	H	3.0	-19.6	33.9	1.0	-52.5	-13.0	-39.5										
2.444	-65.2	H	3.0	-18.0	34.1	1.0	-51.1	-13.0	-38.1										
3.254	-65.8	H	3.0	-15.9	34.7	1.0	-49.6	-13.0	-36.6										
1.629	-61.2	V	3.0	-15.4	33.9	1.0	-48.2	-13.0	-35.2										
2.444	-65.3	V	3.0	-17.4	34.1	1.0	-50.5	-13.0	-37.5										
3.254	-65.9	V	3.0	-15.7	34.7	1.0	-49.4	-13.0	-36.4										
<u>Mid Channel (819MHz)</u>																			
1.638	-63.9	H	3.0	-20.9	33.9	1.0	-53.7	-13.0	-40.7										
2.457	-65.5	H	3.0	-18.3	34.1	1.0	-51.3	-13.0	-38.3										
3.276	-66.0	H	3.0	-16.0	34.7	1.0	-49.7	-13.0	-36.7										
1.638	-59.4	V	3.0	-13.6	33.9	1.0	-46.4	-13.0	-33.4										
2.457	-65.6	V	3.0	-17.6	34.1	1.0	-50.7	-13.0	-37.7										
3.276	-66.5	V	3.0	-16.3	34.7	1.0	-50.0	-13.0	-37.0										
<u>High Channel (823.3MHz)</u>																			
1.647	-62.4	H	3.0	-19.3	33.9	1.0	-52.2	-13.0	-39.2										
2.470	-65.8	H	3.0	-18.5	34.1	1.0	-51.6	-13.0	-38.6										
3.293	-65.8	H	3.0	-15.8	34.7	1.0	-49.5	-13.0	-36.5										
1.647	-60.9	V	3.0	-15.0	33.9	1.0	-47.9	-13.0	-34.9										
2.470	-65.5	V	3.0	-17.5	34.1	1.0	-50.6	-13.0	-37.6										
3.293	-65.9	V	3.0	-15.7	34.7	1.0	-49.3	-13.0	-36.3										
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16QAM EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	03/20/15									
Test Engineer:	T Wang									
Configuration:	EUT only									
Mode:	LTE Band 26, 1.4MHz 16QAM									
<u>Test Equipment:</u> Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter		Part 90		
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (814.7MHz)										
1.629	-62.4	H	3.0	-19.4	33.9	1.0	-52.3	-13.0	-39.3	
2.444	-66.2	H	3.0	-19.0	34.1	1.0	-52.1	-13.0	-39.1	
3.254	-66.4	H	3.0	-16.5	34.7	1.0	-50.2	-13.0	-37.2	
1.629	-61.6	V	3.0	-15.8	33.9	1.0	-48.6	-13.0	-35.6	
2.444	-66.1	V	3.0	-18.2	34.1	1.0	-51.3	-13.0	-38.3	
3.254	-65.4	V	3.0	-15.2	34.7	1.0	-48.9	-13.0	-35.9	
Mid Channel (819MHz)										
1.638	-63.7	H	3.0	-20.7	33.9	1.0	-53.5	-13.0	-40.5	
2.457	-66.1	H	3.0	-18.9	34.1	1.0	-51.9	-13.0	-38.9	
3.276	-66.6	H	3.0	-16.6	34.7	1.0	-50.3	-13.0	-37.3	
1.638	-58.8	V	3.0	-13.0	33.9	1.0	-45.8	-13.0	-32.8	
2.457	-66.3	V	3.0	-18.3	34.1	1.0	-51.4	-13.0	-38.4	
3.276	-66.2	V	3.0	-16.0	34.7	1.0	-49.7	-13.0	-36.7	
High Channel (823.3MHz)										
1.647	-62.4	H	3.0	-19.3	33.9	1.0	-52.2	-13.0	-39.2	
2.470	-65.8	H	3.0	-18.5	34.1	1.0	-51.6	-13.0	-38.6	
3.293	-65.8	H	3.0	-15.8	34.7	1.0	-49.5	-13.0	-36.5	
1.647	-61.8	V	3.0	-15.9	33.9	1.0	-48.8	-13.0	-35.8	
2.470	-66.1	V	3.0	-18.1	34.1	1.0	-51.2	-13.0	-38.2	
3.293	-65.9	V	3.0	-15.7	34.7	1.0	-49.3	-13.0	-36.3	
Rev. 09.04.14										

QPSK EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		03/20/15																	
Test Engineer:		T Wang																	
Configuration:		EUT only																	
Mode:		LTE Band 26, 3MHz QPSK																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter			Limit										
3m Chamber F			3m Chamber F			Filter			Part 90										
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (815.5MHz)																			
1.631	-60.5	H	3.0	-17.5	33.9	1.0	-50.4	-13.0	-37.4										
2.446	-66.1	H	3.0	-18.9	34.1	1.0	-52.0	-13.0	-39.0										
3.232	-65.9	H	3.0	-16.1	34.7	1.0	-49.7	-13.0	-36.7										
1.631	-59.7	V	3.0	-13.9	33.9	1.0	-46.7	-13.0	-33.7										
2.446	-66.2	V	3.0	-18.3	34.1	1.0	-51.3	-13.0	-38.3										
3.232	-65.7	V	3.0	-15.6	34.7	1.0	-49.3	-13.0	-36.3										
Mid Channel (819MHz)																			
1.638	-62.3	H	3.0	-19.3	33.9	1.0	-52.1	-13.0	-39.1										
2.457	-66.0	H	3.0	-18.8	34.1	1.0	-51.8	-13.0	-38.8										
3.276	-66.1	H	3.0	-16.1	34.7	1.0	-49.8	-13.0	-36.8										
1.638	-59.2	V	3.0	-13.4	33.9	1.0	-46.2	-13.0	-33.2										
2.457	-65.2	V	3.0	-17.2	34.1	1.0	-50.3	-13.0	-37.3										
3.276	-66.3	V	3.0	-16.1	34.7	1.0	-49.8	-13.0	-36.8										
High Channel (822.5MHz)																			
1.645	-62.1	H	3.0	-19.0	33.9	1.0	-51.9	-13.0	-38.9										
2.468	-66.1	H	3.0	-18.8	34.1	1.0	-51.9	-13.0	-38.9										
3.290	-66.4	H	3.0	-16.4	34.7	1.0	-50.1	-13.0	-37.1										
1.645	-61.4	V	3.0	-15.5	33.9	1.0	-48.4	-13.0	-35.4										
2.468	-65.9	V	3.0	-17.9	34.1	1.0	-51.0	-13.0	-38.0										
3.290	-66.0	V	3.0	-15.8	34.7	1.0	-49.4	-13.0	-36.4										

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16QAM EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber									
14U19187 03/20/15 Per: T Wang EUT: EUT only Test: LTE Band 26, 3MHz 16QAM									
Ant: Horn T59 Substitution, and 8ft SMA Cable									
Chamber	Pre-amplifier	Filter	Limit						
Chamber F	3m Chamber F	Filter	Part 90						
SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
815.5MHz)									
-61.5	H	3.0	-18.5	33.9	1.0	-51.4	-13.0	-38.4	
-65.5	H	3.0	-18.3	34.1	1.0	-51.4	-13.0	-38.4	
-66.2	H	3.0	-16.4	34.7	1.0	-50.0	-13.0	-37.0	
-59.9	V	3.0	-14.1	33.9	1.0	-46.9	-13.0	-33.9	
-66.2	V	3.0	-18.3	34.1	1.0	-51.3	-13.0	-38.3	
-66.6	V	3.0	-16.5	34.7	1.0	-50.2	-13.0	-37.2	
819MHz)									
-63.1	H	3.0	-20.1	33.9	1.0	-52.9	-13.0	-39.9	
-66.4	H	3.0	-19.2	34.1	1.0	-52.2	-13.0	-39.2	
-66.1	H	3.0	-16.1	34.7	1.0	-49.8	-13.0	-36.8	
-58.3	V	3.0	-12.5	33.9	1.0	-45.3	-13.0	-32.3	
-66.0	V	3.0	-18.0	34.1	1.0	-51.1	-13.0	-38.1	
-66.6	V	3.0	-16.4	34.7	1.0	-50.1	-13.0	-37.1	
(822.5MHz)									
-61.4	H	3.0	-18.3	33.9	1.0	-51.2	-13.0	-38.2	
-66.2	H	3.0	-18.9	34.1	1.0	-52.0	-13.0	-39.0	
-66.2	H	3.0	-16.2	34.7	1.0	-49.9	-13.0	-36.9	
-60.5	V	3.0	-14.6	33.9	1.0	-47.5	-13.0	-34.5	
-66.0	V	3.0	-18.0	34.1	1.0	-51.1	-13.0	-38.1	
-65.8	V	3.0	-15.6	34.7	1.0	-49.2	-13.0	-36.2	

QPSK EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		03/20/15																	
Test Engineer:		T Wang																	
Configuration:		EUT only																	
Mode:		LTE Band 26, 5MHz QPSK																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter		Limit											
3m Chamber F			3m Chamber F			Filter		Part 90											
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (816.5MHz)																			
1.633	-62.5	H	3.0	-19.5	33.9	1.0	-52.4	-13.0	-39.4										
2.450	-65.8	H	3.0	-18.6	34.1	1.0	-51.7	-13.0	-38.7										
3.266	-65.7	H	3.0	-15.8	34.7	1.0	-49.4	-13.0	-36.4										
1.633	-60.5	V	3.0	-14.7	33.9	1.0	-47.5	-13.0	-34.5										
2.450	-65.6	V	3.0	-17.7	34.1	1.0	-50.7	-13.0	-37.7										
3.266	-66.2	V	3.0	-16.0	34.7	1.0	-49.7	-13.0	-36.7										
Mid Channel (819MHz)																			
1.638	-63.3	H	3.0	-20.3	33.9	1.0	-53.1	-13.0	-40.1										
2.457	-66.0	H	3.0	-18.8	34.1	1.0	-51.8	-13.0	-38.8										
3.276	-66.1	H	3.0	-16.1	34.7	1.0	-49.8	-13.0	-36.8										
1.638	-61.8	V	3.0	-16.0	33.9	1.0	-48.8	-13.0	-35.8										
2.457	-65.8	V	3.0	-17.8	34.1	1.0	-50.9	-13.0	-37.9										
3.276	-65.6	V	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1										
High Channel (821.5MHz)																			
1.638	-62.9	H	3.0	-19.9	33.9	1.0	-52.7	-13.0	-39.7										
2.457	-65.5	H	3.0	-18.3	34.1	1.0	-51.3	-13.0	-38.3										
3.276	-65.4	H	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1										
1.638	-61.2	V	3.0	-15.4	33.9	1.0	-48.2	-13.0	-35.2										
2.457	-65.5	V	3.0	-17.5	34.1	1.0	-50.6	-13.0	-37.6										
3.276	-65.6	V	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1										
Rev. 09.04.14																			

16QAM EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 03/20/15 Test Engineer: T Wang Configuration: EUT only Mode: LTE Band 26, 5MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F	3m Chamber F	Filter	Part 90							
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (816.5MHz)										
1.633	-62.2	H	3.0	-19.2	33.9	1.0	-52.1	-13.0	-39.1	
2.450	-66.1	H	3.0	-18.9	34.1	1.0	-52.0	-13.0	-39.0	
3.266	-65.7	H	3.0	-15.8	34.7	1.0	-49.4	-13.0	-36.4	
1.633	-59.3	V	3.0	-13.5	33.9	1.0	-46.3	-13.0	-33.3	
2.450	-66.0	V	3.0	-18.1	34.1	1.0	-51.1	-13.0	-38.1	
3.266	-66.5	V	3.0	-16.3	34.7	1.0	-50.0	-13.0	-37.0	
Mid Channel (819MHz)										
1.638	-63.4	H	3.0	-20.4	33.9	1.0	-53.2	-13.0	-40.2	
2.457	-66.2	H	3.0	-19.0	34.1	1.0	-52.0	-13.0	-39.0	
3.276	-66.0	H	3.0	-16.0	34.7	1.0	-49.7	-13.0	-36.7	
1.638	-62.2	V	3.0	-16.4	33.9	1.0	-49.2	-13.0	-36.2	
2.457	-65.8	V	3.0	-17.8	34.1	1.0	-50.9	-13.0	-37.9	
3.276	-65.6	V	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1	
High Channel (821.5MHz)										
1.638	-63.2	H	3.0	-20.2	33.9	1.0	-53.0	-13.0	-40.0	
2.457	-65.5	H	3.0	-18.3	34.1	1.0	-51.3	-13.0	-38.3	
3.276	-65.4	H	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1	
1.638	-61.7	V	3.0	-15.9	33.9	1.0	-48.7	-13.0	-35.7	
2.457	-65.5	V	3.0	-17.5	34.1	1.0	-50.6	-13.0	-37.6	
3.276	-65.6	V	3.0	-15.4	34.7	1.0	-49.1	-13.0	-36.1	

Rev. 09.04.14

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/20/15 Test Engineer: T Wang Configuration: EUT Only Mode: LTE Band 26, 10MHz QPSK										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter		Part 90		
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (819MHz)										
1.654	-60.3	H	3.0	-16.5	33.7	1.0	-49.2	-13.0	-36.2	
2.183	-65.4	H	3.0	-18.2	33.8	1.0	-51.0	-13.0	-38.0	
2.451	-66.1	H	3.0	-18.6	34.2	1.0	-51.8	-13.0	-38.8	
1.654	-59.4	V	3.0	-13.4	33.7	1.0	-46.1	-13.0	-33.1	
2.436	-64.5	V	3.0	-16.3	34.2	1.0	-49.5	-13.0	-36.5	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/20/15									
Test Engineer:	T Wang									
Configuration:	EUT Only									
Mode:	LTE Band 26, 10MHz 16QAM									
<u>Test Equipment:</u> Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 90				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Mid Channel (831.5MHz)										
1.654	-60.3	H	3.0	-16.5	33.7	1.0	-49.2	-13.0	-36.2	
2.183	-65.4	H	3.0	-18.2	33.8	1.0	-51.0	-13.0	-38.0	
2.451	-66.1	H	3.0	-18.6	34.2	1.0	-51.8	-13.0	-38.8	
1.654	-59.4	V	3.0	-13.4	33.7	1.0	-46.1	-13.0	-33.1	
2.436	-64.5	V	3.0	-16.3	34.2	1.0	-49.5	-13.0	-36.5	
Rev. 09.04.14										

9.3.8. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/19/15									
Test Engineer:	F. Guarnero									
Configuration:	EUT Only									
Mode:	LTE Band 41, 5MHz QPSK									
<u>Test Equipment:</u>										
Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier		Filter		Limit			
3m Chamber F			3m Chamber F			Filter			Part 27	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2502.5MHz)										
5.005	-69.1	H	3.0	-16.1	34.2	1.0	-49.3	-25.0	-24.3	
7.508	-70.2	H	3.0	-13.9	33.5	1.0	-46.4	-25.0	-21.4	
5.005	-69.1	V	3.0	-15.8	34.2	1.0	-49.0	-25.0	-24.0	
7.508	-70.9	V	3.0	-14.7	33.5	1.0	-47.3	-25.0	-22.3	
Mid Channel (2593MHz)										
5.186	-69.4	H	3.0	-16.2	34.2	1.0	-49.3	-25.0	-24.3	
7.779	-70.4	H	3.0	-13.8	33.3	1.0	-46.1	-25.0	-21.1	
5.186	-69.9	V	3.0	-16.4	34.2	1.0	-49.6	-25.0	-24.6	
7.779	-70.5	V	3.0	-14.0	33.3	1.0	-46.3	-25.0	-21.3	
High Channel (2687.5MHz)										
5.375	-69.3	H	3.0	-15.9	34.2	1.0	-49.0	-25.0	-24.0	
8.063	-70.3	H	3.0	-13.3	33.1	1.0	-45.4	-25.0	-20.4	
5.375	-69.8	V	3.0	-16.1	34.2	1.0	-49.2	-25.0	-24.2	
8.063	-70.1	V	3.0	-13.3	33.1	1.0	-45.4	-25.0	-20.4	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/19/15 Test Engineer: F. Guarnero Configuration: EUT Only Mode: LTE Band 41, 5MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter			Limit	
3m Chamber F			3m Chamber F			Filter			Part 27	
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2498.5MHz)										
5.01	-69.6	H	3.0	-16.6	34.2	1.0	-49.8	-25.0	-24.8	
7.51	-70.6	H	3.0	-14.2	33.5	1.0	-46.8	-25.0	-21.8	
5.01	-69.4	V	3.0	-16.2	34.2	1.0	-49.4	-25.0	-24.4	
7.51	-71.1	V	3.0	-15.0	33.5	1.0	-47.5	-25.0	-22.5	
Mid Channel (2593MHz)										
5.19	-69.8	H	3.0	-16.6	34.2	1.0	-49.7	-25.0	-24.7	
7.78	-70.7	H	3.0	-14.1	33.3	1.0	-46.4	-25.0	-21.4	
5.19	-69.9	V	3.0	-16.4	34.2	1.0	-49.6	-25.0	-24.6	
7.78	-70.8	V	3.0	-14.4	33.3	1.0	-46.7	-25.0	-21.7	
High Channel (2687.5MHz)										
5.38	-69.7	H	3.0	-16.2	34.2	1.0	-49.4	-25.0	-24.4	
8.06	-70.5	H	3.0	-13.5	33.1	1.0	-45.6	-25.0	-20.6	
5.38	-70.0	V	3.0	-16.3	34.2	1.0	-49.4	-25.0	-24.4	
8.06	-70.4	V	3.0	-13.6	33.1	1.0	-45.7	-25.0	-20.7	

QPSK EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																			
Company:																			
Project #:		14U19187																	
Date:		02/20/15																	
Test Engineer:		F. Guarnero																	
Configuration:		EUT Only																	
Mode:		LTE Band 41, 10MHz QPSK																	
<u>Test Equipment:</u>																			
Substitution: Horn T59 Substitution, and 8ft SMA Cable																			
Chamber			Pre-amplifier			Filter			Limit										
3m Chamber F			3m Chamber F			Filter			Part 27										
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes									
Low Channel (2505MHz)																			
5.010	-68.0	H	3.0	-15.0	34.2	1.0	-48.2	-25.0	-23.2										
7.515	-68.7	H	3.0	-12.3	33.5	1.0	-44.8	-25.0	-19.8										
5.010	-67.5	V	3.0	-14.2	34.2	1.0	-47.4	-25.0	-22.4										
7.515	-70.4	V	3.0	-14.2	33.5	1.0	-46.8	-25.0	-21.8										
Mid Channel (2593MHz)																			
5.186	-68.8	H	3.0	-15.6	34.2	1.0	-48.7	-25.0	-23.7										
7.779	-70.4	H	3.0	-13.7	33.3	1.0	-46.1	-25.0	-21.1										
5.186	-69.4	V	3.0	-15.9	34.2	1.0	-49.1	-25.0	-24.1										
7.779	-70.5	V	3.0	-14.1	33.3	1.0	-46.4	-25.0	-21.4										
High Channel (2685MHz)																			
5.370	-69.9	H	3.0	-16.4	34.2	1.0	-49.6	-25.0	-24.6										
8.055	-70.9	H	3.0	-13.9	33.1	1.0	-46.0	-25.0	-21.0										
5.370	-69.9	V	3.0	-16.2	34.2	1.0	-49.4	-25.0	-24.4										
8.055	-71.3	V	3.0	-14.5	33.1	1.0	-46.6	-25.0	-21.6										

16QAM EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

QPSK EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

16QAM EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company: Project #: 14U19187 Date: 02/20/15 Test Engineer: F. Guarnero Configuration: EUT Only Mode: LTE Band 41, 15MHz 16QAM										
Test Equipment: Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber			Pre-amplifier			Filter		Limit		
3m Chamber F			3m Chamber F			Filter		Part 27		
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2503.5MHz)										
5.02	-68.8	H	3.0	-15.8	34.2	1.0	-49.0	-25.0	-24.0	
7.52	-68.2	H	3.0	-11.9	33.5	1.0	-44.4	-25.0	-19.4	
5.02	-68.0	V	3.0	-14.8	34.2	1.0	-47.9	-25.0	-22.9	
7.52	-70.8	V	3.0	-14.6	33.5	1.0	-47.1	-25.0	-22.1	
Mid Channel (2593MHz)										
5.19	-68.7	H	3.0	-15.5	34.2	1.0	-48.7	-25.0	-23.7	
7.78	-71.1	H	3.0	-14.5	33.3	1.0	-46.8	-25.0	-21.8	
5.19	-69.9	V	3.0	-16.4	34.2	1.0	-49.6	-25.0	-24.6	
7.78	-71.0	V	3.0	-14.5	33.3	1.0	-46.8	-25.0	-21.8	
High Channel (2682.5MHz)										
5.37	-69.2	H	3.0	-15.8	34.2	1.0	-48.9	-25.0	-23.9	
8.05	-70.2	H	3.0	-13.2	33.1	1.0	-45.4	-25.0	-20.4	
5.37	-69.9	V	3.0	-16.2	34.2	1.0	-49.4	-25.0	-24.4	
8.05	-71.8	V	3.0	-15.0	33.1	1.0	-47.1	-25.0	-22.1	

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber										
Company:										
Project #:	14U19187									
Date:	02/20/15									
Test Engineer:	F. Guarero									
Configuration:	EUT Only									
Mode:	LTE Band 41, 20MHz QPSK									
Test Equipment:										
Substitution: Horn T59 Substitution, and 8ft SMA Cable										
Chamber		Pre-amplifier		Filter		Limit				
3m Chamber F		3m Chamber F		Filter		Part 27				
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes
Low Channel (2510MHz)										
5.020	-68.9	H	3.0	-15.9	34.2	1.0	-49.1	-25.0	-24.1	
7.530	-70.9	H	3.0	-14.5	33.5	1.0	-47.1	-25.0	-22.1	
5.020	-69.3	V	3.0	-16.1	34.2	1.0	-49.3	-25.0	-24.3	
7.530	-71.1	V	3.0	-14.9	33.5	1.0	-47.4	-25.0	-22.4	
Mid Channel (2593MHz)										
5.186	-68.2	H	3.0	-15.0	34.2	1.0	-48.1	-25.0	-23.1	
7.779	-70.9	H	3.0	-14.2	33.3	1.0	-46.6	-25.0	-21.6	
5.186	-69.9	V	3.0	-16.4	34.2	1.0	-49.5	-25.0	-24.5	
7.779	-70.4	V	3.0	-14.0	33.3	1.0	-46.3	-25.0	-21.3	
High Channel (2680MHz)										
5.360	-68.2	H	3.0	-14.7	34.2	1.0	-47.9	-25.0	-22.9	
8.040	-70.1	H	3.0	-13.2	33.1	1.0	-45.3	-25.0	-20.3	
5.360	-69.6	V	3.0	-15.9	34.2	1.0	-49.0	-25.0	-24.0	
8.040	-70.5	V	3.0	-13.7	33.1	1.0	-45.8	-25.0	-20.8	
Rev. 09.04.14										

16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber																				
Company:																				
Project #:	14U19187																			
Date:	02/19/15																			
Test Engineer:	F. Guarneri																			
Configuration:	EUT Only																			
Mode:	LTE Band 41, 20MHz 16QAM																			
Test Equipment:																				
Substitution: Horn T59 Substitution, and 8ft SMA Cable																				
Chamber			Pre-amplifier			Filter			Limit											
3m Chamber F			3m Chamber F			Filter			Part 27											
Frequency (GHz)	SA reading (dBm)	Ant. Pol. (H/V)	Distance	Path Loss @ SG End (dBm)	Preamp	Attenuator	EIRP	Limit	Delta	Notes										
Low Channel (2506MHz)																				
5.02	-69.0	H	3.0	-16.0	34.2	1.0	-49.2	-25.0	-24.2											
7.53	-71.1	H	3.0	-14.8	33.5	1.0	-47.3	-25.0	-22.3											
5.02	-69.9	V	3.0	-16.6	34.2	1.0	-49.8	-25.0	-24.8											
7.53	-71.6	V	3.0	-15.4	33.5	1.0	-47.9	-25.0	-22.9											
Mid Channel (2593MHz)																				
5.19	-68.3	H	3.0	-15.1	34.2	1.0	-48.3	-25.0	-23.3											
7.78	-71.0	H	3.0	-14.4	33.3	1.0	-46.7	-25.0	-21.7											
5.19	-70.1	V	3.0	-16.7	34.2	1.0	-49.8	-25.0	-24.8											
7.78	-70.9	V	3.0	-14.4	33.3	1.0	-46.7	-25.0	-21.7											
High Channel (2680MHz)																				
5.36	-68.7	H	3.0	-15.3	34.2	1.0	-48.4	-25.0	-23.4											
8.04	-70.5	H	3.0	-13.5	33.1	1.0	-45.7	-25.0	-20.7											
5.36	-69.8	V	3.0	-16.1	34.2	1.0	-49.3	-25.0	-24.3											
8.04	-70.8	V	3.0	-14.0	33.1	1.0	-46.1	-25.0	-21.1											